

RECIRCULATED DRAFT
ENVIRONMENTAL IMPACT REPORT
for the
2021-2029 Signal Hill Housing Element
SCH No. 2021050296

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EXECUTIVE SUMMARY

1. PURPOSE OF THIS ENVIRONMENTAL IMPACT REPORT

This document is a ***Recirculated*** Draft Environmental Impact Report (EIR) with respect to the proposed 2021-2029 Housing Element (Project) that has been prepared by the City of Signal Hill (City). ***Modifications to the Draft EIR that have been made for this Recirculated Draft EIR are shown through formatting - bold italic type for insertions and strikethrough for deletions.***

The California Environmental Quality Act (CEQA) requires that projects subject to an approval action by a public agency of the State of California, and that are not otherwise exempt or excluded, undergo an environmental review process to identify and evaluate potential impacts. Section 15050 of the CEQA Guidelines states that environmental review shall be conducted by the Lead Agency, defined in CEQA Guidelines Section 15367 as the public agency with principal responsibility for approving a project. The Project is subject to approval actions by the City, which is therefore Lead Agency for CEQA purposes.

In accordance with CEQA Guidelines Section 15123, this section of the Draft EIR provides a brief description of the Project; identifies significant effects and proposed mitigation measures or alternatives that would reduce or avoid those effects; and describes areas of controversy and issues to be resolved.

Under CEQA and the CEQA Guidelines, a lead agency must recirculate an EIR (or portions thereof) for additional public review and comment when “significant new information is added to the EIR after public notice is given of the availability of the Draft EIR for public review under [CEQA Guidelines] Section 15087 but before certification” of the EIR.

The specific new information to the Project that necessitated this recirculation is the correction to the building heights of the potential development that could occur at the housing sites as stated in the Draft EIR. In addition, typographic errors in the Draft EIR were corrected, notably the corrections of an error in Mitigation Measure MM HAZ-5 Install Methane Mitigation Systems Subslab of Proposed Buildings.

CEQA Guidelines Section 15088.5 (c) states that if revisions are limited to a few chapters or portions of an EIR, then the lead agency need only recirculate the chapters or portions that have been modified. Accordingly, this Recirculated Draft EIR includes the Introduction, Project Description, Hazards, Land Use, and Effects Found Not Significant. The remainder of the previously circulated Draft EIR remain valid.

2. OVERVIEW OF THE PROPOSED PROJECT

Project Location

The Project applies to the entire City of Signal Hill. The Project also identifies specific housing availability sites within the City:

- Orange Bluff: located in the Central neighborhood adjacent to the City boundary to the south of East 28th Street between Orange Avenue and south of where East 27th Street terminates.
- Walnut Bluff: located north of E. Willow Street at 2653 Walnut Avenue in the Central neighborhood.
- Town Center Northwest: located northeast of the intersection of E. Willow Street and Walnut Avenue in the Central neighborhood. South and east of the site are developed commercial retail centers named Town Center West and Town Center North.
- Heritage Square: located northwest of the intersection of Cherry Avenue and E. Burnett Street near the City center in the Civic Center neighborhood. North of the site is E. Crescent Heights Street and west of the site is Rose Avenue. The Crescent Heights Historic District Residential Specific Plan is directly adjacent to the west.

Project Objectives

Section 15124(b) of the CEQA Guidelines states that “the statement of objectives should include the underlying purpose of the project.” The underlying purpose of the Project is to update the Housing Element of the City’s General Plan. Objectives of the Housing Element include:

1. Inspire a more diverse, sustainable, and balanced community through implementation of strategies and programs that will result in economically and socially diversified housing choices that preserve and enhance the special character of Signal Hill.
2. Facilitate a variety of ~~Housing~~ **housing** ~~Strategies~~ **strategies** to meet Housing Element ~~Production~~ **production** targets in a way that ~~Complements~~ **complements** the ~~Existing~~ **existing** ~~Character~~ **character** of the ~~Community~~ **community**.
3. Identify adequate sites to accommodate the 6th Cycle RHNA allocation and the City’s housing needs.
4. Provide adequate housing stock to meet the needs of extremely low-, very low-, low-, and moderate-income households and special-needs groups.
5. Development regulations that remove constraints to the maintenance, improvement, and development of housing.
6. Maintenance and improvement of affordable housing conditions.
7. Housing opportunities for all persons, regardless of race, religion, sex, marital status, ancestry, national origin, color, familial status, or disability.
8. Improve and preserve assisted housing developments for lower-income households.

Project Characteristics

The Project identifies programs and strategies to achieve the housing goals of the City. This includes the identification of housing sites that could accommodate the City's 2021-2029 Regional Housing Needs Allocation (RHNA).¹ The four housing sites identified are expected to accommodate the following:

1. Walnut Bluff: **up to** 90 dwelling units within a multifamily development not to exceed four stories.
2. Orange Bluff: **up to** 290 dwelling units within a multifamily development **not to exceed** ~~up to 5~~ **five** stories.
3. Town Center Northwest: mixed-use development with approximately 22,000 square feet of retail and restaurant and **up to 297 ownership** dwelling units in a **wrap structure not to exceed five stories**.
4. Heritage Square: mixed-use development with **up to 72** dwelling units **in ownership townhomes not to exceed three stories and two-story single-family dwellings**, an existing 14,000-square-foot market and 18,650 square feet of new retail and restaurant space.

To implement the new Housing Element, the City intends to enact zoning and planning **amendments** ~~changes~~ **either** concurrently, **or in advance of** ~~with~~ the adoption of the Housing Element. This EIR is intended to provide the evaluation required by CEQA for all these actions necessary to facilitate the development of new housing.

3. SUMMARY OF ALTERNATIVES

Section 15126.6(a) of the CEQA Guidelines requires an EIR to “describe the range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but will avoid or substantially lessen any of the significant effects of the Project and evaluate the comparative merits of the alternatives.” The City considered a No Project Alternative, which would continue the housing sites under the existing regulatory framework; alternative housing site selection; and an alternative distribution of housing units between the selected housing sites. These alternatives would create variances in impact levels but would not avoid any of the significant effects of the Project and would not achieve the City's objectives as successfully as the Project.

1 SCAG, *6th Cycle Final Regional Housing Needs Assessment Plan*. <https://scag.ca.gov/sites/main/files/file-attachments/6th-cycle-rhna-final-allocation-plan.pdf?1616462966> accessed May 2021.

4. SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Based on the Initial Study (see Appendix A), the City determined that preparation of an EIR was required to further evaluate potentially significant impacts related to: Air Quality, Cultural, Energy, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Land Use, Noise, Population and Housing, Public Services, Transportation, and Tribal Cultural Resources. Impacts related to Aesthetics, Agricultural and Forestry Resources, Biology, Hydrology and Water Quality, Mineral Resources, Utilities and Service Systems, and Wildfire were determined to be less than significant and are not evaluated further in this Draft EIR. **Table 1-1: Summary of Findings** presents a summary of the findings of this EIR.

4. AREAS OF KNOWN CONTROVERSY

The State CEQA Guidelines² require that a EIR identify areas of controversy known to the Lead Agency, including issues raised by other agencies and the public. The level of development envisioned for the housing sites has been an area of controversy at public meetings.

5. ISSUES TO BE RESOLVED

The State CEQA Guidelines³ require that an EIR present issues to be resolved by the lead agency. These issues include the choice between alternatives and whether or how to mitigate potentially significant impacts. The major issue to be resolved by the City regarding the proposed Project is whether the City can achieve its RHNA goals through the Project.

2 California Public Resources Code, tit. 14, sec. 15123.

3 California Public Resources Code, tit. 14, sec. 15123(b)(3).

**Table 1-1
Summary of Findings**

Impact	Mitigation Measures	Significance after Mitigation
<i>Air Quality</i>		
Threshold AQ-1: Conflict with or obstruct implementation of the applicable air quality plan?	No mitigation measures required.	Less than significant.
Threshold AQ-2: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard?	No mitigation measures required.	Less than significant.
Threshold AQ-3: Expose sensitive receptors to substantial pollutant concentrations?	No mitigation measures required.	Less than significant.
Threshold AQ-4: Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	No mitigation measures required.	Less than significant.
<i>Cultural</i>		
Threshold CUL-1: Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	No mitigation measures required.	Less than significant.
Threshold CUL-2: Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	See Section 4.12: Tribal Cultural Resources	Less than significant.
<i>Energy</i>		
Threshold ENE-1: Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	No mitigation measures required.	Less than significant.
Threshold ENE-2: Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?	No mitigation measures required.	Less than significant.
<i>Geology and Soils</i>		
Threshold GEO-1: Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	No mitigation measures required.	Less than significant.
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known	No mitigation measures required.	Less than significant.

Impact	Mitigation Measures	Significance after Mitigation
<p>fault? Refer to Division of Mines and Geology Special Publication 42.</p>		
<p>ii. Strong seismic ground shaking?</p>	<p>No mitigation measures required.</p>	<p>Less than significant.</p>
<p>Threshold GEO-3: Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?</p>	<p>No mitigation measures required.</p>	<p>Less than significant.</p>
<p>Threshold GEO-6: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?</p>	<p>MM GEO-1: If paleontological resources are uncovered during construction activities, all ground-disturbing activities in the area of the find shall cease until a qualified paleontologist has evaluated the find, and identified the appropriate course of action in accordance with federal, state, and local The qualified paleontologist shall prepare a report according to current professional standards. The report shall be submitted to the City for review and approval. Project activities shall not proceed until the analysis and treatment of on-site paleontological resources has been approved by the City.</p>	<p>Less than significant.</p>
<p>Greenhouse Gas Emissions</p>		
<p>Threshold GHG-1: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?</p>	<p>No mitigation measures required.</p>	<p>Less than significant.</p>
<p>Threshold GHG-2: Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?</p>	<p>No mitigation measures required.</p>	<p>Less than significant.</p>
<p>Hazards and Hazardous Materials</p>		
<p>Threshold HAZ-1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?</p>	<p>MM HAZ-1 Prepare a Soil Management Plan Prior to Commencement of Ground Disturbing Activities A soil management plan should be prepared prior to any soil disturbance activities to be conducted onsite. This soil management plan should provide instructions for the contractor to implement in the event discolored or odiferous soils are discovered during any grading operations. A South Coast Air Quality Management District (SCAQMD) Rule 1166 Permit and Compliance Plan should be obtained from the SCAQMD due to the presence of volatiles prior to the start of soil disturbance operations.</p>	<p>Less than significant.</p>
<p>Threshold HAZ-2: Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?</p>		
<p>Threshold HAZ-4: Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?</p>		
	<p>MM HAZ-2 Daylight Abandoned Oil Wells</p>	

Impact	Mitigation Measures	Significance after Mitigation
	<p>Previously abandoned oil wells should be located, daylighted and methane gas leak tested prior to the installation of vent cones and vent risers pursuant to the City of Signal Hill’s Oil and Gas Code §16.24.030 and §16.24.040. As the act of daylighting oil wells involves soil disturbance, monitoring for volatile organic compounds will be required under the R1166 permit/compliance plan. The R1166 permit limits the release of volatiles in soils to 50 parts per million by volume (ppmv) or less, however some volatiles will be released into the ambient atmosphere during these activities, decreasing the residual concentrations previously detected in site soils and soil vapor.</p> <p>MM HAZ-3 Daylight Idle Oil Wells Idle wells should be located, daylighted and abandoned in accordance with the State of California Department of Conservation, Geologic Energy Management Division (CalGEM) requirements and in accordance with the City of Signal Hill’s Oil and Gas Code §16.22 and §16.24, and under the R1166 permit/compliance plan requirements.</p> <p>MM HAZ-4 Daylight Abandoned Pipelines Abandoned pipelines should be located, daylighted and removed in accordance with the Soil Management Plan and R1166 permit/compliance plan.</p> <p>MM HAZ-5 Install Methane Mitigation Systems Subslab of Proposed Buildings Institutional controls, i.e., a methane mitigation system to be installed subslab of any proposed buildings, pursuant to the City of Signal Hill’s Oil and Gas Code §16.24.080 will effectively mitigate risks and hazards due to vapor intrusion to negligible conditions ensuring the site is safe for any future intended use including as a residential property. A redeveloped property precludes exposure to site soils by future residential occupants.</p> <p>Methane mitigation subslab of proposed buildings is recommended based on the Methane Assessments. The methane mitigation system should consist of a subslab impervious membrane placed inbetween geotextile or geocloth to protect it from sand above and the 4” thick gravel blanket below in conformance with the City of Signal Hill Oil and Gas Code</p>	

Impact	Mitigation Measures	Significance after Mitigation
	<p>§16.24.080 and City of Signal Hill Project Development Guide (June 2020). Perforated horizontal vent pipes should be placed in the 4” thick gravel blanket and tied into vertical vent risers (typically cast iron) placed inbetween the interior and exterior walls, less than 100-feet apart, extending a minimum of 3-feet above the roof line and should not terminate less than 10100-feet from any opening (City of Signal Hill June 2020).</p> <p>Although designed to capture and vent methane to the atmosphere, other volatile organic compounds in the subsurface (both in the soil matrix and soil vapor) also will be captured and vented by this system.</p> <p>MM HAZ-6 Include Vents in Impervious Pavement if Area is 5,000 Square Feet or Greater and Contiguous to Buildings If an impervious surface paving area is 5,000 square feet or greater and contiguous to the proposed buildings, the paving should have vents spaced less than 100-ft apart consisting of four sided concrete boxes with traffic rated grates and 4” thick gravel blanket at the base. The vents should be designed to prevent surface water infiltration.</p>	
Land Use and Planning		
<p>Threshold LU-2: Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?</p>	<p>No mitigation measures required.</p>	<p>Less than significant.</p>
Noise		
<p>Threshold N-1: Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?</p> <p>Threshold N-2: Generation of excessive groundborne vibration or groundborne noise levels?</p>	<p>MM N-1 Construction Noise In the event construction noise levels increase to or within the “generally unacceptable” or “land use discouraged” land use compatibility for residential uses, the Applicant must utilize, without limitation, the following construction best management practices:</p> <ul style="list-style-type: none"> • Shroud or shield all impact tools, and muffle or shield all intake and exhaust port on power equipment to reduce construction noise by 10 dB or more. • If feasible, schedule grading activities so as to avoid operating numerous pieces of heavy-duty off-road construction equipment (e.g., backhoes, dozers, excavators, loaders, or rollers) simultaneously in close 	<p>Less than significant.</p>

Impact	Mitigation Measures	Significance after Mitigation
	<p>proximity to the boundary of properties of off-site noise sensitive receptors surrounding a Housing Site to reduce construction noise levels by approximately 5 to 10 dBA.</p> <ul style="list-style-type: none"> Where feasible, temporary barriers including, without limitation, sound blankets on existing fences and walls, or freestanding portable sound walls, must be placed as close to the noise source or as close to the receptor as possible and break the line of sight between the source and receptor where modeled levels exceed applicable standards. 	
Population and Housing		
Threshold POP-1: Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	No mitigation measures required.	Less than significant.
Public Services		
Threshold PUB-1: Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:		
(i) Fire Protection?	No mitigation measures required.	Less than significant.
(ii) Schools?	No mitigation measures required.	Less than significant.
(iii) Parks?	No mitigation measures required.	Less than significant.
(iv) Other Public Facilities?	No mitigation measures required.	Less than significant.
Transportation		
Threshold TRA-1: Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	No mitigation measures required.	Less than significant.
Threshold TRA-2: Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	No mitigation measures required.	Less than significant.
Threshold TRA-4: Result in inadequate emergency access?	No mitigation measures required.	Less than significant.

Impact	Mitigation Measures	Significance after Mitigation
Tribal Cultural		
<p>Threshold TRI-1: Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:</p>		
(i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	No mitigation measures required.	Less than significant.
(ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<p>MM TCR-1. The project applicant/lead agency shall retain a Native American monitor from (or approved by) the Gabrieleño Band of Mission Indians – Kizh Nation (the “Kizh” or the “Tribe”) - the direct lineal descendants of the project location. The monitor shall be retained prior to the commencement of any “ground-disturbing activity” for the subject project, at all project locations (i.e., both on-site and any off-site locations that are included in the project description/definition and/or required in connection with the project, such as public improvement work). “Ground-disturbing activity” includes, but is not limited to, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching.</p> <p>A copy of the executed monitoring agreement shall be provided to the lead agency prior to the earlier of the commencement of any ground-disturbing activity for the project, or the issuance of any permit necessary to commence a ground-disturbing activity.</p> <p>The project applicant/developer shall provide the Tribe with a minimum of 30 days advance written notice of the commencement of any project ground-disturbing activity so that the Tribe has sufficient time to secure and schedule a monitor for the project.</p> <p>The project applicant/developer shall hold at least one (1) pre-construction sensitivity/educational meeting prior to the commencement of any ground-disturbing activities, where at a senior member of the Tribe will inform and educate the project’s construction and managerial crew and staff members (including</p>	Less than significant.

Impact	Mitigation Measures	Significance after Mitigation
	<p>any project subcontractors and consultants) about the TCR mitigation measures and compliance obligations, as well as places of significance located on the project site (if any), the appearance of potential TCRs, and other informational and operational guidance to aid in the project’s compliance with the TCR mitigation measures.</p> <p>The monitor will complete daily monitoring logs that will provide descriptions of the relevant ground disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe.</p> <p>Monitor logs will identify and describe any discovered TCRs, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or “TCR”), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs will be provided to the project applicant/lead agency upon written request.</p> <p>Native American monitoring for the project shall conclude upon the latter of the following: (1) written confirmation from a designated project point of contact to the Tribe that all ground-disturbing activities and all phases that may involve ground-disturbing activities on the project site and at any off-site project location are complete; or (2) written notice by the Tribe to the project applicant/lead agency that no future, planned construction activity and/or development/construction phase (known by the Tribe at that time) at the project site and at any off-site project location possesses the potential to impact TCRs.</p> <p>MM TCR-2. Upon the discovery of a TCR, all construction activities in the immediate vicinity of the discovery (i.e., not less than the surrounding 50 feet) shall cease. The Tribe shall be immediately informed of the discovery, and a Kizh monitor and/or Kizh archaeologist will promptly report to the location of the discovery to evaluate the TCR and advise the project manager regarding the matter, protocol, and any mitigating requirements. No project construction activities shall resume in the surrounding 50 feet of the discovered TCR unless and until the Tribe has</p>	

Impact	Mitigation Measures	Significance after Mitigation
	<p>completed its assessment/evaluation/recovery of the discovered TCR and surveyed the surrounding area.</p> <p>The Tribe will recover and retain all discovered TCRs in the form and/or manner the Tribe deems appropriate in its sole discretion, and for any purpose the Tribe deems appropriate, including but not limited to, educational, cultural and/or historic purposes.</p> <p>If Native American human remains and/or grave goods are discovered or recognized on the project site or at any off-site project location, then all construction activities shall immediately cease. Native American “human remains” are defined to include “an inhumation or cremation, and in any state of decomposition or skeletal completeness.” (Pub. Res. Code § 5097.98 (d)(1).) Funerary objects, referred to as “associated grave goods,” shall be treated in the same manner and with the same dignity and respect as human remains. (Pub. Res. Code § 5097.98 (a), d)(1) and (2).)</p> <p>Any discoveries of human skeletal material or human remains shall be immediately reported to the County Coroner (Health & Safety Code § 7050.5(c); 14 Cal. Code Regs. § 15064.5(e)(1)(B)), and all ground-disturbing project ground-disturbing activities on site and in any other area where the presence of human remains and/or grave goods are suspected to be present, shall immediately halt and remain halted until the coroner has determined the nature of the remains. (14 Cal. Code Regs. § 15064.5(e).) If the coroner recognizes the human remains to be those of a Native American or has reason to believe they are Native American, he or she shall contact, within 24 hours, the Native American Heritage Commission, and Public Resources Code Section 5097.98 shall be followed.</p> <p>Thereafter, construction activities may resume in other parts of the project site at a minimum of 200 feet away from discovered human remains and/or grave goods, if the Tribe determines in its sole discretion that resuming construction activities at that distance is acceptable and provides the project manager express consent of that determination (along with any other mitigation measures the Tribal monitor and/or archaeologist deems necessary). (14 Cal. Code Regs. § 15064.5(f).)</p>	

Impact	Mitigation Measures	Significance after Mitigation
	<p>Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or grave goods. Any historic archaeological material that is not Native American in origin (non-TCRs) shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, it shall be offered to a local school or historical society in the area for educational purposes.</p> <p>MM TCR-3. Any discovery of human remains and/or grave goods discovered and/or recovered shall be kept confidential to prevent further disturbance.</p> <p>As the Most Likely Descendant (“MLD”), the Koo-nas-gna Burial Policy shall be implemented for all discovered Native American human remains and/or grave goods. Tribal Traditions include, but are not limited to, the preparation of the soil for burial, the burial of funerary objects and/or the deceased, and the ceremonial burning of human remains.</p> <p>If the discovery of human remains includes four (4) or more burials, the discovery location shall be treated as a cemetery and a separate treatment plan shall be created.</p> <p>The prepared soil and cremation soils are to be treated in the same manner as bone fragments that remain intact. Associated “grave goods” (aka, burial goods or funerary objects) are objects that, as part of the death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later, as well as other items made exclusively for burial purposes or to contain human remains. Cremations will either be removed in bulk or by means necessary to ensure complete recovery of all sacred materials.</p> <p>In the case where discovered human remains cannot be fully recovered (and documented) on the same day, the remains will be covered with muslin cloth and a steel plate that can be moved by heavy equipment placed over the excavation opening to protect the remains. If this type of steel plate is not available, a 24-hour guard should be posted outside of working hours. The</p>	

Impact	Mitigation Measures	Significance after Mitigation
	<p>Tribe will make every effort to divert the project while keeping the remains in situ and protected. If the project cannot be diverted, it may be determined that burials will be removed.</p> <p>In the event preservation in place is not possible despite good faith efforts by the project applicant/developer and/or landowner, before ground-disturbing activities may resume on the project site, the landowner shall arrange a designated site location within the footprint of the project for the respectful reburial of the human remains and/or ceremonial objects. The site of reburial/repatriation shall be agreed upon by the Tribe and the landowner, and shall be protected in perpetuity.</p> <p>Each occurrence of human remains and associated grave goods will be stored using opaque cloth bags. All human remains, grave goods, funerary objects, sacred objects and objects of cultural patrimony will be removed to a secure container on site if possible. These items will be retained and shall be reburied within six months of recovery.</p> <p>The Tribe will work closely with the project’s qualified archaeologist to ensure that the excavation is treated carefully, ethically and respectfully. If data recovery is approved by the Tribe, documentation shall be prepared and shall include (at a minimum) detailed descriptive notes and sketches. All data recovery data recovery-related forms of documentation shall be approved in advance by the Tribe. If any data recovery is performed, once complete, a final report shall be submitted to the Tribe and the NAHC. The Tribe does NOT authorize any scientific study or the utilization of any invasive and/or destructive diagnostics on human remain</p>	

1.0 INTRODUCTION

1. PURPOSE OF THIS ENVIRONMENTAL IMPACT REPORT

The California Environmental Quality Act (CEQA) (California Public Resources Code [PRC] Sections 21000, et seq.), and its implementing guidelines (14 CCR 15000 et seq., hereinafter “CEQA Guidelines”), requires that lead agencies consider the potential environmental consequences of projects over which they have discretionary approval authority prior to taking approval action on such projects.

The subject of this Draft EIR is the proposed update to the Housing Element of the General Plan of the City of Signal Hill. The update to the Housing Element constitutes a “Project” as defined in CEQA Guidelines Section 15378.

CEQA defines “Lead Agency” as the public agency with primary responsibility for approving a project and thus has primary responsibility for ensuring compliance with the CEQA process. The City of Signal Hill (City) is the “Lead Agency” for this document.

A lead agency may prepare an Environmental Impact Report (EIR) for any project that is considered to may have a significant impact on the environment. As described in CEQA Guidelines Sections 15168(a)(b), an EIR is an informational document that will inform public agency decision-makers and the public of the significant environmental effects of a project, identify possible ways to minimize any significant effects, and describe reasonable project alternatives. Public agencies shall consider the information in the EIR, along with other information that may be presented to the agency, prior to approving the Project.

Under CEQA and the CEQA Guidelines, a lead agency must recirculate an EIR (or portions thereof) for additional public review and comment when “significant new information is added to the EIR after public notice is given of the availability of the Draft EIR for public review under [CEQA Guidelines] Section 15087 but before certification” of the EIR. “Significant new information” added to an EIR requires recirculation when that information discloses any of the following:

(1) A new significant environmental impact would result from the project or from new mitigation measure proposed to be implemented.

(2) A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.

(3) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project, but the project’s proponents decline to adopt it.

(4) The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded. CEQA Guidelines Section 15088.5(a) also indicates the term “information,” as used therein, may include

CEQA Guidelines Section 15088.5 (c) states that if revisions are limited to a few chapters or portions of an EIR, then the lead agency need only recirculate the chapters or portions that have been modified. Accordingly, this Recirculated Draft EIR includes the Introduction, Project Description, Hazards, Land Use, and Effects Found Not Significant. The remainder of the Draft EIR remains valid.

In accordance with state mandates, the City has prepared and re-circulated this RDEIR pursuant to CEQA Guidelines Section 15088.5, Subdivision (g).

2. ENVIRONMENTAL REVIEW PROCESS

The CEQA Guidelines define a process for environmental review that includes a series of steps that must be completed prior to any action taken by the Lead Agency on a project.

Scoping Process

An Initial Study was prepared for the proposed Project and released with a Notice of Preparation (NOP) for a 30-day public review period during May and June, 2021. A virtual scoping meeting was held in May to receive public comment. The Initial Study, NOP, and comment letters are included in **Appendix A** of this Draft EIR.

The City determined through the Initial Study that the proposed Project would result in less than significant impacts with respect to aesthetics; agricultural and forestry resources; biological resources; hydrology/water quality; mineral resources; recreation; utilities/service systems; and wildfire. Therefore, these areas are not analyzed further in this Draft EIR. For a complete discussion of the environmental issues that were scoped out from this Draft EIR, refer to **Section 6.0: Effects Found Not to be Significant**.

Review and Comment on the Recirculated Draft Environmental Impact Report

CEQA requires that the Lead Agency provide the public and agencies the opportunity to review and comment on the Draft EIR. This Draft EIR ~~was will be~~ published and distributed for a 45-day review period starting September 30, 2021 and ending November 15, 2021. ***The Recirculated Draft EIR was published and distributed for a 45-day review period starting January 28, 2022 and ending March 14, 2022.***

Copies of this **Recirculated** Draft EIR have been sent to the State Clearinghouse, responsible agencies, other agencies that have commented on the NOP, and to all interested parties that have requested notice and copies of the Draft EIR.

The Draft EIR **and the Recirculated Draft EIR** is also available for review at the following locations:

- In person at Signal Hill City Hall – Community Development Department located at 2175 Cherry Avenue, Signal Hill, CA 90755; and
- Online at the City’s “Public Notices & Press Releases” webpage at <https://www.cityofsignalhill.org/306/Public-Notices-Press-Releases> and on the “General Plan” Planning webpage at <https://www.cityofsignalhill.org/85/General-Plan>.

Interested individuals, organizations, responsible agencies, and other agencies can provide written comments about the **Recirculated** Draft EIR addressed to:

- Erika Ramirez, Planning Manager, City of Signal Hill Community Development Department 2175 Cherry Avenue, Signal Hill, CA 90755 or eramirez@cityofsignalhill.org.

When submitting comments, please note “Housing Element Update EIR” in the subject line and include the name of the contact person within the commenting agency (if applicable).

~~After completion of the review period, a Final EIR will be prepared that includes responses to comments submitted on the Draft EIR and any necessary corrections or additions to the Draft EIR. The Final EIR will be made available to agencies and the public prior to the City’s determination on the Project. Once the Final EIR is complete, the City may certify the Final EIR, prepare Findings, adopt a mitigation monitoring and reporting program, and issue a Notice of Determination, which is the final step in the CEQA process.~~

Following the 45-day public review period, the City will prepare responses to the written comments received during the recirculation period that relate to the revised and recirculated portions of the current RDEIR, as well as written comments received during the initial circulation period that relate to the portions of the DEIR that have not been recirculated and will compile the comments and responses into a Final EIR.

3. ORGANIZATION OF THE RECIRCULATED DRAFT-EIR

As stated, a principal objective of CEQA is to ensure that the environmental review process be a public one. In meeting this objective, a EIR informs members of the public, reviewing agencies, and decision-makers of the physical impacts associated with a project. Sections of the **Recirculated** Draft EIR are organized as follows:

Executive Summary provides a summary of the Project, impacts, mitigation measures and alternatives.

Section 1: Introduction reviews the purpose, scope and organization of the document.

Section 2: Project Description presents a description of the proposed Project including the objectives, locations, components and characteristics.

~~**Section 3: Environmental Setting** provides a summary of the context within which the Project would occur.~~

Section 4: Environmental Impact Analysis presents the existing conditions, Project impact analysis, mitigation measures, and conclusions regarding the level of significance after mitigation. ***The Recirculated Draft EIR contains just the Land Use and Hazards sections from the original Draft EIR.***

~~**Section 5: Alternatives** discusses alternatives to the proposed Project that have been developed and analyzed to provide additional information on ways to avoid or lessen the impacts of the Project.~~

Section 6: Effects Found Not to be Significant provides a summary of those topics that were determined not to be significant during the scoping process.

~~**Section 7: Other Environmental Considerations** provides a discussion of significant unavoidable impacts that would result from the Project and the reasons why the Project is being proposed notwithstanding the significant unavoidable impacts. An analysis of the significant irreversible changes in the environment and potential secondary effects that would result from the Project is also presented here. This section also analyzes potential growth-inducing impacts of the Project and potential secondary effects caused by the implementation of the mitigation measures for the Project.~~

~~**Section 8: References** lists the principal documents, reports, maps, and other information sources referenced in this Draft EIR.~~

~~**Section 9: Preparers of the EIR and Persons Consulted** lists persons involved in the preparation of this Draft EIR or who contributed information incorporated into this Draft EIR.~~

~~**Appendices** to this Draft EIR include the Initial Study, NOP, and written comments, as well as technical reports and data used and referenced in the Draft EIR.~~

2.0 PROJECT DESCRIPTION

1. INTRODUCTION

As stated in Section 15124 of the CEQA Guidelines, the Project Description of a EIR must contain the location and boundaries of the project; a statement of the project objectives sought; a general description of the project's characteristics; and a brief description of the intended uses of the EIR. This Section identifies such required information.

2. LOCATION

The Project applies to the entire City. The City of Signal Hill is located in Los Angeles County, generally in the southern area of the greater Los Angeles Metropolitan Area. The City is surrounded by the City of Long Beach and is just over two square miles in area.

The City is regionally accessible from Interstate 405 (San Diego Freeway) which is located to the immediate North. Also, Cherry Avenue and Pacific Coast Highway provide access to the City. The City is approximately three miles north of the large Port of Long Beach and 22 miles south of Downtown Los Angeles.

The Project also identifies specific housing availability sites within the City:

- Orange Bluff: located **between Orange Avenue on the west and Gundry Avenue on the east, between East 28th Street on the north and East 27th Street where it terminates at Gundry Avenue on the south** in the Central neighborhood—~~adjacent to the City boundary to the south of East 28th Street between Orange Avenue and south of where East 27th Street terminates.~~
- Walnut Bluff: located north of E. Willow Street at 2653 Walnut Avenue in the Central neighborhood.
- Town Center Northwest: located northeast of the intersection of **East** Willow Street and Walnut Avenue in the Central neighborhood. South and east of the site are developed commercial retail centers named Town Center West and Town Center North.
- Heritage Square: located northwest of the intersection of Cherry Avenue and **East** Burnett Street near the City center in the Civic Center neighborhood. North of the site is ~~E~~-Crescent Heights Street and west of the site is Rose Avenue. The Crescent Heights Historic District Residential Specific Plan **neighborhood** is directly adjacent to the west.

3. PROJECT OBJECTIVES

California State law requires each county and city to adopt a General Plan for the physical development of the county or city, and any land outside its boundaries which in the planning agency's judgement bears relation to its planning.¹ According to the 2017 General Plan Guidelines, all counties and cities are required to adopt seven mandatory elements, including land use, circulation, housing, conservation, open space, noise, and safety. Two additional elements, air quality and environmental justice, are also required for certain local jurisdictions.²

The Housing Element establishes the goals, objectives, policies and programs that serves as the foundation for the city's housing strategy to achieve specific housing goals and improve local housing conditions. The Housing Element also identifies a city's housing conditions and needs using the Regional Housing Needs Assessment (RHNA) allocation provided by the regional Metropolitan Planning Organizations (MPOs).

The City has identified the following Project objectives:

1. Inspire a more diverse, sustainable, and balanced community through implementation of strategies and programs that will result in economically and socially diversified housing choices that preserve and enhance the special character of Signal Hill.
2. Facilitate a Variety of Housing Strategies to meet Housing Element Production Targets in a way that Complements the Existing Character of the Community.
3. Identify adequate sites to accommodate the 6th Cycle RHNA allocation and the City's housing needs.
4. Provide adequate housing stock to meet the needs of extremely low-, very low-, low-, and moderate-income households and special-needs groups.
5. Development regulations that remove constraints to the maintenance, improvement, and development of housing.
6. Maintenance and improvement of affordable housing conditions.
7. Housing opportunities for all persons, regardless of race, religion, sex, marital status, ancestry, national origin, color, familial status, or disability.
8. Improve and preserve assisted housing developments for lower-income households.

1 Government Code Section 65300.
2 Government Code Section 65302.

4. PROJECT CHARACTERISTICS

Housing Strategy

The Project includes the following programs to address the State requirements for a Housing Element:

1. Identify Sites to Accommodate the City's Share of the Regional Housing Need
2. Assist the Development of Lower Income and Moderate-Income Housing
3. Remove Governmental and Nongovernmental Constraints to Housing
4. Conserve and Improve the Existing Stock of Affordable Housing
5. Promote Housing Opportunities for All/Affirmatively Furthering Fair Housing

Of these programs, the identification of housing sites is likely to cause a reasonably foreseeable physical change in the environment and therefore is the subject of the analysis in this DEIR. The policies identified to implement this program, include designating the sites that would provide a variety of housing, specifically housing to meet the Regional Housing Needs, and implement policy actions such as specific plans, zone changes and general plan amendments that would enable the development of those sites.

For the 2021-2029 Planning Period, the Southern California Association of Governments (SCAG) Regional Housing Needs Allocation (RHNA) for the City identified a housing need of 517 housing units to include 161 very low-income units, 78 low-income units, 90 moderate-income units, and 188 above moderate-income units.³ To ensure sufficient capacity is available to meet the RHNA allocation for the Housing Element planning period, the HCD recommends the cities allocate at least 15 to 30 percent additional units in capacity than the required inventory stipulated by the RHNA allocation. Consistent with this recommendation, four potential candidate housing inventory sites (Housing Site) have been identified in the 2021-2029 Housing Element with a residential development capacity to accommodate up to 724 units.

Housing Sites

The Housing Element is required to identify housing sites that are adequate in size, zoned appropriately and could feasibly be developed with the allocated housing. The City lacks adequately sized sites that are already zoned residential and could be further developed. As such, the City has conducted an extensive assessment of sites within the City and collaborated with Signal Hill Petroleum, the largest land owner within the City, to identify sites that could accommodate the RHNA allocation. The sites that have been identified are considered non-vacant due to the presence of existing oil wells and are not for residential uses. As such, the Project includes planned rezoning of the sites and the abandonment of the existing wells.

3 SCAG, 6th Cycle Final Regional Housing Needs Assessment Plan. <https://scag.ca.gov/sites/main/files/file-attachments/6th-cycle-rhna-final-allocation-plan.pdf?1616462966>. Accessed May 2021.

The four sites that have been identified as described below. A potential housing capacity for each site was determined based on a likely development scenario. Implementation actions that the City would undertake as part of the Project were then identified for each site.

1. Walnut Bluff

Housing Site Condition

Walnut Bluff is located ***in the Central neighborhood of the City***, north of ***East*** Willow Street at 2653 Walnut Avenue, Signal Hill, CA 90755 (APN# 7212-010-038). The ***rectangular*** site is ~~located in the Central neighborhood of the City and has approximately 2 acres identified for potential residential development.~~ The ***rectangular*** site ***and*** borders other commercial development to the east and north, with Walnut Avenue to the east of the site and ***East*** Willow Street to the south of the site. The existing site is vacant aside from four active oil and gas wells (two of which have idle status), four abandoned wells, and limited vegetation.

Surrounding Environment

The Walnut Bluff Housing Site is located on mostly vacant land occupied by ~~a few buildings and active drilling rigs~~ ***and associated equipment. Adjacent to the north*** North of the Housing Site ***there is a light industrial building and north of that is a newer two-story office building.***, located on 27th Street, is the ***The*** Signal Hill Police Department ***is located farther north on 27th Street***, which is approximately 450 feet away. ***Directly south*** South of the Housing Site, ***across*** adjacent to ***East*** Willow Street, ***there are several multi-family residential structures and southeast across Willow Street is the Town Center West commercial center. Directly to the east across Walnut Avenue there is an oil well drilling site surrounded by a large oil facilities storage yard which is undeveloped but is the proposed future location of the Town Center Northwest mixed-use housing and commercial development site (discussed below).*** ~~is more~~ vacant land that has been disturbed by oil and drilling activities. The area is mostly vacant with the exception of the drilling rigs present. East of the Housing Site, which runs parallel to Walnut Avenue, is vacant, open space that is also occupied by more drilling rigs. West of the Housing Site ***are light industrial business*** is a woodworking shop, Interior Workshop, and the LA County Office of the Assessor, which is approximately 0.2 miles away and is located parallel to Gundry Avenue. ***Cherry Avenue, one block to the east, is classified as a High-Quality Transit Corridor, with stops for multiple bus lines at the intersection of Willow Steet and Cherry Avenue.***⁴

4 Southern California Association of Governments, Connect SoCal : The 2020-2045 Regional Transportation Plan/ Sustainable Communities Strategy, Data/Map Book, City of Signal Hill, Draft November 2019.

Housing Potential

The Walnut Bluff Housing Site is anticipated to accommodate 90 dwelling units within a multifamily development. The Walnut Bluff Housing Site is zoned CI and the General Plan designation is Commercial Industrial. As part of the Project, the City intends to adopt a zone change to Special Purpose Housing (SP-7) Specific Plan, and a General Plan amendment to Very High Density Residential (35-45 dwelling units per acre). ~~Building heights after rezoning would be limited to 2 stories or heights comparable to existing surrounding development.~~ ***Building height after rezoning could be up to 4-stories.***

2. Orange Bluff

Housing Site Condition

Orange Bluff is located ***between Orange Avenue on the west and Gundry Avenue on the east, between East 28th Street on the north and East 27th Street where it terminates at Gundry Avenue on the south*** in the Central neighborhood adjacent to the City boundary south of East 28th Street between Orange Avenue and extending just south of where East 27th Street dead ends into the property from the east (APN #s: 7212-008-049, -051, and 7212-010-010, -014, -015, -018, -019, -029). Development north and east of the site are mostly Commercial Office and Light Industrial sites, with a few intermittent vacant sites. The area set aside for residential development is approximately 7.1 acres. ~~The existing site~~ ***and*** is mostly vacant; ~~however, the center of the site is developed with a Light Industrial building.~~ Scattered about the site are remnants of previous developments including foundations and paved areas, with limited vegetation.

Surrounding Environment

The Orange Bluff Housing Site is near both the Walnut Bluff and the Town Center Northwest Housing Sites. The site ~~is~~ extends across several areas of existing Commercial Office and Light Industrial ***zoned properties*** ~~space along the western edge of the City.~~ North of the Housing Site, along 28th Street, is a glass and mirror shop and ~~Light Industrial facility.~~ South of the Housing Site, ~~along Willow Street,~~ ***an industrial center that includes the Everson Spice facility.*** ~~PGA William Synneph, Golf Academy, a recreational facility.~~ Gundry Avenue runs along the eastern side of the Housing Site. The northeastern side of the Housing Site has several commercial properties such as an autobody shop, auto parts store, and painters, while the southeastern side has a woodworking shop called Interior Workshop and the LA County Office of the Assessor, a tax assessor. West of the Housing Site, near the intersection of Orange Avenue and Willow Street is the Long Beach Municipal Cemetery. On the northwestern portion, towards 28th Street, is the

Willow Springs Park. **Cherry Avenue, three blocks to the east, is classified as a High-Quality Transit Corridor, with stops for multiple bus lines at the intersection of Willow Street and Cherry Avenue.**⁵

Housing Potential

The Orange Bluff site is expected to accommodate 290 dwelling units and would include resident amenities and open space typical of a multi-family complex. The Orange Bluff existing zoning is CI. The General Plan designation is Commercial Industrial. As part of the Project, the City intends to rezone the site to Special Purpose Housing (SP-7). ~~Building heights after rezoning would be limited to 2 stories or heights comparable to existing surrounding development.~~ **Building height after rezoning could be up to five stories.**

3. Town Center Northwest

Housing Site Condition

Town Center Northwest is located northeast of the intersection of Willow Street and Walnut Avenue (APN #: 7212-011-034). South and east of the site are developed commercial retail centers named Town Center West and Town Center North. To the north there are Light Industrial sites. The area set aside for residential development is approximately 7.4 acres. The existing site contains one of seven drill sites in the City housing eleven injection wells (three of which have idle status). There are also approximately fourteen active oil and gas wells (9 of which have idle status) outside of the drill site area, approximately ten abandoned wells, and limited vegetation. The area outside of the fenced drill site is currently used for storage of oil field related equipment.

Surrounding Environment

The Town Center Northwest Housing Site is adjacent ~~parallel~~ to the Walnut Bluff Housing Site **across Walnut Avenue to the east**. ~~As mentioned, the site contains one drill site. Gaviota Avenue runs north of the Housing Site.~~ Also north of the Housing Site is Gregg Drilling LLC, a drilling contractor, **is adjacent to the north of the Housing Site on Walnut Avenue**. ~~and~~ Ancon Services, an oil and natural gas company **is also adjacent to the north along Gundry Avenue**. South of the Housing Site, along Willow Street, is a shopping center with several amenities: grocery store, chain coffee shops, and restaurants. Immediately east of the Housing Site is another shopping center with a dollar store, takeout restaurant, ~~and~~ a cellphone store **and a trucking yard**. **West of the housing site across** Along Walnut Avenue, ~~west of the Housing Site,~~ **there are two office buildings and as mentioned on the northwest corner of Walnut Avenue and East Willow Street** is the Walnut Bluff Housing Site that is mostly vacant. ~~space and a construction company.~~

5 Southern California Association of Governments, Connect SoCal : The 2020-2045 Regional Transportation Plan/ Sustainable Communities Strategy, Data/Map Book, City of Signal Hill, Draft November 2019.

Cherry Avenue, to the east, is classified as a High-Quality Transit Corridor, with stops for multiple bus lines at the intersection of Willow Street and Cherry Avenue.⁶

Housing Potential

The Town Center Northwest House Site is anticipated to be developed as mixed-use, with approximately 22,000 square feet of retail and restaurant uses along Willow Street and **up to 297 dwelling units in a wrap structure on** ~~within~~ the northern portion of the site **along** ~~fronting on~~ Walnut Avenue. The Town Center Northwest Housing Site existing zoning is **zoned** Commercial Corridor Specific Plan (SP-6). The General Plan designation is Town Center. As part of the Project, the site would be rezoned to a Town Center Northwest (~~SP-24SP-21~~) Specific Plan. Building heights after rezoning would be limited to a **maximum of five stories**. ~~2 stories or heights comparable to existing surrounding development.~~

4. Heritage Square

Housing Site Condition

Heritage Square is located ~~near the City center in the Civic Center neighborhood,~~ northwest of the intersection of Cherry Avenue and Burnett Street. North of the site is Crescent Heights Street and west of the site is Rose Avenue (APN #: 7213-006-014, -015, -019, -020). The Crescent Heights Historic District residential Specific Plan is directly² adjacent to the west. †

This site is approximately 8.8 acres in size and is bisected by Gardena Avenue. The site contains an existing commercial retail use (“Mother’s Market & Kitchen”). There are also four active oil and gas wells, six abandoned wells, and limited vegetation.

Surrounding Environment

~~The Heritage Square Housing Site is located in an area that has been mostly disturbed by drilling activities.~~
To the north North of the Housing Site is a shopping center, which is approximately 0.1 miles away. It has a health food store, Mother’s Market and Kitchen, and an EVgo Charging Station. South of the Housing Site on **East** Burnett Street is **vacant** a lot of land that is **has been** mostly vacant and utilized for drilling activities. **The City’s Heritage Point view park in under construction directly south of East Burnett Street.** To the east is **across** Cherry Avenue, which runs parallel to the Housing Site **is the Town Center East Shopping Center which contains** a Home Depot and Garden Center, which is approximately 0.2 miles away. **Southeast of the site is the Hilltop Specific Plan residential neighborhood.** West of the Housing Site, parallel to Rose Avenue, is ~~a another lot of mostly vacant site land~~ occupied by a drilling rig and **the Crescent Heights Historic District Specific Plan residential neighborhoods** ~~some residential homes.~~ **Cherry**

6 Southern California Association of Governments, Connect SoCal : The 2020-2045 Regional Transportation Plan/ Sustainable Communities Strategy, Data/Map Book, City of Signal Hill, Draft November 2019.

Avenue is classified as a High-Quality Transit Corridor, with stops for multiple bus lines at the intersection of Willow Steet and Cherry Avenue.⁷

Housing Potential

The Heritage Square Housing Site existing zoning is CTC, and Crescent Heights Historic District (SP-11) Specific Plan. The General Plan designation is Town Center. The Land Use Element of the General Plan calls for the area to be re-designated and established as a Central Business District (CBD). Heritage Square will be rezoned under Crescent Heights Historic District, which will continue to maintain the historic nature of the neighborhood and its surroundings. ***The existing zoning of the Heritage Square site is split between Commercial Town Center (CTC) and the Crescent Heights Historic District (SP-11) Specific Plan. The General Plan designation is Town Center. The Land Use Element of the General Plan calls for the area to be re-designated and established as a Central Business District (CBD). The entire Heritage Square site will be rezoned as Heritage Square (SP-23) Specific Plan, which will be a mixed-use commercial and residential development with single-family homes facing Rose Avenue to maintain the character of the adjacent neighborhood.***

The Heritage Square ***development conceptual plan*** site could be developed as a mixed-use development, retaining ***retains*** the existing 14,000-square-foot market and adding ***adds*** 18,650 square feet of retail and restaurant space along Cherry Avenue and ***up to*** 72 dwelling units on the western portion of the site. Gardena Avenue would be retained for access. ***Building heights after rezoning would include two- and three-stories.***

Uses Of This EIR

To implement the ***6th Cycle new*** Housing Element ***Update***, the City intends to enact zoning and planning changes concurrently with the adoption of the Housing Element. This EIR is intended to provide the evaluation required by CEQA for all these actions necessary to facilitate the development of new housing.

To accommodate the RHNA housing units, the City intends to rezone non-vacant land to residential uses. As described above, the sites would be rezoned as Special Purpose Housing. In addition, new Specific Plans would be implemented for Orange Bluff and Walnut Bluff and a General Plan Amendment to the Central Business District would be adopted to enable housing at the Town Center Northwest site.

7 Southern California Association of Governments, Connect SoCal : The 2020-2045 Regional Transportation Plan/ Sustainable Communities Strategy, Data/Map Book, City of Signal Hill, Draft November 2019.



PROJECT SUMMARY

Area:	2.0 ac
Total Unit:	90 du
Density	45 du/ac
Unit Size Average	768 sf
Net Rentable Area	69,150 sf

4-STORY

Plan Type	Mix	SF	Count
1 Bed	(41%)	550	37
2 Beds	(31%)	850	28
3 Beds	(28%)	1,000	25
Total	(100%)	69,150	90

Required Parking

1 Bed (41%)	37x0.5/du	= 19 spaces
2 Beds (31%)	28x1/du	= 28 spaces
3 Beds (28%)	25x2/du	= 50 spaces
Total		= 97 spaces

Provided Parking

Garage	= 36 spaces (37%)
Open Parking	= 62 spaces (63%)
Total	= 98 spaces

● Active Well	2
● Idle Well	2
◆ Abandoned Well	3
○ To Be Abandoned	2
□ To Be Re-Abandoned	0

SOURCE: KTG - June 2020

FIGURE 2.0-1



PROJECT SUMMARY

Area:	9.06 ac
Total Unit:	290 du
Density:	32 du/ac
Unit Size Average:	758 sf
Net Rentable Area:	219,800 sf
Amenity:	5,000 sf

3 & 4 STORY TUCK UNDER

Plan Type	Mix	SF	Count
1 Bed	(45%)	550	130
2 Beds	(27%)	850	78
3 Beds	(28%)	1,000	82
Total	(100%)	219,800	290

Required Parking

1 Bed (45%)	130x0.5/du	= 65 spaces
2 Beds (27%)	78x1/du	= 78 spaces
3 Beds (25%)	82x2/du	= 164 spaces
Total		= 307 spaces

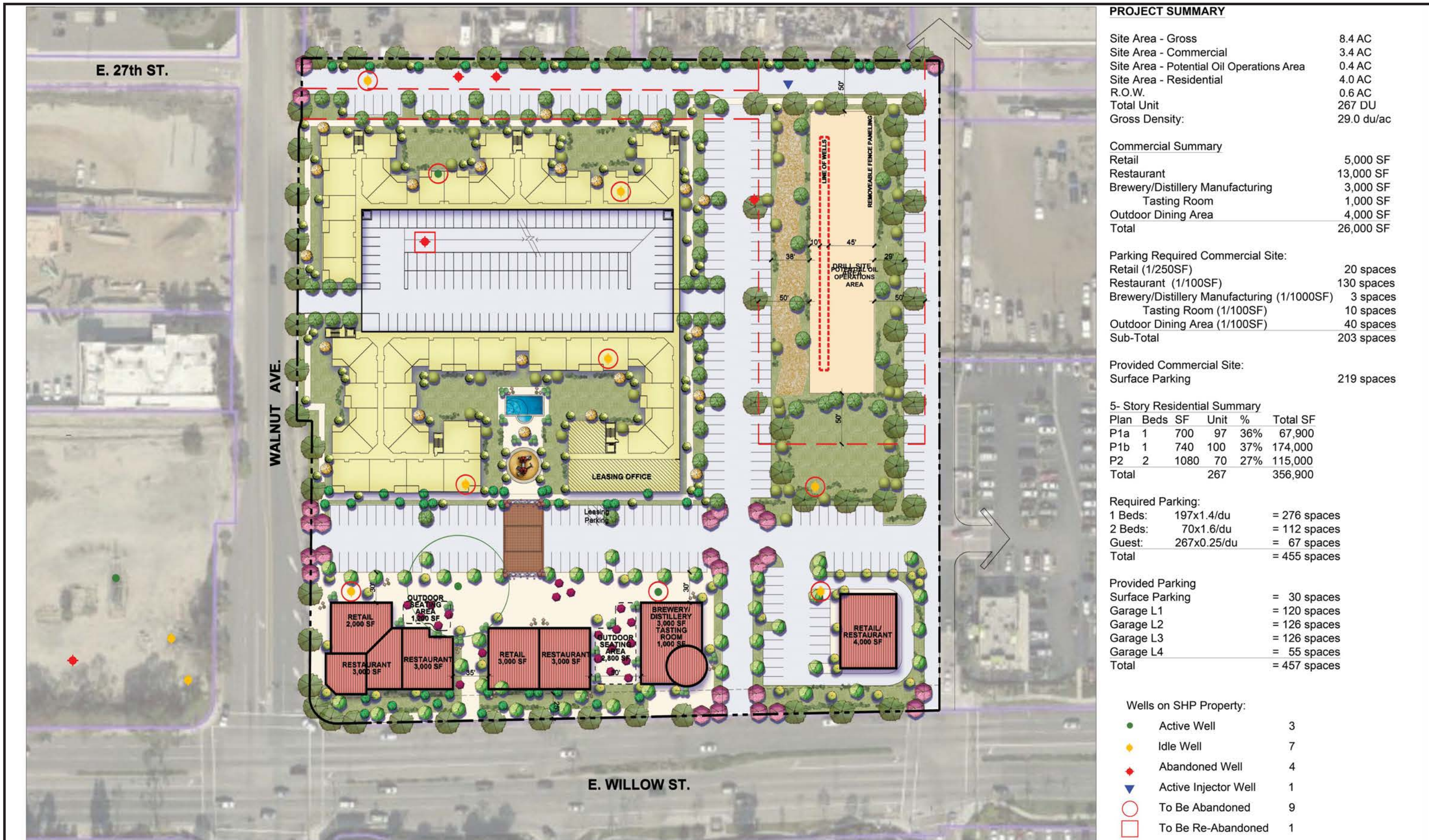
Provided Parking

Garage	= 131 spaces (43%)
Open Parking	= 176 spaces (57%)
Total	= 307 spaces

- Active Well 1
- Idle Well 8
- Abandoned Well 9
- To Be Abandoned 8
- To Be Re-Abandoned 0

SOURCE: KTG - June 2020

FIGURE 2.0-2



PROJECT SUMMARY

Site Area - Gross	8.4 AC
Site Area - Commercial	3.4 AC
Site Area - Potential Oil Operations Area	0.4 AC
Site Area - Residential	4.0 AC
R.O.W.	0.6 AC
Total Unit	267 DU
Gross Density:	29.0 du/ac

Commercial Summary

Retail	5,000 SF
Restaurant	13,000 SF
Brewery/Distillery Manufacturing	3,000 SF
Tasting Room	1,000 SF
Outdoor Dining Area	4,000 SF
Total	26,000 SF

Parking Required Commercial Site:

Retail (1/250SF)	20 spaces
Restaurant (1/100SF)	130 spaces
Brewery/Distillery Manufacturing (1/1000SF)	3 spaces
Tasting Room (1/100SF)	10 spaces
Outdoor Dining Area (1/100SF)	40 spaces
Sub-Total	203 spaces

Provided Commercial Site:

Surface Parking	219 spaces
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5- Story Residential Summary

Plan	Beds	SF	Unit	%	Total SF
P1a	1	700	97	36%	67,900
P1b	1	740	100	37%	174,000
P2	2	1080	70	27%	115,000
Total			267		356,900

Required Parking:

1 Beds:	197x1.4/du	= 276 spaces
2 Beds:	70x1.6/du	= 112 spaces
Guest:	267x0.25/du	= 67 spaces
Total		= 455 spaces

Provided Parking

Surface Parking	= 30 spaces
Garage L1	= 120 spaces
Garage L2	= 126 spaces
Garage L3	= 126 spaces
Garage L4	= 55 spaces
Total	= 457 spaces

Wells on SHP Property:

● Active Well	3
◆ Idle Well	7
◆ Abandoned Well	4
▼ Active Injector Well	1
○ To Be Abandoned	9
□ To Be Re-Abandoned	1

SOURCE: KTG - June 2020

FIGURE 2.0-3



PROJECT SUMMARY

Site Area - Gross	7.80 AC
Site Area - Retail	4.42 AC
Site Area - Residential	3.38 AC
Total Dwelling Units	60 Units
Density	17.8 DU/AC

Commercial Summary	
Existing Mother's Market	14,000 SF
Retail	5,450 SF
Restaurant	7,500 SF
Food Stall (Take-Out)	5,100 SF
Common Dining Area	16,350 SF
Total	48,400 SF

3-Story Townhome Summary	
Plan 1 - 2 bdr, 2.5 bath, 1,250 sf	16 DU
Plan 2 - 3 bdr, 3.5 bath, 1,900 sf	30 DU
Plan 3 - 4 bdr, 3.5 bath, 2,100 sf	8 DU
Total	54 DU

50x80 Single-Family with ADU	
Plan 1 - 3 bdr, 3 bath, 1,600 sf Main Unit, 600 sf ADU	3 DU
Plan 2 - 3 bdr, 3 bath, 2,000 sf Main Unit, 600 sf ADU	3 DU
Total	6 DU

Parking Required Per Anticipated Specific Plan:

Required Commercial Site:	
Mother's Market (E)	78
Retail 5,450 SF (1/250SF)	22
Restaurant 7,500 SF (1/100SF)	75
Food Stall/Take-Out 5,100 SF (1/250SF)	21
Common Dining Area 14,250 (1/300 SF)	72
Sub-Total	268

Provided Commercial Site:	
Surface Parking	185
Commercial On-Street Parking	6
Total Provided	192

Required Residential Site:	
2 & 3 bdr - 48 DU (2.25/DU)	103.5
4 bdr - 14 DU (3.25/DU)	45.5
Sub-Total	149

Provided Residential Site:	
Residential Garages	120
Residential On-Site Parking	28
Residential On-Street Parking	16
Total Provided	164

Rose Avenue On-Street Parking	20
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Active Well	4	To Be Abandoned	11
Idle Well	8	To Be Re-Abandoned	4
Abandoned Well	8		

SOURCE: KTG - June 2020

FIGURE 2.0-4

4.6 HAZARDS AND HAZARDOUS MATERIALS

1. INTRODUCTION

This section addresses the potential presence of hazardous materials and conditions within the 2021-2029 Housing Element Update (Housing Element Update) (Project) and analyzes the potential risk of such materials in proximity to proposed development on candidate housing sites (Housing Sites) that could occur under implementation of the Project. This section discusses the existing conditions in the Project area, existing policies and regulations regarding hazards and hazardous materials, and analyzes the potential impacts. The primary source of information for this section comes from

- *Phase I Environmental Site Assessment, 2771 Gundry Avenue, Orange Bluff*, by Mearns Consulting LLC, February 5, 2021 (**Appendix F.1: Orange Bluff Phase I ESA**);
- *Summary Report for Methane Soil Gas Investigation Services at Proposed New Orange Bluff Site*, by DL Science Inc., April 6, 2021 (**Appendix F.2: Orange Bluff Methane Investigation Report**);
- *Human Health Risk Assessment, 2771 Gundry Avenue, Orange Bluff*, by Mearns Consulting LLC, June 30, 2021 (**Appendix F.3: Orange Bluff HHRA**);
- *Review of Human Health Risk Assessment – 2771 Gundy Avenue, Signal Hill, California 90755*, by CAL EPA Office of Environmental Health Hazard Assessment, July 16, 2021 (**Appendix F.4: Orange Bluff HHRA Review**);
- *Phase II Environmental Site Assessment, 2771 Gundry Avenue, Orange Bluff*, by Mearns Consulting LLC, April 21, 2021 (**Appendix F.5: Orange Bluff Phase II ESA**);
- *Phase I Environmental Site Assessment, Northwest Corner E. Willow St. and Walnut Avenue, Walnut Bluff*, by Mearns Consulting LLC, February 19, 2021 (**Appendix F.6: Walnut Bluff Phase I ESA**);
- *Summary Report for Methane Soil Gas Investigation Services at Walnut Bluff Site*, by DL Science Inc., March 25, 2021 (**Appendix F.7: Walnut Bluff Methane Investigation Report**);
- *Human Health Risk Assessment, Northwest Corner of E. Willow St. and Walnut Avenue, Walnut Bluff, Signal Hill, California 90755* by Mearns Consulting LLC, June 16, 2021 (**Appendix F.8: Walnut Bluff HHRA**);
- *Review of Human Health Risk Assessment – 2175 Cherry Ave., Signal Hills, California, 90755* by CAL EPA Office of Environmental Health Hazard Assessment, July 19, 2021 (**Appendix F.9: Walnut Bluff HHRA Review**);
- *Phase II Environmental Site Assessment, Northwest Corner of E. Willow St. and Walnut Avenue, Walnut Bluff, Signal Hill, California 90755*, by Mearns Consulting LLC, April 22, 2021 (**Appendix F.10: Walnut Bluff Phase II ESA**);

- *Phase I Environmental Site Assessment, Northeast Corner E Willow St. and Walnut Avenue, Town Center Northwest, Signal Hill, California 90755, by Mearns Consulting LLC, May 27, 2021 (Appendix F.11: Town Center Northwest Phase I ESA);*
- *Phase II Environmental Site Assessment, Northeast Corner E Willow St. and Walnut Avenue, Town Center Northwest, Signal Hill, California 90755, by Mearns Consulting LLC, July 30, 2021 (Appendix F.11a: Town Center Phase II ESA);*
- *Human Health Risk Assessment, Northeast Corner E Willow St. and Walnut Avenue, Town Center Northwest, Signal Hill, California 90755, by Mearns Consulting LLC, August 11, 2021 (Appendix F.11b: Town Center HHRA);*
- *Review of Human Health Risk Assessment – Town Center Northwest, by CAL EPA Office of Environmental Health Hazard Assessment, July 16, 2021 (Appendix F.11c: Town Center HHRA Review);*
- *Approval, Summary Report for Methane Soil Gas Investigation Services at Proposed Town Center North West Site, Northeast Corner of Intersection of E. Willow Ave. and Walnut Ave., Signal Hill, California 90755, by Mearns Consulting LLC, July 19, 2021 (Appendix F.12: Town Center Northwest Methane Investigation Report Approval Letter);*
- *Phase I Environmental Site Assessment, Northeast Corner E Willow St. and Walnut Avenue, Heritage Square, Signal Hill, California 90755, by Mearns Consulting LLC, February 1, 2018 (Appendix F.13: Heritage Square Phase I ESA);*
- *Summary Report for Methane Soil Gas Investigation Services at Heritage Square, Signal Hill, California 90755, by Mearns Consulting LLC, July 19, 2021 (Appendix F.14: Heritage Square Methane Investigation Summary Report);*
- *Human Health Risk Assessment, Heritage Square Project, Signal Hill, California 90755, by Mearns Consulting LLC, July 15, 2021 (Appendix F.15: Heritage Square HHRA);*
- *Phase II Environmental Site Assessment, Heritage Square Project, Signal Hill, California 90755, by Mearns Consulting LLC, December 21, 2018 (Appendix F.16: Heritage Square Phase II ESA);*
- *Review of Human Health Risk Assessment – Heritage Square, by CAL EPA Office of Environmental Health Hazard Assessment, July 16, 2021 (Appendix F.17: Heritage Square HHRA Review);*

2. ENVIRONMENTAL SETTING

Historical Context

Signal Hill has a rich and colorful history. Most famous for the discovery of oil in 1921, and commonly known as an "oil town," the City is now a diverse community with an "oil history" and a bright future.¹ Oil

1 City of Signal Hill. History of Signal Hill. <https://www.cityofsignalhill.org/218/History-of-Signal-Hill>. Accessed June 2021.

production continued to be Signal Hill's mainstay until declining oil prices reduced production in the 1970s. In 1974 the Signal Hill Redevelopment Agency was formed, and the city focused on economic development and diversity from oil.

The 2.25 square mile city of Signal Hill lies within the Long Beach Oil Field. The City's legacy of oil production began in 1919 when oil was first discovered.² The Long Beach Field is termed a mega giant field. It is the eighth-largest by cumulative production in California, and although now largely depleted, still officially retains around 5 million barrels of recoverable oil.³

The historical use of the properties in the City includes oil fields, laydown yards, operating units and commercial/industrial businesses. The adjacent properties include commercial/industrial businesses, oilfields, single and multifamily residences. Although the City was once dominated by oil rigs, Signal Hill is now predominantly single and multi-family homes, commercial developments, modern office buildings and industrial parks. The oil rigs that once heavily dotted the hillside now give way for views of single-family residences, retail commercial developments, and modern industrial parks.

Existing Conditions

Even with the dramatic land use changes to the City over the decades, the oil field remains moderately productive, with oil wells and oilfield infrastructure intermixed with commercial and residential development. Many properties contain abandoned oil wells, **which**. ~~However, these wells no longer produce and have been permanently sealed.~~⁴ Title 16 of the City's Municipal Code, the Oil Code, regulates oil production facilities and operations and sets out the standards for development over and around active and abandoned oil wells.

Housing Sites

Orange Bluff

The historical use of the proposed Orange Bluff Housing Site is an oil field. Numerous previously abandoned oil wells associated piping runs, a previous 2,310,000-gallon capacity aboveground storage tank, dehydration plant, boilers, pump station, laboratories, former bio cells used to remediation oilfield impacted material and operating units are/were located on site. Operating units, a stormwater detention basin, a small one-story stucco building, used as a laboratory and new automobiles currently are on site.

2 City of Signal Hill. Oil Well Information. <https://www.cityofsignalhill.org/111/Oil-Well-Information>. Accessed June 2021.

3 City of Signal Hill. Oil Well Information. <https://www.cityofsignalhill.org/111/Oil-Well-Information>. Accessed June 2021.

4 City of Signal Hill. Developing Around Oil Wells. <https://www.cityofsignalhill.org/421/Developing-Around-Oil-Wells>. Accessed June 2021.

The proposed Housing Site is accessible from the adjacent property on southern boundary of the Site and is currently undeveloped land used as overflow parking for new automobiles and a few operating units. A small stucco building, located at 1396 East 28th Street, is located at the southwest corner of East 28th Street and Gundry Avenue with a small parking lot on the south side of East 28th Street. Due to its age, the building may have asbestos containing building materials, lead-based paint and/or fluorescent lights. There are 20 oil wells on site, it appears nine are previously abandoned, six are idle and four are active (see **Appendix F.1: Orange Bluff Phase I ESA**). Numerous pipelines underlie Orange Avenue, East 28th Street, Gundry Avenue and East 27th Street, effectively surrounding the Site. Several of these pipelines are owned by entities no longer in business and therefore more than likely are abandoned. Abandoned pipelines that historically conveyed wet gas, crude oil, gas, dry gas and/or natural gas is common on site.

Methane measurements on-site range from non-detect (ND), or less than 1,000 parts per million by volume (ppmv) to 279,000 ppmv. Methane concentrations in soil vapors on-site range from 11,000 ppmv to 140,000 ppmv (see **Appendix F.2: Orange Bluff Methane Investigation Report**).

Chemicals of Potential Concern (COPCs) in soil vapor on the proposed Orange Bluff Housing Site are total petroleum hydrocarbons (TPH, gasoline range) and chlorinated and non-chlorinated volatile organic compounds (VOCs). COPCs present in the soil on site are TPH, ethylbenzene, cumene, naphthalene, n-propylbenzene, cadmium, hexavalent chromium and molybdenum (see **Appendix F.3: Orange Bluff Site HHRA** and **Appendix F.4: Orange Bluff HHRA Review**).

Walnut Bluff

The historical use of the Housing Site is an oil field. Seven oil wells (two operating, two idle and three previously abandoned), associated piping runs and aboveground storage tanks are/were located on site. Operating units, a stormwater system with detention basins and piping currently are on site.

The proposed Housing Site is accessible from the Walnut Avenue and comprises of vacant, undeveloped land. Numerous pipelines underlie East Willow Street, Walnut Avenue and the proposed Walnut Bluff Site. Several of these pipelines are owned by entities no longer in business and therefore more than likely are abandoned. Abandoned pipelines that historically conveyed wet gas, crude oil, gas, dry gas and/or natural may impact the site. There are no sources of asbestos containing building material, lead-based paint or fluorescent lights on site (see **Appendix F.6: Walnut Bluff Phase I ESA**).

Methane measurements on site range from ND to 898,000 ppmv. Methane concentrations in soil vapors on-site range from 34,000 ppmv to 200,000 ppmv (see **Appendix F.7: Walnut Bluff Methane Investigation Report**).

COPCs in soil vapor on the proposed Walnut Bluff Housing Site are TPH, metals and VOCs. COPCs present in the soil vapor on site include benzene, toluene, ethylbenzene, tetrachloroethylene (PCE), total xylenes and gasoline range organics (GROs) (see **Appendix F.8: Walnut Bluff Site HHRA** and **Appendix F.9: Walnut Bluff HHRA Review**).

Town Center Northwest

The historical use of the Housing Site is an oil field. There are 34 oil wells on site or adjacent to it; specifically, there are 19 wells on site and 15 within the eastern two-thirds of the Signal Hill Petroleum, Inc. Drill Site (SHP Drill Site) which is not part of the Project; the western one-third of this portion of this Site is part of the Project.⁵ Operating units, a stormwater system with detention basins, swales, berms and piping are currently on site. The Site is used by Signal Hill Petroleum, Inc. (SHP) to store drilling equipment.

The Town Center Northwest Site is accessible via Walnut Avenue and is vacant and undeveloped. It is covered with dirt, grass weeds, gravel, asphalt and concrete. The Site consists of three operating units, six idle units and 10 abandoned oil wells used for storage of oil field equipment. Stormwater prevention measures are present throughout the Housing Site. The eastern two-thirds of the SHP Drill Site contains seven active operating units, seven idle units and one previously abandoned oil well. Numerous pipelines underlie Walnut Avenue and East Willow Street. Several of these pipelines are owned by entities no longer in business and therefore more than likely are abandoned. Abandoned pipelines that historically conveyed wet gas, crude oil, gas, dry gas, natural gas and wastewater may impact the Housing Site. There are no sources of asbestos containing building material, lead-based paint or fluorescent lights on site (see **Appendix F.11: Town Center Northwest Phase I ESA**).

Heritage Square

The historical use of the Housing Site is an oil field. There are 25 oil wells on the 7.14-acre Site. Oil derricks, sumps and aboveground storage tanks were previously located on site. Operating units, pipelines and a stormwater drainage system, with detention basins and piping are currently on site.

The Heritage Square Site is accessible via Cherry Avenue and is currently unoccupied. The 3-acre portion of the Housing Site identified as 2475 Cherry Avenue, or 2500 Cherry Avenue, was redeveloped in 2010 with a commercial building and a surface parking lot covering approximately 1.5-acres. During the redevelopment effort an unknown quantity of soil was removed from the portion of the Site. The remaining 1.5-acres is vacant and undeveloped with active oil field activity. The four on-site buildings at

5 The SHP Drill Site is not part of the Project but is surrounded by the Town Center Northwest Site on all sides.

2435, 2449, 2461 Gardena Avenue were constructed between 1959 and 1960 and potentially contain asbestos containing building materials and/or lead-based paint. The portion of the Housing Site identified as 2475 and 2485 Gardena Avenue remains vacant and undeveloped with active oil field activity. The portion of the Site identified as 1800 East Burnett Street remains vacant and undeveloped with active oil field activity (see **Appendix F.13: Heritage Square Phase I ESA**). There is no evidence hazardous materials are stored, used, spilled or dumped on the Housing Site and there are no recognized environmental conditions on site or adjacent to the Site.

Methane measurements on-site range from ND to 802,000 ppmv. Methane concentrations in soil vapors on-site range from ND ppmv to 87,200 ppmv (see **Appendix F.14: Heritage Square Methane Investigation Summary Report**).

COPCs in soil on the proposed Housing Site are TPH-diesel range (TPH-d), C23-C40, lead, mercury and thallium. COPCs present in the soil vapor on site include sec-butylbenzene, tert-butylbenzene, dichlorodifluoromethane, naphthalene, PCE, toluene, 1,2,4-trimethylbenzene and di-isopropylether (DIPE) (see **Appendix F.15: Heritage Square HHRA**).

3. REGULATORY SETTING

The regulations governing the storage and handling of hazardous materials are complex, with a varying degree of overlap associated with existing federal, State, and local programs. In general, applicable laws and regulations are aimed at hazardous materials inventory and emergency response planning, risk planning and accident prevention, employee hazard communication, public notification of potential exposure to specific chemicals, storage of hazardous materials including aboveground storage tanks (AST) and USTs. A description of the major regulations, policies, and programs regulating hazardous materials storage and handling applicable to activities at the Project site is provided below.

Federal Setting

A variety of laws and regulations governing the management and control of hazardous substances has been established at the federal level to protect the environment.

Regulating Agencies

United States Environmental Protection Agency

The USEPA is the main federal agency responsible for enforcing regulations relating to hazardous materials and wastes, including evaluation and remediation of contamination and hazardous wastes. The agency works collaboratively with other agencies to enforce materials handling and storage regulations

and site cleanup requirements. The U.S. Occupational Safety and Health Administration (USOSHA) and the USDOT are authorized to regulate safe transport of hazardous materials.

Several USEPA programs address the disposal and cleanup of various hazardous waste materials, including lead, asbestos-containing materials (ACMs), pesticides, and polychlorinated biphenyls (PCBs).⁶

US Occupational Safety and Health Administration

USOSHA is authorized to regulate safe transport of hazardous materials. Specifically, USOSHA implements regulation related to materials handling. USOSHA requirements are intended to promote worker safety, worker training, and a worker's right to know.

Legislation, Regulations, and Programs

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)—better known as Superfund—provides federal funds to clean up uncontrolled or abandoned hazardous waste sites, accidents, spills, discharges, and other emergency releases of pollutants and contaminants into the environment. Through CERCLA, USEPA was given authority to seek out those parties responsible for any hazardous release and ensure their cooperation in the cleanup.

Emergency Planning and Community Right-to-know Act

The Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986,⁷ commonly known as Title III of the Superfund Amendments and Reauthorization Act (SARA), was enacted by Congress as national legislation on community safety. This law was designated to help local communities protect public health, safety, and the environment from chemical hazards. The primary purpose of EPCRA is to inform communities and citizens of chemical hazards in their areas by requiring businesses to report the locations and quantities of chemicals stored on site to State and local agencies. These reports help communities prepare to respond to chemical spills and similar emergencies. Section 313.1 of EPCRA requires manufacturers to report releases to the environment (air, soil, and water) of more than 600 designated toxic chemicals; report off-site transfers of waste for treatment or disposal at separate facilities; implement pollution prevention measures and activities; and participate in chemical recycling. These annual reports are submitted to the USEPA and state agencies. The USEPA maintains and publishes a database that contains information on toxic chemical releases and other waste management activities by

6 US EPA. Waste, Chemical, and Cleanup Enforcement. <https://www.epa.gov/enforcement/waste-chemical-and-cleanupenforcement>. Accessed May 2021.

7 42 USC sec. 11001 et seq., Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986.

certain industry groups and federal facilities. This online, publicly available, national digital database is called the Toxics Release Inventory (TRI) and was expanded by the Pollution Prevention Act of 1990.

To implement EPCRA, Congress required each state to appoint a State Emergency Response Commission (SERC) to coordinate planning and implementation activities associated with hazardous materials. The SERCs were required to divide their states into emergency planning districts and to name a local emergency planning committee (LEPC) for each district. The federal EPCRA program is implemented and administered in California by Cal OES, a SERC, 6 LEPCs, and 83 certified Unified Program agencies (CUPAs). Cal OES coordinates and provides staff support to the SERC and LEPCs. Broad representation by fire fighters, health officials, government and media representatives, community groups, industrial facilities, and emergency managers ensures that all necessary elements of the planning process are represented.

Resource Conservation and Recovery Act

The 1976 Resource Conservation and Recovery Act (RCRA) was the first major federal act regulating the potential health and environmental problems associated with hazardous and nonhazardous solid waste. RCRA and the implementation regulations developed by the USEPA provide the general framework of national hazardous waste management systems. This framework includes the determination of whether hazardous wastes are being generated, techniques for tracking wastes to eventual disposal, and the design and permitting of hazardous waste management facilities. RCRA allows individual states to develop their own program for the regulation of hazardous wastes as long as state regulations are at least as stringent as the RCRA.

Toxic Substances Control Act

The Toxic Substances Control Act of 1976⁸ was enacted by Congress to give the USEPA the ability to track the 75,000 industrial chemicals currently produced or imported into the United States. The USEPA repeatedly screens these chemicals and can require reporting or testing of any that may pose an environmental or human health hazard. It can ban the manufacture and import of chemicals that pose an unreasonable risk. Also, the USEPA has mechanisms in place to track the thousands of new chemicals that industry develops each year with either unknown or dangerous characteristics. It was given the authority to control these chemicals as necessary to protect human health and the environment. Within that authority, the Toxic Substances Control Act addresses the production, importation, use, and disposal of specific chemicals including PCBs, ACMs, radon, and lead-based paint. The act supplements other federal statutes, including the Clean Air Act and the TRI under EPCRA.

8 Toxic Substances Control Act of 1976, 15 USC sec. 2601 et seq.

Lead Renovation, Repair, and Painting Program

USEPA's Lead Renovation, Repair, and Painting Rule (RRP Rule) requires that firms performing renovation, repair, and painting projects that disturb lead-based paint in homes, childcare facilities and pre-schools built before 1978 have their firm certified by USEPA (or an USEPA authorized state), use certified renovators who are trained by USEPA-approved training providers, and follow lead-safe work practices.

Hazardous Materials Transportation Act

The USDOT, in conjunction with the USEPA, is responsible for enforcement and implementation of federal laws and regulations pertaining to safe storage and transportation of hazardous materials. The Code of Federal Regulations (CFR) Title 49, Sections 171–180, regulate the transportation of hazardous materials, types of material defined as hazardous, and the marking of vehicles transporting hazardous materials. This act applies to the Project because contractors will be required to comply with its storage and transportation requirements that would reduce the possibility of spills.

State Setting

Regulating Agencies

California Environmental Protection Agency

The California Environmental Protection Agency (CalEPA) was created in 1991 with the signing of Executive Order W-5-91 by Governor Pete Wilson. Several State regulatory boards, departments, and offices were placed under the CalEPA umbrella to create a cabinet-level voice for the protection of human health and the environment and to assure the coordinated deployment of State resources. Among those responsible for hazardous materials and waste management are the Department of Toxic Substance Control (DTSC), Department of Pesticide Regulation, the State Water Quality Control Board and its Regional Water Quality Control Boards (RWQCB), and Office of Environmental Health Hazard Assessment. CalEPA also oversees the unified hazardous waste and hazardous materials management regulatory program (Unified Program), which consolidates, coordinates, and makes consistent the following six programs:

- Hazardous Materials Release Response Plans and Inventories (Business Plans);
- Underground Storage Tank (UST) Program;
- Aboveground Petroleum Storage Tank Act;
- Hazardous Waste Generator and On-site Hazardous Waste Treatment Programs;
- California Uniform Fire Code: Hazardous Material Management Plans and Inventory Statements; and
- California Accidental Release Prevention (CalARP) Program.

In addition, in compliance with California Public Resources Code Section 3229, before commencing any work to abandon any oil well, the owner or operator shall file with the CalGEM, formerly known as the Division of Oil, Gas, and Geothermal Resources, a written notice of intention to abandon the well (California State Division of Oil, Gas and Geothermal Resources form OG108).

Department of Toxic Substances Control

DTSC is authorized by CalEPA to administer the hazardous waste laws and oversee remediation of hazardous wastes sites. Regulations require that DTSC “shall compile and update as appropriate, but at least annually, and shall submit to the Secretary for Environmental Protection, a list of all the following: (1) All hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code (HSC).”⁹

The DTSC regulates hazardous waste, cleans up existing contamination, and looks for ways to reduce the hazardous waste produced in California. Approximately 1,000 scientists, engineers, and specialized support staff ensure that companies and individuals handle, transport, store, treat, dispose of, and clean up hazardous wastes appropriately. Through these measures, DTSC contributes to greater safety for all Californians, and less hazardous waste reaches the environment. DTSC’s role is limited to projects with State funding. DTSC oversight is not required where a State-funded project is statutorily or categorically exempt from CEQA.

The hazardous waste facilities identified in HSC Section 25187.5 are those where DTSC has taken or contracted for corrective action because a facility owner/operator has failed to comply with a date for taking corrective action in an order issued under the HSC, or because DTSC determined that immediate corrective action was necessary to abate an imminent or substantial endangerment.

Certified Unified Program Agency

Californians are protected from hazardous waste and hazardous materials by a Unified Program that ensures consistency throughout the State regarding administrative requirements, permits, inspections, and enforcement. CalEPA oversees the statewide implementation of the Unified Program and its 83 certified local government agencies, known as Certified Unified Program Agencies (CUPAs), which apply regulatory standards established by five different State agencies. The CUPA can be a county, city, or joint powers authority. A participating agency is a local agency that has been designated by the local CUPA to administer one or more Unified Programs within their jurisdiction on behalf of the CUPA. A designated agency is a local agency that has not been certified by CalEPA to become a CUPA but is the responsible

9 California Government Code (GOV), Development Permits for Classes of Projects [65960 - 65964.1], sec. 65962.5

local agency that would implement the six Unified Programs until they are certified. Currently, there are 83 CUPAs in California. The CUPA for the County is the Los Angeles County Fire Department (LACoFD).

California Occupational Safety and Health Administration

The California Occupational Safety and Health Administration (Cal/OSHA) has set forth work requirements for disturbance of ACMs, including removal operations for all types of ACMs. In addition, the agency has developed standards for general industry and the construction industry hazardous waste operations and emergency response. Cal/OSHA ensures that employers must have controls to reduce and monitor exposure levels of hazardous materials; and oversees an informational program describing any exposure during operations and the inspection of drums and containers prior to removal or opening. Decontamination procedures and emergency response plans must be in place before employees begin working in hazardous waste operations.

Legislation and Regulations

Senate Bill 14: California Hazardous Waste Source Reduction and Management Review Act of 1989

The California Hazardous Waste Source Reduction and Management Review Act of 1989, also known as Senate Bill (SB) 14, required large-quantity generators—those that annually produce more than 13.2 tons of hazardous waste or 26.4 pounds of extremely hazardous waste—to periodically conduct a source evaluation of their facilities and develop plans to reduce their volume of hazardous waste through measures such as changes in raw materials production methods, product reformulations, and employee training.¹⁰ The primary objective of the legislation was to reduce the quantity of hazardous waste generated in California and thereby promote public health and improve environmental quality. Generators that exceed the aforementioned waste volume thresholds are required to file waste minimization reports with DTSC every 4 years.

California Emergency Response Plan

California has developed an emergency response plan to coordinate emergency services provided by federal, State, and local governments and private agencies. Responding to hazardous materials incidents is one part of this plan. The plan is administered by Cal OES, which coordinates the responses of other agencies, including CalEPA, the California Highway Patrol, the RWQCB, and the LACoFD.

10 California Department of Toxic Substances Control (DTSC), “SB14 Introduction and Overview” (July 2012), <https://dtsc.ca.gov/sb14/sb14-introduction-and-overview/>. Accessed May 2021.

Hazardous Waste Control Act

The Hazardous Waste Control Act (HWCA) is the State equivalent of RCRA and regulates the generation, treatment, storage, and disposal of hazardous waste.¹¹ This act implements the RCRA “cradle-to-grave” waste management system in California but is more stringent in its regulation of non-RCRA wastes, spent lubricating oil, small-quantity generators, and transportation and permitting requirements, as well as in its penalties for violations. HWCA applies to the Project because contractors will be required to comply with its hazardous waste requirements to reduce the possibility of spills.

Hazardous Materials Management Plans

In January 1996, CalEPA adopted regulations implementing a Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program).¹² As noted previously, the six program elements of the Unified Program are hazardous waste generators and hazardous waste on-site treatment; underground storage tanks; aboveground storage tanks; hazardous material release response plans and inventories; risk management and prevention programs; and Uniform Fire Code hazardous materials management plans and inventories. The program is implemented at the local level by a local agency, the CUPA, which is responsible for consolidating the administration of the six program elements within its jurisdiction.

State and federal laws require detailed planning (1) to ensure that hazardous materials are properly handled, used, stored, and disposed of; and (2) in the event that such materials are accidentally released, to prevent or to mitigate injury to health or the environment.

California Hazardous Materials Release Response Plans and Inventory Law of 1985 (Business Plan Act)

The Business Plan Act requires preparation of hazardous materials business plans and disclosure of hazardous materials inventories, including an inventory of hazardous materials handled, plans showing where hazardous materials are stored, an emergency response plan, and provisions for employee training in safety and emergency response procedures (HSC, Division 20, Chapter 6.95, Article 1).¹³ Statewide, DTSC has primary regulatory responsibility for management of hazardous materials, with delegation of authority to local jurisdictions that enter into agreements with the State. Local agencies are responsible for administering these regulations. Several State agencies regulate the transportation and use of hazardous materials to minimize potential risks to public health and safety, including CalEPA and Cal OES. The California Highway Patrol and California Department of Transportation (Caltrans) enforce regulations

11 DTSC, California Hazardous Waste and Hazardous Substances Law , California Code of Regulations, Title 22, Division 4.5, Environmental Health Standards for the Management of Hazardous Waste.

12 CalEPA, “Unified Program,” <https://calepa.ca.gov/cupa/>.

specifically related to the transport of hazardous materials. Together, these agencies determine container types used and license hazardous waste haulers for hazardous waste transportation on public roadways. The Business Plan Act applies to this Project because contractors will be required to comply with its handling, storage, and transportation requirements that would reduce the possibility of spills, and to prepare an emergency response plan to respond to accidental spills.

California Government Code Section 65962.5: Cortese List

The provisions of Government Code Section 65962.5 are commonly referred to as the Cortese List.¹⁴ The Cortese List is a planning document used by State and local agencies to provide information about hazardous materials release sites. Section 65962.5 requires CalEPA to develop an updated Cortese List annually. DTSC is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List.

Regional and Local Setting

South Coast Air Quality Management District

The South Coast Air Quality Management District (SCAQMD) regulates asbestos through Rule 1403, Asbestos Emissions from Renovation/Demolition Activities. Rule 1403 regulates asbestos as a toxic material and controls the emissions of asbestos from demolition and renovation activities by specifying agency notifications, appropriate removal procedures, and handling and cleanup procedures. Rule 1403 applies to owners and operators involved in the demolition or renovation of asbestos-containing structures, asbestos storage facilities, and waste disposal sites. SCAQMD also regulates volatile organic compound (VOC) emissions from contaminated soil through Rule 1166, Volatile Organic Compound Emissions from Decontamination of Soil. Rule 1166 sets requirements to control the emission of VOCs from excavating, grading, handling, and treating soil contaminated with VOCs as a result of leakage from storage or transfer operations, accidental spillage, or other deposition.

Los Angeles Regional Water Quality Control Board

The Los Angeles Regional Water Quality Control Board (LARWQCB) is one of nine Statewide regional boards. The LARWQCB protects ground and surface water quality in the Los Angeles region, including the coastal watersheds of Los Angeles and Ventura Counties, along with very small portions of Kern and Santa

Barbara Counties. In order to carry out its mission to preserve and enhance water quality, the LARWQCB conducts the following range of activities to protect ground and surface waters under its jurisdictions:¹³

- Addresses region-wide and specific water quality concerns through updates of the Water Quality Control Plan for the Los Angeles region;
- Prepares, monitors compliance with, and enforces Waste Discharge Requirements, including National Pollutant Discharge Elimination System (NPDES) permits;
- Implements and enforces local stormwater control efforts;
- Regulates the cleanup from contaminated sites, which have already been polluted or have the potential to pollute ground or surface water;
- Enforces water quality laws, regulations, and waste discharge requirements;
- Coordinates with other public agencies and groups that are concerned with water quality; and
- Informs and involves the public on water quality issues.

Additionally, the LARWQCB has the responsibility for oversight of leaking USTs and the responsibility for inspecting ASTs and ensuring SPCC's have been prepared within the County.¹⁴

Los Angeles County Hazardous Materials Control Program

In 1982, the Los Angeles County Board of Supervisors established the Hazardous Materials Control Program in the Department of Health Services (DHS) for the inspection of businesses generating hazardous waste. In 1991, the program merged into the LACoFD and it became the Health Hazardous Materials Division (HHMD). In 1997, HHMD became a CUPA to administer the following programs within Los Angeles County: the Hazardous Waste Generator Program, the Hazardous Materials Release Response Plans and Inventory Program, the California Accidental Release Prevention Program (CalARP), the Aboveground Storage Tank Program and the Underground Storage Tank Program. The LACoFD, Prevention Services Bureau, HHMD is a CUPA that administer the Hazardous Waste Generator Program, the Hazardous Materials Release Response Plans and Inventory Program, the CalARP, the Aboveground Storage Tank Program, and the Underground Storage Tank Program.

The Los Angeles County Sanitation District and its Household Hazardous Waste and Electronic Collection Program (HWW) provides Los Angeles County residents with a legal way to dispose of unwanted household chemicals that cannot be disposed of in the regular trash.

13 California Waterboards, About Us, https://www.waterboards.ca.gov/losangeles/about_us/, accessed May 2021.

14 Health and Safety Code Section 25270.8.

Signal Hill General Plan Safety Element

The Safety Element is one of seven General Plan elements required by the State of California. This document provides the City of Signal Hill with background information on hazards and public safety services, and establishes goals, policy direction, and implementation measures intended to limit the community's exposure to a range of hazards. This element is a comprehensive update of the 1986 Safety Element and incorporates the latest available information from local, state, and federal sources regarding public safety and hazards. This element includes:

- Existing conditions & background information on the City and existing police, fire, and medical services serving the City.
- A discussion of seismic and geologic hazards, including surface rupture and ground shaking resulting from earthquakes, liquefaction, landslides, and soil settlement and expansion.
- A discussion of oilfield hazards related to hazardous materials impacts, with a focus on identifying and minimizing risks associated with oil production, storage, and transportation activities.
- An evaluation of other hazards, including fires, flooding, tsunamis, seiche, and dam failure, including evacuation routes.
- Goals, policies, and implementation measures that provide direction and guidance for the City of Signal Hill to minimize impacts resulting from hazards over the coming decades.

Signal Hill Municipal Code

Title 16: City of Signal Hill Oil and Gas Code

Title 16 regulates the drilling for production, processing, storage and transport by pipeline of petroleum and other hydrocarbon substances, timely and proper well abandonment and well site restoration and removal of oil and gas related facilities, reclamation and remediation of host sites and final disposition of pipelines in compliance with applicable laws and permits so that these activities may be conducted in conformance with federal, state, and local requirements, and to mitigate the impact of oil-related activities on urban development.

4. ENVIRONMENTAL IMPACTS

Thresholds of Significance

To assist in determining whether the proposed Project would have a significant effect on the environment, the City finds the proposed Project may be deemed to have a significant impact related to hazards if it would:

- Threshold IV. HAZ-1:** Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- Threshold IV. HAZ-2:** Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?
- Threshold IV. HAZ-3:** Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
- Threshold IV. HAZ-4:** Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?
- Threshold IV. HAZ-5:** For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?
- Threshold IV. HAZ-6:** Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
- Threshold IV. HAZ-7:** Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Methodology

To evaluate potential impacts regarding hazards and hazardous materials, Phase I and Phase II ESAs, Methane Gas Summary Reports and Human Health Risk Assessments (HHRAs) were prepared for the Project Sites. The analysis of the potential impacts regarding hazardous materials management was based on review of identified publicly available documents and on-site reconnaissance. In addition, the analysis of the potential impacts regarding the generation and disposal of ACMs, lead based paint, and PCBs were based on the provisions of applicable local, State, and federal regulations.

The site reconnaissance included excavation and drilling on the four Housing Sites. Soil matrix samples were collected and tested. All drilling, logging and sampling activities were conducted by or under direct supervision of a California Professional Geologist, and in accordance with California Well Standards presented in the Department of Water Resources (DWR).

The site reconnaissance identified the potential for environmental conditions to exist on the Project site. Recommendations regarding the construction of the Project are identified in response to the conditions that exist on the four Housing Sites. Various reports including Phase I and Phase II ESAs, Methane Gas Summary Reports and HHRAs are provided in **Appendix F.1—Appendix F.16** of this Draft EIR.

Environmental Impacts

Threshold IV. HAZ-1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Implementation of the proposed Project would not directly construct new housing in the City but would promote and facilitate development of new residential land uses. However, implementation of the Housing Element Update (HEU) would facilitate new residential construction in order to meet the City's RHNA allocation. Future construction on the Housing Sites would involve site clearing; bioremediation of soils and subsurface materials; demolition of previous structures and piping remnants; daylighting and leak testing of oil wells; construction of new residential buildings; and the installation of utilities and landscaping. These activities may require the transport of contaminated soil and the use of hazardous substances during construction. In addition, construction activities would use hazardous materials such as fuels (gasoline and diesel), oils and lubricants, paints and paint thinners, glues, cleaners (which could include solvents and corrosives in addition to soaps and detergents) and possibly pesticides and herbicides. Future residential land uses would not be expected to transport, use, store or dispose of substantial amounts of hazardous materials.

Construction

Construction activities on the Housing Sites are anticipated to involve the use of typical materials that are potentially hazardous, including vehicle fuels, paints, mastics, solvents, and other acidic or alkaline solutions that would require special handling, transport, and disposal. Additionally, the demolition and removal of existing structures and facility remnants such as underground pipes and the daylighting of oil wells within the Project Site could potentially result in the exposure of hazardous materials such as ACMs, lead-based paint and other potentially hazardous building materials in some form as part of the building materials, such as PCBs, mercury or chlorofluorocarbons in fluorescent lighting and electrical switches as well as potentially hazardous VOCs in on-site soils.

In accordance with City, State, and federal regulations, an evaluation of hazardous building materials would be performed prior to the start of demolition of any construction to determine if remediation and abatement of ACMs and lead-based paint is required. The ACMs and lead-based paint containing hazardous waste and debris encountered/generated during demolition activities would be disposed of in

accordance with applicable local, State, and federal regulations. Any other waste discovered such as fluorescent bulbs, ballast, thermostats, electrical switches, and batteries would also be disposed of in accordance with applicable local, State and federal regulations. Through compliance with applicable local, State and federal regulations, the proposed Project impacts related to the routine transport, use, or disposal of hazardous materials during building demolition would be less than significant.

All potentially hazardous materials used during construction would be used and stored in compliance with applicable federal, State, and local regulations. As the use and transport of these hazardous materials would be limited, in terms of volume and duration, these materials are not considered a significant hazard to the public or environment. Additionally, the Los Angeles County Fire Department would have the authority to perform inspections and enforce federal and State laws governing the storage, use, transport, and disposal of hazardous materials and wastes.

Furthermore, any spills or leakages encountered during construction would be required to be remediated in accordance with the State and local regulations for hazardous waste cleanup. The potential for construction materials to cause contamination would be reduced through the implementation of a stormwater pollution prevention plan (SWPPP), in accordance with NPDES.

Implementation of **Mitigation Measure (MM) HAZ-1** would require the preparation of a soil management plan (SMP) prior to commencement of ground disturbing activities as approved by the SCAQMD would be completed prior to construction activities. **MM HAZ-1** would ensure the SMP would provide instructions for appropriate actions in the event discolored or odiferous soils are discovered during grading. Abandoned oil wells and pipelines and idle oil wells present on the Housing Sites would be located, daylighted and methane gas leak tested and fitted with vent cones and risers through incorporation of **MM HAZ-2** through **MM HAZ-4**. Daylighting oil wells and pipelines involves the disturbance of soils and monitoring for VOCs which are required to be below 50 parts per million by volume (ppmv). Soil impacted with TPH and metals may be hauled off-site for disposal to a licensed landfill upon completion of a waste profile and acceptance by the receiving facility. Waste classification will be conducted in accordance with 22 CCR Division 4.5, Chapter 11, Article 3 and 40 CFR 261 Subpart C. The on-site TPH impacted soil may meet the criteria for use as daily cover. On-site treatment of metals (lead) impacted soil may be implemented prior to transfer off site for disposal. Trucks will follow the designated hauling route as required by the City of Signal Hill (see **Appendix F.1—Appendix F.16**). All applicable regulations would be followed to minimize adverse exposure of contaminated soil to the public.

Based on the identification of the existing conditions at the Project Site described previously, as well as the use of hazardous substances during construction of the Project, there is the potential for an adverse impact to the environment and other sensitive receptors through the routine transport, use, or disposal

of hazardous materials. However, during Project construction, all activities that relate to existing on-site environmental conditions would be subject to the requirements of **MM HAZ-1** through **MM HAZ-4** and applicable local, State, and federal regulations relating to the routine transport, use, and disposal of hazards and hazardous materials which appropriately address all of the environmental conditions that are present at the Project Site. Through required compliance with these mitigation measures and regulatory compliance measures, the Project would not result in adverse impacts related to the routine transport, use, and disposal of hazards and hazardous materials during construction and impacts would be less than significant.

Operation

Operation and maintenance of the proposed residential Project would not involve the routine transport, use, or disposal of hazardous materials. Further, the types and amounts of materials that would be used in connection with the proposed Project would be typical of those used in residential neighborhoods and neighborhood uses, such as surface and floor cleaning products utilized for routine janitorial cleaning procedures. All potentially hazardous materials to be used during construction and operation of the Housing Sites would be contained, stored, and used in accordance with manufacturers' instructions and handled in accordance with all applicable standards and regulations, including but not limited to, those set forth by the federal and State Occupational Safety and Health Acts. Any associated risk would be adequately reduced to a less than significant level through implementation and compliance with these existing laws and regulations. Operational impacts through the routine transport, use, or disposal of hazardous materials would be less than significant and no mitigation measure is required.

Threshold IV. HAZ-2: Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Construction

Construction of the proposed Project would involve the temporary use of hazardous materials including vehicle fuels, oils, and transmission fluids. Such use which could pose risks to construction workers or lead to soil and groundwater contamination, if not properly stored, used, or disposed. However, the materials used would not be in such quantities or stored in such a manner as to pose a significant safety hazard. These activities would also be short term or one time in nature. Project construction workers would be trained in safe handling and hazardous materials use.

Additionally, the use, storage, transport, and disposal of construction-related hazardous materials and waste would be required to conform to existing laws and regulations. These include the Hazardous

Material Transportation Act, the Resource Conservation and Recovery Act, the California Hazardous Waste Control Act, CUPA, and the California Accidental Release Prevention Program. As required by law, notification to Underground Service Alert would be made. Prior to construction an attempt to coordinate with the owners/operators of high priority underground lines would be made in order to avoid damage to high-pressure pipelines and natural gas/petroleum pipelines in the area. Compliance with applicable laws and regulations governing the use, storage, and transportation of hazardous materials would ensure that all potentially hazardous materials are used and handled in an appropriate manner and would minimize the potential for safety impacts to occur. For example, if a spill or leakage of petroleum products occurs during construction activities, it would be immediately contained, the hazardous material identified, and the impacted area would be remediated in compliance with applicable State and local regulations for the cleanup and disposal of that contaminant.

Phase I and Phase II ESAs, Methane Gas Summary Reports and HHRAs provided in **Appendix F.1—Appendix F.16** summarize existing pollutants on and beneath the surface of the Project Site and develops appropriate remediation actions to be completed which would be implemented prior to construction. **MM HAZ-5** would require a Methane Mitigation System to be installed below the foundations of future residential buildings on the Housing Sites. The Methane Mitigation System would eliminate the exposure pathway of methane and other chemicals of concern (COCs) that remain on-site and would mitigate vapor intrusion ensuring the Housing Sites are safe for future residential uses. Further, **MM HAZ-6** would ensure future residential uses are safe by requiring the paved areas on the Housing Sites greater than 5,000 square feet and contiguous to future residential buildings to be vented with designs to prevent surface water infiltration. Groundwater sampling data indicates there would be little to no chance COCs on the Housing Sites would affect the quality groundwater quality.

Accordingly, implementation of **MM HAZ-5** and **MM HAZ-6** prior to Project approval and compliance with applicable laws and regulations governing the use, storage, and transportation of hazardous materials would ensure that all potentially hazardous materials are used and handled in an appropriate manner which would minimize potential impacts associated with upset or accident conditions. Potential impacts regarding hazardous waste upset or accident conditions would be less than significant.

Operation

Occupancy and use of the residential units would not create a significant hazard to the public or the environment and would not emit hazardous emissions. Routine maintenance and upkeep of the residential development would involve handling of small quantities of hazardous materials for activities including cleaning and local upgrades. However, as discussed under **Threshold IV.HAZ-1**, handling of such

materials would follow manufacturer's instructions and properly stored when not in use. Therefore, potential impacts associated with upset or accident conditions would be less than significant.

Threshold IV. HAZ-3: Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

There are no schools located within one-quarter mile of the proposed Housing Sites. The nearest school is Signal Hill Elementary School, approximately 0.5 miles south/southwest of the Housing Sites. The Project would introduce residential land uses to the Housing Sites. This land use does not generate hazardous emissions or involve the handling of acutely hazardous materials, substances or wastes. The residential land uses may involve limited transport, storage, use and disposal of small quantities of hazardous materials such as chemical cleaning agents. No special permits would be required for such limited use of common cleaning agents. The proposed restaurant may use and dispose of grease and food oils, which are not considered hazardous but do require special handling and as such would be collected in separate grease interceptors and removed by contracted haulers for transport to appropriate disposal sites. As noted in the response to **Threshold IV.HAZ-1** above, the residential land uses would involve the regular handling of minor quantities of common household chemical agents and related wastes; however, these types of wastes are typical and do not represent a hazardous materials or waste impact. Thus, a less than significant impact would occur in relation to this issue.

Threshold IV. HAZ-4: Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

California Government Code Section 65962.5 specifies lists of the following types of hazardous materials sites: hazardous waste facilities; hazardous waste discharges for which the State Water Quality Control Board has issued certain types of orders; public drinking water wells containing detectable levels of organic contaminants; underground storage tanks with reported unauthorized releases; and solid waste disposal facilities from which hazardous waste has migrated. While Section 65962.5 makes reference to the preparation of a list, many changes have occurred related to web-based information access since 1992 and information regarding the Cortese List is now compiled on the websites of the DTSC, the State Water Resources Control Board, and CalEPA. The DTSC maintains the EnviroStor database, which includes sites on the Cortese List and also identifies potentially hazardous sites where cleanup actions or extensive investigations are planned or have occurred. The database provides a listing of federal Superfund sites, State response sites, voluntary cleanup sites, and school cleanup sites.

The EnviroStor database is maintained by DTSC and provides access to detailed information on hazardous waste permitted sites and corrective action facilities, as well as existing site cleanup information. EnviroStor also provides information on investigation, cleanup, permitting, and/or corrective actions that are planned, being conducted, or have been completed under DTSC's oversight. The RWQCB maintains the GeoTracker database which manages sites that impact, or have the potential to impact, water quality in California. The GeoTracker database includes sites that require cleanup, are under current investigation/remediation, or have been closed with a status not requiring further investigation.

A geographical search for hazardous materials sites, as defined in Government Code Section 66962.5, was conducted based on a review of these databases. The addresses associated with the proposed Housing Sites are not included on any list compiled pursuant to Government Code Section 65962.5 (see **Appendix F.1, Appendix F.6, Appendix F.11, and Appendix F.13**). As such, the Housing Sites are not located in an area with current significant hazardous materials sites and therefore would not create a significant hazard to the public or environment. No impact would occur.

Threshold IV. HAZ-5: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

The nearest public use airport is Long Beach Municipal Airport, located less than 1 mile to the northeast of the Housing Sites. The project would introduce new residential land uses. The Los Angeles County Airport Land Use Commission establishes Airport Influence Areas (AIA) to identify areas likely to be impacted by noise and flight activity created by aircraft operations at and airport. The Housing Sites are not within the AIA for Long Beach Municipal Airport (Los Angeles County Airport Land Use Commission 2003). Thus, people living or working on the future Housing Sites site would not be exposed to any safety hazards associated with the operation of the airport. As such, impact would be less than significant.

Threshold IV. HAZ-6: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Both the County of Los Angeles and the City of Signal Hill have plans that include operational concepts, describe responsibilities, and outline procedures for emergency response. The County has adopted an Operational Area Emergency Response Plan, which describes the planned responses to emergencies associated with natural and man-made disasters and technological incidents. The Signal Hill (2018e) Hazard Mitigation Plan documents strategies and approaches designed to reduce loss of life and property in the event of a disaster or emergency. Key action items in the plan include improving communication

and strengthening emergency operations by increasing collaboration and coordination among the various agencies and organizations involved in emergency planning, identifying funding to implement prevention plans and programs, and continuing the education and outreach efforts.

Project implementation at the Housing Sites would not interfere with the implementation of either of these plans because the proposed Project does not introduce any new land uses not considered in the implementation of the plans and it does not place the proposed land uses in an area that would require any specialized response, nor does it place new land uses in an area that is subject to potential threats such as high fire hazard area, flood, or known hazardous materials or substance releases.

As for emergency evacuation, the roadway grid in and around Signal Hill provides multiple means of evacuation from natural, technological or human-caused disasters. As identified in the Signal Hill General Plan Safety Element, existing evacuation routes are adequate to serve the City's population, and no major improvements are considered necessary to maintain emergency access. Several of the local arterial roadways and Interstate (I-405) are major evacuation routes. Two arterial roadways are in the immediate vicinity of the project site; Cherry Avenue to the west and Willow Street to the north are designated as major evacuation routes.¹⁵ Given these available emergency routes, future residents, workers, and visitors would have sufficient options for emergency evacuation at each Housing Site if necessary.

The Project would be required to meet minimum driveway width and design requirements as established by SHMC Title 15 and the Los Angeles County Fire Department.¹⁶ These standards ensure that driveways are properly sized and located to facilitate emergency vehicle access and the positioning of emergency response crews during emergencies. Thus, since the development of the Housing Sites would not introduce any new land uses not already considered in emergency response plans or place the proposed land uses in an area that has been identified as high risk in relation to natural or man-made hazards, and since it would adhere to design requirements established in part to promote safety and logical evacuation, the Project would have a less than significant impact in relation to the implementation of an emergency response plan or evacuation plan.

Threshold IV. HAZ-7: Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

The California Department of Forestry and Fire Protection (Cal fire) has mapped fire hazard severity zones throughout the state. Designations include Unboned (the lowest wildland fire risk), Moderate, High, and Very High. Property within the City boundaries is Unzoned, indicating a low potential for wildland fire;

¹⁵ General Plan Safety Element 2016.

¹⁶ Signal Hill Municipal Code Title 15 (Buildings and Construction).

there are no Moderate, High, or Very High fire hazard zones in the City.¹⁷ Thus, the Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. As such, there would be no impact.

5. MITIGATION MEASURES

The following Mitigation Measures (MMs) have been identified and are based on available information provided in various reports for the Housing Sites:

MM HAZ-1 Prepare a Soil Management Plan Prior to Commencement of Ground Disturbing Activities

A soil management plan should be prepared prior to any soil disturbance activities to be conducted on site. This soil management plan should provide instructions for the contractor to implement in the event discolored or odiferous soils are discovered during any grading operations. A South Coast Air Quality Management District (SCAQMD) Rule 1166 Permit and Compliance Plan should be obtained from the SCAQMD due to the presence of volatiles prior to the start of soil disturbance operations.

MM HAZ-2 Daylight Abandoned Oil Wells

Previously abandoned oil wells should be located, daylighted and methane gas leak tested prior to the installation of vent cones and vent risers pursuant to the City of Signal Hill's Oil and Gas Code §16.24.030 and §16.24.040. As the act of daylighting oil wells involves soil disturbance, monitoring for volatile organic compounds will be required under the R1166 permit/compliance plan. The R1166 permit limits the release of volatiles in soils to 50 parts per million by volume (ppmv) or less, however some volatiles will be released into the ambient atmosphere during these activities, decreasing the residual concentrations previously detected in site soils and soil vapor.

MM HAZ-3 Daylight Idle Oil Wells

Idle wells should be located, daylighted and abandoned in accordance with the State of California Department of Conservation, Geologic Energy Management Division (CalGEM)

¹⁷ As shown in Figure 7 of the Signal Hill General Plan Safety Element 2016.

requirements and in accordance with the City of Signal Hill's Oil and Gas Code §16.22 and §16.24, and under the R1166 permit/compliance plan requirements.

MM HAZ-4 Daylight Abandoned Pipelines

Abandoned pipelines should be located, daylighted and removed in accordance with the Soil Management Plan and R1166 permit/compliance plan.

MM HAZ-5 Install Methane Mitigation Systems Subslab of Proposed Buildings

Institutional controls, i.e., a methane mitigation system to be installed subslab of any proposed buildings, pursuant to the City of Signal Hill's Oil and Gas Code §16.24.080 will effectively mitigate risks and hazards due to vapor intrusion to negligible conditions ensuring the site is safe for any future intended use including as a residential property. A redeveloped property precludes exposure to site soils by future residential occupants.

Methane mitigation subslab of proposed buildings is recommended based on the Methane Assessments. The methane mitigation system should consist of a subslab impervious membrane placed in between geotextile or geocloth to protect it from sand above and the 4" thick gravel blanket below in conformance with the City of Signal Hill Oil and Gas Code §16.24.080 and City of Signal Hill Project Development Guide (June 2020). Perforated horizontal vent pipes should be placed in the 4" thick gravel blanket and tied into vertical vent risers (typically cast iron) placed in between the interior and exterior walls, less than 100-feet apart, extending a minimum of 3-feet above the roof line and should not terminate less than ~~10~~100-feet from any opening (City of Signal Hill June 2020).

Although designed to capture and vent methane to the atmosphere, other volatile organic compounds in the subsurface (both in the soil matrix and soil vapor) also will be captured and vented by this system.

MM HAZ-6 Include Vents in Impervious Pavement if Area is 5,000 Square Feet or Greater and Contiguous to Buildings

If an impervious surface paving area is 5,000 square feet or greater and contiguous to the proposed buildings, the paving should have vents spaced less than 100-ft apart consisting of four sided concrete boxes with traffic rated grates and 4" thick gravel blanket at the base. The vents should be designed to prevent surface water infiltration.

6. LEVEL OF SIGNIFICANCE AFTER MITIGATION

MM HAZ-1 would require the preparation of a SMP prior to commencement of ground disturbing activities as approved by the SCAQMD would be completed prior to construction activities and would ensure the SMP would provide instructions for appropriate actions in the event discolored or odiferous soils are discovered during grading. **MM HAZ-2** through **MM HAZ-4** would require abandoned oil wells and pipelines and idle oil wells present on the Housing Sites to be located, daylighted, methane gas leak tested and fitted with vent cones and risers. **MM HAZ-5** would require a Methane Mitigation System to be installed below the foundations of future residential buildings on the Housing Sites which would eliminate the exposure pathway of methane and other COCs that remain on-site and would mitigate vapor intrusion ensuring the Housing Sites are safe for future residential uses. Further, **MM HAZ-6** would ensure future residential uses are safe by requiring the paved areas on the Housing Sites greater than 5,000 square feet and contiguous to future residential buildings to be vented with designs to prevent surface water infiltration. Therefore, implementation of **MM HAZ-1** through **MM HAZ-4** would ensure potential impacts to the public or the environment through the routine transport, use or disposal of hazardous materials to a less than significant level. **MM HAZ-5** and **MM HAZ-6** would ensure potential impacts to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials would be less than significant.

1. INTRODUCTION

This section evaluates potential impacts concerning land use and planning that could result from the Project, including housing development on the Housing Sites. This section describes the existing environmental and regulatory settings concerning land use and planning. This section also evaluates the potential for the Project to cause significant environmental impact due to a conflict with an existing land use plan or regulation adopted to avoid or mitigate environmental effects. Housing Sites and nearby land uses will be considered in order to comprehensively evaluate the potential effect of the Project.

2. ENVIRONMENTAL SETTING

The City of Signal Hill (City) is located in the Southern California Associated Governments (SCAG) region, which is the largest metropolitan planning organization (MPO) in the country, including approximately 19 million people.¹ The region contains six counties: Imperial County, Los Angeles County, Orange County, Riverside County, San Bernardino County, and Ventura County. Today, the region contains 6 million households and 8 million jobs. While the growth trend has slowed in recent years due to a combination of factors, the region's population continues to grow at approximately 0.85 percent annually, or by approximately 161,500 people annually. Population growth is projected to slow, but continued growth through 2045 is expected. This population growth in turn translates into continued growth for the number of households and jobs in the region.

The history of the City has long been tied to oil production since the discovery and completion of the Alamitos No. 1 well by the Shell Oil Company in 1921.² The oil field runs over four miles long and one mile wide, mainly located beneath the City of Signal Hill with a portion extending in the City of Long Beach. The development suitability within the City considers the physical restrictions that exist with the previous oil facilities located amongst most of the existing properties as well as policy direction which is used to encourage the protection of the City's views and historic resources.

Existing Conditions

Signal Hill Setting

Since the redevelopment of the City in 1974, there has been a focus on economic development through the addition of multiple commercial big box stores as well as several dealerships added to the Signal Hill

1 SCAG. Connect SoCal- The 2020-2045 RTP/SCS. https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocial-plan_0.pdf?1606001176. March 4, 2021.

2 City of Signal Hill General Plan, Environmental Resources Element, <https://www.cityofsignalhill.org/DocumentCenter/View/310/Environmental-resources-element?bidId=>. Accessed June 2021.

Auto Center.³ The development of the existing oil field has been a complicated factor due to the fragmented ownership pattern, leading to another focus of the redevelopment plan which is centered around improving land use patterns, housing opportunities, and the quality of architecture and design throughout the City. The existing setting within the City consists of a mix of residential, commercial, and industrial uses with pockets of industrial located near the center and eastern portion of the City and residential and commercial uses found throughout. There are a total of twelve existing parks available to residents as well as the surrounding City of Long Beach park facilities totaling 8.2 park acres per 1,000 residents.⁴ The City shares its transportation network and many other public services with the neighboring City of Long Beach. Regional access to the Project area is supported primarily by Interstate 405 (I-405) and the Pacific Coast Highway (PCH). The City's transportation system consists of roads and a variety of public transportation systems, including buses, light rail, and paratransit service, airports, and seaports.⁵ Major north-south routes within the City include Cherry and Orange Avenues; major east-west through routes include Spring and Willow Streets and Pacific Coast Highway.

The City can be divided into seven neighborhoods including: North End, Central, West Side, Civic Center, Southeast, Hilltop, and Atlantic Spring. The North End neighborhood consists mainly of medium density residential units with some light industrial uses, commercial general, open space, and public institutional uses. The Central Neighborhood consists of mostly commercial general uses with an equal amount of commercial office and general industrial uses. The West Side neighborhood includes some high density residential and medium density residential uses, commercial industrial, general industrial, and Light Industrial uses. The Civic Center neighborhood consists of a multitude of uses: low density residential, high density residential, public institutional, Town Center, light industrial, commercial office, and open space. The Southeast neighborhood includes a majority low density residential uses, some high density residential, medium density residential, with few open space designations, sparse commercial general near the Pacific Coast Highway, and light industrial, general industrial, and commercial industrial to the east of Hathaway Avenue. The Hilltop neighborhood includes low density residential uses, few open space uses, high density residential, Town Center use, and a small portion of commercial designation near Willow Street. The final neighborhood of Atlantic Spring consists of the following uses: commercial general, commercial industrial, Light Industrial, general industrial, and public institute.

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- 3 City of Signal Hill. General Plan – Land Use Element.
<https://www.cityofsignalhill.org/DocumentCenter/View/309/circulation-element?bidId=>. Accessed June 2021.
- 4 Los Angeles Countywide Comprehensive Park & Recreation Needs Assessment, City of Signal Hill,
<https://documentcloud.adobe.com/spodintegration/index.html?locale=en-us>. Accessed June 2021.
- 5 City of Signal Hill. General Plan- Circulation Element.
<https://www.cityofsignalhill.org/DocumentCenter/View/309/circulation-element?bidId=>. Accessed June 2021.

Existing Land Uses

The City of Signal Hill exists within the City of Long Beach and includes a variety of commercial, industrial, and residential land uses. In 1974, the City focused on redevelopment after two thirds of the 2.2 square miles were identified as in need of improvement due to the existing oilfields.⁶ The City focused the majority of its redevelopment on infrastructure improvements and then in the 1980's, focus was shifted towards improving economic development and affordable housing. Within the Land Use Element, the City's goals center around affordable housing development. The City's land use pattern is well established and is not anticipated to change materially over time. The City identified that the majority of development would most likely occur within vacant oil field areas and to a lesser extent in-fill development within established neighborhoods. The constraints of future development within the City surround ongoing oil field operations as well as other physical qualities that limit the extent of residential development. However, the goals and policies with the City's General Plan support the development of additional residential and commercial uses throughout the City focusing on environmental suitability of each use.

Each neighborhood within the City is described below with details about the history and existing uses.

North End

The North End neighborhood has been a well-established suburb since before the City's incorporation in 1924, when many of the dwellings were relocated to make way for petroleum exploration.⁷ The North End neighborhood is located to the north of the I-405 freeway contained by Atlantic Avenue to the west and Walnut Avenue to the east. Due to the proximity of the neighborhood to the highway infrastructure, a sound wall was constructed to alleviate the travelling vehicle noise in 1998. Today, the neighborhood is lined mostly with large shady trees and cottage homes, with relatively large lots. The neighborhood is also home to the Burroughs Elementary School and Reservoir Park. The southern half of Reservoir Park is a five-million-gallon reservoir and pump station. A minimal amount of two-story apartment buildings also exists in the neighborhood on 32nd Street near California Avenue.

Atlantic/Spring

The Atlantic/Spring Neighborhood is located between Atlantic Avenue and California Avenues and the 405-Freeway and **East** Willow Street. This neighborhood remained largely undeveloped until the 2000s and still retains a large portion of the remaining vacant land in the City. The availability of undeveloped land is largely a result of ongoing oil production activities from independent oil operators, contaminated

6 City of Signal Hill General Plan, Land Use Element, <https://www.cityofsignalhill.org/85/General-Plan>. Accessed June 2021.

7 City of Signal Hill General Plan, Land Use Element, <https://www.cityofsignalhill.org/85/General-Plan>. Accessed June 2021.

soils, small lots, and lack of infrastructure. Today, the neighborhood includes commercial retail and restaurants, medical offices, and Light Industrial operations.

Central

The Central Neighborhood lies south of the I-405 freeway between Temple and California Avenues. Willow Street is the southern boundary of the Central Neighborhood except that the Hathaway Tank Farm and industrial complex between Hathaway and Redondo Avenues is included in the Central Neighborhood. During the oilfield boom years from 1923 to 1965, the Central Neighborhood served as a vast storage yard for the oil field. As oil production declined, the major petroleum companies sold the land and their interests in the Signal Hill oil field and relinquished the surface rights back to property owners. Some storage yards remain in the neighborhood to this day.

Today, the neighborhood consists of primarily small size industrial lots with narrow streets and alleys. Industrial and business buildings dominate the neighborhood and benefit from the location's easy access to several freeways and a nearby airport. The area is rich with commercial services such as auto centers, auto repair shops, banking, fitness center, and trade schools.

West Side

The West Side Neighborhood is located south of **East** Willow Street between Orange Avenue and the abandoned Pacific Electric Railroad right-of-way. Historically, the area includes a mix of older industrial and residential land uses on small size lots with scattered oil field operations. Today, the neighborhood is characterized with mostly rental properties, some of which house more than 150 units. The neighborhood contains more rental properties as compared to other areas of the City. The neighborhood also has a mix of historical buildings, industrial buildings, and storage yards. The average income in this neighborhood is lower than the average income of the rest of the City.

Civic Center

The Civic Center Neighborhood takes its name from the many public institutions located between Cherry and Walnut Avenues and **East** Willow Street and the southerly City boundary along the abandoned Pacific Electric railroad right-of-way. The Civic Center neighborhood includes public service institutions including the City Hall, police station, library, and community center serving the City. Three schools are also located in the neighborhood which are the Signal Hill and Alvarado elementary schools, and the Preparatory Academy junior high school. Aside from public services and schools, the neighborhood contains a mix of older homes, contemporary condominiums, and single-family residential homes.

The retail development of the area has taken a different turn in recent years with the City shifting their focus from retail sales tax generating establishments such as Costco and Home Depot towards more neighborhood shopping venues such as grocery stores, beauty supply shop, coffee house, and restaurants.

Hilltop

The Hilltop Neighborhood is located on elevated land, as compared to the rest of the City, and enjoys panoramic views of its surrounding landscape. The boundaries of the Hilltop Neighborhood are **East** Willow Street on the north, 21st and 19th Streets on the south, Cherry Avenue on the west and Hathaway and Obispo Avenues on the east. Developments in the area include single- and multifamily dwellings, retail amenities at Town Center East with Costco and Home Depot, and telecommunication sites.

Current development in the Hilltop Neighborhood is largely in accordance with the Hilltop Area Specific Plan which includes a mix of single-family detached dwellings and condominium flats. Pedestrian walking trails will connect the neighborhood to parks and other neighborhoods nearby.

Southeast

The Southeast Neighborhood includes the area south of **East** Willow Street, west of Cherry Avenue, north of Pacific Coast Highway, and generally east of Redondo Avenue. The neighborhood went through a redevelopment effort from 1989 to 2000, with the replacement of former commercial properties along Pacific Coast Highway with new single-family homes, the removal of obsolete commercial uses, and the building of a neighborhood park. Existing land use in the neighborhood includes single- and multifamily developments, light manufacturing, warehouses, and offices.

Candidate Housing Sites

As discussed in **Section 2.0 Project Description**, Housing Sites have been chosen which are suitable and available for future residential development in order to meet the regional housing need by income level. A description of each Housing Site is provided below.

Walnut Bluff

Walnut Bluff is located in the Central neighborhood of the City, north of East Willow Street at 2653 Walnut Avenue, Signal Hill, CA 90755. The rectangular site is approximately 2 acres and borders other commercial development to the east and north, with Walnut Avenue to the east of the site and East Willow Street to the south of the site. The existing site is vacant aside from four active oil and gas wells (two of which have idle status), four abandoned wells, and limited vegetation. The Walnut Bluff Housing Site is located on

mostly vacant land occupied by ~~a few buildings and~~ active drilling rigs **and associated equipment**. North of the Housing Site, **there is a light industrial building and a newer two-story office building. The Signal Hill Police Department** located on 27th Street, is ~~farther north the Signal Hill Police Department which, is~~, approximately 450 feet away. South of the Housing Site, adjacent to Willow Street, is mostly residential, high density with some single-family homes located on Gundry Ave. Additionally, there is a vacant parcel that has been disturbed by oil and drilling activities south of the Project site. East of the Housing Site which runs parallel to Walnut Avenue **there is an oil well drilling site surrounded by a large oil equipment storage area that is undeveloped.** ~~is vacant, open space that is also occupied by more drilling rigs.~~ West of the Housing Site there is a woodworking shop known as Interior Workshop and the LA County Office of the Assessor that is approximately 0.2 miles away. It is located parallel to Gundry Avenue north of East Willow Street.

Heritage Square

Heritage Square is located near the City center in the Civic Center neighborhood, northwest of the intersection of Cherry Avenue and Burnett Street. North of the site is Crescent Heights Street and west of the site is Rose Avenue. The area set aside for residential development is approximately 3.4 acres. The existing condition on site contains a commercial retail use (local grocer). There are eight active oil and gas wells (seven of which have idle status), ten abandoned wells, and limited vegetation. The site also contains pavement and fencing around the perimeter of each individual parcel. The Heritage Square Housing Site is located in an area that has been mostly disturbed by drilling activities. North of the Housing Site are two office buildings including shopping center which is approximately 0.1 miles away. Additionally, a health food store, Mother's Market and Kitchen, and an EVgo Charging Station exist to the north of the site. South of the Housing Site on Burnett Street is a lot of land that is mostly vacant and utilized for drilling activities. To the east is Cherry Avenue which runs parallel to the Housing Site is a Home Depot and Garden Center, which is approximately 0.2 miles away. West of the Housing Site, parallel to Rose Avenue, is another lot of mostly vacant land occupied by a drilling rig and some residential homes.

Town Center Northwest

Town Center Northwest is located northeast of the intersection of Willow Street and Walnut Avenue in the Central neighborhood. The area set aside for residential development is approximately 7.4 acres. The existing site contains one of seven drill sites in the City housing eleven injection wells (three of which have idle status). There are also approximately fourteen active oil and gas wells (9 of which have idle status) outside of the drill site area, approximately ten abandoned wells, and limited vegetation. The area outside of the fenced drill site to the east is currently used for storage of oil field related equipment. The Town Center Northwest Housing Site is parallel to the Walnut Bluff Housing Site. As mentioned, the site contains one drill site. Gaviota Avenue runs north of the Housing Site. Also north of the Housing Site is

Gregg Drilling LLC, a drilling contractor, and Ancon Services, an oil and natural gas company. South of the Housing Site, along Willow Street, is a shopping center with several amenities: grocery store, chain coffee shops, and restaurants. Immediately east of the Housing Site is another shopping center with a dollar store, takeout restaurant and a cellphone store. Along Walnut Avenue, west of the Housing Site, is the Walnut Bluff Housing Site that is mostly vacant space and a construction company.

Orange Bluff

Orange Bluff is located between Orange Avenue on the west and Gundry Avenue on the east, between East 28th Street on the north and East 27th Street where it terminates at Gundry Avenue on the south. The area set aside for residential development is approximately 7.1 acres. The existing site is mostly vacant; however, the **site wraps around an existing** center of the site is developed with a **light light** Industrial building. ~~There is also an existing industrial kitchen supply store and a spice warehouse on the site. The 2se existing structures would not be within the proposed residential development area and would remain on-site.~~ Scattered about the site are remnants of previous developments including foundations, and paved areas, with limited vegetation. The Orange Bluff Housing Site is near both the Walnut Bluff and the Town Center Northwest Housing Sites. The site is fairly large and extends across several areas of commercial office and general industrial space. North of the Housing Site, along 28th Street, is a glass and mirror shop and light industrial facility. South of the Housing Site, along Willow Street, is **a vacant site that historically housed the** Majestic Golf Land **driving range which has since been demolished. The site has been purchased by a development company who are proposing to develop a large warehouse distribution facility,** a recreational facility. Gundry Avenue runs along the eastern side of the Housing Site. **Located to the** The northeast **of** ern side of the Housing Site **there are** has several commercial properties such as an autobody shop, auto parts store, and painters. **To ,** while the southeastern **there is** side has a woodworking shop called Interior Workshop and the LA County Office of the Assessor, a tax assessor. West of the Housing Site, near the intersection of Orange Avenue and Willow Street is the Long Beach Municipal Cemetery. **Northwest** On the northwestern portion, towards 28th Street, is the Willow Springs Park, **located in Long Beach.**

3. REGULATORY SETTING

State

Housing Crisis Act of 2019 (SB 330)

The Housing Crisis Act (SB 330) was enacted by Governor Newsom in 2019 as a means to combat the State's growing housing crisis. This legislation's goal is to increase California's affordable housing stock by 3.5 million new units by 2025. To streamline residential development, a new preliminary development application process is required which includes a staff-level review of basic information regarding a project such as:

- Site characteristics;
- The planned project;
- Certain environmental concerns;
- Facts related to any potential density bonus;
- Certain coastal zone-specific concerns;
- The number of units to be demolished; and
- The location of recorded public easements.

SB 330 further streamlines housing development by reducing the number of public meetings or hearings to five or less (e.g., workshops, design review board meetings, planning commission meetings, advisory committee meetings, and city council meetings). A shortened approval time of 90 days instead of 120 days from the time of certification for an EIR is also required to streamline the development approval process.

Local agencies are no longer able to remove or modify land use designations or allowances to inhibit the development of housing, unless the local agency replaces the lost housing potential; therefore, ensuring no net loss in housing availability. Further, local agencies will no longer be able to limit the annual number of housing-focused land use approvals, create caps on the amount of constructed housing units, or limit the population size of their city. Subjective design limitations on parcels where housing is an allowable use is also no longer permissible for projects that are subject to processing per SB 330 (any housing project).

Senate Bill 166 No Net Loss

SB 166 builds on existing laws and regulations to ensure a local agency meets its allocated housing units for lower and moderate-income households. This bill requires adequate housing development capacities to be available throughout the Housing Element planning period to meet the unmet RHNA needs. SB 166 prevents a local jurisdiction from permitting an identified lower and moderate-income residential housing site for development of another use or for a lower density residential development than identified in the Housing Element. If a site identified for housing development is permitted for another use or developed at a lower density which prevents the local agency from meeting its RHNA for lower and moderate income residential housing allocation numbers, the local agency must identify another site for housing development within 180 days to meet the RHNA allocation for lower and moderate income housing.⁸

8 SCAG, 6th Cycle Regional Housing Needs Assessment Estimate, 10/1/2021 – 10/1/2029. <http://www.scag.ca.gov/programs/Documents/RHNA/Staff-Recommended-RHNA-Estimated-Allocations030520.pdf> accessed March 4, 2021.

Regional Plans and Regulations

SCAG 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy

SCAG is responsible for the designated Regional Transportation Plan (RTP), including its Sustainable Communities Strategy (SCS) component pursuant to SB 375. The 2020-2045 RTP/SCS, also known as Connect SoCal, was adopted by SCAG on September 3, 2020. The 2020–2045 RTP/SCS is a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern.

Update of the 2020-2045 RTP/SCS reflects changes in economic, policy, and demographic conditions in the region.⁹ In the SCAG region, annual growth is slowing down in concert with the national population growth trend. Population growth in the region slowed down from about 0.85 percent in 2020 to about 0.45 percent by 2045. These changes are driven by declines in fertility and affected by high housing costs in the region. The population in the region is also growing older, with a median age of 32.3 in 2000 to 35.8 in 2016. By 2045 the median age is expected to reach 39.7. Net migration to the region has also slowed over the last 30 years.

Applicable goals from the 2020-2045 RTP/SCS include:

- Goal 2:** Improve mobility, accessibility, reliability, and travel safety for people and goods
- Goal 4:** Increase person and goods movement and travel choices within the transportation system
- Goal 6:** Support healthy and equitable communities
- Goal 9:** Encourage development of diverse housing types in areas that are supported by multiple transportation options

Local

City of Signal Hill General Plan

California State Law requires every city and county to adopt a comprehensive General Plan to guide its future development. The adopted General Plan is a blueprint for future development and focuses on the long-term goals of the city or county. The City’s General Plan includes the following elements: Land Use, Circulation, Environmental Resources, Housing, Noise, and Safety.

9 Southern California Association of Governments (SCAG), 2020-2045 Connect SoCal [2020 RTP/SCS] (adopted November 2019).

Land Use Element

The Land Use Element was adopted in 1989 and has been amended in 2001.¹⁰ The Land Use Element identifies goals and policies and includes a land use map showing the location and intensity of types of uses, such as business, industry, housing, education, public buildings, and open space. The goals and policies applicable to the proposed Project are identified below:

- Goal 1:** Manage growth to achieve a well-balanced land use pattern that accommodates existing and future needs for housing, commercial and industrial land, open space, and community facilities and services, while maintaining a healthy, diversified economy adequate to provide future City revenues.
- Policy 1.2:* Provide opportunities for a variety of residential densities and housing styles.
- Policy 1.4:* Provide for density bonuses, which exceed maximum densities specified in the land use plan and classification system, for development projects for low and very-low income or "special need" households in low, medium, and high-density land use classifications.
- Policy 1.5:* The distribution and intensity of land uses shall be consistent with the land use map and descriptions for each of the land use categories in Section VI of the Land Use Element.
- Goal 2:** Ensure that new development is consistent with the City's circulation system, availability of public facilities, existing development constraints, and the City's unique characteristics and natural resources.
- Policy 2.6:* *Encourage the development of oil field areas through the removal or relocation of wells and pipelines, or with site plan designs that encourage the joint use of land for oil production and other urban uses while maintaining essential access to petroleum resources.*
- Goal 3:** Assure a safe, healthy, and aesthetically pleasing community for residents and businesses.
- Policy 3.3:* *Ensure a sensitive transition between commercial or industrial uses and residential uses by means of such techniques as buffering, landscaping, and setbacks.*
- Policy 3.4:* *Promote mixed-use development and ensure compatible integration of adjacent uses to minimize conflicts.*
- Policy 3.5:* *Encourage the elimination of nonconforming uses and buildings and limit the reuse of nonconforming buildings to less intensive uses more compatible with the underlying zoning.*

¹⁰ City of Signal Hill General Plan, Land Use Element (2001), <https://www.cityofsignalhill.org/DocumentCenter/View/1649/FinalLandUseElement?bidId=>. Accessed June 2021.

- Policy 3.7: Maintain and enhance the quality of residential neighborhoods.*
- Policy 3.13: Reinforce Signal Hill's image and community identity within the greater Long Beach Metropolitan area.*
- Policy 3.16: Review and revise, as necessary, the City's development standards to improve the quality of new development and protect the public health and safety.*
- Policy 3.17: Promote "smart growth" principles that encourage development that is economically viable, creates a sense of community, and preserves natural resources. Smart growth includes narrower streets, mixed uses, smaller setbacks, open spaces, habitat preserves and parks, infill development and compact commercial centers, and the reuse of brownfields.*

- Goal 4:** Ensure that future land use decisions are the result of sound and comprehensive planning.
- Policy 4.1: Consider all general plan goals and policies, including those in other general plan elements, in evaluating proposed development projects for general plan consistency.*
- Policy 4.2: Maintain consistency between the Land Use Element, the other elements of the general plan, the zoning ordinance, and the Municipal Codes regulations and standards.*
- Policy 4.6: Develop comprehensive local and regional rather than piecemeal planning solutions and promote long-range solutions to land use issues.*

Circulation Element

The Circulation Element was most recently updated in 2009.¹¹ It establishes guidelines and policy direction for the development and maintenance of a comprehensive transportation system for the City. The future development of the Housing Sites would create additional low income and very low income housing for the City. The Project would be required to adhere to the general goals and policies in order to reduce the effect of increased traffic due to the creation of residential uses in the area.

The Circulation Element requires that new development must preserve and enhance the City's circulation system. The Project would be consistent with this goal by ensuring that necessary circulation system enhancements and expansions occur, and development of circulation improvements would occur as necessary to ensure safety. The Project would also minimize the environmental impact of transportation systems by encouraging infill development of vacant lots with multi-family and high density development.

11 City of Signal Hill General Plan, Circulation Element, <https://www.cityofsignalhill.org/DocumentCenter/View/309/circulation-element?bidId=>. Accessed June 2021.

Environmental Resources Element

The Environmental Resources Element was adopted in 1986.¹² The Environmental Resources Element combines the open space and conservation elements into one document to address the long-term and comprehensive preservation and conservation of open space. It also details the conservation, development, and use of natural resources such as water, forests, soils, rivers, and mineral deposits.

The Project would be consistent with the Environmental Resources Element by managing the production of economically valuable resources in the City to balance market forces and long-term community values. The Project would revitalize vacant parcels in order to create a more balanced residential environment within the City. Generation of affordable housing opportunities within the City would create more diverse uses that would encourage growth.

Noise Element

The Noise Element was adopted in 2009 and identifies and assesses noise problems within the community and establishes guidelines to achieve noise-compatible land uses.¹³ Noise sensitive uses can include residential, schools, hospitals, libraries, and parks. The goals and policies applicable to the proposed Project are identified below:

Goal 1: Protect the health, safety, and welfare of people living and working within the City from adverse noise impacts.

Policy 1.a: The City will consider the severity of noise exposure in the community planning process to prevent or minimize noise impacts to existing and proposed land uses.

Policy 1.c: Noise-sensitive land uses, including residential, transient lodging, hospitals and long-term care facilities, educational facilities, libraries, churches, and places of public assembly will not be located near major stationary noise sources

Safety Element

The Safety Element was adopted by the City in 1986 and updated most recently in 2016.¹⁴ The Safety Element focuses on identifying natural or human-made hazards in the City and specifies policies and

12 City of Signal Hill General Plan, Environmental Resources Element, <https://www.cityofsignalhill.org/DocumentCenter/View/310/Environmental-resources-element?bidId=>. Accessed June 2021.

13 City of Signal Hill General Plan, Noise Element, <https://www.cityofsignalhill.org/DocumentCenter/View/313/Noise-element?bidId=>. Accessed June 2021.

14 City of Signal Hill General Plan, Safety Element, <https://www.cityofsignalhill.org/DocumentCenter/View/2557/Safety-Element-2016?bidId=>. Accessed June 2021.

programs to mitigate hazards to the public. See **Section 4.6: Hazards** for a consistency analysis of the proposed Project and the Safety Element.

General Plan Designations

The City's General Plan Land Use Map displays the general boundaries and patterns of land uses within the City. This map is a general guide to the amount of land and the boundaries of each land use in order for planning development among the most appropriate and consistent land use types within an area. Each land use designation is determined based on the City's specific development requirements and the physical boundaries given the City's unique characteristics.

Low Density Residential (Less than 10 dwelling units per acre)

The Low-Density Residential category allows single-family detached dwellings on individual lots, and in the Hilltop Area attached dwellings containing two to four units. Developed areas of the City that are designated as Low-Density Residential include California Crown located at Temple Avenue and 20th Street and portions of the Southeast Neighborhood located south of 21st Street.

Medium Density Residential (10 - 20 dwelling units per acre)

The Medium-Residential Density land use category includes most land in the North End and West Side Neighborhoods that are largely developed with a mix of lower density single family detached dwellings and medium density multi-family development. Vacant Medium-Residential Density land is found scattered among existing developed parcels.

High Density Residential (20 - 35 dwellings per acre)

The High-Density Residential land use category provides opportunities for multi-family development including multi-story condominiums and apartments. The High-Density Residential areas are located in the Civic Center, West Side and Hilltop Neighborhoods where there are existing high-density residential developments.

Very High Density Residential (35-45 dwellings per acre)

The Very High-Density Residential land use category has been added to the City's Generalized Land Use Map since the Land Use Element was last updated in 2001, for the purpose of accommodating affordable housing projects. The City's most recent affordable housing project, completed in 2019, called Zinnia Apartments is developed at 45 dwelling units per acre.

Town Center

The Town Center land use category is the commercial core of the City generally located at the intersection of Cherry Avenue and Willow Street. The Town Center category provides opportunity for large-scale retail stores, offices, entertainment and dining as well as neighborhood shopping centers. New development in the Town Center is guided by existing Town Center East and the Commercial Corridor Specific Plans and by the Willow/Spring/Cherry Landscape Overlay District. These plans and design guidelines promote orderly development, compatible land uses and cohesive design primarily through the design review procedure including architecture, landscape and sign plan review.

Commercial General

The Commercial General land use category is characterized by a variety of miscellaneous retail and commercial service land uses including retail sales, automotive repair, restaurants, offices, day care, nursery, technical schools and convenience stores. The Commercial General areas are located along major arterial highways including Wardlow Road (where the City of Long Beach controls the frontage, zoning and business licensing), Willow Street between Atlantic and California Avenues, Spring Street between Atlantic and California Avenues, and the Target shopping center located in the North End neighborhood at 33rd Street and California Avenue.

Commercial Office

The Commercial Office land use category provides for the development of professional offices and related supportive retail and service commercial uses. Offices permitted by this category include finance, insurance, architecture, engineering, real estate, business support services and medical or dental. New development in the Atlantic Avenue Commercial Office area should complement existing large scale medical offices. The Commercial Office area located on Walnut Avenue south of Hill Street may provide opportunity for the enlargement of the adjacent existing office complex.

Commercial Industrial

The Commercial Industrial category is intended to accommodate a combination of retail and light industrial uses. The designation applies to areas located along Willow Street and Cherry Avenue. The Commercial Industrial designation allows for mixed-use types of businesses such as manufacturing with retail sales of the manufactured product or warehousing with limited retail sales. Because the typical buildings in the Commercial Industrial category are designed and parked for light industrial use the appropriate uses should not overburden limited parking in the area but should complement the retail business along Willow Street and Cherry Avenue. Likewise, heavy industrial uses are not encouraged in the Commercial Industrial category.

Light Industrial

The Light Industrial land use category is designed to accommodate a variety of light industrial uses which are nonpolluting, and which can coexist with surrounding commercial and residential uses. Development in the Light Industrial areas should complement the existing modern industrial park development with landscaped setbacks orderly parking lots, and high-quality design buildings. When light industrial development abuts commercial or residential development special buffering or wall treatments should be incorporated into the design to minimize incompatibilities.

General Industrial

The General Industrial land use category provides opportunities for heavy industrial uses that can coexist with adjacent light industrial and commercial development. Conditionally permitted uses shall be required to demonstrate that they can operate safely and compatibly with surrounding existing and planned land uses and that they can mitigate environmental impacts. Certain heavy industrial uses are not permitted. The evaluation of conditionally permitted land uses in the General Industrial area shall consider how well the proposal addresses the aesthetic impacts on the surrounding community by incorporating landscaping, high quality architecture and setbacks into the site design.

Open Space

The Open Space category includes public parks, trails and privately owned trails/enhanced walkways when the general public has access to the use of the trail/enhanced walkway recorded as a pedestrian easement.

Public Institutional

The Public Institutional land use category is for public school sites; institutions, utility facilities and public buildings formerly included in the open space land use category. There are four existing school sites within the City far more than necessary to serve the neighborhood populations in vicinity of the schools. New Public Institutional development should reflect the public interest in high quality durable architecture and landscaping to complement existing surrounding development.

City of Signal Hill Municipal Code

Municipal codes refer to a collection of laws passed by a local governing body such as a city. These laws are enforced locally in addition to state law and federal law and cannot conflict with existing state laws and federal laws. The City of Signal Hill has a collection of laws and ordinances enacted on a local level which can be found within the Signal Hill Municipal Code. The Signal Hill Municipal Code includes topics pertaining to real estate development including Title 15-Buildings and Construction and Title 20-Zoning.

Each Specific Plan District is set forth in the Municipal Code and contains guidelines for development within the individual area.

Zoning Code

The zoning code coordinates all existing zoning regulations and provisions into one comprehensive zoning plan in order to designate, regulate, and control the location and use of buildings, structures and land for residence, commerce, trade and industry or other purposes. The zoning code regulates the dimension, number of stores, and other related components of a building, structure, or land to ensure the most appropriate use of land and to protect and promote the health, safety, and general welfare of the public. The City has six commercial zoning codes, four residential zoning codes, and the Open Space and Commercial Residential codes. The zoning codes are supplemented by a number of specific plans and districts.

Residential Zoning

Residential zoning primarily serving residential uses in the City are divided into four levels- Residential Low Density (RL), Residential Low/Medium-1 (RLM-1), Residential Low/Medium-2 (RLM-2), and Residential High Density (RH). The purpose of each type of zoning are described below.

Residential Low Density (RL): This zone is intended to provide for the orderly development and maintenance of low-density neighborhoods in accordance with the general plan. Permitted housing types include single-family detached dwellings and duplexes.

Residential Low/Medium-1 (RLM-1): This zone is intended to provide for the orderly development of low/medium density residential neighborhoods exclusively limited to small-lot subdivisions of single-family detached dwellings.

Residential Low/Medium-2 (RLM-2): This zone is intended to provide for the orderly development and maintenance of low/medium residential neighborhoods which include both single-family dwellings and duplexes.

Residential High Density (RH): This zone is intended to provide for the orderly development and maintenance of high-density residential neighborhoods in areas without physical constraints to such development and where infrastructure is adequate to support such development.

Commercial Zoning

Commercial zoning primarily serves commercial as well as industrial and residential zoning. There are six levels of commercial zoning – Commercial Residential, Commercial Office, Commercial Town Center, Commercial General, Commercial Industrial.

Commercial Residential (CR): This zone is intended to provide for limited small scale commercial and office uses along, or in conjunction with, medium density residential uses. Such mixed uses on a single parcel shall be compatible and where possible, mutually supportive.

Commercial Office (CO): This zone is intended to provide for the orderly development and maintenance of professional offices and limited commercial uses. Other permitted uses will include commercial offices, medical offices and hospitals.

Commercial Town Center (CTC): This zone is intended to serve as a concentrated commercial core for the city. Retail outlets typical of community shopping centers or districts along with general retail uses and professional offices will be among the uses permitted in this district.

Commercial General (CG): This zone is intended to provide for a wide variety of service and retail uses, many of which are highway-oriented.

Commercial Industrial (CI): This zone is intended to provide for a wide variety of commercial uses and limited compatible light industrial uses. Commercial or industrial uses which might create offensive levels of noise, air pollution, glare, radioactivity or other nuisances shall be prohibited from this district.

Industrial Zoning

Industrial zoning serves industrial zoning areas and includes two level – Light Industrial and General Industrial.

Light Industrial (LI): This zone is designed to accommodate a variety of light industrial uses which are nonpolluting and which can coexist with surrounding land uses. In addition, limited complimentary commercial uses shall be permitted.

General Industrial (GI): This zone is intended to provide for the development of a variety of general industrial and service uses which do not generate obnoxious or offensive impacts which might affect persons residing or conducting business in the city.

Specific Plan and Districts

The City utilizes Specific Plan Districts set forth in the Municipal Code zoning section to establish development standards and implementation measures for development within the individual areas. Existing Specific Plans applicable to the Housing Sites are described below.

Special Purpose Housing Specific Plan

The Special Purpose Housing Specific Plan (SP-7) includes six areas within the City each with their own general guidelines, concepts, regulations and conditions to provide for the development of housing for persons with physical disabilities. The project is intended to expand the housing opportunities available to persons with disabilities, low and very low income households, and senior housing. Some goals and objectives for this plan include the following:

1. Assure that a specialized population, persons with disabilities, has access to adequate and affordable housing opportunities;
2. Support development of dwelling units expressly designed for the special needs of disabled persons;
3. Assure that low-income households have access to adequate and affordable housing opportunities;
4. Assure that senior and family households have access to adequate and affordable housing opportunities;
5. Encourage the development of privately sponsored housing developments intended to be occupied by special needs populations;
6. Apply design standards which result in the highest quality development and achieve streetscapes with pedestrian scale and ambiance consistent with Signal Hill's small town character;
7. Provide architectural diversity and avoid uniformity of appearance; and
8. Enhance aesthetic considerations and minimize view impacts by maintaining finished grades at or below existing grades as identified on the Official 1960 Topographic Map.

~~Town Center West Specific Plan District~~

~~The Town Center West Specific Plan District (SP-3) establishes more detailed development proposals prepared by landowners, developers and general agencies. The SP-3 provides for integrated commercial development consistent with general plan objectives, policies, and programs. Policies include criteria for pay phones and vending machines within the district, hardscape and setbacks that are limited to driveways and walkways, and the prohibited use of commercial marijuana uses.~~

Heritage Square Specific Plan

~~The Land Use Element in the City's General Plan proposed changes in the 2001 update for the development of the Heritage Square Central Business District. This designation would include a mixed-use intensive commercial and residential specific plan added to the Commercial Town Center area located between 25th and Creston Streets and Rose and Cherry Avenues. This proposed district would be combined with the Central Business District designation allowing for the development of high intensity mixed-use space which includes retail shops, entertainment, dining, fitness center as well as high density residential development. The Heritage Square Specific Plan (SP-23) would be developed using the proposed designation in the Land Use Element and would accommodate for the Heritage Square Housing Site located near the City center in the Civic Center neighborhood, northwest of the intersection of Cherry Avenue and E. Burnett Street.~~

Los Angeles County Airport Land Use Plan

California State Law requires the establishment of an Airport Land Use Commission (ALUC) with the purpose of planning for areas within the vicinity of public use airports. In Los Angeles County, the Regional Planning Commission has the responsibility for acting as the ALUC and the subsequent requirements of that agency. The Los Angeles County Airport Land Use Plan (ALUP) is required by State law through the ALUC in order to protect the public, health, safety, and welfare of the surrounding areas. The Long Beach Municipal Airport (LGB) is within Los Angeles County and does not provide an individual ALUP by the City; thus, it is included in the Los Angeles County ALUP.

It is the focus of the Los Angeles County ALUP to provide for the orderly expansion of the County's public use airports and the area surrounding them. It is also intended to provide for the adoption of land use measures that will minimize the public's exposure to excessive noise and safety hazards. The ALUC does not have jurisdiction over airport operations or establishing uses within the airport vicinity, but they complement the planning responsibilities of the cities and other affected agencies. The ALUC has the responsibility to set uniform policies and standards to prohibit development of incompatible uses. However, it is the responsibility of planning commission to specify which compatible uses are appropriate within their individual jurisdictions. The LGB is owned and operated by the City of Long Beach and occupies approximately 1,166 acres just north of Interstate 405 (I-405) freeway. The City of Signal Hill is not within the influence area of the LGB. As such, the Project is not within the influence of the Los Angeles County ALUP and is not required to be consistent with the ALUP guidelines.

4. ENVIRONMENTAL IMPACTS

Thresholds of Significance

Threshold IV. LU-1: Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Methodology

This analysis considers the CEQA Guidelines Appendix G thresholds, as described above, in determining whether the project, including future housing development facilitated by the Project, would result in impacts concerning land use and planning. The evaluation of potential land use and planning impacts is based on review of documents pertaining to the existing and candidate sites associated with the 2021-2029 Housing Element Update. The evaluation was based on a review of the existing policies and regulations to determine the consistency of the Project with existing applicable policies and regulations. These policies and regulations include those within SCAG 2020-2045 RTP/SCS, the City of Signal Hill General Plan, the Special Purpose Housing Specific Plan, the Town Center West Specific Plan District, and the Heritage Square Specific Plan.

Land Use Designation and Zoning Update

The existing zoning and land use designation of the identified Housing Sites are discussed below.

Walnut Bluff

The existing General Plan designation for the Housing Site is Commercial Industrial (3.4). The land uses designated to the north of the Project site are **Commercial General Industrial (4.2 3.4)** and Public Institutional (PI). To the east **the designation** is designated as Town Center (3.1) and the west is designated as **Commercial General Industrial**. ~~To~~ **The designation to the south across of the Site and Willow Street is designated High Density Residential Commercial Industrial (1.3) and southeast across Willow Street is designated Town Center, and High Density Residential (1.3 3.1).** The existing zoning for the site is Commercial Industrial (CI). The **nearly square** rectangular site borders other Commercial Industrial (CI) uses to the west and **north. To the east the of the project site across Walnut Avenue the property is zoned Commercial Corridor Specific Plan (SP-6) General Industrial (GI) development to the east and north.** South of the Project site **across and** Walnut Avenue is **zoned** high density residential (RH) and the uses as well as the Villagio Specific Plan (SP-16) area. East of the Project site and Walnut Street is zoned for the Commercial Corridor Specific Plan (SP-6) and General Industrial.

Designation of the site to accommodate housing would require a General Plan amendment to Very High Density Residential (35-45 dwelling units per acre) and a zone change to a Special Purpose Housing (SP-7) Specific Plan. This is the standard density and zoning used by the City for affordable housing projects.

Heritage Square

The General Plan designation is Town Center and Low Density Residential. To the north and east of the Project site lies additional Town Center designated uses. The south and west is designated as Low Density Residential with some Open Space (OS) use to the south. The existing zoning for the site is Commercial Town Center (CTC) and Crescent Heights Historic District (SP-11) Specific Plan. The Crescent Heights Historic District residential Specific Plan is directly adjacent to the west and incorporates a portion of the Project site. The north is zoned as Commercial Town Center and Commercial Corridor Specific Plan (SP-6). South of the Project site is zoned for residential low-medium (***RLM-2***).

The Land Use Element of the General Plan calls for the area to be re-designated and established as a Central Business District (CBD). Designation of the site to accommodate housing would also require a zoning ordinance amendment to the Heritage Square (SP-23) Specific Plan to allow a mixed-use commercial and residential project and a General Plan amendment to CBD.

Town Center Northwest

The General Plan designation for the Housing Site is Town Center. North of the site is designated as General Industrial. The east and south are designated as Town Center with some High Density Residential designation to the south. West of the Project site is designated as Commercial Industrial. The existing zoning for the site is Commercial Corridor Specific Plan (SP-6). South and east of the site are developed commercial retail centers named Town Center West and Town Center North. ~~Farther zoned as SP-6 to the south~~ ***the zoning is Commercial Town Center (and CTC) to the east. Zoning to*** To the north of the site is zoned as general industrial ***General Industrial (GI)***, use ***CTC*** and a portion of the Auto Center Specific Plan (***SP-4***) ***and zoning to***. To the west of the Project site is zoned as commercial industrial ***Commercial Industrial (CI)*** use.

Designation of the site to accommodate housing would require a General Plan amendment to CBD and a zoning ordinance amendment to a Town Center Northwest (~~SP-2424~~) Specific Plan to allow a mixed-use commercial and residential project.

Orange Bluff

The General Plan designation is Commercial Industrial (***3.4***) and General Industrial. ~~Property to~~ ***Property to*** the north ***is designated General Industrial (4.2). To the south and west-east*** of the site is designated General

~~Industrial~~ **Commercial Industrial, and property to the west of the site is in Long Beach.** East of the site is designated Commercial Industrial, General Industrial, and a small portion is designated as Public Institutional. To the south is designated as Commercial Industrial. The existing zoning for the site is Commercial Industrial (CI) and General Industrial (GI). Development north and east of the site are mostly commercial office and **light general industrial uses** sites, with a few intermittent vacant sites. Zoning to the north continues the General Industrial uses and to the south past Willow Street lies Commercial Industrial zoning. To the east of the Project site is General Industrial zoning, Commercial Industrial, as well as Public Institutional (PI).

The existing zoning for the site is General Industrial (GI). The General Plan designation is General Industrial. Designation of the site to accommodate housing would require a General Plan Amendment to Very High Density Residential designation and a zoning ordinance amendment to rezone the site to the Special Purpose Housing (SP-7) Specific Plan designation.

Environmental Impacts

Threshold IV. LU-1: Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The Housing Element is one of the State-mandated elements a City is required to prepare as part of its General Plan. Enacted by law in 1969, the Housing Element identifies a City's housing conditions and needs using the Regional Housing Needs Assessment (RHNA) allocation provided by the regional Metropolitan Planning Organizations (MPOs), in the Project's case would be the Southern California Association of Governments (SCAG). The Housing Element then establishes the goals, objectives, policies and programs that serves as the foundation for the City's housing strategy to achieve specific housing goals and improve local housing conditions. The City is updating the Housing Element to address housing needs for the October 2021 to October 2029 Planning Period. The SCAG RHNA allocation for the City identified a housing need of 517 housing units with approximately 45 percent of the 517 units needed for very low- and low-income households. The RHNA allocation for Signal Hill includes 161 very low-income units, 78 low-income units, 90 moderate-income units, and 188 above moderate-income units.¹⁵ The proposed Project would accommodate for 339 above moderate units; 90 very low and low-income units; and 295 very low, low, and moderate-income units. A total of 724 units are proposed with the implementation of the Project.

15 SCAG, 6th Cycle Final Regional Housing Needs Assessment Plan. <https://scag.ca.gov/sites/main/files/file-attachments/6th-cycle-rhna-final-allocation-plan.pdf?1616462966> accessed May 2021.

This analysis evaluates the adoption of the 2021-2029 Housing Element Update (Project) and the four Housing Sites that have been identified for future housing development to meet the City's RHNA allocation. Future housing developments would be subject to the entitlement process requirements and City approval. Development of identified Housing Sites would be required to comply with applicable federal, State, and local laws and local policies and regulations consistent with the procedures applicable to new developments. This section focuses on the Housing Sites' consistency with existing land use plans and policies. The following plans have been reviewed for consistency with the 2021-2029 Housing Element Update adoption and the anticipated development of the four Housing Sites.

SCAG 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy

The 2020-2045 RTP/SCS provides goals and policies consistent with the SCAG planning vision for regional growth and a guide to collaboration with local governments in order to increase the mobility and sustainability of the area. The update of the 2020-2045 RTP/SCS reflects the changes in economic, policy, and demographic conditions in the region. The overarching goals of this plan address four core categories: economy, mobility, environment, and health/complete communities. The proposed Project would further the objectives of the plan by increasing the amount of available affordable housing within the City, which has been designated a High Quality Transit Area (HQTA).¹⁶

The 2020-2045 RTP/SCS identifies strategies and investments to support expanded housing choices for all income levels in areas with a range of transportation choices. Conclusions within the document stated that a comprehensive approach is needed in order to identify housing opportunities within Priority Growth Areas (PGAs) such as job centers, Transit Priority Areas (TPAs) found within half a mile of a major transit station, and High Quality Transit Areas (HQTAs) which include generally walkable transit oriented areas within one half-mile or a 15 minute walk of a well serviced transit stop.¹⁷ Additionally, under Assembly Bill 101 (AB 101) (2019) legislation, SCAG is eligible for approximately \$47 million from the California Department of Housing and Community Development (HCD). These funds will be used to develop a Regional Housing Strategy Framework and provide planning resources, grants and services to jurisdictions to implement their 6th cycle RHNA allocation, which is supportive of Connect SoCal goals and policies.

According to the 2020-2045 RTP/SCS, the Project would be consistent with the Regional Housing Strategy Framework which places an emphasis on affordable infill housing development within transit-oriented neighborhoods. The Housing Sites are all located within High Quality Transit Areas (HQTAs) according to SCAG which is considered a generally walkable transit village or corridor and is within one half-mile of a

16 SCAG, Data Map Book for the City of Signal Hill, Major Transit Stops and High Quality Transit Corridors, <https://scag.ca.gov/sites/main/files/file-attachments/signalhill.pdf?1604903063>. Accessed June 2021.

17 SCAG, 2020-2045 RTP/SCS, Ch. 6, pg. 153.

well-serviced transit stop or a transit corridor within 15-minute or less service frequency during peak hours. The Housing Sites are served by existing Long Beach Transit (LBT) bus lines along Orange Avenue and **East** Willow Street. Moreover, the LA Metro Willow Street station is within the vicinity of the Housing Sites. With the implementation of the proposed Project, a total of 385 very low, low, and moderate units would be create within the HQTAs as well as an additional 339 above moderate units. The SCAG RHNA allocation for the City identified 329 very low, low, and moderate units with 188 above moderate income units. The proposed Project would sufficiently allocate the SCAG RHNA identified number of units for each affordability level as well as additional units and would be consistent with the goals of the 2020-2045 RTP/SCS.

Table 4.7-1: SCAG 2020-2045 RTP/SCS Analysis provides a consistency analysis of the proposed Project as compared to applicable goals and policies contained in various chapters of the plan. The analysis contained in the table demonstrates that the proposed Project would generally be consistent with the advisory and voluntary RTP/SCS Goals.

Goals, Policies, and Strategies	Project Consistency
Goal 2: Improve mobility, accessibility, reliability, and travel safety for people and goods	Consistent. Future housing development facilitated by the Project would be consistent with the transportation goals for people and goods. All considered Housing Sites are located within HQTAs within the City.
Goal 4: Increase person and goods movement and travel choices within the transportation system	Consistent. The proposed Project would allow for more people to be located near transportation areas and create enhanced transportation availability.
Goal 6: Support healthy and equitable communities	Consistent. Future housing development facilitated by the Project would increase the availability of housing near transportation areas and allow for increased employment in the vicinity of these sites.
Goal 9: Encourage development of diverse housing types in areas that are supported by multiple transportation options	Consistent. The future housing facilitated by the Project would be required to increase the mix of housing types within the vicinity of the Housing Sites.

City of Signal Hill General Plan

Land Use Element

The General Plan policies focus largely on the continuation of developing the character of each community and neighborhood within the City and protecting the quality of the physical environment. A main objective of the Housing Element is to meet the City’s housing needs, including accommodating a variety of housing types and densities. Implementation of the Housing Element and development of new housing in the City

would, for the most part, be in or adjacent to urbanized areas and are vacant for the most part. **Table 4.7-2: Project Consistency with General Plan Land Use Element** outlines the consistency of the proposed Project with the Land Use Element goals and policies. Additionally, the proposed amendments to the General Plan would be consistent with the intent of these existing goals and policies.

While no specific development projects are proposed at this time, the Project would aim to designate the four Housing Sites as potential future development areas to provide housing to very low, low, moderate, and above moderate affordability levels. Current designation of the Housing Sites would need to be amended in order to support future housing development and become consistent with the City's General Plan and zoning code. The Walnut Bluff Site would require a General Plan amendment to Very High Density Residential (35-45 dwelling units per acre) and a zone change to a Special Purpose Housing (SP-7) Specific Plan. The Heritage Square Site re-designation calls for the area to be designated and established as a Central Business District (CBD) and would also require a zoning ordinance amendment to the Heritage Square (SP-23) Specific Plan. Town Center Northwest Site would require a General Plan amendment to CBD and a zoning ordinance amendment to a Town Center Northwest Specific Plan (~~SP-24~~SP-21) to allow a mixed-use commercial and residential project. Finally, the Orange Bluff Site would require a General Plan Amendment to Very High Density Residential designation and a zoning ordinance amendment to rezone the site to the Special Purpose Housing Specific Plan (SP-7) designation. For the Walnut Bluff and Orange Bluff Sites, a change in land use designation to Very High Density Residential would be consistent with the City's standard density used for affordable housing projects. The Heritage Square Site and the Town Center Northwest Site would be re-designated to CBD. The Commercial Business District was identified in the City's Land Use Element stemming from a need for new high-intensity commercial environment, including diverse and intensely developed pedestrian friendly mixed-use facilities. This designation would include retail, restaurants, community facilities, and residential dwellings within mixed-use structures. The Housing Sites would be consistent with the goals for this designation. Additionally, the General Plan designation map would be amended to support the adopted designation changes for each of the Housing Sites.

Anticipated development of the Housing Sites would be consistent with the General Plan, including policies and programs adopted to address environmental impacts, after the proposed amendments to the General Plan, designation map, and the zoning code. The Project would not remove or modify any policies or measures from the General Plan that are intended for environmental protection and would not conflict with any General Plan policies or measures that are intended for environmental protection. The four Housing Sites identified within the City would require General Plan amendments in order for future development to occur. The General Plan Designation Amendments would meet the objectives outlined

within the Land Use Element to establish more residential uses and also meet the philosophy, character, and quality of the existing land uses.

Table 4.7-2
Project Consistency with General Plan Land Use Element

Goals and Policies	Project Consistency
Goal 1 Manage growth to achieve a well-balanced land use pattern that accommodates existing and future needs for housing, commercial and industrial land, open space, and community facilities and services, while maintaining a healthy, diversified economy adequate to provide future City revenues.	Consistent. The proposed Project would ensure that adequate housing is available within the City to provide for the identified housing deficit and for future housing needs.
Policy 1.2: Provide opportunities for a variety of residential densities and housing styles.	Consistent. Future development of the Housing Sites would apply a variety of housing types and residential densities.
Policy 1.4: Provide for density bonuses, which exceed maximum densities specified in the land use plan and classification system, for development projects for low and very-low income or "special need" households in low, medium, and high-density land use classifications.	Consistent. General Plan amendments proposed for the Housing Sites would include increased density to provide for low-income and very low-income affordability.
Policy 1.5: The distribution and intensity of land uses shall be consistent with the land use map and descriptions for each of the land use categories in Section VI of the Land Use Element.	Consistent. Amendments shall be made for current Housing Sites in order to appropriately designate the sites within the existing land use map.
Goal 2: Ensure that new development is consistent with the City's circulation system, availability of public facilities, existing development constraints, and the City's unique characteristics and natural resources.	Consistent. The future development of the Housing Sites would be assessed individually for circulation design so as to conform to existing traffic patterns.
Policy 2.6: Encourage the development of oil field areas through the removal or relocation of wells and pipelines, or with site plan designs that encourage the joint use of land for oil production and other urban uses while maintaining essential access to petroleum resources.	Consistent. The Housing Sites are located on previous oil drilling areas within the City and would establish residential uses in these areas that are consistent with existing regulations providing for safe living conditions.
Goal 3: Assure a safe, healthy, and aesthetically pleasing community for residents and businesses.	Consistent. Future development of the Housing Sites would add residential uses to areas previously lacking this use and establish enhanced neighborhoods within these areas.
Policy 3.3: Ensure a sensitive transition between commercial or industrial uses and residential uses by means of such techniques as buffering, landscaping, and setbacks.	Consistent. All area specific requirements for development would be adhered to with the future development of the Housing Sites among commercial and industrial uses.
Policy 3.4: Promote mixed-use development and ensure compatible integration of adjacent uses to minimize conflicts.	Consistent. The proposed Project would allow for the creation of housing including mixed-use areas within walking distance which would support the development of those areas.

Goals and Policies	Project Consistency
Policy 3.5: Encourage the elimination of nonconforming uses and buildings and limit the reuse of nonconforming buildings to less intensive uses more compatible with the underlying zoning.	Consistent. The Housing Sites would be integrated into the existing communities to create a diverse blend of uses which would be compatible with each other.
Policy 3.7: Maintain and enhance the quality of residential neighborhoods.	Consistent. Future development of the Housing Sites would enforce the existing characteristics of each neighborhood so as to enhance the quality.
Policy 3.13: Reinforce Signal Hill's image and community identity within the greater Long Beach Metropolitan area.	Consistent. The development of the Housing Sites would encourage growth within the City and enhance the identity of the City through rehabilitation of vacant land.
Policy 3.16: Review and revise, as necessary, the City's development standards to improve the quality of new development and protect the public health and safety.	Consistent. Amendments would be made to allow the Housing Sites for future development and to enforce quality housing guidelines in these areas.
Policy 3.17: Promote "smart growth" principles that encourage development that is economically viable, creates a sense of community, and preserves natural resources. Smart growth includes narrower streets, mixed uses, smaller setbacks, open spaces, habitat preserves and parks, infill development and compact commercial centers, and the reuse of brownfields.	Consistent. Future development of the Housing Sites would encourage development that is economically viable through the increase in housing opportunities and enhancement of currently vacant sites which would increase the number of people contributing to the local economy.
Goal 4: Ensure that future land use decisions are the result of sound and comprehensive planning.	Consistent. The proposed Project would encourage future housing development and would create land use patterns consistent with City goals for achieving greater housing opportunities.
Policy 4.1: Consider all general plan goals and policies, including those in other general plan elements, in evaluating proposed development projects for general plan consistency.	Consistent. The proposed Project would be assessed for consistency with all general plan goals and policies.
Policy 4.2: Maintain consistency between the Land Use Element, the other elements of the general plan, the zoning ordinance, and the Municipal Codes regulations and standards.	Consistent. The proposed Project would be amended to maintain consistency with existing goals and land use plans and would be consistent with other plans and policies.
Policy 4.6: Develop comprehensive local and regional rather than piecemeal planning solutions and promote long-range solutions to land use issues.	Consistent. This Project would create a long-term plan for future development of the Housing Sites.

Noise Element

The Noise Element provides goals and policies intended to limit the community's exposure to excessive noise levels. The predominate noise source in the vicinity of the Project area is vehicular traffic. Existing noise sensitive uses around the Walnut Bluff, Town Center Northwest, and Orange Bluff sits include Willow Springs Park, Long Beach Municipal Cemetery, and churches. Noise sensitive uses near Heritage Square include residential homes in close proximity. Future development of the Housing Sites would

require the use of heavy equipment (e.g., bulldozers, backhoes, cranes, loaders, etc.), which would generate noise on a temporary, short-term basis. Oil drilling facilities exist on each of the four Housing Sites and would need to be removed prior to the development of the sites. In the event construction activities were to occur concurrently at multiple Housing Sites in close proximity, impacts to nearby sensitive receptors can increase to a level where the impacts to surrounding sensitive receptors would be potentially significant.

Construction noise associated with future residential land uses and associated infrastructure development as a result of the Project would be temporary in nature and would vary depending on the characteristics of construction activities being performed. The proposed Project includes existing Housing Sites and future development of those Sites based on the approval of the Project. Noise generated during construction of buildings and long-term Project related noise would be regulated by the City's Noise Ordinance and other related policies. As for Project area, the Orange Bluff, Walnut Bluff, and Town Center Northwest Sites are all located within the vicinity of some industrial uses. However, the Noise Element does not identify commercial and industrial uses as a citywide noise problem, except for some isolated conflicts. Additionally, the Noise Ordinance, Zoning Ordinance, and other sections within the Municipal Code provide standards that limit noise production from these uses, such as hours of operation.

The future development of the Sites would not create substantial noise, which might conflict with existing policies in the City's Noise Element. Each Site would be assessed prior to development to ensure that consistency with surrounding uses can be achieved and protect sensitive receptors within the residential dwellings. As such, the uses within the vicinity of the Project area would be consistent with the proposed future development of residential uses. Policies within the Noise Element proposed to protect sensitive receptors and the health and safety of the public through consistent land uses would be applied to the Project, as shown in **Table 4.7-3: Project Consistency with Noise Element**.

**Table 4.7-3
Project Consistency with Noise Element**

Goals and Policies	Consistency
Goal 1: Protect the health, safety, and welfare of people living and working within the City from adverse noise impacts.	Consistent. Each Housing Site would be assessed prior to development to ensure safety and consistency for sensitive receptors and surrounding uses.
Policy 1.a: The City will consider the severity of noise exposure in the community planning process to prevent or minimize noise impacts to existing and proposed land uses.	Consistent. The Housing Sites would each include residential uses which are considered sensitive and would require any noise impacts to be assessed and minimized if necessary.
Policy 1.c: Noise-sensitive land uses, including residential, transient lodging, hospitals and long-term care facilities, educational facilities, libraries, churches, and places of public assembly will not be located near major stationary noise sources.	Consistent. Each Housing Site would be individually evaluated to determine if impacts from surrounding noise sources require mitigation.

City of Signal Hill Municipal Code and Zoning Code

The Signal Hill Municipal Code carries out the policies of the City's General Plan by classifying and regulating the uses and development of land and structures consistent with the General Plan. The Zoning Code is adopted to encourage, classify, designate, regulate, and restrict the location of buildings and a variety of uses within the City to promote public health, safety and general welfare.¹⁸ The Housing Sites would be reviewed prior to any construction for consistency with the City's development standards set forth in the Municipal Code and Design Guidelines as part of the design review process. The Specific Plan Districts are set forth in the Municipal Code zoning section and contain guidelines for development within the individual area. With each Project subject to the individual Specific Plan designation upon rezoning, the Sites would be consistent with the Municipal Code and Zoning Code policies and guidelines. ***The existing and proposed Specific Plans applicable to the Project are described below.***

Special Purpose Housing Specific Plan

The Special Purpose Housing Specific Plan (SP-7) includes six areas within the City each with their own general guidelines for development. The use classification of the SP-7 includes various residential designations including supplemental amenities to support those uses such as parking designations, laundry facilities, and community facilities. With the implementation of the proposed Project, two new areas would be proposed to support the future housing development within the Walnut Bluff and Orange Bluff sites.

¹⁸ City Municipal Code, Ch.20, Sec.20.02.020.

The Project would use this Specific Plan designation in order to provide housing for very low and low income households. The Walnut Bluff and Orange Bluff sites would require a zoning change to SP-7 in order to accommodate specific housing for these income levels. SP-7 zoning includes guidelines for multi-family dwelling units and accessory uses permitted such as community meeting rooms, laundry facilities on-site for use of the households, open space, carports and uncovered parking lots. Income levels above very low and low income would be restricted from occupancy within this plan. Additionally, the maximum dwelling unit density would be limited to 35-45 or Very High Density Residential land use designation which would align with the SP-7 plan. Other requirements of the SP-7 zoning include building height; required setbacks; landscape materials and turf; fences, walls, and hedges; off-street parking; trash and recycling storage; signs; mechanical equipment; and utilities. These would be defined specifically within each individual site area in order to accommodate and maintain consistency within the existing land uses surrounding the future development site. Future development would not be approved via the approval of the Project and would be required to follow the development standards of the SP-7 guidelines including site plan review and building design requirements.

Town Center Northwest Specific Plan District

The Project proposes a zoning amendment for the Town Center Northwest site from Commercial Corridor Specific Plan (SP-6) to a Town Center Northwest Specific Plan (SP-24). This designation would allow for mixed-use commercial and residential projects for future development. Existing SP-6 zoning outlines provisions for property development of commercial centers but does not have allowances or standards for a mixed-use project that includes both commercial and residential uses. The rezoning of the Town Center Northwest Specific Plan will include provisions for mixed-use development. As such, the proposed Project would be consistent with the intended re-zoning to SP-24 and environmental impacts would be less than significant.

Heritage Square Specific Plan

The Project proposes a zoning amendment for the Heritage Square site to a Heritage Square Specific Plan (SP-23). This designation would allow for mixed-use commercial and residential projects for future development in accordance with the development density described in this EIR. As such, the proposed Project would be consistent with the intended re-zoning and environmental impacts would be less than significant.

~~The Land Use Element in the City's General Plan proposed changes in the 2001 update for the development of the Heritage Square Central Business District. This proposed district would be combined with the Central Business District designation allowing for the development of high intensity mixed use~~

~~space which includes retail shops, entertainment, dining, fitness center as well as high density residential development. This designation would include a mixed-use intensive commercial and residential specific plan added to the Commercial Town Center area located between 25th and Creston Streets and Rose and Cherry Avenues. The Heritage Square Specific Plan (SP-23) would be developed using the proposed designation in the Land Use Element and would accommodate for the Heritage Square Housing Site located near the City center in the Civic Center neighborhood, northwest of the intersection of Cherry Avenue and E. Burnett Street. Future development of the Heritage Square Site and the Heritage Square Specific Plan (SP-23) would be required to follow the existing Municipal Code guidelines established under the SP-23 zoning and the City's General Plan.~~

~~Los Angeles County Airport Land Use Plan~~

~~As previously discussed, California State Law requires the establishment of an Airport Land Use Commission (ALUC) with the purpose of planning for areas within the vicinity of public use airports. The Los Angeles County Airport Land Use Plan (ALUP) is required by State law through the ALUC in order to protect the public, health, safety, and welfare of the surrounding areas. The Long Beach Municipal Airport (LGB) is included in the Los Angeles ALUP. The City of Signal Hill is located northeast adjacent to the Long Beach Airport. However, the proposed Housing Sites are not within the Long Beach Airport Influence Area and would not be subject to the Los Angeles ALUP.~~

5. MITIGATION MEASURES

No mitigation measures would be required. With the proposed General Plan amendments and rezoning, the proposed Project would not result in any significant conflicts with existing land use plan, policy, or regulation.

6. LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts would be less than significant. No mitigation measures are required.

6.0 EFFECTS FOUND NOT TO BE SIGNIFICANT

Section 15128 of the CEQA Guidelines¹ requires that an EIR “contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and therefore were not discussed in detail in the EIR.” An Initial Study (see **Appendix A** of this DEIR) was prepared and released with a Notice of Preparation (NOP) in May of 2021 that included the determination that an EIR would be prepared in compliance with CEQA to analyze potentially significant impacts that may result from the Project. The Initial Study also identified topics for which effects were determined not to be significant. The following section summarizes the findings of the Initial Study for those topics that were determined not to be significant and thus were not discussed in detail within this EIR.

The corrections and revisions to the Project that were identified in the introduction to this recirculated DEIR require revision to the discussion of aesthetics that was determined not to be significant in the Initial Study. The revisions are shown below.

Aesthetics

~~The identified housing sites are located on infill sites as defined by Public Resource Code Section 21099 which states that aesthetic impacts of a residential or mixed-use residential project on an infill site within a transit priority area shall not be considered significant impacts on the environment. The area is considered a transit priority area (TPA) based on the SCAG map of TPAs for plan year 2045, developed for the SCAG 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and based on the bus services of Long Beach Transit.² As such, aesthetic impacts would be less than significant.~~

~~Furthermore, future housing development at the identified Housing Sites would be comparable in height to its surrounding developments, would be required to comply with the requirements of the building standards of the Signal Hill Municipal Code and would be subject to design review by the City to ensure compatibility with the surrounding area. As such, build out of the Housing Sites would not have an adverse effect on aesthetics.~~

The identified Housing Sites are located on infill, mostly flat sites – with minimal elevation increasing from north to south and are surrounded by a variety of commercial, industrial and residential uses. The Orange Bluff, Walnut Bluff and Town Center Northwest sites are all located within the City’s Central Neighborhood where predominant uses are commercial, and they are not situated to impact views from residential neighborhoods. Each of the sites has a conceptual plan for development that includes open

2 City of Signal Hill, Street Tree Ordinance. Accessed April 2021.

space, pedestrian access, and objective design elements. The Heritage Square site is directly adjacent to two residential neighborhoods, the Crescent Heights Historic District, and the Crescent Square residential development. The conceptual design and the specific plan zoning will limit the building heights to no more than three stories for the townhomes and will limit the height of the single-family dwellings fronting on Rose to two-stories which is comparable to homes in the Crescent Heights Historic District, and less than homes on the Crescent Square development. Both the Town Center Northwest project and the Heritage Square project will be reviewed under the City's Site Plan and Design Review process and will require discretionary actions by both the Planning Commission and City Council at public hearings. All design elements including building height, design and view impacts will be considered under this process. The Orange Bluff and Walnut Bluff sites will provide affordable income housing and will not be require further discretionary action beyond the adoption of the Special Purpose Housing Specific Plan zoning which will establish development standards for building height, parking, design and landscaping as examples. For these reasons, aesthetic impacts would be less than significant.

Agriculture and Forestry Resources

The City does not contain areas of Prime Farmland, Unique Farmland, Farmland of Statewide Importance, Farmland of Local Importance, Farmland of Local Potential, Grazing Land, Forest or Timberland. As such, the development of housing on the identified housing sites would have no direct or indirect effect on agriculture or forestry resources.

Biological Resources

The identified Housing Sites are disturbed sites containing scattered ruderal vegetation and ornamental trees. The General Plan Environmental Resources Element does not identify any sensitive natural communities on or within the vicinity of the Housing Sites. There are no rivers or streams and no riparian habitat or any other kind of sensitive natural community in or within the immediate vicinity of the identified Housing Sites. The lands surrounding these sites are developed with streets, light industrial, educational, residential, and commercial uses, which have disturbed and replaced natural habitat. No portions of the City are located within a habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan. The City of Signal Hill does have a street tree ordinance which establishes standards for the planting, removal, replacement, and maintenance of all City street trees in accordance with tree species recommendations contained in the

Street Tree Master Plan.² Development of the Sites would not conflict with this ordinance. For these reasons, impacts would be less than significant.

Hydrology and Water Quality

Housing development associated with the Project would be required to comply with the existing regulatory systems including permitting under California's WDRs and the National Pollutant Discharge Elimination System (NPDES) program. Further, the Signal Hill Municipal Code, Chapter 12.16, Storm Water/Urban Runoff, contains requirements for post-construction stormwater activities and facility operations of development and redevelopment projects to comply with the current Municipal Separate Storm Sewer System (MS4). In part, adherence requires integrating low-impact development (LID) design principles to lessen the water quality impacts of development through biofiltration, evapotranspiration, and rainfall harvest. Specifically, a LID plan would be required for each individual development project on the Housing Sites to demonstrate compliance with the provisions of the City's Municipal Code (Section 12.16.114, New development/redevelopment pollutant reduction).

Anticipated development of the Housing Sites does not include any groundwater extraction wells because all water demand would be met through piped connections to the City of Signal Hill's municipal water system. The housing sites do not feature any natural water features and are not within flood zones and are not close enough to bodies of water to be affected by Tsunami or seiche event. Based on the preceding, hydrology impacts would be less than significant.

Mineral Resources

The City's General Plan does not identify the Housing Sites as having significant mineral deposits of any kind, nor are they located in an area delineated as a mineral resource recovery site. The implementation of the Project could result in the deactivation of 26 active oil drilling wells. Given the extent of drilling activity within the Long Beach oil field, removal of the active wells on the housing sites would not result in the substantial loss of a mineral resource. As such, impacts would be less than significant.

Recreation

The Project does not include any recreational facility. However, development of the Housing Sites would add approximately 1,355 new residents to the City. The City has assessed for foreseeable increase in population in the City and increased the parks and recreation fee accordingly to account for additional

2 City of Signal Hill, Street Tree Ordinance. Accessed April 2021.
<https://www.cityofsignalhill.org/DocumentCenter/View/774/2011-11-1441tree-ordADOPTED?bidid=>

park land development. The City has plans to increase recreational facilities within the City limits. Implementation of the Housing Sites would not require the construction or expansion of recreational facilities outside of the existing and planned recreational facility upgrades. No adverse environmental effects are anticipated from the planned recreational facility upgrades associated with the population increase resulting from the Project.

Utilities and Service Systems

Water, wastewater treatment, storm water drainage, electric power, natural gas, and telecommunication facilities exists within the City. Future Housing associated with the Project would connect to this existing infrastructure. The City's water supplies are considered to be stable and sufficient to support expected growth that could occur over the next several years. Signal Hill sanitary sewers connect to the City of Long Beach sewer line, which flows into regional wastewater facilities maintained by the Los Angeles County Sanitation District 29. Since population growth associated with the Project is consistent with the growth projections for City, it is expected that the additional wastewater flow associated with the Project can be accommodated within existing and planned facilities. Future residential development within the City would comply with the City's solid waste reduction programs, which are designed to comply with federal, state, and local statutes and regulations related to solid waste. Based on the above, the Project would not result in significant impacts to utilities or service systems.

Wildfire

The City is not in or near a Fire Hazard Severity Zone (FHSZ), Local Responsibility Area (LRA) or State Responsibility Area (SRA). As such, the Project would not exacerbate wildfire risks or otherwise result in wildfire impacts.



APPENDIX F

Hazardous Materials Assessments



F11a

Phase II Environmental Site Assessment, Town Center Northwest

MEARNS CONSULTING LLC

ENVIRONMENTAL CONSULTANTS

RISK ASSESSORS

738 Ashland Avenue, Santa Monica, California 90405

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**Phase II Environmental Site Assessment
Northeast Corner E. Willow St. and Walnut Avenue
Town Center Northwest
Signal Hill, California 90755**

July 30, 2021

Prepared for:

**City of Signal Hill
2175 Cherry Avenue
Signal Hill, California 90755**

Prepared by:

**Mearns Consulting LLC
738 Ashland Avenue
Santa Monica, California 90405**

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July 30, 2021

via email

Ms. Elise McCaleb, Economic Development Manager
Ms. Colleen Doan, Community Development Director
City of Signal Hill
2175 Cherry Avenue
Signal Hill, Ca 90755

RE: **Phase II Environmental Site Assessment**
Northeast Corner E. Willow Street and Walnut Avenue, Town Center Northwest, Signal Hill, California 90755

Dear Ms. McCaleb and Ms. Doan:

I am pleased to present this Phase II Environmental Site Assessment (Phase II ESA) the 8.35-acre site located at the northeast corner of the intersection of East Willow Street and Walnut Avenue, identified by the address 2690 Walnut Avenue, known as Town Center Northwest, in Signal Hill, Los Angeles County, California 90755 (the site) pursuant to the contract executed on November 12, 2020.

The site is an unpaved oilfield. There are 34 oil wells onsite or contiguous to the site (19 onsite and 15 within the eastern two-thirds of the Drill Site which is not a part of the project site). Operating units, a stormwater system with detention basins, swales, berms and piping currently are onsite. The site will be redeveloped as multifamily residential. A Phase I Environmental Site Assessment (Phase I ESA) conducted in May 2021 identified the site history as an oilfield since at least 1928.

Recognized Environmental Conditions onsite include: (1) the previously abandoned oil wells, (2) the historic aboveground storage tanks, (3) historic pipelines associated with the previously abandoned oil wells and/or the aboveground storage tanks, (4) historic sumps associated with the previously abandoned and/or operating oil wells, (5) the storage of 55-gallon containers of used oil, (6) retail-sized containers of motor oil, (7) 5-gallon buckets of oil, (8) residue in catch basins, (9) gasoline containers, (10) surface staining, (11) transformers, (12) forklifts and (13) the northeastern corner drainage are Recognized Environmental Conditions.

The results of this Phase II ESA indicate a human health risk assessment should be prepared to address the detected concentrations of carbon chains, metals volatile organic compounds and semivolatile organic compounds in site soils and volatiles in the vapor phase that exceed their respective environmental screening level thresholds.

Should you have any questions or desire additional information, please contact me at your earliest convenience at 310.403.1921.

Sincerely,



Kevin M. Clark PG #8573



X *Susan Mearns*

Susan L. Mearns, Ph.D.

Mearns Consulting LLC

**Phase II Environmental Site Assessment
Northeast Corner of E. Willow Street and Walnut Avenue
Town Center Northwest
Signal Hill, California 90755**

Background

Pursuant to the authorization of Ms. Colleen Doan (Community Development Director, City of Signal Hill) on November 12, 2020 and to comply with the City of Signal Hill Project Development Guide (2020) Mearns Consulting LLC performed a Phase I Environmental Site Assessment (Phase I ESA) the 8.35-acre site located at the northeast corner of the intersection of East Willow Street and Walnut Avenue, known as Town Center Northwest, in Signal Hill, Los Angeles County, California 90755 (the site) in May 2021.

The Phase I ESA had the following conclusions:

- The historical use of the site is an oil field. There are 34 oil wells onsite or contiguous to the site (19 onsite and 15 within the eastern two-thirds of the Drill Site which is not a part of the project site). Operating units, a stormwater system with detention basins, swales, berms and piping currently are onsite.
- Recognized Environmental Conditions onsite include: (1) the previously abandoned oil wells, (2) the historic aboveground storage tanks, (3) historic pipelines associated with the previously abandoned oil wells and/or the aboveground storage tanks, (4) historic sumps associated with the previously abandoned and/or operating oil wells, (5) the storage of 55-gallon containers of used oil, (6) retail-sized containers of motor oil, (7) 5-gallon buckets of oil, (8) residue in catch basins, (9) gasoline containers, (10) surface staining, (11) transformers, (12) forklifts and (13) the northeastern corner drainage are Recognized Environmental Conditions.
- The adjacent properties include commercial/industrial businesses, an oilfield and multifamily residences. The adjacent oilfield and operating units are Potential Recognized Environmental Conditions that may impact the site. The contiguous former Dico Oil Company property with a LURA designation from DTSC also is a Potential Recognized Environmental Condition that may impact the site.
- The adjacent properties include oilfields, operating units and commercial/industrial businesses. The adjacent oilfields and operating units are Potential Recognized Environmental Conditions that may impact the site.

The Phase I ESA had the following recommendations:

Pursuant to the City of Signal Hill Project Development Guide (2020) and the City of Signal Hill Oil and Gas Code (2015) a Phase II Environmental Site Assessment (Phase II ESA) should be performed. The Phase II ESA should include soil matrix and soil vapor sampling adjacent to the previously abandoned oil wells, the historic locations of the aboveground storage tanks, the historic locations of the sumps, the surface staining and within the footprint of the proposed multifamily units.

A baseline human health risk assessment should be performed with the data generated from the Phase II ESA.

A methane assessment should be performed in accordance with the City of Signal Hill Oil and Gas Code §16.24.080.

The previously abandoned oil wells should be daylighted and leak tested pursuant to the City of Signal Hill Oil and Gas Code §16.24.030 and §16.24.040

Piping runs should be identified and removed.

A soil management plan should be prepared prior to any grading activities to be conducted onsite. This soil management plan should provide instructions for the contractor to implement in the event discolored or odiferous soils are discovered during any grading operations.

Phase II ESA

Based on the conclusions, including the identification of Recognized Environmental Conditions, of the Phase I ESA, and the City of Signal Hill Project Development Guide (June 2020) Mearns Consulting LLC conducted a Phase II ESA.

The primary objectives of this Phase II ESA were to conduct soil matrix and soil vapor sampling at the areas identified onsite as Recognized Environmental Conditions and to provide data for use in a baseline Human Health Risk Assessment.

Mearns Consulting LLC delineated the work areas with white spray paint and notified Underground Service Alert to clear public utility lines as required by law on June 30, 2021, at least two business days prior to boring activities conducted on July 13 and 14, 2021 (ticket number B211810092-00B).

Prior to drilling, all locations were excavated to a minimum depth of 5-feet bgs using a hand auger to prevent damage to possible unidentified subsurface utilities.

Kehoe Testing & Engineering, Inc. advanced the borings using a Geoprobe 7800 direct push rig. The sampling system was appropriately cleaned between each borehole. Rinsate generated from cleaning was appropriately disposed.

Mearns Consulting LLC collected soil matrix samples pursuant to SW846 from 19 locations (SV1-SV19) at depths of 5-feet below ground surface (bgs), 10-feet bgs and 15-feet bgs. Soil samples were collected in acetate sleeves with plastic end caps with minimal headspace, labeled and logged onto a chain-of-custody form and stored in a cooler at 4°C until delivered under chain of custody to Sierra Analytical Labs (a State of California Department of Health Services ELAP accredited laboratory; ELAP No. 2320). Analyses requested were carbon chain ranges C4-C12, C13-C23, C23-C40 via USEPA method GC/FID 8015B, total threshold limit concentration (TTLC) metals and hexavalent chromium via USEPA methods 6000/7000, volatile organic compounds via USEPA 8260B, collected via USEPA 5035B in the field by placing 5g of soil into volatile organic analyte vials to which preservative had been added and semi-volatile organic compounds via USEPA 8270C. Soil matrix analytical results are included as Appendix A.

These soil borings were then developed as dual-nested soil vapor probes at 5-feet and 15-feet bgs (SV1-SV19) in accordance with *Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance)*, DTSC, October 2011, the *Advisory Active Soil Gas Investigations*, DTSC, LARWQCB, SFRWQCB, July 2015 and the DRAFT Supplemental Guidance Screening and Evaluating Vapor Intrusion (CalEPA, DTSC, SWRCB February 2020).

A new section of ¼-inch diameter nylaflo tubing with a new 6-inch stainless steel probe tip at the terminal end was inserted into the borehole to the desired sampling depth. One-inch diameter polyvinyl chloride (PVC) casing was used as a guide for the tubing to ensure that the desired sampling depth was achieved. Sand was poured into the boring annulus to form an approximately one-foot long sand pack around the probe tip, at which time the PVC

pipng was withdrawn. Approximately one foot of dry, granular bentonite was placed atop the sand pack and the remainder of the borehole was backfilled with hydrated bentonite to the ground surface to form a seal. The sampling end of the tubing was fitted with a three-way valve and the probe was labeled for identification.

Soil gas samples were collected in general accordance with the July 2015 DTSC and LARWQCB) “*Advisory – Active Soil Gas Investigations.*”

Each probe was allowed to equilibrate for a minimum of 48-hours after installation prior to sampling by a mobile laboratory. Soil vapor samples were collected in glass gas-tight syringes equipped with Teflon plungers. A tracer gas mixture of n-pentane, n-hexane, and n-heptane was placed at the tubing-surface interface before sampling. These compounds were analyzed during the 8260B analytical run to determine if there were surface leaks into the subsurface due to improper installation of the probe. The sampling rate was approximately 200 cc/min, except when noted differently on the chain of custody record, using a glass gas-tight syringe. Purging was completed using a pump set at approximately 200 cc/min, except when noted differently on the chain of custody record. A default of three purge volumes was used as recommended by July 2015 DTSC/RWQCB guidance documents. Prior to purging and sampling of soil vapor at each location, a shut-in test was conducted to check for leaks in the aboveground fittings. The shut-in test was performed on the aboveground apparatus by evacuating the line to a vacuum of 100 inches of water, sealing the entire system and watching the vacuum for at least one minute. A vacuum gauge attached in parallel to the apparatus measured the vacuum. If there is any observable loss of vacuum, the fittings were adjusted as needed until the vacuum did not change noticeably. The soil gas sample was then collected. No flow conditions occur when a sampling rate greater than 10 mL/min cannot be maintained without applying a vacuum greater than 100 inches of water to the sampling train. The sampling train is left at a vacuum for no less than three minutes. If the vacuum does not subside appreciably after three minutes, the sample location is determined to be a no flow sample.

Forty soil vapor samples, including three duplicates, were collected from these soil vapor probes by a Jones Environmental, Inc. (ELAP 2882) chemist and analyzed in a mobile laboratory on July 27 and 28, 2021. Three duplicates, one per 10 soil vapor samples, were collected and analyzed by the chemist. One deep probe SV19 was unable to be set at 15-foot bgs due to oily conditions. Soil vapor analytical results are included as Appendix B.

All drilling, logging and sampling activities were conducted by or under the direct supervision of a California-Professional Geologist, and in accordance with California Well Standards presented in the Department of Water Resources (DWR) Bulletins 74-81 and 74-90. The Site Geology section and boring logs were prepared by Mr. Scott R. Fagan, a State of California Professional Geologist PG #4289. Boring logs are included as Appendix C.

Site Geology - The site is located on the west flank of the Signal Hill uplift created by lateral movement on the Cherry Hill Fault (CHF) (part of the Newport Inglewood fault zone). The CHF is located north of the site and the site overlies the Gardena Syncline, an east-west trending down-fold of the local stratigraphy.

The surface sediments are Recent Alluvium consisting of sand, silt and clay which overlie the Lakewood Formation. Borings are logged as predominantly silt and clay with thin sections of sand.

The Gaspar Aquifer is the first groundwater below the site, below any boring depths achieved during drilling activities. No groundwater was detected in any soil boring.

Soil Matrix Analytical Results – Carbon chains C4-C12 were detected eight times in 57 soil matrix samples at a concentrations ranging from 0.052 mg/kg to 2,600 mg/kg; four detected concentrations: 1,100 mg/kg, 2,600 mg/kg, 510 mg/kg and 1,500 mg/kg exceed the screening threshold of 82 mg/kg. Carbon chains C13-C22 were detected 12 times in 57 soil matrix samples at concentrations ranging from 34 mg/kg to 2,500 mg/kg; five detected concentrations exceeded the screening threshold of 97 mg/kg. Carbon chains C23-C40 were detected 15 times in

57 soil matrix samples at concentrations ranging from 35 mg/kg to 2,200 mg/kg; none of these detected concentrations were greater than the screening threshold of 2,400 mg/kg (Table 1 and Figure 4).

The following metals were detected in concentrations greater than their respective reporting limits: arsenic, barium, cobalt, trivalent chromium, copper, lead, nickel, selenium, vanadium and zinc (Table 1 and Figure 4). A detected concentration of arsenic, 20 mg/kg, exceeded the screening threshold.

The volatile organic compounds (VOCs) benzene, n-butylbenzene, sec-butylbenzene, tert-butylbenzene, ethylbenzene, isopropylbenzene (cumene), methyl tert-butyl ether (MTBE), naphthalene, n-propylbenzene, m,p-xylenes and o-xylene were detected in concentrations greater than their respective reporting limits (Table 3 and Figure 5). Detected concentrations of naphthalene exceed the screening limit.

Semi-volatile organic compounds (SVOCs) acenaphthene, anthracene, benzo(a)anthracene, 2,4-dinitrophenol, chrysene, 4,6-dinitro-2-methylphenol, 2,4-dinitrotoluene, 2,6-dinitrotoluene, fluorene, 2-methylnaphthalene, naphthalene, 4-nitroaniline, n-nitrosodi-n-propylamine, phenanthrene and pyrene were detected in the soil matrix at concentrations greater than their respective reporting limits. Detected concentrations of benzo(a)anthracene, 2,6-dinitrotoluene and naphthalene exceeded their respective screening levels (Table 4 and Figure 5).

Soil Vapor Analytical Results – The VOCs, benzene, n-butylbenzene, sec-butylbenzene, cis-1,2-dichloroethene, di-isopropylether, ethylbenzene, isopropylbenzene (cumene), 4-isopropyltoluene (cymene), methylene chloride, naphthalene, n-propylbenzene, tetrachloroethene, toluene, total xylenes and gasoline range organics (GRO) were detected in concentrations greater than their respective reporting limits in the vapor phase (Table 5 and Figure 6). All of these volatiles were detected at concentrations that exceeded their respective screening thresholds. The greatest detected concentration of benzene, 8,850 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) was detected at SV7-15 adjacent to a previously abandoned oil well and along a pipeline corridor. Generally concentrations of volatiles in the vapor phase increased with depth.

Conclusions

Carbon chains, C4-C12, C13-C22, C23-C40, metals VOCs and SVOCs were detected in the soil matrix. Sixteen volatile organic compounds were detected in the vapor phase in soil vapor underlying the site (Table 5 and Figure 6).

The carbon chains C4-C12 and C13-C22 were detected at concentrations greater than their respective screening thresholds (Table 1 and Figure 4). Arsenic was detected at concentrations greater than the screening threshold (Table 1 and Figure 4). Three VOCs/SVOCs in the soil matrix exceeded their respective screening thresholds. Seventeen volatile organic compounds in the vapor phase were detected at concentrations that exceeded their respective screening thresholds (Tables 3-5 and Figures 5 and 6).

Recommendations

As the proposed future development for the site is residential, a human health risk assessment is warranted based on the results of this Phase II ESA. The human health risk assessment should include an evaluation of potential health impacts to future residential, commercial and construction workers.

References

- Department of Toxic Substances Control (DTSC). June 2020. HERO Note 3, DTSC Modified Screening Levels.
- Mearns Consulting LLC. May 27, 2021. Phase I Environmental Site Assessment, Northeast Corner of E. Willow Street and Walnut Avenue, Town Center Northwest, Signal Hill, California 90755. Two volumes.
- San Francisco Bay Regional Water Quality Control Board. 2019. Rev. 2. Environmental Screening Levels, Tier 1.
- Sierra Analytical Labs, Inc. April 2005 and July 2021. Background metals soil matrix analytical results Spud Field.
- USEPA. May 2021. Regional Screening Levels.

TABLES

Table 1 - TPH and Metals Analytical Results in Soil Matrix

SAMPLE ID	DATE SAMPLED	As mg/kg	Ba mg/kg	Co mg/kg	Cr mg/kg	Cu mg/kg	Ni mg/kg	Pb mg/kg	Se mg/kg	V mg/kg	Zn mg/kg	C4-C12 mg/kg	C13-C22 mg/kg	C23-C40 mg/kg
RSLr		0.68	15,000	23	120,000	3,100		400	390	390	23,000	82	97	230,000
DTSC-SLr		0.11			36,000		820	80		390			97	2,400
RSLi		3	220,000	350	1,800,000	47,000		800	5,800	5,800	350,000	420	560	3,500,000
DTSC-SLi		0.36			170,000		11,000	320		1,000			500	18,000
ESL Tier 1		0.067	390	23	120,000	180	86	32	2.4	18	340			
SV1-5	7/12/2021	<5.5	68	5.4	9.8	8.8	6.4	<7.1	<6.9	15	27	<0.05	<5	<5
SV1-10	7/12/2021	<5.5	77	7.1	21	20	12	<7.1	<6.9	24	42	<0.05	<5	<5
SV1-15	7/12/2021	<5.5	45	<3.3	7	<5	3.6	<7.1	<6.9	6.6	22	<0.05	<5	<5
SV2-5	7/12/2021	<5.5	74	5.5	11	13	6.2	<7.1	<6.9	13	28	<0.042	<5	35
SV2-10	7/12/2021	<5.5	82	9.3	18	18	12	<7.1	<6.9	31	36	<0.045	<5	<5
SV2-15	7/12/2021	<5.5	81	6.6	21	14	11	<7.1	<6.9	28	36	<0.05	<5	<5
SV3-5	7/12/2021	<5.5	67	5.6	12	11	4.3	<7.1	<6.9	18	25	<0.042	<5	<5
SV3-10	7/12/2021	<5.5	50	6.4	18	17	9.5	<7.1	<6.9	31	34	<0.05	<5	<5
SV3-15	7/12/2021	<5.5	32	3.7	8.3	6.2	5	<7.1	<6.9	18	18	<0.05	<5	<5
SV4-5	7/12/2021	<5.5	63	8.2	13	14	8	<7.1	<6.9	25	26	<0.05	<5	<5
SV4-10	7/12/2021	<5.5	40	4.6	14	12	7	<7.1	<6.9	21	25	<0.05	<5	<5
SV4-15	7/12/2021	<5.5	26	3.7	8.1	6.8	5.7	<7.1	<6.9	14	20	<0.05	<5	<5
SV5-5	7/12/2021	<5.5	82	8.1	18	17	10	<7.1	<6.9	34	34	<0.05	<5	<5
SV5-10	7/12/2021	<5.5	47	5.1	12	11	7.8	<7.1	<6.9	21	24	<0.05	<5	<5
SV5-15	7/12/2021	<5.5	61	6.1	14	15	8.8	<7.1	<6.9	28	30	<0.05	<5	<5
SV6-5	7/13/2021	<5.5	83	7.6	14	14	8.5	<7.1	<6.9	24	28	<0.05	<5	<5
SV6-10	7/13/2021	<5.5	66	6.4	21	16	12	<7.1	<6.9	31	40	<0.05	<5	<5
SV6-15	7/13/2021	<5.5	42	4.3	9.4	9	6.4	<7.1	<6.9	14	27	<0.05	<5	<5
SV7-5	7/13/2021	<5.5	73	7.2	16	13	11	7.2	<6.9	27	34	<0.062	<5	<5
SV7-10	7/13/2021	<5.5	50	6.6	13	11	7.6	<7.1	<6.9	19	25	<0.071	<5	<5
SV7-15	7/13/2021	<5.5	37	3.6	10	8.4	6.7	<7.1	<6.9	16	20	<0.05	<5	<5
SV8-5	7/13/2021	<5.5	30	<3.3	5.7	7.8	4	19	<6.9	9.1	26	<0.042	<5	<5
SV8-10	7/13/2021	<5.5	58	10	12	11	7.8	<7.1	<6.9	21	25	<0.05	<5	<5
SV8-15	7/13/2021	<5.5	50	4.6	17	12	9.8	<7.1	<6.9	19	29	<0.05	<5	<5
SV9-5	7/13/2021	<5.5	3100	5.1	26	31	20	24	<6.9	28	73	<0.067	110	550
SV9-10	7/13/2021	<5.5	77	6.2	17	12	8.3	<7.1	<6.9	23	27	<0.043	<5	50
SV9-15	7/13/2021	<5.5	110	10	30	17	16	<7.1	<6.9	33	45	<0.05	<5	<5
SV10-5	7/13/2021	<5.5	650	10	25	31	24	42	<6.9	36	100	<0.084	510	650
SV10-10	7/13/2021	<5.5	49	4.9	10	8.3	6	<7.1	<6.9	16	20	<0.05	<5	52
SV10-15	7/13/2021	<5.5	81	11	21	15	13	<7.1	<6.9	36	42	<0.05	<5	<5
SV11-5	7/13/2021	<5.5	150	10	19	21	15	17	<6.9	29	60	<0.05	<5	160
SV11-10	7/13/2021	<5.5	130	8.5	15	10	8.1	<7.1	<6.9	23	28	<0.05	39	200
SV11-15	7/13/2021	<5.5	64	6	19	11	11	<7.1	<6.9	23	31	<0.05	<5	<5
SV12-5	7/13/2021	<5.5	83	5.4	12	7.8	6.4	<7.1	<6.9	18	23	<0.07	<5	<5
SV12-10	7/13/2021	<5.5	46	5.4	10	6.7	5.7	<7.1	<6.9	16	20	<0.05	<5	<5
SV12-15	7/13/2021	<5.5	32	3.3	7	<5	4.5	<7.1	<6.9	9.2	16	<0.05	<5	<5
SV13-5	7/13/2021	<5.5	83	7.1	15	9.8	8.7	<7.1	<6.9	23	31	<0.05	<5	<5

Table 1 - TPH and Metals Analytical Results in Soil Matrix

SAMPLE ID	DATE SAMPLED	As mg/kg	Ba mg/kg	Co mg/kg	Cr mg/kg	Cu mg/kg	Ni mg/kg	Pb mg/kg	Se mg/kg	V mg/kg	Zn mg/kg	C4-C12 mg/kg	C13-C22 mg/kg	C23-C40 mg/kg
RSL _r		0.68	15,000	23	120,000	3,100		400	390	390	23,000	82	97	230,000
DTSC-SL _r		0.11			36,000		820	80		390			97	2,400
RSL _i		3	220,000	350	1,800,000	47,000		800	5,800	5,800	350,000	420	560	3,500,000
DTSC-SL _i		0.36			170,000		11,000	320		1,000			500	18,000
ESL Tier 1		0.067	390	23	120,000	180	86	32	2.4	18	340			
SV13-10	7/13/2021	<5.5	100	5.7	21	13	10	<7.1	<6.9	26	37	<0.05	<5	<5
SV13-15	7/13/2021	<5.5	46	4.5	12	8	7	<7.1	<6.9	16	26	<0.05	<5	<5
SV14-5	7/13/2021	<5.5	50	4.7	11	7.4	5.9	<7.1	<6.9	15	22	<0.05	<5	<5
SV14-10	7/13/2021	<5.5	88	5.6	22	12	9.1	26	<6.9	17	61	0.21	53	180
SV14-15	7/13/2021	<5.5	38	3.8	12	6.9	6.4	<7.1	<6.9	13	28	<0.05	<5	<5
SV15-5	7/13/2021	<5.5	110	4.9	12	9	6.7	<7.1	<6.9	19	28	<0.06	<5	<5
SV15-10	7/13/2021	<5.5	79	7.8	16	13	12	<7.1	<6.9	26	38	<0.056	<5	<5
SV15-15	7/13/2021	<5.5	64	4.9	11	6.9	7.7	<7.1	<6.9	16	26	<0.065	<5	<5
SV16-5	7/13/2021	<5.5	160	7.4	17	20	11	19	<6.9	24	63	<0.058	190	500
SV16-10	7/13/2021	<5.5	130	11	24	27	16	27	<6.9	36	86	<0.063	<5	<5
SV16-15	7/13/2021	<5.5	720	8	23	37	16	61	<6.9	28	90	0.26	150	200
SV17-5	7/13/2021	20	88	6.7	18	47	17	57	<6.9	21	180	0.052	34	650
SV17-10	7/13/2021	<5.5	170	9.2	20	21	13	12	<6.9	28	61	<0.05	<5	79
SV17-15	7/13/2021	<5.5	240	16	35	35	19	12	7.4	47	120	<0.05	<5	78
SV18-5	7/13/2021	<5.5	110	8.2	18	16	12	14	<6.9	28	66	<0.10	110	600
SV18-10	7/13/2021	<5.5	94	9.8	18	14	12	<7.1	<6.9	32	40	1100	1300	2200
SV18-15	7/13/2021	<5.5	100	7.7	25	16	16	<7.1	<6.9	35	54	0.48	<5	<5
SV19-5	7/13/2021	<5.5	74	6.9	14	11	11	<7.1	<6.9	24	33	2600	2400	<250
SV19-10	7/13/2021	<5.5	66	7.3	17	12	12	<7.1	<6.9	23	35	510	590	270
SV19-15	7/13/2021	<5.5	46	5.2	10	7.8	8.1	<7.1	<6.9	15	28	1500	2500	530

Notes:

mg/kg = milligram per kilogram

As = arsenic, Ba = barium, Co = cobalt, Cr = trivalent chromium, Cu = copper, Ni = nickel, Pb = lead, Se = selenium, V = vanadium, Zn = zinc

<5.5 = concentration is less than the Reporting Limit (5.5), i.e., not detected (ND)

SV1-5 = Soil Boring1, 5-feet below ground surface (bgs).

BOLD = value exceeds the DTSC or USEPA screening level

Analytical results are included as Appendix A

Soil was collected from 5-feet, 10-feet bgs and 15-feet bgs from the same boring.

Only detected concentrations of metals are presented in this table. All other metals were ND.

ESL Tier 1 = San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels 2019 (Rev. 2)

RSL_r = USEPA Regional Screening Level for residential soils, RSL_i = USEPA Regional Screening Levels for industrial soils (May 2021)

DTSC SL_r = CalEPA DTSC Screening Level for residential soils, DTSC SL_i = CalEPA DTSC Screening Level for industrial soils (June 2020)

carcinogenic values used for all screening levels, except nickel and TPH

DTSC SL C17-C32, aromatic high and USEPA aromatic high values were used for C23-C40

DTSC SL C9-C16, aromatic medium and USEPA aromatic medium values were used for C13-C22

Table 2 - Background Metals Analytical Results in Soil Matrix

SAMPLE ID	DATE SAMPLED	As mg/kg	Ba mg/kg	Co mg/kg	Cr mg/kg	Cu mg/kg	Ni mg/kg	Pb mg/kg	Se mg/kg	V mg/kg	Zn mg/kg
RSL _r		0.68	15,000	23	120,000	3,100		400	390	390	23,000
DTSC-SL _r		0.11			36,000		820	80		390	
RSL _i		3	220,000	350	1,800,000	47,000		800	5,800	5,800	350,000
DTSC-SL _i		0.36			170,000		11,000	320		1,000	
ESL Tier 1		0.067	390	23	120,000	180	86	32	2.4	18	340
Offsite-1	4/4/2005	5.2	97	8.1	21	25	12	12	<1.9	35	62
Offsite-5	4/4/2005	12	160	17	50	64	30	8.1	<1.9	75	99
Offsite-10	4/4/2005	12	170	14	32	35	22	5.6	<1.9	58	67
Offsite-20	4/4/2005	14	73	17	35	80	22	10	<1.9	67	95
SB1-5	7/6/2021	<5.5	84	11	36	40	21	8.8	<6.9	46	54
SB2-5	7/6/2021	<5.5	69	9.3	21	26	15	<7.1	<6.9	36	39
SB3-5	7/6/2021	<5.5	48	4.6	9	16	6.2	<7.1	<6.9	16	29
SB4-5	7/6/2021	<5.5	170	14	42	45	26	9.5	<6.9	58	74
SB5-5	7/6/2021	<5.5	97	16	30	40	27	8.5	<6.9	52	56
SB6-5	7/6/2021	<5.5	130	22	42	46	33	11	<6.9	71	85
SB7-5	7/6/2021	<5.5	80	12	24	26	19	<7.1	<6.9	43	47
SB8-5	7/6/2021	<5.5	180	17	38	37	32	11	<6.9	68	51
SB9-5	7/6/2021	<5.5	87	14	30	28	24	9	<6.9	54	38
SB10-5	7/6/2021	<5.5	98	13	27	30	23	7.5	<6.9	51	39
SB11-5	7/6/2021	<5.5	120	9.8	22	14	16	<7.1	<6.9	39	31

Notes:

mg/kg = milligram per kilogram

As = arsenic, Ba = barium, Co = cobalt, Cr = trivalent chromium, Cu = copper, Ni = nickel, Pb = lead, Se = selenium, V = vanadium, Zn = zinc

<5.5 = concentration is less than the Reporting Limit (5.5), i.e., not detected (ND)

SB1-5 = Soil Boring1, 5-feet below ground surface (bgs).

Analytical results are included as Appendix B

ESL Tier 1 = San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels 2019 (Rev. 2)

RSL_r = USEPA Regional Screening Level for residential soils, RSL_i = USEPA Regional Screening Levels for industrial soils (May 2021)

DTSC SL_r = CalEPA DTSC Screening Level for residential soils, DTSC SL_i = CalEPA DTSC Screening Level for industrial soils (June 2020)
 carcinogenic values were preferentially used for all screening levels, except nickel

Table 3 - VOCs Analytical Results in Soil Matrix

SAMPLE ID	DATE SAMPLED	Benzene mg/kg	n-Butylbenzene mg/kg	sec-Butylbenzene mg/kg	tert-Butylbenzene mg/kg	Ethylbenzene mg/kg	Isopropylbenzene mg/kg	Methyl tert-butyl ether mg/kg	Naphthalene mg/kg	n-Propylbenzene mg/kg	m,p-Xylene mg/kg	o-Xylene mg/kg
RSL _r		1.2	3,900	7,800	7,800	5.8	1,900	47	2	3,800	550	650
DTSC-SL _r		0.33	2,400	2,200	2,200				2			
RSL _i		5.1	58,000	120,000	120,000	25	9,900	210	8.6	24,000	2,400	2,800
DTSC-SL _i		1.4	18,000	12,000	12,000				6.5			
ESL Tier 1		0.025				0.43		0.028	0.042		2.1	2.1
SV16-10	7/13/2021	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067
SV16-15	7/13/2021	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.014	<0.005	<0.005	<0.005
SV17-5	7/13/2021	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SV17-10	7/13/2021	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SV17-15	7/13/2021	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SV18-5	7/13/2021	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SV18-10	7/13/2021	0.0081	0.0052	0.035	0.005	0.023	0.031	<0.005	0.036	0.035	<0.005	<0.005
SV18-15	7/13/2021	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044
SV19-5	7/13/2021	<0.005	1	<0.005	<0.005	<0.005	3	1.2	7.7	5.7	<0.005	<0.005
SV19-10	7/13/2021	<0.0069	<0.0069	0.068	0.012	<0.0069	1	14	<0.69	1.6	0.0075	<0.0069
SV19-15	7/13/2021	<0.5	1.7	<0.5	<0.5	<0.5	1.7	12	13	4.1	<0.5	<0.5

Notes:

mg/kg = milligram per kilogram

<0.005 = concentration is less than the Reporting Limit (0.005), i.e., not detected (ND)

SV1-5 = Soil Boring1, 5-feet below ground surface (bgs).

BOLD = value exceeds the DTSC or USEPA screening level

Analytical results are included as Appendix A

Soil was collected from 5-feet, 10-foot bgs and 15-foot bgs from the same boring.

Only detected concentrations of VOCs are presented in this table. All other VOCs were ND.

ESL Tier 1 = San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels 2019 (Rev. 2)

RSL_r = USEPA Regional Screening Level for residential soils, RSL_i = USEPA Regional Screening Levels for industrial soils

(May 2021)

DTSC SL_r = CalEPA DTSC Screening Level for residential soils, DTSC SL_i = CalEPA DTSC Screening Level for industrial soils

(June 2020)

carcinogenic values were preferentially used for all screening levels

Table 4 - SVOCs Analytical Results in Soil Matrix

SAMPLE ID	DATE SAMPLED	Acenaphthene mg/kg	Anthracene mg/kg	Benzo (a) anthracene mg/kg	2,4-Dinitrophenol mg/kg	Chrysene mg/kg	4,6-Dinitro-2-methylphenol mg/kg	2,4-Dinitrotoluene mg/kg	2,6-Dinitrotoluene mg/kg	Fluorene mg/kg	2-Methylnaphthalene mg/kg	Naphthalene mg/kg	4-Nitroaniline mg/kg	N-Nitrosodi-n-propylamine mg/kg	Phenanthrene mg/kg	Pyrene mg/kg
RSL _r		3,600	18,000	1.1	130	110	5.1	1.7	0.36	2,400	240	2	27	0.078		1,800
DTSC-SL _r		3,300	17,000							2,300	190	2				
RSL _i		45,000	230,000	21	1,600	2,100		7.4	1.5	30,000	3,000	8.6	110	0.33		23,000
DTSC-SL _i		23,000	130,000	12.0	1,100	1,300	42	4.7	0.99	17,000	1,300	6.5	74	0.21		13,000
ESL Tier 1		12	1.9	0.63	3			0.023		6	0.88	0.042			7.8	45
SV16-5	7/13/2021	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
SV16-10	7/13/2021	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
SV16-15	7/13/2021	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
SV17-5	7/13/2021	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
SV17-10	7/13/2021	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
SV17-15	7/13/2021	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
SV18-5	7/13/2021	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
SV18-10	7/13/2021	<0.33	0.82	<0.33	0.92	<0.33	<0.33	<0.33	<0.33	<0.33	2.2	0.44	<0.33	<0.33	0.77	<0.33
SV18-15	7/13/2021	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
SV19-5	7/13/2021	<0.33	2.1	<0.33	<0.33	<0.33	0.4	1.1	1.2	1.1	12	5.2	0.85	0.91	2	0.87
SV19-10	7/13/2021	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
SV19-15	7/13/2021	1.6	1.1	1.3	<0.33	1.5	<0.33	<0.33	<0.33	3	<0.33	4	<0.33	<0.33	9.7	8.5

Notes:

mg/kg = milligram per kilogram

<0.005 = concentration is less than the Reporting Limit (0.005), i.e., not detected (ND)

SV1-5 = Soil Boring1, 5-feet below ground surface (bgs).

BOLD = value exceeds the DTSC or USEPA screening level

Analytical results are included as Appendix A

Soil was collected from 5-feet, 10-feet bgs and 15-feet bgs from the same boring.

Only detected concentrations of SVOCs are presented in this table. All other SVOCs were ND.

ESL Tier 1 = San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels 2019 (Rev. 2)

RSL_r = USEPA Regional Screening Level for residential soils, RSL_i = USEPA Regional Screening Levels for industrial soils

(May 2021)

DTSC SL_r = CalEPA DTSC Screening Level for residential soils, DTSC SL_i = CalEPA DTSC Screening Level for industrial soils

(June 2020)

carcinogenic values were preferentially used for all screening levels

Table 5 - Soil Vapor Analytical Results

SAMPLE ID	DATE SAMPLED	Benzene µg/m ³	n-Butylbenzene µg/m ³	sec-Butylbenzene µg/m ³	cis-1,2-Dichloroethene µg/m ³	Di-isopropylether µg/m ³	Ethylbenzene µg/m ³	Isopropylbenzene µg/m ³	4-Isopropyltoluene µg/m ³	Methylene chloride µg/m ³	Methyl tert-butyl ether µg/m ³	Naphthalene µg/m ³	n-Propylbenzene µg/m ³	Tetrachloroethene µg/m ³	Toluene µg/m ³	m,p-Xylenes µg/m ³	o-Xylene µg/m ³	Gasoline Range Organics (GRO) µg/m ³
RSL _r		0.36				730	1.1	420		100	11	0.83	1,000	11	5,200	100	100	31
DTSC-SL _r		0.097	210	420	8.3					1				0.46	83			
RSL _i		1.6					4.9	1,800		1,200	47	0.36	4,400	47	22,000	440	440	130
DTSC-SL _i		0.42	880	1,800	35	3,100				12				2	350			
ESL Tier 1		3.2			280		37			34	360	2.8		15	10,000	3,500	3,500	3,300
SV1-5	7/27/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	<8	<8	<16	<8	<2,000
SV1-15	7/27/2021	13	<12	<12	<8	<40	<8	57	321	20	<40	<40	<8	<8	16	<16	<8	25,000
SV2-5	7/27/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	<8	<8	<16	<8	<2,000
SV2-15	7/27/2021	<8	<12	<12	<8	<40	<8	<8	<8	17	<40	<40	<8	<8	<8	<16	<8	<2,000
SV2-15 REP	7/27/2021	<8	<12	<12	<8	<40	<8	<8	<8	26	<40	<40	<8	<8	<8	<16	<8	<2,000
SV3-5	7/27/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	18	<8	<16	<8	<2,000
SV3-15	7/27/2021	<8	<12	<12	<8	<40	<8	<8	<8	8	<40	<40	<8	17	<8	<16	<8	<2,000
SV4-5	7/27/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	22	<8	<16	<8	<2,000
SV4-15	7/27/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	12	<8	<16	<8	<2,000
SV5-5	7/27/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	<8	<8	<16	<8	<2,000
SV5-15	7/27/2021	<8	<12	<12	<8	<40	<8	<8	<8	9	<40	<40	<8	<8	<8	<16	<8	<2,000
SV6-5	7/27/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	17	<8	<16	<8	<2,000
SV6-15	7/27/2021	243	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	8	<8	<16	<8	317,000
SV7-5	7/27/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	<8	<8	<16	<8	<2,000
SV7-15	7/27/2021	8,850	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	<8	4,210	799	441	46,300,000
SV8-5	7/27/2021	20	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	23	15	<16	<8	<2,000
SV8-15	7/27/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	<8	<8	<16	<8	<2,000
SV9-5	7/27/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	<8	<8	<16	<8	<2,000
SV9-15	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	34	13	<16	<8	<2,000
SV9-15 REP	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	34	14	<16	<8	<2,000
SV10-5	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	9	<8	<16	<8	<2,000
SV10-15	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	8	<8	<16	<8	<2,000
SV11-5	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	24	<8	<16	<8	<2,000
SV11-15	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	<8	<8	<16	<8	<2,000
SV12-5	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	8	<8	<16	<8	<2,000
SV12-15	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	9	<8	<16	<8	<2,000

Table 5 - Soil Vapor Analytical Results

SAMPLE ID	DATE SAMPLED	Benzene µg/m ³	n-Butylbenzene µg/m ³	sec-Butylbenzene µg/m ³	cis-1,2-Dichloroethene µg/m ³	Di-isopropylether µg/m ³	Ethylbenzene µg/m ³	Isopropylbenzene µg/m ³	4-Isopropyltoluene µg/m ³	Methylene chloride µg/m ³	Methyl tert-butyl ether µg/m ³	Naphthalene µg/m ³	n-Propylbenzene µg/m ³	Tetrachloroethene µg/m ³	Toluene µg/m ³	m,p-Xylenes µg/m ³	o-Xylene µg/m ³	Gasoline Range Organics (GRO) µg/m ³
RSL _r		0.36				730	1.1	420		100	11	0.83	1,000	11	5,200	100	100	31
DTSC-SL _r		0.097	210	420	8.3					1				0.46	83			
RSL _i		1.6					4.9	1,800		1,200	47	0.36	4,400	47	22,000	440	440	130
DTSC-SL _i		0.42	880	1,800	35	3,100				12				2	350			
ESL Tier 1		3.2			280		37			34	360	2.8		15	10,000	3,500	3,500	3,300
SV13-5	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	16	<8	<16	<8	<2,000
SV13-5 REP	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	25	<8	<16	<8	<2,000
SV13-15	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	<8	<8	<16	<8	<2,000
SV14-5	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	10	<8	<16	<8	<2,000
SV14-15	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	<8	<8	<16	<8	<2,000
SV15-5	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	37	<8	<16	<8	<2,000
SV15-15	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	29	<8	<16	<8	<2,000
SV16-5	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	15	<8	<16	<8	<2,000
SV16-15	7/28/2021	27	<12	<12	51	<40	74	<8	16	<8	<40	41	<8	18	44	287	84	46,800
SV17-5	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	32	<8	<16	<8	<2,000
SV17-15	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	10	<8	<16	<8	<2,000
SV18-5	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	13	<8	<16	<8	<2,000
SV18-15	7/28/2021	1,150	<12	<12	<8	4,780	1,910	2,490	<8	<8	8,610	826	2,640	<8	<8	1,720	<8	3,380,000
SV19-5	7/28/2021	18	649	2,380	<8	<40	2,730	4,290	13	<8	121,000*	405	5,810	42	25	<16	<8	900,000

Notes: µg/m³ = micrograms per cubic meter

<x = concentration is less than the Reporting Limit, i.e., not detected; **BOLD** exceeds the screening level

Blank cell screening threshold not available

Analytical results are included as Appendix C

Only detected concentrations of volatiles in the vapor phase are presented in this table

Soil vapor was collected from dual-nested soil vapor probes installed at 5-foot bgs and 15-foot bgs

ESL Tier 1 = San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels 2019 (Rev. 2)

RSL_r = USEPA Regional Screening Level for residential air, RSL_i = USEPA Regional Screening Levels for industrial air (May 2021)

DTSC SL_r = CalEPA DTSC Screening Level for residential air, DTSC SL_i = CalEPA DTSC Screening Level for industrial air (June 2020)

carcinogenic values were preferentially used for all screening levels

* = dilution factor 1/3

FIGURES



Figure 1: Site Location Map
Town Center Northwest
Signal Hill, CA

Mearns Consulting LLC



0 500 feet

Base map: Google Earth 2020



Figure 2: Site Map
Town Center Northwest
Signal Hill, CA

Mearns Consulting LLC



0 300 feet



EXPLANATION

Oil well location:

- Active injection well
- Active production well
- Idle production well
- Idle injection well
- Previously abandoned well

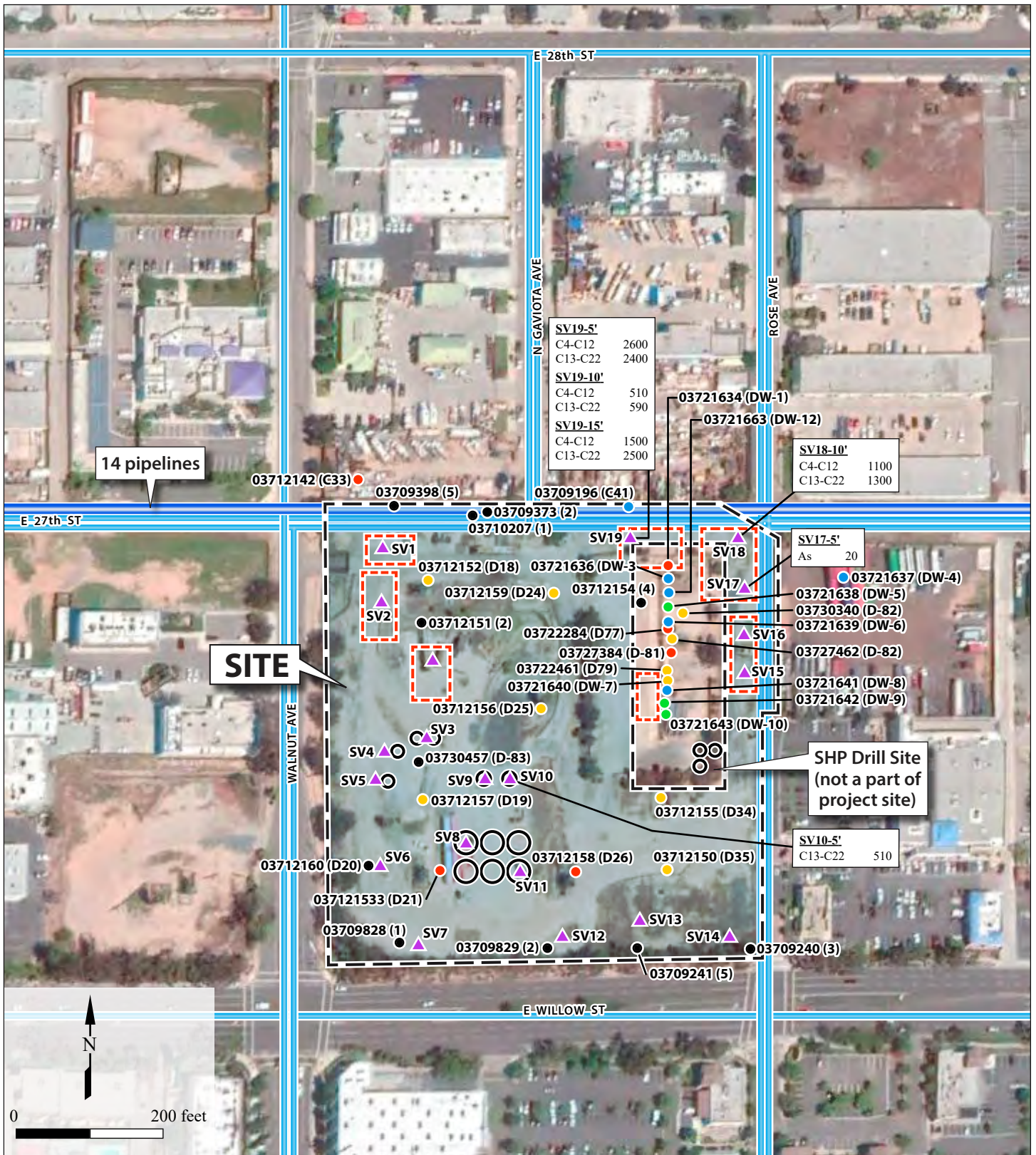


0 200 feet

Base map: Google Earth 2020
Oil well data source: CalGEM

**Figure 3: Oil Wells:
Active, Idle, and Previously Abandoned
Town Center Northwest
Signal Hill, CA**

Mearns Consulting LLC



EXPLANATION

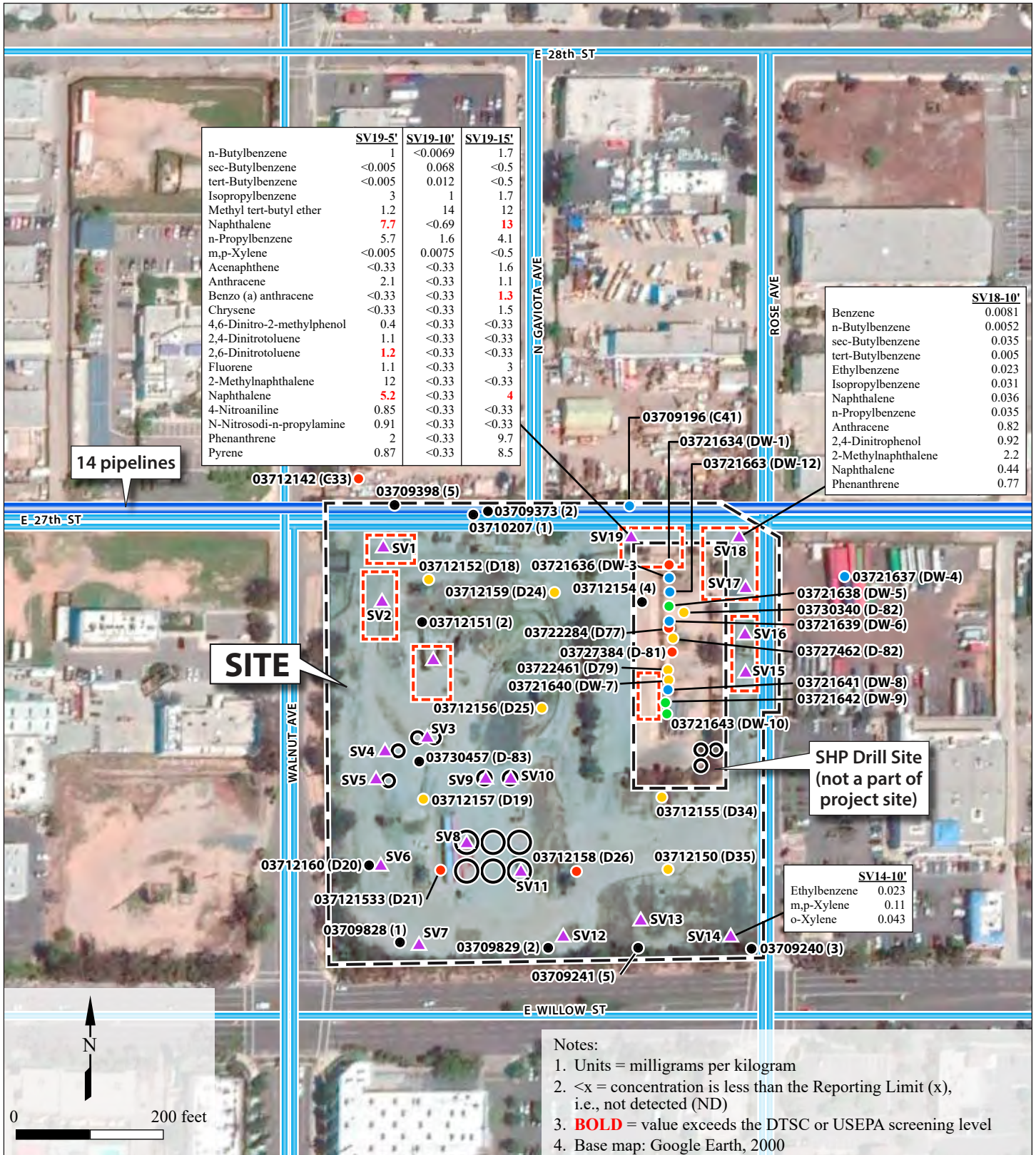
Oil well location:

- Active injection well
- Active production well
- Idle production well
- Idle injection well
- Previously abandoned well

- Pipeline
- Above ground storage tank
- ▭ Potential sump
- ▲ Soil boring, sample depth indicated in feet bgs, sample concentrations in milligrams per kilogram, As = arsenic

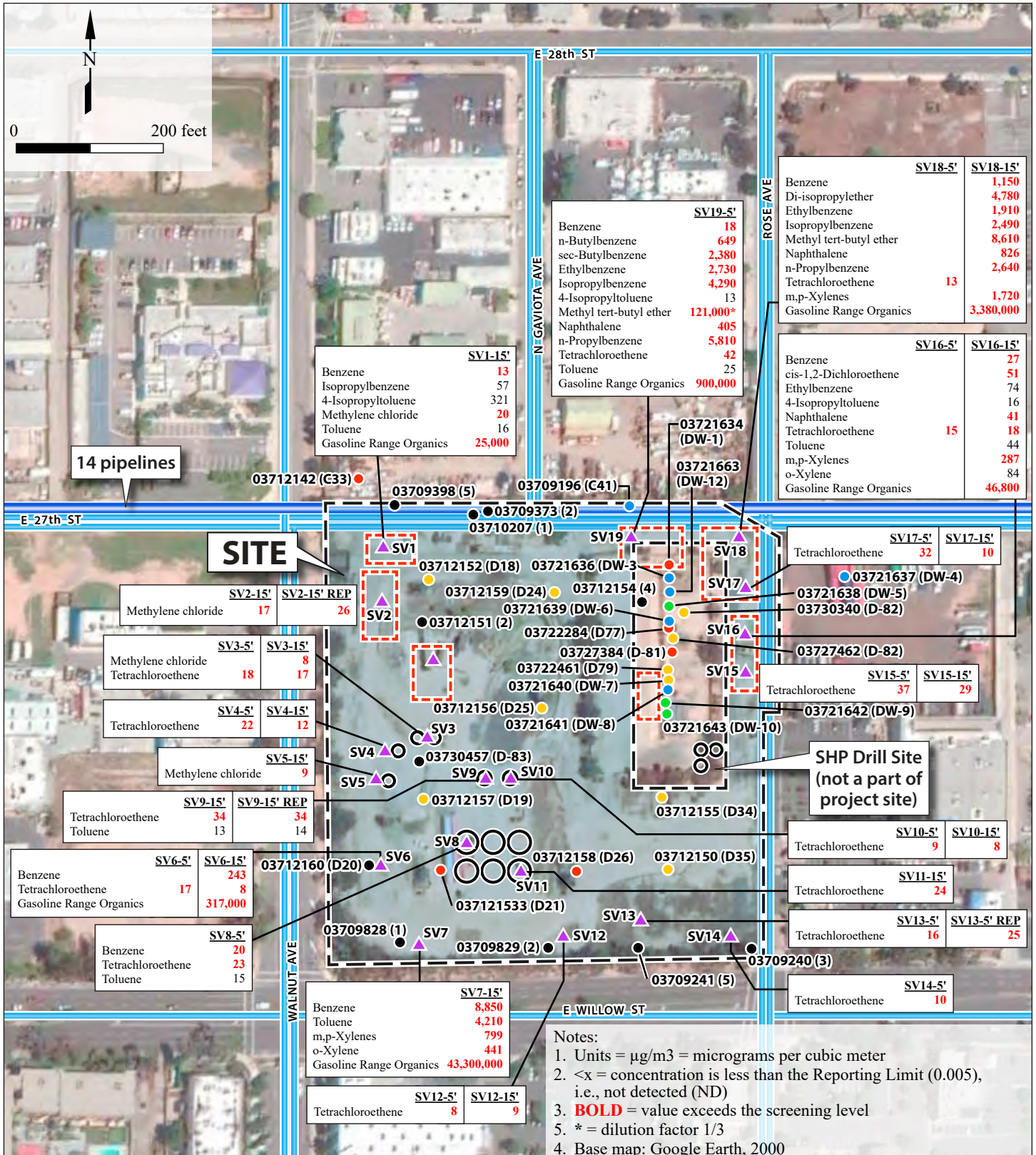
**Figure 4: Concentrations of Metals and Carbon Chains That Exceed Screening Thresholds
Town Center Northwest
Signal Hill, CA**

Mearns Consulting LLC



- EXPLANATION**
- Oil well location:
- Active injection well
 - Active production well
 - Idle production well
 - Idle injection well
 - Previously abandoned well
 - Above ground storage tank
 - Potential sump
 - ▲ Soil boring, sample depth indicated in feet bgs

Figure 5: Detected Concentrations of VOCs and SVOCs in Soil
 Town Center Northwest
 Signal Hill, CA
 Mearns Consulting LLC



14 pipelines

SITE

**SHP Drill Site
(not a part of
project site)**

- Notes:
1. Units = $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter
 2. <x = concentration is less than the Reporting Limit (0.005), i.e., not detected (ND)
 3. **BOLD** = value exceeds the screening level
 5. * = dilution factor 1/3
 4. Base map: Google Earth, 2000
 5. Oil well data source: CalGEM

EXPLANATION

- Oil well location:
- Active injection well
 - Active production well
 - Idle production well
 - Idle injection well
 - Previously abandoned well
- Above ground storage tank
- ▭ Potential sump
- ▲ Soil boring, sample depth indicated in feet bgs

Figure 6: Soil Vapor Analytical Results
Town Center Northwest
Signal Hill, CA

Mearns Consulting LLC

APPENDIX A

**Sierra Analytical Labs, Inc.
Soil Matrix Analytical Data
July 13 & 14, 2021**



19 July 2021

Susan Mearns
Mearns Consulting LLC
738 Ashland Avenue
Santa Monica, CA 90405

RE:Town Center Northwest

Work Order No.: 2107160

Attached are the results of the analyses for samples received by the laboratory on 07/12/21 15:44.

The samples were received by Sierra Analytical Labs, Inc. with a chain of custody record attached or completed at the submittal of the samples.

The analyses were performed according to the prescribed method as outlined by EPA, Standard Methods, and A.S.T.M.

The remaining portions of the samples will be disposed of within 30 days from the date of this report.
If you require any additional retaining time, please advise us.

Sincerely,

A handwritten signature in black ink that reads "Richard K. Forsyth". The signature is written in a cursive style and is positioned above a horizontal line.

Richard K. Forsyth

Laboratory Director

Sierra Analytical Labs, Inc. is certified by the California Department of Health Services (DOHS),
Environmental Laboratory Accreditation Program (ELAP) No. 2320.



Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SV1-5	2107160-01	Soil	07/12/21 08:54	07/12/21 15:44
SV1-10	2107160-02	Soil	07/12/21 10:39	07/12/21 15:44
SV1-15	2107160-03	Soil	07/12/21 10:43	07/12/21 15:44
SV2-5	2107160-04	Soil	07/12/21 11:20	07/12/21 15:44
SV2-10	2107160-05	Soil	07/12/21 11:23	07/12/21 15:44
SV2-15	2107160-06	Soil	07/12/21 11:36	07/12/21 15:44
SV3-5	2107160-07	Soil	07/12/21 12:35	07/12/21 15:44
SV3-10	2107160-08	Soil	07/12/21 12:39	07/12/21 15:44
SV3-15	2107160-09	Soil	07/12/21 12:44	07/12/21 15:44
SV4-5	2107160-10	Soil	07/12/21 13:09	07/12/21 15:44
SV4-10	2107160-11	Soil	07/12/21 13:18	07/12/21 15:44
SV4-15	2107160-12	Soil	07/12/21 13:21	07/12/21 15:44
SV5-5	2107160-13	Soil	07/12/21 13:50	07/12/21 15:44
SV5-10	2107160-14	Soil	07/12/21 14:02	07/12/21 15:44
SV5-15	2107160-15	Soil	07/12/21 14:07	07/12/21 15:44

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV1-5 (2107160-01) Soil Sampled: 07/12/21 08:54 Received: 07/12/21 15:44

Silver	ND	2.0	mg/kg	1	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	68	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	5.4	3.3	"	"	"	"	"	"	
Chromium	9.8	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1307	07/13/21	07/14/21 17:48	EPA 7199A	
Copper	8.8	5.0	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1309	07/13/21	07/13/21 20:26	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Nickel	6.4	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	15	5.1	"	"	"	"	"	"	
Zinc	27	7.0	"	"	"	"	"	"	

SV1-10 (2107160-02) Soil Sampled: 07/12/21 10:39 Received: 07/12/21 15:44

Silver	ND	2.0	mg/kg	1	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	77	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	7.1	3.3	"	"	"	"	"	"	
Chromium	21	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1307	07/13/21	07/14/21 17:48	EPA 7199A	
Copper	20	5.0	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Mercury	ND	0.81	"	"	B1G1309	07/13/21	07/13/21 20:26	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Nickel	12	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	24	5.1	"	"	"	"	"	"	
Zinc	42	7.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
SV1-15 (2107160-03) Soil Sampled: 07/12/21 10:43 Received: 07/12/21 15:44										
Silver	ND	2.0	mg/kg	1	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	45	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	ND	3.3	"	"	"	"	"	"		
Chromium	7.0	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1307	07/13/21	07/14/21 17:48	EPA 7199A		
Copper	ND	5.0	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1309	07/13/21	07/13/21 20:26	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B		
Nickel	3.6	3.0	"	"	"	"	"	"		
Lead	ND	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	6.6	5.1	"	"	"	"	"	"		
Zinc	22	7.0	"	"	"	"	"	"		

SV2-5 (2107160-04) Soil Sampled: 07/12/21 11:20 Received: 07/12/21 15:44										
Silver	ND	2.0	mg/kg	1	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	74	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	5.5	3.3	"	"	"	"	"	"		
Chromium	11	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1307	07/13/21	07/14/21 17:48	EPA 7199A		
Copper	13	5.0	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1309	07/13/21	07/13/21 20:26	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B		
Nickel	6.2	3.0	"	"	"	"	"	"		
Lead	ND	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	13	5.1	"	"	"	"	"	"		
Zinc	28	7.0	"	"	"	"	"	"		

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV2-10 (2107160-05) Soil Sampled: 07/12/21 11:23 Received: 07/12/21 15:44									
Silver	ND	2.0	mg/kg	1	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	82	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	9.3	3.3	"	"	"	"	"	"	
Chromium	18	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1307	07/13/21	07/14/21 17:48	EPA 7199A	
Copper	18	5.0	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1309	07/13/21	07/13/21 20:26	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Nickel	12	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	31	5.1	"	"	"	"	"	"	
Zinc	36	7.0	"	"	"	"	"	"	

SV2-15 (2107160-06) Soil Sampled: 07/12/21 11:36 Received: 07/12/21 15:44

Silver	ND	2.0	mg/kg	1	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	81	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	6.6	3.3	"	"	"	"	"	"	
Chromium	21	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1307	07/13/21	07/14/21 17:48	EPA 7199A	
Copper	14	5.0	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1309	07/13/21	07/13/21 20:26	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Nickel	11	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	28	5.1	"	"	"	"	"	"	
Zinc	36	7.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV3-5 (2107160-07) Soil Sampled: 07/12/21 12:35 Received: 07/12/21 15:44									
Silver	ND	2.0	mg/kg	1	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	67	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	5.6	3.3	"	"	"	"	"	"	
Chromium	12	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1307	07/13/21	07/14/21 17:48	EPA 7199A	
Copper	11	5.0	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Mercury	ND	0.81	"	"	B1G1309	07/13/21	07/13/21 20:26	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Nickel	4.3	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	18	5.1	"	"	"	"	"	"	
Zinc	25	7.0	"	"	"	"	"	"	

SV3-10 (2107160-08) Soil Sampled: 07/12/21 12:39 Received: 07/12/21 15:44

Silver	ND	2.0	mg/kg	1	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	50	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	6.4	3.3	"	"	"	"	"	"	
Chromium	18	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1307	07/13/21	07/14/21 17:48	EPA 7199A	
Copper	17	5.0	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Mercury	ND	0.78	"	"	B1G1309	07/13/21	07/13/21 20:26	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Nickel	9.5	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	31	5.1	"	"	"	"	"	"	
Zinc	34	7.0	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Metals by EPA 6000/7000 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
SV3-15 (2107160-09) Soil Sampled: 07/12/21 12:44 Received: 07/12/21 15:44										
Silver	ND	2.0	mg/kg	1	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	32	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	3.7	3.3	"	"	"	"	"	"		
Chromium	8.3	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1307	07/13/21	07/14/21 17:48	EPA 7199A		
Copper	6.2	5.0	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1309	07/13/21	07/13/21 20:26	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B		
Nickel	5.0	3.0	"	"	"	"	"	"		
Lead	ND	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	18	5.1	"	"	"	"	"	"		
Zinc	18	7.0	"	"	"	"	"	"		
SV4-5 (2107160-10) Soil Sampled: 07/12/21 13:09 Received: 07/12/21 15:44										
Silver	ND	2.0	mg/kg	1	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	63	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	8.2	3.3	"	"	"	"	"	"		
Chromium	13	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1307	07/13/21	07/14/21 17:48	EPA 7199A		
Copper	14	5.0	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1309	07/13/21	07/13/21 20:26	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B		
Nickel	8.0	3.0	"	"	"	"	"	"		
Lead	ND	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	25	5.1	"	"	"	"	"	"		
Zinc	26	7.0	"	"	"	"	"	"		

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV4-10 (2107160-11) Soil Sampled: 07/12/21 13:18 Received: 07/12/21 15:44									
Silver	ND	2.0	mg/kg	1	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	40	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	4.6	3.3	"	"	"	"	"	"	
Chromium	14	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1307	07/13/21	07/14/21 17:48	EPA 7199A	
Copper	12	5.0	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1309	07/13/21	07/13/21 20:26	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Nickel	7.0	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	21	5.1	"	"	"	"	"	"	
Zinc	25	7.0	"	"	"	"	"	"	

SV4-15 (2107160-12) Soil Sampled: 07/12/21 13:21 Received: 07/12/21 15:44

Silver	ND	2.0	mg/kg	1	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	26	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	3.7	3.3	"	"	"	"	"	"	
Chromium	8.1	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1307	07/13/21	07/14/21 17:48	EPA 7199A	
Copper	6.8	5.0	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1309	07/13/21	07/13/21 20:26	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Nickel	5.7	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	14	5.1	"	"	"	"	"	"	
Zinc	20	7.0	"	"	"	"	"	"	

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Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV5-5 (2107160-13) Soil Sampled: 07/12/21 13:50 Received: 07/12/21 15:44									
Silver	ND	2.0	mg/kg	1	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	82	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	8.1	3.3	"	"	"	"	"	"	
Chromium	18	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1307	07/13/21	07/14/21 17:48	EPA 7199A	
Copper	17	5.0	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1309	07/13/21	07/13/21 20:26	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Nickel	10	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	34	5.1	"	"	"	"	"	"	
Zinc	34	7.0	"	"	"	"	"	"	

SV5-10 (2107160-14) Soil Sampled: 07/12/21 14:02 Received: 07/12/21 15:44									
Silver	ND	2.0	mg/kg	1	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	47	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	5.1	3.3	"	"	"	"	"	"	
Chromium	12	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1307	07/13/21	07/14/21 17:48	EPA 7199A	
Copper	11	5.0	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1309	07/13/21	07/13/21 20:26	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Nickel	7.8	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	21	5.1	"	"	"	"	"	"	
Zinc	24	7.0	"	"	"	"	"	"	

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 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV5-15 (2107160-15) Soil Sampled: 07/12/21 14:07 Received: 07/12/21 15:44										
Silver	ND	2.0		mg/kg	1	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Arsenic	ND	5.5		"	"	"	"	"	"	
Barium	61	6.0		"	"	"	"	"	"	
Beryllium	ND	2.2		"	"	"	"	"	"	
Cadmium	ND	2.5		"	"	"	"	"	"	
Cobalt	6.1	3.3		"	"	"	"	"	"	
Chromium	14	2.3		"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10		"	"	B1G1307	07/13/21	07/14/21 17:48	EPA 7199A	
Copper	15	5.0		"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Mercury	ND	0.90		"	"	B1G1309	07/13/21	07/13/21 20:26	EPA 7471A	
Molybdenum	ND	5.2		"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Nickel	8.8	3.0		"	"	"	"	"	"	
Lead	ND	7.1		"	"	"	"	"	"	
Antimony	ND	8.0		"	"	"	"	"	"	
Selenium	ND	6.9		"	"	"	"	"	"	
Thallium	ND	17		"	"	"	"	"	"	
Vanadium	28	5.1		"	"	"	"	"	"	
Zinc	30	7.0		"	"	"	"	"	"	

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Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV1-5 (2107160-01) Soil Sampled: 07/12/21 08:54 Received: 07/12/21 15:44

<i>Surrogate: o-Terphenyl</i>		67.5 %	60-175		BIG1401	07/14/21	07/14/21 12:21	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		96.4 %	35-130		BIG1302	07/13/21	07/14/21 08:03	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	"

SV1-10 (2107160-02) Soil Sampled: 07/12/21 10:39 Received: 07/12/21 15:44

<i>Surrogate: o-Terphenyl</i>		91.5 %	60-175		BIG1401	07/14/21	07/14/21 12:21	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		98.5 %	35-130		BIG1302	07/13/21	07/14/21 08:03	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	"

SV1-15 (2107160-03) Soil Sampled: 07/12/21 10:43 Received: 07/12/21 15:44

<i>Surrogate: o-Terphenyl</i>		66.4 %	60-175		BIG1401	07/14/21	07/14/21 12:21	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		92.0 %	35-130		BIG1302	07/13/21	07/14/21 08:03	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	"

SV2-5 (2107160-04) Soil Sampled: 07/12/21 11:20 Received: 07/12/21 15:44

<i>Surrogate: o-Terphenyl</i>		69.9 %	60-175		BIG1401	07/14/21	07/14/21 12:21	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	35	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		91.9 %	35-130		BIG1302	07/13/21	07/14/21 08:03	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.042	"	"	"	"	"	"	"

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Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV2-10 (2107160-05) Soil Sampled: 07/12/21 11:23 Received: 07/12/21 15:44									
<i>Surrogate: o-Terphenyl</i>		91.3 %	60-175		B1G1401	07/14/21	07/14/21 12:21	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		98.5 %	35-130		B1G1302	07/13/21	07/14/21 08:03	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.045	"	"	"	"	"	"	
SV2-15 (2107160-06) Soil Sampled: 07/12/21 11:36 Received: 07/12/21 15:44									
<i>Surrogate: o-Terphenyl</i>		68.0 %	60-175		B1G1401	07/14/21	07/14/21 12:21	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		91.4 %	35-130		B1G1302	07/13/21	07/14/21 08:03	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	
SV3-5 (2107160-07) Soil Sampled: 07/12/21 12:35 Received: 07/12/21 15:44									
<i>Surrogate: o-Terphenyl</i>		73.0 %	60-175		B1G1401	07/14/21	07/14/21 12:21	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		93.7 %	35-130		B1G1302	07/13/21	07/14/21 08:03	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.042	"	"	"	"	"	"	
SV3-10 (2107160-08) Soil Sampled: 07/12/21 12:39 Received: 07/12/21 15:44									
<i>Surrogate: o-Terphenyl</i>		76.6 %	60-175		B1G1401	07/14/21	07/14/21 12:21	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		91.5 %	35-130		B1G1302	07/13/21	07/14/21 08:03	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	

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Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV3-15 (2107160-09) Soil Sampled: 07/12/21 12:44 Received: 07/12/21 15:44									
<i>Surrogate: o-Terphenyl</i>		77.7 %	60-175		BIG1401	07/14/21	07/14/21 12:21	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		93.0 %	35-130		BIG1302	07/13/21	07/14/21 08:03	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	"
SV4-5 (2107160-10) Soil Sampled: 07/12/21 13:09 Received: 07/12/21 15:44									
<i>Surrogate: o-Terphenyl</i>		74.6 %	60-175		BIG1401	07/14/21	07/14/21 12:21	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		96.7 %	35-130		BIG1302	07/13/21	07/14/21 08:03	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	"
SV4-10 (2107160-11) Soil Sampled: 07/12/21 13:18 Received: 07/12/21 15:44									
<i>Surrogate: o-Terphenyl</i>		76.4 %	60-175		BIG1401	07/14/21	07/14/21 12:21	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		94.0 %	35-130		BIG1302	07/13/21	07/14/21 08:03	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	"
SV4-15 (2107160-12) Soil Sampled: 07/12/21 13:21 Received: 07/12/21 15:44									
<i>Surrogate: o-Terphenyl</i>		65.2 %	60-175		BIG1401	07/14/21	07/14/21 12:21	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		84.3 %	35-130		BIG1302	07/13/21	07/14/21 08:03	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	"

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 Project Manager: Susan Mearns

Reported:
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Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV5-5 (2107160-13) Soil Sampled: 07/12/21 13:50 Received: 07/12/21 15:44

<i>Surrogate: o-Terphenyl</i>		67.5 %	60-175		BIG1401	07/14/21	07/14/21 12:21	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		95.6 %	35-130		BIG1302	07/13/21	07/14/21 08:03	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	"

SV5-10 (2107160-14) Soil Sampled: 07/12/21 14:02 Received: 07/12/21 15:44

<i>Surrogate: o-Terphenyl</i>		71.2 %	60-175		BIG1401	07/14/21	07/14/21 12:21	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		87.6 %	35-130		BIG1302	07/13/21	07/14/21 08:03	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	"

SV5-15 (2107160-15) Soil Sampled: 07/12/21 14:07 Received: 07/12/21 15:44

<i>Surrogate: o-Terphenyl</i>		73.6 %	60-175		BIG1401	07/14/21	07/14/21 12:21	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		87.4 %	35-130		BIG1302	07/13/21	07/14/21 08:03	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	"

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV1-5 (2107160-01) Soil Sampled: 07/12/21 08:54 Received: 07/12/21 15:44

Surrogate: Dibromofluoromethane		112 %		80-120	BIG1312	07/13/21	07/14/21 08:23	EPA 8260B	
Surrogate: Toluene-d8		99.7 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.8 %		74-121	"	"	"	"	
Benzene	ND	4.5	"	"	"	"	"	"	
Bromobenzene	ND	4.5	"	"	"	"	"	"	
Bromochloromethane	ND	4.5	"	"	"	"	"	"	
Bromodichloromethane	ND	4.5	"	"	"	"	"	"	
Bromoform	ND	4.5	"	"	"	"	"	"	
Bromomethane	ND	4.5	"	"	"	"	"	"	
n-Butylbenzene	ND	4.5	"	"	"	"	"	"	
sec-Butylbenzene	ND	4.5	"	"	"	"	"	"	
tert-Butylbenzene	ND	4.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	4.5	"	"	"	"	"	"	
Chlorobenzene	ND	4.5	"	"	"	"	"	"	
Chloroethane	ND	4.5	"	"	"	"	"	"	
Chloroform	ND	4.5	"	"	"	"	"	"	
Chloromethane	ND	4.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	4.5	"	"	"	"	"	"	
4-Chlorotoluene	ND	4.5	"	"	"	"	"	"	
Dibromochloromethane	ND	4.5	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	4.5	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	4.5	"	"	"	"	"	"	
Dibromomethane	ND	4.5	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	4.5	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	4.5	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	4.5	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	4.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.5	"	"	"	"	"	"	
1,2-Dichloroethane	ND	4.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	4.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	4.5	"	"	"	"	"	"	
1,3-Dichloropropane	ND	4.5	"	"	"	"	"	"	
2,2-Dichloropropane	ND	4.5	"	"	"	"	"	"	
1,1-Dichloropropene	ND	4.5	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.5	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.5	"	"	"	"	"	"	
Ethylbenzene	ND	4.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	4.5	"	"	"	"	"	"	
Isopropylbenzene	ND	4.5	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV1-5 (2107160-01) Soil Sampled: 07/12/21 08:54 Received: 07/12/21 15:44

p-Isopropyltoluene	ND	4.5	µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
Methylene chloride	ND	4.5	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	4.5	"	"	"	"	"	"	
Naphthalene	ND	4.5	"	"	"	"	"	"	
n-Propylbenzene	ND	4.5	"	"	"	"	"	"	
Styrene	ND	4.5	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	4.5	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	4.5	"	"	"	"	"	"	
Tetrachloroethane	ND	4.5	"	"	"	"	"	"	
Toluene	ND	4.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.5	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	4.5	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	4.5	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	4.5	"	"	"	"	"	"	
Trichloroethene	ND	4.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	4.5	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	4.5	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	4.5	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	4.5	"	"	"	"	"	"	
Vinyl chloride	ND	4.5	"	"	"	"	"	"	
m,p-Xylene	ND	4.5	"	"	"	"	"	"	
o-Xylene	ND	4.5	"	"	"	"	"	"	

SV1-10 (2107160-02) Soil Sampled: 07/12/21 10:39 Received: 07/12/21 15:44

Surrogate: Dibromofluoromethane		114 %		80-120	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
Surrogate: Toluene-d8		99.4 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.0 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV1-10 (2107160-02) Soil Sampled: 07/12/21 10:39 Received: 07/12/21 15:44										
2-Chlorotoluene	ND	5.0		µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
4-Chlorotoluene	ND	5.0		"	"	"	"	"	"	
Dibromochloromethane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0		"	"	"	"	"	"	
Dibromomethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0		"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0		"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV1-10 (2107160-02) Soil Sampled: 07/12/21 10:39 Received: 07/12/21 15:44

1,2,4-Trimethylbenzene	ND	5.0	µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV1-15 (2107160-03) Soil Sampled: 07/12/21 10:43 Received: 07/12/21 15:44

<i>Surrogate: Dibromofluoromethane</i>		115 %		80-120	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		101 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		95.9 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV1-15 (2107160-03) Soil Sampled: 07/12/21 10:43 Received: 07/12/21 15:44										
2,2-Dichloropropane	ND	5.0		µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
Vinyl chloride	ND	5.0		"	"	"	"	"	"	
m,p-Xylene	ND	5.0		"	"	"	"	"	"	
o-Xylene	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV2-5 (2107160-04) Soil Sampled: 07/12/21 11:20 Received: 07/12/21 15:44									
<i>Surrogate: Dibromofluoromethane</i>		113 %		80-120	BIG1312	07/13/21	07/14/21 08:23	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		101 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		95.8 %		74-121	"	"	"	"	
Benzene	ND	4.2	"	"	"	"	"	"	
Bromobenzene	ND	4.2	"	"	"	"	"	"	
Bromochloromethane	ND	4.2	"	"	"	"	"	"	
Bromodichloromethane	ND	4.2	"	"	"	"	"	"	
Bromoform	ND	4.2	"	"	"	"	"	"	
Bromomethane	ND	4.2	"	"	"	"	"	"	
n-Butylbenzene	ND	4.2	"	"	"	"	"	"	
sec-Butylbenzene	ND	4.2	"	"	"	"	"	"	
tert-Butylbenzene	ND	4.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	4.2	"	"	"	"	"	"	
Chlorobenzene	ND	4.2	"	"	"	"	"	"	
Chloroethane	ND	4.2	"	"	"	"	"	"	
Chloroform	ND	4.2	"	"	"	"	"	"	
Chloromethane	ND	4.2	"	"	"	"	"	"	
2-Chlorotoluene	ND	4.2	"	"	"	"	"	"	
4-Chlorotoluene	ND	4.2	"	"	"	"	"	"	
Dibromochloromethane	ND	4.2	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	4.2	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	4.2	"	"	"	"	"	"	
Dibromomethane	ND	4.2	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	4.2	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	4.2	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	4.2	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	4.2	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.2	"	"	"	"	"	"	
1,2-Dichloroethane	ND	4.2	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.2	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.2	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	4.2	"	"	"	"	"	"	
1,2-Dichloropropane	ND	4.2	"	"	"	"	"	"	
1,3-Dichloropropane	ND	4.2	"	"	"	"	"	"	
2,2-Dichloropropane	ND	4.2	"	"	"	"	"	"	
1,1-Dichloropropene	ND	4.2	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.2	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.2	"	"	"	"	"	"	
Ethylbenzene	ND	4.2	"	"	"	"	"	"	
Hexachlorobutadiene	ND	4.2	"	"	"	"	"	"	
Isopropylbenzene	ND	4.2	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV2-5 (2107160-04) Soil Sampled: 07/12/21 11:20 Received: 07/12/21 15:44

p-Isopropyltoluene	ND	4.2	µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
Methylene chloride	ND	4.2	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	4.2	"	"	"	"	"	"	
Naphthalene	ND	4.2	"	"	"	"	"	"	
n-Propylbenzene	ND	4.2	"	"	"	"	"	"	
Styrene	ND	4.2	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	4.2	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	4.2	"	"	"	"	"	"	
Tetrachloroethane	ND	4.2	"	"	"	"	"	"	
Toluene	ND	4.2	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.2	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	4.2	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	4.2	"	"	"	"	"	"	
Trichloroethene	ND	4.2	"	"	"	"	"	"	
Trichlorofluoromethane	ND	4.2	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	4.2	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	4.2	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	4.2	"	"	"	"	"	"	
Vinyl chloride	ND	4.2	"	"	"	"	"	"	
m,p-Xylene	ND	4.2	"	"	"	"	"	"	
o-Xylene	ND	4.2	"	"	"	"	"	"	

SV2-10 (2107160-05) Soil Sampled: 07/12/21 11:23 Received: 07/12/21 15:44

Surrogate: Dibromofluoromethane		111 %		80-120	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
Surrogate: Toluene-d8		100 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.5 %		74-121	"	"	"	"	
Benzene	ND	3.9	"	"	"	"	"	"	
Bromobenzene	ND	3.9	"	"	"	"	"	"	
Bromochloromethane	ND	3.9	"	"	"	"	"	"	
Bromodichloromethane	ND	3.9	"	"	"	"	"	"	
Bromoform	ND	3.9	"	"	"	"	"	"	
Bromomethane	ND	3.9	"	"	"	"	"	"	
n-Butylbenzene	ND	3.9	"	"	"	"	"	"	
sec-Butylbenzene	ND	3.9	"	"	"	"	"	"	
tert-Butylbenzene	ND	3.9	"	"	"	"	"	"	
Carbon tetrachloride	ND	3.9	"	"	"	"	"	"	
Chlorobenzene	ND	3.9	"	"	"	"	"	"	
Chloroethane	ND	3.9	"	"	"	"	"	"	
Chloroform	ND	3.9	"	"	"	"	"	"	
Chloromethane	ND	3.9	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV2-10 (2107160-05) Soil Sampled: 07/12/21 11:23 Received: 07/12/21 15:44										
2-Chlorotoluene	ND	3.9		µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
4-Chlorotoluene	ND	3.9		"	"	"	"	"	"	
Dibromochloromethane	ND	3.9		"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	3.9		"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	3.9		"	"	"	"	"	"	
Dibromomethane	ND	3.9		"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	3.9		"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	3.9		"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	3.9		"	"	"	"	"	"	
Dichlorodifluoromethane	ND	3.9		"	"	"	"	"	"	
1,1-Dichloroethane	ND	3.9		"	"	"	"	"	"	
1,2-Dichloroethane	ND	3.9		"	"	"	"	"	"	
1,1-Dichloroethene	ND	3.9		"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	3.9		"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	3.9		"	"	"	"	"	"	
1,2-Dichloropropane	ND	3.9		"	"	"	"	"	"	
1,3-Dichloropropane	ND	3.9		"	"	"	"	"	"	
2,2-Dichloropropane	ND	3.9		"	"	"	"	"	"	
1,1-Dichloropropene	ND	3.9		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	3.9		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	3.9		"	"	"	"	"	"	
Ethylbenzene	ND	3.9		"	"	"	"	"	"	
Hexachlorobutadiene	ND	3.9		"	"	"	"	"	"	
Isopropylbenzene	ND	3.9		"	"	"	"	"	"	
p-Isopropyltoluene	ND	3.9		"	"	"	"	"	"	
Methylene chloride	ND	3.9		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	3.9		"	"	"	"	"	"	
Naphthalene	ND	3.9		"	"	"	"	"	"	
n-Propylbenzene	ND	3.9		"	"	"	"	"	"	
Styrene	ND	3.9		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	3.9		"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	3.9		"	"	"	"	"	"	
Tetrachloroethene	ND	3.9		"	"	"	"	"	"	
Toluene	ND	3.9		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	3.9		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	3.9		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	3.9		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	3.9		"	"	"	"	"	"	
Trichloroethene	ND	3.9		"	"	"	"	"	"	
Trichlorofluoromethane	ND	3.9		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	3.9		"	"	"	"	"	"	

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 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV2-10 (2107160-05) Soil Sampled: 07/12/21 11:23 Received: 07/12/21 15:44

1,2,4-Trimethylbenzene	ND	3.9	µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
1,3,5-Trimethylbenzene	ND	3.9	"	"	"	"	"	"	
Vinyl chloride	ND	3.9	"	"	"	"	"	"	
m,p-Xylene	ND	3.9	"	"	"	"	"	"	
o-Xylene	ND	3.9	"	"	"	"	"	"	

SV2-15 (2107160-06) Soil Sampled: 07/12/21 11:36 Received: 07/12/21 15:44

<i>Surrogate: Dibromofluoromethane</i>		116 %		80-120	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		102 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		95.2 %		74-121	"	"	"	"	
Benzene	ND	4.4	"	"	"	"	"	"	
Bromobenzene	ND	4.4	"	"	"	"	"	"	
Bromochloromethane	ND	4.4	"	"	"	"	"	"	
Bromodichloromethane	ND	4.4	"	"	"	"	"	"	
Bromoform	ND	4.4	"	"	"	"	"	"	
Bromomethane	ND	4.4	"	"	"	"	"	"	
n-Butylbenzene	ND	4.4	"	"	"	"	"	"	
sec-Butylbenzene	ND	4.4	"	"	"	"	"	"	
tert-Butylbenzene	ND	4.4	"	"	"	"	"	"	
Carbon tetrachloride	ND	4.4	"	"	"	"	"	"	
Chlorobenzene	ND	4.4	"	"	"	"	"	"	
Chloroethane	ND	4.4	"	"	"	"	"	"	
Chloroform	ND	4.4	"	"	"	"	"	"	
Chloromethane	ND	4.4	"	"	"	"	"	"	
2-Chlorotoluene	ND	4.4	"	"	"	"	"	"	
4-Chlorotoluene	ND	4.4	"	"	"	"	"	"	
Dibromochloromethane	ND	4.4	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	4.4	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	4.4	"	"	"	"	"	"	
Dibromomethane	ND	4.4	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	4.4	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	4.4	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	4.4	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	4.4	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.4	"	"	"	"	"	"	
1,2-Dichloroethane	ND	4.4	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.4	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.4	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	4.4	"	"	"	"	"	"	
1,2-Dichloropropane	ND	4.4	"	"	"	"	"	"	
1,3-Dichloropropane	ND	4.4	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV2-15 (2107160-06) Soil Sampled: 07/12/21 11:36 Received: 07/12/21 15:44										
2,2-Dichloropropane	ND	4.4		µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
1,1-Dichloropropene	ND	4.4		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.4		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.4		"	"	"	"	"	"	
Ethylbenzene	ND	4.4		"	"	"	"	"	"	
Hexachlorobutadiene	ND	4.4		"	"	"	"	"	"	
Isopropylbenzene	ND	4.4		"	"	"	"	"	"	
p-Isopropyltoluene	ND	4.4		"	"	"	"	"	"	
Methylene chloride	ND	4.4		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	4.4		"	"	"	"	"	"	
Naphthalene	ND	4.4		"	"	"	"	"	"	
n-Propylbenzene	ND	4.4		"	"	"	"	"	"	
Styrene	ND	4.4		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	4.4		"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	4.4		"	"	"	"	"	"	
Tetrachloroethene	ND	4.4		"	"	"	"	"	"	
Toluene	ND	4.4		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.4		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	4.4		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	4.4		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	4.4		"	"	"	"	"	"	
Trichloroethene	ND	4.4		"	"	"	"	"	"	
Trichlorofluoromethane	ND	4.4		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	4.4		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	4.4		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	4.4		"	"	"	"	"	"	
Vinyl chloride	ND	4.4		"	"	"	"	"	"	
m,p-Xylene	ND	4.4		"	"	"	"	"	"	
o-Xylene	ND	4.4		"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV3-5 (2107160-07) Soil Sampled: 07/12/21 12:35 Received: 07/12/21 15:44

Surrogate: Dibromofluoromethane		114 %		80-120	BIG1312	07/13/21	07/14/21 08:23	EPA 8260B	
Surrogate: Toluene-d8		101 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.7 %		74-121	"	"	"	"	
Benzene	ND	4.2	"	"	"	"	"	"	
Bromobenzene	ND	4.2	"	"	"	"	"	"	
Bromochloromethane	ND	4.2	"	"	"	"	"	"	
Bromodichloromethane	ND	4.2	"	"	"	"	"	"	
Bromoform	ND	4.2	"	"	"	"	"	"	
Bromomethane	ND	4.2	"	"	"	"	"	"	
n-Butylbenzene	ND	4.2	"	"	"	"	"	"	
sec-Butylbenzene	ND	4.2	"	"	"	"	"	"	
tert-Butylbenzene	ND	4.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	4.2	"	"	"	"	"	"	
Chlorobenzene	ND	4.2	"	"	"	"	"	"	
Chloroethane	ND	4.2	"	"	"	"	"	"	
Chloroform	ND	4.2	"	"	"	"	"	"	
Chloromethane	ND	4.2	"	"	"	"	"	"	
2-Chlorotoluene	ND	4.2	"	"	"	"	"	"	
4-Chlorotoluene	ND	4.2	"	"	"	"	"	"	
Dibromochloromethane	ND	4.2	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	4.2	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	4.2	"	"	"	"	"	"	
Dibromomethane	ND	4.2	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	4.2	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	4.2	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	4.2	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	4.2	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.2	"	"	"	"	"	"	
1,2-Dichloroethane	ND	4.2	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.2	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.2	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	4.2	"	"	"	"	"	"	
1,2-Dichloropropane	ND	4.2	"	"	"	"	"	"	
1,3-Dichloropropane	ND	4.2	"	"	"	"	"	"	
2,2-Dichloropropane	ND	4.2	"	"	"	"	"	"	
1,1-Dichloropropene	ND	4.2	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.2	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.2	"	"	"	"	"	"	
Ethylbenzene	ND	4.2	"	"	"	"	"	"	
Hexachlorobutadiene	ND	4.2	"	"	"	"	"	"	
Isopropylbenzene	ND	4.2	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV3-5 (2107160-07) Soil Sampled: 07/12/21 12:35 Received: 07/12/21 15:44

p-Isopropyltoluene	ND	4.2	µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
Methylene chloride	ND	4.2	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	4.2	"	"	"	"	"	"	
Naphthalene	ND	4.2	"	"	"	"	"	"	
n-Propylbenzene	ND	4.2	"	"	"	"	"	"	
Styrene	ND	4.2	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	4.2	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	4.2	"	"	"	"	"	"	
Tetrachloroethane	ND	4.2	"	"	"	"	"	"	
Toluene	ND	4.2	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.2	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	4.2	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	4.2	"	"	"	"	"	"	
Trichloroethene	ND	4.2	"	"	"	"	"	"	
Trichlorofluoromethane	ND	4.2	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	4.2	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	4.2	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	4.2	"	"	"	"	"	"	
Vinyl chloride	ND	4.2	"	"	"	"	"	"	
m,p-Xylene	ND	4.2	"	"	"	"	"	"	
o-Xylene	ND	4.2	"	"	"	"	"	"	

SV3-10 (2107160-08) Soil Sampled: 07/12/21 12:39 Received: 07/12/21 15:44

Surrogate: Dibromofluoromethane		116 %	80-120		B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
Surrogate: Toluene-d8		101 %	81-117		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.2 %	74-121		"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV3-10 (2107160-08) Soil Sampled: 07/12/21 12:39 Received: 07/12/21 15:44									
2-Chlorotoluene	ND	5.0	µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV3-10 (2107160-08) Soil Sampled: 07/12/21 12:39 Received: 07/12/21 15:44

1,2,4-Trimethylbenzene	ND	5.0	µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV3-15 (2107160-09) Soil Sampled: 07/12/21 12:44 Received: 07/12/21 15:44

<i>Surrogate: Dibromofluoromethane</i>		118 %		80-120	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		101 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		95.7 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV3-15 (2107160-09) Soil Sampled: 07/12/21 12:44 Received: 07/12/21 15:44										
2,2-Dichloropropane	ND	5.0		µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
Vinyl chloride	ND	5.0		"	"	"	"	"	"	
m,p-Xylene	ND	5.0		"	"	"	"	"	"	
o-Xylene	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV4-5 (2107160-10) Soil Sampled: 07/12/21 13:09 Received: 07/12/21 15:44

Surrogate: Dibromofluoromethane		117 %		80-120	BIG1312	07/13/21	07/14/21 08:23	EPA 8260B	
Surrogate: Toluene-d8		100 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.6 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV4-5 (2107160-10) Soil Sampled: 07/12/21 13:09 Received: 07/12/21 15:44

p-Isopropyltoluene	ND	5.0	µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV4-10 (2107160-11) Soil Sampled: 07/12/21 13:18 Received: 07/12/21 15:44

Surrogate: Dibromofluoromethane		119 %		80-120	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
Surrogate: Toluene-d8		99.8 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.6 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV4-10 (2107160-11) Soil Sampled: 07/12/21 13:18 Received: 07/12/21 15:44									
2-Chlorotoluene	ND	5.0	µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0	"	"	"	"	"	"	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV4-10 (2107160-11) Soil Sampled: 07/12/21 13:18 Received: 07/12/21 15:44

1,2,4-Trimethylbenzene	ND	5.0	µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV4-15 (2107160-12) Soil Sampled: 07/12/21 13:21 Received: 07/12/21 15:44

<i>Surrogate: Dibromofluoromethane</i>		118 %		80-120	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		101 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		94.5 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV4-15 (2107160-12) Soil Sampled: 07/12/21 13:21 Received: 07/12/21 15:44										
2,2-Dichloropropane	ND	5.0		µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
Vinyl chloride	ND	5.0		"	"	"	"	"	"	
m,p-Xylene	ND	5.0		"	"	"	"	"	"	
o-Xylene	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								

SV5-5 (2107160-13) Soil Sampled: 07/12/21 13:50 Received: 07/12/21 15:44

Surrogate: Dibromofluoromethane		118 %		80-120		BIG1312	07/13/21	07/14/21 08:23	EPA 8260B	
Surrogate: Toluene-d8		102 %		81-117		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.0 %		74-121		"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV5-5 (2107160-13) Soil Sampled: 07/12/21 13:50 Received: 07/12/21 15:44

p-Isopropyltoluene	ND	5.0	µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV5-10 (2107160-14) Soil Sampled: 07/12/21 14:02 Received: 07/12/21 15:44

Surrogate: Dibromofluoromethane		100 %	80-120		B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
Surrogate: Toluene-d8		101 %	81-117		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.4 %	74-121		"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV5-10 (2107160-14) Soil Sampled: 07/12/21 14:02 Received: 07/12/21 15:44										
2-Chlorotoluene	ND	5.0		µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
4-Chlorotoluene	ND	5.0		"	"	"	"	"	"	
Dibromochloromethane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0		"	"	"	"	"	"	
Dibromomethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0		"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0		"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV5-10 (2107160-14) Soil Sampled: 07/12/21 14:02 Received: 07/12/21 15:44

1,2,4-Trimethylbenzene	ND	5.0	µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV5-15 (2107160-15) Soil Sampled: 07/12/21 14:07 Received: 07/12/21 15:44

<i>Surrogate: Dibromofluoromethane</i>		100 %		80-120	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		101 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		94.1 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV5-15 (2107160-15) Soil Sampled: 07/12/21 14:07 Received: 07/12/21 15:44										
2,2-Dichloropropane	ND	5.0		µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	"
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	"
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	"
Ethylbenzene	ND	5.0		"	"	"	"	"	"	"
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	"
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	"
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	"
Methylene chloride	ND	5.0		"	"	"	"	"	"	"
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	"
Naphthalene	ND	5.0		"	"	"	"	"	"	"
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	"
Styrene	ND	5.0		"	"	"	"	"	"	"
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	"
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	"
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	"
Toluene	ND	5.0		"	"	"	"	"	"	"
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	"
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	"
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	"
Trichloroethene	ND	5.0		"	"	"	"	"	"	"
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	"
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	"
1,2,4-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	"
1,3,5-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	"
Vinyl chloride	ND	5.0		"	"	"	"	"	"	"
m,p-Xylene	ND	5.0		"	"	"	"	"	"	"
o-Xylene	ND	5.0		"	"	"	"	"	"	"

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV1-5 (2107160-01) Soil Sampled: 07/12/21 08:54 Received: 07/12/21 15:44									
Surrogate: 2-Fluorophenol		99.9 %		25-121	BIG1405	07/14/21	07/14/21 14:33	EPA 8270C	
Surrogate: Phenol-d6		102 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		67.5 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		41.6 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		28.7 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		119 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV1-5 (2107160-01) Soil Sampled: 07/12/21 08:54 Received: 07/12/21 15:44										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	"
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	"
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	"
Fluoranthene	ND	0.33		"	"	"	"	"	"	"
Fluorene	ND	0.33		"	"	"	"	"	"	"
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	"
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	"
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	"
Hexachloroethane	ND	0.33		"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	"
Isophorone	ND	0.33		"	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	"
2-Methylphenol	ND	0.33		"	"	"	"	"	"	"
4-Methylphenol	ND	0.33		"	"	"	"	"	"	"
Naphthalene	ND	0.33		"	"	"	"	"	"	"
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
Nitrobenzene	ND	0.33		"	"	"	"	"	"	"
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	"
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	"
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	"
Diphenylamine	ND	0.33		"	"	"	"	"	"	"
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	"
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	"
Phenanthrene	ND	0.33		"	"	"	"	"	"	"
Phenol	ND	0.33		"	"	"	"	"	"	"
Pyrene	ND	0.33		"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	"
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	"
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	"

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV1-10 (2107160-02) Soil Sampled: 07/12/21 10:39 Received: 07/12/21 15:44									
Surrogate: 2-Fluorophenol		107 %		25-121	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
Surrogate: Phenol-d6		104 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		64.3 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		68.0 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		31.5 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		73.0 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV1-10 (2107160-02) Soil Sampled: 07/12/21 10:39 Received: 07/12/21 15:44										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV1-15 (2107160-03) Soil Sampled: 07/12/21 10:43 Received: 07/12/21 15:44									
Surrogate: 2-Fluorophenol		118 %		25-121	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
Surrogate: Phenol-d6		101 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		64.5 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		58.7 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		27.1 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		94.1 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV1-15 (2107160-03) Soil Sampled: 07/12/21 10:43 Received: 07/12/21 15:44										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	"
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	"
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	"
Fluoranthene	ND	0.33		"	"	"	"	"	"	"
Fluorene	ND	0.33		"	"	"	"	"	"	"
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	"
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	"
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	"
Hexachloroethane	ND	0.33		"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	"
Isophorone	ND	0.33		"	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	"
2-Methylphenol	ND	0.33		"	"	"	"	"	"	"
4-Methylphenol	ND	0.33		"	"	"	"	"	"	"
Naphthalene	ND	0.33		"	"	"	"	"	"	"
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
Nitrobenzene	ND	0.33		"	"	"	"	"	"	"
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	"
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	"
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	"
Diphenylamine	ND	0.33		"	"	"	"	"	"	"
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	"
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	"
Phenanthrene	ND	0.33		"	"	"	"	"	"	"
Phenol	ND	0.33		"	"	"	"	"	"	"
Pyrene	ND	0.33		"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	"
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	"
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	"

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV2-5 (2107160-04) Soil Sampled: 07/12/21 11:20 Received: 07/12/21 15:44

Surrogate: 2-Fluorophenol		115 %		25-121	BIG1405	07/14/21	07/14/21 14:33	EPA 8270C	
Surrogate: Phenol-d6		105 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		75.7 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		69.5 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		76.1 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		96.6 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV2-5 (2107160-04) Soil Sampled: 07/12/21 11:20 Received: 07/12/21 15:44										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV2-10 (2107160-05) Soil Sampled: 07/12/21 11:23 Received: 07/12/21 15:44									
Surrogate: 2-Fluorophenol		63.4 %		25-121	BIG1405	07/14/21	07/14/21 14:33	EPA 8270C	
Surrogate: Phenol-d6		90.1 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		82.0 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		86.8 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		53.8 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		92.7 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV2-10 (2107160-05) Soil Sampled: 07/12/21 11:23 Received: 07/12/21 15:44										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV2-15 (2107160-06) Soil Sampled: 07/12/21 11:36 Received: 07/12/21 15:44									
Surrogate: 2-Fluorophenol		61.9 %		25-121	BIG1405	07/14/21	07/14/21 14:33	EPA 8270C	
Surrogate: Phenol-d6		110 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		80.1 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		94.3 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		51.8 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		111 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV2-15 (2107160-06) Soil Sampled: 07/12/21 11:36 Received: 07/12/21 15:44										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV3-5 (2107160-07) Soil Sampled: 07/12/21 12:35 Received: 07/12/21 15:44									
Surrogate: 2-Fluorophenol		63.7 %		25-121	BIG1405	07/14/21	07/14/21 14:33	EPA 8270C	
Surrogate: Phenol-d6		70.1 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		83.4 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		82.1 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		56.1 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		89.4 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV3-5 (2107160-07) Soil Sampled: 07/12/21 12:35 Received: 07/12/21 15:44										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV3-10 (2107160-08) Soil Sampled: 07/12/21 12:39 Received: 07/12/21 15:44									
Surrogate: 2-Fluorophenol		72.1 %		25-121	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
Surrogate: Phenol-d6		59.9 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		97.4 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		114 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		35.7 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		87.6 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV3-10 (2107160-08) Soil Sampled: 07/12/21 12:39 Received: 07/12/21 15:44										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV3-15 (2107160-09) Soil Sampled: 07/12/21 12:44 Received: 07/12/21 15:44									
Surrogate: 2-Fluorophenol		103 %		25-121	BIG1405	07/14/21	07/14/21 14:33	EPA 8270C	
Surrogate: Phenol-d6		69.7 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		102 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		41.5 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		53.9 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		89.7 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV3-15 (2107160-09) Soil Sampled: 07/12/21 12:44 Received: 07/12/21 15:44										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV4-5 (2107160-10) Soil Sampled: 07/12/21 13:09 Received: 07/12/21 15:44									
Surrogate: 2-Fluorophenol		103 %		25-121	BIG1405	07/14/21	07/14/21 14:33	EPA 8270C	
Surrogate: Phenol-d6		65.7 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		95.9 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		48.8 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		58.5 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		88.0 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV4-5 (2107160-10) Soil Sampled: 07/12/21 13:09 Received: 07/12/21 15:44										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	"
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	"
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	"
Fluoranthene	ND	0.33		"	"	"	"	"	"	"
Fluorene	ND	0.33		"	"	"	"	"	"	"
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	"
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	"
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	"
Hexachloroethane	ND	0.33		"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	"
Isophorone	ND	0.33		"	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	"
2-Methylphenol	ND	0.33		"	"	"	"	"	"	"
4-Methylphenol	ND	0.33		"	"	"	"	"	"	"
Naphthalene	ND	0.33		"	"	"	"	"	"	"
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
Nitrobenzene	ND	0.33		"	"	"	"	"	"	"
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	"
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	"
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	"
Diphenylamine	ND	0.33		"	"	"	"	"	"	"
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	"
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	"
Phenanthrene	ND	0.33		"	"	"	"	"	"	"
Phenol	ND	0.33		"	"	"	"	"	"	"
Pyrene	ND	0.33		"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	"
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	"
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	"

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV4-10 (2107160-11) Soil Sampled: 07/12/21 13:18 Received: 07/12/21 15:44									
Surrogate: 2-Fluorophenol		106 %		25-121	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
Surrogate: Phenol-d6		53.9 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		74.9 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		75.3 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		51.7 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		94.0 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV4-10 (2107160-11) Soil Sampled: 07/12/21 13:18 Received: 07/12/21 15:44									
2,4-Dinitrotoluene	ND	0.33	mg/kg	1	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33	"	"	"	"	"	"	
Fluoranthene	ND	0.33	"	"	"	"	"	"	
Fluorene	ND	0.33	"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33	"	"	"	"	"	"	
Hexachloroethane	ND	0.33	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33	"	"	"	"	"	"	
Isophorone	ND	0.33	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33	"	"	"	"	"	"	
2-Methylphenol	ND	0.33	"	"	"	"	"	"	
4-Methylphenol	ND	0.33	"	"	"	"	"	"	
Naphthalene	ND	0.33	"	"	"	"	"	"	
2-Nitroaniline	ND	0.33	"	"	"	"	"	"	
3-Nitroaniline	ND	0.33	"	"	"	"	"	"	
4-Nitroaniline	ND	0.33	"	"	"	"	"	"	
Nitrobenzene	ND	0.33	"	"	"	"	"	"	
2-Nitrophenol	ND	0.33	"	"	"	"	"	"	
4-Nitrophenol	ND	0.33	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33	"	"	"	"	"	"	
Diphenylamine	ND	0.33	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33	"	"	"	"	"	"	
Pentachlorophenol	ND	0.33	"	"	"	"	"	"	
Phenanthrene	ND	0.33	"	"	"	"	"	"	
Phenol	ND	0.33	"	"	"	"	"	"	
Pyrene	ND	0.33	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV4-15 (2107160-12) Soil Sampled: 07/12/21 13:21 Received: 07/12/21 15:44									
Surrogate: 2-Fluorophenol		109 %		25-121	BIG1405	07/14/21	07/14/21 14:33	EPA 8270C	
Surrogate: Phenol-d6		82.7 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		99.5 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		74.4 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		49.5 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		78.1 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV4-15 (2107160-12) Soil Sampled: 07/12/21 13:21 Received: 07/12/21 15:44										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV5-5 (2107160-13) Soil Sampled: 07/12/21 13:50 Received: 07/12/21 15:44

Surrogate: 2-Fluorophenol		111 %		25-121	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
Surrogate: Phenol-d6		85.4 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		101 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		49.9 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		35.5 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		88.2 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV5-5 (2107160-13) Soil Sampled: 07/12/21 13:50 Received: 07/12/21 15:44									
2,4-Dinitrotoluene	ND	0.33	mg/kg	1	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33	"	"	"	"	"	"	
Fluoranthene	ND	0.33	"	"	"	"	"	"	
Fluorene	ND	0.33	"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33	"	"	"	"	"	"	
Hexachloroethane	ND	0.33	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33	"	"	"	"	"	"	
Isophorone	ND	0.33	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33	"	"	"	"	"	"	
2-Methylphenol	ND	0.33	"	"	"	"	"	"	
4-Methylphenol	ND	0.33	"	"	"	"	"	"	
Naphthalene	ND	0.33	"	"	"	"	"	"	
2-Nitroaniline	ND	0.33	"	"	"	"	"	"	
3-Nitroaniline	ND	0.33	"	"	"	"	"	"	
4-Nitroaniline	ND	0.33	"	"	"	"	"	"	
Nitrobenzene	ND	0.33	"	"	"	"	"	"	
2-Nitrophenol	ND	0.33	"	"	"	"	"	"	
4-Nitrophenol	ND	0.33	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33	"	"	"	"	"	"	
Diphenylamine	ND	0.33	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33	"	"	"	"	"	"	
Pentachlorophenol	ND	0.33	"	"	"	"	"	"	
Phenanthrene	ND	0.33	"	"	"	"	"	"	
Phenol	ND	0.33	"	"	"	"	"	"	
Pyrene	ND	0.33	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV5-10 (2107160-14) Soil Sampled: 07/12/21 14:02 Received: 07/12/21 15:44									
Surrogate: 2-Fluorophenol		55.4 %		25-121	BIG1405	07/14/21	07/14/21 14:33	EPA 8270C	
Surrogate: Phenol-d6		98.9 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		60.5 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		81.9 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		39.9 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		117 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV5-10 (2107160-14) Soil Sampled: 07/12/21 14:02 Received: 07/12/21 15:44										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
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Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV5-15 (2107160-15) Soil Sampled: 07/12/21 14:07 Received: 07/12/21 15:44									
Surrogate: 2-Fluorophenol		91.5 %		25-121	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
Surrogate: Phenol-d6		61.0 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		39.5 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		72.5 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		83.1 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		85.4 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV5-15 (2107160-15) Soil Sampled: 07/12/21 14:07 Received: 07/12/21 15:44										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	"
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	"
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	"
Fluoranthene	ND	0.33		"	"	"	"	"	"	"
Fluorene	ND	0.33		"	"	"	"	"	"	"
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	"
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	"
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	"
Hexachloroethane	ND	0.33		"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	"
Isophorone	ND	0.33		"	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	"
2-Methylphenol	ND	0.33		"	"	"	"	"	"	"
4-Methylphenol	ND	0.33		"	"	"	"	"	"	"
Naphthalene	ND	0.33		"	"	"	"	"	"	"
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
Nitrobenzene	ND	0.33		"	"	"	"	"	"	"
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	"
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	"
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	"
Diphenylamine	ND	0.33		"	"	"	"	"	"	"
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	"
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	"
Phenanthrene	ND	0.33		"	"	"	"	"	"	"
Phenol	ND	0.33		"	"	"	"	"	"	"
Pyrene	ND	0.33		"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	"
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	"
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	"

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1307 - EPA 3060A

Blank (B1G1307-BLK1) Prepared: 07/13/21 Analyzed: 07/14/21

Hexavalent Chromium	ND	0.10	mg/kg							
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LCS (B1G1307-BS1) Prepared: 07/13/21 Analyzed: 07/14/21

Hexavalent Chromium	0.151	0.10	mg/kg	0.150		101	80-120			
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Matrix Spike (B1G1307-MS1) Source: 2107160-01 Prepared: 07/13/21 Analyzed: 07/14/21

Hexavalent Chromium	0.160	0.10	mg/kg	0.149	ND	107	75-125			
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Matrix Spike Dup (B1G1307-MSD1) Source: 2107160-01 Prepared: 07/13/21 Analyzed: 07/14/21

Hexavalent Chromium	0.154	0.10	mg/kg	0.149	ND	104	75-125	3.48	20	
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Batch B1G1308 - EPA 3050B

Blank (B1G1308-BLK1) Prepared: 07/13/21 Analyzed: 07/14/21

Barium	ND	6.0	mg/kg							
Beryllium	ND	2.2	"							
Antimony	ND	8.0	"							
Cadmium	ND	2.5	"							
Lead	ND	7.1	"							
Thallium	ND	17	"							
Nickel	ND	3.0	"							
Selenium	ND	6.9	"							
Chromium	ND	2.3	"							
Molybdenum	ND	5.2	"							
Copper	ND	5.0	"							
Cobalt	ND	3.3	"							
Zinc	ND	7.0	"							
Silver	ND	2.0	"							
Arsenic	ND	5.5	"							
Vanadium	ND	5.1	"							

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 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1308 - EPA 3050B

LCS (B1G1308-BS1)

Prepared: 07/13/21 Analyzed: 07/14/21

Cadmium	94.4	2.5	mg/kg	100	94.4	80-120		
Zinc	99.5	7.0	"	100	99.5	80-120		
Molybdenum	111	5.2	"	100	111	80-120		
Chromium	85.0	2.3	"	100	85.0	80-120		
Nickel	113	3.0	"	100	113	80-120		
Cobalt	80.4	3.3	"	100	80.4	80-120		
Silver	89.3	2.0	"	100	89.3	60-140		
Lead	101	7.1	"	100	101	80-120		
Copper	103	5.0	"	100	103	78-122		
Arsenic	109	5.5	"	100	109	78-122		
Barium	99.8	6.0	"	100	99.8	80-120		
Selenium	95.1	6.9	"	100	95.1	76-124		
Thallium	97.4	17	"	100	97.4	80-120		
Vanadium	99.8	5.1	"	100	99.8	80-120		
Beryllium	98.2	2.2	"	100	98.2	80-120		
Antimony	110	8.0	"	100	110	75-125		

LCS Dup (B1G1308-BSD1)

Prepared: 07/13/21 Analyzed: 07/14/21

Nickel	116	3.0	mg/kg	100	116	80-120	2.60	20
Vanadium	95.9	5.1	"	100	95.9	80-120	3.99	20
Antimony	94.0	8.0	"	100	94.0	75-125	16.0	20
Lead	96.8	7.1	"	100	96.8	80-120	4.37	20
Thallium	96.3	17	"	100	96.3	80-120	1.11	20
Selenium	94.0	6.9	"	100	94.0	76-124	1.22	20
Copper	113	5.0	"	100	113	78-122	9.46	20
Zinc	87.6	7.0	"	100	87.6	80-120	12.6	20
Molybdenum	96.4	5.2	"	100	96.4	80-120	13.8	20
Cadmium	94.6	2.5	"	100	94.6	80-120	0.212	20
Arsenic	105	5.5	"	100	105	78-122	3.43	20
Barium	101	6.0	"	100	101	80-120	0.948	20
Beryllium	104	2.2	"	100	104	80-120	5.48	20
Silver	92.1	2.0	"	100	92.1	60-140	3.03	40
Cobalt	97.7	3.3	"	100	97.7	80-120	19.5	20
Chromium	99.7	2.3	"	100	99.7	80-120	15.9	20

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Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

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Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1308 - EPA 3050B

Matrix Spike (B1G1308-MS1)	Source: 2107160-01			Prepared: 07/13/21		Analyzed: 07/14/21				
Lead	95.9	7.1	mg/kg	99.0	5.52	91.3	70-130			
Arsenic	88.1	5.5	"	99.0	ND	89.0	70-130			
Copper	114	5.0	"	99.0	8.79	106	70-130			
Barium	160	6.0	"	99.0	67.9	93.5	70-130			
Antimony	91.4	8.0	"	99.0	1.56	90.8	60-140			
Chromium	95.2	2.3	"	99.0	9.80	86.2	70-130			
Cadmium	92.0	2.5	"	99.0	0.470	92.4	70-130			
Silver	100	2.0	"	99.0	ND	101	60-140			
Molybdenum	80.0	5.2	"	99.0	0.644	80.2	70-130			
Thallium	91.3	17	"	99.0	ND	92.2	70-130			
Selenium	87.0	6.9	"	99.0	ND	87.8	70-130			
Vanadium	97.6	5.1	"	99.0	14.8	83.6	70-130			
Nickel	93.3	3.0	"	99.0	6.44	87.7	70-130			
Cobalt	99.8	3.3	"	99.0	5.40	95.4	70-130			
Zinc	114	7.0	"	99.0	27.3	87.7	70-130			
Beryllium	79.7	2.2	"	99.0	0.446	80.0	70-130			

Matrix Spike Dup (B1G1308-MSD1)	Source: 2107160-01			Prepared: 07/13/21		Analyzed: 07/14/21				
Silver	95.7	2.0	mg/kg	98.4	ND	97.3	60-140	4.62	40	
Vanadium	104	5.1	"	98.4	14.8	90.6	70-130	6.34	20	
Thallium	99.6	17	"	98.4	ND	101	70-130	8.64	20	
Zinc	122	7.0	"	98.4	27.3	96.6	70-130	7.05	20	
Chromium	99.0	2.3	"	98.4	9.80	90.7	70-130	3.96	20	
Molybdenum	85.9	5.2	"	98.4	0.644	86.7	70-130	7.17	20	
Copper	123	5.0	"	98.4	8.79	116	70-130	7.73	30	
Antimony	98.7	8.0	"	98.4	1.56	98.7	60-140	7.69	20	
Barium	175	6.0	"	98.4	67.9	109	70-130	8.76	20	
Lead	104	7.1	"	98.4	5.52	100	70-130	8.31	30	
Beryllium	85.1	2.2	"	98.4	0.446	86.0	70-130	6.57	20	
Nickel	98.9	3.0	"	98.4	6.44	93.9	70-130	5.80	20	
Cadmium	95.7	2.5	"	98.4	0.470	96.8	70-130	3.98	20	
Arsenic	97.4	5.5	"	98.4	ND	98.9	70-130	10.0	20	
Selenium	96.1	6.9	"	98.4	ND	97.6	70-130	10.0	20	
Cobalt	105	3.3	"	98.4	5.40	102	70-130	5.44	20	

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Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1309 - EPA 7471A

Blank (B1G1309-BLK1)

Prepared & Analyzed: 07/13/21

Mercury ND 0.90 mg/kg

LCS (B1G1309-BS1)

Prepared & Analyzed: 07/13/21

Mercury 0.16 0.90 mg/kg 0.167 94.9 70-130

Matrix Spike (B1G1309-MS1)

Source: 2107160-01

Prepared & Analyzed: 07/13/21

Mercury 0.15 0.90 mg/kg 0.158 ND 97.6 70-130

Matrix Spike Dup (B1G1309-MSD1)

Source: 2107160-01

Prepared & Analyzed: 07/13/21

Mercury 0.16 0.90 mg/kg 0.157 ND 99.4 70-130 1.67 30

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Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

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Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1302 - EPA 5035 P & T

Blank (B1G1302-BLK1)

Prepared: 07/13/21 Analyzed: 07/14/21

Total Petroleum Hydrocarbons (C4-C12) ND 0.050 mg/kg

LCS (B1G1302-BS1)

Prepared: 07/13/21 Analyzed: 07/14/21

Gasoline Range Hydrocarbons (C4-C12) 0.525 0.050 mg/kg 0.600 87.5 80-120

Matrix Spike (B1G1302-MS1)

Source: 2107160-01

Prepared: 07/13/21 Analyzed: 07/14/21

Gasoline Range Hydrocarbons (C4-C12) 0.493 0.050 mg/kg 0.600 ND 82.2 50-150

Matrix Spike Dup (B1G1302-MSD1)

Source: 2107160-01

Prepared: 07/13/21 Analyzed: 07/14/21

Gasoline Range Hydrocarbons (C4-C12) 0.551 0.050 mg/kg 0.600 ND 91.8 50-150 11.1 30

Batch B1G1401 - EPA 3550B Solid Ext

Blank (B1G1401-BLK1)

Prepared & Analyzed: 07/14/21

Total Petroleum Hydrocarbons (C13-C22) ND 5.0 mg/kg

Total Petroleum Hydrocarbons (C23-C40) ND 5.0 "

LCS (B1G1401-BS1)

Prepared & Analyzed: 07/14/21

Diesel Range Organics (C10-C24) 16.9 5.0 mg/kg 20.0 84.4 80-120

Matrix Spike (B1G1401-MS1)

Source: 2107164-04

Prepared & Analyzed: 07/14/21

Diesel Range Organics (C10-C24) 15.4 5.0 mg/kg 20.0 ND 77.0 50-150

Matrix Spike Dup (B1G1401-MSD1)

Source: 2107164-04

Prepared & Analyzed: 07/14/21

Diesel Range Organics (C10-C24) 14.7 5.0 mg/kg 20.0 ND 73.4 50-150 4.74 30

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1312 - EPA 5035 P & T

Blank (B1G1312-BLK1)

Prepared: 07/13/21 Analyzed: 07/14/21

Benzene	ND	5.0	µg/kg							
Bromobenzene	ND	5.0	"							
Bromochloromethane	ND	5.0	"							
Bromodichloromethane	ND	5.0	"							
Bromoform	ND	5.0	"							
Bromomethane	ND	5.0	"							
n-Butylbenzene	ND	5.0	"							
sec-Butylbenzene	ND	5.0	"							
tert-Butylbenzene	ND	5.0	"							
Carbon tetrachloride	ND	5.0	"							
Chlorobenzene	ND	5.0	"							
Chloroethane	ND	5.0	"							
Chloroform	ND	5.0	"							
Chloromethane	ND	5.0	"							
2-Chlorotoluene	ND	5.0	"							
4-Chlorotoluene	ND	5.0	"							
Dibromochloromethane	ND	5.0	"							
1,2-Dibromo-3-chloropropane	ND	5.0	"							
1,2-Dibromoethane (EDB)	ND	5.0	"							
Dibromomethane	ND	5.0	"							
1,2-Dichlorobenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	5.0	"							
1,4-Dichlorobenzene	ND	5.0	"							
Dichlorodifluoromethane	ND	5.0	"							
1,1-Dichloroethane	ND	5.0	"							
1,2-Dichloroethane	ND	5.0	"							
1,1-Dichloroethene	ND	5.0	"							
cis-1,2-Dichloroethene	ND	5.0	"							
trans-1,2-Dichloroethene	ND	5.0	"							
1,2-Dichloropropane	ND	5.0	"							
1,3-Dichloropropane	ND	5.0	"							
2,2-Dichloropropane	ND	5.0	"							
1,1-Dichloropropene	ND	5.0	"							
cis-1,3-Dichloropropene	ND	5.0	"							
trans-1,3-Dichloropropene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
Hexachlorobutadiene	ND	5.0	"							

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1312 - EPA 5035 P & T

Blank (B1G1312-BLK1)

Prepared: 07/13/21 Analyzed: 07/14/21

Isopropylbenzene	ND	5.0	µg/kg							
p-Isopropyltoluene	ND	5.0	"							
Methylene chloride	ND	5.0	"							
Methyl tert-butyl ether	ND	5.0	"							
Naphthalene	ND	5.0	"							
n-Propylbenzene	ND	5.0	"							
Styrene	ND	5.0	"							
1,1,1,2-Tetrachloroethane	ND	5.0	"							
1,1,2,2-Tetrachloroethane	ND	5.0	"							
Tetrachloroethene	ND	5.0	"							
Toluene	ND	5.0	"							
1,2,3-Trichlorobenzene	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	5.0	"							
1,1,1-Trichloroethane	ND	5.0	"							
1,1,2-Trichloroethane	ND	5.0	"							
Trichloroethene	ND	5.0	"							
Trichlorofluoromethane	ND	5.0	"							
1,2,3-Trichloropropane	ND	5.0	"							
1,2,4-Trimethylbenzene	ND	5.0	"							
1,3,5-Trimethylbenzene	ND	5.0	"							
Vinyl chloride	ND	5.0	"							
m,p-Xylene	ND	5.0	"							
o-Xylene	ND	5.0	"							

LCS (B1G1312-BS1)

Prepared: 07/13/21 Analyzed: 07/14/21

Benzene	54.6	5.0	µg/kg	50.0	109	80-120
Chlorobenzene	47.7	5.0	"	50.0	95.4	80-120
1,1-Dichloroethene	56.6	5.0	"	50.0	113	80-120
Toluene	47.8	5.0	"	50.0	95.6	80-120
Trichloroethene	55.3	5.0	"	50.0	111	80-120

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Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1312 - EPA 5035 P & T

Matrix Spike (B1G1312-MS1)

Source: 2107160-01

Prepared: 07/13/21 Analyzed: 07/14/21

Benzene	50.2	5.0	µg/kg	50.0	ND	100	37-151			
Chlorobenzene	41.5	5.0	"	50.0	ND	83.0	37-160			
1,1-Dichloroethene	51.2	5.0	"	50.0	ND	102	50-150			
Toluene	43.5	5.0	"	50.0	ND	86.9	47-150			
Trichloroethene	50.2	5.0	"	50.0	ND	100	71-157			

Matrix Spike Dup (B1G1312-MSD1)

Source: 2107160-01

Prepared: 07/13/21 Analyzed: 07/14/21

Benzene	51.0	5.0	µg/kg	50.0	ND	102	37-151	1.40	30	
Chlorobenzene	42.0	5.0	"	50.0	ND	84.0	37-160	1.20	30	
1,1-Dichloroethene	49.6	5.0	"	50.0	ND	99.2	50-150	3.21	30	
Toluene	43.3	5.0	"	50.0	ND	86.5	47-150	0.461	30	
Trichloroethene	56.5	5.0	"	50.0	ND	113	71-157	11.8	30	

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Project: Town Center Northwest
 Project Number: [none]
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Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1405 - EPA 3550B Solid Ext

Blank (B1G1405-BLK1)

Prepared & Analyzed: 07/14/21

Acenaphthene	ND	0.33	mg/kg							
Acenaphthylene	ND	0.33	"							
Anthracene	ND	0.33	"							
Benzidine	ND	0.33	"							
Benzo (a) anthracene	ND	0.33	"							
Benzo (b) fluoranthene	ND	0.33	"							
Benzo (k) fluoranthene	ND	0.33	"							
Benzo (a) pyrene	ND	0.33	"							
Benzo (g,h,i) perylene	ND	0.33	"							
Benzyl alcohol	ND	0.33	"							
Bis(2-chloroethyl)ether	ND	0.33	"							
Bis(2-chloroethoxy)methane	ND	0.33	"							
Bis(2-ethylhexyl)phthalate	ND	0.33	"							
Bis(2-chloroisopropyl)ether	ND	0.33	"							
4-Bromophenyl phenyl ether	ND	0.33	"							
Butyl benzyl phthalate	ND	0.33	"							
4-Chloroaniline	ND	0.33	"							
2-Chlorophenol	ND	0.33	"							
4-Chloro-3-methylphenol	ND	0.33	"							
2-Chloronaphthalene	ND	0.33	"							
4-Chlorophenyl phenyl ether	ND	0.33	"							
Chrysene	ND	0.33	"							
Dibenz (a,h) anthracene	ND	0.33	"							
Dibenzofuran	ND	0.33	"							
1,3-Dichlorobenzene	ND	0.33	"							
1,2-Dichlorobenzene	ND	0.33	"							
1,4-Dichlorobenzene	ND	0.33	"							
3,3'-Dichlorobenzidine	ND	0.33	"							
2,4-Dichlorophenol	ND	0.33	"							
Diethyl phthalate	ND	0.33	"							
2,4-Dimethylphenol	ND	0.33	"							
Dimethyl phthalate	ND	0.33	"							
Di-n-butyl phthalate	ND	0.33	"							
2,4-Dinitrophenol	ND	0.33	"							
4,6-Dinitro-2-methylphenol	ND	0.33	"							
2,4-Dinitrotoluene	ND	0.33	"							
2,6-Dinitrotoluene	ND	0.33	"							

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Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1405 - EPA 3550B Solid Ext

Blank (B1G1405-BLK1)

Prepared & Analyzed: 07/14/21

Di-n-octyl phthalate	ND	0.33	mg/kg							
1,2-Diphenylhydrazine	ND	0.33	"							
Fluoranthene	ND	0.33	"							
Fluorene	ND	0.33	"							
Hexachlorobenzene	ND	0.33	"							
Hexachlorobutadiene	ND	0.33	"							
Hexachlorocyclopentadiene	ND	0.33	"							
Hexachloroethane	ND	0.33	"							
Indeno (1,2,3-cd) pyrene	ND	0.33	"							
Isophorone	ND	0.33	"							
2-Methylnaphthalene	ND	0.33	"							
2-Methylphenol	ND	0.33	"							
4-Methylphenol	ND	0.33	"							
Naphthalene	ND	0.33	"							
2-Nitroaniline	ND	0.33	"							
3-Nitroaniline	ND	0.33	"							
4-Nitroaniline	ND	0.33	"							
Nitrobenzene	ND	0.33	"							
2-Nitrophenol	ND	0.33	"							
4-Nitrophenol	ND	0.33	"							
N-Nitrosodimethylamine	ND	0.33	"							
Diphenylamine	ND	0.33	"							
N-Nitrosodi-n-propylamine	ND	0.33	"							
Pentachlorophenol	ND	0.33	"							
Phenanthrene	ND	0.33	"							
Phenol	ND	0.33	"							
Pyrene	ND	0.33	"							
1,2,4-Trichlorobenzene	ND	0.33	"							
2,4,5-Trichlorophenol	ND	0.33	"							
2,4,6-Trichlorophenol	ND	0.33	"							

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Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
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Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1405 - EPA 3550B Solid Ext

LCS (B1G1405-BS1)

Prepared & Analyzed: 07/14/21

Acenaphthene	0.858	0.33	mg/kg	1.00		85.8	47-145			
2-Chlorophenol	1.86	0.33	"	2.00		93.2	23-134			
4-Chloro-3-methylphenol	2.15	0.33	"	2.00		108	22-147			
1,4-Dichlorobenzene	0.795	0.33	"	1.00		79.5	20-124			
2,4-Dinitrotoluene	0.517	0.33	"	1.00		51.7	39-139			
4-Nitrophenol	0.628	0.33	"	2.00		31.4	0-132			
N-Nitrosodi-n-propylamine	0.741	0.33	"	1.00		74.1	0-230			
Pentachlorophenol	0.387	0.33	"	2.00		19.4	14-176			
Phenol	1.56	0.33	"	2.00		77.9	5-112			
Pyrene	1.09	0.33	"	1.00		109	52-115			
1,2,4-Trichlorobenzene	0.632	0.33	"	1.00		63.2	44-142			

Matrix Spike (B1G1405-MS1)

Source: 2107160-01

Prepared & Analyzed: 07/14/21

Acenaphthene	0.942	0.33	mg/kg	1.00	ND	94.2	47-145			
2-Chlorophenol	1.93	0.33	"	2.00	ND	96.3	23-134			
4-Chloro-3-methylphenol	1.89	0.33	"	2.00	ND	94.4	22-147			
1,4-Dichlorobenzene	0.919	0.33	"	1.00	ND	91.9	20-124			
2,4-Dinitrotoluene	0.541	0.33	"	1.00	ND	54.1	39-139			
4-Nitrophenol	0.607	0.33	"	2.00	ND	30.4	0-132			
N-Nitrosodi-n-propylamine	0.885	0.33	"	1.00	ND	88.5	0-230			
Pentachlorophenol	0.571	0.33	"	2.00	ND	28.6	14-176			
Phenol	1.62	0.33	"	2.00	ND	81.0	5-112			
Pyrene	0.917	0.33	"	1.00	ND	91.7	52-115			
1,2,4-Trichlorobenzene	0.831	0.33	"	1.00	ND	83.1	44-142			

Matrix Spike Dup (B1G1405-MSD1)

Source: 2107160-01

Prepared & Analyzed: 07/14/21

Acenaphthene	1.02	0.33	mg/kg	1.00	ND	102	47-145	7.46	30	
2-Chlorophenol	2.10	0.33	"	2.00	ND	105	23-134	8.88	30	
4-Chloro-3-methylphenol	1.81	0.33	"	2.00	ND	90.3	22-147	4.49	30	
1,4-Dichlorobenzene	0.983	0.33	"	1.00	ND	98.3	20-124	6.73	30	
2,4-Dinitrotoluene	0.466	0.33	"	1.00	ND	46.6	39-139	14.9	30	
4-Nitrophenol	0.644	0.33	"	2.00	ND	32.2	0-132	5.92	30	
N-Nitrosodi-n-propylamine	0.913	0.33	"	1.00	ND	91.3	0-230	3.11	30	
Pentachlorophenol	0.595	0.33	"	2.00	ND	29.8	14-176	4.12	30	
Phenol	1.63	0.33	"	2.00	ND	81.4	5-112	0.492	30	
Pyrene	1.15	0.33	"	1.00	ND	115	52-115	22.3	30	
1,2,4-Trichlorobenzene	0.863	0.33	"	1.00	ND	86.3	44-142	3.78	30	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



SIERRA ANALYTICAL

TEL: 949 • 348 • 9389

FAX: 949 • 348 • 9115

26052 Merit Circle • Suite 104 • Laguna Hills, CA • 92653

CHAIN OF CUSTODY RECORD

Date: 7 / 12 / 21

Page: 1 of 2

Lab Work Order No.:

2107160.

Client: MEARNS
 Client Address: CONSULTING Copp
738 ASHLAND AVE
SANTA MONICA CA 90405
 Client Tel. No.: 310 403 1921
 Client Fax No.:
 Client Proj. Mgr.: SUSAN L MEARNS PHD

Client Project ID:

TOWN CENTER NORTHWEST

Turn Around Time Requested:
 Immediate 24 Hour
 48 Hour 72 Hour
 4 Day 5 Day
 Normal Mobile

Analyses Requested

TLLC METALS 6000/7000	CR #	4-C12	8015B	413-C12	8015B	413-410	8015B	NOUS	8240B/5035B	5N06s	6270C
X	X	X	X	X	X	X	X	X	X		
X	X	X	X	X	X	X	X	X	X		
X	X	X	X	X	X	X	X	X	X		
X	X	X	X	X	X	X	X	X	X		
X	X	X	X	X	X	X	X	X	X		
X	X	X	X	X	X	X	X	X	X		
X	X	X	X	X	X	X	X	X	X		
X	X	X	X	X	X	X	X	X	X		
X	X	X	X	X	X	X	X	X	X		
X	X	X	X	X	X	X	X	X	X		

Geotracker EDD Info:

Client LOGCODE

Site Global ID

Field Point Names / Comments

Client Sample ID.	Sierra No.	Date	Time	Matrix	Preservative	Container Type	No. of Containers
SV1-5	01	7-12-21	0854	SOIL	ICE PRESRV	ACETATE SW NOA VIALS	1/4
SV1-10	02		1039				
SV1-15	03		1043				
SV2-5	04		1120				
SV2-10	05		1123				
SV2-15	06		1136				
SV3-5	07		1235				
SV3-10	08		1239				
SV3-15	09		1244				
SV4-5	10		1309				

1 Scott Fagan Shipped Via: HAND DELIVERED
SUSAN L MEARNS PHD SCOTT FAGAN
 (Center/Waybill No.)

60

Total Number of Containers Submitted to Laboratory

Sample Disposal:

- Return to Client
- Lab Disposal
- Archive ___ mos.
- Other _____

2 Relinquished By: Scott Fagan Date: 7/12/21 Received By: AKK Date: 7/12/21
 Company: SIERRA Time: 1544

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under SIERRA's Terms and Conditions, unless otherwise agreed upon in writing between SIERRA and CLIENT.
 * - Samples determined to be hazardous by SIERRA will be returned to CLIENT.

60

Total Number of Containers Received by Laboratory

3 Relinquished By: _____ Date: _____ Received By: _____ Date: _____
 Company: _____ Time: _____ Company: _____ Time: _____

4 Relinquished By: _____ Date: _____ Received By: _____ Date: _____
 Company: _____ Time: _____ Company: _____ Time: _____

FOR LABORATORY USE ONLY - Sample Receipt Conditions

- Intact
- Properly Labeled
- Appropriate Sample Container
- Chilled - Temp (°C) 5°C
- Sample Seal
- Preservatives - Verified By
- Other
- Storage Location B3

Special Instructions:



SIERRA ANALYTICAL

TEL: 949 • 348 • 9389
FAX: 949 • 348 • 9115

26052 Merit Circle • Suite 104 • Laguna Hills, CA • 92653

CHAIN OF CUSTODY RECORD

Date: 7 / 12 / 21 Page: 2 of 2

Lab Work Order No.:

2107160

Client: MEARNS CONSULTING Corp
Client Address: 738 ASHLAND AVE
SANTA MONICA CA 90405
Client Tel. No.: 310 403 1921
Client Fax. No.:
Client Proj. Mgr.: SUSAN L MEARNS PHD

Client Project ID:

TOWN CENTER NORTHWEST

- Turn Around Time Requested:
Immediate 24 Hour
48 Hour 72 Hour
4 Day 5 Day
Normal Mobile

Analyses Requested

Table with columns for analyses: TMLC METALS 6000/7000, CR #6, C4-C12 8015 B, C13-C22 8015 B, C23-C40 8015 B, VOLs 8260 B/5035 B, SVDG 8270 C. Rows 1-5 show 'X' marks for all analyses.

Geotracker EDD Info:

Client LOGCODE

Site Global ID

Field Point Names / Comments

Main data table with columns: Client Sample ID, Sierra No., Date, Time, Matrix, Preservative, Container Type, No. of Containers. Rows 1-5 contain handwritten data.

1 Sample Signature: [Signature] Shipped Via: HAND DELIVERED
2 Requisitioned By: [Signature] Date: 7/12/21 Received By: [Signature] Date: 7/12/21
Company: SIERRA Time: 1544

Total Number of Containers Submitted to Laboratory: 60
Total Number of Containers Received by Laboratory: 60

Sample Disposal:
Return to Client
Lab Disposal
Archive nos.
Other

4 Requisitioned By:
Special Instructions:

FOR LABORATORY USE ONLY - Sample Receipt Checklist
Input
Sample Seals
Property Labelled
Appropriate Sample Container
Checked - Temp (C)
Preservatives - Verified By
Other
Storage Location



22 July 2021

Susan Mearns
Mearns Consulting LLC
738 Ashland Avenue
Santa Monica, CA 90405

RE:Town Center Northwest

Work Order No.: 2107188

Attached are the results of the analyses for samples received by the laboratory on 07/13/21 17:07.

The samples were received by Sierra Analytical Labs, Inc. with a chain of custody record attached or completed at the submittal of the samples.

The analyses were performed according to the prescribed method as outlined by EPA, Standard Methods, and A.S.T.M.

The remaining portions of the samples will be disposed of within 30 days from the date of this report.
If you require any additional retaining time, please advise us.

Sincerely,

A handwritten signature in black ink that reads "Richard K. Forsyth". The signature is written in a cursive style and is positioned above a horizontal line.

Richard K. Forsyth

Laboratory Director

Sierra Analytical Labs, Inc. is certified by the California Department of Health Services (DOHS),
Environmental Laboratory Accreditation Program (ELAP) No. 2320.



Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SV6-5	2107188-01	Soil	07/13/21 07:35	07/13/21 17:07
SV6-10	2107188-02	Soil	07/13/21 07:44	07/13/21 17:07
SV6-15	2107188-03	Soil	07/13/21 07:51	07/13/21 17:07
SV7-5	2107188-04	Soil	07/13/21 08:15	07/13/21 17:07
SV7-10	2107188-05	Soil	07/13/21 08:25	07/13/21 17:07
SV7-15	2107188-06	Soil	07/13/21 08:30	07/13/21 17:07
SV8-5	2107188-07	Soil	07/13/21 08:56	07/13/21 17:07
SV8-10	2107188-08	Soil	07/13/21 08:58	07/13/21 17:07
SV8-15	2107188-09	Soil	07/13/21 09:06	07/13/21 17:07
SV9-5	2107188-10	Soil	07/13/21 09:19	07/13/21 17:07
SV9-10	2107188-11	Soil	07/13/21 09:22	07/13/21 17:07
SV9-15	2107188-12	Soil	07/13/21 09:24	07/13/21 17:07
SV10-5	2107188-13	Soil	07/13/21 09:32	07/13/21 17:07
SV10-10	2107188-14	Soil	07/13/21 09:36	07/13/21 17:07
SV10-15	2107188-15	Soil	07/13/21 09:52	07/13/21 17:07
SV11-5	2107188-16	Soil	07/13/21 10:16	07/13/21 17:07

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SV11-10	2107188-17	Soil	07/13/21 10:20	07/13/21 17:07
SV11-15	2107188-18	Soil	07/13/21 10:26	07/13/21 17:07
SV12-5	2107188-19	Soil	07/13/21 10:49	07/13/21 17:07
SV12-10	2107188-20	Soil	07/13/21 10:58	07/13/21 17:07
SV12-15	2107188-21	Soil	07/13/21 11:07	07/13/21 17:07
SV13-5	2107188-22	Soil	07/13/21 11:26	07/13/21 17:07
SV13-10	2107188-23	Soil	07/13/21 11:31	07/13/21 17:07
SV13-15	2107188-24	Soil	07/13/21 11:38	07/13/21 17:07
SV14-5	2107188-25	Soil	07/13/21 12:49	07/13/21 17:07
SV14-10	2107188-26	Soil	07/13/21 12:54	07/13/21 17:07
SV14-15	2107188-27	Soil	07/13/21 13:01	07/13/21 17:07
SV15-5	2107188-28	Soil	07/13/21 13:19	07/13/21 17:07
SV15-10	2107188-29	Soil	07/13/21 13:23	07/13/21 17:07
SV15-15	2107188-30	Soil	07/13/21 13:27	07/13/21 17:07
SV16-5	2107188-31	Soil	07/13/21 13:54	07/13/21 17:07
SV16-10	2107188-32	Soil	07/13/21 13:57	07/13/21 17:07
SV16-15	2107188-33	Soil	07/13/21 14:00	07/13/21 17:07

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SV17-5	2107188-34	Soil	07/13/21 14:44	07/13/21 17:07
SV17-10	2107188-35	Soil	07/13/21 14:48	07/13/21 17:07
SV17-15	2107188-36	Soil	07/13/21 14:53	07/13/21 17:07
SV18-5	2107188-37	Soil	07/13/21 15:19	07/13/21 17:07
SV18-10	2107188-38	Soil	07/13/21 15:25	07/13/21 17:07
SV18-15	2107188-39	Soil	07/13/21 15:29	07/13/21 17:07
SV19-5	2107188-40	Soil	07/13/21 15:49	07/13/21 17:07
SV19-10	2107188-41	Soil	07/13/21 15:54	07/13/21 17:07
SV19-15	2107188-42	Soil	07/13/21 15:59	07/13/21 17:07

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV6-5 (2107188-01) Soil Sampled: 07/13/21 07:35 Received: 07/13/21 17:07

Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	83	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	7.6	3.3	"	"	"	"	"	"	
Chromium	14	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A	
Copper	14	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Nickel	8.5	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	24	5.1	"	"	"	"	"	"	
Zinc	28	7.0	"	"	"	"	"	"	

SV6-10 (2107188-02) Soil Sampled: 07/13/21 07:44 Received: 07/13/21 17:07

Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	66	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	6.4	3.3	"	"	"	"	"	"	
Chromium	21	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A	
Copper	16	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Nickel	12	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	31	5.1	"	"	"	"	"	"	
Zinc	40	7.0	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
SV6-15 (2107188-03) Soil Sampled: 07/13/21 07:51 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	42	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	4.3	3.3	"	"	"	"	"	"		
Chromium	9.4	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A		
Copper	9.0	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Nickel	6.4	3.0	"	"	"	"	"	"		
Lead	ND	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	14	5.1	"	"	"	"	"	"		
Zinc	27	7.0	"	"	"	"	"	"		

SV7-5 (2107188-04) Soil Sampled: 07/13/21 08:15 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	73	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	7.2	3.3	"	"	"	"	"	"		
Chromium	16	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A		
Copper	13	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Nickel	11	3.0	"	"	"	"	"	"		
Lead	7.2	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	27	5.1	"	"	"	"	"	"		
Zinc	34	7.0	"	"	"	"	"	"		

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
SV7-10 (2107188-05) Soil Sampled: 07/13/21 08:25 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	50	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	6.6	3.3	"	"	"	"	"	"		
Chromium	13	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A		
Copper	11	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Nickel	7.6	3.0	"	"	"	"	"	"		
Lead	ND	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	19	5.1	"	"	"	"	"	"		
Zinc	25	7.0	"	"	"	"	"	"		

SV7-15 (2107188-06) Soil Sampled: 07/13/21 08:30 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	37	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	3.6	3.3	"	"	"	"	"	"		
Chromium	10	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A		
Copper	8.4	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Nickel	6.7	3.0	"	"	"	"	"	"		
Lead	ND	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	16	5.1	"	"	"	"	"	"		
Zinc	20	7.0	"	"	"	"	"	"		

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV8-5 (2107188-07) Soil Sampled: 07/13/21 08:56 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	30	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	ND	3.3	"	"	"	"	"	"	
Chromium	5.7	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A	
Copper	7.8	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Nickel	4.0	3.0	"	"	"	"	"	"	
Lead	19	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	9.1	5.1	"	"	"	"	"	"	
Zinc	26	7.0	"	"	"	"	"	"	

SV8-10 (2107188-08) Soil Sampled: 07/13/21 08:58 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	58	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	10	3.3	"	"	"	"	"	"	
Chromium	12	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A	
Copper	11	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Nickel	7.8	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	21	5.1	"	"	"	"	"	"	
Zinc	25	7.0	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV8-15 (2107188-09) Soil Sampled: 07/13/21 09:06 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	50	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	4.6	3.3	"	"	"	"	"	"	
Chromium	17	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A	
Copper	12	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Mercury	ND	0.81	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Nickel	9.8	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	19	5.1	"	"	"	"	"	"	
Zinc	29	7.0	"	"	"	"	"	"	
SV9-5 (2107188-10) Soil Sampled: 07/13/21 09:19 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	3100	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	5.1	3.3	"	"	"	"	"	"	
Chromium	26	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A	
Copper	31	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Nickel	20	3.0	"	"	"	"	"	"	
Lead	24	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	28	5.1	"	"	"	"	"	"	
Zinc	73	7.0	"	"	"	"	"	"	

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Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

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07/22/21 13:51

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
SV9-10 (2107188-11) Soil Sampled: 07/13/21 09:22 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	77	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	6.2	3.3	"	"	"	"	"	"		
Chromium	17	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A		
Copper	12	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Nickel	8.3	3.0	"	"	"	"	"	"		
Lead	ND	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	23	5.1	"	"	"	"	"	"		
Zinc	27	7.0	"	"	"	"	"	"		

SV9-15 (2107188-12) Soil Sampled: 07/13/21 09:24 Received: 07/13/21 17:07

Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	110	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	10	3.3	"	"	"	"	"	"	
Chromium	30	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A	
Copper	17	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Nickel	16	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	33	5.1	"	"	"	"	"	"	
Zinc	45	7.0	"	"	"	"	"	"	

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 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV10-5 (2107188-13) Soil Sampled: 07/13/21 09:32 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	650	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	10	3.3	"	"	"	"	"	"	
Chromium	25	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A	
Copper	31	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Nickel	24	3.0	"	"	"	"	"	"	
Lead	42	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	36	5.1	"	"	"	"	"	"	
Zinc	100	7.0	"	"	"	"	"	"	
SV10-10 (2107188-14) Soil Sampled: 07/13/21 09:36 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	49	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	4.9	3.3	"	"	"	"	"	"	
Chromium	10	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A	
Copper	8.3	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Mercury	ND	0.79	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Nickel	6.0	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	16	5.1	"	"	"	"	"	"	
Zinc	20	7.0	"	"	"	"	"	"	

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Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV10-15 (2107188-15) Soil Sampled: 07/13/21 09:52 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	81	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	11	3.3	"	"	"	"	"	"	
Chromium	21	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A	
Copper	15	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Mercury	ND	0.79	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Nickel	13	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	36	5.1	"	"	"	"	"	"	
Zinc	42	7.0	"	"	"	"	"	"	

SV11-5 (2107188-16) Soil Sampled: 07/13/21 10:16 Received: 07/13/21 17:07

Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	150	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	10	3.3	"	"	"	"	"	"	
Chromium	19	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A	
Copper	21	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Mercury	ND	0.78	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Nickel	15	3.0	"	"	"	"	"	"	
Lead	17	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	29	5.1	"	"	"	"	"	"	
Zinc	60	7.0	"	"	"	"	"	"	

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 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV11-10 (2107188-17) Soil Sampled: 07/13/21 10:20 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	130	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	8.5	3.3	"	"	"	"	"	"	
Chromium	15	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A	
Copper	10	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Nickel	8.1	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	23	5.1	"	"	"	"	"	"	
Zinc	28	7.0	"	"	"	"	"	"	

SV11-15 (2107188-18) Soil Sampled: 07/13/21 10:26 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	64	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	6.0	3.3	"	"	"	"	"	"	
Chromium	19	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A	
Copper	11	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Nickel	11	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	23	5.1	"	"	"	"	"	"	
Zinc	31	7.0	"	"	"	"	"	"	

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Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
SV12-5 (2107188-19) Soil Sampled: 07/13/21 10:49 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	83	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	5.4	3.3	"	"	"	"	"	"		
Chromium	12	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A		
Copper	7.8	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Nickel	6.4	3.0	"	"	"	"	"	"		
Lead	ND	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	18	5.1	"	"	"	"	"	"		
Zinc	23	7.0	"	"	"	"	"	"		
SV12-10 (2107188-20) Soil Sampled: 07/13/21 10:58 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	46	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	5.4	3.3	"	"	"	"	"	"		
Chromium	10	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A		
Copper	6.7	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Nickel	5.7	3.0	"	"	"	"	"	"		
Lead	ND	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	16	5.1	"	"	"	"	"	"		
Zinc	20	7.0	"	"	"	"	"	"		

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV12-15 (2107188-21) Soil Sampled: 07/13/21 11:07 Received: 07/13/21 17:07

Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	32	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	3.3	3.3	"	"	"	"	"	"	
Chromium	7.0	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A	
Copper	ND	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Nickel	4.5	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	9.2	5.1	"	"	"	"	"	"	
Zinc	16	7.0	"	"	"	"	"	"	

SV13-5 (2107188-22) Soil Sampled: 07/13/21 11:26 Received: 07/13/21 17:07

Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	83	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	7.1	3.3	"	"	"	"	"	"	
Chromium	15	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A	
Copper	9.8	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Nickel	8.7	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	23	5.1	"	"	"	"	"	"	
Zinc	31	7.0	"	"	"	"	"	"	

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Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV13-10 (2107188-23) Soil Sampled: 07/13/21 11:31 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	100	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	5.7	3.3	"	"	"	"	"	"	
Chromium	21	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A	
Copper	13	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Nickel	10	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	26	5.1	"	"	"	"	"	"	
Zinc	37	7.0	"	"	"	"	"	"	

SV13-15 (2107188-24) Soil Sampled: 07/13/21 11:38 Received: 07/13/21 17:07

Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	46	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	4.5	3.3	"	"	"	"	"	"	
Chromium	12	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A	
Copper	8.0	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Nickel	7.0	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	16	5.1	"	"	"	"	"	"	
Zinc	26	7.0	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV14-5 (2107188-25) Soil Sampled: 07/13/21 12:49 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	50	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	4.7	3.3	"	"	"	"	"	"	
Chromium	11	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A	
Copper	7.4	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Nickel	5.9	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	15	5.1	"	"	"	"	"	"	
Zinc	22	7.0	"	"	"	"	"	"	
SV14-10 (2107188-26) Soil Sampled: 07/13/21 12:54 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	88	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	5.6	3.3	"	"	"	"	"	"	
Chromium	22	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A	
Copper	12	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Mercury	ND	0.78	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Nickel	9.1	3.0	"	"	"	"	"	"	
Lead	26	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	17	5.1	"	"	"	"	"	"	
Zinc	61	7.0	"	"	"	"	"	"	

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 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
SV14-15 (2107188-27) Soil Sampled: 07/13/21 13:01 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	38	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	3.8	3.3	"	"	"	"	"	"		
Chromium	12	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A		
Copper	6.9	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Mercury	ND	0.79	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Nickel	6.4	3.0	"	"	"	"	"	"		
Lead	ND	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	13	5.1	"	"	"	"	"	"		
Zinc	28	7.0	"	"	"	"	"	"		

SV15-5 (2107188-28) Soil Sampled: 07/13/21 13:19 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	110	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	4.9	3.3	"	"	"	"	"	"		
Chromium	12	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A		
Copper	9.0	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Mercury	ND	0.79	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Nickel	6.7	3.0	"	"	"	"	"	"		
Lead	ND	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	19	5.1	"	"	"	"	"	"		
Zinc	28	7.0	"	"	"	"	"	"		

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV15-10 (2107188-29) Soil Sampled: 07/13/21 13:23 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	79	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	7.8	3.3	"	"	"	"	"	"	
Chromium	16	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A	
Copper	13	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Nickel	12	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	26	5.1	"	"	"	"	"	"	
Zinc	38	7.0	"	"	"	"	"	"	
SV15-15 (2107188-30) Soil Sampled: 07/13/21 13:27 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	64	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	4.9	3.3	"	"	"	"	"	"	
Chromium	11	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A	
Copper	6.9	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Nickel	7.7	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	16	5.1	"	"	"	"	"	"	
Zinc	26	7.0	"	"	"	"	"	"	

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 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
SV16-5 (2107188-31) Soil Sampled: 07/13/21 13:54 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	160	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	7.4	3.3	"	"	"	"	"	"		
Chromium	17	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A		
Copper	20	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Nickel	11	3.0	"	"	"	"	"	"		
Lead	19	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	24	5.1	"	"	"	"	"	"		
Zinc	63	7.0	"	"	"	"	"	"		
SV16-10 (2107188-32) Soil Sampled: 07/13/21 13:57 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	130	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	11	3.3	"	"	"	"	"	"		
Chromium	24	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A		
Copper	27	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Nickel	16	3.0	"	"	"	"	"	"		
Lead	27	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	36	5.1	"	"	"	"	"	"		
Zinc	86	7.0	"	"	"	"	"	"		

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
SV16-15 (2107188-33) Soil Sampled: 07/13/21 14:00 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	720	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	8.0	3.3	"	"	"	"	"	"		
Chromium	23	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A		
Copper	37	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Nickel	16	3.0	"	"	"	"	"	"		
Lead	61	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	28	5.1	"	"	"	"	"	"		
Zinc	90	7.0	"	"	"	"	"	"		
SV17-5 (2107188-34) Soil Sampled: 07/13/21 14:44 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Arsenic	20	5.5	"	"	"	"	"	"		
Barium	88	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	6.7	3.3	"	"	"	"	"	"		
Chromium	18	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A		
Copper	47	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Nickel	17	3.0	"	"	"	"	"	"		
Lead	57	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	21	5.1	"	"	"	"	"	"		
Zinc	180	7.0	"	"	"	"	"	"		

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV17-10 (2107188-35) Soil Sampled: 07/13/21 14:48 Received: 07/13/21 17:07

Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	170	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	9.2	3.3	"	"	"	"	"	"	
Chromium	20	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A	
Copper	21	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Nickel	13	3.0	"	"	"	"	"	"	
Lead	12	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	28	5.1	"	"	"	"	"	"	
Zinc	61	7.0	"	"	"	"	"	"	

SV17-15 (2107188-36) Soil Sampled: 07/13/21 14:53 Received: 07/13/21 17:07

Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	240	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	16	3.3	"	"	"	"	"	"	
Chromium	35	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A	
Copper	35	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Nickel	19	3.0	"	"	"	"	"	"	
Lead	12	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	7.4	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	47	5.1	"	"	"	"	"	"	
Zinc	120	7.0	"	"	"	"	"	"	

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 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV18-5 (2107188-37) Soil Sampled: 07/13/21 15:19 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	110	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	8.2	3.3	"	"	"	"	"	"	
Chromium	18	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A	
Copper	16	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Nickel	12	3.0	"	"	"	"	"	"	
Lead	14	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	28	5.1	"	"	"	"	"	"	
Zinc	66	7.0	"	"	"	"	"	"	
SV18-10 (2107188-38) Soil Sampled: 07/13/21 15:25 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	94	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	9.8	3.3	"	"	"	"	"	"	
Chromium	18	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A	
Copper	14	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Nickel	12	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	32	5.1	"	"	"	"	"	"	
Zinc	40	7.0	"	"	"	"	"	"	

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Santa Monica CA, 90405

Project: Town Center Northwest
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Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							
SV18-15 (2107188-39) Soil Sampled: 07/13/21 15:29 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	100	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	7.7	3.3	"	"	"	"	"	"		
Chromium	25	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A		
Copper	16	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Nickel	16	3.0	"	"	"	"	"	"		
Lead	ND	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	35	5.1	"	"	"	"	"	"		
Zinc	54	7.0	"	"	"	"	"	"		

SV19-5 (2107188-40) Soil Sampled: 07/13/21 15:49 Received: 07/13/21 17:07

Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	74	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	6.9	3.3	"	"	"	"	"	"		
Chromium	14	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A		
Copper	11	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Nickel	11	3.0	"	"	"	"	"	"		
Lead	ND	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	24	5.1	"	"	"	"	"	"		
Zinc	33	7.0	"	"	"	"	"	"		

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Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV19-10 (2107188-41) Soil Sampled: 07/13/21 15:54 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1413	07/14/21	07/19/21 16:48	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	66	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	7.3	3.3	"	"	"	"	"	"	
Chromium	17	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1419	07/14/21	07/19/21 17:00	EPA 7199A	
Copper	12	5.0	"	"	B1G1413	07/14/21	07/19/21 16:48	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1416	07/14/21	07/16/21 20:32	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1413	07/14/21	07/19/21 16:48	EPA 6010B	
Nickel	12	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	23	5.1	"	"	"	"	"	"	
Zinc	35	7.0	"	"	"	"	"	"	
SV19-15 (2107188-42) Soil Sampled: 07/13/21 15:59 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1413	07/14/21	07/19/21 16:48	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	46	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	5.2	3.3	"	"	"	"	"	"	
Chromium	10	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1419	07/14/21	07/19/21 17:00	EPA 7199A	
Copper	7.8	5.0	"	"	B1G1413	07/14/21	07/19/21 16:48	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1416	07/14/21	07/16/21 20:32	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1413	07/14/21	07/19/21 16:48	EPA 6010B	
Nickel	8.1	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	15	5.1	"	"	"	"	"	"	
Zinc	28	7.0	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV6-5 (2107188-01) Soil Sampled: 07/13/21 07:35 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		61.2 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		91.0 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	
SV6-10 (2107188-02) Soil Sampled: 07/13/21 07:44 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		78.5 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		95.5 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	
SV6-15 (2107188-03) Soil Sampled: 07/13/21 07:51 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		73.8 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		98.4 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	
SV7-5 (2107188-04) Soil Sampled: 07/13/21 08:15 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		78.6 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		93.3 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.062	"	"	"	"	"	"	

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Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV7-10 (2107188-05) Soil Sampled: 07/13/21 08:25 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		74.3 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		90.3 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.071	"	"	"	"	"	"	
SV7-15 (2107188-06) Soil Sampled: 07/13/21 08:30 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		65.6 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		86.7 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	
SV8-5 (2107188-07) Soil Sampled: 07/13/21 08:56 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		129 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	27	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		93.5 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.042	"	"	"	"	"	"	
SV8-10 (2107188-08) Soil Sampled: 07/13/21 08:58 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		60.8 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		93.9 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	

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 Project Manager: Susan Mearns

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Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV8-15 (2107188-09) Soil Sampled: 07/13/21 09:06 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		66.0 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		101 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	
SV9-5 (2107188-10) Soil Sampled: 07/13/21 09:19 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		%	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	S-03
Total Petroleum Hydrocarbons (C13-C22)	110	100	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	550	100	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		83.3 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.067	"	"	"	"	"	"	
SV9-10 (2107188-11) Soil Sampled: 07/13/21 09:22 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		100 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	50	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		94.4 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.043	"	"	"	"	"	"	
SV9-15 (2107188-12) Soil Sampled: 07/13/21 09:24 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		90.6 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		95.3 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	

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Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV10-5 (2107188-13) Soil Sampled: 07/13/21 09:32 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		%	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	S-03
Total Petroleum Hydrocarbons (C13-C22)	510	100	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	650	100	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		80.6 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.084	"	"	"	"	"	"	
SV10-10 (2107188-14) Soil Sampled: 07/13/21 09:36 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		79.0 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	52	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		88.6 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	
SV10-15 (2107188-15) Soil Sampled: 07/13/21 09:52 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		68.8 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		97.1 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	
SV11-5 (2107188-16) Soil Sampled: 07/13/21 10:16 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		86.1 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	160	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		94.5 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	

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Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV11-10 (2107188-17) Soil Sampled: 07/13/21 10:20 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		120 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	39	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	200	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		91.6 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	"
SV11-15 (2107188-18) Soil Sampled: 07/13/21 10:26 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		72.6 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		95.7 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	"
SV12-5 (2107188-19) Soil Sampled: 07/13/21 10:49 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		97.9 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		83.5 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.070	"	"	"	"	"	"	"
SV12-10 (2107188-20) Soil Sampled: 07/13/21 10:58 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		111 %	60-175		BIG1601	07/15/21	07/16/21 08:00	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		79.2 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	"

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Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV12-15 (2107188-21) Soil Sampled: 07/13/21 11:07 Received: 07/13/21 17:07

<i>Surrogate: o-Terphenyl</i>		91.5 %	60-175		BIG1601	07/15/21	07/16/21 08:00	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		88.6 %	35-130		BIG1503	"	07/15/21 13:57	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	

SV13-5 (2107188-22) Soil Sampled: 07/13/21 11:26 Received: 07/13/21 17:07

<i>Surrogate: o-Terphenyl</i>		107 %	60-175		BIG1601	07/15/21	07/16/21 08:00	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		79.8 %	35-130		BIG1503	"	07/15/21 13:57	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	

SV13-10 (2107188-23) Soil Sampled: 07/13/21 11:31 Received: 07/13/21 17:07

<i>Surrogate: o-Terphenyl</i>		80.4 %	60-175		BIG1602	07/15/21	07/16/21 08:18	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		96.1 %	35-130		BIG1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	

SV13-15 (2107188-24) Soil Sampled: 07/13/21 11:38 Received: 07/13/21 17:07

<i>Surrogate: o-Terphenyl</i>		111 %	60-175		BIG1602	07/15/21	07/16/21 08:18	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		90.6 %	35-130		BIG1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	

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Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV14-5 (2107188-25) Soil Sampled: 07/13/21 12:49 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		133 %	60-175		BIG1602	07/15/21	07/16/21 08:18	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		99.2 %	35-130		BIG1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	
SV14-10 (2107188-26) Soil Sampled: 07/13/21 12:54 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		183 %	60-175		BIG1602	07/15/21	07/16/21 08:18	EPA 8015B	S-07
Total Petroleum Hydrocarbons (C13-C22)	53	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	180	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		91.6 %	35-130		BIG1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	0.21	0.050	"	"	"	"	"	"	
SV14-15 (2107188-27) Soil Sampled: 07/13/21 13:01 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		71.9 %	60-175		BIG1602	07/15/21	07/16/21 08:18	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		96.1 %	35-130		BIG1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	
SV15-5 (2107188-28) Soil Sampled: 07/13/21 13:19 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		85.8 %	60-175		BIG1602	07/15/21	07/16/21 08:18	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		82.0 %	35-130		BIG1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.060	"	"	"	"	"	"	

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Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV15-10 (2107188-29) Soil Sampled: 07/13/21 13:23 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		66.1 %	60-175		B1G1602	07/15/21	07/16/21 08:18	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		90.3 %	35-130		B1G1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.056	"	"	"	"	"	"	"
SV15-15 (2107188-30) Soil Sampled: 07/13/21 13:27 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		98.6 %	60-175		B1G1602	07/15/21	07/16/21 08:18	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		83.7 %	35-130		B1G1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.065	"	"	"	"	"	"	"
SV16-5 (2107188-31) Soil Sampled: 07/13/21 13:54 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		148 %	60-175		B1G1602	07/15/21	07/16/21 08:18	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	190	10	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	500	10	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		89.3 %	35-130		B1G1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.058	"	"	"	"	"	"	"
SV16-10 (2107188-32) Soil Sampled: 07/13/21 13:57 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		106 %	60-175		B1G1602	07/15/21	07/16/21 08:18	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		88.7 %	35-130		B1G1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.063	"	"	"	"	"	"	"

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Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV16-15 (2107188-33) Soil Sampled: 07/13/21 14:00 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		134 %	60-175		B1G1602	07/15/21	07/16/21 08:18	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	150	10	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	200	10	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		86.4 %	35-130		B1G1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	0.26	0.059	"	"	"	"	"	"	"
SV17-5 (2107188-34) Soil Sampled: 07/13/21 14:44 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		85.6 %	60-175		B1G1602	07/15/21	07/16/21 08:18	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	34	10	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	650	10	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		98.3 %	35-130		B1G1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	0.052	0.050	"	"	"	"	"	"	"
SV17-10 (2107188-35) Soil Sampled: 07/13/21 14:48 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		155 %	60-175		B1G1602	07/15/21	07/16/21 08:18	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	79	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		93.5 %	35-130		B1G1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	"
SV17-15 (2107188-36) Soil Sampled: 07/13/21 14:53 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		137 %	60-175		B1G1602	07/15/21	07/16/21 08:18	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	78	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		92.8 %	35-130		B1G1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	"

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Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV18-5 (2107188-37) Soil Sampled: 07/13/21 15:19 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		196 %	60-175		B1G1602	07/15/21	07/16/21 08:18	EPA 8015B	S-07
Total Petroleum Hydrocarbons (C13-C22)	110	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	600	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		76.6 %	35-130		B1G1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.10	"	"	"	"	"	"	
SV18-10 (2107188-38) Soil Sampled: 07/13/21 15:25 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		%	60-175		B1G1602	07/15/21	07/16/21 08:18	EPA 8015B	S-03
Total Petroleum Hydrocarbons (C13-C22)	1300	250	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	2200	250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		108 %	35-130		B1G1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	1100	6.3	"	100	"	"	"	"	
SV18-15 (2107188-39) Soil Sampled: 07/13/21 15:29 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		94.7 %	60-175		B1G1602	07/15/21	07/16/21 08:18	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		133 %	35-130		B1G1913	07/19/21	07/20/21 10:02	"	S-07
Total Petroleum Hydrocarbons (C4-C12)	0.48	0.044	"	"	"	"	"	"	
SV19-5 (2107188-40) Soil Sampled: 07/13/21 15:49 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		%	60-175		B1G1602	07/15/21	07/16/21 08:18	EPA 8015B	S-03
Total Petroleum Hydrocarbons (C13-C22)	2400	250	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		93.8 %	35-130		B1G1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	2600	25	"	500	"	"	"	"	

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Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV19-10 (2107188-41) Soil Sampled: 07/13/21 15:54 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		%	60-175		B1G1602	07/15/21	07/16/21 08:18	EPA 8015B	S-03
Total Petroleum Hydrocarbons (C13-C22)	590	25	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	270	25	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		94.8 %	35-130		B1G1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	510	22	"	500	"	"	"	"	
SV19-15 (2107188-42) Soil Sampled: 07/13/21 15:59 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		%	60-175		B1G1602	07/15/21	07/16/21 08:18	EPA 8015B	S-03
Total Petroleum Hydrocarbons (C13-C22)	2500	250	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	530	250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		116 %	35-130		B1G1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	1500	25	"	500	"	"	"	"	

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Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								

SV6-5 (2107188-01) Soil Sampled: 07/13/21 07:35 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		120 %		80-120		BIG1407	07/14/21	07/15/21 07:36	EPA 8260B	
Surrogate: Toluene-d8		99.9 %		81-117		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.5 %		74-121		"	"	"	"	
Benzene	ND	5.8	"	"	"	"	"	"	"	
Bromobenzene	ND	5.8	"	"	"	"	"	"	"	
Bromochloromethane	ND	5.8	"	"	"	"	"	"	"	
Bromodichloromethane	ND	5.8	"	"	"	"	"	"	"	
Bromoform	ND	5.8	"	"	"	"	"	"	"	
Bromomethane	ND	5.8	"	"	"	"	"	"	"	
n-Butylbenzene	ND	5.8	"	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.8	"	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.8	"	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.8	"	"	"	"	"	"	"	
Chlorobenzene	ND	5.8	"	"	"	"	"	"	"	
Chloroethane	ND	5.8	"	"	"	"	"	"	"	
Chloroform	ND	5.8	"	"	"	"	"	"	"	
Chloromethane	ND	5.8	"	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.8	"	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.8	"	"	"	"	"	"	"	
Dibromochloromethane	ND	5.8	"	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.8	"	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.8	"	"	"	"	"	"	"	
Dibromomethane	ND	5.8	"	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.8	"	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.8	"	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.8	"	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.8	"	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.8	"	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.8	"	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.8	"	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.8	"	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.8	"	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.8	"	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.8	"	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.8	"	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.8	"	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.8	"	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.8	"	"	"	"	"	"	"	
Ethylbenzene	ND	5.8	"	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.8	"	"	"	"	"	"	"	
Isopropylbenzene	ND	5.8	"	"	"	"	"	"	"	

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Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

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Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV6-5 (2107188-01) Soil Sampled: 07/13/21 07:35 Received: 07/13/21 17:07

p-Isopropyltoluene	ND	5.8	µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Methylene chloride	ND	5.8	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.8	"	"	"	"	"	"	
Naphthalene	ND	5.8	"	"	"	"	"	"	
n-Propylbenzene	ND	5.8	"	"	"	"	"	"	
Styrene	ND	5.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.8	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.8	"	"	"	"	"	"	
Tetrachloroethene	ND	5.8	"	"	"	"	"	"	
Toluene	ND	5.8	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.8	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.8	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.8	"	"	"	"	"	"	
Trichloroethene	ND	5.8	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.8	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.8	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.8	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.8	"	"	"	"	"	"	
Vinyl chloride	ND	5.8	"	"	"	"	"	"	
m,p-Xylene	ND	5.8	"	"	"	"	"	"	
o-Xylene	ND	5.8	"	"	"	"	"	"	

SV6-10 (2107188-02) Soil Sampled: 07/13/21 07:44 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		100 %	80-120		B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Surrogate: Toluene-d8		101 %	81-117		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.4 %	74-121		"	"	"	"	
Benzene	ND	9.9	"	"	"	"	"	"	
Bromobenzene	ND	9.9	"	"	"	"	"	"	
Bromochloromethane	ND	9.9	"	"	"	"	"	"	
Bromodichloromethane	ND	9.9	"	"	"	"	"	"	
Bromoform	ND	9.9	"	"	"	"	"	"	
Bromomethane	ND	9.9	"	"	"	"	"	"	
n-Butylbenzene	ND	9.9	"	"	"	"	"	"	
sec-Butylbenzene	ND	9.9	"	"	"	"	"	"	
tert-Butylbenzene	ND	9.9	"	"	"	"	"	"	
Carbon tetrachloride	ND	9.9	"	"	"	"	"	"	
Chlorobenzene	ND	9.9	"	"	"	"	"	"	
Chloroethane	ND	9.9	"	"	"	"	"	"	
Chloroform	ND	9.9	"	"	"	"	"	"	
Chloromethane	ND	9.9	"	"	"	"	"	"	

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Project: Town Center Northwest
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Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV6-10 (2107188-02) Soil Sampled: 07/13/21 07:44 Received: 07/13/21 17:07									
2-Chlorotoluene	ND	9.9	µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
4-Chlorotoluene	ND	9.9	"	"	"	"	"	"	
Dibromochloromethane	ND	9.9	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	9.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	9.9	"	"	"	"	"	"	
Dibromomethane	ND	9.9	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	9.9	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	9.9	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	9.9	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	9.9	"	"	"	"	"	"	
1,1-Dichloroethane	ND	9.9	"	"	"	"	"	"	
1,2-Dichloroethane	ND	9.9	"	"	"	"	"	"	
1,1-Dichloroethene	ND	9.9	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	9.9	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	9.9	"	"	"	"	"	"	
1,2-Dichloropropane	ND	9.9	"	"	"	"	"	"	
1,3-Dichloropropane	ND	9.9	"	"	"	"	"	"	
2,2-Dichloropropane	ND	9.9	"	"	"	"	"	"	
1,1-Dichloropropene	ND	9.9	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	9.9	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	9.9	"	"	"	"	"	"	
Ethylbenzene	ND	9.9	"	"	"	"	"	"	
Hexachlorobutadiene	ND	9.9	"	"	"	"	"	"	
Isopropylbenzene	ND	9.9	"	"	"	"	"	"	
p-Isopropyltoluene	ND	9.9	"	"	"	"	"	"	
Methylene chloride	ND	9.9	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	9.9	"	"	"	"	"	"	
Naphthalene	ND	9.9	"	"	"	"	"	"	
n-Propylbenzene	ND	9.9	"	"	"	"	"	"	
Styrene	ND	9.9	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	9.9	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	9.9	"	"	"	"	"	"	
Tetrachloroethene	ND	9.9	"	"	"	"	"	"	
Toluene	ND	9.9	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	9.9	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	9.9	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	9.9	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	9.9	"	"	"	"	"	"	
Trichloroethene	ND	9.9	"	"	"	"	"	"	
Trichlorofluoromethane	ND	9.9	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	9.9	"	"	"	"	"	"	

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 Project Manager: Susan Mearns

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 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV6-10 (2107188-02) Soil Sampled: 07/13/21 07:44 Received: 07/13/21 17:07

1,2,4-Trimethylbenzene	ND	9.9	µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
1,3,5-Trimethylbenzene	ND	9.9	"	"	"	"	"	"	
Vinyl chloride	ND	9.9	"	"	"	"	"	"	
m,p-Xylene	ND	9.9	"	"	"	"	"	"	
o-Xylene	ND	9.9	"	"	"	"	"	"	

SV6-15 (2107188-03) Soil Sampled: 07/13/21 07:51 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		105 %		80-120	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		101 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		98.3 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	

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Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV6-15 (2107188-03) Soil Sampled: 07/13/21 07:51 Received: 07/13/21 17:07										
2,2-Dichloropropane	ND	5.0		µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
Vinyl chloride	ND	5.0		"	"	"	"	"	"	
m,p-Xylene	ND	5.0		"	"	"	"	"	"	
o-Xylene	ND	5.0		"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV7-5 (2107188-04) Soil Sampled: 07/13/21 08:15 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		104 %		80-120	BIG1407	07/14/21	07/15/21 07:36	EPA 8260B	
Surrogate: Toluene-d8		99.7 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.7 %		74-121	"	"	"	"	
Benzene	ND	6.0	"	"	"	"	"	"	
Bromobenzene	ND	6.0	"	"	"	"	"	"	
Bromochloromethane	ND	6.0	"	"	"	"	"	"	
Bromodichloromethane	ND	6.0	"	"	"	"	"	"	
Bromoform	ND	6.0	"	"	"	"	"	"	
Bromomethane	ND	6.0	"	"	"	"	"	"	
n-Butylbenzene	ND	6.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	6.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	6.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.0	"	"	"	"	"	"	
Chlorobenzene	ND	6.0	"	"	"	"	"	"	
Chloroethane	ND	6.0	"	"	"	"	"	"	
Chloroform	ND	6.0	"	"	"	"	"	"	
Chloromethane	ND	6.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	6.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	6.0	"	"	"	"	"	"	
Dibromochloromethane	ND	6.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	6.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	6.0	"	"	"	"	"	"	
Dibromomethane	ND	6.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	6.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	6.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	6.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	6.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	6.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	6.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	6.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	6.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	6.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	6.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	6.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	6.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	6.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	6.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	6.0	"	"	"	"	"	"	
Ethylbenzene	ND	6.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	6.0	"	"	"	"	"	"	
Isopropylbenzene	ND	6.0	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV7-5 (2107188-04) Soil Sampled: 07/13/21 08:15 Received: 07/13/21 17:07

p-Isopropyltoluene	ND	6.0	µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Methylene chloride	ND	6.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	6.0	"	"	"	"	"	"	
Naphthalene	ND	6.0	"	"	"	"	"	"	
n-Propylbenzene	ND	6.0	"	"	"	"	"	"	
Styrene	ND	6.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	6.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	6.0	"	"	"	"	"	"	
Tetrachloroethane	ND	6.0	"	"	"	"	"	"	
Toluene	ND	6.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	6.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	6.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	6.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	6.0	"	"	"	"	"	"	
Trichloroethene	ND	6.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	6.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	6.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	6.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	6.0	"	"	"	"	"	"	
Vinyl chloride	ND	6.0	"	"	"	"	"	"	
m,p-Xylene	ND	6.0	"	"	"	"	"	"	
o-Xylene	ND	6.0	"	"	"	"	"	"	

SV7-10 (2107188-05) Soil Sampled: 07/13/21 08:25 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		103 %	80-120		B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Surrogate: Toluene-d8		102 %	81-117		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.0 %	74-121		"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV7-10 (2107188-05) Soil Sampled: 07/13/21 08:25 Received: 07/13/21 17:07										
2-Chlorotoluene	ND	5.0		µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
4-Chlorotoluene	ND	5.0		"	"	"	"	"	"	
Dibromochloromethane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0		"	"	"	"	"	"	
Dibromomethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0		"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0		"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV7-10 (2107188-05) Soil Sampled: 07/13/21 08:25 Received: 07/13/21 17:07

1,2,4-Trimethylbenzene	ND	5.0	µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV7-15 (2107188-06) Soil Sampled: 07/13/21 08:30 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		101 %		80-120	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		99.2 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		97.2 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV7-15 (2107188-06) Soil Sampled: 07/13/21 08:30 Received: 07/13/21 17:07										
2,2-Dichloropropane	ND	5.0		µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	"
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	"
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	"
Ethylbenzene	ND	5.0		"	"	"	"	"	"	"
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	"
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	"
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	"
Methylene chloride	ND	5.0		"	"	"	"	"	"	"
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	"
Naphthalene	ND	5.0		"	"	"	"	"	"	"
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	"
Styrene	ND	5.0		"	"	"	"	"	"	"
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	"
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	"
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	"
Toluene	ND	5.0		"	"	"	"	"	"	"
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	"
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	"
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	"
Trichloroethene	ND	5.0		"	"	"	"	"	"	"
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	"
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	"
1,2,4-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	"
1,3,5-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	"
Vinyl chloride	ND	5.0		"	"	"	"	"	"	"
m,p-Xylene	ND	5.0		"	"	"	"	"	"	"
o-Xylene	ND	5.0		"	"	"	"	"	"	"

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV8-5 (2107188-07) Soil Sampled: 07/13/21 08:56 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		109 %		80-120	BIG1407	07/14/21	07/15/21 07:36	EPA 8260B	
Surrogate: Toluene-d8		97.4 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %		74-121	"	"	"	"	
Benzene	ND	4.0	"	"	"	"	"	"	
Bromobenzene	ND	4.0	"	"	"	"	"	"	
Bromochloromethane	ND	4.0	"	"	"	"	"	"	
Bromodichloromethane	ND	4.0	"	"	"	"	"	"	
Bromoform	ND	4.0	"	"	"	"	"	"	
Bromomethane	ND	4.0	"	"	"	"	"	"	
n-Butylbenzene	ND	4.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	4.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	4.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	4.0	"	"	"	"	"	"	
Chlorobenzene	ND	4.0	"	"	"	"	"	"	
Chloroethane	ND	4.0	"	"	"	"	"	"	
Chloroform	ND	4.0	"	"	"	"	"	"	
Chloromethane	ND	4.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	4.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	4.0	"	"	"	"	"	"	
Dibromochloromethane	ND	4.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	4.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	4.0	"	"	"	"	"	"	
Dibromomethane	ND	4.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	4.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	4.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	4.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	4.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	4.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	4.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	4.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	4.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	4.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.0	"	"	"	"	"	"	
Ethylbenzene	ND	4.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	4.0	"	"	"	"	"	"	
Isopropylbenzene	ND	4.0	"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV8-5 (2107188-07) Soil Sampled: 07/13/21 08:56 Received: 07/13/21 17:07

p-Isopropyltoluene	ND	4.0	µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Methylene chloride	ND	4.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	4.0	"	"	"	"	"	"	
Naphthalene	ND	4.0	"	"	"	"	"	"	
n-Propylbenzene	ND	4.0	"	"	"	"	"	"	
Styrene	ND	4.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	4.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	4.0	"	"	"	"	"	"	
Tetrachloroethane	ND	4.0	"	"	"	"	"	"	
Toluene	ND	4.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	4.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	4.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	4.0	"	"	"	"	"	"	
Trichloroethene	ND	4.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	4.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	4.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	4.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	4.0	"	"	"	"	"	"	
Vinyl chloride	ND	4.0	"	"	"	"	"	"	
m,p-Xylene	ND	4.0	"	"	"	"	"	"	
o-Xylene	ND	4.0	"	"	"	"	"	"	

SV8-10 (2107188-08) Soil Sampled: 07/13/21 08:58 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		108 %	80-120		B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Surrogate: Toluene-d8		99.9 %	81-117		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.1 %	74-121		"	"	"	"	
Benzene	ND	4.4	"	"	"	"	"	"	
Bromobenzene	ND	4.4	"	"	"	"	"	"	
Bromochloromethane	ND	4.4	"	"	"	"	"	"	
Bromodichloromethane	ND	4.4	"	"	"	"	"	"	
Bromoform	ND	4.4	"	"	"	"	"	"	
Bromomethane	ND	4.4	"	"	"	"	"	"	
n-Butylbenzene	ND	4.4	"	"	"	"	"	"	
sec-Butylbenzene	ND	4.4	"	"	"	"	"	"	
tert-Butylbenzene	ND	4.4	"	"	"	"	"	"	
Carbon tetrachloride	ND	4.4	"	"	"	"	"	"	
Chlorobenzene	ND	4.4	"	"	"	"	"	"	
Chloroethane	ND	4.4	"	"	"	"	"	"	
Chloroform	ND	4.4	"	"	"	"	"	"	
Chloromethane	ND	4.4	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV8-10 (2107188-08) Soil Sampled: 07/13/21 08:58 Received: 07/13/21 17:07										
2-Chlorotoluene	ND	4.4		µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
4-Chlorotoluene	ND	4.4		"	"	"	"	"	"	
Dibromochloromethane	ND	4.4		"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	4.4		"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	4.4		"	"	"	"	"	"	
Dibromomethane	ND	4.4		"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	4.4		"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	4.4		"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	4.4		"	"	"	"	"	"	
Dichlorodifluoromethane	ND	4.4		"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.4		"	"	"	"	"	"	
1,2-Dichloroethane	ND	4.4		"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.4		"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.4		"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	4.4		"	"	"	"	"	"	
1,2-Dichloropropane	ND	4.4		"	"	"	"	"	"	
1,3-Dichloropropane	ND	4.4		"	"	"	"	"	"	
2,2-Dichloropropane	ND	4.4		"	"	"	"	"	"	
1,1-Dichloropropene	ND	4.4		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.4		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.4		"	"	"	"	"	"	
Ethylbenzene	ND	4.4		"	"	"	"	"	"	
Hexachlorobutadiene	ND	4.4		"	"	"	"	"	"	
Isopropylbenzene	ND	4.4		"	"	"	"	"	"	
p-Isopropyltoluene	ND	4.4		"	"	"	"	"	"	
Methylene chloride	ND	4.4		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	4.4		"	"	"	"	"	"	
Naphthalene	ND	4.4		"	"	"	"	"	"	
n-Propylbenzene	ND	4.4		"	"	"	"	"	"	
Styrene	ND	4.4		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	4.4		"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	4.4		"	"	"	"	"	"	
Tetrachloroethene	ND	4.4		"	"	"	"	"	"	
Toluene	ND	4.4		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.4		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	4.4		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	4.4		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	4.4		"	"	"	"	"	"	
Trichloroethene	ND	4.4		"	"	"	"	"	"	
Trichlorofluoromethane	ND	4.4		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	4.4		"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV8-10 (2107188-08) Soil Sampled: 07/13/21 08:58 Received: 07/13/21 17:07

1,2,4-Trimethylbenzene	ND	4.4	µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
1,3,5-Trimethylbenzene	ND	4.4	"	"	"	"	"	"	
Vinyl chloride	ND	4.4	"	"	"	"	"	"	
m,p-Xylene	ND	4.4	"	"	"	"	"	"	
o-Xylene	ND	4.4	"	"	"	"	"	"	

SV8-15 (2107188-09) Soil Sampled: 07/13/21 09:06 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		108 %		80-120	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		100 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		96.7 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV8-15 (2107188-09) Soil Sampled: 07/13/21 09:06 Received: 07/13/21 17:07										
2,2-Dichloropropane	ND	5.0		µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	"
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	"
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	"
Ethylbenzene	ND	5.0		"	"	"	"	"	"	"
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	"
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	"
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	"
Methylene chloride	ND	5.0		"	"	"	"	"	"	"
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	"
Naphthalene	ND	5.0		"	"	"	"	"	"	"
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	"
Styrene	ND	5.0		"	"	"	"	"	"	"
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	"
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	"
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	"
Toluene	ND	5.0		"	"	"	"	"	"	"
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	"
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	"
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	"
Trichloroethene	ND	5.0		"	"	"	"	"	"	"
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	"
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	"
1,2,4-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	"
1,3,5-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	"
Vinyl chloride	ND	5.0		"	"	"	"	"	"	"
m,p-Xylene	ND	5.0		"	"	"	"	"	"	"
o-Xylene	ND	5.0		"	"	"	"	"	"	"

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV9-5 (2107188-10) Soil Sampled: 07/13/21 09:19 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		115 %		80-120	BIG1407	07/14/21	07/15/21 07:36	EPA 8260B	
Surrogate: Toluene-d8		99.0 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		109 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV9-5 (2107188-10) Soil Sampled: 07/13/21 09:19 Received: 07/13/21 17:07

p-Isopropyltoluene	ND	5.0	µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV9-10 (2107188-11) Soil Sampled: 07/13/21 09:22 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		104 %		80-120	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Surrogate: Toluene-d8		99.6 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.7 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV9-10 (2107188-11) Soil Sampled: 07/13/21 09:22 Received: 07/13/21 17:07										
2-Chlorotoluene	ND	5.0		µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
4-Chlorotoluene	ND	5.0		"	"	"	"	"	"	
Dibromochloromethane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0		"	"	"	"	"	"	
Dibromomethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0		"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0		"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV9-10 (2107188-11) Soil Sampled: 07/13/21 09:22 Received: 07/13/21 17:07

1,2,4-Trimethylbenzene	ND	5.0	µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV9-15 (2107188-12) Soil Sampled: 07/13/21 09:24 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		107 %		80-120	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		102 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		95.3 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV9-15 (2107188-12) Soil Sampled: 07/13/21 09:24 Received: 07/13/21 17:07										
2,2-Dichloropropane	ND	5.0		µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
Vinyl chloride	ND	5.0		"	"	"	"	"	"	
m,p-Xylene	ND	5.0		"	"	"	"	"	"	
o-Xylene	ND	5.0		"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV10-5 (2107188-13) Soil Sampled: 07/13/21 09:32 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		116 %		80-120	BIG1407	07/14/21	07/15/21 07:36	EPA 8260B	
Surrogate: Toluene-d8		99.7 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		114 %		74-121	"	"	"	"	
Benzene	ND	5.6	"	"	"	"	"	"	
Bromobenzene	ND	5.6	"	"	"	"	"	"	
Bromochloromethane	ND	5.6	"	"	"	"	"	"	
Bromodichloromethane	ND	5.6	"	"	"	"	"	"	
Bromoform	ND	5.6	"	"	"	"	"	"	
Bromomethane	ND	5.6	"	"	"	"	"	"	
n-Butylbenzene	ND	5.6	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.6	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.6	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.6	"	"	"	"	"	"	
Chlorobenzene	ND	5.6	"	"	"	"	"	"	
Chloroethane	ND	5.6	"	"	"	"	"	"	
Chloroform	ND	5.6	"	"	"	"	"	"	
Chloromethane	ND	5.6	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.6	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.6	"	"	"	"	"	"	
Dibromochloromethane	ND	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.6	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.6	"	"	"	"	"	"	
Dibromomethane	ND	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.6	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.6	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.6	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.6	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.6	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.6	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.6	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.6	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.6	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.6	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.6	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.6	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.6	"	"	"	"	"	"	
Ethylbenzene	ND	5.6	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.6	"	"	"	"	"	"	
Isopropylbenzene	ND	5.6	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV10-5 (2107188-13) Soil Sampled: 07/13/21 09:32 Received: 07/13/21 17:07

p-Isopropyltoluene	ND	5.6	µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Methylene chloride	ND	5.6	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.6	"	"	"	"	"	"	
Naphthalene	ND	5.6	"	"	"	"	"	"	
n-Propylbenzene	ND	5.6	"	"	"	"	"	"	
Styrene	ND	5.6	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.6	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.6	"	"	"	"	"	"	
Tetrachloroethene	ND	5.6	"	"	"	"	"	"	
Toluene	ND	5.6	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.6	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.6	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.6	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.6	"	"	"	"	"	"	
Trichloroethene	ND	5.6	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.6	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.6	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.6	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.6	"	"	"	"	"	"	
Vinyl chloride	ND	5.6	"	"	"	"	"	"	
m,p-Xylene	ND	5.6	"	"	"	"	"	"	
o-Xylene	ND	5.6	"	"	"	"	"	"	

SV10-10 (2107188-14) Soil Sampled: 07/13/21 09:36 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		106 %	80-120		B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Surrogate: Toluene-d8		103 %	81-117		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.0 %	74-121		"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV10-10 (2107188-14) Soil Sampled: 07/13/21 09:36 Received: 07/13/21 17:07										
2-Chlorotoluene	ND	5.0		µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
4-Chlorotoluene	ND	5.0		"	"	"	"	"	"	
Dibromochloromethane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0		"	"	"	"	"	"	
Dibromomethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0		"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0		"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV10-10 (2107188-14) Soil Sampled: 07/13/21 09:36 Received: 07/13/21 17:07

1,2,4-Trimethylbenzene	ND	5.0	µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV10-15 (2107188-15) Soil Sampled: 07/13/21 09:52 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		119 %		80-120	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		103 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		96.3 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV10-15 (2107188-15) Soil Sampled: 07/13/21 09:52 Received: 07/13/21 17:07										
2,2-Dichloropropane	ND	5.0		µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
Vinyl chloride	ND	5.0		"	"	"	"	"	"	
m,p-Xylene	ND	5.0		"	"	"	"	"	"	
o-Xylene	ND	5.0		"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV11-5 (2107188-16) Soil Sampled: 07/13/21 10:16 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		105 %	80-120		B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Surrogate: Toluene-d8		102 %	81-117		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	74-121		"	"	"	"	
Benzene	ND	5.6	"	"	"	"	"	"	
Bromobenzene	ND	5.6	"	"	"	"	"	"	
Bromochloromethane	ND	5.6	"	"	"	"	"	"	
Bromodichloromethane	ND	5.6	"	"	"	"	"	"	
Bromoform	ND	5.6	"	"	"	"	"	"	
Bromomethane	ND	5.6	"	"	"	"	"	"	
n-Butylbenzene	ND	5.6	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.6	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.6	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.6	"	"	"	"	"	"	
Chlorobenzene	ND	5.6	"	"	"	"	"	"	
Chloroethane	ND	5.6	"	"	"	"	"	"	
Chloroform	ND	5.6	"	"	"	"	"	"	
Chloromethane	ND	5.6	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.6	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.6	"	"	"	"	"	"	
Dibromochloromethane	ND	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.6	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.6	"	"	"	"	"	"	
Dibromomethane	ND	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.6	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.6	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.6	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.6	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.6	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.6	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.6	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.6	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.6	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.6	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.6	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.6	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.6	"	"	"	"	"	"	
Ethylbenzene	ND	5.6	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.6	"	"	"	"	"	"	
Isopropylbenzene	ND	5.6	"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV11-5 (2107188-16) Soil Sampled: 07/13/21 10:16 Received: 07/13/21 17:07

p-Isopropyltoluene	ND	5.6	µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Methylene chloride	ND	5.6	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.6	"	"	"	"	"	"	
Naphthalene	ND	5.6	"	"	"	"	"	"	
n-Propylbenzene	ND	5.6	"	"	"	"	"	"	
Styrene	ND	5.6	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.6	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.6	"	"	"	"	"	"	
Tetrachloroethene	ND	5.6	"	"	"	"	"	"	
Toluene	ND	5.6	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.6	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.6	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.6	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.6	"	"	"	"	"	"	
Trichloroethene	ND	5.6	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.6	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.6	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.6	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.6	"	"	"	"	"	"	
Vinyl chloride	ND	5.6	"	"	"	"	"	"	
m,p-Xylene	ND	5.6	"	"	"	"	"	"	
o-Xylene	ND	5.6	"	"	"	"	"	"	

SV11-10 (2107188-17) Soil Sampled: 07/13/21 10:20 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		102 %		80-120	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Surrogate: Toluene-d8		98.3 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.1 %		74-121	"	"	"	"	
Benzene	ND	5.8	"	"	"	"	"	"	
Bromobenzene	ND	5.8	"	"	"	"	"	"	
Bromochloromethane	ND	5.8	"	"	"	"	"	"	
Bromodichloromethane	ND	5.8	"	"	"	"	"	"	
Bromoform	ND	5.8	"	"	"	"	"	"	
Bromomethane	ND	5.8	"	"	"	"	"	"	
n-Butylbenzene	ND	5.8	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.8	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.8	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.8	"	"	"	"	"	"	
Chlorobenzene	ND	5.8	"	"	"	"	"	"	
Chloroethane	ND	5.8	"	"	"	"	"	"	
Chloroform	ND	5.8	"	"	"	"	"	"	
Chloromethane	ND	5.8	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV11-10 (2107188-17) Soil Sampled: 07/13/21 10:20 Received: 07/13/21 17:07										
2-Chlorotoluene	ND	5.8		µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
4-Chlorotoluene	ND	5.8		"	"	"	"	"	"	
Dibromochloromethane	ND	5.8		"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.8		"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.8		"	"	"	"	"	"	
Dibromomethane	ND	5.8		"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.8		"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.8		"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.8		"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.8		"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.8		"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.8		"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.8		"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.8		"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.8		"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.8		"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.8		"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.8		"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.8		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.8		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.8		"	"	"	"	"	"	
Ethylbenzene	ND	5.8		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.8		"	"	"	"	"	"	
Isopropylbenzene	ND	5.8		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.8		"	"	"	"	"	"	
Methylene chloride	ND	5.8		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.8		"	"	"	"	"	"	
Naphthalene	ND	5.8		"	"	"	"	"	"	
n-Propylbenzene	ND	5.8		"	"	"	"	"	"	
Styrene	ND	5.8		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.8		"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.8		"	"	"	"	"	"	
Tetrachloroethene	ND	5.8		"	"	"	"	"	"	
Toluene	ND	5.8		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.8		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.8		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.8		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.8		"	"	"	"	"	"	
Trichloroethene	ND	5.8		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.8		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.8		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV11-10 (2107188-17) Soil Sampled: 07/13/21 10:20 Received: 07/13/21 17:07

1,2,4-Trimethylbenzene	ND	5.8	µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
1,3,5-Trimethylbenzene	ND	5.8	"	"	"	"	"	"	
Vinyl chloride	ND	5.8	"	"	"	"	"	"	
m,p-Xylene	ND	5.8	"	"	"	"	"	"	
o-Xylene	ND	5.8	"	"	"	"	"	"	

SV11-15 (2107188-18) Soil Sampled: 07/13/21 10:26 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		106 %		80-120	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		102 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		96.2 %		74-121	"	"	"	"	
Benzene	ND	6.4	"	"	"	"	"	"	
Bromobenzene	ND	6.4	"	"	"	"	"	"	
Bromochloromethane	ND	6.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.4	"	"	"	"	"	"	
Bromoform	ND	6.4	"	"	"	"	"	"	
Bromomethane	ND	6.4	"	"	"	"	"	"	
n-Butylbenzene	ND	6.4	"	"	"	"	"	"	
sec-Butylbenzene	ND	6.4	"	"	"	"	"	"	
tert-Butylbenzene	ND	6.4	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	
Chlorobenzene	ND	6.4	"	"	"	"	"	"	
Chloroethane	ND	6.4	"	"	"	"	"	"	
Chloroform	ND	6.4	"	"	"	"	"	"	
Chloromethane	ND	6.4	"	"	"	"	"	"	
2-Chlorotoluene	ND	6.4	"	"	"	"	"	"	
4-Chlorotoluene	ND	6.4	"	"	"	"	"	"	
Dibromochloromethane	ND	6.4	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	6.4	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	6.4	"	"	"	"	"	"	
Dibromomethane	ND	6.4	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	6.4	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	6.4	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	6.4	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	6.4	"	"	"	"	"	"	
1,1-Dichloroethane	ND	6.4	"	"	"	"	"	"	
1,2-Dichloroethane	ND	6.4	"	"	"	"	"	"	
1,1-Dichloroethene	ND	6.4	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	6.4	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	6.4	"	"	"	"	"	"	
1,2-Dichloropropane	ND	6.4	"	"	"	"	"	"	
1,3-Dichloropropane	ND	6.4	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV11-15 (2107188-18) Soil Sampled: 07/13/21 10:26 Received: 07/13/21 17:07										
2,2-Dichloropropane	ND	6.4		µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
1,1-Dichloropropene	ND	6.4		"	"	"	"	"	"	"
cis-1,3-Dichloropropene	ND	6.4		"	"	"	"	"	"	"
trans-1,3-Dichloropropene	ND	6.4		"	"	"	"	"	"	"
Ethylbenzene	ND	6.4		"	"	"	"	"	"	"
Hexachlorobutadiene	ND	6.4		"	"	"	"	"	"	"
Isopropylbenzene	ND	6.4		"	"	"	"	"	"	"
p-Isopropyltoluene	ND	6.4		"	"	"	"	"	"	"
Methylene chloride	ND	6.4		"	"	"	"	"	"	"
Methyl tert-butyl ether	ND	6.4		"	"	"	"	"	"	"
Naphthalene	ND	6.4		"	"	"	"	"	"	"
n-Propylbenzene	ND	6.4		"	"	"	"	"	"	"
Styrene	ND	6.4		"	"	"	"	"	"	"
1,1,1,2-Tetrachloroethane	ND	6.4		"	"	"	"	"	"	"
1,1,1,2,2-Tetrachloroethane	ND	6.4		"	"	"	"	"	"	"
Tetrachloroethene	ND	6.4		"	"	"	"	"	"	"
Toluene	ND	6.4		"	"	"	"	"	"	"
1,2,3-Trichlorobenzene	ND	6.4		"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	6.4		"	"	"	"	"	"	"
1,1,1-Trichloroethane	ND	6.4		"	"	"	"	"	"	"
1,1,2-Trichloroethane	ND	6.4		"	"	"	"	"	"	"
Trichloroethene	ND	6.4		"	"	"	"	"	"	"
Trichlorofluoromethane	ND	6.4		"	"	"	"	"	"	"
1,2,3-Trichloropropane	ND	6.4		"	"	"	"	"	"	"
1,2,4-Trimethylbenzene	ND	6.4		"	"	"	"	"	"	"
1,3,5-Trimethylbenzene	ND	6.4		"	"	"	"	"	"	"
Vinyl chloride	ND	6.4		"	"	"	"	"	"	"
m,p-Xylene	ND	6.4		"	"	"	"	"	"	"
o-Xylene	ND	6.4		"	"	"	"	"	"	"

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV12-5 (2107188-19) Soil Sampled: 07/13/21 10:49 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		110 %		80-120	BIG1407	07/14/21	07/15/21 07:36	EPA 8260B	
Surrogate: Toluene-d8		101 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.6 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV12-5 (2107188-19) Soil Sampled: 07/13/21 10:49 Received: 07/13/21 17:07

p-Isopropyltoluene	ND	5.0	µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV12-10 (2107188-20) Soil Sampled: 07/13/21 10:58 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		106 %	80-120		B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Surrogate: Toluene-d8		101 %	81-117		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.4 %	74-121		"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV12-10 (2107188-20) Soil Sampled: 07/13/21 10:58 Received: 07/13/21 17:07										
2-Chlorotoluene	ND	5.0		µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
4-Chlorotoluene	ND	5.0		"	"	"	"	"	"	
Dibromochloromethane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0		"	"	"	"	"	"	
Dibromomethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0		"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0		"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV12-10 (2107188-20) Soil Sampled: 07/13/21 10:58 Received: 07/13/21 17:07

1,2,4-Trimethylbenzene	ND	5.0	µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV12-15 (2107188-21) Soil Sampled: 07/13/21 11:07 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		102 %		80-120	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		99.5 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		98.6 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV12-15 (2107188-21) Soil Sampled: 07/13/21 11:07 Received: 07/13/21 17:07										
2,2-Dichloropropane	ND	5.0		µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
Vinyl chloride	ND	5.0		"	"	"	"	"	"	
m,p-Xylene	ND	5.0		"	"	"	"	"	"	
o-Xylene	ND	5.0		"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV13-5 (2107188-22) Soil Sampled: 07/13/21 11:26 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		107 %		80-120	BIG1505	07/15/21	07/15/21 13:22	EPA 8260B	
Surrogate: Toluene-d8		98.9 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.6 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV13-5 (2107188-22) Soil Sampled: 07/13/21 11:26 Received: 07/13/21 17:07

p-Isopropyltoluene	ND	5.0	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV13-10 (2107188-23) Soil Sampled: 07/13/21 11:31 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		104 %	80-120		B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
Surrogate: Toluene-d8		101 %	81-117		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	74-121		"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV13-10 (2107188-23) Soil Sampled: 07/13/21 11:31 Received: 07/13/21 17:07										
2-Chlorotoluene	ND	5.0		µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
4-Chlorotoluene	ND	5.0		"	"	"	"	"	"	
Dibromochloromethane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0		"	"	"	"	"	"	
Dibromomethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0		"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0		"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV13-10 (2107188-23) Soil Sampled: 07/13/21 11:31 Received: 07/13/21 17:07

1,2,4-Trimethylbenzene	ND	5.0	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV13-15 (2107188-24) Soil Sampled: 07/13/21 11:38 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		106 %		80-120	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		101 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		97.4 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV13-15 (2107188-24) Soil Sampled: 07/13/21 11:38 Received: 07/13/21 17:07										
2,2-Dichloropropane	ND	5.0		µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	"
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	"
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	"
Ethylbenzene	ND	5.0		"	"	"	"	"	"	"
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	"
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	"
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	"
Methylene chloride	ND	5.0		"	"	"	"	"	"	"
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	"
Naphthalene	ND	5.0		"	"	"	"	"	"	"
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	"
Styrene	ND	5.0		"	"	"	"	"	"	"
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	"
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	"
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	"
Toluene	ND	5.0		"	"	"	"	"	"	"
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	"
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	"
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	"
Trichloroethene	ND	5.0		"	"	"	"	"	"	"
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	"
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	"
1,2,4-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	"
1,3,5-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	"
Vinyl chloride	ND	5.0		"	"	"	"	"	"	"
m,p-Xylene	ND	5.0		"	"	"	"	"	"	"
o-Xylene	ND	5.0		"	"	"	"	"	"	"

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV14-5 (2107188-25) Soil Sampled: 07/13/21 12:49 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		104 %		80-120	BIG1505	07/15/21	07/15/21 13:22	EPA 8260B	
Surrogate: Toluene-d8		103 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.6 %		74-121	"	"	"	"	
Benzene	ND	5.6	"	"	"	"	"	"	
Bromobenzene	ND	5.6	"	"	"	"	"	"	
Bromochloromethane	ND	5.6	"	"	"	"	"	"	
Bromodichloromethane	ND	5.6	"	"	"	"	"	"	
Bromoform	ND	5.6	"	"	"	"	"	"	
Bromomethane	ND	5.6	"	"	"	"	"	"	
n-Butylbenzene	ND	5.6	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.6	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.6	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.6	"	"	"	"	"	"	
Chlorobenzene	ND	5.6	"	"	"	"	"	"	
Chloroethane	ND	5.6	"	"	"	"	"	"	
Chloroform	ND	5.6	"	"	"	"	"	"	
Chloromethane	ND	5.6	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.6	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.6	"	"	"	"	"	"	
Dibromochloromethane	ND	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.6	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.6	"	"	"	"	"	"	
Dibromomethane	ND	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.6	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.6	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.6	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.6	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.6	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.6	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.6	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.6	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.6	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.6	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.6	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.6	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.6	"	"	"	"	"	"	
Ethylbenzene	ND	5.6	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.6	"	"	"	"	"	"	
Isopropylbenzene	ND	5.6	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV14-5 (2107188-25) Soil Sampled: 07/13/21 12:49 Received: 07/13/21 17:07

p-Isopropyltoluene	ND	5.6	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
Methylene chloride	ND	5.6	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.6	"	"	"	"	"	"	
Naphthalene	ND	5.6	"	"	"	"	"	"	
n-Propylbenzene	ND	5.6	"	"	"	"	"	"	
Styrene	ND	5.6	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.6	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.6	"	"	"	"	"	"	
Tetrachloroethane	ND	5.6	"	"	"	"	"	"	
Toluene	ND	5.6	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.6	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.6	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.6	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.6	"	"	"	"	"	"	
Trichloroethene	ND	5.6	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.6	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.6	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.6	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.6	"	"	"	"	"	"	
Vinyl chloride	ND	5.6	"	"	"	"	"	"	
m,p-Xylene	ND	5.6	"	"	"	"	"	"	
o-Xylene	ND	5.6	"	"	"	"	"	"	

SV14-10 (2107188-26) Soil Sampled: 07/13/21 12:54 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		104 %	80-120		B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
Surrogate: Toluene-d8		103 %	81-117		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	74-121		"	"	"	"	
Benzene	ND	5.9	"	"	"	"	"	"	
Bromobenzene	ND	5.9	"	"	"	"	"	"	
Bromochloromethane	ND	5.9	"	"	"	"	"	"	
Bromodichloromethane	ND	5.9	"	"	"	"	"	"	
Bromoform	ND	5.9	"	"	"	"	"	"	
Bromomethane	ND	5.9	"	"	"	"	"	"	
n-Butylbenzene	ND	5.9	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.9	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.9	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.9	"	"	"	"	"	"	
Chlorobenzene	ND	5.9	"	"	"	"	"	"	
Chloroethane	ND	5.9	"	"	"	"	"	"	
Chloroform	ND	5.9	"	"	"	"	"	"	
Chloromethane	ND	5.9	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							
SV14-10 (2107188-26) Soil Sampled: 07/13/21 12:54 Received: 07/13/21 17:07										
2-Chlorotoluene	ND	5.9	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B		
4-Chlorotoluene	ND	5.9	"	"	"	"	"	"		
Dibromochloromethane	ND	5.9	"	"	"	"	"	"		
1,2-Dibromo-3-chloropropane	ND	5.9	"	"	"	"	"	"		
1,2-Dibromoethane (EDB)	ND	5.9	"	"	"	"	"	"		
Dibromomethane	ND	5.9	"	"	"	"	"	"		
1,2-Dichlorobenzene	ND	5.9	"	"	"	"	"	"		
1,3-Dichlorobenzene	ND	5.9	"	"	"	"	"	"		
1,4-Dichlorobenzene	ND	5.9	"	"	"	"	"	"		
Dichlorodifluoromethane	ND	5.9	"	"	"	"	"	"		
1,1-Dichloroethane	ND	5.9	"	"	"	"	"	"		
1,2-Dichloroethane	ND	5.9	"	"	"	"	"	"		
1,1-Dichloroethene	ND	5.9	"	"	"	"	"	"		
cis-1,2-Dichloroethene	ND	5.9	"	"	"	"	"	"		
trans-1,2-Dichloroethene	ND	5.9	"	"	"	"	"	"		
1,2-Dichloropropane	ND	5.9	"	"	"	"	"	"		
1,3-Dichloropropane	ND	5.9	"	"	"	"	"	"		
2,2-Dichloropropane	ND	5.9	"	"	"	"	"	"		
1,1-Dichloropropene	ND	5.9	"	"	"	"	"	"		
cis-1,3-Dichloropropene	ND	5.9	"	"	"	"	"	"		
trans-1,3-Dichloropropene	ND	5.9	"	"	"	"	"	"		
Ethylbenzene	23	5.9	"	"	"	"	"	"		
Hexachlorobutadiene	ND	5.9	"	"	"	"	"	"		
Isopropylbenzene	ND	5.9	"	"	"	"	"	"		
p-Isopropyltoluene	ND	5.9	"	"	"	"	"	"		
Methylene chloride	ND	5.9	"	"	"	"	"	"		
Methyl tert-butyl ether	ND	5.9	"	"	"	"	"	"		
Naphthalene	ND	5.9	"	"	"	"	"	"		
n-Propylbenzene	ND	5.9	"	"	"	"	"	"		
Styrene	ND	5.9	"	"	"	"	"	"		
1,1,1,2-Tetrachloroethane	ND	5.9	"	"	"	"	"	"		
1,1,2,2-Tetrachloroethane	ND	5.9	"	"	"	"	"	"		
Tetrachloroethene	ND	5.9	"	"	"	"	"	"		
Toluene	ND	5.9	"	"	"	"	"	"		
1,2,3-Trichlorobenzene	ND	5.9	"	"	"	"	"	"		
1,2,4-Trichlorobenzene	ND	5.9	"	"	"	"	"	"		
1,1,1-Trichloroethane	ND	5.9	"	"	"	"	"	"		
1,1,2-Trichloroethane	ND	5.9	"	"	"	"	"	"		
Trichloroethene	ND	5.9	"	"	"	"	"	"		
Trichlorofluoromethane	ND	5.9	"	"	"	"	"	"		
1,2,3-Trichloropropane	ND	5.9	"	"	"	"	"	"		

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV14-10 (2107188-26) Soil Sampled: 07/13/21 12:54 Received: 07/13/21 17:07

1,2,4-Trimethylbenzene	ND	5.9	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
1,3,5-Trimethylbenzene	ND	5.9	"	"	"	"	"	"	
Vinyl chloride	ND	5.9	"	"	"	"	"	"	
m,p-Xylene	110	5.9	"	"	"	"	"	"	
o-Xylene	43	5.9	"	"	"	"	"	"	

SV14-15 (2107188-27) Soil Sampled: 07/13/21 13:01 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		101 %		80-120	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		102 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		98.9 %		74-121	"	"	"	"	
Benzene	ND	5.7	"	"	"	"	"	"	
Bromobenzene	ND	5.7	"	"	"	"	"	"	
Bromochloromethane	ND	5.7	"	"	"	"	"	"	
Bromodichloromethane	ND	5.7	"	"	"	"	"	"	
Bromoform	ND	5.7	"	"	"	"	"	"	
Bromomethane	ND	5.7	"	"	"	"	"	"	
n-Butylbenzene	ND	5.7	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.7	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.7	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.7	"	"	"	"	"	"	
Chlorobenzene	ND	5.7	"	"	"	"	"	"	
Chloroethane	ND	5.7	"	"	"	"	"	"	
Chloroform	ND	5.7	"	"	"	"	"	"	
Chloromethane	ND	5.7	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.7	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.7	"	"	"	"	"	"	
Dibromochloromethane	ND	5.7	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.7	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.7	"	"	"	"	"	"	
Dibromomethane	ND	5.7	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.7	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.7	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.7	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.7	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.7	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.7	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.7	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.7	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.7	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.7	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.7	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV14-15 (2107188-27) Soil Sampled: 07/13/21 13:01 Received: 07/13/21 17:07										
2,2-Dichloropropane	ND	5.7		µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
1,1-Dichloropropene	ND	5.7		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.7		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.7		"	"	"	"	"	"	
Ethylbenzene	ND	5.7		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.7		"	"	"	"	"	"	
Isopropylbenzene	ND	5.7		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.7		"	"	"	"	"	"	
Methylene chloride	ND	5.7		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.7		"	"	"	"	"	"	
Naphthalene	ND	5.7		"	"	"	"	"	"	
n-Propylbenzene	ND	5.7		"	"	"	"	"	"	
Styrene	ND	5.7		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.7		"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	5.7		"	"	"	"	"	"	
Tetrachloroethene	ND	5.7		"	"	"	"	"	"	
Toluene	ND	5.7		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.7		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.7		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.7		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.7		"	"	"	"	"	"	
Trichloroethene	ND	5.7		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.7		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.7		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.7		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.7		"	"	"	"	"	"	
Vinyl chloride	ND	5.7		"	"	"	"	"	"	
m,p-Xylene	ND	5.7		"	"	"	"	"	"	
o-Xylene	ND	5.7		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV15-5 (2107188-28) Soil Sampled: 07/13/21 13:19 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		101 %		80-120	BIG1505	07/15/21	07/15/21 13:22	EPA 8260B	
Surrogate: Toluene-d8		102 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.7 %		74-121	"	"	"	"	
Benzene	ND	8.7	"	"	"	"	"	"	
Bromobenzene	ND	8.7	"	"	"	"	"	"	
Bromochloromethane	ND	8.7	"	"	"	"	"	"	
Bromodichloromethane	ND	8.7	"	"	"	"	"	"	
Bromoform	ND	8.7	"	"	"	"	"	"	
Bromomethane	ND	8.7	"	"	"	"	"	"	
n-Butylbenzene	ND	8.7	"	"	"	"	"	"	
sec-Butylbenzene	ND	8.7	"	"	"	"	"	"	
tert-Butylbenzene	ND	8.7	"	"	"	"	"	"	
Carbon tetrachloride	ND	8.7	"	"	"	"	"	"	
Chlorobenzene	ND	8.7	"	"	"	"	"	"	
Chloroethane	ND	8.7	"	"	"	"	"	"	
Chloroform	ND	8.7	"	"	"	"	"	"	
Chloromethane	ND	8.7	"	"	"	"	"	"	
2-Chlorotoluene	ND	8.7	"	"	"	"	"	"	
4-Chlorotoluene	ND	8.7	"	"	"	"	"	"	
Dibromochloromethane	ND	8.7	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	8.7	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	8.7	"	"	"	"	"	"	
Dibromomethane	ND	8.7	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	8.7	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	8.7	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	8.7	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	8.7	"	"	"	"	"	"	
1,1-Dichloroethane	ND	8.7	"	"	"	"	"	"	
1,2-Dichloroethane	ND	8.7	"	"	"	"	"	"	
1,1-Dichloroethene	ND	8.7	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	8.7	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.7	"	"	"	"	"	"	
1,2-Dichloropropane	ND	8.7	"	"	"	"	"	"	
1,3-Dichloropropane	ND	8.7	"	"	"	"	"	"	
2,2-Dichloropropane	ND	8.7	"	"	"	"	"	"	
1,1-Dichloropropene	ND	8.7	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	8.7	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	8.7	"	"	"	"	"	"	
Ethylbenzene	ND	8.7	"	"	"	"	"	"	
Hexachlorobutadiene	ND	8.7	"	"	"	"	"	"	
Isopropylbenzene	ND	8.7	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV15-5 (2107188-28) Soil Sampled: 07/13/21 13:19 Received: 07/13/21 17:07

p-Isopropyltoluene	ND	8.7	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
Methylene chloride	ND	8.7	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	8.7	"	"	"	"	"	"	
Naphthalene	ND	8.7	"	"	"	"	"	"	
n-Propylbenzene	ND	8.7	"	"	"	"	"	"	
Styrene	ND	8.7	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	8.7	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	8.7	"	"	"	"	"	"	
Tetrachloroethene	ND	8.7	"	"	"	"	"	"	
Toluene	ND	8.7	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	8.7	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	8.7	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	8.7	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	8.7	"	"	"	"	"	"	
Trichloroethene	ND	8.7	"	"	"	"	"	"	
Trichlorofluoromethane	ND	8.7	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	8.7	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	8.7	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	8.7	"	"	"	"	"	"	
Vinyl chloride	ND	8.7	"	"	"	"	"	"	
m,p-Xylene	ND	8.7	"	"	"	"	"	"	
o-Xylene	ND	8.7	"	"	"	"	"	"	

SV15-10 (2107188-29) Soil Sampled: 07/13/21 13:23 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		107 %	80-120		B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
Surrogate: Toluene-d8		101 %	81-117		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.2 %	74-121		"	"	"	"	
Benzene	ND	6.0	"	"	"	"	"	"	
Bromobenzene	ND	6.0	"	"	"	"	"	"	
Bromochloromethane	ND	6.0	"	"	"	"	"	"	
Bromodichloromethane	ND	6.0	"	"	"	"	"	"	
Bromoform	ND	6.0	"	"	"	"	"	"	
Bromomethane	ND	6.0	"	"	"	"	"	"	
n-Butylbenzene	ND	6.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	6.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	6.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.0	"	"	"	"	"	"	
Chlorobenzene	ND	6.0	"	"	"	"	"	"	
Chloroethane	ND	6.0	"	"	"	"	"	"	
Chloroform	ND	6.0	"	"	"	"	"	"	
Chloromethane	ND	6.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV15-10 (2107188-29) Soil Sampled: 07/13/21 13:23 Received: 07/13/21 17:07									
2-Chlorotoluene	ND	6.0	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
4-Chlorotoluene	ND	6.0	"	"	"	"	"	"	
Dibromochloromethane	ND	6.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	6.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	6.0	"	"	"	"	"	"	
Dibromomethane	ND	6.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	6.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	6.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	6.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	6.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	6.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	6.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	6.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	6.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	6.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	6.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	6.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	6.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	6.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	6.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	6.0	"	"	"	"	"	"	
Ethylbenzene	ND	6.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	6.0	"	"	"	"	"	"	
Isopropylbenzene	ND	6.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	6.0	"	"	"	"	"	"	
Methylene chloride	ND	6.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	6.0	"	"	"	"	"	"	
Naphthalene	ND	6.0	"	"	"	"	"	"	
n-Propylbenzene	ND	6.0	"	"	"	"	"	"	
Styrene	ND	6.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	6.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	6.0	"	"	"	"	"	"	
Tetrachloroethene	ND	6.0	"	"	"	"	"	"	
Toluene	ND	6.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	6.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	6.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	6.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	6.0	"	"	"	"	"	"	
Trichloroethene	ND	6.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	6.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	6.0	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV15-10 (2107188-29) Soil Sampled: 07/13/21 13:23 Received: 07/13/21 17:07

1,2,4-Trimethylbenzene	ND	6.0	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
1,3,5-Trimethylbenzene	ND	6.0	"	"	"	"	"	"	
Vinyl chloride	ND	6.0	"	"	"	"	"	"	
m,p-Xylene	ND	6.0	"	"	"	"	"	"	
o-Xylene	ND	6.0	"	"	"	"	"	"	

SV15-15 (2107188-30) Soil Sampled: 07/13/21 13:27 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		109 %		80-120	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		100 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		97.1 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV15-15 (2107188-30) Soil Sampled: 07/13/21 13:27 Received: 07/13/21 17:07										
2,2-Dichloropropane	ND	5.0		µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
Vinyl chloride	ND	5.0		"	"	"	"	"	"	
m,p-Xylene	ND	5.0		"	"	"	"	"	"	
o-Xylene	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Batch	Prepared	Analyzed	Method	Notes
		Limit	Units	Dilution					

SV16-5 (2107188-31) Soil Sampled: 07/13/21 13:54 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		105 %		80-120	BIG1505	07/15/21	07/15/21 13:22	EPA 8260B	
Surrogate: Toluene-d8		100 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %		74-121	"	"	"	"	
Benzene	ND	6.4	"	"	"	"	"	"	
Bromobenzene	ND	6.4	"	"	"	"	"	"	
Bromochloromethane	ND	6.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.4	"	"	"	"	"	"	
Bromoform	ND	6.4	"	"	"	"	"	"	
Bromomethane	ND	6.4	"	"	"	"	"	"	
n-Butylbenzene	ND	6.4	"	"	"	"	"	"	
sec-Butylbenzene	ND	6.4	"	"	"	"	"	"	
tert-Butylbenzene	ND	6.4	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	
Chlorobenzene	ND	6.4	"	"	"	"	"	"	
Chloroethane	ND	6.4	"	"	"	"	"	"	
Chloroform	ND	6.4	"	"	"	"	"	"	
Chloromethane	ND	6.4	"	"	"	"	"	"	
2-Chlorotoluene	ND	6.4	"	"	"	"	"	"	
4-Chlorotoluene	ND	6.4	"	"	"	"	"	"	
Dibromochloromethane	ND	6.4	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	6.4	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	6.4	"	"	"	"	"	"	
Dibromomethane	ND	6.4	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	6.4	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	6.4	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	6.4	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	6.4	"	"	"	"	"	"	
1,1-Dichloroethane	ND	6.4	"	"	"	"	"	"	
1,2-Dichloroethane	ND	6.4	"	"	"	"	"	"	
1,1-Dichloroethene	ND	6.4	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	6.4	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	6.4	"	"	"	"	"	"	
1,2-Dichloropropane	ND	6.4	"	"	"	"	"	"	
1,3-Dichloropropane	ND	6.4	"	"	"	"	"	"	
2,2-Dichloropropane	ND	6.4	"	"	"	"	"	"	
1,1-Dichloropropene	ND	6.4	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	6.4	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	6.4	"	"	"	"	"	"	
Ethylbenzene	ND	6.4	"	"	"	"	"	"	
Hexachlorobutadiene	ND	6.4	"	"	"	"	"	"	
Isopropylbenzene	ND	6.4	"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV16-5 (2107188-31) Soil Sampled: 07/13/21 13:54 Received: 07/13/21 17:07

p-Isopropyltoluene	ND	6.4	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
Methylene chloride	ND	6.4	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	6.4	"	"	"	"	"	"	
Naphthalene	ND	6.4	"	"	"	"	"	"	
n-Propylbenzene	ND	6.4	"	"	"	"	"	"	
Styrene	ND	6.4	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	6.4	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	6.4	"	"	"	"	"	"	
Tetrachloroethane	ND	6.4	"	"	"	"	"	"	
Toluene	ND	6.4	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	6.4	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	6.4	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	6.4	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	6.4	"	"	"	"	"	"	
Trichloroethene	ND	6.4	"	"	"	"	"	"	
Trichlorofluoromethane	ND	6.4	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	6.4	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	6.4	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	6.4	"	"	"	"	"	"	
Vinyl chloride	ND	6.4	"	"	"	"	"	"	
m,p-Xylene	ND	6.4	"	"	"	"	"	"	
o-Xylene	ND	6.4	"	"	"	"	"	"	

SV16-10 (2107188-32) Soil Sampled: 07/13/21 13:57 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		107 %	80-120		B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
Surrogate: Toluene-d8		104 %	81-117		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.3 %	74-121		"	"	"	"	
Benzene	ND	6.7	"	"	"	"	"	"	
Bromobenzene	ND	6.7	"	"	"	"	"	"	
Bromochloromethane	ND	6.7	"	"	"	"	"	"	
Bromodichloromethane	ND	6.7	"	"	"	"	"	"	
Bromoform	ND	6.7	"	"	"	"	"	"	
Bromomethane	ND	6.7	"	"	"	"	"	"	
n-Butylbenzene	ND	6.7	"	"	"	"	"	"	
sec-Butylbenzene	ND	6.7	"	"	"	"	"	"	
tert-Butylbenzene	ND	6.7	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.7	"	"	"	"	"	"	
Chlorobenzene	ND	6.7	"	"	"	"	"	"	
Chloroethane	ND	6.7	"	"	"	"	"	"	
Chloroform	ND	6.7	"	"	"	"	"	"	
Chloromethane	ND	6.7	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV16-10 (2107188-32) Soil Sampled: 07/13/21 13:57 Received: 07/13/21 17:07									
2-Chlorotoluene	ND	6.7	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
4-Chlorotoluene	ND	6.7	"	"	"	"	"	"	
Dibromochloromethane	ND	6.7	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	6.7	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	6.7	"	"	"	"	"	"	
Dibromomethane	ND	6.7	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	6.7	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	6.7	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	6.7	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	6.7	"	"	"	"	"	"	
1,1-Dichloroethane	ND	6.7	"	"	"	"	"	"	
1,2-Dichloroethane	ND	6.7	"	"	"	"	"	"	
1,1-Dichloroethene	ND	6.7	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	6.7	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	6.7	"	"	"	"	"	"	
1,2-Dichloropropane	ND	6.7	"	"	"	"	"	"	
1,3-Dichloropropane	ND	6.7	"	"	"	"	"	"	
2,2-Dichloropropane	ND	6.7	"	"	"	"	"	"	
1,1-Dichloropropene	ND	6.7	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	6.7	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	6.7	"	"	"	"	"	"	
Ethylbenzene	ND	6.7	"	"	"	"	"	"	
Hexachlorobutadiene	ND	6.7	"	"	"	"	"	"	
Isopropylbenzene	ND	6.7	"	"	"	"	"	"	
p-Isopropyltoluene	ND	6.7	"	"	"	"	"	"	
Methylene chloride	ND	6.7	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	6.7	"	"	"	"	"	"	
Naphthalene	ND	6.7	"	"	"	"	"	"	
n-Propylbenzene	ND	6.7	"	"	"	"	"	"	
Styrene	ND	6.7	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	6.7	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	6.7	"	"	"	"	"	"	
Tetrachloroethene	ND	6.7	"	"	"	"	"	"	
Toluene	ND	6.7	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	6.7	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	6.7	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	6.7	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	6.7	"	"	"	"	"	"	
Trichloroethene	ND	6.7	"	"	"	"	"	"	
Trichlorofluoromethane	ND	6.7	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	6.7	"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV16-10 (2107188-32) Soil Sampled: 07/13/21 13:57 Received: 07/13/21 17:07

1,2,4-Trimethylbenzene	ND	6.7	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
1,3,5-Trimethylbenzene	ND	6.7	"	"	"	"	"	"	
Vinyl chloride	ND	6.7	"	"	"	"	"	"	
m,p-Xylene	ND	6.7	"	"	"	"	"	"	
o-Xylene	ND	6.7	"	"	"	"	"	"	

SV16-15 (2107188-33) Soil Sampled: 07/13/21 14:00 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		111 %		80-120	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		102 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		114 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV16-15 (2107188-33) Soil Sampled: 07/13/21 14:00 Received: 07/13/21 17:07										
2,2-Dichloropropane	ND	5.0		µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	14	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
Vinyl chloride	ND	5.0		"	"	"	"	"	"	
m,p-Xylene	ND	5.0		"	"	"	"	"	"	
o-Xylene	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV17-5 (2107188-34) Soil Sampled: 07/13/21 14:44 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		119 %		80-120	BIG1505	07/15/21	07/15/21 13:22	EPA 8260B	
Surrogate: Toluene-d8		104 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV17-5 (2107188-34) Soil Sampled: 07/13/21 14:44 Received: 07/13/21 17:07

p-Isopropyltoluene	ND	5.0	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV17-10 (2107188-35) Soil Sampled: 07/13/21 14:48 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		120 %		80-120	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		106 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		103 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV17-10 (2107188-35) Soil Sampled: 07/13/21 14:48 Received: 07/13/21 17:07										
2-Chlorotoluene	ND	5.0		µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
4-Chlorotoluene	ND	5.0		"	"	"	"	"	"	
Dibromochloromethane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0		"	"	"	"	"	"	
Dibromomethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0		"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0		"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV17-10 (2107188-35) Soil Sampled: 07/13/21 14:48 Received: 07/13/21 17:07

1,2,4-Trimethylbenzene	ND	5.0	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV17-15 (2107188-36) Soil Sampled: 07/13/21 14:53 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		102 %		80-120	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		106 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		102 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV17-15 (2107188-36) Soil Sampled: 07/13/21 14:53 Received: 07/13/21 17:07										
2,2-Dichloropropane	ND	5.0		µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
Vinyl chloride	ND	5.0		"	"	"	"	"	"	
m,p-Xylene	ND	5.0		"	"	"	"	"	"	
o-Xylene	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV18-5 (2107188-37) Soil Sampled: 07/13/21 15:19 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		106 %	80-120		BIG1505	07/15/21	07/15/21 13:22	EPA 8260B	
Surrogate: Toluene-d8		102 %	81-117		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %	74-121		"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV18-5 (2107188-37) Soil Sampled: 07/13/21 15:19 Received: 07/13/21 17:07

p-Isopropyltoluene	ND	5.0	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV18-10 (2107188-38) Soil Sampled: 07/13/21 15:25 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		116 %		80-120	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		108 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		92.6 %		74-121	"	"	"	"	
Benzene	8.1	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	5.2	5.0	"	"	"	"	"	"	
sec-Butylbenzene	35	5.0	"	"	"	"	"	"	
tert-Butylbenzene	5.0	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV18-10 (2107188-38) Soil Sampled: 07/13/21 15:25 Received: 07/13/21 17:07										
2-Chlorotoluene	ND	5.0		µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
4-Chlorotoluene	ND	5.0		"	"	"	"	"	"	
Dibromochloromethane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0		"	"	"	"	"	"	
Dibromomethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0		"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0		"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	23	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	31	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	36	5.0		"	"	"	"	"	"	
n-Propylbenzene	35	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV18-10 (2107188-38) Soil Sampled: 07/13/21 15:25 Received: 07/13/21 17:07

1,2,4-Trimethylbenzene	ND	5.0	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV18-15 (2107188-39) Soil Sampled: 07/13/21 15:29 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		110 %		80-120	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		103 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		102 %		74-121	"	"	"	"	
Benzene	ND	4.4	"	"	"	"	"	"	
Bromobenzene	ND	4.4	"	"	"	"	"	"	
Bromochloromethane	ND	4.4	"	"	"	"	"	"	
Bromodichloromethane	ND	4.4	"	"	"	"	"	"	
Bromoform	ND	4.4	"	"	"	"	"	"	
Bromomethane	ND	4.4	"	"	"	"	"	"	
n-Butylbenzene	ND	4.4	"	"	"	"	"	"	
sec-Butylbenzene	ND	4.4	"	"	"	"	"	"	
tert-Butylbenzene	ND	4.4	"	"	"	"	"	"	
Carbon tetrachloride	ND	4.4	"	"	"	"	"	"	
Chlorobenzene	ND	4.4	"	"	"	"	"	"	
Chloroethane	ND	4.4	"	"	"	"	"	"	
Chloroform	ND	4.4	"	"	"	"	"	"	
Chloromethane	ND	4.4	"	"	"	"	"	"	
2-Chlorotoluene	ND	4.4	"	"	"	"	"	"	
4-Chlorotoluene	ND	4.4	"	"	"	"	"	"	
Dibromochloromethane	ND	4.4	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	4.4	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	4.4	"	"	"	"	"	"	
Dibromomethane	ND	4.4	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	4.4	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	4.4	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	4.4	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	4.4	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.4	"	"	"	"	"	"	
1,2-Dichloroethane	ND	4.4	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.4	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.4	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	4.4	"	"	"	"	"	"	
1,2-Dichloropropane	ND	4.4	"	"	"	"	"	"	
1,3-Dichloropropane	ND	4.4	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							
SV18-15 (2107188-39) Soil Sampled: 07/13/21 15:29 Received: 07/13/21 17:07										
2,2-Dichloropropane	ND	4.4	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B		
1,1-Dichloropropene	ND	4.4	"	"	"	"	"	"		
cis-1,3-Dichloropropene	ND	4.4	"	"	"	"	"	"		
trans-1,3-Dichloropropene	ND	4.4	"	"	"	"	"	"		
Ethylbenzene	ND	4.4	"	"	"	"	"	"		
Hexachlorobutadiene	ND	4.4	"	"	"	"	"	"		
Isopropylbenzene	ND	4.4	"	"	"	"	"	"		
p-Isopropyltoluene	ND	4.4	"	"	"	"	"	"		
Methylene chloride	ND	4.4	"	"	"	"	"	"		
Methyl tert-butyl ether	ND	4.4	"	"	"	"	"	"		
Naphthalene	ND	4.4	"	"	"	"	"	"		
n-Propylbenzene	ND	4.4	"	"	"	"	"	"		
Styrene	ND	4.4	"	"	"	"	"	"		
1,1,1,2-Tetrachloroethane	ND	4.4	"	"	"	"	"	"		
1,1,1,2,2-Tetrachloroethane	ND	4.4	"	"	"	"	"	"		
Tetrachloroethene	ND	4.4	"	"	"	"	"	"		
Toluene	ND	4.4	"	"	"	"	"	"		
1,2,3-Trichlorobenzene	ND	4.4	"	"	"	"	"	"		
1,2,4-Trichlorobenzene	ND	4.4	"	"	"	"	"	"		
1,1,1-Trichloroethane	ND	4.4	"	"	"	"	"	"		
1,1,2-Trichloroethane	ND	4.4	"	"	"	"	"	"		
Trichloroethene	ND	4.4	"	"	"	"	"	"		
Trichlorofluoromethane	ND	4.4	"	"	"	"	"	"		
1,2,3-Trichloropropane	ND	4.4	"	"	"	"	"	"		
1,2,4-Trimethylbenzene	ND	4.4	"	"	"	"	"	"		
1,3,5-Trimethylbenzene	ND	4.4	"	"	"	"	"	"		
Vinyl chloride	ND	4.4	"	"	"	"	"	"		
m,p-Xylene	ND	4.4	"	"	"	"	"	"		
o-Xylene	ND	4.4	"	"	"	"	"	"		

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV19-5 (2107188-40) Soil Sampled: 07/13/21 15:49 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		100 %		80-120	BIG1505	07/15/21	07/15/21 13:22	EPA 8260B	
Surrogate: Toluene-d8		105 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		105 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	1000	500	"	100	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	1	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	3000	500	"	100	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV19-5 (2107188-40) Soil Sampled: 07/13/21 15:49 Received: 07/13/21 17:07

p-Isopropyltoluene	ND	5.0	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	1200	500	"	100	"	"	"	"	
Naphthalene	7700	500	"	"	"	"	"	"	
n-Propylbenzene	5700	500	"	"	"	"	"	"	
Styrene	ND	5.0	"	1	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV19-10 (2107188-41) Soil Sampled: 07/13/21 15:54 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		104 %		80-120	B1G1507	07/16/21	07/19/21 13:35	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		112 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		117 %		74-121	"	"	"	"	
Benzene	ND	6.9	"	"	"	"	"	"	
Bromobenzene	ND	6.9	"	"	"	"	"	"	
Bromochloromethane	ND	6.9	"	"	"	"	"	"	
Bromodichloromethane	ND	6.9	"	"	"	"	"	"	
Bromoform	ND	6.9	"	"	"	"	"	"	
Bromomethane	ND	6.9	"	"	"	"	"	"	
n-Butylbenzene	ND	6.9	"	"	"	"	"	"	
sec-Butylbenzene	68	6.9	"	"	"	"	"	"	
tert-Butylbenzene	12	6.9	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.9	"	"	"	"	"	"	
Chlorobenzene	ND	6.9	"	"	"	"	"	"	
Chloroethane	ND	6.9	"	"	"	"	"	"	
Chloroform	ND	6.9	"	"	"	"	"	"	
Chloromethane	ND	6.9	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							
SV19-10 (2107188-41) Soil Sampled: 07/13/21 15:54 Received: 07/13/21 17:07										
2-Chlorotoluene	ND	6.9	µg/kg	1	B1G1507	07/16/21	07/19/21 13:35	EPA 8260B		
4-Chlorotoluene	ND	6.9	"	"	"	"	"	"		
Dibromochloromethane	ND	6.9	"	"	"	"	"	"		
1,2-Dibromo-3-chloropropane	ND	6.9	"	"	"	"	"	"		
1,2-Dibromoethane (EDB)	ND	6.9	"	"	"	"	"	"		
Dibromomethane	ND	6.9	"	"	"	"	"	"		
1,2-Dichlorobenzene	ND	6.9	"	"	"	"	"	"		
1,3-Dichlorobenzene	ND	6.9	"	"	"	"	"	"		
1,4-Dichlorobenzene	ND	6.9	"	"	"	"	"	"		
Dichlorodifluoromethane	ND	6.9	"	"	"	"	"	"		
1,1-Dichloroethane	ND	6.9	"	"	"	"	"	"		
1,2-Dichloroethane	ND	6.9	"	"	"	"	"	"		
1,1-Dichloroethene	ND	6.9	"	"	"	"	"	"		
cis-1,2-Dichloroethene	ND	6.9	"	"	"	"	"	"		
trans-1,2-Dichloroethene	ND	6.9	"	"	"	"	"	"		
1,2-Dichloropropane	ND	6.9	"	"	"	"	"	"		
1,3-Dichloropropane	ND	6.9	"	"	"	"	"	"		
2,2-Dichloropropane	ND	6.9	"	"	"	"	"	"		
1,1-Dichloropropene	ND	6.9	"	"	"	"	"	"		
cis-1,3-Dichloropropene	ND	6.9	"	"	"	"	"	"		
trans-1,3-Dichloropropene	ND	6.9	"	"	"	"	"	"		
Ethylbenzene	ND	6.9	"	"	"	"	"	"		
Hexachlorobutadiene	ND	6.9	"	"	"	"	"	"		
Isopropylbenzene	1000	690	"	100	"	"	"	"		
p-Isopropyltoluene	ND	6.9	"	1	"	"	"	"		
Methylene chloride	ND	6.9	"	"	"	"	"	"		
Methyl tert-butyl ether	14000	690	"	100	"	"	"	"		
Naphthalene	ND	690	"	"	"	"	"	"		
n-Propylbenzene	1600	690	"	"	"	"	"	"		
Styrene	ND	6.9	"	1	"	"	"	"		
1,1,1,2-Tetrachloroethane	ND	6.9	"	"	"	"	"	"		
1,1,2,2-Tetrachloroethane	ND	6.9	"	"	"	"	"	"		
Tetrachloroethene	ND	6.9	"	"	"	"	"	"		
Toluene	ND	6.9	"	"	"	"	"	"		
1,2,3-Trichlorobenzene	ND	6.9	"	"	"	"	"	"		
1,2,4-Trichlorobenzene	ND	6.9	"	"	"	"	"	"		
1,1,1-Trichloroethane	ND	6.9	"	"	"	"	"	"		
1,1,2-Trichloroethane	ND	6.9	"	"	"	"	"	"		
Trichloroethene	ND	6.9	"	"	"	"	"	"		
Trichlorofluoromethane	ND	6.9	"	"	"	"	"	"		
1,2,3-Trichloropropane	ND	6.9	"	"	"	"	"	"		

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV19-10 (2107188-41) Soil Sampled: 07/13/21 15:54 Received: 07/13/21 17:07

1,2,4-Trimethylbenzene	ND	6.9	µg/kg	1	B1G1507	07/16/21	07/19/21 13:35	EPA 8260B	
1,3,5-Trimethylbenzene	ND	6.9	"	"	"	"	"	"	
Vinyl chloride	ND	6.9	"	"	"	"	"	"	
m,p-Xylene	7.5	6.9	"	"	"	"	"	"	
o-Xylene	ND	6.9	"	"	"	"	"	"	

SV19-15 (2107188-42) Soil Sampled: 07/13/21 15:59 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		105 %		80-120	B1G1507	07/16/21	07/19/21 13:35	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		109 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		95.8 %		74-121	"	"	"	"	
Benzene	ND	500	"	100	"	"	"	"	
Bromobenzene	ND	500	"	"	"	"	"	"	
Bromochloromethane	ND	500	"	"	"	"	"	"	
Bromodichloromethane	ND	500	"	"	"	"	"	"	
Bromoform	ND	500	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
n-Butylbenzene	1700	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	500	"	"	"	"	"	"	
tert-Butylbenzene	ND	500	"	"	"	"	"	"	
Carbon tetrachloride	ND	500	"	"	"	"	"	"	
Chlorobenzene	ND	500	"	"	"	"	"	"	
Chloroethane	ND	500	"	"	"	"	"	"	
Chloroform	ND	500	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	500	"	"	"	"	"	"	
4-Chlorotoluene	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	500	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	500	"	"	"	"	"	"	
Dibromomethane	ND	500	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	500	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	500	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	500	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	500	"	"	"	"	"	"	
1,2-Dichloroethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethene	ND	500	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	500	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	500	"	"	"	"	"	"	
1,2-Dichloropropane	ND	500	"	"	"	"	"	"	
1,3-Dichloropropane	ND	500	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV19-15 (2107188-42) Soil Sampled: 07/13/21 15:59 Received: 07/13/21 17:07										
2,2-Dichloropropane	ND	500		µg/kg	100	B1G1507	07/16/21	07/19/21 13:35	EPA 8260B	
1,1-Dichloropropene	ND	500		"	"	"	"	"	"	"
cis-1,3-Dichloropropene	ND	500		"	"	"	"	"	"	"
trans-1,3-Dichloropropene	ND	500		"	"	"	"	"	"	"
Ethylbenzene	ND	500		"	"	"	"	"	"	"
Hexachlorobutadiene	ND	500		"	"	"	"	"	"	"
Isopropylbenzene	1700	500		"	"	"	"	"	"	"
p-Isopropyltoluene	ND	500		"	"	"	"	"	"	"
Methylene chloride	ND	500		"	"	"	"	"	"	"
Methyl tert-butyl ether	12000	500		"	"	"	"	"	"	"
Naphthalene	13000	500		"	"	"	"	"	"	"
n-Propylbenzene	4100	500		"	"	"	"	"	"	"
Styrene	ND	500		"	"	"	"	"	"	"
1,1,1,2-Tetrachloroethane	ND	500		"	"	"	"	"	"	"
1,1,1,2,2-Tetrachloroethane	ND	500		"	"	"	"	"	"	"
Tetrachloroethene	ND	500		"	"	"	"	"	"	"
Toluene	ND	500		"	"	"	"	"	"	"
1,2,3-Trichlorobenzene	ND	500		"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	500		"	"	"	"	"	"	"
1,1,1-Trichloroethane	ND	500		"	"	"	"	"	"	"
1,1,2-Trichloroethane	ND	500		"	"	"	"	"	"	"
Trichloroethene	ND	500		"	"	"	"	"	"	"
Trichlorofluoromethane	ND	500		"	"	"	"	"	"	"
1,2,3-Trichloropropane	ND	500		"	"	"	"	"	"	"
1,2,4-Trimethylbenzene	ND	500		"	"	"	"	"	"	"
1,3,5-Trimethylbenzene	ND	500		"	"	"	"	"	"	"
Vinyl chloride	ND	500		"	"	"	"	"	"	"
m,p-Xylene	ND	500		"	"	"	"	"	"	"
o-Xylene	ND	500		"	"	"	"	"	"	"

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV6-5 (2107188-01) Soil Sampled: 07/13/21 07:35 Received: 07/13/21 17:07

Surrogate: 2-Fluorophenol		101 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		72.7 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		48.5 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		92.5 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		97.3 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		129 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV6-5 (2107188-01) Soil Sampled: 07/13/21 07:35 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV6-10 (2107188-02) Soil Sampled: 07/13/21 07:44 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		90.3 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		42.7 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		58.8 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		83.3 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		34.4 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		113 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV6-10 (2107188-02) Soil Sampled: 07/13/21 07:44 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV6-15 (2107188-03) Soil Sampled: 07/13/21 07:51 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		83.7 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		34.7 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		48.1 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		76.0 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		23.7 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		44.6 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV6-15 (2107188-03) Soil Sampled: 07/13/21 07:51 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV7-5 (2107188-04) Soil Sampled: 07/13/21 08:15 Received: 07/13/21 17:07

Surrogate: 2-Fluorophenol		77.3 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		85.9 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		41.2 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		104 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		82.9 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		77.4 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV7-5 (2107188-04) Soil Sampled: 07/13/21 08:15 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV7-10 (2107188-05) Soil Sampled: 07/13/21 08:25 Received: 07/13/21 17:07

Surrogate: 2-Fluorophenol		89.6 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		43.5 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		47.5 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		74.5 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		80.8 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		102 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV7-10 (2107188-05) Soil Sampled: 07/13/21 08:25 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV7-15 (2107188-06) Soil Sampled: 07/13/21 08:30 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		69.8 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		64.9 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		36.9 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		41.0 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		78.2 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		129 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV7-15 (2107188-06) Soil Sampled: 07/13/21 08:30 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV8-5 (2107188-07) Soil Sampled: 07/13/21 08:56 Received: 07/13/21 17:07

Surrogate: 2-Fluorophenol		119 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		31.3 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		48.1 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		42.5 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		29.5 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		45.6 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV8-5 (2107188-07) Soil Sampled: 07/13/21 08:56 Received: 07/13/21 17:07									
2,4-Dinitrotoluene	ND	0.33	mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33	"	"	"	"	"	"	
Fluoranthene	ND	0.33	"	"	"	"	"	"	
Fluorene	ND	0.33	"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33	"	"	"	"	"	"	
Hexachloroethane	ND	0.33	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33	"	"	"	"	"	"	
Isophorone	ND	0.33	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33	"	"	"	"	"	"	
2-Methylphenol	ND	0.33	"	"	"	"	"	"	
4-Methylphenol	ND	0.33	"	"	"	"	"	"	
Naphthalene	ND	0.33	"	"	"	"	"	"	
2-Nitroaniline	ND	0.33	"	"	"	"	"	"	
3-Nitroaniline	ND	0.33	"	"	"	"	"	"	
4-Nitroaniline	ND	0.33	"	"	"	"	"	"	
Nitrobenzene	ND	0.33	"	"	"	"	"	"	
2-Nitrophenol	ND	0.33	"	"	"	"	"	"	
4-Nitrophenol	ND	0.33	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33	"	"	"	"	"	"	
Diphenylamine	ND	0.33	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33	"	"	"	"	"	"	
Pentachlorophenol	ND	0.33	"	"	"	"	"	"	
Phenanthrene	ND	0.33	"	"	"	"	"	"	
Phenol	ND	0.33	"	"	"	"	"	"	
Pyrene	ND	0.33	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV8-10 (2107188-08) Soil Sampled: 07/13/21 08:58 Received: 07/13/21 17:07

Surrogate: 2-Fluorophenol		105 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		79.2 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		51.9 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		61.3 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		53.7 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		90.2 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV8-10 (2107188-08) Soil Sampled: 07/13/21 08:58 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV8-15 (2107188-09) Soil Sampled: 07/13/21 09:06 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		95.7 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		28.9 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		85.6 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		105 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		50.9 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		122 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV8-15 (2107188-09) Soil Sampled: 07/13/21 09:06 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV9-5 (2107188-10) Soil Sampled: 07/13/21 09:19 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		99.3 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		77.7 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		52.5 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		45.8 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		59.7 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		99.6 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV9-5 (2107188-10) Soil Sampled: 07/13/21 09:19 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV9-10 (2107188-11) Soil Sampled: 07/13/21 09:22 Received: 07/13/21 17:07

Surrogate: 2-Fluorophenol		90.1 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		56.8 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		44.2 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		38.5 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		42.3 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		95.3 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV9-10 (2107188-11) Soil Sampled: 07/13/21 09:22 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV9-15 (2107188-12) Soil Sampled: 07/13/21 09:24 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		95.9 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		47.9 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		80.5 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		64.1 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		49.9 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		71.1 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV9-15 (2107188-12) Soil Sampled: 07/13/21 09:24 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV10-5 (2107188-13) Soil Sampled: 07/13/21 09:32 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		103 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		71.9 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		73.2 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		50.0 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		83.4 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		44.3 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV10-5 (2107188-13) Soil Sampled: 07/13/21 09:32 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV10-10 (2107188-14) Soil Sampled: 07/13/21 09:36 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		103 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		65.1 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		51.5 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		83.2 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		57.1 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		87.8 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV10-10 (2107188-14) Soil Sampled: 07/13/21 09:36 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV10-15 (2107188-15) Soil Sampled: 07/13/21 09:52 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		101 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		32.2 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		48.3 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		76.0 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		82.8 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		58.0 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV10-15 (2107188-15) Soil Sampled: 07/13/21 09:52 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV11-5 (2107188-16) Soil Sampled: 07/13/21 10:16 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		104 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		77.2 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		54.4 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		48.9 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		73.3 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		102 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV11-5 (2107188-16) Soil Sampled: 07/13/21 10:16 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV11-10 (2107188-17) Soil Sampled: 07/13/21 10:20 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		93.7 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		77.7 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		52.6 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		80.9 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		45.2 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		52.4 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV11-10 (2107188-17) Soil Sampled: 07/13/21 10:20 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV11-15 (2107188-18) Soil Sampled: 07/13/21 10:26 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		95.9 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		25.9 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		59.6 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		86.7 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		39.3 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		56.2 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV11-15 (2107188-18) Soil Sampled: 07/13/21 10:26 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV12-5 (2107188-19) Soil Sampled: 07/13/21 10:49 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		93.4 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		68.0 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		36.9 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		66.9 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		42.3 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		72.7 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV12-5 (2107188-19) Soil Sampled: 07/13/21 10:49 Received: 07/13/21 17:07									
2,4-Dinitrotoluene	ND	0.33	mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33	"	"	"	"	"	"	
Fluoranthene	ND	0.33	"	"	"	"	"	"	
Fluorene	ND	0.33	"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33	"	"	"	"	"	"	
Hexachloroethane	ND	0.33	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33	"	"	"	"	"	"	
Isophorone	ND	0.33	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33	"	"	"	"	"	"	
2-Methylphenol	ND	0.33	"	"	"	"	"	"	
4-Methylphenol	ND	0.33	"	"	"	"	"	"	
Naphthalene	ND	0.33	"	"	"	"	"	"	
2-Nitroaniline	ND	0.33	"	"	"	"	"	"	
3-Nitroaniline	ND	0.33	"	"	"	"	"	"	
4-Nitroaniline	ND	0.33	"	"	"	"	"	"	
Nitrobenzene	ND	0.33	"	"	"	"	"	"	
2-Nitrophenol	ND	0.33	"	"	"	"	"	"	
4-Nitrophenol	ND	0.33	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33	"	"	"	"	"	"	
Diphenylamine	ND	0.33	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33	"	"	"	"	"	"	
Pentachlorophenol	ND	0.33	"	"	"	"	"	"	
Phenanthrene	ND	0.33	"	"	"	"	"	"	
Phenol	ND	0.33	"	"	"	"	"	"	
Pyrene	ND	0.33	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV12-10 (2107188-20) Soil Sampled: 07/13/21 10:58 Received: 07/13/21 17:07

Surrogate: 2-Fluorophenol		78.5 %		25-121	BIG1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		31.5 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		42.5 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		106 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		80.9 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		49.7 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV12-10 (2107188-20) Soil Sampled: 07/13/21 10:58 Received: 07/13/21 17:07									
2,4-Dinitrotoluene	ND	0.33	mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33	"	"	"	"	"	"	
Fluoranthene	ND	0.33	"	"	"	"	"	"	
Fluorene	ND	0.33	"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33	"	"	"	"	"	"	
Hexachloroethane	ND	0.33	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33	"	"	"	"	"	"	
Isophorone	ND	0.33	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33	"	"	"	"	"	"	
2-Methylphenol	ND	0.33	"	"	"	"	"	"	
4-Methylphenol	ND	0.33	"	"	"	"	"	"	
Naphthalene	ND	0.33	"	"	"	"	"	"	
2-Nitroaniline	ND	0.33	"	"	"	"	"	"	
3-Nitroaniline	ND	0.33	"	"	"	"	"	"	
4-Nitroaniline	ND	0.33	"	"	"	"	"	"	
Nitrobenzene	ND	0.33	"	"	"	"	"	"	
2-Nitrophenol	ND	0.33	"	"	"	"	"	"	
4-Nitrophenol	ND	0.33	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33	"	"	"	"	"	"	
Diphenylamine	ND	0.33	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33	"	"	"	"	"	"	
Pentachlorophenol	ND	0.33	"	"	"	"	"	"	
Phenanthrene	ND	0.33	"	"	"	"	"	"	
Phenol	ND	0.33	"	"	"	"	"	"	
Pyrene	ND	0.33	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33	"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV12-15 (2107188-21) Soil Sampled: 07/13/21 11:07 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		89.4 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		26.1 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		35.1 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		77.8 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		27.8 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		114 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV12-15 (2107188-21) Soil Sampled: 07/13/21 11:07 Received: 07/13/21 17:07									
2,4-Dinitrotoluene	ND	0.33	mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33	"	"	"	"	"	"	
Fluoranthene	ND	0.33	"	"	"	"	"	"	
Fluorene	ND	0.33	"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33	"	"	"	"	"	"	
Hexachloroethane	ND	0.33	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33	"	"	"	"	"	"	
Isophorone	ND	0.33	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33	"	"	"	"	"	"	
2-Methylphenol	ND	0.33	"	"	"	"	"	"	
4-Methylphenol	ND	0.33	"	"	"	"	"	"	
Naphthalene	ND	0.33	"	"	"	"	"	"	
2-Nitroaniline	ND	0.33	"	"	"	"	"	"	
3-Nitroaniline	ND	0.33	"	"	"	"	"	"	
4-Nitroaniline	ND	0.33	"	"	"	"	"	"	
Nitrobenzene	ND	0.33	"	"	"	"	"	"	
2-Nitrophenol	ND	0.33	"	"	"	"	"	"	
4-Nitrophenol	ND	0.33	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33	"	"	"	"	"	"	
Diphenylamine	ND	0.33	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33	"	"	"	"	"	"	
Pentachlorophenol	ND	0.33	"	"	"	"	"	"	
Phenanthrene	ND	0.33	"	"	"	"	"	"	
Phenol	ND	0.33	"	"	"	"	"	"	
Pyrene	ND	0.33	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV13-5 (2107188-22) Soil Sampled: 07/13/21 11:26 Received: 07/13/21 17:07

Surrogate: 2-Fluorophenol		101 %		25-121	BIG1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		67.4 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		50.5 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		89.7 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		52.0 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		68.6 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV13-5 (2107188-22) Soil Sampled: 07/13/21 11:26 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV13-10 (2107188-23) Soil Sampled: 07/13/21 11:31 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		95.9 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		27.2 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		44.5 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		80.3 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		44.4 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		110 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV13-10 (2107188-23) Soil Sampled: 07/13/21 11:31 Received: 07/13/21 17:07									
2,4-Dinitrotoluene	ND	0.33	mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33	"	"	"	"	"	"	
Fluoranthene	ND	0.33	"	"	"	"	"	"	
Fluorene	ND	0.33	"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33	"	"	"	"	"	"	
Hexachloroethane	ND	0.33	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33	"	"	"	"	"	"	
Isophorone	ND	0.33	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33	"	"	"	"	"	"	
2-Methylphenol	ND	0.33	"	"	"	"	"	"	
4-Methylphenol	ND	0.33	"	"	"	"	"	"	
Naphthalene	ND	0.33	"	"	"	"	"	"	
2-Nitroaniline	ND	0.33	"	"	"	"	"	"	
3-Nitroaniline	ND	0.33	"	"	"	"	"	"	
4-Nitroaniline	ND	0.33	"	"	"	"	"	"	
Nitrobenzene	ND	0.33	"	"	"	"	"	"	
2-Nitrophenol	ND	0.33	"	"	"	"	"	"	
4-Nitrophenol	ND	0.33	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33	"	"	"	"	"	"	
Diphenylamine	ND	0.33	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33	"	"	"	"	"	"	
Pentachlorophenol	ND	0.33	"	"	"	"	"	"	
Phenanthrene	ND	0.33	"	"	"	"	"	"	
Phenol	ND	0.33	"	"	"	"	"	"	
Pyrene	ND	0.33	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV13-15 (2107188-24) Soil Sampled: 07/13/21 11:38 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		92.9 %		25-121	BIG1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		35.1 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		36.8 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		50.0 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		42.9 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		136 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV13-15 (2107188-24) Soil Sampled: 07/13/21 11:38 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV14-5 (2107188-25) Soil Sampled: 07/13/21 12:49 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		95.9 %		25-121	BIG1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		57.3 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		41.2 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		74.1 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		34.0 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		88.9 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV14-5 (2107188-25) Soil Sampled: 07/13/21 12:49 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV14-10 (2107188-26) Soil Sampled: 07/13/21 12:54 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		104 %		25-121	BIG1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		50.1 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		59.2 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		90.4 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		42.9 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		60.8 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV14-10 (2107188-26) Soil Sampled: 07/13/21 12:54 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	"
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	"
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	"
Fluoranthene	ND	0.33		"	"	"	"	"	"	"
Fluorene	ND	0.33		"	"	"	"	"	"	"
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	"
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	"
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	"
Hexachloroethane	ND	0.33		"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	"
Isophorone	ND	0.33		"	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	"
2-Methylphenol	ND	0.33		"	"	"	"	"	"	"
4-Methylphenol	ND	0.33		"	"	"	"	"	"	"
Naphthalene	ND	0.33		"	"	"	"	"	"	"
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
Nitrobenzene	ND	0.33		"	"	"	"	"	"	"
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	"
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	"
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	"
Diphenylamine	ND	0.33		"	"	"	"	"	"	"
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	"
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	"
Phenanthrene	ND	0.33		"	"	"	"	"	"	"
Phenol	ND	0.33		"	"	"	"	"	"	"
Pyrene	ND	0.33		"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	"
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	"
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	"

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV14-15 (2107188-27) Soil Sampled: 07/13/21 13:01 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		105 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		86.3 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		55.4 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		89.5 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		50.5 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		105 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV14-15 (2107188-27) Soil Sampled: 07/13/21 13:01 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	"
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	"
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	"
Fluoranthene	ND	0.33		"	"	"	"	"	"	"
Fluorene	ND	0.33		"	"	"	"	"	"	"
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	"
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	"
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	"
Hexachloroethane	ND	0.33		"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	"
Isophorone	ND	0.33		"	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	"
2-Methylphenol	ND	0.33		"	"	"	"	"	"	"
4-Methylphenol	ND	0.33		"	"	"	"	"	"	"
Naphthalene	ND	0.33		"	"	"	"	"	"	"
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
Nitrobenzene	ND	0.33		"	"	"	"	"	"	"
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	"
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	"
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	"
Diphenylamine	ND	0.33		"	"	"	"	"	"	"
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	"
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	"
Phenanthrene	ND	0.33		"	"	"	"	"	"	"
Phenol	ND	0.33		"	"	"	"	"	"	"
Pyrene	ND	0.33		"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	"
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	"
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	"

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV15-5 (2107188-28) Soil Sampled: 07/13/21 13:19 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		96.8 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		64.7 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		87.3 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		87.0 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		55.8 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		131 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV15-5 (2107188-28) Soil Sampled: 07/13/21 13:19 Received: 07/13/21 17:07									
2,4-Dinitrotoluene	ND	0.33	mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33	"	"	"	"	"	"	
Fluoranthene	ND	0.33	"	"	"	"	"	"	
Fluorene	ND	0.33	"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33	"	"	"	"	"	"	
Hexachloroethane	ND	0.33	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33	"	"	"	"	"	"	
Isophorone	ND	0.33	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33	"	"	"	"	"	"	
2-Methylphenol	ND	0.33	"	"	"	"	"	"	
4-Methylphenol	ND	0.33	"	"	"	"	"	"	
Naphthalene	ND	0.33	"	"	"	"	"	"	
2-Nitroaniline	ND	0.33	"	"	"	"	"	"	
3-Nitroaniline	ND	0.33	"	"	"	"	"	"	
4-Nitroaniline	ND	0.33	"	"	"	"	"	"	
Nitrobenzene	ND	0.33	"	"	"	"	"	"	
2-Nitrophenol	ND	0.33	"	"	"	"	"	"	
4-Nitrophenol	ND	0.33	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33	"	"	"	"	"	"	
Diphenylamine	ND	0.33	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33	"	"	"	"	"	"	
Pentachlorophenol	ND	0.33	"	"	"	"	"	"	
Phenanthrene	ND	0.33	"	"	"	"	"	"	
Phenol	ND	0.33	"	"	"	"	"	"	
Pyrene	ND	0.33	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV15-10 (2107188-29) Soil Sampled: 07/13/21 13:23 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		102 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		90.7 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		41.6 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		45.2 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		46.7 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		66.1 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV15-10 (2107188-29) Soil Sampled: 07/13/21 13:23 Received: 07/13/21 17:07									
2,4-Dinitrotoluene	ND	0.33	mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33	"	"	"	"	"	"	
Fluoranthene	ND	0.33	"	"	"	"	"	"	
Fluorene	ND	0.33	"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33	"	"	"	"	"	"	
Hexachloroethane	ND	0.33	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33	"	"	"	"	"	"	
Isophorone	ND	0.33	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33	"	"	"	"	"	"	
2-Methylphenol	ND	0.33	"	"	"	"	"	"	
4-Methylphenol	ND	0.33	"	"	"	"	"	"	
Naphthalene	ND	0.33	"	"	"	"	"	"	
2-Nitroaniline	ND	0.33	"	"	"	"	"	"	
3-Nitroaniline	ND	0.33	"	"	"	"	"	"	
4-Nitroaniline	ND	0.33	"	"	"	"	"	"	
Nitrobenzene	ND	0.33	"	"	"	"	"	"	
2-Nitrophenol	ND	0.33	"	"	"	"	"	"	
4-Nitrophenol	ND	0.33	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33	"	"	"	"	"	"	
Diphenylamine	ND	0.33	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33	"	"	"	"	"	"	
Pentachlorophenol	ND	0.33	"	"	"	"	"	"	
Phenanthrene	ND	0.33	"	"	"	"	"	"	
Phenol	ND	0.33	"	"	"	"	"	"	
Pyrene	ND	0.33	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV15-15 (2107188-30) Soil Sampled: 07/13/21 13:27 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		99.9 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		77.6 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		32.5 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		40.6 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		47.3 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		132 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV15-15 (2107188-30) Soil Sampled: 07/13/21 13:27 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV16-5 (2107188-31) Soil Sampled: 07/13/21 13:54 Received: 07/13/21 17:07

Surrogate: 2-Fluorophenol		94.6 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		62.9 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		50.3 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		50.6 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		65.8 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		115 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV16-5 (2107188-31) Soil Sampled: 07/13/21 13:54 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV16-10 (2107188-32) Soil Sampled: 07/13/21 13:57 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		76.5 %		25-121	BIG1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		52.7 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		50.1 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		60.6 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		70.6 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		101 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV16-10 (2107188-32) Soil Sampled: 07/13/21 13:57 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV16-15 (2107188-33) Soil Sampled: 07/13/21 14:00 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		104 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		65.4 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		58.6 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		50.7 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		32.6 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		43.7 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV16-15 (2107188-33) Soil Sampled: 07/13/21 14:00 Received: 07/13/21 17:07									
2,4-Dinitrotoluene	ND	0.33	mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33	"	"	"	"	"	"	
Fluoranthene	ND	0.33	"	"	"	"	"	"	
Fluorene	ND	0.33	"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33	"	"	"	"	"	"	
Hexachloroethane	ND	0.33	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33	"	"	"	"	"	"	
Isophorone	ND	0.33	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33	"	"	"	"	"	"	
2-Methylphenol	ND	0.33	"	"	"	"	"	"	
4-Methylphenol	ND	0.33	"	"	"	"	"	"	
Naphthalene	ND	0.33	"	"	"	"	"	"	
2-Nitroaniline	ND	0.33	"	"	"	"	"	"	
3-Nitroaniline	ND	0.33	"	"	"	"	"	"	
4-Nitroaniline	ND	0.33	"	"	"	"	"	"	
Nitrobenzene	ND	0.33	"	"	"	"	"	"	
2-Nitrophenol	ND	0.33	"	"	"	"	"	"	
4-Nitrophenol	ND	0.33	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33	"	"	"	"	"	"	
Diphenylamine	ND	0.33	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33	"	"	"	"	"	"	
Pentachlorophenol	ND	0.33	"	"	"	"	"	"	
Phenanthrene	ND	0.33	"	"	"	"	"	"	
Phenol	ND	0.33	"	"	"	"	"	"	
Pyrene	ND	0.33	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV17-5 (2107188-34) Soil Sampled: 07/13/21 14:44 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		99.3 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		65.9 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		65.8 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		56.3 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		75.3 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		110 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV17-5 (2107188-34) Soil Sampled: 07/13/21 14:44 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV17-10 (2107188-35) Soil Sampled: 07/13/21 14:48 Received: 07/13/21 17:07

Surrogate: 2-Fluorophenol		98.1 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		55.7 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		46.4 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		45.0 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		86.1 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		99.1 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV17-10 (2107188-35) Soil Sampled: 07/13/21 14:48 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV17-15 (2107188-36) Soil Sampled: 07/13/21 14:53 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		102 %		25-121	BIG1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		31.3 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		51.3 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		41.5 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		61.9 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		92.1 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV17-15 (2107188-36) Soil Sampled: 07/13/21 14:53 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV18-5 (2107188-37) Soil Sampled: 07/13/21 15:19 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		98.7 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		24.4 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		63.4 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		60.5 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		67.6 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		66.6 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV18-5 (2107188-37) Soil Sampled: 07/13/21 15:19 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	"
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	"
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	"
Fluoranthene	ND	0.33		"	"	"	"	"	"	"
Fluorene	ND	0.33		"	"	"	"	"	"	"
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	"
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	"
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	"
Hexachloroethane	ND	0.33		"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	"
Isophorone	ND	0.33		"	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	"
2-Methylphenol	ND	0.33		"	"	"	"	"	"	"
4-Methylphenol	ND	0.33		"	"	"	"	"	"	"
Naphthalene	ND	0.33		"	"	"	"	"	"	"
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
Nitrobenzene	ND	0.33		"	"	"	"	"	"	"
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	"
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	"
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	"
Diphenylamine	ND	0.33		"	"	"	"	"	"	"
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	"
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	"
Phenanthrene	ND	0.33		"	"	"	"	"	"	"
Phenol	ND	0.33		"	"	"	"	"	"	"
Pyrene	ND	0.33		"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	"
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	"
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	"

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Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV18-10 (2107188-38) Soil Sampled: 07/13/21 15:25 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		115 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		76.7 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		56.5 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		77.9 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		102 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		64.9 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	0.82	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	0.92	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV18-10 (2107188-38) Soil Sampled: 07/13/21 15:25 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	2.2	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	0.44	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	0.77	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV18-15 (2107188-39) Soil Sampled: 07/13/21 15:29 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		81.6 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		52.1 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		33.1 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		40.9 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		58.5 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		129 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
SV18-15 (2107188-39) Soil Sampled: 07/13/21 15:29 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33	mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C		
2,6-Dinitrotoluene	ND	0.33	"	"	"	"	"	"		
Di-n-octyl phthalate	ND	0.33	"	"	"	"	"	"		
1,2-Diphenylhydrazine	ND	0.33	"	"	"	"	"	"		
Fluoranthene	ND	0.33	"	"	"	"	"	"		
Fluorene	ND	0.33	"	"	"	"	"	"		
Hexachlorobenzene	ND	0.33	"	"	"	"	"	"		
Hexachlorobutadiene	ND	0.33	"	"	"	"	"	"		
Hexachlorocyclopentadiene	ND	0.33	"	"	"	"	"	"		
Hexachloroethane	ND	0.33	"	"	"	"	"	"		
Indeno (1,2,3-cd) pyrene	ND	0.33	"	"	"	"	"	"		
Isophorone	ND	0.33	"	"	"	"	"	"		
2-Methylnaphthalene	ND	0.33	"	"	"	"	"	"		
2-Methylphenol	ND	0.33	"	"	"	"	"	"		
4-Methylphenol	ND	0.33	"	"	"	"	"	"		
Naphthalene	ND	0.33	"	"	"	"	"	"		
2-Nitroaniline	ND	0.33	"	"	"	"	"	"		
3-Nitroaniline	ND	0.33	"	"	"	"	"	"		
4-Nitroaniline	ND	0.33	"	"	"	"	"	"		
Nitrobenzene	ND	0.33	"	"	"	"	"	"		
2-Nitrophenol	ND	0.33	"	"	"	"	"	"		
4-Nitrophenol	ND	0.33	"	"	"	"	"	"		
N-Nitrosodimethylamine	ND	0.33	"	"	"	"	"	"		
Diphenylamine	ND	0.33	"	"	"	"	"	"		
N-Nitrosodi-n-propylamine	ND	0.33	"	"	"	"	"	"		
Pentachlorophenol	ND	0.33	"	"	"	"	"	"		
Phenanthrene	ND	0.33	"	"	"	"	"	"		
Phenol	ND	0.33	"	"	"	"	"	"		
Pyrene	ND	0.33	"	"	"	"	"	"		
1,2,4-Trichlorobenzene	ND	0.33	"	"	"	"	"	"		
2,4,5-Trichlorophenol	ND	0.33	"	"	"	"	"	"		
2,4,6-Trichlorophenol	ND	0.33	"	"	"	"	"	"		

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Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV19-5 (2107188-40) Soil Sampled: 07/13/21 15:49 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		57.3 %		25-121	BIG1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		100 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		78.4 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		53.3 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		60.7 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		90.7 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	2.1	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	0.40	0.33	"	"	"	"	"	"	

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Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV19-5 (2107188-40) Soil Sampled: 07/13/21 15:49 Received: 07/13/21 17:07									
2,4-Dinitrotoluene	1.1	0.33	mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	1.2	0.33	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33	"	"	"	"	"	"	
Fluoranthene	ND	0.33	"	"	"	"	"	"	
Fluorene	1.1	0.33	"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33	"	"	"	"	"	"	
Hexachloroethane	ND	0.33	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33	"	"	"	"	"	"	
Isophorone	ND	0.33	"	"	"	"	"	"	
2-Methylnaphthalene	12	0.33	"	"	"	"	"	"	
2-Methylphenol	ND	0.33	"	"	"	"	"	"	
4-Methylphenol	ND	0.33	"	"	"	"	"	"	
Naphthalene	5.2	0.33	"	"	"	"	"	"	
2-Nitroaniline	ND	0.33	"	"	"	"	"	"	
3-Nitroaniline	ND	0.33	"	"	"	"	"	"	
4-Nitroaniline	0.85	0.33	"	"	"	"	"	"	
Nitrobenzene	ND	0.33	"	"	"	"	"	"	
2-Nitrophenol	ND	0.33	"	"	"	"	"	"	
4-Nitrophenol	ND	0.33	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33	"	"	"	"	"	"	
Diphenylamine	ND	0.33	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	0.91	0.33	"	"	"	"	"	"	
Pentachlorophenol	ND	0.33	"	"	"	"	"	"	
Phenanthrene	2.0	0.33	"	"	"	"	"	"	
Phenol	ND	0.33	"	"	"	"	"	"	
Pyrene	0.87	0.33	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV19-10 (2107188-41) Soil Sampled: 07/13/21 15:54 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		109 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		83.5 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		70.9 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		84.0 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		94.5 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		117 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV19-10 (2107188-41) Soil Sampled: 07/13/21 15:54 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV19-15 (2107188-42) Soil Sampled: 07/13/21 15:59 Received: 07/13/21 17:07									
<i>Surrogate: 2-Fluorophenol</i>		61.7 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
<i>Surrogate: Phenol-d6</i>		110 %		24-113	"	"	"	"	
<i>Surrogate: Nitrobenzene-d5</i>		87.4 %		23-120	"	"	"	"	
<i>Surrogate: 2-Fluorobiphenyl</i>		108 %		30-115	"	"	"	"	
<i>Surrogate: 2,4,6-Tribromophenol</i>		103 %		19-122	"	"	"	"	
<i>Surrogate: Terphenyl-d14</i>		90.2 %		18-137	"	"	"	"	
Acenaphthene	1.6	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	1.1	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	1.3	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	1.5	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV19-15 (2107188-42) Soil Sampled: 07/13/21 15:59 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	3.0	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	4.0	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	9.7	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	8.5	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1411 - EPA 3050B

Blank (B1G1411-BLK1)

Prepared: 07/14/21 Analyzed: 07/19/21

Silver	ND	2.0	mg/kg							
Cadmium	ND	2.5	"							
Barium	ND	6.0	"							
Nickel	ND	3.0	"							
Lead	ND	7.1	"							
Vanadium	ND	5.1	"							
Arsenic	ND	5.5	"							
Cobalt	ND	3.3	"							
Thallium	ND	17	"							
Copper	ND	5.0	"							
Selenium	ND	6.9	"							
Molybdenum	ND	5.2	"							
Antimony	ND	8.0	"							
Beryllium	ND	2.2	"							
Zinc	ND	7.0	"							
Chromium	ND	2.3	"							

LCS (B1G1411-BS1)

Prepared: 07/14/21 Analyzed: 07/19/21

Nickel	104	3.0	mg/kg	100		104	80-120			
Molybdenum	103	5.2	"	100		103	80-120			
Arsenic	98.8	5.5	"	100		98.8	78-122			
Beryllium	97.9	2.2	"	100		97.9	80-120			
Chromium	102	2.3	"	100		102	80-120			
Barium	105	6.0	"	100		105	80-120			
Cadmium	102	2.5	"	100		102	80-120			
Silver	98.5	2.0	"	100		98.5	60-140			
Vanadium	98.2	5.1	"	100		98.2	80-120			
Antimony	112	8.0	"	100		112	75-125			
Copper	113	5.0	"	100		113	78-122			
Zinc	101	7.0	"	100		101	80-120			
Selenium	97.3	6.9	"	100		97.3	76-124			
Lead	99.3	7.1	"	100		99.3	80-120			
Cobalt	107	3.3	"	100		107	80-120			
Thallium	104	17	"	100		104	80-120			

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1411 - EPA 3050B

LCS Dup (B1G1411-bsd1)

Prepared: 07/14/21 Analyzed: 07/19/21

Zinc	100	7.0	mg/kg	100		100	80-120	0.670	20	
Chromium	101	2.3	"	100		101	80-120	1.01	20	
Selenium	95.4	6.9	"	100		95.4	76-124	1.97	20	
Thallium	103	17	"	100		103	80-120	0.897	20	
Vanadium	96.9	5.1	"	100		96.9	80-120	1.33	20	
Cobalt	106	3.3	"	100		106	80-120	0.962	20	
Lead	98.2	7.1	"	100		98.2	80-120	1.11	20	
Silver	93.1	2.0	"	100		93.1	60-140	5.64	40	
Antimony	109	8.0	"	100		109	75-125	2.95	20	
Arsenic	96.4	5.5	"	100		96.4	78-122	2.56	20	
Molybdenum	100	5.2	"	100		100	80-120	2.66	20	
Copper	110	5.0	"	100		110	78-122	2.58	20	
Barium	104	6.0	"	100		104	80-120	0.887	20	
Nickel	104	3.0	"	100		104	80-120	0.817	20	
Cadmium	101	2.5	"	100		101	80-120	1.06	20	
Beryllium	98.0	2.2	"	100		98.0	80-120	0.0255	20	

Matrix Spike (B1G1411-MS1)

Source: 2107188-01

Prepared: 07/14/21 Analyzed: 07/19/21

Selenium	96.5	6.9	mg/kg	98.8	ND	97.7	70-130			
Molybdenum	98.2	5.2	"	98.8	0.661	98.8	70-130			
Cobalt	107	3.3	"	98.8	7.64	101	70-130			
Thallium	98.5	17	"	98.8	ND	99.7	70-130			
Lead	101	7.1	"	98.8	4.55	97.8	70-130			
Silver	108	2.0	"	98.8	0.220	109	60-140			
Barium	238	6.0	"	98.8	82.6	158	70-130			QM-07
Beryllium	94.0	2.2	"	98.8	ND	95.1	70-130			
Nickel	106	3.0	"	98.8	8.55	98.6	70-130			
Vanadium	118	5.1	"	98.8	24.0	94.8	70-130			
Arsenic	98.8	5.5	"	98.8	ND	100	70-130			
Zinc	143	7.0	"	98.8	28.5	116	70-130			
Copper	115	5.0	"	98.8	13.6	103	70-130			
Chromium	110	2.3	"	98.8	13.7	97.2	70-130			
Cadmium	98.0	2.5	"	98.8	ND	99.2	70-130			
Antimony	91.6	8.0	"	98.8	ND	92.7	60-140			

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

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 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1411 - EPA 3050B

Matrix Spike Dup (B1G1411-MSD1)

Source: 2107188-01

Prepared: 07/14/21 Analyzed: 07/19/21

Antimony	92.1	8.0	mg/kg	98.4	ND	93.6	60-140	0.599	20	
Cobalt	108	3.3	"	98.4	7.64	102	70-130	0.817	20	
Arsenic	99.3	5.5	"	98.4	ND	101	70-130	0.452	20	
Silver	109	2.0	"	98.4	0.220	110	60-140	0.790	40	
Beryllium	94.4	2.2	"	98.4	ND	95.9	70-130	0.469	20	
Chromium	110	2.3	"	98.4	13.7	97.9	70-130	0.279	20	
Molybdenum	93.1	5.2	"	98.4	0.661	93.9	70-130	5.42	20	
Thallium	98.8	17	"	98.4	ND	100	70-130	0.255	20	
Selenium	96.6	6.9	"	98.4	ND	98.2	70-130	0.116	20	
Cadmium	98.8	2.5	"	98.4	ND	100	70-130	0.758	20	
Vanadium	118	5.1	"	98.4	24.0	95.5	70-130	0.296	20	
Zinc	127	7.0	"	98.4	28.5	99.9	70-130	12.1	20	
Lead	102	7.1	"	98.4	4.55	98.7	70-130	0.480	30	
Nickel	106	3.0	"	98.4	8.55	99.2	70-130	0.187	20	
Copper	116	5.0	"	98.4	13.6	104	70-130	0.758	30	
Barium	240	6.0	"	98.4	82.6	160	70-130	0.493	20	QM-07

Batch B1G1412 - EPA 3050B

Blank (B1G1412-BLK1)

Prepared: 07/14/21 Analyzed: 07/19/21

Zinc	ND	7.0	mg/kg
Thallium	ND	17	"
Selenium	ND	6.9	"
Lead	ND	7.1	"
Copper	ND	5.0	"
Antimony	ND	8.0	"
Nickel	ND	3.0	"
Molybdenum	ND	5.2	"
Barium	ND	6.0	"
Chromium	ND	2.3	"
Arsenic	ND	5.5	"
Vanadium	ND	5.1	"
Cobalt	ND	3.3	"
Silver	ND	2.0	"
Beryllium	ND	2.2	"
Cadmium	ND	2.5	"

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Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1412 - EPA 3050B

LCS (B1G1412-BS1)

Prepared: 07/14/21 Analyzed: 07/19/21

Thallium	104	17	mg/kg	100	104	104	80-120			
Cadmium	104	2.5	"	100	104	104	80-120			
Beryllium	94.1	2.2	"	100	94.1	94.1	80-120			
Lead	95.0	7.1	"	100	95.0	95.0	80-120			
Vanadium	91.6	5.1	"	100	91.6	91.6	80-120			
Copper	100	5.0	"	100	100	100	78-122			
Silver	101	2.0	"	100	101	101	60-140			
Antimony	102	8.0	"	100	102	102	75-125			
Nickel	98.4	3.0	"	100	98.4	98.4	80-120			
Cobalt	107	3.3	"	100	107	107	80-120			
Zinc	100	7.0	"	100	100	100	80-120			
Molybdenum	99.8	5.2	"	100	99.8	99.8	80-120			
Barium	106	6.0	"	100	106	106	80-120			
Chromium	98.3	2.3	"	100	98.3	98.3	80-120			
Arsenic	95.4	5.5	"	100	95.4	95.4	78-122			
Selenium	93.8	6.9	"	100	93.8	93.8	76-124			

LCS Dup (B1G1412-BSD1)

Prepared: 07/14/21 Analyzed: 07/19/21

Beryllium	88.7	2.2	mg/kg	100	88.7	88.7	80-120	5.85	20	
Copper	104	5.0	"	100	104	104	78-122	3.97	20	
Lead	90.2	7.1	"	100	90.2	90.2	80-120	5.18	20	
Antimony	96.2	8.0	"	100	96.2	96.2	75-125	5.41	20	
Chromium	92.4	2.3	"	100	92.4	92.4	80-120	6.16	20	
Silver	92.1	2.0	"	100	92.1	92.1	60-140	8.97	40	
Molybdenum	94.6	5.2	"	100	94.6	94.6	80-120	5.30	20	
Barium	99.2	6.0	"	100	99.2	99.2	80-120	6.23	20	
Nickel	93.0	3.0	"	100	93.0	93.0	80-120	5.67	20	
Cobalt	100	3.3	"	100	100	100	80-120	6.16	20	
Cadmium	97.6	2.5	"	100	97.6	97.6	80-120	6.06	20	
Selenium	88.5	6.9	"	100	88.5	88.5	76-124	5.79	20	
Arsenic	90.0	5.5	"	100	90.0	90.0	78-122	5.72	20	
Thallium	98.6	17	"	100	98.6	98.6	80-120	5.26	20	
Zinc	95.2	7.0	"	100	95.2	95.2	80-120	5.29	20	
Vanadium	86.4	5.1	"	100	86.4	86.4	80-120	5.87	20	

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Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1412 - EPA 3050B

Matrix Spike (B1G1412-MS1)	Source: 2107188-21			Prepared: 07/14/21 Analyzed: 07/19/21					
Antimony	87.8	8.0	mg/kg	97.5	ND	90.1	60-140		
Chromium	100	2.3	"	97.5	7.00	95.6	70-130		
Lead	91.1	7.1	"	97.5	1.24	92.2	70-130		
Nickel	96.1	3.0	"	97.5	4.45	94.0	70-130		
Beryllium	90.5	2.2	"	97.5	ND	92.8	70-130		
Copper	96.9	5.0	"	97.5	4.43	94.9	70-130		
Silver	91.4	2.0	"	97.5	ND	93.8	60-140		
Barium	140	6.0	"	97.5	32.0	110	70-130		
Cobalt	103	3.3	"	97.5	3.34	102	70-130		
Arsenic	93.7	5.5	"	97.5	ND	96.1	70-130		
Selenium	91.6	6.9	"	97.5	ND	94.0	70-130		
Molybdenum	91.7	5.2	"	97.5	ND	94.1	70-130		
Vanadium	99.3	5.1	"	97.5	9.20	92.4	70-130		
Thallium	96.4	17	"	97.5	ND	98.9	70-130		
Zinc	113	7.0	"	97.5	15.9	99.4	70-130		
Cadmium	99.5	2.5	"	97.5	ND	102	70-130		

Matrix Spike Dup (B1G1412-MSD1)	Source: 2107188-21			Prepared: 07/14/21 Analyzed: 07/19/21					
Cadmium	96.2	2.5	mg/kg	97.0	ND	99.2	70-130	3.32	20
Copper	111	5.0	"	97.0	4.43	110	70-130	14.0	30
Silver	91.1	2.0	"	97.0	ND	94.0	60-140	0.326	40
Arsenic	91.1	5.5	"	97.0	ND	93.9	70-130	2.80	20
Antimony	85.4	8.0	"	97.0	ND	88.0	60-140	2.84	20
Cobalt	101	3.3	"	97.0	3.34	100	70-130	2.40	20
Lead	88.7	7.1	"	97.0	1.24	90.2	70-130	2.65	30
Beryllium	88.7	2.2	"	97.0	ND	91.4	70-130	2.01	20
Molybdenum	89.6	5.2	"	97.0	ND	92.4	70-130	2.28	20
Thallium	93.5	17	"	97.0	ND	96.4	70-130	2.99	20
Selenium	89.1	6.9	"	97.0	ND	91.8	70-130	2.85	20
Vanadium	97.1	5.1	"	97.0	9.20	90.6	70-130	2.24	20
Barium	136	6.0	"	97.0	32.0	108	70-130	2.35	20
Chromium	102	2.3	"	97.0	7.00	98.2	70-130	2.04	20
Nickel	93.9	3.0	"	97.0	4.45	92.3	70-130	2.23	20
Zinc	111	7.0	"	97.0	15.9	97.7	70-130	1.94	20

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Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1413 - EPA 3050B

Blank (B1G1413-BLK1)

Prepared: 07/14/21 Analyzed: 07/19/21

Selenium	ND	6.9	mg/kg							
Vanadium	ND	5.1	"							
Copper	ND	5.0	"							
Antimony	ND	8.0	"							
Silver	ND	2.0	"							
Lead	ND	7.1	"							
Molybdenum	ND	5.2	"							
Thallium	ND	17	"							
Cadmium	ND	2.5	"							
Arsenic	ND	5.5	"							
Cobalt	ND	3.3	"							
Nickel	ND	3.0	"							
Beryllium	ND	2.2	"							
Chromium	ND	2.3	"							
Barium	ND	6.0	"							
Zinc	ND	7.0	"							

LCS (B1G1413-BS1)

Prepared: 07/14/21 Analyzed: 07/19/21

Chromium	99.8	2.3	mg/kg	100	99.8	80-120
Zinc	109	7.0	"	100	109	80-120
Barium	108	6.0	"	100	108	80-120
Vanadium	90.2	5.1	"	100	90.2	80-120
Beryllium	93.3	2.2	"	100	93.3	80-120
Nickel	101	3.0	"	100	101	80-120
Cadmium	106	2.5	"	100	106	80-120
Antimony	104	8.0	"	100	104	75-125
Selenium	102	6.9	"	100	102	76-124
Silver	107	2.0	"	100	107	60-140
Copper	96.1	5.0	"	100	96.1	78-122
Lead	102	7.1	"	100	102	80-120
Arsenic	103	5.5	"	100	103	78-122
Molybdenum	96.6	5.2	"	100	96.6	80-120
Thallium	108	17	"	100	108	80-120
Cobalt	111	3.3	"	100	111	80-120

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Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1413 - EPA 3050B

LCS Dup (B1G1413-BSD1)

Prepared: 07/14/21 Analyzed: 07/19/21

Silver	108	2.0	mg/kg	100	108	108	60-140	1.37	40	
Molybdenum	101	5.2	"	100	101	101	80-120	4.23	20	
Nickel	98.9	3.0	"	100	98.9	98.9	80-120	1.93	20	
Barium	107	6.0	"	100	107	107	80-120	1.32	20	
Chromium	98.9	2.3	"	100	98.9	98.9	80-120	0.931	20	
Lead	99.9	7.1	"	100	99.9	99.9	80-120	2.35	20	
Thallium	107	17	"	100	107	107	80-120	0.535	20	
Zinc	109	7.0	"	100	109	109	80-120	0.459	20	
Cadmium	104	2.5	"	100	104	104	80-120	2.29	20	
Arsenic	102	5.5	"	100	102	102	78-122	1.78	20	
Antimony	101	8.0	"	100	101	101	75-125	2.83	20	
Selenium	100	6.9	"	100	100	100	76-124	1.88	20	
Vanadium	88.6	5.1	"	100	88.6	88.6	80-120	1.76	20	
Beryllium	92.1	2.2	"	100	92.1	92.1	80-120	1.27	20	
Cobalt	109	3.3	"	100	109	109	80-120	1.30	20	
Copper	95.7	5.0	"	100	95.7	95.7	78-122	0.417	20	

Matrix Spike (B1G1413-MS1)

Source: 2107188-41

Prepared: 07/14/21 Analyzed: 07/19/21

Barium	185	6.0	mg/kg	99.2	65.7	120	70-130			
Nickel	101	3.0	"	99.2	11.6	89.7	70-130			
Zinc	137	7.0	"	99.2	34.9	103	70-130			
Vanadium	110	5.1	"	99.2	22.6	88.4	70-130			
Thallium	90.3	17	"	99.2	ND	91.0	70-130			
Selenium	90.7	6.9	"	99.2	ND	91.5	70-130			
Silver	108	2.0	"	99.2	ND	109	60-140			
Lead	89.6	7.1	"	99.2	4.09	86.2	70-130			
Molybdenum	83.6	5.2	"	99.2	0.725	83.5	70-130			
Copper	97.7	5.0	"	99.2	12.2	86.2	70-130			
Chromium	107	2.3	"	99.2	17.0	90.9	70-130			
Cobalt	101	3.3	"	99.2	7.33	94.8	70-130			
Beryllium	83.1	2.2	"	99.2	ND	83.8	70-130			
Arsenic	93.8	5.5	"	99.2	ND	94.6	70-130			
Antimony	73.9	8.0	"	99.2	ND	74.4	60-140			
Cadmium	98.4	2.5	"	99.2	ND	99.2	70-130			

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Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1413 - EPA 3050B

Matrix Spike Dup (B1G1413-MSD1)

Source: 2107188-41

Prepared: 07/14/21 Analyzed: 07/19/21

Antimony	65.3	8.0	mg/kg	99.8	ND	65.4	60-140	12.3	20	
Selenium	86.7	6.9	"	99.8	ND	86.9	70-130	4.56	20	
Vanadium	103	5.1	"	99.8	22.6	80.7	70-130	6.68	20	
Barium	172	6.0	"	99.8	65.7	107	70-130	7.03	20	
Zinc	129	7.0	"	99.8	34.9	94.2	70-130	6.12	20	
Arsenic	82.3	5.5	"	99.8	ND	82.5	70-130	13.1	20	
Lead	79.1	7.1	"	99.8	4.09	75.2	70-130	12.4	30	
Thallium	81.9	17	"	99.8	ND	82.0	70-130	9.75	20	
Beryllium	77.9	2.2	"	99.8	ND	78.1	70-130	6.48	20	
Cobalt	94.9	3.3	"	99.8	7.33	87.8	70-130	6.63	20	
Chromium	100	2.3	"	99.8	17.0	83.3	70-130	6.76	20	
Nickel	87.8	3.0	"	99.8	11.6	76.4	70-130	13.6	20	
Cadmium	91.8	2.5	"	99.8	ND	92.0	70-130	6.88	20	
Copper	110	5.0	"	99.8	12.2	97.9	70-130	11.7	30	
Silver	104	2.0	"	99.8	ND	105	60-140	3.66	40	
Molybdenum	95.4	5.2	"	99.8	0.725	94.8	70-130	13.1	20	

Batch B1G1414 - EPA 7471A

Blank (B1G1414-BLK1)

Prepared: 07/14/21 Analyzed: 07/16/21

Mercury	ND	0.90	mg/kg							
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LCS (B1G1414-BS1)

Prepared: 07/14/21 Analyzed: 07/16/21

Mercury	0.12	0.90	mg/kg	0.167		70.5	70-130			
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Matrix Spike (B1G1414-MS1)

Source: 2107188-01

Prepared: 07/14/21 Analyzed: 07/16/21

Mercury	0.16	0.90	mg/kg	0.163	ND	100	70-130			
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Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1414 - EPA 7471A

Matrix Spike Dup (B1G1414-MSD1)		Source: 2107188-01			Prepared: 07/14/21 Analyzed: 07/16/21					
Mercury	0.16	0.90	mg/kg	0.162	ND	99.9	70-130	0.871	30	

Batch B1G1415 - EPA 7471A

Blank (B1G1415-BLK1)		Prepared: 07/14/21 Analyzed: 07/16/21								
Mercury	ND	0.90	mg/kg							

LCS (B1G1415-BS1)		Prepared: 07/14/21 Analyzed: 07/16/21								
Mercury	0.12	0.90	mg/kg	0.167		70.6	70-130			

Matrix Spike (B1G1415-MS1)		Source: 2107188-21			Prepared: 07/14/21 Analyzed: 07/16/21					
Mercury	0.16	0.90	mg/kg	0.161	ND	101	70-130			

Matrix Spike Dup (B1G1415-MSD1)		Source: 2107188-21			Prepared: 07/14/21 Analyzed: 07/16/21					
Mercury	0.16	0.90	mg/kg	0.158	ND	100	70-130	1.79	30	

Batch B1G1416 - EPA 7471A

Blank (B1G1416-BLK1)		Prepared: 07/14/21 Analyzed: 07/16/21								
Mercury	ND	0.90	mg/kg							

LCS (B1G1416-BS1)		Prepared: 07/14/21 Analyzed: 07/16/21								
Mercury	0.12	0.90	mg/kg	0.167		70.7	70-130			

Matrix Spike (B1G1416-MS1)		Source: 2107188-41			Prepared: 07/14/21 Analyzed: 07/16/21					
Mercury	0.20	0.90	mg/kg	0.161	ND	124	70-130			

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Project: Town Center Northwest
 Project Number: [none]
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Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1416 - EPA 7471A

Matrix Spike Dup (B1G1416-MSD1)		Source: 2107188-41		Prepared: 07/14/21		Analyzed: 07/16/21				
Mercury	0.19	0.90	mg/kg	0.158	ND	122	70-130	4.05	30	

Batch B1G1417 - EPA 3060A

Blank (B1G1417-BLK1)				Prepared: 07/14/21		Analyzed: 07/19/21				
Hexavalent Chromium	ND	0.10	mg/kg							

LCS (B1G1417-BS1)				Prepared: 07/14/21		Analyzed: 07/19/21				
Hexavalent Chromium	0.161	0.10	mg/kg	0.150		107	80-120			

Matrix Spike (B1G1417-MS1)		Source: 2107188-01		Prepared: 07/14/21		Analyzed: 07/19/21				
Hexavalent Chromium	0.200	0.10	mg/kg	0.149	0.0624	92.3	75-125			

Matrix Spike Dup (B1G1417-MSD1)		Source: 2107188-01		Prepared: 07/14/21		Analyzed: 07/19/21				
Hexavalent Chromium	0.199	0.10	mg/kg	0.149	0.0624	91.4	75-125	0.823	20	

Batch B1G1418 - EPA 3060A

Blank (B1G1418-BLK1)				Prepared: 07/14/21		Analyzed: 07/19/21				
Hexavalent Chromium	ND	0.10	mg/kg							

LCS (B1G1418-BS1)				Prepared: 07/14/21		Analyzed: 07/19/21				
Hexavalent Chromium	0.152	0.10	mg/kg	0.150		101	80-120			

Matrix Spike (B1G1418-MS1)		Source: 2107188-21		Prepared: 07/14/21		Analyzed: 07/19/21				
Hexavalent Chromium	0.149	0.10	mg/kg	0.149	ND	99.9	75-125			

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 738 Ashland Avenue
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Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

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 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1418 - EPA 3060A

Matrix Spike Dup (B1G1418-MSD1)	Source: 2107188-21			Prepared: 07/14/21 Analyzed: 07/19/21						
Hexavalent Chromium	0.142	0.10	mg/kg	0.149	ND	95.6	75-125	4.53	20	

Batch B1G1419 - EPA 3060A

Blank (B1G1419-BLK1)				Prepared: 07/14/21 Analyzed: 07/19/21						
Hexavalent Chromium	ND	0.10	mg/kg							

LCS (B1G1419-BS1)				Prepared: 07/14/21 Analyzed: 07/19/21						
Hexavalent Chromium	0.144	0.10	mg/kg	0.150		96.2	80-120			

Matrix Spike (B1G1419-MS1)	Source: 2107188-41			Prepared: 07/14/21 Analyzed: 07/19/21						
Hexavalent Chromium	0.146	0.10	mg/kg	0.145	0.0341	77.2	75-125			

Matrix Spike Dup (B1G1419-MSD1)	Source: 2107188-41			Prepared: 07/14/21 Analyzed: 07/19/21						
Hexavalent Chromium	0.145	0.10	mg/kg	0.145	0.0341	76.9	75-125	0.525	20	

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Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1502 - EPA 5035 P & T

Blank (B1G1502-BLK1)										
										Prepared & Analyzed: 07/15/21
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	mg/kg							
LCS (B1G1502-BS1)										
										Prepared & Analyzed: 07/15/21
Gasoline Range Hydrocarbons (C4-C12)	0.570	0.050	mg/kg	0.600		95.0	80-120			
Matrix Spike (B1G1502-MS1)										
										Source: 2107188-01
										Prepared & Analyzed: 07/15/21
Gasoline Range Hydrocarbons (C4-C12)	0.455	0.050	mg/kg	0.600	ND	75.8	50-150			
Matrix Spike Dup (B1G1502-MSD1)										
										Source: 2107188-01
										Prepared & Analyzed: 07/15/21
Gasoline Range Hydrocarbons (C4-C12)	0.480	0.050	mg/kg	0.600	ND	80.0	50-150	5.35	30	

Batch B1G1503 - EPA 5035 P & T

Blank (B1G1503-BLK1)										
										Prepared & Analyzed: 07/15/21
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	mg/kg							
LCS (B1G1503-BS1)										
										Prepared & Analyzed: 07/15/21
Gasoline Range Hydrocarbons (C4-C12)	0.531	0.050	mg/kg	0.600		88.5	80-120			
Matrix Spike (B1G1503-MS1)										
										Source: 2107204-01
										Prepared & Analyzed: 07/15/21
Gasoline Range Hydrocarbons (C4-C12)	0.466	0.050	mg/kg	0.600	ND	77.7	50-150			
Matrix Spike Dup (B1G1503-MSD1)										
										Source: 2107204-01
										Prepared & Analyzed: 07/15/21
Gasoline Range Hydrocarbons (C4-C12)	0.371	0.050	mg/kg	0.600	ND	61.8	50-150	22.7	30	

Batch B1G1504 - EPA 3550B Solid Ext

Blank (B1G1504-BLK1)										
										Prepared & Analyzed: 07/15/21
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	mg/kg							
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"							

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Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1504 - EPA 3550B Solid Ext

LCS (B1G1504-BS1)										
										Prepared & Analyzed: 07/15/21
Diesel Range Organics (C10-C24)	18.1	5.0	mg/kg	20.0		90.7	80-120			
Matrix Spike (B1G1504-MS1)										
										Prepared & Analyzed: 07/15/21
Diesel Range Organics (C10-C24)	19.6	5.0	mg/kg	20.0	ND	98.1	50-150			
Matrix Spike Dup (B1G1504-MSD1)										
										Prepared & Analyzed: 07/15/21
Diesel Range Organics (C10-C24)	20.2	5.0	mg/kg	20.0	ND	101	50-150	2.77	30	

Batch B1G1601 - EPA 3550B Solid Ext

Blank (B1G1601-BLK1)										
										Prepared: 07/15/21 Analyzed: 07/16/21
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	mg/kg							
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"							
LCS (B1G1601-BS1)										
										Prepared: 07/15/21 Analyzed: 07/16/21
Diesel Range Organics (C10-C24)	16.3	5.0	mg/kg	20.0		81.5	80-120			
Matrix Spike (B1G1601-MS1)										
										Prepared: 07/15/21 Analyzed: 07/16/21
Diesel Range Organics (C10-C24)	19.7	5.0	mg/kg	20.0	ND	98.6	50-150			
Matrix Spike Dup (B1G1601-MSD1)										
										Prepared: 07/15/21 Analyzed: 07/16/21
Diesel Range Organics (C10-C24)	22.5	5.0	mg/kg	20.0	ND	112	50-150	13.1	30	

Batch B1G1602 - EPA 3550B Solid Ext

Blank (B1G1602-BLK1)										
										Prepared: 07/15/21 Analyzed: 07/16/21
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	mg/kg							
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"							

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Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1602 - EPA 3550B Solid Ext

LCS (B1G1602-BS1)										
					Prepared: 07/15/21 Analyzed: 07/16/21					
Diesel Range Organics (C10-C24)	16.9	5.0	mg/kg	20.0		84.7	80-120			
Matrix Spike (B1G1602-MS1)										
					Source: 2107188-23 Prepared: 07/15/21 Analyzed: 07/16/21					
Diesel Range Organics (C10-C24)	16.0	5.0	mg/kg	20.0	ND	79.8	50-150			
Matrix Spike Dup (B1G1602-MSD1)										
					Source: 2107188-23 Prepared: 07/15/21 Analyzed: 07/16/21					
Diesel Range Organics (C10-C24)	18.3	5.0	mg/kg	20.0	ND	91.4	50-150	13.6	30	

Batch B1G1913 - EPA 5035 P & T

Blank (B1G1913-BLK1)										
					Prepared: 07/19/21 Analyzed: 07/20/21					
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	mg/kg							
LCS (B1G1913-BS1)										
					Prepared: 07/19/21 Analyzed: 07/20/21					
Gasoline Range Hydrocarbons (C4-C12)	0.697	0.050	mg/kg	0.600		116	80-120			
Matrix Spike (B1G1913-MS1)										
					Source: 2107188-23 Prepared: 07/19/21 Analyzed: 07/20/21					
Gasoline Range Hydrocarbons (C4-C12)	0.570	0.050	mg/kg	0.600	ND	95.0	50-150			
Matrix Spike Dup (B1G1913-MSD1)										
					Source: 2107188-23 Prepared: 07/19/21 Analyzed: 07/20/21					
Gasoline Range Hydrocarbons (C4-C12)	0.456	0.050	mg/kg	0.600	ND	76.0	50-150	22.2	30	

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1407 - EPA 5035 P & T

Blank (B1G1407-BLK1)

Prepared: 07/14/21 Analyzed: 07/15/21

Benzene	ND	5.0	µg/kg							
Bromobenzene	ND	5.0	"							
Bromochloromethane	ND	5.0	"							
Bromodichloromethane	ND	5.0	"							
Bromoform	ND	5.0	"							
Bromomethane	ND	5.0	"							
n-Butylbenzene	ND	5.0	"							
sec-Butylbenzene	ND	5.0	"							
tert-Butylbenzene	ND	5.0	"							
Carbon tetrachloride	ND	5.0	"							
Chlorobenzene	ND	5.0	"							
Chloroethane	ND	5.0	"							
Chloroform	ND	5.0	"							
Chloromethane	ND	5.0	"							
2-Chlorotoluene	ND	5.0	"							
4-Chlorotoluene	ND	5.0	"							
Dibromochloromethane	ND	5.0	"							
1,2-Dibromo-3-chloropropane	ND	5.0	"							
1,2-Dibromoethane (EDB)	ND	5.0	"							
Dibromomethane	ND	5.0	"							
1,2-Dichlorobenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	5.0	"							
1,4-Dichlorobenzene	ND	5.0	"							
Dichlorodifluoromethane	ND	5.0	"							
1,1-Dichloroethane	ND	5.0	"							
1,2-Dichloroethane	ND	5.0	"							
1,1-Dichloroethene	ND	5.0	"							
cis-1,2-Dichloroethene	ND	5.0	"							
trans-1,2-Dichloroethene	ND	5.0	"							
1,2-Dichloropropane	ND	5.0	"							
1,3-Dichloropropane	ND	5.0	"							
2,2-Dichloropropane	ND	5.0	"							
1,1-Dichloropropene	ND	5.0	"							
cis-1,3-Dichloropropene	ND	5.0	"							
trans-1,3-Dichloropropene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
Hexachlorobutadiene	ND	5.0	"							

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Project: Town Center Northwest
 Project Number: [none]
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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1407 - EPA 5035 P & T

Blank (B1G1407-BLK1)

Prepared: 07/14/21 Analyzed: 07/15/21

Isopropylbenzene	ND	5.0	µg/kg							
p-Isopropyltoluene	ND	5.0	"							
Methylene chloride	ND	5.0	"							
Methyl tert-butyl ether	ND	5.0	"							
Naphthalene	ND	5.0	"							
n-Propylbenzene	ND	5.0	"							
Styrene	ND	5.0	"							
1,1,1,2-Tetrachloroethane	ND	5.0	"							
1,1,2,2-Tetrachloroethane	ND	5.0	"							
Tetrachloroethene	ND	5.0	"							
Toluene	ND	5.0	"							
1,2,3-Trichlorobenzene	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	5.0	"							
1,1,1-Trichloroethane	ND	5.0	"							
1,1,2-Trichloroethane	ND	5.0	"							
Trichloroethene	ND	5.0	"							
Trichlorofluoromethane	ND	5.0	"							
1,2,3-Trichloropropane	ND	5.0	"							
1,2,4-Trimethylbenzene	ND	5.0	"							
1,3,5-Trimethylbenzene	ND	5.0	"							
Vinyl chloride	ND	5.0	"							
m,p-Xylene	ND	5.0	"							
o-Xylene	ND	5.0	"							

LCS (B1G1407-BS1)

Prepared: 07/14/21 Analyzed: 07/15/21

Benzene	50.3	5.0	µg/kg	50.0	101	80-120
Chlorobenzene	40.1	5.0	"	50.0	80.2	80-120
1,1-Dichloroethene	49.0	5.0	"	50.0	98.0	80-120
Toluene	42.3	5.0	"	50.0	84.7	80-120
Trichloroethene	50.2	5.0	"	50.0	100	80-120

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Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1407 - EPA 5035 P & T

Matrix Spike (B1G1407-MS1)		Source: 2107188-01		Prepared: 07/14/21		Analyzed: 07/15/21	
Benzene	49.1	5.0	µg/kg	50.0	ND	98.2	37-151
Chlorobenzene	38.2	5.0	"	50.0	ND	76.4	37-160
1,1-Dichloroethene	48.0	5.0	"	50.0	ND	96.0	50-150
Toluene	40.2	5.0	"	50.0	ND	80.3	47-150
Trichloroethene	48.1	5.0	"	50.0	ND	96.2	71-157

Matrix Spike Dup (B1G1407-MSD1)		Source: 2107188-01		Prepared: 07/14/21		Analyzed: 07/15/21			
Benzene	47.4	5.0	µg/kg	50.0	ND	94.8	37-151	3.56	30
Chlorobenzene	36.9	5.0	"	50.0	ND	73.9	37-160	3.33	30
1,1-Dichloroethene	44.6	5.0	"	50.0	ND	89.2	50-150	7.37	30
Toluene	37.8	5.0	"	50.0	ND	75.5	47-150	6.14	30
Trichloroethene	46.2	5.0	"	50.0	ND	92.5	71-157	3.92	30

Batch B1G1505 - EPA 5035 P & T

Blank (B1G1505-BLK1)		Prepared & Analyzed: 07/15/21	
Benzene	ND	5.0	µg/kg
Bromobenzene	ND	5.0	"
Bromochloromethane	ND	5.0	"
Bromodichloromethane	ND	5.0	"
Bromoform	ND	5.0	"
Bromomethane	ND	5.0	"
n-Butylbenzene	ND	5.0	"
sec-Butylbenzene	ND	5.0	"
tert-Butylbenzene	ND	5.0	"
Carbon tetrachloride	ND	5.0	"
Chlorobenzene	ND	5.0	"
Chloroethane	ND	5.0	"
Chloroform	ND	5.0	"
Chloromethane	ND	5.0	"
2-Chlorotoluene	ND	5.0	"
4-Chlorotoluene	ND	5.0	"
Dibromochloromethane	ND	5.0	"
1,2-Dibromo-3-chloropropane	ND	5.0	"
1,2-Dibromoethane (EDB)	ND	5.0	"
Dibromomethane	ND	5.0	"
1,2-Dichlorobenzene	ND	5.0	"
1,3-Dichlorobenzene	ND	5.0	"

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1505 - EPA 5035 P & T

Blank (B1G1505-BLK1)

Prepared & Analyzed: 07/15/21

1,4-Dichlorobenzene	ND	5.0	µg/kg							
Dichlorodifluoromethane	ND	5.0	"							
1,1-Dichloroethane	ND	5.0	"							
1,2-Dichloroethane	ND	5.0	"							
1,1-Dichloroethene	ND	5.0	"							
cis-1,2-Dichloroethene	ND	5.0	"							
trans-1,2-Dichloroethene	ND	5.0	"							
1,2-Dichloropropane	ND	5.0	"							
1,3-Dichloropropane	ND	5.0	"							
2,2-Dichloropropane	ND	5.0	"							
1,1-Dichloropropene	ND	5.0	"							
cis-1,3-Dichloropropene	ND	5.0	"							
trans-1,3-Dichloropropene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
Hexachlorobutadiene	ND	5.0	"							
Isopropylbenzene	ND	5.0	"							
p-Isopropyltoluene	ND	5.0	"							
Methylene chloride	ND	5.0	"							
Methyl tert-butyl ether	ND	5.0	"							
Naphthalene	ND	5.0	"							
n-Propylbenzene	ND	5.0	"							
Styrene	ND	5.0	"							
1,1,1,2-Tetrachloroethane	ND	5.0	"							
1,1,2,2-Tetrachloroethane	ND	5.0	"							
Tetrachloroethene	ND	5.0	"							
Toluene	ND	5.0	"							
1,2,3-Trichlorobenzene	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	5.0	"							
1,1,1-Trichloroethane	ND	5.0	"							
1,1,2-Trichloroethane	ND	5.0	"							
Trichloroethene	ND	5.0	"							
Trichlorofluoromethane	ND	5.0	"							
1,2,3-Trichloropropane	ND	5.0	"							
1,2,4-Trimethylbenzene	ND	5.0	"							
1,3,5-Trimethylbenzene	ND	5.0	"							
Vinyl chloride	ND	5.0	"							
m,p-Xylene	ND	5.0	"							

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Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1505 - EPA 5035 P & T

Blank (B1G1505-BLK1)

Prepared & Analyzed: 07/15/21

o-Xylene	ND	5.0	µg/kg							
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LCS (B1G1505-BS1)

Prepared & Analyzed: 07/15/21

Benzene	48.1	5.0	µg/kg	50.0		96.2	80-120			
Chlorobenzene	47.1	5.0	"	50.0		94.2	80-120			
1,1-Dichloroethene	45.5	5.0	"	50.0		90.9	80-120			
Toluene	40.0	5.0	"	50.0		80.0	80-120			
Trichloroethene	54.0	5.0	"	50.0		108	80-120			

Matrix Spike (B1G1505-MS1)

Source: 2107188-21

Prepared & Analyzed: 07/15/21

Benzene	47.2	5.0	µg/kg	50.0	ND	94.5	37-151			
Chlorobenzene	41.2	5.0	"	50.0	ND	82.3	37-160			
1,1-Dichloroethene	42.9	5.0	"	50.0	ND	85.8	50-150			
Toluene	43.1	5.0	"	50.0	ND	86.3	47-150			
Trichloroethene	55.4	5.0	"	50.0	ND	111	71-157			

Matrix Spike Dup (B1G1505-MSD1)

Source: 2107188-21

Prepared & Analyzed: 07/15/21

Benzene	48.8	5.0	µg/kg	50.0	ND	97.6	37-151	3.23	30	
Chlorobenzene	41.6	5.0	"	50.0	ND	83.2	37-160	1.04	30	
1,1-Dichloroethene	44.7	5.0	"	50.0	ND	89.4	50-150	4.13	30	
Toluene	45.5	5.0	"	50.0	ND	90.9	47-150	5.26	30	
Trichloroethene	56.1	5.0	"	50.0	ND	112	71-157	1.18	30	

Batch B1G1507 - EPA 5035 P & T

Blank (B1G1507-BLK1)

Prepared: 07/16/21 Analyzed: 07/19/21

Benzene	ND	5.0	µg/kg							
Bromobenzene	ND	5.0	"							
Bromochloromethane	ND	5.0	"							
Bromodichloromethane	ND	5.0	"							
Bromoform	ND	5.0	"							
Bromomethane	ND	5.0	"							
n-Butylbenzene	ND	5.0	"							
sec-Butylbenzene	ND	5.0	"							
tert-Butylbenzene	ND	5.0	"							
Carbon tetrachloride	ND	5.0	"							
Chlorobenzene	ND	5.0	"							
Chloroethane	ND	5.0	"							
Chloroform	ND	5.0	"							

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1507 - EPA 5035 P & T

Blank (B1G1507-BLK1)

Prepared: 07/16/21 Analyzed: 07/19/21

Chloromethane	ND	5.0	µg/kg							
2-Chlorotoluene	ND	5.0	"							
4-Chlorotoluene	ND	5.0	"							
Dibromochloromethane	ND	5.0	"							
1,2-Dibromo-3-chloropropane	ND	5.0	"							
1,2-Dibromoethane (EDB)	ND	5.0	"							
Dibromomethane	ND	5.0	"							
1,2-Dichlorobenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	5.0	"							
1,4-Dichlorobenzene	ND	5.0	"							
Dichlorodifluoromethane	ND	5.0	"							
1,1-Dichloroethane	ND	5.0	"							
1,2-Dichloroethane	ND	5.0	"							
1,1-Dichloroethene	ND	5.0	"							
cis-1,2-Dichloroethene	ND	5.0	"							
trans-1,2-Dichloroethene	ND	5.0	"							
1,2-Dichloropropane	ND	5.0	"							
1,3-Dichloropropane	ND	5.0	"							
2,2-Dichloropropane	ND	5.0	"							
1,1-Dichloropropene	ND	5.0	"							
cis-1,3-Dichloropropene	ND	5.0	"							
trans-1,3-Dichloropropene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
Hexachlorobutadiene	ND	5.0	"							
Isopropylbenzene	ND	5.0	"							
p-Isopropyltoluene	ND	5.0	"							
Methylene chloride	ND	5.0	"							
Methyl tert-butyl ether	ND	5.0	"							
Naphthalene	ND	5.0	"							
n-Propylbenzene	ND	5.0	"							
Styrene	ND	5.0	"							
1,1,1,2-Tetrachloroethane	ND	5.0	"							
1,1,2,2-Tetrachloroethane	ND	5.0	"							
Tetrachloroethene	ND	5.0	"							
Toluene	ND	5.0	"							
1,2,3-Trichlorobenzene	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	5.0	"							

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Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1507 - EPA 5035 P & T

Blank (B1G1507-BLK1)

Prepared: 07/16/21 Analyzed: 07/19/21

1,1,1-Trichloroethane	ND	5.0	µg/kg							
1,1,2-Trichloroethane	ND	5.0	"							
Trichloroethene	ND	5.0	"							
Trichlorofluoromethane	ND	5.0	"							
1,2,3-Trichloropropane	ND	5.0	"							
1,2,4-Trimethylbenzene	ND	5.0	"							
1,3,5-Trimethylbenzene	ND	5.0	"							
Vinyl chloride	ND	5.0	"							
m,p-Xylene	ND	5.0	"							
o-Xylene	ND	5.0	"							

LCS (B1G1507-BS1)

Prepared: 07/16/21 Analyzed: 07/19/21

Benzene	48.2	5.0	µg/kg	50.0		96.4	80-120			
Chlorobenzene	47.1	5.0	"	50.0		94.2	80-120			
1,1-Dichloroethene	44.3	5.0	"	50.0		88.6	80-120			
Toluene	42.8	5.0	"	50.0		85.7	80-120			
Trichloroethene	50.8	5.0	"	50.0		102	80-120			

Matrix Spike (B1G1507-MS1)

Source: 2107118-05

Prepared: 07/16/21 Analyzed: 07/19/21

Benzene	40.2	5.0	µg/kg	50.0	ND	80.4	37-151			
Chlorobenzene	34.2	5.0	"	50.0	ND	68.4	37-160			
1,1-Dichloroethene	36.1	5.0	"	50.0	ND	72.3	50-150			
Toluene	36.4	5.0	"	50.0	ND	72.7	47-150			
Trichloroethene	43.2	5.0	"	50.0	ND	86.5	71-157			

Matrix Spike Dup (B1G1507-MSD1)

Source: 2107118-05

Prepared: 07/16/21 Analyzed: 07/19/21

Benzene	44.9	5.0	µg/kg	50.0	ND	89.8	37-151	11.0	30	
Chlorobenzene	37.3	5.0	"	50.0	ND	74.6	37-160	8.73	30	
1,1-Dichloroethene	39.1	5.0	"	50.0	ND	78.1	50-150	7.79	30	
Toluene	39.4	5.0	"	50.0	ND	78.9	47-150	8.12	30	
Trichloroethene	48.5	5.0	"	50.0	ND	97.0	71-157	11.4	30	

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Project: Town Center Northwest
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Project Manager: Susan Mearns

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Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1603 - EPA 3550B Solid Ext

Blank (B1G1603-BLK1)

Prepared: 07/15/21 Analyzed: 07/16/21

Acenaphthene	ND	0.33	mg/kg							
Acenaphthylene	ND	0.33	"							
Anthracene	ND	0.33	"							
Benzidine	ND	0.33	"							
Benzo (a) anthracene	ND	0.33	"							
Benzo (b) fluoranthene	ND	0.33	"							
Benzo (k) fluoranthene	ND	0.33	"							
Benzo (a) pyrene	ND	0.33	"							
Benzo (g,h,i) perylene	ND	0.33	"							
Benzyl alcohol	ND	0.33	"							
Bis(2-chloroethyl)ether	ND	0.33	"							
Bis(2-chloroethoxy)methane	ND	0.33	"							
Bis(2-ethylhexyl)phthalate	ND	0.33	"							
Bis(2-chloroisopropyl)ether	ND	0.33	"							
4-Bromophenyl phenyl ether	ND	0.33	"							
Butyl benzyl phthalate	ND	0.33	"							
4-Chloroaniline	ND	0.33	"							
2-Chlorophenol	ND	0.33	"							
4-Chloro-3-methylphenol	ND	0.33	"							
2-Chloronaphthalene	ND	0.33	"							
4-Chlorophenyl phenyl ether	ND	0.33	"							
Chrysene	ND	0.33	"							
Dibenz (a,h) anthracene	ND	0.33	"							
Dibenzofuran	ND	0.33	"							
1,3-Dichlorobenzene	ND	0.33	"							
1,2-Dichlorobenzene	ND	0.33	"							
1,4-Dichlorobenzene	ND	0.33	"							
3,3'-Dichlorobenzidine	ND	0.33	"							
2,4-Dichlorophenol	ND	0.33	"							
Diethyl phthalate	ND	0.33	"							
2,4-Dimethylphenol	ND	0.33	"							
Dimethyl phthalate	ND	0.33	"							
Di-n-butyl phthalate	ND	0.33	"							
2,4-Dinitrophenol	ND	0.33	"							
4,6-Dinitro-2-methylphenol	ND	0.33	"							
2,4-Dinitrotoluene	ND	0.33	"							
2,6-Dinitrotoluene	ND	0.33	"							

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Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1603 - EPA 3550B Solid Ext

Blank (B1G1603-BLK1)

Prepared: 07/15/21 Analyzed: 07/16/21

Di-n-octyl phthalate	ND	0.33	mg/kg							
1,2-Diphenylhydrazine	ND	0.33	"							
Fluoranthene	ND	0.33	"							
Fluorene	ND	0.33	"							
Hexachlorobenzene	ND	0.33	"							
Hexachlorobutadiene	ND	0.33	"							
Hexachlorocyclopentadiene	ND	0.33	"							
Hexachloroethane	ND	0.33	"							
Indeno (1,2,3-cd) pyrene	ND	0.33	"							
Isophorone	ND	0.33	"							
2-Methylnaphthalene	ND	0.33	"							
2-Methylphenol	ND	0.33	"							
4-Methylphenol	ND	0.33	"							
Naphthalene	ND	0.33	"							
2-Nitroaniline	ND	0.33	"							
3-Nitroaniline	ND	0.33	"							
4-Nitroaniline	ND	0.33	"							
Nitrobenzene	ND	0.33	"							
2-Nitrophenol	ND	0.33	"							
4-Nitrophenol	ND	0.33	"							
N-Nitrosodimethylamine	ND	0.33	"							
Diphenylamine	ND	0.33	"							
N-Nitrosodi-n-propylamine	ND	0.33	"							
Pentachlorophenol	ND	0.33	"							
Phenanthrene	ND	0.33	"							
Phenol	ND	0.33	"							
Pyrene	ND	0.33	"							
1,2,4-Trichlorobenzene	ND	0.33	"							
2,4,5-Trichlorophenol	ND	0.33	"							
2,4,6-Trichlorophenol	ND	0.33	"							

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Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

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Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1603 - EPA 3550B Solid Ext

LCS (B1G1603-BS1)

Prepared: 07/15/21 Analyzed: 07/16/21

Acenaphthene	0.843	0.33	mg/kg	1.00		84.3	47-145			
2-Chlorophenol	2.07	0.33	"	2.00		104	23-134			
4-Chloro-3-methylphenol	1.94	0.33	"	2.00		96.8	22-147			
1,4-Dichlorobenzene	0.791	0.33	"	1.00		79.1	20-124			
2,4-Dinitrotoluene	0.496	0.33	"	1.00		49.6	39-139			
4-Nitrophenol	0.636	0.33	"	2.00		31.8	0-132			
N-Nitrosodi-n-propylamine	0.683	0.33	"	1.00		68.3	0-230			
Pentachlorophenol	0.446	0.33	"	2.00		22.3	14-176			
Phenol	1.73	0.33	"	2.00		86.4	5-112			
Pyrene	0.831	0.33	"	1.00		83.1	52-115			
1,2,4-Trichlorobenzene	0.729	0.33	"	1.00		72.9	44-142			

Matrix Spike (B1G1603-MS1)

Source: 2107188-01

Prepared: 07/15/21 Analyzed: 07/16/21

Acenaphthene	0.909	0.33	mg/kg	1.00	ND	90.9	47-145			
2-Chlorophenol	1.84	0.33	"	2.00	ND	91.8	23-134			
4-Chloro-3-methylphenol	1.65	0.33	"	2.00	ND	82.6	22-147			
1,4-Dichlorobenzene	0.894	0.33	"	1.00	ND	89.4	20-124			
2,4-Dinitrotoluene	0.537	0.33	"	1.00	ND	53.7	39-139			
4-Nitrophenol	0.655	0.33	"	2.00	ND	32.8	0-132			
N-Nitrosodi-n-propylamine	0.881	0.33	"	1.00	ND	88.1	0-230			
Pentachlorophenol	0.351	0.33	"	2.00	ND	17.6	14-176			
Phenol	1.59	0.33	"	2.00	ND	79.5	5-112			
Pyrene	0.953	0.33	"	1.00	ND	95.3	52-115			
1,2,4-Trichlorobenzene	0.820	0.33	"	1.00	ND	82.0	44-142			

Matrix Spike Dup (B1G1603-MSD1)

Source: 2107188-01

Prepared: 07/15/21 Analyzed: 07/16/21

Acenaphthene	1.03	0.33	mg/kg	1.00	ND	103	47-145	12.8	30	
2-Chlorophenol	1.90	0.33	"	2.00	ND	95.0	23-134	3.37	30	
4-Chloro-3-methylphenol	1.90	0.33	"	2.00	ND	94.8	22-147	13.7	30	
1,4-Dichlorobenzene	0.981	0.33	"	1.00	ND	98.1	20-124	9.28	30	
2,4-Dinitrotoluene	0.527	0.33	"	1.00	ND	52.7	39-139	1.88	30	
4-Nitrophenol	0.642	0.33	"	2.00	ND	32.1	0-132	2.00	30	
N-Nitrosodi-n-propylamine	0.938	0.33	"	1.00	ND	93.8	0-230	6.27	30	
Pentachlorophenol	0.414	0.33	"	2.00	ND	20.7	14-176	16.5	30	
Phenol	1.84	0.33	"	2.00	ND	92.1	5-112	14.7	30	
Pyrene	0.846	0.33	"	1.00	ND	84.6	52-115	11.9	30	
1,2,4-Trichlorobenzene	0.708	0.33	"	1.00	ND	70.8	44-142	14.7	30	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1916 - EPA 3550B Solid Ext

Blank (B1G1916-BLK1)

Prepared: 07/19/21 Analyzed: 07/20/21

Acenaphthene	ND	0.33	mg/kg							
Acenaphthylene	ND	0.33	"							
Anthracene	ND	0.33	"							
Benzidine	ND	0.33	"							
Benzo (a) anthracene	ND	0.33	"							
Benzo (b) fluoranthene	ND	0.33	"							
Benzo (k) fluoranthene	ND	0.33	"							
Benzo (a) pyrene	ND	0.33	"							
Benzo (g,h,i) perylene	ND	0.33	"							
Benzyl alcohol	ND	0.33	"							
Bis(2-chloroethyl)ether	ND	0.33	"							
Bis(2-chloroethoxy)methane	ND	0.33	"							
Bis(2-ethylhexyl)phthalate	ND	0.33	"							
Bis(2-chloroisopropyl)ether	ND	0.33	"							
4-Bromophenyl phenyl ether	ND	0.33	"							
Butyl benzyl phthalate	ND	0.33	"							
4-Chloroaniline	ND	0.33	"							
2-Chlorophenol	ND	0.33	"							
4-Chloro-3-methylphenol	ND	0.33	"							
2-Chloronaphthalene	ND	0.33	"							
4-Chlorophenyl phenyl ether	ND	0.33	"							
Chrysene	ND	0.33	"							
Dibenz (a,h) anthracene	ND	0.33	"							
Dibenzofuran	ND	0.33	"							
1,3-Dichlorobenzene	ND	0.33	"							
1,2-Dichlorobenzene	ND	0.33	"							
1,4-Dichlorobenzene	ND	0.33	"							
3,3'-Dichlorobenzidine	ND	0.33	"							
2,4-Dichlorophenol	ND	0.33	"							
Diethyl phthalate	ND	0.33	"							
2,4-Dimethylphenol	ND	0.33	"							
Dimethyl phthalate	ND	0.33	"							
Di-n-butyl phthalate	ND	0.33	"							
2,4-Dinitrophenol	ND	0.33	"							
4,6-Dinitro-2-methylphenol	ND	0.33	"							
2,4-Dinitrotoluene	ND	0.33	"							
2,6-Dinitrotoluene	ND	0.33	"							

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 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
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Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1916 - EPA 3550B Solid Ext

Blank (B1G1916-BLK1)

Prepared: 07/19/21 Analyzed: 07/20/21

Di-n-octyl phthalate	ND	0.33	mg/kg							
1,2-Diphenylhydrazine	ND	0.33	"							
Fluoranthene	ND	0.33	"							
Fluorene	ND	0.33	"							
Hexachlorobenzene	ND	0.33	"							
Hexachlorobutadiene	ND	0.33	"							
Hexachlorocyclopentadiene	ND	0.33	"							
Hexachloroethane	ND	0.33	"							
Indeno (1,2,3-cd) pyrene	ND	0.33	"							
Isophorone	ND	0.33	"							
2-Methylnaphthalene	ND	0.33	"							
2-Methylphenol	ND	0.33	"							
4-Methylphenol	ND	0.33	"							
Naphthalene	ND	0.33	"							
2-Nitroaniline	ND	0.33	"							
3-Nitroaniline	ND	0.33	"							
4-Nitroaniline	ND	0.33	"							
Nitrobenzene	ND	0.33	"							
2-Nitrophenol	ND	0.33	"							
4-Nitrophenol	ND	0.33	"							
N-Nitrosodimethylamine	ND	0.33	"							
Diphenylamine	ND	0.33	"							
N-Nitrosodi-n-propylamine	ND	0.33	"							
Pentachlorophenol	ND	0.33	"							
Phenanthrene	ND	0.33	"							
Phenol	ND	0.33	"							
Pyrene	ND	0.33	"							
1,2,4-Trichlorobenzene	ND	0.33	"							
2,4,5-Trichlorophenol	ND	0.33	"							
2,4,6-Trichlorophenol	ND	0.33	"							

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1916 - EPA 3550B Solid Ext

Blank (B1G1916-BLK2)

Prepared: 07/19/21 Analyzed: 07/20/21

Acenaphthene	ND	0.33	mg/kg							
Acenaphthylene	ND	0.33	"							
Anthracene	ND	0.33	"							
Benzidine	ND	0.33	"							
Benzo (a) anthracene	ND	0.33	"							
Benzo (b) fluoranthene	ND	0.33	"							
Benzo (k) fluoranthene	ND	0.33	"							
Benzo (a) pyrene	ND	0.33	"							
Benzo (g,h,i) perylene	ND	0.33	"							
Benzyl alcohol	ND	0.33	"							
Bis(2-chloroethyl)ether	ND	0.33	"							
Bis(2-chloroethoxy)methane	ND	0.33	"							
Bis(2-ethylhexyl)phthalate	ND	0.33	"							
Bis(2-chloroisopropyl)ether	ND	0.33	"							
4-Bromophenyl phenyl ether	ND	0.33	"							
Butyl benzyl phthalate	ND	0.33	"							
4-Chloroaniline	ND	0.33	"							
2-Chlorophenol	ND	0.33	"							
4-Chloro-3-methylphenol	ND	0.33	"							
2-Chloronaphthalene	ND	0.33	"							
4-Chlorophenyl phenyl ether	ND	0.33	"							
Chrysene	ND	0.33	"							
Dibenz (a,h) anthracene	ND	0.33	"							
Dibenzofuran	ND	0.33	"							
1,3-Dichlorobenzene	ND	0.33	"							
1,2-Dichlorobenzene	ND	0.33	"							
1,4-Dichlorobenzene	ND	0.33	"							
3,3'-Dichlorobenzidine	ND	0.33	"							
2,4-Dichlorophenol	ND	0.33	"							
Diethyl phthalate	ND	0.33	"							
2,4-Dimethylphenol	ND	0.33	"							
Dimethyl phthalate	ND	0.33	"							
Di-n-butyl phthalate	ND	0.33	"							
2,4-Dinitrophenol	ND	0.33	"							
4,6-Dinitro-2-methylphenol	ND	0.33	"							
2,4-Dinitrotoluene	ND	0.33	"							
2,6-Dinitrotoluene	ND	0.33	"							

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B1G1916 - EPA 3550B Solid Ext

Blank (B1G1916-BLK2)

Prepared: 07/19/21 Analyzed: 07/20/21

Di-n-octyl phthalate	ND	0.33	mg/kg							
1,2-Diphenylhydrazine	ND	0.33	"							
Fluoranthene	ND	0.33	"							
Fluorene	ND	0.33	"							
Hexachlorobenzene	ND	0.33	"							
Hexachlorobutadiene	ND	0.33	"							
Hexachlorocyclopentadiene	ND	0.33	"							
Hexachloroethane	ND	0.33	"							
Indeno (1,2,3-cd) pyrene	ND	0.33	"							
Isophorone	ND	0.33	"							
2-Methylnaphthalene	ND	0.33	"							
2-Methylphenol	ND	0.33	"							
4-Methylphenol	ND	0.33	"							
Naphthalene	ND	0.33	"							
2-Nitroaniline	ND	0.33	"							
3-Nitroaniline	ND	0.33	"							
4-Nitroaniline	ND	0.33	"							
Nitrobenzene	ND	0.33	"							
2-Nitrophenol	ND	0.33	"							
4-Nitrophenol	ND	0.33	"							
N-Nitrosodimethylamine	ND	0.33	"							
Diphenylamine	ND	0.33	"							
N-Nitrosodi-n-propylamine	ND	0.33	"							
Pentachlorophenol	ND	0.33	"							
Phenanthrene	ND	0.33	"							
Phenol	ND	0.33	"							
Pyrene	ND	0.33	"							
1,2,4-Trichlorobenzene	ND	0.33	"							
2,4,5-Trichlorophenol	ND	0.33	"							
2,4,6-Trichlorophenol	ND	0.33	"							

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B1G1916 - EPA 3550B Solid Ext

LCS (B1G1916-BS1)

Prepared: 07/19/21 Analyzed: 07/20/21

Acenaphthene	0.848	0.33	mg/kg	1.00		84.8	47-145			
2-Chlorophenol	1.85	0.33	"	2.00		92.3	23-134			
4-Chloro-3-methylphenol	1.96	0.33	"	2.00		98.2	22-147			
1,4-Dichlorobenzene	0.815	0.33	"	1.00		81.5	20-124			
2,4-Dinitrotoluene	0.479	0.33	"	1.00		47.9	39-139			
4-Nitrophenol	0.664	0.33	"	2.00		33.2	0-132			
N-Nitrosodi-n-propylamine	0.797	0.33	"	1.00		79.7	0-230			
Pentachlorophenol	0.379	0.33	"	2.00		19.0	14-176			
Phenol	1.78	0.33	"	2.00		89.0	5-112			
Pyrene	0.709	0.33	"	1.00		70.9	52-115			
1,2,4-Trichlorobenzene	0.729	0.33	"	1.00		72.9	44-142			

LCS (B1G1916-BS2)

Prepared: 07/19/21 Analyzed: 07/20/21

Acenaphthene	0.844	0.33	mg/kg	1.00		84.4	47-145			
2-Chlorophenol	1.81	0.33	"	2.00		90.6	23-134			
4-Chloro-3-methylphenol	2.16	0.33	"	2.00		108	22-147			
1,4-Dichlorobenzene	0.796	0.33	"	1.00		79.6	20-124			
2,4-Dinitrotoluene	0.523	0.33	"	1.00		52.3	39-139			
4-Nitrophenol	0.642	0.33	"	2.00		32.1	0-132			
N-Nitrosodi-n-propylamine	0.711	0.33	"	1.00		71.1	0-230			
Pentachlorophenol	0.351	0.33	"	2.00		17.6	14-176			
Phenol	1.65	0.33	"	2.00		82.6	5-112			
Pyrene	0.694	0.33	"	1.00		69.4	52-115			
1,2,4-Trichlorobenzene	0.615	0.33	"	1.00		61.5	44-142			

Matrix Spike (B1G1916-MS1)

Source: 2107188-19

Prepared: 07/19/21 Analyzed: 07/20/21

Acenaphthene	0.919	0.33	mg/kg	1.00	ND	91.9	47-145			
2-Chlorophenol	1.82	0.33	"	2.00	ND	91.2	23-134			
4-Chloro-3-methylphenol	1.84	0.33	"	2.00	ND	91.9	22-147			
1,4-Dichlorobenzene	0.880	0.33	"	1.00	ND	88.0	20-124			
2,4-Dinitrotoluene	0.899	0.33	"	1.00	ND	89.9	39-139			
4-Nitrophenol	0.634	0.33	"	2.00	ND	31.7	0-132			
N-Nitrosodi-n-propylamine	0.834	0.33	"	1.00	ND	83.4	0-230			
Pentachlorophenol	0.413	0.33	"	2.00	ND	20.6	14-176			
Phenol	1.68	0.33	"	2.00	ND	84.2	5-112			
Pyrene	0.866	0.33	"	1.00	ND	86.6	52-115			
1,2,4-Trichlorobenzene	0.810	0.33	"	1.00	ND	81.0	44-142			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1916 - EPA 3550B Solid Ext

Matrix Spike (B1G1916-MS2)

Source: 2107188-30

Prepared: 07/19/21 Analyzed: 07/20/21

Acenaphthene	0.919	0.33	mg/kg	1.00	ND	91.9	47-145			
2-Chlorophenol	1.82	0.33	"	2.00	ND	91.2	23-134			
4-Chloro-3-methylphenol	1.84	0.33	"	2.00	ND	91.9	22-147			
1,4-Dichlorobenzene	0.880	0.33	"	1.00	ND	88.0	20-124			
2,4-Dinitrotoluene	0.544	0.33	"	1.00	ND	54.4	39-139			
4-Nitrophenol	0.634	0.33	"	2.00	ND	31.7	0-132			
N-Nitrosodi-n-propylamine	0.834	0.33	"	1.00	ND	83.4	0-230			
Pentachlorophenol	0.413	0.33	"	2.00	ND	20.6	14-176			
Phenol	1.68	0.33	"	2.00	ND	84.2	5-112			
Pyrene	0.866	0.33	"	1.00	ND	86.6	52-115			
1,2,4-Trichlorobenzene	0.810	0.33	"	1.00	ND	81.0	44-142			

Matrix Spike Dup (B1G1916-MSD1)

Source: 2107188-19

Prepared: 07/19/21 Analyzed: 07/20/21

Acenaphthene	0.968	0.33	mg/kg	1.00	ND	96.8	47-145	5.19	30	
2-Chlorophenol	1.85	0.33	"	2.00	ND	92.3	23-134	1.25	30	
4-Chloro-3-methylphenol	2.06	0.33	"	2.00	ND	103	22-147	11.2	30	
1,4-Dichlorobenzene	0.923	0.33	"	1.00	ND	92.3	20-124	4.77	30	
2,4-Dinitrotoluene	0.920	0.33	"	1.00	ND	92.0	39-139	2.31	30	
4-Nitrophenol	0.629	0.33	"	2.00	ND	31.4	0-132	0.792	30	
N-Nitrosodi-n-propylamine	0.847	0.33	"	1.00	ND	84.7	0-230	1.55	30	
Pentachlorophenol	0.458	0.33	"	2.00	ND	22.9	14-176	10.3	30	
Phenol	1.67	0.33	"	2.00	ND	83.4	5-112	0.955	30	
Pyrene	0.995	0.33	"	1.00	ND	99.5	52-115	13.9	30	
1,2,4-Trichlorobenzene	0.710	0.33	"	1.00	ND	71.0	44-142	13.2	30	

Matrix Spike Dup (B1G1916-MSD2)

Source: 2107188-30

Prepared: 07/19/21 Analyzed: 07/20/21

Acenaphthene	1.00	0.33	mg/kg	1.00	ND	100	47-145	8.44	30	
2-Chlorophenol	1.92	0.33	"	2.00	ND	96.0	23-134	5.13	30	
4-Chloro-3-methylphenol	1.99	0.33	"	2.00	ND	99.4	22-147	7.79	30	
1,4-Dichlorobenzene	0.920	0.33	"	1.00	ND	92.0	20-124	4.44	30	
2,4-Dinitrotoluene	0.594	0.33	"	1.00	ND	59.4	39-139	8.79	30	
4-Nitrophenol	0.650	0.33	"	2.00	ND	32.5	0-132	2.49	30	
N-Nitrosodi-n-propylamine	0.899	0.33	"	1.00	ND	89.9	0-230	7.50	30	
Pentachlorophenol	0.489	0.33	"	2.00	ND	24.4	14-176	16.9	30	
Phenol	1.72	0.33	"	2.00	ND	86.2	5-112	2.35	30	
Pyrene	0.679	0.33	"	1.00	ND	67.9	52-115	24.2	30	
1,2,4-Trichlorobenzene	0.723	0.33	"	1.00	ND	72.3	44-142	11.4	30	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Notes and Definitions

S-07 Surrogate recovery outside of control limits due to coelution with high levels of petroleum hydrocarbons.

S-03 Surrogate diluted out.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



SIERRA ANALYTICAL

TEL: 949 • 348 • 9389

FAX: 949 • 348 • 9115

26052 Merit Circle • Suite 104 • Laguna Hills, CA • 92653

CHAIN OF CUSTODY RECORD

Date: 7/12/21 Page: 13 of 5

Lab Work Order No.: 2107188

Client: MEARNS CONSULTING CORP
 Client Address: 738 ASHLAND AVE
SANTA MONICA CA 90405

Client Tel. No.: 310 403 1921
 Client Fax. No.:
 Client Proj. Mgr.: SUSAN L MEARNS PHD

Client Project ID: TOWN CENTER NORTHWEST

Turn Around Time Requested:
 Immediate 24 Hour
 48 Hour 72 Hour
 1 Day 5 Day
 Normal Mobile

Analyses Requested

Analyses Requested	T1LC METALS	CR ⁶	C4-C12	8015B	C13-C22	8015B	C23-C40	8015B	VOCs	8260B / 5035B	SVDGs	8270C
SV6-5	X	X	X	X	X	X	X	X	X	X		
SV6-10	X	X	X	X	X	X	X	X	X	X		
SV6-15	X	X	X	X	X	X	X	X	X	X		
SV7-5	X	X	X	X	X	X	X	X	X	X		
SV7-10	X	X	X	X	X	X	X	X	X	X		
SV7-15	X	X	X	X	X	X	X	X	X	X		
SV8-5	X	X	X	X	X	X	X	X	X	X		
SV8-10	X	X	X	X	X	X	X	X	X	X		
SV8-15	X	X	X	X	X	X	X	X	X	X		
SV9-5	X	X	X	X	X	X	X	X	X	X		

Geotracker EDD Info:
 Client LOGCODE:
 Site Global ID:
 Field Point Names / Comments:

Client Sample ID	Sierra No.	Date	Time	Matrix	Preservative	Container Type	No. of Containers
SV6-5	01	7/12/21	0735	SOIL	ICE PRESRV	ACETATE SLN VOA VIALS	1/4
SV6-10	02		0744				
SV6-15	03		0751				
SV7-5	04		0815				
SV7-10	05		0825				
SV7-15	06		0830				
SV8-5	07		0856				
SV8-10	08		0858				
SV8-15	09		0906				
SV9-5	10		0919				

Shipped Via: HAND DELIVERED

Relinquished By: Scott Fagan Date: 7/12/21 Time: 1707

Received By: JFK Date: 7/15/21 Time: 1707

Company: Sierra

Special Instructions:

Total Number of Containers Submitted to Laboratory: _____

Total Number of Containers Received by Laboratory: _____

FOR LABORATORY USE ONLY - Sample Receipt Conditions:

Intact Chilled - Temp (°C) 5.00

Sample Seals Preservatives - Verified By [Signature]

Properly Labelled Other

Appropriate Sample Container Storage Location R5-B4-50a1

Sample Disposal:
 Return to Client
 Lab Disposal *
 Archive ___ mos.
 Other _____



SIERRA ANALYTICAL

TEL: 949 • 348 • 9389

FAX: 949 • 348 • 9115

26052 Merit Circle • Suite 104 • Laguna Hills, CA • 92653

CHAIN OF CUSTODY RECORD

Date: 7 / 13 / 21

Page: 2 of 5

Lab Work Order No.: 21071898

Client: MEARNS CONSULTING Corp
 Client Address: 738 ASHLAND AVE
SANTA MONICA CA 90405

Client Tel. No.: 310 403 1921
 Client Fax. No.:
 Client Proj. Mgr.: SUSAN L MEARNS PHD

Client Project ID:

TOWN CENTER NORTHWEST

Turn Around Time Requested:
 Immediate 24 Hour
 48 Hour 72 Hour
 4 Day 5 Day
 Normal Mobile

Analyses Requested

TTL METALS	CR th	C4-C12	C22	C23-C40	VOCS	SVOCS
6000/7000		8015 B	8015 B	8015 B	8240 PA / 5035P	5270C
X	X	X	X	X	X	X
X	X	X	X	X	X	X
X	X	X	X	X	X	X
X	X	X	X	X	X	X
X	X	X	X	X	X	X
X	X	X	X	X	X	X
X	X	X	X	X	X	X
X	X	X	X	X	X	X
X	X	X	X	X	X	X
X	X	X	X	X	X	X
X	X	X	X	X	X	X

Geotracker EDD Info:
 Client LOGCODE
 Site Global ID
 Field Point Names / Comments

Client Sample ID.	Sierra No.	Date	Time	Matrix	Preservative	Container Type	No. of Containers
SV9-10	11	7-13-21	0922	SOIL	ICE PRESRV	ACETATE SW 10A VIALS	1/4
SV9-15	12		0924				
SV10-5	13		0932				
SV10-10	14		0936				
SV10-15	15		0952				
SV11-5	16		1016				
SV11-10	17		1020				
SV11-15	18		1026				
SV12-5	19		1049				
SV12-10	20		1058				

1. Relinquished By: Scott Fagan Date: 7/13/21
 Received By: [Signature] Date: 7/13/21
 Company: 1707 Company: SICONS Time: 1707

2. Relinquished By: _____ Date: _____
 Received By: _____ Date: _____
 Company: _____ Time: _____ Company: _____ Time: _____

3. Relinquished By: _____ Date: _____
 Received By: _____ Date: _____
 Company: _____ Time: _____ Company: _____ Time: _____

Total Number of Containers Submitted to Laboratory: _____

Total Number of Containers Received by Laboratory: _____

Sample Disposal:
 Return to Client
 Lab Disposal
 Archive _____ mos.
 Other _____

Special Instructions:

FOR LABORATORY USE ONLY - Sample Receipt Conditions:
 Intact Chilled - Temp (°C) 50°
 Sample Seals Preservatives - Verified By [Signature]
 Properly Labelled Other _____
 Appropriate Sample Container Storage Location (15-Blue Soil)



SIERRA ANALYTICAL

TEL: 949 • 348 • 9389

FAX: 949 • 348 • 9115

26052 Merit Circle • Suite 104 • Laguna Hills, CA • 92653

CHAIN OF CUSTODY RECORD

Date: 7/13/21 Page: 4 of 5

Lab Work Order No.: 2107098

Client: MEARNS CONSULTING CORP
 Client Address: 738 ASHLAND AVE
SANTA MONICA CA 90405

Client Tel. No.: 310 403 1921
 Client Fax. No.:
 Client Proj. Mgr.: SUSAN L MEARNS PHD

Client Project ID:

TOWN CENTER NORTHWEST

Turn Around Time Requested:
 Immediate 24 Hour
 48 Hour 72 Hour
 4 Day 5 Day
 Normal Mobile

Analyses Requested

TLIC METALS	CR+6	C4-C12	C13-C22	C23-C46	VOCS	SVOCs												
X	X	X	X	X	X	X												
X	X	X	X	X	X	X												
X	X	X	X	X	X	X												
X	X	X	X	X	X	X												
X	X	X	X	X	X	X												
X	X	X	X	X	X	X												
X	X	X	X	X	X	X												
X	X	X	X	X	X	X												

Geotracker EDD Info:
 Client LOGCODE:
 Site Global ID:
 Field Point Names / Comments:

Client Sample ID.	Sierra No.	Date	Time	Matrix	Preservative	Container Type	No. of Containers
SV16-5	31	7/13/21	1354	SOIL	ICE PRESV	ACETATE SW VOA VIALS	1/4
SV16-10	32		1357				
SV16-15	33		1400				
SV17-5	34		1444				
SV17-10	35		1448				
SV17-15	36		1453				
SV18-5	37		1519				
SV18-10	38		1525				
SV18-15	39		1529				
SV19-5	40		1549				

1. Shipper Signature: Scott Fagan Shipped Via: HAND DELIVERED
 Company: SUSAN L MEARNS PHD (Carrier/Waybill No.)
 2. Relinquished By: Scott Fagan Date: 7/13/21 Received By: [Signature] Date: 7/13/21
 Company: [Signature] Time: 1707 Company: SIERRA Time: 1707

Total Number of Containers Submitted to Laboratory:
 Total Number of Containers Received by Laboratory:

Sample Disposal:
 Return to Client
 Lab Disposal
 Archive mos.
 Other _____

Special Instructions:

FOR LABORATORY USE ONLY - Sample Receipt Conditions:
 Intact Chilled / Temp (°C)
 Sample Seals Preservatives - Verified By: [Signature]
 Properly Labelled Other:
 Appropriate Sample Container Storage Location



SIERRA ANALYTICAL

TEL: 949 • 348 • 9389

FAX: 949 • 348 • 9115

26052 Merit Circle • Suite 104 • Laguna Hills, CA • 92653

CHAIN OF CUSTODY RECORD

Date: 7/13/21 Page: 5 of 5

Lab Work Order No.: 2107188

Client: MEARNS CONSULTING CORP
 Client Address: 738 ASHLAND AVE
SANTA MONICA CA 90405

Client Tel. No.: 310 403 1921
 Client Fax. No.:
 Client Proj. Mgr.: SARAH L MEARNS PHD

Client Project ID:

TOWN CENTER NORTH WEST

Turn Around Time Requested:
 Immediate 24 Hour
 48 Hour 72 Hour
 4 Day 5 Day
 Normal Mobile

Analyses Requested

Analyses Requested	TLIC Mearns 6000/7000	CR#	C1-C12 8015 B	C13-C24 8015 B	C23-C40 8015 B	Vials 6240 B/5035 B	SNOCs 8270C
	X	X	X	X	X	X	X
	X	X	X	X	X	X	X

Geotracker EDD Info:

Client LOGCODE

Site Global ID

Field Point Names / Comments

Client Sample ID.	Sierra No.	Date	Time	Matrix	Preservative	Container Type	No. of Containers
SV19-10	41	7-13-21	1554	SOL	ICE PRESV	ACETATE SW VOA VIALS 1/4	1/4
SV19-15	42	"	1559	"	"	"	"

1. Sampler Signature: Scott Forgan Shipped Via: HAND DELIVERED
 Printed Name: SARAH L MEARNS PHD (Carrier/Waybill No.)
 2. Relinquished By: Scott Forgan Date: 7/13/21 Received By: [Signature] Date: 7/13/21
 Company: 1707 Company: SIERRA Time: 1707

3. Relinquished By: Date: Received By: Date:
 Company: Time: Company: Time:

4. Relinquished By: Date: Received By: Date:
 Company: Time: Company: Time:

Total Number of Containers Submitted to Laboratory

Sample Disposal:

- Return to Client
- Lab Disposal *
- Archive ___ mos.
- Other _____

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under SIERRA's Terms and Conditions, unless otherwise agreed upon in writing between SIERRA and CLIENT.
 * - Samples determined to be hazardous by SIERRA will be returned to CLIENT.

Total Number of Containers Received by Laboratory

FOR LABORATORY USE ONLY - Sample Receipt Conditions:

- Intact
- Chilled - Temp (C) 50°
- Sample Seal
- Preservatives - Verified By: [Signature]
- Properly Labelled
- Other
- Appropriate Sample Container
- Storage Location (R5-Bee soil)

APPENDIX B

**Jones Environmental Inc.
Soil Vapor Analytical Results
July 27 & 28, 2021**



714-449-9937
562-646-1611

11007 FOREST PLACE
SANTA FE SPRINGS, CA 90670
WWW.JONESENV.COM

JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Mearns Consulting Group
Client Address: 738 Ashland Avenue,
Santa Monica CA 90405

Report date: 7/27/2021
Jones Ref. No.: E-1172

Attn: Susan L Mearns PhD

Date Sampled: 7/27/2021

Date Received: 7/27/2021

Project: Town Center Northwest

Date Analyzed: 7/27/2021

Project Address: 2690 Walnut Ave
Signal Hill, CA

Physical State: Soil Gas

ANALYSES REQUESTED

1. EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sampling – Soil Gas samples were collected in glass gas-tight syringes equipped with Teflon plungers.

A tracer gas mixture of n-pentane, n-hexane, and n-heptane was placed at the tubing-surface interface before sampling. These compounds were analyzed during the 8260B analytical run to determine if there were surface leaks into the subsurface due to improper installation of the probe. No tracer was detected in any of the samples reported herein.

The sampling rate was approximately 200 cc/min, except when noted differently on the chain of custody record, using a glass gas-tight syringe. Purging was completed using a pump set at approximately 200 cc/min, except when noted differently on the chain of custody record. A default of 3 purge volumes was used as recommended by July 2015 DTSC/RWQCB guidance documents.

Prior to purging and sampling of soil gas at each point, a shut-in test was conducted to check for leaks in the above ground fittings. The shut-in test was performed on the above ground apparatus by evacuating the line to a vacuum of 100 inches of water, sealing the entire system and watching the vacuum for at least one minute. A vacuum gauge attached in parallel to the apparatus measured the vacuum. If there was any observable loss of vacuum, the fittings were adjusted as needed until the vacuum did not change noticeably. The soil gas sample was then taken.

No flow conditions occur when a sampling rate greater than 10 mL/min cannot be maintained without applying a vacuum greater than 100 inches of water to the sampling train. The sampling train is left at a vacuum for no less than three minutes. If the vacuum does not subside appreciably after three minutes, the sample location is determined to be a no flow sample.

Analytical – Soil Gas samples were analyzed using EPA Method 8260 that includes extra compounds required by DTSC/RWQCB (such as Freon 113). Instrument Continuing Calibration Verification, QC Reference Standards, Instrument Blanks and Sampling Blanks were analyzed every 12 hours as prescribed by the method. In addition, a Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) were analyzed with each batch of Soil Gas samples. A duplicate/replicate sample was analyzed each day of the sampling activity. All samples were injected into the GC/MS system within 30 minutes of collection.

Approval: _____

Annalise O'Toole
Mobile Lab Manager



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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Mearns Consulting Group
Client Address: 738 Ashland Avenue,
Santa Monica CA 90405

Report date: 7/27/2021
Jones Ref. No.: E-1172

Attn: Susan L Mearns PhD
Project: Town Center Northwest
Project Address: 2690 Walnut Ave
Signal Hill, CA

Date Sampled: 7/27/2021
Date Received: 7/27/2021
Date Analyzed: 7/27/2021
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SV1-5'	SV1-15'	SV2-5'	SV2-15'	SV2-15' REP		
<u>Jones ID:</u>	E-1172-01	E-1172-02	E-1172-03	E-1172-04	E-1172-05	<u>Reporting Limit</u>	<u>Units</u>
Analytes:							
Benzene	ND	13	ND	ND	ND	8	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	8	µg/m3
Bromoform	ND	ND	ND	ND	ND	8	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
Chloroform	ND	ND	ND	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	12	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	12	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	8	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	32	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	16	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	10	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SV1-5'	SV1-15'	SV2-5'	SV2-15'	SV2-15' REP		
<u>Jones ID:</u>	E-1172-01	E-1172-02	E-1172-03	E-1172-04	E-1172-05	<u>Reporting Limit</u>	<u>Units</u>
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Freon 113	ND	ND	ND	ND	ND	16	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	24	µg/m3
Isopropylbenzene	ND	57	ND	ND	ND	8	µg/m3
4-Isopropyltoluene	ND	321	ND	ND	ND	8	µg/m3
Methylene chloride	ND	20	ND	17	26	8	µg/m3
Naphthalene	ND	ND	ND	ND	ND	40	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Styrene	ND	ND	ND	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	16	µg/m3
Tetrachloroethene	ND	ND	ND	ND	ND	8	µg/m3
Toluene	ND	16	ND	ND	ND	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	32	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	8	µg/m3
m,p-Xylene	ND	ND	ND	ND	ND	16	µg/m3
o-Xylene	ND	ND	ND	ND	ND	8	µg/m3
MTBE	ND	ND	ND	ND	ND	40	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	40	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	40	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	25000	ND	ND	ND	2000	µg/m3
Tracer:							
n-Pentane	ND	ND	ND	ND	ND	80	µg/m3
n-Hexane	ND	ND	ND	ND	ND	80	µg/m3
n-Heptane	ND	ND	ND	ND	ND	80	µg/m3
<u>Dilution Factor</u>	1	1	1	1	1		
Surrogate Recoveries:						QC Limits	
Dibromofluoromethane	104%	101%	102%	101%	100%	60 - 140	
Toluene-d8	94%	95%	94%	92%	93%	60 - 140	
4-Bromofluorobenzene	94%	97%	94%	92%	92%	60 - 140	
<u>Batch ID:</u>	E3-072721-01	E3-072721-01	E3-072721-01	E3-072721-01	E3-072721-01		

ND = Value below reporting limit



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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Mearns Consulting Group
Client Address: 738 Ashland Avenue,
Santa Monica CA 90405

Report date: 7/27/2021
Jones Ref. No.: E-1172

Attn: Susan L Mearns PhD
Project: Town Center Northwest
Project Address: 2690 Walnut Ave
Signal Hill, CA

Date Sampled: 7/27/2021
Date Received: 7/27/2021
Date Analyzed: 7/27/2021
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SV3-5'	SV3-15'	SV4-5'	SV4-15'	SV5-5'		
<u>Jones ID:</u>	E-1172-06	E-1172-07	E-1172-08	E-1172-09	E-1172-10	<u>Reporting Limit</u>	<u>Units</u>
Analytes:							
Benzene	ND	ND	ND	ND	ND	8	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	8	µg/m3
Bromoform	ND	ND	ND	ND	ND	8	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
Chloroform	ND	ND	ND	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	12	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	12	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	8	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	32	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	16	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	10	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SV3-5'	SV3-15'	SV4-5'	SV4-15'	SV5-5'		
<u>Jones ID:</u>	E-1172-06	E-1172-07	E-1172-08	E-1172-09	E-1172-10	<u>Reporting Limit</u>	<u>Units</u>
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Freon 113	ND	ND	ND	ND	ND	16	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	24	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	8	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	8	µg/m3
Methylene chloride	ND	8	ND	ND	ND	8	µg/m3
Naphthalene	ND	ND	ND	ND	ND	40	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Styrene	ND	ND	ND	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	16	µg/m3
Tetrachloroethene	18	17	22	12	ND	8	µg/m3
Toluene	ND	ND	ND	ND	ND	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	32	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	8	µg/m3
m,p-Xylene	ND	ND	ND	ND	ND	16	µg/m3
o-Xylene	ND	ND	ND	ND	ND	8	µg/m3
MTBE	ND	ND	ND	ND	ND	40	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	40	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	40	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	ND	ND	ND	2000	µg/m3
Tracer:							
n-Pentane	ND	ND	ND	ND	ND	80	µg/m3
n-Hexane	ND	ND	ND	ND	ND	80	µg/m3
n-Heptane	ND	ND	ND	ND	ND	80	µg/m3
<u>Dilution Factor</u>	1	1	1	1	1		
<u>Surrogate Recoveries:</u>						<u>QC Limits</u>	
Dibromofluoromethane	104%	102%	104%	100%	106%	60 - 140	
Toluene-d8	93%	94%	93%	92%	93%	60 - 140	
4-Bromofluorobenzene	93%	92%	94%	93%	92%	60 - 140	
<u>Batch ID:</u>	E3-072721-01	E3-072721-01	E3-072721-01	E3-072721-01	E3-072721-01		

ND = Value below reporting limit



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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Mearns Consulting Group
Client Address: 738 Ashland Avenue,
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Report date: 7/27/2021
Jones Ref. No.: E-1172

Attn: Susan L Mearns PhD
Project: Town Center Northwest
Project Address: 2690 Walnut Ave
Signal Hill, CA

Date Sampled: 7/27/2021
Date Received: 7/27/2021
Date Analyzed: 7/27/2021
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SV5-15'	SV6-5'	SV6-15'	SV7-5'	SV7-15'		
<u>Jones ID:</u>	E-1172-11	E-1172-12	E-1172-13	E-1172-14	E-1172-15	<u>Reporting Limit</u>	<u>Units</u>
Analytes:							
Benzene	ND	ND	243	ND	8850	8	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	8	µg/m3
Bromoform	ND	ND	ND	ND	ND	8	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
Chloroform	ND	ND	ND	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	12	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	12	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	8	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	32	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	16	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	10	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SV5-15'	SV6-5'	SV6-15'	SV7-5'	SV7-15'		
<u>Jones ID:</u>	E-1172-11	E-1172-12	E-1172-13	E-1172-14	E-1172-15	<u>Reporting Limit</u>	<u>Units</u>
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Freon 113	ND	ND	ND	ND	ND	16	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	24	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	8	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	8	µg/m3
Methylene chloride	9	ND	ND	ND	ND	8	µg/m3
Naphthalene	ND	ND	ND	ND	ND	40	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Styrene	ND	ND	ND	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	16	µg/m3
Tetrachloroethene	ND	17	8	ND	ND	8	µg/m3
Toluene	ND	ND	ND	ND	4210	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	32	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	8	µg/m3
m,p-Xylene	ND	ND	ND	ND	799	16	µg/m3
o-Xylene	ND	ND	ND	ND	441	8	µg/m3
MTBE	ND	ND	ND	ND	ND	40	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	40	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	40	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	317000	ND	46300000	2000	µg/m3
Tracer:							
n-Pentane	ND	ND	ND	ND	ND	80	µg/m3
n-Hexane	ND	ND	ND	ND	ND	80	µg/m3
n-Heptane	ND	ND	ND	ND	ND	80	µg/m3
<u>Dilution Factor</u>	1	1	1	1	30		
Surrogate Recoveries:						QC Limits	
Dibromofluoromethane	102%	100%	97%	100%	97%	60 - 140	
Toluene-d8	95%	92%	101%	93%	97%	60 - 140	
4-Bromofluorobenzene	94%	94%	91%	93%	96%	60 - 140	
<u>Batch ID:</u>	E3-072721-01	E3-072721-01	E3-072721-01	E3-072721-01	E3-072721-01		

ND = Value below reporting limit



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Attn: Susan L Mearns PhD

Date Sampled: 7/27/2021
Date Received: 7/27/2021

Project: Town Center Northwest
Project Address: 2690 Walnut Ave
Signal Hill, CA

Date Analyzed: 7/27/2021
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SV8-5'	SV8-15'	SV9-5'		
<u>Jones ID:</u>	E-1172-16	E-1172-17	E-1172-18	<u>Reporting Limit</u>	<u>Units</u>
Analytes:					
Benzene	20	ND	ND	8	µg/m3
Bromobenzene	ND	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	ND	8	µg/m3
Bromoform	ND	ND	ND	8	µg/m3
n-Butylbenzene	ND	ND	ND	12	µg/m3
sec-Butylbenzene	ND	ND	ND	12	µg/m3
tert-Butylbenzene	ND	ND	ND	12	µg/m3
Carbon tetrachloride	ND	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	ND	8	µg/m3
Chloroform	ND	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	ND	12	µg/m3
4-Chlorotoluene	ND	ND	ND	12	µg/m3
Dibromochloromethane	ND	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	8	µg/m3
Dibromomethane	ND	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	16	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	16	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	16	µg/m3
Dichlorodifluoromethane	ND	ND	ND	32	µg/m3
1,1-Dichloroethane	ND	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	ND	16	µg/m3
1,1-Dichloropropene	ND	ND	ND	10	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SV8-5'	SV8-15'	SV9-5'		
<u>Jones ID:</u>	E-1172-16	E-1172-17	E-1172-18	<u>Reporting Limit</u>	<u>Units</u>
Analytes:					
cis-1,3-Dichloropropene	ND	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	8	µg/m3
Ethylbenzene	ND	ND	ND	8	µg/m3
Freon 113	ND	ND	ND	16	µg/m3
Hexachlorobutadiene	ND	ND	ND	24	µg/m3
Isopropylbenzene	ND	ND	ND	8	µg/m3
4-Isopropyltoluene	ND	ND	ND	8	µg/m3
Methylene chloride	ND	ND	ND	8	µg/m3
Naphthalene	ND	ND	ND	40	µg/m3
n-Propylbenzene	ND	ND	ND	8	µg/m3
Styrene	ND	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	16	µg/m3
Tetrachloroethene	23	ND	ND	8	µg/m3
Toluene	15	ND	ND	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	16	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	16	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	8	µg/m3
Trichloroethene	ND	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	ND	32	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	ND	8	µg/m3
m,p-Xylene	ND	ND	ND	16	µg/m3
o-Xylene	ND	ND	ND	8	µg/m3
MTBE	ND	ND	ND	40	µg/m3
Ethyl-tert-butylether	ND	ND	ND	40	µg/m3
Di-isopropylether	ND	ND	ND	40	µg/m3
tert-amylmethylether	ND	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	ND	2000	µg/m3
Tracer:					
n-Pentane	ND	ND	ND	80	µg/m3
n-Hexane	ND	ND	ND	80	µg/m3
n-Heptane	ND	ND	ND	80	µg/m3
<u>Dilution Factor</u>	1	1	1		
<u>Surrogate Recoveries:</u>				<u>QC Limits</u>	
Dibromofluoromethane	95%	96%	95%	60 - 140	
Toluene-d8	94%	92%	93%	60 - 140	
4-Bromofluorobenzene	95%	96%	94%	60 - 140	
<u>Batch ID:</u>	E3-072721-01	E3-072721-01	E3-072721-01		

ND = Value below reporting limit



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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client: Mearns Consulting Group
Client Address: 738 Ashland Avenue,
Santa Monica CA 90405

Report date: 7/27/2021
Jones Ref. No.: E-1172

Attn: Susan L Mearns PhD

Date Sampled: 7/27/2021
Date Received: 7/27/2021

Project: Town Center Northwest
Project Address: 2690 Walnut Ave
Signal Hill, CA

Date Analyzed: 7/27/2021
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	METHOD	SAMPLING		
	BLANK	BLANK		
<u>Jones ID:</u>	072721- E3MB1	072721- E3SB1	<u>Reporting Limit</u>	<u>Units</u>
Analytes:				
Benzene	ND	ND	8	µg/m3
Bromobenzene	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	8	µg/m3
Bromoform	ND	ND	8	µg/m3
n-Butylbenzene	ND	ND	12	µg/m3
sec-Butylbenzene	ND	ND	12	µg/m3
tert-Butylbenzene	ND	ND	12	µg/m3
Carbon tetrachloride	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	8	µg/m3
Chloroform	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	12	µg/m3
4-Chlorotoluene	ND	ND	12	µg/m3
Dibromochloromethane	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	8	µg/m3
Dibromomethane	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	16	µg/m3
1,3-Dichlorobenzene	ND	ND	16	µg/m3
1,4-Dichlorobenzene	ND	ND	16	µg/m3
Dichlorodifluoromethane	ND	ND	32	µg/m3
1,1-Dichloroethane	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	16	µg/m3
1,1-Dichloropropene	ND	ND	10	µg/m3

JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	METHOD BLANK	SAMPLING BLANK		
<u>Jones ID:</u>	072721- E3MB1	072721- E3SB1	<u>Reporting Limit</u>	<u>Units</u>
Analytes:				
cis-1,3-Dichloropropene	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	8	µg/m3
Ethylbenzene	ND	ND	8	µg/m3
Freon 113	ND	ND	16	µg/m3
Hexachlorobutadiene	ND	ND	24	µg/m3
Isopropylbenzene	ND	ND	8	µg/m3
4-Isopropyltoluene	ND	ND	8	µg/m3
Methylene chloride	ND	ND	8	µg/m3
Naphthalene	ND	ND	40	µg/m3
n-Propylbenzene	ND	ND	8	µg/m3
Styrene	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	16	µg/m3
Tetrachloroethene	ND	ND	8	µg/m3
Toluene	ND	ND	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	16	µg/m3
1,2,4-Trichlorobenzene	ND	ND	16	µg/m3
1,1,1-Trichloroethane	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	8	µg/m3
Trichloroethene	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	32	µg/m3
1,2,3-Trichloropropane	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	8	µg/m3
m,p-Xylene	ND	ND	16	µg/m3
o-Xylene	ND	ND	8	µg/m3
MTBE	ND	ND	40	µg/m3
Ethyl-tert-butylether	ND	ND	40	µg/m3
Di-isopropylether	ND	ND	40	µg/m3
tert-amylmethylether	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	2000	µg/m3
Tracer:				
n-Pentane	ND	ND	80	µg/m3
n-Hexane	ND	ND	80	µg/m3
n-Heptane	ND	ND	80	µg/m3
<u>Dilution Factor</u>	1	1		
<u>Surrogate Recoveries:</u>			<u>QC Limits</u>	
Dibromofluoromethane	106%	100%	60 - 140	
Toluene-d8	96%	96%	60 - 140	
4-Bromofluorobenzene	93%	95%	60 - 140	
<u>Batch ID:</u>	E3-072721- 01	E3-072721- 01		

ND = Value below reporting limit



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SANTA FE SPRINGS, CA 90670
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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client: Mearns Consulting Group
Client Address: 738 Ashland Avenue,
Santa Monica CA 90405

Report date: 7/27/2021
Jones Ref. No.: E-1172

Attn: Susan L Mearns PhD

Date Sampled: 7/27/2021
Date Received: 7/27/2021

Project: Town Center Northwest
Project Address: 2690 Walnut Ave
Signal Hill, CA

Date Analyzed: 7/27/2021
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

QC ID: E3-072721-01

Jones ID: **072721-E3LCS1** **072721-E3LCSD1** **072721-E3CCV1**

<u>Parameter</u>	LCS Recovery (%)	LCSD Recovery (%)	<u>RPD</u>	Acceptability Range (%)	<u>CCV</u>	Acceptability Range (%)
Vinyl chloride	121%	114%	5.7%	60 - 140	109%	80 - 120
1,1-Dichloroethene	110%	101%	8.1%	60 - 140	80%	80 - 120
Cis-1,2-Dichloroethene	105%	102%	3.5%	70 - 130	86%	80 - 120
1,1,1-Trichloroethane	98%	104%	6.6%	70 - 130	85%	80 - 120
Benzene	113%	119%	4.9%	70 - 130	101%	80 - 120
Trichloroethene	115%	119%	3.7%	70 - 130	101%	80 - 120
Toluene	104%	109%	4.2%	70 - 130	97%	80 - 120
Tetrachloroethene	116%	114%	2.0%	70 - 130	97%	80 - 120
Chlorobenzene	109%	113%	3.7%	70 - 130	95%	80 - 120
Ethylbenzene	99%	108%	9.2%	70 - 130	94%	80 - 120
1,2,4 Trimethylbenzene	92%	93%	1.2%	70 - 130	87%	80 - 120
Gasoline Range Organics (C4-C12)	102%	107%	5.0%	70 - 130	95%	80 - 120

Surrogate Recovery:

Dibromofluoromethane	102%	102%		60 - 140	100%	60 - 140
Toluene-ds	97%	96%		60 - 140	95%	60 - 140
4-Bromofluorobenzene	96%	96%		60 - 140	97%	60 - 140

LCS = Laboratory Control Sample
LCSD = Laboratory Control Sample Duplicate
CCV = Continuing Calibration Verification
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 20%

Client
Mearns Consulting Group

Project Name
Town Center Northwest

Project Address
2690 Walnut Ave

Signal Hill, CA

Phone

Date
7/27/2021

Client Project #

Turn Around Requested

Immediate Attention
 Rush 24 Hours
 Rush 48 Hours
 Rush 72 Hours
 Normal
 Mobile Lab

Reporting Limits

Standard Low Level* MDL*
*surcharge for these limits

Purge Number:
 1P 3P 7P 10P

Shut-In Test: Y N

Report Options
 EDD _____
 EDF* - 10% Surcharge _____

Global ID _____

Tracer
 n-pentane
 n-hexane
 n-heptane
 Isopropyl Alcohol
 1,1-DFA

Analysis Requested

Sample Method: Soil Gas (SG), Air (A), Mineral (M)	EPA 8260B (VOCs)	Gasoline Range Organics	Magnetic Vacuum (mV ₂ O)	Number of Containers
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LAB USE ONLY

Jones Project #
E-1172


Page
 1 of 2

Sample Container:
GASTIGHT GLASS SYRINGE
If different than above, see notes.

Report To
Susan L Mearns PhD

Sampler
Casey Ellis

Sample ID	Purge Number	Purge Volume (gal.)	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample ID	Purge Rate (mL/min)	Pump Used	Magnetics	Sample Method: Soil Gas (SG), Air (A), Mineral (M)	EPA 8260B (VOCs)	Gasoline Range Organics	Magnetic Vacuum (mV ₂ O)	Number of Containers	Notes & Special Instructions
SV1-5'	3	1310	7/27/21	7:54	7:58	E-1172-01	200	CASEY.1	118012	SG	X	X	<2	1	
SV1-15'	3	1470	7/27/21	8:12	8:14	E-1172-02	200	CASEY.2	M100.114	SG	X	X	6	1	
SV2-5'	3	1310	7/27/21	8:30	8:32	E-1172-03	200	CASEY.1	M100.201	SG	X	X	6	1	
SV2-15'	3	1470	7/27/21	8:51	8:52	E-1172-04	200	CASEY.2	M100.203	SG	X	X	<2	1	
SV2-15' REP	3	1470	7/27/21	10:05	10:08	E-1172-05	200	CASEY.2	M100.203	SG	X	X	<2	1	
SV3-5'	3	1310	7/27/21	9:24	9:27	E-1172-06	200	CASEY.1	118012	SG	X	X	<2	1	
SV3-15'	3	1470	7/27/21	9:43	9:46	E-1172-07	200	CASEY.2	M100.114	SG	X	X	<2	1	
SV4-5'	3	1310	7/27/21	10:24	10:26	E-1172-08	200	CASEY.1	M100.201	SG	X	X	<2	1	
SV4-15'	3	1470	7/27/21	10:42	10:44	E-1172-09	200	CASEY.2	M100.203	SG	X	X	<2	1	
SV5-5'	3	1310	7/27/21	11:01	11:03	E-1172-10	200	CASEY.1	118012	SG	X	X	<2	1	

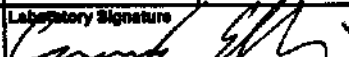
Representative Signature


Printed Name
SUSAN MEARNS

Company
 Mearns Consulting Group

Date
 7/27/2021

Time
 14:30

Laboratory Signature


Printed Name
CASEY ELLIS

Company
 JONES ENVIRONMENTAL, INC.

Date
 7/27/2021

Time
 14:30

10 Total Number of Containers

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been requested, and the information provided herein is correct and accurate.



11007 Forest Pl.
Santa Fe Springs, CA 90670
(714) 448-8637
Fax (714) 448-8685
www.jonesenv.com

Soil-Gas Chain-of-Custody Record

Client:
Mearns Consulting Group

Project Name:
Town Center Northwest

Project Address:
2690 Walnut Ave

Signal Hill, CA

Phone:

Date: 7/27/2021

Client Project #:

Turn Around Requested:

- Immediate Attention
- Rush 24 Hours
- Rush 48 Hours
- Rush 72 Hours
- Normal
- Mobile Lab

Reporting Limits:

Standard Low Level* MDL* Units 10/10³
*surcharge for these limits

Purge Number:
 1P 3P 7P 10P

Shut-In Test: (Y) / N

Report Options:
EDD _____
EDF* - 10% Surcharge _____
*Global ID _____

LAB USE ONLY

Jones Project #
E-1172

Page
2 of 2

Sample Container:
GASTIGHT GLASS SYRINGE
If different than above, see Notes.

Report To: Susan L Mearns PhD

Sampler: Casey Ellis

Tracer:
 n-pentane
 n-hexane
 n-heptane
 Isopropyl Alcohol
 1,1-DFA

Analysis Requested:

Sample Matrix: Soil Gas (SG), Air (A), Material (M)	EPA 8260B (VOCs)	Gasoline Range Organics	Magnethetic Vacuum (InH ₂ O)	Number of Containers
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Sample ID	Purge Number	Purge Volume (mL)	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample ID	Purge Rate (mL/min)	Pump Used	Magnethetic	Sample Matrix: Soil Gas (SG), Air (A), Material (M)	EPA 8260B (VOCs)	Gasoline Range Organics	Magnethetic Vacuum (InH ₂ O)	Number of Containers	Notes & Special Instructions
SV5-15'	3	1470	7/27/21	11:18	11:21	E-1172-11	200	CASEY.2	M100.114	SG	X	X	<2	1	
SV6-5'	3	1310	7/27/21	11:38	11:40	E-1172-12	200	CASEY.1	M100.201	SG	X	X	<2	1	
SV6-15'	3	1470	7/27/21	11:57	12:00	E-1172-13	200	CASEY.2	M100.203	SG	X	X	<2	1	
SV7-5'	3	1310	7/27/21	12:08	12:18	E-1172-14	200	CASEY.1	118012	SG	X	X	<2	1	
SV7-15'	3	1470	7/27/21	12:34	12:38	E-1172-15	200	CASEY.2	M100.114	SG	X	X	<2	1	
SV8-5'	3	1310	7/27/21	12:55	12:57	E-1172-16	200	CASEY.1	M100.201	SG	X	X	<2	1	
SV8-15'	3	1470	7/27/21	13:13	13:18	E-1172-17	200	CASEY.2	M100.203	SG	X	X	6	1	
SV8-5'	3	1310	7/27/21	13:54	13:58	E-1172-18	200	CASEY.1	118012	SG	X	X	<2	1	
SV7-15' DII	-	-	7/27/21	13:32	13:37	-	-	-	M100.114	SG	X	X	<2	1	

Representative Signature:

Printed Name: SUSAN MEARNS

Company: Mearns Consulting Group

Date: 7/27/2021 **Time:** 14:30

Laboratory Signature:

Printed Name: CASEY ELLIS

Company: JONES ENVIRONMENTAL, INC.

Date: 7/27/2021 **Time:** 14:30

9 Total Number of Containers

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been requested, and the information provided herein is correct and accurate.



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11007 FOREST PLACE
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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Mearns Consulting Group
Client Address: 738 Ashland Avenue,
Santa Monica CA 90405

Report date: 7/28/2021
Jones Ref. No.: E-1173

Attn: Susan L Mearns PhD

Date Sampled: 7/28/2021
Date Received: 7/28/2021

Project: Town Center Northwest
Project Address: 2690 Walnut Ave
Signal Hill, CA

Date Analyzed: 7/28/2021
Physical State: Soil Gas

ANALYSES REQUESTED

1. EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sampling – Soil Gas samples were collected in glass gas-tight syringes equipped with Teflon plungers.

A tracer gas mixture of n-pentane, n-hexane, and n-heptane was placed at the tubing-surface interface before sampling. These compounds were analyzed during the 8260B analytical run to determine if there were surface leaks into the subsurface due to improper installation of the probe. No tracer was detected in any of the samples reported herein.

The sampling rate was approximately 200 cc/min, except when noted differently on the chain of custody record, using a glass gas-tight syringe. Purging was completed using a pump set at approximately 200 cc/min, except when noted differently on the chain of custody record. A default of 3 purge volumes was used as recommended by July 2015 DTSC/RWQCB guidance documents.

Prior to purging and sampling of soil gas at each point, a shut-in test was conducted to check for leaks in the above ground fittings. The shut-in test was performed on the above ground apparatus by evacuating the line to a vacuum of 100 inches of water, sealing the entire system and watching the vacuum for at least one minute. A vacuum gauge attached in parallel to the apparatus measured the vacuum. If there was any observable loss of vacuum, the fittings were adjusted as needed until the vacuum did not change noticeably. The soil gas sample was then taken.

No flow conditions occur when a sampling rate greater than 10 mL/min cannot be maintained without applying a vacuum greater than 100 inches of water to the sampling train. The sampling train is left at a vacuum for no less than three minutes. If the vacuum does not subside appreciably after three minutes, the sample location is determined to be a no flow sample.

Analytical – Soil Gas samples were analyzed using EPA Method 8260 that includes extra compounds required by DTSC/RWQCB (such as Freon 113). Instrument Continuing Calibration Verification, QC Reference Standards, Instrument Blanks and Sampling Blanks were analyzed every 12 hours as prescribed by the method. In addition, a Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) were analyzed with each batch of Soil Gas samples. A duplicate/replicate sample was analyzed each day of the sampling activity. All samples were injected into the GC/MS system within 30 minutes of collection.

Approval: _____

Annalise O'Toole
Mobile Lab Manager



714-449-9937
562-646-1611

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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Mearns Consulting Group
Client Address: 738 Ashland Avenue,
Santa Monica CA 90405

Report date: 7/28/2021
Jones Ref. No.: E-1173

Attn: Susan L Mearns PhD
Project: Town Center Northwest
Project Address: 2690 Walnut Ave
Signal Hill, CA

Date Sampled: 7/28/2021
Date Received: 7/28/2021
Date Analyzed: 7/28/2021
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SV9-15'	SV9-15' REP	SV10-5'	SV10-15'	SV11-5'		
<u>Jones ID:</u>	E-1173-01	E-1173-02	E-1173-03	E-1173-04	E-1173-05	<u>Reporting Limit</u>	<u>Units</u>
Analytes:							
Benzene	ND	ND	ND	ND	ND	8	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	8	µg/m3
Bromoform	ND	ND	ND	ND	ND	8	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
Chloroform	ND	ND	ND	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	12	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	12	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	8	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	32	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	16	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	10	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SV9-15'	SV9-15' REP	SV10-5'	SV10-15'	SV11-5'		
<u>Jones ID:</u>	E-1173-01	E-1173-02	E-1173-03	E-1173-04	E-1173-05	<u>Reporting Limit</u>	<u>Units</u>
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Freon 113	ND	ND	ND	ND	ND	16	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	24	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	8	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	8	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	8	µg/m3
Naphthalene	ND	ND	ND	ND	ND	40	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Styrene	ND	ND	ND	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	16	µg/m3
Tetrachloroethene	34	34	9	8	24	8	µg/m3
Toluene	13	14	ND	ND	ND	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	32	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	8	µg/m3
m,p-Xylene	ND	ND	ND	ND	ND	16	µg/m3
o-Xylene	ND	ND	ND	ND	ND	8	µg/m3
MTBE	ND	ND	ND	ND	ND	40	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	40	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	40	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	ND	ND	ND	2000	µg/m3
Tracer:							
n-Pentane	ND	ND	ND	ND	ND	80	µg/m3
n-Hexane	ND	ND	ND	ND	ND	80	µg/m3
n-Heptane	ND	ND	ND	ND	ND	80	µg/m3
<u>Dilution Factor</u>	1	1	1	1	1		
<u>Surrogate Recoveries:</u>						<u>QC Limits</u>	
Dibromofluoromethane	114%^	119%^	108%	123%^	107%	60 - 140	
Toluene-d8	103%	104%	89%	102%	89%	60 - 140	
4-Bromofluorobenzene	108%	@	97%	108%	96%	60 - 140	
<u>Batch ID:</u>	E2-072821- 01	E2-072821- 01	E3-072821- 01	E2-072821- 01	E3-072821- 01		

ND = Value below reporting limit

@= Surrogate outside acceptable limits. All other QC parameters in control, therefore data was accepted.

^ = 1,2-dichloroethane-d4 used as surrogate for this batch.



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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Mearns Consulting Group
Client Address: 738 Ashland Avenue,
Santa Monica CA 90405

Report date: 7/28/2021
Jones Ref. No.: E-1173

Attn: Susan L Mearns PhD

Date Sampled: 7/28/2021
Date Received: 7/28/2021

Project: Town Center Northwest
Project Address: 2690 Walnut Ave
Signal Hill, CA

Date Analyzed: 7/28/2021
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SV11-15'	SV12-5'	SV12-15'	SV13-5'	SV13-5' REP		
<u>Jones ID:</u>	E-1173-06	E-1173-07	E-1173-08	E-1173-09	E-1173-10	<u>Reporting Limit</u>	<u>Units</u>
Analytes:							
Benzene	ND	ND	ND	ND	ND	8	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	8	µg/m3
Bromoform	ND	ND	ND	ND	ND	8	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
Chloroform	ND	ND	ND	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	12	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	12	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	8	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	32	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	16	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	10	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SV11-15'	SV12-5'	SV12-15'	SV13-5'	SV13-5' REP		
<u>Jones ID:</u>	E-1173-06	E-1173-07	E-1173-08	E-1173-09	E-1173-10	<u>Reporting Limit</u>	<u>Units</u>
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Freon 113	ND	ND	ND	ND	ND	16	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	24	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	8	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	8	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	8	µg/m3
Naphthalene	ND	ND	ND	ND	ND	40	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Styrene	ND	ND	ND	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	16	µg/m3
Tetrachloroethene	ND	8	9	16	25	8	µg/m3
Toluene	ND	ND	ND	ND	ND	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	32	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	8	µg/m3
m,p-Xylene	ND	ND	ND	ND	ND	16	µg/m3
o-Xylene	ND	ND	ND	ND	ND	8	µg/m3
MTBE	ND	ND	ND	ND	ND	40	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	40	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	40	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	ND	ND	ND	2000	µg/m3
Tracer:							
n-Pentane	ND	ND	ND	ND	ND	80	µg/m3
n-Hexane	ND	ND	ND	ND	ND	80	µg/m3
n-Heptane	ND	ND	ND	ND	ND	80	µg/m3
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						QC Limits	
Dibromofluoromethane	122%^	105%	124%^	106%	108%	60 - 140	
Toluene-d8	105%	87%	102%	87%	88%	60 - 140	
4-Bromofluorobenzene	107%	97%	105%	96%	96%	60 - 140	
Batch ID:	E2-072821- 01	E3-072821- 01	E2-072821- 01	E3-072821- 01	E3-072821- 01		

ND = Value below reporting limit

^ = 1,2-dichloroethane-d4 used as surrogate for this batch.



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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Mearns Consulting Group
Client Address: 738 Ashland Avenue,
Santa Monica CA 90405

Report date: 7/28/2021
Jones Ref. No.: E-1173

Attn: Susan L Mearns PhD
Project: Town Center Northwest
Project Address: 2690 Walnut Ave
Signal Hill, CA

Date Sampled: 7/28/2021
Date Received: 7/28/2021
Date Analyzed: 7/28/2021
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SV13-15'	SV14-5'	SV14-15'	SV15-5'	SV15-15'		
<u>Jones ID:</u>	E-1173-11	E-1173-12	E-1173-13	E-1173-14	E-1173-15	<u>Reporting Limit</u>	<u>Units</u>
Analytes:							
Benzene	ND	ND	ND	ND	ND	8	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	8	µg/m3
Bromoform	ND	ND	ND	ND	ND	8	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
Chloroform	ND	ND	ND	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	12	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	12	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	8	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	32	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	16	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	10	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	SV13-15'	SV14-5'	SV14-15'	SV15-5'	SV15-15'		
Jones ID:	E-1173-11	E-1173-12	E-1173-13	E-1173-14	E-1173-15	Reporting Limit	Units
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Freon 113	ND	ND	ND	ND	ND	16	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	24	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	8	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	8	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	8	µg/m3
Naphthalene	ND	ND	ND	ND	ND	40	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Styrene	ND	ND	ND	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	16	µg/m3
Tetrachloroethene	ND	10	ND	37	29	8	µg/m3
Toluene	ND	ND	ND	ND	ND	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	32	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	8	µg/m3
m,p-Xylene	ND	ND	ND	ND	ND	16	µg/m3
o-Xylene	ND	ND	ND	ND	ND	8	µg/m3
MTBE	ND	ND	ND	ND	ND	40	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	40	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	40	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	ND	ND	ND	2000	µg/m3
Tracer:							
n-Pentane	ND	ND	ND	ND	ND	80	µg/m3
n-Hexane	ND	ND	ND	ND	ND	80	µg/m3
n-Heptane	ND	ND	ND	ND	ND	80	µg/m3
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						QC Limits	
Dibromofluoromethane	126%^	108%	123%^	105%	119%^	60 - 140	
Toluene-d8	106%	85%	102%	86%	101%	60 - 140	
4-Bromofluorobenzene	106%	98%	104%	95%	82%	60 - 140	
Batch ID:	E2-072821-01	E3-072821-01	E2-072821-01	E3-072821-01	E2-072821-01		

ND = Value below reporting limit

^ = 1,2-dichloroethane-d4 used as surrogate for this batch.



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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Mearns Consulting Group
Client Address: 738 Ashland Avenue,
Santa Monica CA 90405

Report date: 7/28/2021
Jones Ref. No.: E-1173

Attn: Susan L Mearns PhD

Date Sampled: 7/28/2021
Date Received: 7/28/2021

Project: Town Center Northwest
Project Address: 2690 Walnut Ave
Signal Hill, CA

Date Analyzed: 7/28/2021
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SV16-5'	SV16-15'	SV17-5'	SV17-15'	SV18-5'		
<u>Jones ID:</u>	E-1173-16	E-1173-17	E-1173-18	E-1173-19	E-1173-20	<u>Reporting Limit</u>	<u>Units</u>
Analytes:							
Benzene	ND	27	ND	ND	ND	8	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	8	µg/m3
Bromoform	ND	ND	ND	ND	ND	8	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
Chloroform	ND	ND	ND	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	12	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	12	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	8	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	32	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	51	ND	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	16	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	10	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	SV16-5'	SV16-15'	SV17-5'	SV17-15'	SV18-5'		
Jones ID:	E-1173-16	E-1173-17	E-1173-18	E-1173-19	E-1173-20	Reporting Limit	Units
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
Ethylbenzene	ND	74	ND	ND	ND	8	µg/m3
Freon 113	ND	ND	ND	ND	ND	16	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	24	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	8	µg/m3
4-Isopropyltoluene	ND	16	ND	ND	ND	8	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	8	µg/m3
Naphthalene	ND	41	ND	ND	ND	40	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Styrene	ND	ND	ND	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	16	µg/m3
Tetrachloroethene	15	18	32	10	13	8	µg/m3
Toluene	ND	44	ND	ND	ND	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	32	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	8	µg/m3
m,p-Xylene	ND	287	ND	ND	ND	16	µg/m3
o-Xylene	ND	84	ND	ND	ND	8	µg/m3
MTBE	ND	ND	ND	ND	ND	40	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	40	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	40	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	46800	ND	ND	ND	2000	µg/m3
Tracer:							
n-Pentane	ND	ND	ND	ND	ND	80	µg/m3
n-Hexane	ND	ND	ND	ND	ND	80	µg/m3
n-Heptane	ND	ND	ND	ND	ND	80	µg/m3
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						QC Limits	
Dibromofluoromethane	112%	124%^	108%	121%^	106%	60 - 140	
Toluene-d8	86%	101%	85%	99%	86%	60 - 140	
4-Bromofluorobenzene	97%	114%	96%	104%	97%	60 - 140	
Batch ID:	E3-072821-01	E2-072821-01	E3-072821-01	E2-072821-01	E3-072821-01		

ND = Value below reporting limit

^ = 1,2-dichloroethane-d4 used as surrogate for this batch.



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11007 FOREST PLACE
SANTA FE SPRINGS, CA 90670
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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Mearns Consulting Group
Client Address: 738 Ashland Avenue,
Santa Monica CA 90405

Report date: 7/28/2021
Jones Ref. No.: E-1173

Attn: Susan L Mearns PhD
Project: Town Center Northwest
Project Address: 2690 Walnut Ave
Signal Hill, CA

Date Sampled: 7/28/2021
Date Received: 7/28/2021
Date Analyzed: 7/28/2021
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID: SV18-15' SV19-5'

Jones ID: E-1173-21 E-1173-22

Analytes:

	E-1173-21	E-1173-22	<u>Reporting Limit</u>	<u>Units</u>
Benzene	1150	18	8	µg/m3
Bromobenzene	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	8	µg/m3
Bromoform	ND	ND	8	µg/m3
n-Butylbenzene	ND	649	12	µg/m3
sec-Butylbenzene	ND	2380	12	µg/m3
tert-Butylbenzene	ND	ND	12	µg/m3
Carbon tetrachloride	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	8	µg/m3
Chloroform	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	12	µg/m3
4-Chlorotoluene	ND	ND	12	µg/m3
Dibromochloromethane	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	8	µg/m3
Dibromomethane	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	16	µg/m3
1,3-Dichlorobenzene	ND	ND	16	µg/m3
1,4-Dichlorobenzene	ND	ND	16	µg/m3
Dichlorodifluoromethane	ND	ND	32	µg/m3
1,1-Dichloroethane	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	16	µg/m3
1,1-Dichloropropene	ND	ND	10	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	SV18-15'	SV19-5'		
Jones ID:	E-1173-21	E-1173-22	Reporting Limit	Units
Analytes:				
cis-1,3-Dichloropropene	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	8	µg/m3
Ethylbenzene	1910	2730	8	µg/m3
Freon 113	ND	ND	16	µg/m3
Hexachlorobutadiene	ND	ND	24	µg/m3
Isopropylbenzene	2490	4290	8	µg/m3
4-Isopropyltoluene	ND	13	8	µg/m3
Methylene chloride	ND	ND	8	µg/m3
Naphthalene	826	405	40	µg/m3
n-Propylbenzene	2640	5810	8	µg/m3
Styrene	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	16	µg/m3
Tetrachloroethene	ND	42	8	µg/m3
Toluene	ND	25	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	16	µg/m3
1,2,4-Trichlorobenzene	ND	ND	16	µg/m3
1,1,1-Trichloroethane	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	8	µg/m3
Trichloroethene	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	32	µg/m3
1,2,3-Trichloropropane	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	8	µg/m3
m,p-Xylene	1720	ND	16	µg/m3
o-Xylene	ND	ND	8	µg/m3
MTBE	8610	121000*	40	µg/m3
Ethyl-tert-butylether	ND	ND	40	µg/m3
Di-isopropylether	4780	ND	40	µg/m3
tert-amylmethylether	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	3380000	900000	2000	µg/m3
Tracer:				
n-Pentane	ND	ND	80	µg/m3
n-Hexane	ND	ND	80	µg/m3
n-Heptane	ND	ND	80	µg/m3
Dilution Factor	12.5	1/3*		
Surrogate Recoveries:			QC Limits	
Dibromofluoromethane	115%	103%	60 - 140	
Toluene-d ₈	106%	115%	60 - 140	
4-Bromofluorobenzene	123%	●	60 - 140	
Batch ID:	E2-072721-01	E3-072721-01		

ND = Value below reporting limit

● = Hydrocarbon interference prevented adequate surrogate recovery.

^ = 1,2-dichloroethane-d4 used as surrogate for this batch.

* = Dilutions for these compound(s); first number for all others



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11007 FOREST PLACE
SANTA FE SPRINGS, CA 90670
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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client: Mearns Consulting Group
Client Address: 738 Ashland Avenue,
Santa Monica CA 90405

Report date: 7/28/2021
Jones Ref. No.: E-1173

Attn: Susan L Mearns PhD

Date Sampled: 7/28/2021
Date Received: 7/28/2021

Project: Town Center Northwest
Project Address: 2690 Walnut Ave
Signal Hill, CA

Date Analyzed: 7/28/2021
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	METHOD	SAMPLING	METHOD	SAMPLING		
	BLANK	BLANK	BLANK	BLANK		
<u>Jones ID:</u>	072821- E2MB1	072821- E2SB1	072821- E3MB1	072821- E3SB1	<u>Reporting Limit</u>	<u>Units</u>
Analytes:						
Benzene	ND	ND	ND	ND	8	µg/m3
Bromobenzene	ND	ND	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	ND	ND	8	µg/m3
Bromoform	ND	ND	ND	ND	8	µg/m3
n-Butylbenzene	ND	ND	ND	ND	12	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	12	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	12	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	ND	ND	8	µg/m3
Chloroform	ND	ND	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	12	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	12	µg/m3
Dibromochloromethane	ND	ND	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	8	µg/m3
Dibromomethane	ND	ND	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	16	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	16	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	16	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	32	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	16	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	10	µg/m3

JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	METHOD BLANK	SAMPLING BLANK	METHOD BLANK	SAMPLING BLANK		
<u>Jones ID:</u>	072821- E2MB1	072821- E2SB1	072821- E3MB1	072821- E3SB1	<u>Reporting Limit</u>	<u>Units</u>
Analytes:						
cis-1,3-Dichloropropene	ND	ND	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	8	µg/m3
Ethylbenzene	ND	ND	ND	ND	8	µg/m3
Freon 113	ND	ND	ND	ND	16	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	24	µg/m3
Isopropylbenzene	ND	ND	ND	ND	8	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	8	µg/m3
Methylene chloride	ND	ND	ND	ND	8	µg/m3
Naphthalene	ND	ND	ND	ND	40	µg/m3
n-Propylbenzene	ND	ND	ND	ND	8	µg/m3
Styrene	ND	ND	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	16	µg/m3
Tetrachloroethene	ND	ND	ND	ND	8	µg/m3
Toluene	ND	ND	ND	ND	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	16	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	16	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	8	µg/m3
Trichloroethene	ND	ND	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	32	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	ND	ND	8	µg/m3
m,p-Xylene	ND	ND	ND	ND	16	µg/m3
o-Xylene	ND	ND	ND	ND	8	µg/m3
MTBE	ND	ND	ND	ND	40	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	40	µg/m3
Di-isopropylether	ND	ND	ND	ND	40	µg/m3
tert-amylmethylether	ND	ND	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	ND	ND	2000	µg/m3
Tracer:						
n-Pentane	ND	ND	ND	ND	80	µg/m3
n-Hexane	ND	ND	ND	ND	80	µg/m3
n-Heptane	ND	ND	ND	ND	80	µg/m3
<u>Dilution Factor</u>	1	1	1	1		
<u>Surrogate Recoveries:</u>					<u>QC Limits</u>	
Dibromofluoromethane	121%^	114%^	105%	100%	60 - 140	
Toluene-d8	100%	104%	93%	90%	60 - 140	
4-Bromofluorobenzene	106%	107%	98%	96%	60 - 140	
<u>Batch ID:</u>	E2-072821- 01	E2-072821- 01	E3-072721- 01	E3-072721- 01		

ND = Value below reporting limit

^ = 1,2-dichloroethane-d4 used as surrogate for this batch.



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11007 FOREST PLACE
SANTA FE SPRINGS, CA 90671
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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client: Mearns Consulting Group
Client Address: 738 Ashland Avenue,
Santa Monica CA 90405

Report date: 7/28/2021
Jones Ref. No.: E-1173

Attn: Susan L Mearns PhD

Date Sampled: 7/28/2021
Date Received: 7/28/2021

Project: Town Center Northwest
Project Address: 2690 Walnut Ave
Signal Hill, CA

Date Analyzed: 7/28/2021
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Batch ID: E2-072821-01

Jones ID: **072821-E2LCS1** **072821-E2LCSD1** **072821-E2CCV1**

<u>Parameter</u>	LCS Recovery (%)	LCSD Recovery (%)	<u>RPD</u>	Acceptability Range (%)	<u>CCV</u>	Acceptability Range (%)
Vinyl chloride	142% ¹	151% ¹	6.2%	60 - 140	50% ¹	80 - 120
1,1-Dichloroethene	121%	126%	3.7%	60 - 140	103%	80 - 120
Cis-1,2-Dichloroethene	124%	129%	4.0%	70 - 130	106%	80 - 120
1,1,1-Trichloroethane	124%	121%	2.5%	70 - 130	112%	80 - 120
Benzene	119%	124%	4.4%	70 - 130	110%	80 - 120
Trichloroethene	106%	112%	5.9%	70 - 130	103%	80 - 120
Toluene	120%	128%	6.8%	70 - 130	116%	80 - 120
Tetrachloroethene	129%	134% ²	3.9%	70 - 130	120%	80 - 120
Chlorobenzene	99%	101%	2.3%	70 - 130	96%	80 - 120
Ethylbenzene	78%	83%	6.3%	70 - 130	87%	80 - 120
1,2,4 Trimethylbenzene	119%	123%	3.1%	70 - 130	118%	80 - 120
Gasoline Range Organics (C4-C12)	109%	115%	5.0%	70 - 130	108%	80 - 120

Surrogate Recovery:

1,2-Dichloroethane-d4	120%	119%		60 - 140	110%	60 - 140
Toluene-ds	101%	102%		60 - 140	102%	60 - 140
4-Bromofluorobenzene	105%	105%		60 - 140	108%	60 - 140

¹Recovery outside of acceptable limits. If compound was found in sample, the sample would have been re-ran for confirmation.

²Recovery outside of acceptable limits. CCV and LCS recoveries and LCS/LCSD RPD were within QC limits, therefore data was accepted.

LCS = Laboratory Control Sample

LCSD = Laboratory Control Sample Duplicate

CCV = Continuing Calibration Verification

RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 20%



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11007 FOREST PLACE
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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client: Mearns Consulting Group
Client Address: 738 Ashland Avenue,
Santa Monica CA 90405

Report date: 7/28/2021
Jones Ref. No.: E-1173

Attn: Susan L Mearns PhD

Date Sampled: 7/28/2021
Date Received: 7/28/2021

Project: Town Center Northwest
Project Address: 2690 Walnut Ave
Signal Hill, CA

Date Analyzed: 7/28/2021
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

QC ID: E3-072821-01

Jones ID: **072821-E3LCS1** **072821-E3LCSD1** **072821-E3CCV1**

<u>Parameter</u>	LCS Recovery (%)	LCSD Recovery (%)	<u>RPD</u>	Acceptability Range (%)	<u>CCV</u>	Acceptability Range (%)
Vinyl chloride	83%	81%	2.2%	60 - 140	100%	80 - 120
1,1-Dichloroethene	110%	101%	8.9%	60 - 140	94%	80 - 120
Cis-1,2-Dichloroethene	111%	109%	1.8%	70 - 130	101%	80 - 120
1,1,1-Trichloroethane	100%	98%	2.4%	70 - 130	99%	80 - 120
Benzene	124%	124%	0.3%	70 - 130	118%	80 - 120
Trichloroethene	126%	112%	12.1%	70 - 130	109%	80 - 120
Toluene	104%	103%	1.6%	70 - 130	105%	80 - 120
Tetrachloroethene	106%	112%	5.8%	70 - 130	103%	80 - 120
Chlorobenzene	110%	109%	0.7%	70 - 130	112%	80 - 120
Ethylbenzene	103%	99%	4.3%	70 - 130	106%	80 - 120
1,2,4 Trimethylbenzene	91%	91%	0.3%	70 - 130	99%	80 - 120
Gasoline Range Organics (C4-C12)	106%	104%	1.4%	70 - 130	107%	80 - 120
<u>Surrogate Recovery:</u>						
Dibromofluoromethane	100%	102%		60 - 140	100%	60 - 140
Toluene-ds	94%	94%		60 - 140	93%	60 - 140
4-Bromofluorobenzene	97%	100%		60 - 140	98%	60 - 140

LCS = Laboratory Control Sample
LCSD = Laboratory Control Sample Duplicate
CCV = Continuing Calibration Verification
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 20%



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Soil-Gas Chain-of-Custody Record

Client
Mearns Consulting Group

Project Name
Town Center Northwest

Project Address
2690 Walnut Ave
Signal Hill, CA

Phone

Date
7/28/2021

Client Project #

Turn Around Requested
 Immediate Attention
 Rush 24 Hours
 Rush 48 Hours
 Rush 72 Hours
 Normal
 Mobile Lab

Reporting Limits
 Standard Low Level* MDL*
*surcharge for these limits

Purge Number:
 1P 3P 7P 10P

Shut-In Test: Y N

Report Options
 EDF* - 10% Surcharge
 Global ID:

Tracer
 n-pentane
 n-hexane
 n-heptane
 Isopropyl Alcohol
 1,1-DFA

Analysis Requested

LAB USE ONLY

Jones Project #
E-1173

Page
2 of 3

Sample Container
EASTIGHT GLASS SYRINGE

Report To
Susan L. Mearns PhD

Sampler
Casey Ellis

Sample ID	Purge Number	Purge Volume (mL)	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample ID	Purge Rate (mL/min)	Pump Used	Magnehelic	Sample Matrix: (see EPA 821-A, 821-B, 821-C)	EPA 8000s (VOCs)	Gasoline Range Organics	Magnehelic Vapour (mH ₂ O)	Number of Containers	Notes & Special Instructions
SV13-15'	3	1470	7/28/21	8:34	8:43	E-1173-11	200	CASEY.2	M100.203	SG	X	X	<2	1	
SV14-5'	3	1310	7/28/21	8:56	9:01	E-1173-12	200	CASEY.1	118012	SG	X	X	<2	1	
SV14-15'	3	1470	7/28/21	8:57	9:02	E-1173-13	200	CASEY.2	M100.114	SG	X	X	<2	1	
SV15-5'	3	1310	7/28/21	9:16	9:19	E-1173-14	200	CASEY.1	M100.201	SG	X	X	<2	1	
SV15-15'	3	1470	7/28/21	9:17	9:20	E-1173-15	200	CASEY.2	M100.203	SG	X	X	<2	1	
SV16-5'	3	1310	7/28/21	9:33	9:38	E-1173-16	200	CASEY.1	118012	SG	X	X	<2	1	
SV16-15'	3	1470	7/28/21	9:34	9:39	E-1173-17	200	CASEY.2	M100.114	SG	X	X	<2	1	
SV17-5'	3	1310	7/28/21	9:52	9:57	E-1173-18	200	CASEY.1	M100.201	SG	X	X	<2	1	
SV17-15'	3	1470	7/28/21	9:53	9:58	E-1173-19	200	CASEY.2	M100.203	SG	X	X	<2	1	
SV18-5'	3	1310	7/28/21	10:13	10:16	E-1173-20	200	CASEY.1	118012	SG	X	X	<2	1	

Representative Signature
Susan Mearns

Printed Name
SUSAN MEARNS

Company
Mearns Consulting Group

Date
7/28/2021

Time
11:45

Laboratory Signature
Casey Ellis

Printed Name
CASEY ELLIS

Company
JONES ENVIRONMENTAL, INC.

Date
7/28/2021

Time
11:45

10 Total Number of Containers

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been requested, and the information provided herein is correct and accurate.



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 Santa Fe Springs, CA 90670
 (714) 448-9937
 Fax (714) 448-0085
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Soil-Gas Chain-of-Custody Record

Client:
Mearns Consulting Group

Project Name:
Town Center Northwest

Project Address:
2699 Walnut Ave.

Signal Hill, CA

Phone:

Date:
7/28/2021

Client Project #

Turn Around Requested:
 Immediate Attention
 Rush 24 Hours
 Rush 48 Hours
 Rush 72 Hours
 Normal
 Mobile Lab

Reporting Limits:
 Standard Low Level* MDL*
*surcharge for these limits

Purge Number:
 1P 3P 7P 10P

Shut-In Test: N

Report Options:
 EDD _____
 EDF* - 10% Surcharge _____

***Global ID:** _____

LAB USE ONLY

Jones Project #
E-1173

Page
3 of 3

Sample Container:
GASTIGHT GLASS SYRINGE
If different than above, see notes.

Report To:
Susan L Mearns PhD

Sampler:
Casey Ellis

Tracer:
 n-pentane
 n-hexane
 n-heptane
 Isopropyl Alcohol
 1,1-DFA

Analysis Requested:

Sample Matrix: Soil Gas (SG), Air (A), Natural (N)	EPA 8208 (VOCs)	Gasoline Range Organics	Magnethelic Vacuum (mVH ₂ O)	Number of Containers
SG	X	X	36	1
SG	X	X	<2	1
SG	X	X	36	1
SG	X	X	<2	1

Units: **100/m³**

Sample ID	Purge Number	Purge Volume (mL)	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample ID	Purge Rate (mL/min)	Pump Used	Magnethelic	Sample Matrix: Soil Gas (SG), Air (A), Natural (N)	EPA 8208 (VOCs)	Gasoline Range Organics	Magnethelic Vacuum (mVH ₂ O)	Number of Containers	Notes & Special Instructions
SV18-15'	3	1470	7/28/21	10:14	10:17	E-1173-21	200	CASEY.2	M100.114	SG	X	X	36	1	
SV19-5'	3	1310	7/28/21	10:32	10:36	E-1173-22	200	CASEY.1	M100.201	SG	X	X	<2	1	
SV18-15' DIL	-	-	7/28/21	10:46	10:48	-	-	CASEY.2	M100.114	SG	X	X	36	1	
SV19-5' DIL	-	-	7/28/21	11:10	11:12	-	-	CASEY.1	M100.201	SG	X	X	<2	1	

Representative Signature: *[Signature]*

Printed Name: SUSAN MEARNS

Company: Mearns Consulting Group

Date: 7/28/2021 **Time:** 11:45

Laboratory Signature: *[Signature]*

Printed Name: CASEY ELLIS

Company: JONES ENVIRONMENTAL, INC.

Date: 7/28/2021 **Time:** 11:45

4 Total Number of Containers

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been requested, and the information provided herein is correct and accurate.

APPENDIX C

Boring Logs

Boring Location	SV1	Elevation and Datum	GROUND SURFACE		
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET		
Drilling Equipment	Geoprobe 7800	Number of Samples	3		
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA		
Type of Perforation	6" SS slotted probe	Start Date	7/12/21	Completion Date	7/12/21
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA		
Type of Seal	BENTONITE	Logged By	SRF	Checked By	SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1								
2								
3								
4								
5	CLAY: Lt brn, firm, dense, masive Pr Plasticity		CL	#3 Sand 1/4" poly tubing	0	SV1-5'	5-5.5'	NO STAIN NO ODOR
6								
7								
8								
9								
10	CLAY: Lt-med brn, firm, dense, massive pr plastivity		CL		0	SV1-10'	10.0-10.5	NO STAIN NO ODOR
11								
12								
13								
14	SAND: Gry-Grn, v fn massive, "sugar Sand"			Hydrated bentonite 6" SS Probe				
15								
16	TD 15.5'		SP		0	SV1-15'	15-15.5	NO STAIN NO ODOR

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BORING LOG SV1

Town Center NW
Signal Hill, California

Project Number

Date

PM

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Boring Location	SV2	Elevation and Datum	GROUND SURFACE		
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET		
Drilling Equipment	Geoprobe 7800	Number of Samples	3		
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA		
Type of Perforation	6" SS slotted probe	Start Date	7/12/21	Completion Date	7/12/21
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA		
Type of Seal	BENTONITE	Logged By	SRF	Checked By	SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1								
2								
3								
4								
5	CLAY: Lt brn, firm, dense, masive Pr Plasticity		CL	#3 Sand 1/4" poly tubing	0	SV2-5'	5-5.5'	NO STAIN NO ODOR
6								
7								
8								
9								
10	CLAY: Lt-med brn, firm, dense, massive pr plasticity		CL	Bentonite	0	SV2-10'	10.0-10.5	NO STAIN NO ODOR
11								
12								
13								
14								
15	SILT: Buff, massive, v fn sandy TD 15.5'		ML	Hydrated bentonite 6" SS Probe	0	SV2-15'	15-15.5	NO STAIN NO ODOR
16								

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BORING LOG SV2
Town Center NW
Signal Hill, California

Boring Location	SV3	Elevation and Datum	GROUND SURFACE	
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET	
Drilling Equipment	Geoprobe 7800	Number of Samples	3	
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA	
Type of Perforation	6" SS slotted probe	Start Date	7/12/21	Completion Date
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA	
Type of Seal	BENTONITE	Logged By	SRF	Checked By
				SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1								
2								
3								
4								
5	CLAY: Lt brn, firm, dense, masive Pr Plasticity		CL		0	SV3-5'	5-5.5'	NO STAIN NO ODOR
6								
7								
8								
9								
10	CLAY: Lt-med brn, firm, dense, massive pr plasticity		CL		0	SV3-10'	10.0-10.5	NO STAIN NO ODOR
11								
12								
13								
14								
15	SILT: Buff, massive, v fn sandy TD 15.5'		ML		0	SV3-15'	15-15.5	NO STAIN NO ODOR
16								

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BORING LOG SV3

Town Center NW
Signal Hill, California

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Boring Location	SV4	Elevation and Datum	GROUND SURFACE	
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET	
Drilling Equipment	Geoprobe 7800	Number of Samples	3	
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA	
Type of Perforation	6" SS slotted probe	Start Date	7/12/21	Completion Date
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA	
Type of Seal	BENTONITE	Logged By	SRF	Checked By
				SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1								
2								
3								
4								
5	CLAY: Lt brn, firm, dense, masive Pr Plasticity		CL	#3 Sand	0	SV4-5'	5-5.5'	NO STAIN NO ODOR
6								
7				Bentonite				
8	Macro core refusal 8', change to large bore			1/4" poly tubing				
9								
10	CLAY: Lt-med brn, firm, dense, massive pr plasticity		CL		0	SV4-10'	10.0-10.5	NO STAIN NO ODOR
11								
12								
13								
14				Hydrated bentonite				
15	SILT: Buff, massive, v fn sandy TD 15.5'		ML	6" SS Probe	0	SV4-15'	15-15.5	NO STAIN NO ODOR
16								

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BORING LOG SV4
Town Center NW
Signal Hill, California

Boring Location	SV5	Elevation and Datum	GROUND SURFACE		
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET		
Drilling Equipment	Geoprobe 7800	Number of Samples	3		
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA		
Type of Perforation	6" SS slotted probe	Start Date	7/12/21	Completion Date	7/12/21
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA		
Type of Seal	BENTONITE	Logged By	SRF	Checked By	SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1								
2								
3								
4								
5	CLAY: Med brn, firm, dense, masive Pr Plasticity		CL	#3 Sand	0	SV5-5'	5-5.5'	NO STAIN NO ODOR
6								
7				Bentonite				
8				1/4" poly tubing				
9								
10	CLAY: Lt-med brn, firm, dense, massive silty, pr plasticity		CL		0	SV5-10'	10.0-10.5'	NO STAIN NO ODOR
11								
12								
13								
14				Hydrated bentonite				
15	SILT: Buff, massive, v fn sandy TD 15.5'		ML	6" SS Probe	0	SV5-15'	15-15.5'	NO STAIN NO ODOR
16								

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BORING LOG SV5
Town Center NW
Signal Hill, California

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Boring Location	SV6	Elevation and Datum	GROUND SURFACE	
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET	
Drilling Equipment	Geoprobe 7800	Number of Samples	3	
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA	
Type of Perforation	6" SS slotted probe	Start Date	7/13/21	Completion Date
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA	
Type of Seal	BENTONITE	Logged By	SRF	Checked By
				SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1								
2								
3								
4								
5	CLAY: Lt brn, firm, dense, masive Pr Plasticity		CL		0	SV6-5'	5-5.5'	NO STAIN NO ODOR
6								
7								
8								
9								
10	CLAY: Lt-med brn, firm, dense, massive pr plasticity		CL		0	SV6-10'	10.0-10.5	NO STAIN NO ODOR
11								
12								
13								
14								
15	SILT: Off wht, massive, v fn sandy TD 15.5'		ML		0	SV6-15'	15-15.5	NO STAIN NO ODOR
16								

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BORING LOG SV6
Town Center NW
Signal Hill, California

Boring Location	SV7	Elevation and Datum	GROUND SURFACE		
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET		
Drilling Equipment	Geoprobe 7800	Number of Samples	3		
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA		
Type of Perforation	6" SS slotted probe	Start Date	7/13/21	Completion Date	7/13/21
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA		
Type of Seal	BENTONITE	Logged By	SRF	Checked By	SRF







DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1								
2								
3								
4								
5	CLAY: Lt brn, firm, dense, masive Pr Plasticity		CL		0	SV7-5'	5-5.5'	NO STAIN NO ODOR
6								
7								
8								
9								
10	CLAY: Lt-med brn, firm, dense, massive pr plasticity		CL		0	SV7-10'	10.0-10.5'	NO STAIN NO ODOR
11								
12								
13								
14								
15	SILT: Buff, massive, v fn sandy TD 15.5'		ML		0	SV7-15'	15-15.5'	NO STAIN NO ODOR
16								

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BORING LOG SV7

Town Center NW
Signal Hill, California

Boring Location	SV8	Elevation and Datum	GROUND SURFACE	
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET	
Drilling Equipment	Geoprobe 7800	Number of Samples	3	
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA	
Type of Perforation	6" SS slotted probe	Start Date	7/13/21	Completion Date
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA	
Type of Seal	BENTONITE	Logged By	SRF	Checked By
				SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1								
2								
3								
4								
5	CLAY: Lt brn, firm, dense, masive Pr Plasticity		CL		0	SV8-5'	5-5.5'	SLT STAIN NO ODOR
6								
7								
8								
9								
10	CLAY: Lt-med brn, firm, dense, massive pr plasticity		CL		0	SV8-10'	10.0-10.5	NO STAIN NO ODOR
11								
12								
13								
14								
15	CLAY Buff, firm, massive, silty TD 15.5' pr plasticity		CL		0	SV8-15'	15-15.5	NO STAIN NO ODOR
16								

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BORING LOG SV8

Town Center NW
Signal Hill, California

Project Number

Date




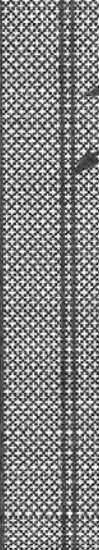


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Boring Location	SV9	Elevation and Datum	GROUND SURFACE	
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET	
Drilling Equipment	Geoprobe 7800	Number of Samples	3	
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA	
Type of Perforation	6" SS slotted probe	Start Date	7/13/21	Completion Date
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA	
Type of Seal	BENTONITE	Logged By	SRF	Checked By
				SRF







DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1								
2								
3								
4								
5	CLAY: Dk brn, firm, dense, masive Pr Plasticity		CL		0	SV9-5.0	5-5.5'	NO STAIN NO ODOR
6								
7								
8								
9								
10	CLAY: Med brn, firm, dense, massive pr plasticity		CL		0	SV9-10'	10.0-10.5'	NO STAIN NO ODOR
11								
12								
13								
14								
15	CLAY Med brn, firm, firm, dense massive, pr plasticity TD 15.5'		CL		0	SV9-15'	15-15.5'	NO STAIN NO ODOR
16								

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BORING LOG SV9
Town Center NW
Signal Hill, California

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Boring Location	SV10	Elevation and Datum	GROUND SURFACE	
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET	
Drilling Equipment	Geoprobe 7800	Number of Samples	3	
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA	
Type of Perforation	6" SS slotted probe	Start Date	7/13/21	Completion Date
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA	
Type of Seal	BENTONITE	Logged By	SRF	Checked By
				SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1								
2								
3								
4								
5	CLAY: Dk brn, firm, dense, masive Pr Plasticity		CL		0	SV10-5.0	5-5.5'	NO STAIN NO ODOR
6								
7								
8								
9								
10	CLAY: Med brn, firm, dense, massive pr plasticity		CL		0	SV10-10'	10.0-10.5	NO STAIN NO ODOR
11								
12								
13								
14								
15	CLAY Med brn, firm, firm, dense massive, pr plasticity TD 15.5'		CL		0	SV10-15'	15-15.5	NO STAIN NO ODOR
16								

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BORING LOG SV10

Town Center NW
Signal Hill, California

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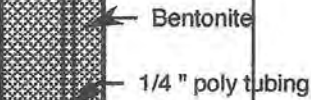

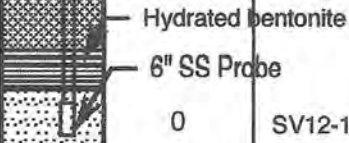
Boring Location	SV11	Elevation and Datum	GROUND SURFACE		
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET		
Drilling Equipment	Geoprobe 7800	Number of Samples	3		
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA		
Type of Perforation	6" SS slotted probe	Start Date	7/13/21	Completion Date	7/13/21
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA		
Type of Seal	BENTONITE	Logged By	SRF	Checked By	SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONST.	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
5	CLAY: Dk brn, firm, dense, masive Pr Plasticity		CL		0	SV11-5.0	5-5.5'	SLT STAIN V SLT ODOR
10	CLAY: Med brn, firm, dense, massive pr plasticity		CL		0	SV11-10'	10.0-10.5'	NO STAIN NO ODOR
15	CLAY Med brn, firm, firm, dense massive, pr plasticity TD 15.5'		CL		0	SV11-15'	15-15.5'	NO STAIN NO ODOR

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BORING LOG SV11
Town Center NW
Signal Hill, California

Boring Location	SV12	Elevation and Datum	GROUND SURFACE	
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET	
Drilling Equipment	Geoprobe 7800	Number of Samples	3	
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA	
Type of Perforation	6" SS slotted probe	Start Date	7/13/21	Completion Date
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA	
Type of Seal	BENTONITE	Logged By	SRF	Checked By
				SRF


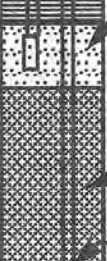



DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1								
2								
3								
4								
5	CLAY: Dk brn, firm, dense, masive Pr Plasticity		CL		0	SV12-5.0	5-5.5'	NO STAIN NO ODOR
6								
7								
8								
9								
10	CLAY: Med brn, firm, dense, massive pr plasticity		CL		0	SV12-10'	10.0-10.5'	NO STAIN NO ODOR
11								
12								
13								
14								
15	SILT: Buff, massive, v fn sandy TD 15.5'		ML		0	SV12-15'	15-15.5'	NO STAIN NO ODOR
16								

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BORING LOG SV12
Town Center NW
Signal Hill, California

Project Number	Date	PM	Page
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Boring Location	SV14	Elevation and Datum	GROUND SURFACE	
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET	
Drilling Equipment	Geoprobe 7800	Number of Samples	3	
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA	
Type of Perforation	6" SS slotted probe	Start Date	7/13/21	Completion Date
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA	
Type of Seal	BENTONITE	Logged By	SRF	Checked By
				SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1								
2								
3								
4								
5	CLAY: Lt brn, firm, dense, masive Pr Plasticity		CL		0	SV14-5.0	5-5.5'	NO STAIN NO ODOR
6								
7								
8								
9								
10	CLAY: Lt brn, firm, dense, massive pr plasticity		CL		0	SV14-10'	10.0-10.5'	NO STAIN NO ODOR
11								
12								
13								
14								
15	CLAY: Lt brn, silty, massive, pr plasticity TD 15.5'		CL		0	SV14-15'	15-15.5'	NO STAIN NO ODOR
16								

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BORING LOG SV14

Town Center NW
Signal Hill, California

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Boring Location	SV15	Elevation and Datum	GROUND SURFACE	
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET	
Drilling Equipment	Geoprobe 7800	Number of Samples	3	
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA	
Type of Perforation	6" SS slotted probe	Start Date	7/13/21	Completion Date
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA	
Type of Seal	BENTONITE	Logged By	SRF	Checked By
				SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1								
2								
3								
4								
5	CLAY: Lt brn, firm, dense, masive Pr Plasticity		CL	#3 Sand 1/4" poly tubing	0	SV15-5.0	5-5.5'	NO STAIN NO ODOR
6								
7								
8								
9								
10	CLAY: Lt brn, firm, dense, massive pr plasticity		CL		0	SV15-10'	10.0-10.5	NO STAIN NO ODOR
11								
12								
13								
14								
15	CLAY: Buff, massive TD 15.5'		ML	Hydrated bentonite 6" SS Probe	0	SV15-15'	15-15.5	NO STAIN NO ODOR
16								

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BORING LOG SV15

Town Center NW
Signal Hill, California

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Boring Location	SV16	Elevation and Datum	GROUND SURFACE	
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET	
Drilling Equipment	Geoprobe 7800	Number of Samples	3	
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA	
Type of Perforation	6" SS slotted probe	Start Date	7/13/21	Completion Date
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA	
Type of Seal	BENTONITE	Logged By	SRF	Checked By
				SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1								
2								
3								
4								
5	CLAY: Med brn, firm, dense, masive Pr Plasticity		CL	#3 Sand 1 Bentonite 1/4" poly tubing	0	SV16-5.0	5-5.5'	NO STAIN NO ODOR
6								
7								
8								
9								
10	CLAY: Lt brn, firm, dense, massive pr plasticity		CL		0	SV16-10'	10.0-10.5'	NO STAIN NO ODOR
11								
12								
13								
14								
15	CLAY: Dk brn-blk, firm, dense, massive pr plassticity TD 15.5'		CL	Hydrated bentonite 6" SS Probe	4.7	SV16-15'	15-15.5'	SLT STAIN SLT ODOR
16								

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BORING LOG SV16

Town Center NW
Signal Hill, California

Project Number	Date	PM	Page
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Boring Location	SV17	Elevation and Datum	GROUND SURFACE		
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET		
Drilling Equipment	Geoprobe 7800	Number of Samples	3		
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA		
Type of Perforation	6" SS slotted probe	Start Date	7/13/21	Completion Date	7/13/21
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA		
Type of Seal	BENTONITE	Logged By	SRF	Checked By	SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
0-4		Gravel						
5	CLAY: Med brn, firm, dense, masive Pr Plasticity		CL	#3 Sand	0	SV17-5.0	5-5.5'	V SLT STAIN NO ODOR
5-7				Bentonite				
7-8				1/4" poly tubing				
10	CLAY: Lt brn, firm, dense, massive pr plasticity		CL		0	SV17-10'	10.0-10.5'	V SLT STAIN NO ODOR
14				Hydrated bentonite				
15	CLAY: Dk brn, firm, dense, massive pr plasticity TD 15.5'		CL	6" SS Probe	0	SV17-15'	15-15.5'	V SLT STAIN NO ODOR

**MEARNS
CONSULTING
CORP.**

BORING LOG SV17

Town Center NW
Signal Hill, California

Project Number	Date	PM	Page
	July 13, 2021		1 of 1

Boring Location	SV18	Elevation and Datum	GROUND SURFACE	
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET	
Drilling Equipment	Geoprobe 7800	Number of Samples	3	
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA	
Type of Perforation	6" SS slotted probe	Start Date	7/13/21	Completion Date
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA	
Type of Seal	BENTONITE	Logged By	SRF	Checked By
				SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
5	CLAY: Med brn, firm, dense, masive Pr Plasticity		CL	#3 Sand Bentonite 1/4" poly tubing	0	SV18-5.0	5-5.5'	V SLT STAIN NO ODOR
10	CLAY: Blk, firm, dense, massive pr plasticity		CL	Hydrated bentonite 6" SS Probe	16.7	SV18-10'	10.0-10.5'	MOD SLT STAIN SLT ODOR
15	CLAY: Blk., firm, dense, massive TD 15.5' pr plassticity		CL		11.7	SV18-15'	15-15.5'	MOD STAIN SLT ODOR

**MEARNS
CONSULTING
CORP.**

BORING LOG SV18

Town Center NW
Signal Hill, California

Boring Location	SV19	Elevation and Datum	GROUND SURFACE		
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET		
Drilling Equipment	Geoprobe 7800	Number of Samples	3		
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA		
Type of Perforation	6" SS slotted probe	Start Date	7/13/21	Completion Date	7/13/21
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA		
Type of Seal	BENTONITE	Logged By	SRF	Checked By	SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1				1/4" poly tubing				
2				Hydrated bentonite				
3				#3 Sand				
4				Bentonite				
5	CLAY: Blk, firm, dense, masive Pr Plasticity	CL			1384	SV19-5.0	5-5.5'	GD STAIN MOD ODOR
6								
7								
8								
9								
10	CLAY: Blk., dense, massive, moist pr plasticity	CL			681	SV19-10'	10.0-10.5'	GD STAIN MOD ODOR
11								
12								
13								
14								
15	CLAY: Blk., firm, dense, massive, moist TD 15.5' pr plassticity	CL			908	SV19-15'	15-15.5'	GD STAIN MOD ODOR
16								

**MEARNS
CONSULTING
CORP.**

BORING LOG SV19

Town Center NW
Signal Hill, California

APPENDIX D

**Sierra Analytical Labs, Inc.
Background Soil Matrix Analytical Data
April 2005 & July 2021**



Mearns Consulting Corporation
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: City of Signal Hill
 Project Number: Las Brisas
 Project Manager: Susan Mearns

Reported:
 04/12/05 14:01

Metals by EPA 6000/7000 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Offsite-1 (0504072-33) Soil Sampled: 04/04/05 13:20 Received: 04/04/05 14:15										
Silver	ND	0.80		mg/kg	1	B5D0709	04/07/05	04/11/05	EPA 6010B	
Arsenic	5.2	1.7		"	"	"	"	"	"	
Barium	97	3.3		"	"	"	"	"	"	
Beryllium	ND	0.75		"	"	"	"	"	"	
Cadmium	ND	0.51		"	"	"	"	"	"	
Cobalt	8.1	2.2		"	"	"	"	"	"	
Chromium	21	0.98		"	"	"	"	"	"	
Copper	25	2.2		"	"	"	"	"	"	
Mercury	ND	0.16		"	"	B5D0711	04/07/05	04/08/05	EPA 7471A	
Molybdenum	ND	1.7		"	"	B5D0709	04/07/05	04/11/05	EPA 6010B	
Nickel	12	0.79		"	"	"	"	"	"	
Lead	12	1.3		"	"	"	"	"	"	
Antimony	ND	1.6		"	"	"	"	"	"	
Selenium	ND	1.9		"	"	"	"	"	"	
Thallium	ND	1.5		"	"	"	"	"	"	
Vanadium	35	0.73		"	"	"	"	"	"	
Zinc	62	1.3		"	"	"	"	"	"	
Offsite-5 (0504072-34) Soil Sampled: 04/04/05 13:25 Received: 04/04/05 14:15										
Silver	ND	0.80		mg/kg	1	B5D0709	04/07/05	04/11/05	EPA 6010B	
Arsenic	12	1.7		"	"	"	"	"	"	
Barium	160	3.3		"	"	"	"	"	"	
Beryllium	1.1	0.75		"	"	"	"	"	"	
Cadmium	ND	0.51		"	"	"	"	"	"	
Cobalt	17	2.2		"	"	"	"	"	"	
Chromium	50	0.98		"	"	"	"	"	"	
Copper	64	2.2		"	"	"	"	"	"	
Mercury	ND	0.18		"	"	B5D0711	04/07/05	04/08/05	EPA 7471A	
Molybdenum	ND	1.7		"	"	B5D0709	04/07/05	04/11/05	EPA 6010B	
Nickel	30	0.79		"	"	"	"	"	"	
Lead	8.1	1.3		"	"	"	"	"	"	
Antimony	2.3	1.6		"	"	"	"	"	"	
Selenium	ND	1.9		"	"	"	"	"	"	
Thallium	ND	1.5		"	"	"	"	"	"	
Vanadium	75	0.73		"	"	"	"	"	"	
Zinc	99	1.3		"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting Corporation
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: City of Signal Hill
 Project Number: Las Brisas
 Project Manager: Susan Mearns

Reported:
 04/12/05 14:01

Metals by EPA 6000/7000 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Offsite-10 (0504072-35) Soil Sampled: 04/04/05 13:29 Received: 04/04/05 14:15										
Silver	ND	0.80		mg/kg	1	B5D0709	04/07/05	04/11/05	EPA 6010B	
Arsenic	12	1.7		"	"	"	"	"	"	"
Barium	170	3.3		"	"	"	"	"	"	"
Beryllium	ND	0.75		"	"	"	"	"	"	"
Cadmium	ND	0.51		"	"	"	"	"	"	"
Cobalt	14	2.2		"	"	"	"	"	"	"
Chromium	32	0.98		"	"	"	"	"	"	"
Copper	35	2.2		"	"	"	"	"	"	"
Mercury	ND	0.18		"	"	B5D0711	04/07/05	04/08/05	EPA 7471A	
Molybdenum	ND	1.7		"	"	B5D0709	04/07/05	04/11/05	EPA 6010B	
Nickel	22	0.79		"	"	"	"	"	"	"
Lead	5.6	1.3		"	"	"	"	"	"	"
Antimony	ND	1.6		"	"	"	"	"	"	"
Selenium	ND	1.9		"	"	"	"	"	"	"
Thallium	ND	1.5		"	"	"	"	"	"	"
Vanadium	58	0.73		"	"	"	"	"	"	"
Zinc	67	1.3		"	"	"	"	"	"	"

Offsite-20 (0504072-36) Soil Sampled: 04/04/05 13:36 Received: 04/04/05 14:15

Silver	ND	0.80		mg/kg	1	B5D0709	04/07/05	04/11/05	EPA 6010B	
Arsenic	14	1.7		"	"	"	"	"	"	"
Barium	73	3.3		"	"	"	"	"	"	"
Beryllium	0.95	0.75		"	"	"	"	"	"	"
Cadmium	ND	0.51		"	"	"	"	"	"	"
Cobalt	17	2.2		"	"	"	"	"	"	"
Chromium	35	0.98		"	"	"	"	"	"	"
Copper	80	2.2		"	"	"	"	"	"	"
Mercury	ND	0.15		"	"	B5D0711	04/07/05	04/08/05	EPA 7471A	
Molybdenum	ND	1.7		"	"	B5D0709	04/07/05	04/11/05	EPA 6010B	
Nickel	22	0.79		"	"	"	"	"	"	"
Lead	10	1.3		"	"	"	"	"	"	"
Antimony	ND	1.6		"	"	"	"	"	"	"
Selenium	ND	1.9		"	"	"	"	"	"	"
Thallium	ND	1.5		"	"	"	"	"	"	"
Vanadium	67	0.73		"	"	"	"	"	"	"
Zinc	95	1.3		"	"	"	"	"	"	"

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



13 July 2021

Susan Mearns
Mearns Consulting LLC
738 Ashland Avenue
Santa Monica, CA 90405

RE:1905 E 21st St. - Spud Field

Work Order No.: 2107058

Attached are the results of the analyses for samples received by the laboratory on 07/06/21 14:35.

The samples were received by Sierra Analytical Labs, Inc. with a chain of custody record attached or completed at the submittal of the samples.

The analyses were performed according to the prescribed method as outlined by EPA, Standard Methods, and A.S.T.M.

The remaining portions of the samples will be disposed of within 30 days from the date of this report.
If you require any additional retaining time, please advise us.

Sincerely,

A handwritten signature in black ink that reads "Richard K. Forsyth". The signature is written in a cursive style and is positioned above a horizontal line.

Richard K. Forsyth

Laboratory Director

Sierra Analytical Labs, Inc. is certified by the California Department of Health Services (DOHS),
Environmental Laboratory Accreditation Program (ELAP) No. 2320.



Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: 1905 E 21st St. - Spud Field
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/13/21 12:23

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB1-5	2107058-01	Soil	07/06/21 07:40	07/06/21 14:35
SB2-5	2107058-02	Soil	07/06/21 07:51	07/06/21 14:35
SB3-5	2107058-03	Soil	07/06/21 08:01	07/06/21 14:35
SB4-5	2107058-04	Soil	07/06/21 08:08	07/06/21 14:35
SB5-5	2107058-05	Soil	07/06/21 08:16	07/06/21 14:35
SB6-5	2107058-06	Soil	07/06/21 08:23	07/06/21 14:35
SB7-5	2107058-07	Soil	07/06/21 08:31	07/06/21 14:35
SB8-5	2107058-08	Soil	07/06/21 08:38	07/06/21 14:35
SB9-5	2107058-09	Soil	07/06/21 08:47	07/06/21 14:35
SB10-5	2107058-10	Soil	07/06/21 08:58	07/06/21 14:35
SB11-5	2107058-11	Soil	07/06/21 09:10	07/06/21 14:35

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: 1905 E 21st St. - Spud Field
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/13/21 12:23

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SB1-5 (2107058-01) Soil Sampled: 07/06/21 07:40 Received: 07/06/21 14:35

Silver	ND	2.0	mg/kg	1	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	84	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	11	3.3	"	"	"	"	"	"	
Chromium	36	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G0711	07/07/21	07/09/21 12:47	EPA 7199A	
Copper	40	5.0	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Mercury	ND	0.90	"	"	B1G0613	07/06/21	07/06/21 20:35	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Nickel	21	3.0	"	"	"	"	"	"	
Lead	8.8	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	46	5.1	"	"	"	"	"	"	
Zinc	54	7.0	"	"	"	"	"	"	

SB2-5 (2107058-02) Soil Sampled: 07/06/21 07:51 Received: 07/06/21 14:35

Silver	ND	2.0	mg/kg	1	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	69	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	9.3	3.3	"	"	"	"	"	"	
Chromium	21	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G0711	07/07/21	07/09/21 12:47	EPA 7199A	
Copper	26	5.0	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Mercury	ND	0.90	"	"	B1G0613	07/06/21	07/06/21 20:35	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Nickel	15	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	36	5.1	"	"	"	"	"	"	
Zinc	39	7.0	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: 1905 E 21st St. - Spud Field
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/13/21 12:23

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SB3-5 (2107058-03) Soil Sampled: 07/06/21 08:01 Received: 07/06/21 14:35

Silver	ND	2.0	mg/kg	1	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	48	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	4.6	3.3	"	"	"	"	"	"	
Chromium	9.0	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G0711	07/07/21	07/09/21 12:47	EPA 7199A	
Copper	16	5.0	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Mercury	ND	0.90	"	"	B1G0613	07/06/21	07/06/21 20:35	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Nickel	6.2	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	16	5.1	"	"	"	"	"	"	
Zinc	29	7.0	"	"	"	"	"	"	

SB4-5 (2107058-04) Soil Sampled: 07/06/21 08:08 Received: 07/06/21 14:35

Silver	ND	2.0	mg/kg	1	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	170	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	14	3.3	"	"	"	"	"	"	
Chromium	42	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G0711	07/07/21	07/09/21 12:47	EPA 7199A	
Copper	45	5.0	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Mercury	ND	0.90	"	"	B1G0613	07/06/21	07/06/21 20:35	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Nickel	26	3.0	"	"	"	"	"	"	
Lead	9.5	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	58	5.1	"	"	"	"	"	"	
Zinc	74	7.0	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: 1905 E 21st St. - Spud Field
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/13/21 12:23

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SB5-5 (2107058-05) Soil Sampled: 07/06/21 08:16 Received: 07/06/21 14:35

Silver	ND	2.0	mg/kg	1	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	97	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	16	3.3	"	"	"	"	"	"	
Chromium	30	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G0711	07/07/21	07/09/21 12:47	EPA 7199A	
Copper	40	5.0	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Mercury	ND	0.90	"	"	B1G0613	07/06/21	07/06/21 20:35	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Nickel	27	3.0	"	"	"	"	"	"	
Lead	8.5	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	52	5.1	"	"	"	"	"	"	
Zinc	56	7.0	"	"	"	"	"	"	

SB6-5 (2107058-06) Soil Sampled: 07/06/21 08:23 Received: 07/06/21 14:35

Silver	ND	2.0	mg/kg	1	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	130	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	22	3.3	"	"	"	"	"	"	
Chromium	42	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G0711	07/07/21	07/09/21 12:47	EPA 7199A	
Copper	46	5.0	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Mercury	ND	0.90	"	"	B1G0613	07/06/21	07/06/21 20:35	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Nickel	33	3.0	"	"	"	"	"	"	
Lead	11	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	71	5.1	"	"	"	"	"	"	
Zinc	85	7.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: 1905 E 21st St. - Spud Field
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/13/21 12:23

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SB7-5 (2107058-07) Soil Sampled: 07/06/21 08:31 Received: 07/06/21 14:35

Silver	ND	2.0	mg/kg	1	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	80	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	12	3.3	"	"	"	"	"	"	
Chromium	24	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G0711	07/07/21	07/09/21 12:47	EPA 7199A	
Copper	26	5.0	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Mercury	ND	0.90	"	"	B1G0613	07/06/21	07/06/21 20:35	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Nickel	19	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	43	5.1	"	"	"	"	"	"	
Zinc	47	7.0	"	"	"	"	"	"	

SB8-5 (2107058-08) Soil Sampled: 07/06/21 08:38 Received: 07/06/21 14:35

Silver	ND	2.0	mg/kg	1	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	180	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	17	3.3	"	"	"	"	"	"	
Chromium	38	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G0711	07/07/21	07/09/21 12:47	EPA 7199A	
Copper	37	5.0	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Mercury	ND	0.90	"	"	B1G0613	07/06/21	07/06/21 20:35	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Nickel	32	3.0	"	"	"	"	"	"	
Lead	11	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	68	5.1	"	"	"	"	"	"	
Zinc	51	7.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: 1905 E 21st St. - Spud Field
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/13/21 12:23

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SB9-5 (2107058-09) Soil Sampled: 07/06/21 08:47 Received: 07/06/21 14:35									
Silver	ND	2.0	mg/kg	1	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	87	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	14	3.3	"	"	"	"	"	"	
Chromium	30	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G0711	07/07/21	07/09/21 12:47	EPA 7199A	
Copper	28	5.0	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Mercury	ND	0.90	"	"	B1G0613	07/06/21	07/06/21 20:35	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Nickel	24	3.0	"	"	"	"	"	"	
Lead	9.0	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	54	5.1	"	"	"	"	"	"	
Zinc	38	7.0	"	"	"	"	"	"	

SB10-5 (2107058-10) Soil Sampled: 07/06/21 08:58 Received: 07/06/21 14:35

Silver	ND	2.0	mg/kg	1	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	98	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	13	3.3	"	"	"	"	"	"	
Chromium	27	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G0711	07/07/21	07/09/21 12:47	EPA 7199A	
Copper	30	5.0	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Mercury	ND	0.90	"	"	B1G0613	07/06/21	07/06/21 20:35	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Nickel	23	3.0	"	"	"	"	"	"	
Lead	7.5	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	51	5.1	"	"	"	"	"	"	
Zinc	39	7.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: 1905 E 21st St. - Spud Field
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/13/21 12:23

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SB11-5 (2107058-11) Soil Sampled: 07/06/21 09:10 Received: 07/06/21 14:35										
Silver	ND	2.0		mg/kg	1	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Arsenic	ND	5.5		"	"	"	"	"	"	
Barium	120	6.0		"	"	"	"	"	"	
Beryllium	ND	2.2		"	"	"	"	"	"	
Cadmium	ND	2.5		"	"	"	"	"	"	
Cobalt	9.8	3.3		"	"	"	"	"	"	
Chromium	22	2.3		"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10		"	"	B1G0711	07/07/21	07/09/21 12:47	EPA 7199A	
Copper	14	5.0		"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Mercury	ND	0.90		"	"	B1G0613	07/06/21	07/06/21 20:35	EPA 7471A	
Molybdenum	ND	5.2		"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Nickel	16	3.0		"	"	"	"	"	"	
Lead	ND	7.1		"	"	"	"	"	"	
Antimony	ND	8.0		"	"	"	"	"	"	
Selenium	ND	6.9		"	"	"	"	"	"	
Thallium	ND	17		"	"	"	"	"	"	
Vanadium	39	5.1		"	"	"	"	"	"	
Zinc	31	7.0		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: 1905 E 21st St. - Spud Field
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/13/21 12:23

Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G0611 - EPA 3050B

Blank (B1G0611-BLK1)

Prepared: 07/06/21 Analyzed: 07/07/21

Antimony	ND	8.0	mg/kg							
Selenium	ND	6.9	"							
Cadmium	ND	2.5	"							
Vanadium	ND	5.1	"							
Chromium	ND	2.3	"							
Cobalt	ND	3.3	"							
Zinc	ND	7.0	"							
Thallium	ND	17	"							
Copper	ND	5.0	"							
Barium	ND	6.0	"							
Lead	ND	7.1	"							
Arsenic	ND	5.5	"							
Molybdenum	ND	5.2	"							
Nickel	ND	3.0	"							
Silver	ND	2.0	"							
Beryllium	ND	2.2	"							

LCS (B1G0611-BS1)

Prepared: 07/06/21 Analyzed: 07/07/21

Copper	107	5.0	mg/kg	100		107	78-122			
Lead	112	7.1	"	100		112	80-120			
Antimony	103	8.0	"	100		103	75-125			
Chromium	111	2.3	"	100		111	80-120			
Selenium	105	6.9	"	100		105	76-124			
Cobalt	119	3.3	"	100		119	80-120			
Beryllium	107	2.2	"	100		107	80-120			
Silver	106	2.0	"	100		106	60-140			
Arsenic	105	5.5	"	100		105	78-122			
Barium	112	6.0	"	100		112	80-120			
Zinc	110	7.0	"	100		110	80-120			
Nickel	119	3.0	"	100		119	80-120			
Vanadium	107	5.1	"	100		107	80-120			
Cadmium	103	2.5	"	100		103	80-120			
Molybdenum	108	5.2	"	100		108	80-120			
Thallium	114	17	"	100		114	80-120			

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: 1905 E 21st St. - Spud Field
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/13/21 12:23

Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G0611 - EPA 3050B

LCS Dup (B1G0611-BSD1)

Prepared: 07/06/21 Analyzed: 07/07/21

Beryllium	105	2.2	mg/kg	100	105	80-120	1.49	20	
Chromium	106	2.3	"	100	106	80-120	4.14	20	
Cadmium	97.5	2.5	"	100	97.5	80-120	5.78	20	
Copper	112	5.0	"	100	112	78-122	4.64	20	
Arsenic	101	5.5	"	100	101	78-122	3.70	20	
Cobalt	116	3.3	"	100	116	80-120	2.58	20	
Silver	108	2.0	"	100	108	60-140	1.96	40	
Molybdenum	105	5.2	"	100	105	80-120	3.50	20	
Barium	109	6.0	"	100	109	80-120	2.55	20	
Vanadium	105	5.1	"	100	105	80-120	1.32	20	
Selenium	100	6.9	"	100	100	76-124	4.29	20	
Antimony	112	8.0	"	100	112	75-125	8.57	20	
Nickel	115	3.0	"	100	115	80-120	3.21	20	
Lead	115	7.1	"	100	115	80-120	3.08	20	
Thallium	107	17	"	100	107	80-120	6.02	20	
Zinc	109	7.0	"	100	109	80-120	1.23	20	

Matrix Spike (B1G0611-MS1)

Source: 2107028-01

Prepared: 07/06/21 Analyzed: 07/07/21

Vanadium	126	5.1	mg/kg	96.8	32.6	96.9	70-130		
Barium	192	6.0	"	96.8	83.1	113	70-130		
Cobalt	102	3.3	"	96.8	7.94	97.4	70-130		
Molybdenum	82.1	5.2	"	96.8	0.635	84.2	70-130		
Cadmium	84.1	2.5	"	96.8	1.03	85.8	70-130		
Zinc	132	7.0	"	96.8	46.6	88.5	70-130		
Arsenic	86.3	5.5	"	96.8	ND	89.2	70-130		
Selenium	86.0	6.9	"	96.8	1.66	87.2	70-130		
Silver	99.9	2.0	"	96.8	0.269	103	60-140		
Beryllium	88.1	2.2	"	96.8	0.220	91.1	70-130		
Antimony	94.6	8.0	"	96.8	5.77	91.8	60-140		
Chromium	109	2.3	"	96.8	17.4	94.5	70-130		
Nickel	110	3.0	"	96.8	15.2	97.7	70-130		
Thallium	85.0	17	"	96.8	ND	87.8	70-130		
Lead	129	7.1	"	96.8	22.8	109	70-130		
Copper	135	5.0	"	96.8	25.5	113	70-130		

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: 1905 E 21st St. - Spud Field
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/13/21 12:23

Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G0611 - EPA 3050B

Matrix Spike Dup (B1G0611-MSD1)

Source: 2107028-01

Prepared: 07/06/21 Analyzed: 07/07/21

Barium	193	6.0	mg/kg	96.7	83.1	114	70-130	0.455	20	
Molybdenum	82.3	5.2	"	96.7	0.635	84.4	70-130	0.168	20	
Silver	98.4	2.0	"	96.7	0.269	101	60-140	1.49	40	
Arsenic	87.1	5.5	"	96.7	ND	90.0	70-130	0.880	20	
Zinc	148	7.0	"	96.7	46.6	105	70-130	11.0	20	
Nickel	107	3.0	"	96.7	15.2	95.2	70-130	2.37	20	
Cobalt	103	3.3	"	96.7	7.94	98.1	70-130	0.588	20	
Copper	136	5.0	"	96.7	25.5	115	70-130	1.31	30	
Beryllium	87.0	2.2	"	96.7	0.220	90.0	70-130	1.31	20	
Thallium	85.1	17	"	96.7	ND	88.0	70-130	0.102	20	
Lead	127	7.1	"	96.7	22.8	108	70-130	1.16	30	
Chromium	110	2.3	"	96.7	17.4	95.8	70-130	1.07	20	
Cadmium	86.2	2.5	"	96.7	1.03	88.1	70-130	2.52	20	
Vanadium	124	5.1	"	96.7	32.6	94.2	70-130	2.17	20	
Antimony	91.9	8.0	"	96.7	5.77	89.1	60-140	2.90	20	
Selenium	87.0	6.9	"	96.7	1.66	88.3	70-130	1.16	20	

Batch B1G0613 - EPA 7471A

Blank (B1G0613-BLK1)

Prepared & Analyzed: 07/06/21

Mercury	ND	0.90	mg/kg							
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LCS (B1G0613-BS1)

Prepared & Analyzed: 07/06/21

Mercury	0.20	0.90	mg/kg	0.167		118	70-130			
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Matrix Spike (B1G0613-MS1)

Source: 2107028-01

Prepared & Analyzed: 07/06/21

Mercury	0.24	0.90	mg/kg	0.163	0.09	90.8	70-130			
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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: 1905 E 21st St. - Spud Field
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/13/21 12:23

Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G0613 - EPA 7471A

Matrix Spike Dup (B1G0613-MSD1)

Source: 2107028-01

Prepared & Analyzed: 07/06/21

Mercury	0.24	0.90	mg/kg	0.162	0.09	89.1	70-130	1.57	30	
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Batch B1G0711 - EPA 3060A

Blank (B1G0711-BLK1)

Prepared: 07/07/21 Analyzed: 07/09/21

Hexavalent Chromium	ND	0.10	mg/kg							
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LCS (B1G0711-BS1)

Prepared: 07/07/21 Analyzed: 07/09/21

Hexavalent Chromium	0.158	0.10	mg/kg	0.150		105	80-120			
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Matrix Spike (B1G0711-MS1)

Source: 2107058-01

Prepared: 07/07/21 Analyzed: 07/09/21

Hexavalent Chromium	0.175	0.10	mg/kg	0.149	0.0273	99.1	75-125			
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Matrix Spike Dup (B1G0711-MSD1)

Source: 2107058-01

Prepared: 07/07/21 Analyzed: 07/09/21

Hexavalent Chromium	0.183	0.10	mg/kg	0.150	0.0273	104	75-125	4.44	20	
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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: 1905 E 21st St. - Spud Field
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/13/21 12:23

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



SIERRA ANALYTICAL

TEL: 949 • 348 • 9389

FAX: 949 • 348 • 9115

26052 Merit Circle • Suite 104 • Laguna Hills, CA • 92653

CHAIN OF CUSTODY RECORD

Date: 7 / 6 / 21

Page: 1 of 2

Lab Work Order No.:

2107058

Client: MEARNS CONSULTING CORP
 Client Address: 738 ASHLAND AVE
SANTA MONICA CA 90405

Client Tel. No.: 310 403 1921
 Client Fax No.: 310 396 6878
 Client Proj. Mgr.: SUSAN L MEARNS PHD

Client Project ID:

1905 E 21st St. SPUD FIELD

Turn Around Time Requested:
 Immediate 24 Hour
 48 Hour 72 Hour
 4 Day 5 Day
 Normal Mobile

Analyses Requested

Analyses Requested	TLLC	Cr 16	Cr 17	Cr 18	Cr 19	Cr 20	Cr 21	Cr 22	Cr 23	Cr 24	Cr 25	Cr 26	Cr 27	Cr 28	Cr 29	Cr 30
	X	X														
	X	X														
	X	X														
	X	X														
	X	X														
	X	X														
	X	X														
	X	X														
	X	X														
	X	X														

Geotracker EDD Info:

Client LOGCODE

Site Global ID

Field Point Names / Comments

Client Sample ID.	Sierra No.	Date	Time	Matrix	Preservative	Container Type	No. of Containers
SB1-5	01	7.6.21	0740	SOIL	ICE	ACETATE SW	1
SB2-5	02		0751				
SB3-5	03		0801				
SB4-5	04		0808				
SB5-5	05		0816				
SB6-5	06		0823				
SB7-5	07		0831				
SB8-5	08		0838				
SB9-5	09		0847				
SB10-5	10		0858				

1. Scott Fagan Shipped Via: HAND DELIVERED
 (Carrier/Waybill No.)

2. Requisitioned By: Scott Fagan Date: 7/6/21 Received By: ALC Date: 7/6/21
 Company: Sierra Time: 2:35 Company: Sierra Time: 1435

3. Requisitioned By: _____ Date: _____ Received By: _____ Date: _____
 Company: _____ Time: _____ Company: _____ Time: _____

Total Number of Containers Submitted to Laboratory

11

Sample Disposal:

- Return to Client
- Lab Disposal *
- Archive max.
- Other

Total Number of Containers Received by Laboratory

11

FOR LABORATORY USE ONLY - Sample Receipt Conditions:

- Intact
- Clipped - Temp (°C) 5.5
- Sample Seals
- Preservative - Verified By: _____
- Properly Labelled
- Other
- Appropriate Sample Container
- Storage Location B2

4. Requisitioned By: _____ Date: _____ Received By: _____ Date: _____
 Company: _____ Time: _____ Company: _____ Time: _____

Special Instructions: COLLECTED VIA GDS PROBE 5410 5' bgs



F11b

Human Health Risk Assessment, Town Center Northwest

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**Human Health Risk Assessment
Northeast Corner E Willow St. and Walnut Avenue
Town Center Northwest
Signal Hill, California 90755**

August 11, 2021

Prepared for:

**City of Signal Hill
2175 Cherry Avenue
Signal Hill, California 90755**

Prepared by:

**Mearns Consulting LLC
738 Ashland Avenue
Santa Monica, California 90405**

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August 11, 2021

via email

Ms. Elise McCaleb, Economic Development and Redevelopment Manager
Ms. Colleen Doan, Community Development Director
City of Signal Hill
2175 Cherry Avenue
Signal Hill, Ca 90755

**RE: Human Health Risk Assessment
Northeast Corner E Willow St., and Walnut Avenue, Town Center Northwest, Signal Hill, California 90755**

Dear Ms. McCaleb and Ms. Doan:

I am pleased to present this Human Health Risk Assessment (HHRA) for the 8.35-acre site located at the northeast corner of the intersection of East Willow Street and Walnut Avenue, known as Town Center Northwest, in Signal Hill, Los Angeles County, California 90755 (the site) pursuant to the contract executed on November 12, 2020.

The historical use of the site is an oil field. Ten previously abandoned oil wells, associated piping runs, historic aboveground storage tanks and oil well sumps are located onsite in addition to operating units, idle units, pipelines and a stormwater drainage system with swales. The Signal Hill Petroleum, Inc. Drill Site located in the northeast portion of the site is not a part of the project.

The objectives of this baseline human health risk assessment are to evaluate potential health risks to human receptors posed by concentrations of constituents detected at least one time in the soil matrix and soil vapor underlying the 8.35-acre property, and (2) to determine mitigation measures protective of human health for the proposed residential development.

This baseline human health risk assessment followed the guidance in the Department of Toxic Substances Control (DTSC) Preliminary Endangerment Assessment (PEA) guidance manual (DTSC 2015), U.S. Environmental Protection Agency Risk Assessment Guidance for Superfund volume 1, Human Health Evaluation Manual (RAGs) (USEPA 2004), the U.S. Environmental Protection Agency Risk Assessment Guidance for Superfund volume 1, Human Health Evaluation Manual (Part F, Supplemental Guidance for Inhalation Risk Assessment) (USEPA 2009), the DTSC Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (DTSC, October 2011), the DRAFT DTSC Supplemental Guidance: Screening and Evaluating Vapor Intrusion (DTSC, February 2020), the San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Levels (ESL) model and the Virginia Department of Environmental Quality Virginia Unified Risk Assessment Model (VURAM).

The results of the human health risk assessment indicate the summed risk of the carcinogenic constituents did exceed the target threshold of 1×10^{-6} for the residential occupants and did exceed the target threshold of 1×10^{-5} for commercial workers. However, the estimated risks for commercial workers are between 10^{-6} and one in 10,000 (10^{-4}) which are "safe and protective of public health" (Federal Register 56(20):3535, 1991) within a risk range acceptable to DTSC (February 2020).

The estimated risk for the construction worker scenario did not exceed the target threshold of 1×10^{-5} .

The results of the human health risk assessment indicate that the estimated summed hazard index of the noncarcinogenic constituents did exceed the target hazard threshold of 1 for the residential occupants and the commercial worker and construction worker scenarios.

Conclusions and Recommendations

A potential future use of the site is multi-family residential. The residual concentrations of benzene, ethylbenzene, methyl tert-butyl ether, naphthalene, tetrachloroethene and gasoline range organics detected in the soil vapor and C13-C22 in the soil matrix poses an adverse impact to future residential occupants. The residual concentration of benzene, ethylbenzene, methyl tert-butyl ether, naphthalene and gasoline range organics in the soil vapor poses an adverse impact to commercial workers. The residual concentration of gasoline range organics in the soil vapor poses an adverse impact to construction workers.

The previously abandoned oil wells should be located, daylighted and methane gas leak tested prior to the installation of vent cones and vent risers pursuant to the City of Signal Hill's Oil and Gas Code §16.24.030 and §16.24.040.

Institutional controls, i.e., a methane mitigation system to be installed subslab of any proposed buildings, pursuant to the City of Signal Hill's Oil and Gas Code §16.24.080 will effectively mitigate risks and hazards due to vapor intrusion to negligible conditions ensuring the site is safe for any future intended use including as a residential property. A redeveloped property precludes exposure to site soils by future residential occupants.

A soil management plan should be prepared prior to any grading activities to be conducted onsite. This soil management plan should provide instructions for the contractor to implement in the event discolored or odiferous soils are discovered during any grading operations. A R1166 permit should be obtained from the AQMD due to the presence of volatiles onsite prior to the start of grading operations.

Additionally construction workers are advised to practice good hygiene and wash their hands prior to smoking or eating or drinking pursuant to 29CFR 1926.1910, 8CCR 4 and 22CCR 2.4 to mitigate contact with soils containing residual concentrations of carbon chains.

Should you have any questions or desire additional information, please contact me at your earliest convenience at 310.403.1921.

Sincerely,

X *Susan Mearns*

Susan L. Mearns, Ph.D.

Mearns Consulting LLC

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EXECUTIVE SUMMARY

The 8.35-acre site located at the northeast corner of the intersection of East Willow Street and Walnut Avenue, is known as Town Center Northwest, in Signal Hill, Los Angeles County, California 90755.

The objectives of this HHRA are: (1) to evaluate potential health risks to human receptors posed by concentrations of constituents detected at least one time in the soil matrix and soil vapor underlying the 8.35-acre property, and (2) to determine mitigation measures protective of human health for the proposed residential/commercial development.

This baseline human health risk assessment followed the guidance in the Department of Toxic Substances Control (DTSC) *Preliminary Endangerment Assessment (PEA)* guidance manual (DTSC 2015), U.S. Environmental Protection Agency *Risk Assessment Guidance for Superfund volume 1, Human Health Evaluation Manual (RAGs)* (USEPA 2004), the U.S. Environmental Protection Agency *Risk Assessment Guidance for Superfund volume 1, Human Health Evaluation Manual (Part F, Supplemental Guidance for Inhalation Risk Assessment)* (USEPA 2009), the DTSC *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air* (DTSC, October 2011), the *DRAFT DTSC Supplemental Guidance: Screening and Evaluating Vapor Intrusion* (DTSC, February 2020), the San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Levels (ESL) model and the Virginia Department of Environmental Quality Virginia Unified Risk Assessment Model (VURAM).

The site is being considered as a multi-family residential redevelopment.

The results of the human health risk assessment indicate the summed risk of the carcinogenic constituents exceeded the target threshold of 1×10^{-6} for the residential occupants and exceeded the target threshold of 1×10^{-5} for the commercial worker scenario. However these estimated risks are between 10^{-6} and one in 10,000 (10^{-4}) which are "safe and protective of public health" (Federal Register 56(20):3535, 1991) and within a risk range acceptable to DTSC (February 2020).

The results of the human health risk assessment indicate that the estimated summed hazard index of the noncarcinogenic constituents exceeded the target hazard threshold of 1 for the residential occupants, the commercial worker and construction worker scenarios.

The estimated risk for the construction worker scenario did not exceed the target threshold of 1×10^{-5} .

A methane assessment of the 8.35-acre site was performed in July 2021 in accordance with the City of Signal Hill Oil and Gas Code §16.24.080, City of Signal Hill Project Development Guide (June 20, 2017), the Los Angeles Department of Building and Safety (LADBS) published, *Site Testing Standards for Methane (Reference No. 91.7104.1, Document No. P/BC 2002- 101)*, effective 11/30/04, and the DTSC Methane Advisories (2005 and 2012). Methane was consistently detected in the field at concentrations as great as 861,000 parts per million by volume (ppmv) in soil vapor probes at 5-ft, 10-ft and 20-ft bgs.

Methane was detected in seven of eight soil vapor samples collected from 10-ft and 20-ft bgs and submitted to the Eurofins stationary laboratory at concentrations of 1.5 ppmv, 3,000 ppmv, 2 ppmv, 8,200 ppmv, 11,000 ppmv, 17,000 ppmv and 74,000 ppmv.

Methane mitigation subslab of proposed buildings is recommended (DL Science, Inc. July 15, 2021). The methane mitigation system should consist of a subslab impervious membrane placed inbetween geotextile or geocloth to protect it from sand above and the 4” thick gravel blanket below in conformance with the City of Signal Hill Oil and Gas Code §16.24.080 and City of Signal Hill Project Development Guide (June 20, 2017). Perforated horizontal vent pipes should be placed in the 4” thick gravel blanket and tied into vertical vent risers (typically cast iron) placed inbetween the interior and exterior walls, less than 100-feet apart, extending a minimum of 3-feet above the roof line and should not terminate less than 100-feet from any opening (City of Signal Hill June 2020).

Although designed to capture and vent methane to the atmosphere, other volatile organic compounds (VOCs) in the subsurface (both in the soil matrix and soil vapor) also will be captured and vented by this system.

Conclusions and Recommendations – A potential future use of the site is residential. The residual concentrations of benzene, ethylbenzene, methyl tert-butyl ether, naphthalene, tetrachloroethene and gasoline range organics detected in the soil vapor and naphthalene, 2,6-dinitrotoluene, 4-nitrosodi-n-propylamine and carbon chains C13-C22 in the soil matrix poses an adverse impact to future residential occupants. The residual concentration of benzene, ethylbenzene, methyl tert-butyl ether, naphthalene and gasoline range organics in the soil vapor poses an adverse impact to commercial workers. The residual concentration of gasoline range organics in the soil vapor poses an adverse impact to construction workers.

The previously abandoned oil wells should be located, daylighted and methane gas leak tested prior to the installation of vent cones and vent risers pursuant to the City of Signal Hill’s Oil and Gas Code §16.24.030 and §16.24.040.

Institutional controls, i.e., a methane mitigation system to be installed subslab of any proposed buildings, pursuant to the City of Signal Hill’s Oil and Gas Code §16.24.080 will effectively mitigate risks and hazards due to vapor intrusion to negligible conditions ensuring the site is safe for any future intended use including as a residential property. A redeveloped property precludes exposure to site soils by future residential occupants.

A soil management plan should be prepared prior to any grading activities to be conducted onsite. This soil management plan should provide instructions for the contractor to implement in the event discolored or odiferous soils are discovered during any grading operations. A R1166 permit should be obtained from the AQMD due to the presence of volatiles onsite prior to the start of grading operations.

Additionally construction workers are advised to practice good hygiene and wash their hands prior to smoking or eating or drinking pursuant to 29CFR 1926.1910, 8CCR 4 and 22CCR 2.4 to mitigate contact with soils containing residual concentrations of constituents assessed.

1.0 INTRODUCTION

This report presents the results of a baseline Human Health Risk Assessment (HHRA) for 8.35-acre site located at the northeast corner of the intersection of East Willow Street and Walnut Avenue, known as Town Center Northwest, in Signal Hill, Los Angeles County, California 90755 (the site) (Figures 1 and 2).

The purpose of this human health risk assessment is to evaluate the potential adverse health impacts due to exposure to concentrations of constituents detected in the soil matrix and soil vapor underlying the site. If a constituent was detected one time in soil sampled at 5-ft, 10-ft, 15-ft, or the boring terminus, and/or one time in soil vapor at 5-ft or 15-ft bgs it was retained and quantitatively assessed in this human health risk assessment.

This baseline human health risk assessment followed the guidance in the Department of Toxic Substances Control (DTSC) *Preliminary Endangerment Assessment (PEA)* guidance manual (DTSC 2015), U.S. Environmental Protection Agency *Risk Assessment Guidance for Superfund volume 1, Human Health Evaluation Manual (RAGs)* (USEPA 2004), the U.S. Environmental Protection Agency *Risk Assessment Guidance for Superfund volume 1, Human Health Evaluation Manual (Part F, Supplemental Guidance for Inhalation Risk Assessment)* (USEPA 2009), the DTSC *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air* (DTSC, October 2011), the *DRAFT DTSC Supplemental Guidance: Screening and Evaluating Vapor Intrusion* (DTSC, February 2020), the San Francisco Bay Regional Water Quality Control Board (SFRWQCB) Environmental Screening Levels (ESL) model and the Virginia Department of Environmental Quality Virginia Unified Risk Assessment Model (VURAM).

2.0 SITE BACKGROUND

The 8.35-acre site has been and is an oil field since at least 1928. Historically, the site had oil derricks, sumps and aboveground storage tanks.

The site is bounded by East Willow street on the south and Walnut Avenue on the west, located at the northeast corner of the intersection of East Willow Street and Walnut Avenue and known as Town Center Northwest in Signal Hill, California 90755 (Figures 1 and 2). The latitude of the site is 33° 48' 19.13" north and the longitude is 118° 10' 15.02" west. The Los Angeles County Assessor's Parcel Number for the site is 7212-011-034.

Pursuant to the authorization of Ms. Colleen Doan (Community Development Director, City of Signal Hill) on November 12, 2020 and to comply with the City of Signal Hill Project Development Guide (2020) Mearns Consulting LLC performed a Phase I Environmental Site Assessment (Phase I ESA) for the site in May 2021.

The Phase I ESA had the following conclusions:

- The historical use of the site is an oil field. There are 34 oil wells onsite or contiguous to the site (19 onsite and 15 within the eastern two-thirds of the Drill Site which is not a part of the project site). Operating units, a stormwater system with detention basins, swales, berms and piping currently are onsite.
- Recognized Environmental Conditions onsite include: (1) the previously abandoned oil wells, (2) the historic aboveground storage tanks, (3) historic pipelines associated with the previously abandoned oil wells and/or the aboveground storage tanks, (4) historic sumps associated with the previously abandoned and/or operating oil wells, (5) the storage of 55-gallon containers of used oil, (6) retail-sized containers of motor oil, (7) 5-gallon buckets of oil, (8) residue in catch basins, (9) gasoline containers, (10) surface staining, (11) transformers, (12) forklifts and (13) the northeastern corner drainage are Recognized Environmental Conditions.
- The adjacent properties include commercial/industrial businesses, an oilfield and multifamily residences. The adjacent oilfield and operating units are Potential Recognized Environmental Conditions that may impact the site. The contiguous former Dico Oil Company property with a LURA designation from DTSC also is a Potential Recognized Environmental Condition that may impact the site.
- The adjacent properties include oilfields, operating units and commercial/industrial businesses. The adjacent oilfields and operating units are Potential Recognized Environmental Conditions that may impact the site.

The Phase I ESA had the following recommendations:

Pursuant to the City of Signal Hill Project Development Guide (2020) and the City of Signal Hill Oil and Gas Code (2015) a Phase II Environmental Site Assessment (Phase II ESA) should be performed. The Phase II ESA should include soil matrix and soil vapor sampling adjacent to the previously abandoned oil wells, the historic location of the aboveground storage tanks, and within the footprint of the proposed multifamily units.

A baseline human health risk assessment should be performed with the data generated from the Phase II ESA.

A methane assessment should be performed in accordance with the City of Signal Hill Oil and Gas Code §16.24.080.

The previously abandoned oil wells should be daylighted and leak tested pursuant to the City of Signal Hill Oil and Gas Code §16.24.030 and §16.24.040

Piping runs should be identified and removed.

A soil management plan should be prepared prior to any grading activities to be conducted onsite. This soil management plan should provide instructions for the contractor to implement in the event discolored or odiferous soils are discovered during any grading operations.

3.0 SUMMARY OF FIELD ACTIVITIES

Phase II Environmental Site Assessment - Soil samples were collected at 5-ft, 10-ft and 15-ft bgs from 19 locations (Figure 4) in accordance with SW846. A truck mounted direct push rig was used to collect the soil samples. The sampling system was appropriately cleaned between each borehole; rinsate from cleaning was appropriately disposed. Soil was collected in acetate sleeves with Teflon liners and end caps with minimal headspace.

Fifty-six soil samples were logged onto a chain-of-custody form and stored in a cooler at 4°C until delivered to Sierra Analytical Labs, Inc. (a State of California Department of Health Services [DOHS] ELAP accredited laboratory; ELAP No. 2320). Analyses requested were carbon chain ranges C4-C12, C13-C23, C23-C40 via USEPA method GC/FID 8015B, total threshold limit concentration (TTLC) metals and hexavalent chromium via USEPA methods 6010B/7471, volatile organic compounds via USEPA 8260B, collected via USEPA 5035B in the field by placing 5g of soil into volatile organic analyte vials to which preservative had been added and semi-volatile organic compounds via USEPA 8270C. Soil matrix analytical results are included as Appendix A.

These soil borings were then developed as dual-nested soil vapor probes at 5-feet and 15-feet bgs (SV1-SV19) in accordance with Final Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air (Vapor Intrusion Guidance), DTSC, October 2011, the Advisory Active Soil Gas Investigations, DTSC, LARWQCB, SFRWQCB, July 2015 and the DRAFT Supplemental Guidance Screening and Evaluating Vapor Intrusion (CalEPA, DTSC, SWRCB February 2020).

A new section of ¼-inch diameter nylaflo tubing with a new 6-inch stainless steel probe tip at the terminal end was inserted into the borehole to the desired sampling depth. One-inch diameter polyvinyl chloride (PVC) casing was used as a guide for the tubing to ensure that the desired sampling depth was achieved. Sand was poured into the boring annulus to form an approximately one-foot long sand pack around the probe tip, at which time the PVC piping was withdrawn. Approximately one foot of dry, granular bentonite was placed atop the sand pack and the remainder of the borehole was backfilled with hydrated bentonite to the ground surface to form a seal. The sampling end of the tubing was fitted with a three-way valve and the probe was labeled for identification.

Soil gas samples were collected in general accordance with the July 2015 DTSC and LARWQCB) “*Advisory – Active Soil Gas Investigations.*”

Each probe was allowed to equilibrate for a minimum of 48-hours after installation prior to sampling by a mobile laboratory. Soil vapor samples were collected in glass gas-tight syringes equipped with Teflon plungers. A tracer gas mixture of n-pentane, n-hexane, and n-heptane was placed at the tubing-surface interface before sampling. These compounds were analyzed during the 8260B analytical run to determine if there were surface leaks into the subsurface due to improper installation of the probe. The sampling rate was approximately 200 cc/min, except when noted differently on the chain of custody record, using a glass gas-tight syringe. Purging was completed using a pump set at approximately 200 cc/min, except when noted differently on the chain of custody record. A default of three purge volumes was used as recommended by July 2015 DTSC/RWQCB guidance documents. Prior to purging and sampling of soil vapor at each location, a shut-in test was conducted to check for leaks in the aboveground fittings. The shut-in test was performed on the aboveground apparatus by evacuating the line to a vacuum of 100 inches of water, sealing the entire system and watching the vacuum for at least one minute. A vacuum gauge attached in parallel to the apparatus measured the vacuum. If there is any observable loss of

vacuum, the fittings were adjusted as needed until the vacuum did not change noticeably. The soil gas sample was then collected. No flow conditions occur when a sampling rate greater than 10 mL/min cannot be maintained without applying a vacuum greater than 100 inches of water to the sampling train. The sampling train is left at a vacuum for no less than three minutes. If the vacuum does not subside appreciably after three minutes, the sample location is determined to be a no flow sample.

Forty soil vapor samples, including three duplicates, were collected from these soil vapor probes by a Jones Environmental, Inc. (ELAP 2882) chemist and analyzed in a mobile laboratory on July 27 and 28, 2021. Three duplicates, one per 10 soil vapor samples, were collected and analyzed by the chemist. One deep probe SV19 was unable to be set at 15-foot bgs due to oily conditions. Soil vapor analytical results are included as Appendix B.

Soil matrix samples were collected from Spud Field, 1905 East 21st Street, in Signal Hill, California in April 2005 and July 2021 and analyzed for TTLC metals including hexavalent chromium. The analytical data was used as Signal Hill specific background metal concentrations in two-way statistical analyses to prove the Null Hypothesis, i.e., the sample population of metals concentrations onsite is less than or equal to the sample population representative of background. These background metals analytical results are included as Appendix C.

All drilling, logging and sampling activities were conducted by or under the direct supervision of a State of California registered Professional Geologist, and in accordance with California Well Standards presented in the Department of Water Resources (DWR) Bulletins 74-81 and 74-90. The Site Geology and Hydrogeology section and boring logs were prepared by Mr. Scott R. Fagan, a State of California Professional Geologist PG #4289. Boring logs are included as Appendix D.

3.1 Site Geology - The site is located on the west flank of the Signal Hill uplift created by lateral movement on the Cherry Hill Fault (CHF) (part of the Newport Inglewood fault zone). The CHF is located north of the site and the site overlies the Gardena Syncline, an east-west trending down-fold of the local stratigraphy.

The surface sediments are Recent Alluvium consisting of sand, silt and clay which overlie the Lakewood Formation. Borings are logged as predominantly silt and clay with thin sections of sand.

The Gaspar Aquifer is the first groundwater below the site, below any boring depths achieved during drilling activities. No groundwater was detected in any soil boring.

3.2 Soil Matrix Analytical Results – Carbon chains C4-C12 were detected eight times in 57 soil matrix samples at a concentrations ranging from 0.052 mg/kg to 2,600 mg/kg; four detected concentrations: 1,100 mg/kg, 2,600 mg/kg, 510 mg/kg and 1,500 mg/kg exceed the screening threshold of 82 mg/kg. Carbon chains C13-C22 were detected 12 times in 57 soil matrix samples at concentrations ranging from 34 mg/kg to 2,500 mg/kg; five detected concentrations exceeded the screening threshold of 97 mg/kg. Carbon chains C23-C40 were detected 15 times in 57 soil matrix samples at concentrations ranging from 35 mg/kg to 2,200 mg/kg; none of these detected concentrations were greater than the screening threshold of 2,400 mg/kg (Table 1 and Figure 4).

The following metals were detected in concentrations greater than their respective reporting limits: arsenic, barium, cobalt, trivalent chromium, copper, lead, nickel, selenium, vanadium and zinc (Table 1 and Figure 4). A detected concentration of arsenic, 20 mg/kg, exceeded the screening threshold.

The volatile organic compounds (VOCs) benzene, n-butylbenzene, sec-butylbenzene, tert-butylbenzene, ethylbenzene, isopropylbenzene (cumene), methyl tert-butyl ether (MTBE), naphthalene, n-propylbenzene, m,p-xylenes and o-xylene were detected in concentrations greater than their respective reporting limits (Table 3 and Figure 5). Detected concentrations of naphthalene exceed the screening limit.

Semi-volatile organic compounds (SVOCs) acenaphthene, anthracene, benzo(a)anthracene, 2,4-dinitrophenol, chrysene, 4,6-dinitro-2-methylphenol, 2,4-dinitrotoluene, 2,6-dinitrotoluene, fluorene, 2-methylnaphthalene, naphthalene, 4-nitroaniline, n-nitrosodi-n-propylamine, phenanthrene and pyrene were detected in the soil matrix at concentrations greater than their respective reporting limits. Detected concentrations of benzo(a)anthracene, 2,6-dinitrotoluene and naphthalene exceeded their respective screening levels (Table 4 and Figure 5).

3.3 Soil Vapor Analytical Results – The VOCs, benzene, n-butylbenzene, sec-butylbenzene, cis-1,2-dichloroethene, di-isopropylether, ethylbenzene, isopropylbenzene (cumene), 4-isopropyltoluene (cymene), methylene chloride, naphthalene, n-propylbenzene, tetrachloroethene, toluene, total xylenes and gasoline range organics (GRO) were detected in concentrations greater than their respective reporting limits in the vapor phase (Table 5 and Figure 6). All of these volatiles were detected at concentrations that exceeded their respective screening thresholds. The greatest detected concentration of benzene, 8,850 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) was detected at SV7-15 adjacent to a previously abandoned oil well and along a pipeline corridor. Generally concentrations of volatiles in the vapor phase increased with depth.

3.4 Conclusions and Recommendations

Carbon chains, C4-C12, C13-C22, C23-C40, metals VOCs and SVOCs were detected in the soil matrix. Sixteen volatile organic compounds were detected in the vapor phase in soil vapor underlying the site (Table 5 and Figure 6).

The carbon chains C4-C12 and C13-C22 were detected at concentrations greater than their respective screening thresholds (Table 1 and Figure 4). Arsenic was detected at concentrations greater than the screening threshold (Table 1 and Figure 4). Three VOCs/SVOCs in the soil matrix exceeded their respective screening thresholds. Seventeen volatile organic compounds in the vapor phase were detected at concentrations that exceeded their respective screening thresholds (Tables 3-5 and Figures 5 and 6).

As the proposed future development for the site is residential, a human health risk assessment is warranted based on the results of this Phase II ESA. The human health risk assessment should include an evaluation of potential health impacts to future residential, commercial and construction workers.

4.0 CONCEPTUAL SITE MODEL

A conceptual site model was developed to identify the potential complete exposure pathways by which constituents detected in soil could impact human health (Figure 7).

The conceptual site model identifies potential sources, environmental release mechanisms, potential migration pathways, potential exposure pathways, potential exposure routes and potential human receptors onsite.

The conceptual site model identified the following potential complete exposure pathways:

- Future onsite resident
 1. ingestion/dermal contact with surface soil
 2. inhalation of constituents from surface soil entrained in dust
 3. inhalation of VOCs from soil vapor in surface and subsurface soil that have migrated to indoor air

- Future commercial building occupant
 1. ingestion/dermal contact with surface soil
 2. inhalation of constituents from surface soil entrained in dust
 3. inhalation of VOCs from soil vapor in surface and subsurface soil that have migrated to indoor air

- Future construction worker
 1. ingestion/dermal contact with surface soil
 2. inhalation of constituents from surface and subsurface soil entrained in dust
 3. inhalation of VOCs from soil vapor in surface and subsurface soil that have migrated to outdoor air, including trenches

Consumption of fruit or vegetables grown in soil is not considered to be a complete potential exposure pathway under future site conditions.

Potential direct exposures (ingestion and dermal contact) to groundwater are not complete pathways as drinking water is provided by a remote municipal water supply, so there is little chance of incidental exposure. Discharge of groundwater to surface water also is not considered to be a complete migration pathway since there are no surface water bodies that are recharged by artesian flow or groundwater seepage in the vicinity of the site.

The potential for chemicals in soil to leach to underlying groundwater used as a drinking water source is considered very low as several aquitards or aquicludes exist below the maximum depth of impacted soils and groundwater used as a drinking water source.

There is very limited ecological habitat at and near the site. Wetlands were not observed onsite or at adjacent sites. There are no natural or undisturbed areas onsite. Based on the lack of viable ecological habitat at and near the site, there are no complete ecological pathways onsite.

5.0 IDENTIFYING CHEMICALS OF CONCERN

All constituents detected at least one time in the soil matrix and in soil vapor underlying the site were quantitatively assessed using the appropriate exposure pathway in this risk assessment.

Pursuant to the following guidance documents, *Selecting Inorganic Constituents as Chemicals of Concern for Risk Assessments at Hazardous Waste Sites and Permitted Facilities* (DTSC 1997), *Background Metals at Los Angeles Unified School Sites – Arsenic* (DTSC 2005) and *Arsenic Strategies, Determination of Arsenic Remediation, Development of Arsenic Cleanup Goals* (DTSC 2009) the following statistical tests: (a) Wilcoxon-Mann-Whitney, (b) Gehan, (c) Tarone-Ware, (d) Multiple Box Plots, (e) Multiple Histograms and (f) Q-Q Plots, were used to determine whether detected concentrations of metals in the soil matrix onsite were within background concentrations. The results of these statistical analyses are included as Appendix E.

These two sample hypotheses tests with non-detects are based on the null hypothesis. The Null hypothesis tests whether the mean and median of the concentrations of each metal detected in onsite soils are less than or equal to the mean and median concentrations of the concentrations of the same metal detected in offsite or background soil samples.

The alternative hypothesis tested was whether the mean and median of the concentrations of detected metals in soils onsite are greater than the mean and median concentrations of the concentrations of the same metals in offsite or background soil samples.

The graphs (1) Multiple Box Plots, (2) Multiple Histograms and (3) Q-Q Plots with non-detects visually indicate whether the detected concentrations of metals in onsite soils are within the population of background metals.

The conclusion based on these quantitative statistical tests was all detected concentrations of metals onsite were within the background population. Selenium was not detected in the background samples, therefore this metal was quantitatively assessed in the human health risk assessment via the ingestion, dermal contact and inhalation routes of exposure.

Chemicals of concern quantitatively assessed in the risk assessment include: C4-C12, C13-C22, C23-C40, benzene, n-butylbenzene, sec-butylbenzene, tert-butylbenzene, ethylbenzene, isopropylbenzene, methyl tert-butyl ether, naphthalene, n-propylbenzene, m,p-xylenes, o-xylene, acenaphthene, anthracene, benzo(a)anthracene, 2,4-dinitrophenol, chrysene, 4,6-dinitro-2-methylphenol, 2,4-dinitrotoluene, 2,6-dinitrotoluene, fluorene, 2-methylnaphthalene, 4-nitroaniline, 4-nitrosodi-n-propylamine, pyrene, lead (via LeadSpread), and selenium in the soil matrix; benzene, di-isopropylether, ethylbenzene, isopropylbenzene, isopropyltoluene, methylene chloride, methyl tert-butyl ether, naphthalene, n-propylbenzene, tetrachloroethylene (PCE), toluene, xylenes and gasoline range organics in the vapor phase via either or both the SFRWQCB ESL model or the Virginia DEQ VURAM model.

6.0 TOXICITY ASSESSMENT

Toxicity values are combined with exposure factors to estimate noncancer adverse health effects and cancer risks. Toxicity values include reference doses (RfDs), reference concentrations (RfCs), unit risk factors (URFs) and slope factors (SFs) that are used to evaluate noncancer adverse health effects and cancer risks.

The State of California Office of Environmental Health Hazard Assessment (OEHHA) and the State of California Department of Toxic Substances Control (DTSC) Office of Human and Ecological Risk (HERO) have developed URFs SFs, RfCs and RfDs. Pursuant to regulatory agency guidance OEHHA's and HERO's values are preferentially used instead of USEPA's when available, as OEHHA's and HERO's values are generally more conservative than USEPA's (DTSC 2015, USEPA 2004).

If a constituent had both a risk factor and a reference concentration it was assessed as a carcinogen and as a noncarcinogen. The unit risk factors and reference concentrations were obtained from DTSC HERO (DTSC 2020), ATSDR, IRIS, OEHHA, PPRTV as listed in USEPA's Regional Screening Levels (May 2021) and DTSC's HERO Note 10 (February 2019).

The exposure point concentrations, the slope factors and reference doses for the constituents detected in the soil matrix and quantitatively assessed are presented in Table 6.

7.0 EXPOSURE ASSESSMENT

The exposure assessment provides a scientifically defensible basis for the identification of potentially exposed human receptors and the most likely ways they might be exposed to chemicals of concern at the site. As defined by USEPA (1989), the following four components are necessary for chemical exposure to occur:

- A chemical source and a mechanism of chemical release to the environment
- An environmental transport medium (e.g., soil) for the released chemical
- A point of contact between the contaminated medium and the receptor (i.e., the exposure point)
- An exposure route (e.g., ingesting chemically-impacted soil) at the exposure point

All four of these elements must be present for an exposure pathway to be considered complete and for chemical exposure to occur (USEPA 1989).

This HHRA evaluated the potential for receptors to be exposed to the maximum detected concentrations or the upper confidence level (UCL), whichever value was less, pursuant to the ProUCL User's Guide (USEPA 2004) of the constituents detected in the top 15-ft of soil. The ProUCL model output is included as Appendix F.

The maximum concentrations of the VOCs detected in soil vapor at 5-ft or 20-ft underlying the site were used as the exposure point concentrations in the SFRWQCB ESL vapor intrusion model. Data collected from the soil matrix and soil vapor investigation in 2018 were used in the risk assessment. Exposure point concentrations are presented in Table 6.

7.1 Average and Reasonable Maximum Exposures - Typically two types of exposure scenarios are evaluated in a risk assessment; an average exposure scenario, and a reasonable maximum exposure (RME) scenario. The average exposure scenario represents a more typical exposure, believed to be most likely to occur, while the reasonable maximum exposure scenario represents a plausible worst case situation - one that is not very likely to occur. USEPA guidance (1989) recommends evaluating a reasonable maximum exposure scenario. The reasonable maximum exposure scenario estimates the exposure a receptor might receive using highly conservative intake assumptions (e.g., 90th or 95th percentile for most intake assumptions) and the upper confidence limit (UCL) on the mean of the chemical concentrations. It is assumed that by evaluating a reasonable maximum exposure scenario potential health risks to extremely sensitive individuals within a particular receptor population will be adequately addressed. As an added measure of conservatism, only a reasonable maximum exposure scenario was evaluated in this HHRA.

The DTSC PEA and USEPA guidance contain formulae that incorporate default values which were selected to be health protective. Some of these default values, such as, the exposure frequency, exposure time and exposure duration, were modified when evaluating the commercial worker and construction worker scenarios (DTSC 2015, USEPA 2004).

8.0 RISK CHARACTERIZATION

The risk characterization process incorporates data from the exposure and toxicity assessments. The exposure assessment information necessary to estimate risks and hazards includes the estimated chemical intakes, exposure modeling assumptions, and the exposure pathways assumed to contribute to the majority of exposure for each receptor over a given time period (USEPA 1989a). The exposure parameters for assessing the constituents detected in the soil matrix are included as Table 7.

The method by which chemicals with carcinogenic and/or noncarcinogenic effects are evaluated to determine whether they pose a risk or an adverse impact to human health is discussed below, relative to the exposure pathways by which the receptors may be exposed to the exposure point concentrations of the chemicals of concern.

8.1 Ingestion and Dermal Contact Pathways - To provide an evaluation of chronic risk along the ingestion and dermal contact pathways the following equations for risk and hazard were used consistent with PEA guidance (DTSC 2015).

$$\begin{aligned} \text{Risk}_{\text{soil}} = & \quad \text{SF}_o \times C_s \times \frac{\text{IR}_{s, \text{adult}} \times \text{EF} \times \text{ED}_{\text{adult}} \times 10^{-6} \text{ kg/mg}}{\text{BW}_{\text{adult}} \times \text{AT} \times \text{EF}} \\ & + \text{SF}_o \times C_s \times \frac{\text{SA}_{\text{adult}} \times \text{AF} \times \text{ABS} \times \text{EF} \times \text{ED}_{\text{adult}} \times 10^{-6} \text{ kg/mg}}{\text{BW}_{\text{adult}} \times \text{AT} \times \text{EF}} \\ & + \text{SF}_o \times C_s \times \frac{\text{IR}_{s, \text{child}} \times \text{EF} \times \text{ED}_{\text{child}} \times 10^{-6} \text{ kg/mg}}{\text{BW}_{\text{child}} \times \text{AT} \times \text{EF}} \\ & + \text{SF}_o \times C_s \times \frac{\text{SA}_{\text{child}} \times \text{AF} \times \text{ABS} \times \text{EF} \times \text{ED}_{\text{child}} \times 10^{-6} \text{ kg/mg}}{\text{BW}_{\text{child}} \times \text{AT} \times \text{EF}} \end{aligned}$$

$$\begin{aligned} \text{Hazard}_{\text{soil}} = & \quad (1/\text{RfD}_o) \times C_s \times \frac{\text{IR}_{s, \text{child}} \times \text{EF} \times \text{ED}_{\text{child}} \times 10^{-6} \text{ kg/mg}}{\text{BW}_{\text{child}} \times \text{AT}} \\ & + (1/\text{RfD}_o) \times C_s \times \frac{\text{SA}_{\text{child}} \times \text{AF} \times \text{ABS} \times \text{EF}_{\text{child}} \times \text{ED}_{\text{child}} \times 10^{-6} \text{ kg/mg}}{\text{BW}_{\text{child}} \times \text{AT}} \\ & + (1/\text{RfD}_o) \times C_s \times \frac{\text{IR}_{s, \text{adult}} \times \text{EF} \times \text{ED}_{\text{adult}} \times 10^{-6} \text{ kg/mg}}{\text{BW}_{\text{adult}} \times \text{AT}} \\ & + (1/\text{RfD}_o) \times C_s \times \frac{\text{SA}_{\text{adult}} \times \text{AF} \times \text{ABS} \times \text{EF}_{\text{adult}} \times \text{ED}_{\text{adult}} \times 10^{-6} \text{ kg/mg}}{\text{BW}_{\text{adult}} \times \text{AT}} \end{aligned}$$

Where:

- SF_o = cancer slope factor (mg/kg-day)⁻¹
- C_s = concentration in soil (mg/kg)
- RfD_o = oral reference dose (mg/kg-day)

ABS = absorption fraction (dimensionless)
ED = exposure duration (years)
EF = exposure frequency (days/year)
BW = body weight (kg)
IRs = incidental soil ingestion rate (mg/day)
SA = skin surface area (cm²/event)
AF = soil to skin adherence factor (mg/cm²)
AT = averaging time (days)

Chemical specific values for the absorption fractions (ABS) parameter were obtained from USEPA and DTSC (USEPA June 2021; DTSC May 2020). Toxicity and exposure point concentrations are found in Table 6. Exposure parameters for assessing constituents detected in the soil matrix are presented in Table 7. The maximum concentration or the upper confidence level, whichever was less, of the constituents detected in the top 15-ft of soils were evaluated in this risk assessment for the residential, commercial worker and construction worker scenarios.

The exposure factors presented in Tables 6 and 7 provide a conservative estimate of chronic risk and hazard to human health due to exposure to the chemicals of concern detected in the soil matrix via the ingestion and dermal contact routes of exposure. The calculated estimates of risk and hazard due to exposure to constituents detected in the soil matrix are provided in Tables 8-11.

8.2 Inhalation Pathway Soil Matrix - To provide an evaluation of chronic risk along the inhalation pathway the following equations (DTSC 2015, USEPA 2009) for estimating risk and hazard due to exposure to constituents of concern detected in the soil matrix were used consistent with PEA guidance (DTSC 2015, USEPA 2009).

Semi-volatile organic compounds and metals in soil are evaluated in outdoor air using particulate emission factors (PEFs) to obtain concentrations of chemicals in dust. PEFs are used to develop an estimate of the concentration of a chemical in dust based on its concentration in soil. It assumes that the dust from the site is caused by the wind and not created by mechanical means (e.g. construction activities, tilling, automobile traffic, etc.) (DTSC 2015).

A default PEF of 1.36E+09 (m³/kg) is used for the residential and commercial worker scenarios, and a PEF of 1.00E+06 is used for the construction worker scenario (DTSC 2015, USEPA 2009). It assumes an infinite source of chemicals, a vegetative cover of 50%, and a mean annual wind speed of 4.69 m/s. This is equivalent to a dust concentration of 0.76 g/m³ at the receptor. The default dispersion term (Q/C) of 90.80 (g/m²-s per kg/m³) is based on a site of 0.5 acres and dispersion modeling runs of 29 sites across the United States. The default Q/C provides a conservative estimate of the long-term exposure to dust (DTSC 2015).

$$C_a = (C_s/PEF) \times 1000\mu\text{g}/\text{mg}$$

Where:

C_a = concentration in air, mg/m³
 C_s = concentration in soil, mg/kg
PEF = particulate emission factor

$$\text{Risk}_{\text{air}} = \frac{\text{IUR} \times C_a \times \text{ET} \times \text{EF} \times \text{ED}}{\text{AT}}$$
$$\text{Hazard}_{\text{air}} = \frac{(1/\text{RfC} \times 1000\mu\text{g}/\text{mg}) \times C_a \times \text{ET} \times \text{EF} \times \text{ED}}{\text{AT}}$$

Where:

- IUR = inhalation unit risk factor ($\mu\text{g}/\text{m}^3$)⁻¹
- RfC = reference concentration ($\mu\text{g}/\text{m}^3$)
- C_a = contaminant concentration in air (mg/m^3)
- ET = exposure time (hours/day)
- EF = exposure frequency (days/year)
- ED = exposure duration (years)
- AT = averaging time (hours)

The risk and hazard for the air pathway are based on either the exposure to volatile emissions for VOCs or the exposure to fugitive dust emissions for non-VOCs. The Office of Scientific Affairs defines a VOC as a chemical with a vapor pressure of 0.001 mm mercury or higher and a Henry's Law Constant of 1×10^{-5} or higher. Exposure to a chemical via the air pathway can be adequately performed using either volatilization or fugitive dust scenarios; it is not necessary to do both (DTSC 2015).

For this risk assessment exposure to non-VOCs detected in the soil matrix via the inhalation pathway was performed using the fugitive dust scenario.

8.3 SFRWQCB ESL Vapor Intrusion Model - The SFRWQCB Environmental Screening Levels vapor intrusion model (2019, Rev. 2) was used to estimate potential risk and hazard due to exposure to volatiles in soil vapor in shallow soil (10-foot bgs or less) and in deeper soil (greater than 10-foot bgs).

Either the 95UCL or the maximum detected concentration was used as the exposure point concentration in this vapor intrusion model. Those chemicals of concern that had both reference doses and slope factors available were assessed as both noncarcinogenic and carcinogenic compounds.

The results of the vapor intrusion risk assessment due to exposure to carcinogenic VOCs in both shallow and deep soil is 3.03×10^{-3} for the residential scenario and 6.9×10^{-4} for the commercial worker scenario. The results of the vapor intrusion risk assessment due to exposure to noncarcinogenic VOCs in both shallow and deep soil is 502 for the residential scenario and 117 for the commercial worker scenario. The model results are included on Tables 8 and 9 and in Appendices G and H.

The individual estimated risk value for benzene, ethylbenzene, methyl tert-butyl ether, naphthalene and tetrachloroethene exceeds the threshold of 1×10^{-6} for residential receptors. The individual estimated risk value for benzene, ethylbenzene, methyl tert-butyl ether and naphthalene exceeds the threshold of 1×10^{-5} for commercial worker receptors. The individual estimated hazard value for benzene, methyl tert-butyl ether, naphthalene and gasoline range organics exceeds the threshold of 1 for residential occupants. The individual estimated hazard value for benzene, naphthalene and gasoline range organics exceeds the threshold of 1 for commercial workers.

8.4 VURAM - The Virginia Unified Risk Assessment Model (VURAM) was used to estimate the potential risks and hazards due to inhalation of VOCs by construction workers while working in a trench. Either the 95UCL or maximum detected concentrations of the volatiles detected in soil vapor were used

as the exposure point concentrations in VURAM.

The results of the vapor intrusion risk assessment due to exposure to carcinogenic volatiles in soil vapor for construction workers exposed in a trench estimated using the VURAM model was 9.18×10^{-7} and the hazard was 4 and are included in Table 10 and as Appendix I.

This estimated risk value does not exceed the threshold of 1×10^{-5} for construction workers working in a trench. The estimated hazard value of 4 does exceed the threshold and is attributable to gasoline range organics.

8.5 Noncancer Adverse Health Effects- Noncarcinogenic effects or hazards are typically evaluated by comparing an exposure level over a specified time period (e.g., a lifetime or 25 years), with a reference dose based on a similar time period. Hazard quotient values less than 1 indicate that potential exposures to noncarcinogenic COCs are not expected to result in toxicity (USEPA 1989). Summing the hazard quotient values to derive a hazard index (HI) provides an estimation of the total potential hazard due to a simultaneous exposure to all the noncarcinogenic COCs. However, summing hazard quotient values is not necessary when the chemicals of concern target different organs within the body (USEPA 1989, DTSC 2015). Although the noncarcinogenic chemicals of concern quantitatively assessed in this risk assessment target different organs within the body, the estimated hazard quotients were summed to derive a HI.

8.6 Lifetime Excess Cancer Risk - Slope factors are used to estimate the potential risk associated with exposure to individual COCs. The slope factor is multiplied by the chronic daily intake averaged over 70 years to estimate lifetime excess cancer risk. "Excess" or "incremental" cancer risk represents the probability of an individual developing cancer over a lifetime as a result of chemical exposure, over and above the baseline or "background" cancer risk in the general population. Cancer risks and noncancer health hazards estimated in the HHRA are regarded as estimated or theoretical results developed on the basis of the toxicity factors, chemical fate and transport, exposure assumption, and other inputs previously described. Cancer risks do not represent actual cancer cases in actual people. Rather, risks are calculated on the basis of an entirely hypothetical set of conditions. This assumed "exposure scenario" is developed to protect human health, and is based on standard USEPA and Cal-EPA methods and assumptions.

USEPA characterizes theoretical excess lifetime cancer risks below one in one million (10^{-6}) as not of concern and has stated that risks between 10^{-6} and one in 10,000 (10^{-4}) are "safe and protective of public health" (Federal Register 56(20):3535, 1991). Remedial action is not generally required by USEPA for sites with a theoretical lifetime excess risk of less than 10^{-4} ; whereas the State of California uses a risk-management approach (DTSC 2011). The DRAFT guidance indicates DTSC considers the risk range between 10^{-4} and 10^{-6} in risk management decisions (DTSC February 2020).

The more stringent target risk of 10^{-6} is typically applied to residential receptors. To provide perspective, a total theoretical lifetime excess cancer risk of one in 100,000 (10^{-5}) is frequently accepted by Cal-EPA for worker receptors at California sites, and the target risk for chemicals evaluated under State Proposition 65 regulations is 10^{-5} (22CCR 12703).

8.7 Multipathway Cancer Risk - Based on regulatory guidelines, it is appropriate to combine risk estimates across exposure pathways for a given receptor. At the same time, exposure to multiple carcinogenic COCs is also typically considered to be additive. For exposures to multiple pathways and

chemicals, the following equation was used to estimate total theoretical lifetime excess carcinogenic risks:

$$\text{Total Risk} = \sum_{p=1}^m \sum_{i=1}^n \text{CR}_{i,p}$$

Where:

Total Risk = Excess cancer risk from exposure to n chemicals via m pathways
 m = Number of exposure pathways
 n = Number of chemicals
 CR_{i,p} = Potential cancer risk from exposure to chemical i via pathway p

This equation was used to estimate the total potential cancer risks due to exposure to the carcinogenic COCs via the ingestion, dermal contact and inhalation routes of exposure. The estimated risks, total risk, estimated hazards and hazard index are presented in Tables 8-11.

8.8 Estimation of Risks and Hazards

Residential Scenario –

Estimated Risk Soil Ingestion and Dermal contact - The estimated risk due to exposure to constituents detected in the soil matrix via the ingestion and dermal contact exposure routes is 1.99×10^{-5} greater than the target threshold 1×10^{-6} .

Estimated Risk Soil & Soil Vapor Inhalation - The estimated risk due to exposure to constituents detected in the soil matrix and soil vapor via the inhalation exposure route is 3.03×10^{-3} greater than the target threshold 1×10^{-6} and is attributable to benzene, ethylbenzene, methyl tert-butyl ether, naphthalene and tetrachloroethene in the vapor phase.

Hazard Quotients Soil Ingestion and Dermal Contact - The sum of the estimated hazard quotients due to exposure to constituents detected in the soil matrix via the ingestion and dermal contact exposure routes is 2.88, greater than 1, the target hazard value, and is attributable to C13-C22.

Hazard Quotients Soil & Soil Vapor Inhalation - The sum of the estimated hazard quotients due to exposure to constituents detected in the soil matrix via the inhalation exposure route is 3, greater than 1, the target hazard value. The sum of the estimated hazard quotients due to exposure to constituents detected in soil vapor is 503, greater than the target threshold value and is attributable to benzene, methyl tert-butyl ether, naphthalene and gasoline range organics.

Summed Risk - The total risk, summed across all exposure pathways for all carcinogenic chemicals of concern in the soil matrix and soil vapor, is 3.02×10^{-3} , greater than the target risk.

Hazard Index – The total hazard, summed across all exposure pathways for all noncarcinogenic chemicals of concern in the soil matrix and soil vapor is 506, greater than the target hazard value. These estimated risk and hazards values are presented in Tables 8 and 11.

Commercial Worker Scenario

Estimated Risk Soil Ingestion and Dermal contact - The estimated risk due to exposure to constituents detected in the soil matrix via the ingestion and dermal contact exposure routes is 7.23×10^{-6} less than the target threshold 1×10^{-5} .

Estimated Risk Soil & Soil Vapor Inhalation - The estimated risk due to exposure to constituents detected in the soil matrix and soil vapor via the inhalation exposure route is 6.84×10^{-4} greater than the target threshold 1×10^{-5} and is attributable to benzene, ethylbenzene, methyl tert-butyl ether and naphthalene.

Hazard Quotients Soil Ingestion and Dermal Contact - The estimated hazard quotients due to exposure to constituents detected in the soil matrix via the ingestion and dermal contact exposure routes is 0.30, less than 1, the target hazard value.

Hazard Quotients Soil & Soil Vapor Inhalation - The estimated hazard quotients due to exposure to constituents detected in the soil matrix via the inhalation exposure route, 1.6E-05, is less than 1, the target hazard value. The sum of the estimated hazard quotients due to exposure to constituents detected in soil vapor is 117, greater than the target threshold value and is attributable to benzene, naphthalene and gasoline range organics.

Summed Risk - The total risk, summed across all exposure pathways for all carcinogenic chemicals of concern in the soil matrix and soil vapor, is 6.91×10^{-4} , greater than the target threshold 1×10^{-5} .

Hazard Index - The total hazard, summed across all exposure pathways for all noncarcinogenic chemicals of concern in the soil matrix and soil vapor is 117, greater than the target hazard value. These estimated risk and hazards values are presented in Tables 9 and 11.

Construction Worker Scenario – Soil Matrix

Estimated Risk Soil Ingestion and Dermal contact - The estimated risk due to exposure to constituents detected in the soil matrix via the ingestion and dermal contact exposure routes is 1.07×10^{-6} less than the target threshold 1×10^{-5} .

Estimated Risk Soil & Soil Vapor Inhalation - The estimated risk due to exposure to constituents detected in the soil matrix and soil vapor via the inhalation exposure route is 9.38×10^{-7} less than the target threshold 1×10^{-5} .

Hazard Quotients Ingestion and Dermal Contact - The estimated hazard quotients due to exposure to constituents detected in the soil matrix via the ingestion and dermal contact exposure routes is 1.55, greater than 1, the target hazard value.

Hazard Quotients Soil & Soil Vapor Inhalation - The estimated hazard quotients due to exposure to constituents detected in the soil matrix via the inhalation exposure route is 0.04, less than 1, the target hazard value. The sum of the estimated hazard quotients due to exposure to constituents detected in soil vapor is 4, greater than the target threshold value.

Summed Risk - The total risk, summed across all exposure pathways for all carcinogenic chemicals of concern in the soil matrix, is 2×10^{-6} , less than the target threshold 1×10^{-5} .

Hazard Index – The total hazard, summed across all exposure pathways for all noncarcinogenic chemicals of concern in the soil matrix is 6, greater than the target hazard value. These estimated risk and hazards values are presented in Tables 10 and 11.

9.0 MITIGATION MEASURES

Institutional controls, i.e., the required methane mitigation system to be installed subslab of the proposed buildings and paving of surface soils for parking effectively mitigates the risks and hazards to negligible conditions ensuring the site is safe for the future intended use as a residential/commercial property.

Methane mitigation subslab of proposed buildings is recommended based on the Methane Assessment (DL Science, Inc. July 15, 2021). The methane mitigation system should consist of a subslab impervious membrane placed inbetween geotextile or geocloth to protect it from sand above and the 4" thick gravel blanket below in conformance with the City of Signal Hill Oil and Gas Code §16.24.080 and City of Signal Hill Project Development Guide (June 2020). Perforated horizontal vent pipes should be placed in the 4" thick gravel blanket and tied into vertical vent risers (typically cast iron) placed inbetween the interior and exterior walls, less than 100-feet apart, extending a minimum of 3-feet above the roof line and should not terminate less than 100-feet from any opening (City of Signal Hill June 2020).

Although designed to capture and vent methane to the atmosphere, other volatile organic compounds in the subsurface (both in the soil matrix and soil vapor) also will be captured and vented by this system.

If an impervious surface paving area is 5,000 square feet or greater and contiguous to the proposed buildings, the paving should have vents spaced less than 100-ft apart consisting of four sided concrete boxes with traffic rated grates and 4" thick gravel blanket at the base. The vents should be designed to prevent surface water infiltration.

If a level of the parking structure that is below ground surface it should have an exhaust ventilation system that is in compliance with the California Mechanical Code.

All enclosed parking garages in North America are subject to ventilation standards established by the International Mechanical Code (IMC) and the American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE). The IMC and ASHRAE stipulate that garage ventilation systems run continuously during building-occupied hours, with an exception made for those that deploy carbon monoxide sensor-based, demand-controlled ventilation systems.

A soil management plan should be prepared to provide guidance to building contractors in the event discolored or odiferous soils or soils with elevated VOCs are discovered during onsite excavation and grading activities.

Additionally construction workers are advised to practice good hygiene and wash their hands prior to smoking or eating or drinking pursuant to 29CFR 1926.1910, 8CCR 4 and 22CCR 2.4 to mitigate contact with soils containing petroleum hydrocarbons.

A Rule 1166 Permit/Compliance Plan should be obtained from the South Coast Air Quality Management District prior to site grading. VOC monitoring under an Air Quality Management District R1166 Permit ensures construction workers are protected from VOCs during earthwork.

10.0 UNCERTAINTY ANALYSIS

The uncertainty analysis characterizes the propagated uncertainty in health risk assessments. These uncertainties are driven by variability in:

- The chemical data selection and assumptions used in the models with which concentrations at receptor locations were estimated.
- The variability of receptor intake parameters.
- The accuracy of toxicity values used to characterize exposure, hazards and cancer risks.

Additionally, uncertainties are introduced in the risk assessment when exposures to several substances across multiple pathways are summed.

Quantifying uncertainty is an essential element of the risk assessment process. According to USEPA's Guidance on Risk Characterization for Risk Managers and Risk Assessors, point estimates of risk "do not fully convey the range of information considered and used in developing the assessment" (USEPA 1992). The following components of the risk assessment process can introduce uncertainties:

- Data Collection and Evaluation
- Exposure Assessment
- Toxicity Assessment
- Risk Characterization

10.1 Data Collection and Evaluation - The techniques used for data sampling and analysis and the methods used for identifying chemicals for evaluation in this risk assessment, may result in a number of uncertainties. These uncertainties are itemized below in the form of assumptions.

- It was assumed that the nature and extent of chemical impacts on and near the site have been adequately characterized. If this assumption is not valid, then potential health impacts may be over- or underestimated.
- Systematic or random errors in the chemical analyses may yield erroneous data. These types of errors may result in a slight over- or underestimation of risk.

10.2 Exposure Assessment - A number of uncertainties are associated with the exposure assessment, including estimation of exposure point concentrations and assumptions used to estimate chemical intakes. Key uncertainties associated with these components of the HHRA are summarized below.

10.2.1 Exposure Pathways - The exposure pathways evaluated in this HHRA are expected to represent the primary pathways of exposure, based on the results of the chemical analyses, and the expected fate and transport of these chemicals in the environment. Minor or secondary pathways may also exist, but often cannot be identified or evaluated using the available data. The contribution of secondary pathways to the overall risk from the site is not likely to be significant. In addition, intake assumptions are reflective of trends (usually for the most sensitive individual within an entire population), and as such are subject to intrinsic variability. In both cases, their presence introduces a level of uncertainty to this risk assessment process.

10.3 Toxicity Assessment - Toxicity information for many chemicals is often limited. Consequently, there are varying degrees of uncertainty with the calculated toxicity values. Sources of uncertainty associated with toxicity values include:

- Using dose-response information from effects observed at high doses to predict the adverse health effects that may occur following exposure to the low levels expected from human contact with the agent in the environment.
- Using dose-response information from short-term exposures to predict the effects of long-term exposures.
- Using dose-response information from animal studies to predict effects in humans.
- Using dose-response information from homogeneous animal populations or human populations to predict the effects likely to be observed in the general population consisting of individuals with a wide range of sensitivities.

To compensate for these uncertainties, USEPA typically applies a margin of safety when promulgating human toxicity values. Therefore, use of USEPA toxicity values likely results in an overestimation of potential hazard and risk.

10.4 Risk Characterization - The reasonable maximum exposure scenario risk characterization represents an over-estimation of risk. Site-specific information regarding depth below ground at which the constituents of concern were detected was not used in the equations. The reasonable maximum exposure scenario estimated the risk to the receptors based on the maximum detected concentrations or the UCLs for the constituents quantitatively assessed in this risk assessment.

10.5 Summary of Risk Assessment Uncertainties - The analysis of the uncertainties associated with this risk assessment indicates that the estimated risks and hazards derived from the equations in the PEA Manual (DTSC 2015), the RAGs Manual (USEPA 2009), the LeadSpread Model (DTSC) and the ESL and VURAM vapor intrusion models for the reasonable maximum exposure scenario represent an over-estimation of risk. Although as outlined in the sections above, many factors can contribute to the over- or underestimation of risk, in general, a mixture of conservative and upper-bound input values were identified to estimate potential exposures. Compounding conservative and upper-bound input values in the risk assessment process are intended to lead to reasonable, maximum, health-conservative estimates. The actual impacts to human health are most likely less than those estimated in this HHRA for the evaluated receptors and pathways.

11.0 REFERENCES

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TABLES

Table 1 - Carbon Chains and Metals Analytical Results in Soil Matrix

SAMPLE ID	DATE SAMPLED	As mg/kg	Ba mg/kg	Co mg/kg	Cr mg/kg	Cu mg/kg	Ni mg/kg	Pb mg/kg	Se mg/kg	V mg/kg	Zn mg/kg	C4-C12 mg/kg	C13-C22 mg/kg	C23-C40 mg/kg
RSLr		0.68	15,000	23	120,000	3,100		400	390	390	23,000	82	97	230,000
DTSC-SLr		0.11			36,000		820	80		390			97	2,400
RSLi		3	220,000	350	1,800,000	47,000		800	5,800	5,800	350,000	420	560	3,500,000
DTSC-SLi		0.36			170,000		11,000	320		1,000			500	18,000
ESL Tier 1		0.067	390	23	120,000	180	86	32	2.4	18	340			
SV1-5	7/12/2021	<5.5	68	5.4	9.8	8.8	6.4	<7.1	<6.9	15	27	<0.05	<5	<5
SV1-10	7/12/2021	<5.5	77	7.1	21	20	12	<7.1	<6.9	24	42	<0.05	<5	<5
SV1-15	7/12/2021	<5.5	45	<3.3	7	<5	3.6	<7.1	<6.9	6.6	22	<0.05	<5	<5
SV2-5	7/12/2021	<5.5	74	5.5	11	13	6.2	<7.1	<6.9	13	28	<0.042	<5	35
SV2-10	7/12/2021	<5.5	82	9.3	18	18	12	<7.1	<6.9	31	36	<0.045	<5	<5
SV2-15	7/12/2021	<5.5	81	6.6	21	14	11	<7.1	<6.9	28	36	<0.05	<5	<5
SV3-5	7/12/2021	<5.5	67	5.6	12	11	4.3	<7.1	<6.9	18	25	<0.042	<5	<5
SV3-10	7/12/2021	<5.5	50	6.4	18	17	9.5	<7.1	<6.9	31	34	<0.05	<5	<5
SV3-15	7/12/2021	<5.5	32	3.7	8.3	6.2	5	<7.1	<6.9	18	18	<0.05	<5	<5
SV4-5	7/12/2021	<5.5	63	8.2	13	14	8	<7.1	<6.9	25	26	<0.05	<5	<5
SV4-10	7/12/2021	<5.5	40	4.6	14	12	7	<7.1	<6.9	21	25	<0.05	<5	<5
SV4-15	7/12/2021	<5.5	26	3.7	8.1	6.8	5.7	<7.1	<6.9	14	20	<0.05	<5	<5
SV5-5	7/12/2021	<5.5	82	8.1	18	17	10	<7.1	<6.9	34	34	<0.05	<5	<5
SV5-10	7/12/2021	<5.5	47	5.1	12	11	7.8	<7.1	<6.9	21	24	<0.05	<5	<5
SV5-15	7/12/2021	<5.5	61	6.1	14	15	8.8	<7.1	<6.9	28	30	<0.05	<5	<5
SV6-5	7/13/2021	<5.5	83	7.6	14	14	8.5	<7.1	<6.9	24	28	<0.05	<5	<5
SV6-10	7/13/2021	<5.5	66	6.4	21	16	12	<7.1	<6.9	31	40	<0.05	<5	<5
SV6-15	7/13/2021	<5.5	42	4.3	9.4	9	6.4	<7.1	<6.9	14	27	<0.05	<5	<5
SV7-5	7/13/2021	<5.5	73	7.2	16	13	11	7.2	<6.9	27	34	<0.062	<5	<5
SV7-10	7/13/2021	<5.5	50	6.6	13	11	7.6	<7.1	<6.9	19	25	<0.071	<5	<5
SV7-15	7/13/2021	<5.5	37	3.6	10	8.4	6.7	<7.1	<6.9	16	20	<0.05	<5	<5
SV8-5	7/13/2021	<5.5	30	<3.3	5.7	7.8	4	19	<6.9	9.1	26	<0.042	<5	<5
SV8-10	7/13/2021	<5.5	58	10	12	11	7.8	<7.1	<6.9	21	25	<0.05	<5	<5
SV8-15	7/13/2021	<5.5	50	4.6	17	12	9.8	<7.1	<6.9	19	29	<0.05	<5	<5
SV9-5	7/13/2021	<5.5	3100	5.1	26	31	20	24	<6.9	28	73	<0.067	110	550
SV9-10	7/13/2021	<5.5	77	6.2	17	12	8.3	<7.1	<6.9	23	27	<0.043	<5	50
SV9-15	7/13/2021	<5.5	110	10	30	17	16	<7.1	<6.9	33	45	<0.05	<5	<5
SV10-5	7/13/2021	<5.5	650	10	25	31	24	42	<6.9	36	100	<0.084	510	650
SV10-10	7/13/2021	<5.5	49	4.9	10	8.3	6	<7.1	<6.9	16	20	<0.05	<5	52
SV10-15	7/13/2021	<5.5	81	11	21	15	13	<7.1	<6.9	36	42	<0.05	<5	<5
SV11-5	7/13/2021	<5.5	150	10	19	21	15	17	<6.9	29	60	<0.05	<5	160
SV11-10	7/13/2021	<5.5	130	8.5	15	10	8.1	<7.1	<6.9	23	28	<0.05	39	200
SV11-15	7/13/2021	<5.5	64	6	19	11	11	<7.1	<6.9	23	31	<0.05	<5	<5
SV12-5	7/13/2021	<5.5	83	5.4	12	7.8	6.4	<7.1	<6.9	18	23	<0.07	<5	<5
SV12-10	7/13/2021	<5.5	46	5.4	10	6.7	5.7	<7.1	<6.9	16	20	<0.05	<5	<5
SV12-15	7/13/2021	<5.5	32	3.3	7	<5	4.5	<7.1	<6.9	9.2	16	<0.05	<5	<5
SV13-5	7/13/2021	<5.5	83	7.1	15	9.8	8.7	<7.1	<6.9	23	31	<0.05	<5	<5

Table 1 - Carbon Chains and Metals Analytical Results in Soil Matrix

SAMPLE ID	DATE SAMPLED	As mg/kg	Ba mg/kg	Co mg/kg	Cr mg/kg	Cu mg/kg	Ni mg/kg	Pb mg/kg	Se mg/kg	V mg/kg	Zn mg/kg	C4-C12 mg/kg	C13-C22 mg/kg	C23-C40 mg/kg
RSL _r		0.68	15,000	23	120,000	3,100		400	390	390	23,000	82	97	230,000
DTSC-SL _r		0.11			36,000		820	80		390			97	2,400
RSL _i		3	220,000	350	1,800,000	47,000		800	5,800	5,800	350,000	420	560	3,500,000
DTSC-SL _i		0.36			170,000		11,000	320		1,000			500	18,000
ESL Tier 1		0.067	390	23	120,000	180	86	32	2.4	18	340			
SV13-10	7/13/2021	<5.5	100	5.7	21	13	10	<7.1	<6.9	26	37	<0.05	<5	<5
SV13-15	7/13/2021	<5.5	46	4.5	12	8	7	<7.1	<6.9	16	26	<0.05	<5	<5
SV14-5	7/13/2021	<5.5	50	4.7	11	7.4	5.9	<7.1	<6.9	15	22	<0.05	<5	<5
SV14-10	7/13/2021	<5.5	88	5.6	22	12	9.1	26	<6.9	17	61	0.21	53	180
SV14-15	7/13/2021	<5.5	38	3.8	12	6.9	6.4	<7.1	<6.9	13	28	<0.05	<5	<5
SV15-5	7/13/2021	<5.5	110	4.9	12	9	6.7	<7.1	<6.9	19	28	<0.06	<5	<5
SV15-10	7/13/2021	<5.5	79	7.8	16	13	12	<7.1	<6.9	26	38	<0.056	<5	<5
SV15-15	7/13/2021	<5.5	64	4.9	11	6.9	7.7	<7.1	<6.9	16	26	<0.065	<5	<5
SV16-5	7/13/2021	<5.5	160	7.4	17	20	11	19	<6.9	24	63	<0.058	190	500
SV16-10	7/13/2021	<5.5	130	11	24	27	16	27	<6.9	36	86	<0.063	<5	<5
SV16-15	7/13/2021	<5.5	720	8	23	37	16	61	<6.9	28	90	0.26	150	200
SV17-5	7/13/2021	20	88	6.7	18	47	17	57	<6.9	21	180	0.052	34	650
SV17-10	7/13/2021	<5.5	170	9.2	20	21	13	12	<6.9	28	61	<0.05	<5	79
SV17-15	7/13/2021	<5.5	240	16	35	35	19	12	7.4	47	120	<0.05	<5	78
SV18-5	7/13/2021	<5.5	110	8.2	18	16	12	14	<6.9	28	66	<0.10	110	600
SV18-10	7/13/2021	<5.5	94	9.8	18	14	12	<7.1	<6.9	32	40	1100	1300	2200
SV18-15	7/13/2021	<5.5	100	7.7	25	16	16	<7.1	<6.9	35	54	0.48	<5	<5
SV19-5	7/13/2021	<5.5	74	6.9	14	11	11	<7.1	<6.9	24	33	2600	2400	<250
SV19-10	7/13/2021	<5.5	66	7.3	17	12	12	<7.1	<6.9	23	35	510	590	270
SV19-15	7/13/2021	<5.5	46	5.2	10	7.8	8.1	<7.1	<6.9	15	28	1500	2500	530

Notes:

mg/kg = milligram per kilogram

As = arsenic, Ba = barium, Co = cobalt, Cr = trivalent chromium, Cu = copper, Ni = nickel, Pb = lead, Se = selenium, V = vanadium, Zn = zinc

<x = concentration is less than the Reporting Limit (x), i.e., not detected (ND)

SV1-5 = Soil Boring1, 5-feet below ground surface (bgs)

BOLD = value exceeds the DTSC or USEPA screening level

Analytical results are included as Appendix A

Soil was collected from 5-feet, 10-feet bgs and 15-feet bgs from the same boring.

Only detected concentrations of metals are presented in this table. All other metals were ND.

ESL Tier 1 = San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels 2019 (Rev. 2)

RSL_r = USEPA Regional Screening Level for residential soils, RSL_i = USEPA Regional Screening Levels for industrial soils (May 2021)

DTSC SL_r = CalEPA DTSC Screening Level for residential soils, DTSC SL_i = CalEPA DTSC Screening Level for industrial soils (June 2020)

carcinogenic values used for all screening levels, except nickel and TPH

DTSC SL C17-C32, aromatic high and USEPA aromatic high values were used for C23-C40

DTSC SL C9-C16, aromatic medium and USEPA aromatic medium values were used for C13-C22

Table 2 - Background Metals Analytical Results in Soil Matrix

SAMPLE ID	DATE SAMPLED	As mg/kg	Ba mg/kg	Co mg/kg	Cr mg/kg	Cu mg/kg	Ni mg/kg	Pb mg/kg	Se mg/kg	V mg/kg	Zn mg/kg
RSL _r		0.68	15,000	23	120,000	3,100		400	390	390	23,000
DTSC-SL _r		0.11			36,000		820	80		390	
RSL _i		3	220,000	350	1,800,000	47,000		800	5,800	5,800	350,000
DTSC-SL _i		0.36			170,000		11,000	320		1,000	
ESL Tier 1		0.067	390	23	120,000	180	86	32	2.4	18	340
Offsite-1	4/4/2005	5.2	97	8.1	21	25	12	12	<1.9	35	62
Offsite-5	4/4/2005	12	160	17	50	64	30	8.1	<1.9	75	99
Offsite-10	4/4/2005	12	170	14	32	35	22	5.6	<1.9	58	67
Offsite-20	4/4/2005	14	73	17	35	80	22	10	<1.9	67	95
SB1-5	7/6/2021	<5.5	84	11	36	40	21	8.8	<6.9	46	54
SB2-5	7/6/2021	<5.5	69	9.3	21	26	15	<7.1	<6.9	36	39
SB3-5	7/6/2021	<5.5	48	4.6	9	16	6.2	<7.1	<6.9	16	29
SB4-5	7/6/2021	<5.5	170	14	42	45	26	9.5	<6.9	58	74
SB5-5	7/6/2021	<5.5	97	16	30	40	27	8.5	<6.9	52	56
SB6-5	7/6/2021	<5.5	130	22	42	46	33	11	<6.9	71	85
SB7-5	7/6/2021	<5.5	80	12	24	26	19	<7.1	<6.9	43	47
SB8-5	7/6/2021	<5.5	180	17	38	37	32	11	<6.9	68	51
SB9-5	7/6/2021	<5.5	87	14	30	28	24	9	<6.9	54	38
SB10-5	7/6/2021	<5.5	98	13	27	30	23	7.5	<6.9	51	39
SB11-5	7/6/2021	<5.5	120	9.8	22	14	16	<7.1	<6.9	39	31

Notes:

mg/kg = milligram per kilogram

As = arsenic, Ba = barium, Co = cobalt, Cr = trivalent chromium, Cu = copper, Ni = nickel, Pb = lead, Se = selenium, V = vanadium, Zn = zinc

<x = concentration is less than the Reporting Limit (x), i.e., not detected (ND)

SB1-5 = Soil Boring1, 5-feet below ground surface (bgs)

Analytical results are included as Appendix B

ESL Tier 1 = San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels 2019 (Rev. 2)

RSL_r = USEPA Regional Screening Level for residential soils, RSL_i = USEPA Regional Screening Levels for industrial soils (May 2021)

DTSC SL_r = CalEPA DTSC Screening Level for residential soils, DTSC SL_i = CalEPA DTSC Screening Level for industrial soils (June 2020)
 carcinogenic values were preferentially used for all screening levels, except nickel

Table 3 - VOCs Analytical Results in Soil Matrix

SAMPLE ID	DATE SAMPLED	Benzene mg/kg	n-Butylbenzene mg/kg	sec-Butylbenzene mg/kg	tert-Butylbenzene mg/kg	Ethylbenzene mg/kg	Isopropylbenzene mg/kg	Methyl tert-butyl ether mg/kg	Naphthalene mg/kg	n-Propylbenzene mg/kg	m,p-Xylene mg/kg	o-Xylene mg/kg
RSL _r		1.2	3,900	7,800	7,800	5.8	1,900	47	2	3,800	550	650
DTSC-SL _r		0.33	2,400	2,200	2,200				2			
RSL _i		5.1	58,000	120,000	120,000	25	9,900	210	8.6	24,000	2,400	2,800
DTSC-SL _i		1.4	18,000	12,000	12,000				6.5			
ESL Tier 1		0.025				0.43		0.028	0.042		2.1	2.1
SV16-10	7/13/2021	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067	<0.0067
SV16-15	7/13/2021	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.014	<0.005	<0.005	<0.005
SV17-5	7/13/2021	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SV17-10	7/13/2021	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SV17-15	7/13/2021	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SV18-5	7/13/2021	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SV18-10	7/13/2021	0.0081	0.0052	0.035	0.005	0.023	0.031	<0.005	0.036	0.035	<0.005	<0.005
SV18-15	7/13/2021	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044	<0.0044
SV19-5	7/13/2021	<0.005	1	<0.005	<0.005	<0.005	3	1.2	7.7	5.7	<0.005	<0.005
SV19-10	7/13/2021	<0.0069	<0.0069	0.068	0.012	<0.0069	1	14	<0.69	1.6	0.0075	<0.0069
SV19-15	7/13/2021	<0.5	1.7	<0.5	<0.5	<0.5	1.7	12	13	4.1	<0.5	<0.5

Notes:

mg/kg = milligram per kilogram

<x = concentration is less than the Reporting Limit (x), i.e., not detected (ND)

SV1-5 = Soil Boring1, 5-feet below ground surface (bgs)

BOLD = value exceeds the DTSC or USEPA screening level

Analytical results are included as Appendix A

Soil was collected from 5-feet, 10-foot bgs and 15-foot bgs from the same boring.

Only detected concentrations of VOCs are presented in this table. All other VOCs were ND.

ESL Tier 1 = San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels 2019 (Rev. 2)

RSL_r = USEPA Regional Screening Level for residential soils, RSL_i = USEPA Regional Screening Levels for industrial soils

(May 2021)

DTSC SL_r = CalEPA DTSC Screening Level for residential soils, DTSC SL_i = CalEPA DTSC Screening Level for industrial soils

(June 2020)

carcinogenic values were preferentially used for all screening levels

Table 4 - SVOCs Analytical Results in Soil Matrix

SAMPLE ID	DATE SAMPLED	Acenaphthene mg/kg	Anthracene mg/kg	Benzo (a) anthracene mg/kg	2,4-Dinitrophenol mg/kg	Chrysene mg/kg	4,6-Dinitro-2-methylphenol mg/kg	2,4-Dinitrotoluene mg/kg	2,6-Dinitrotoluene mg/kg	Fluorene mg/kg	2-Methylnaphthalene mg/kg	Naphthalene mg/kg	4-Nitroaniline mg/kg	N-Nitrosodi-n-propylamine mg/kg	Phenanthrene mg/kg	Pyrene mg/kg
RSL _r		3,600	18,000	1.1	130	110	5.1	1.7	0.36	2,400	240	2	27	0.078		1,800
DTSC-SL _r		3,300	17,000							2,300	190	2				
RSL _i		45,000	230,000	21	1,600	2,100		7.4	1.5	30,000	3,000	8.6	110	0.33		23,000
DTSC-SL _i		23,000	130,000	12.0	1,100	1,300	42	4.7	0.99	17,000	1,300	6.5	74	0.21		13,000
ESL Tier 1		12	1.9	0.63	3			0.023		6	0.88	0.042			7.8	45
SV16-5	7/13/2021	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
SV16-10	7/13/2021	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
SV16-15	7/13/2021	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
SV17-5	7/13/2021	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
SV17-10	7/13/2021	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
SV17-15	7/13/2021	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
SV18-5	7/13/2021	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
SV18-10	7/13/2021	<0.33	0.82	<0.33	0.92	<0.33	<0.33	<0.33	<0.33	<0.33	2.2	0.44	<0.33	<0.33	0.77	<0.33
SV18-15	7/13/2021	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
SV19-5	7/13/2021	<0.33	2.1	<0.33	<0.33	<0.33	0.4	1.1	1.2	1.1	12	5.2	0.85	0.91	2	0.87
SV19-10	7/13/2021	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33	<0.33
SV19-15	7/13/2021	1.6	1.1	1.3	<0.33	1.5	<0.33	<0.33	<0.33	3	<0.33	4	<0.33	<0.33	9.7	8.5

Notes:

mg/kg = milligram per kilogram

<x = concentration is less than the Reporting Limit, i.e., not detected (ND)

SV1-5 = Soil Boring1, 5-feet below ground surface (bgs)

BOLD = value exceeds the DTSC or USEPA screening level

Analytical results are included as Appendix A

Soil was collected from 5-feet, 10-feet bgs and 15-feet bgs from the same boring.

Only detected concentrations of SVOCs are presented in this table. All other SVOCs were ND.

ESL Tier 1 = San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels 2019 (Rev. 2)

RSL_r = USEPA Regional Screening Level for residential soils, RSL_i = USEPA Regional Screening Levels for industrial soils

(May 2021)

DTSC SL_r = CalEPA DTSC Screening Level for residential soils, DTSC SL_i = CalEPA DTSC Screening Level for industrial soils

(June 2020)

carcinogenic values were preferentially used for all screening levels

Table 5 - Soil Vapor Analytical Results

SAMPLE ID	DATE SAMPLED	Benzene µg/m ³	n-Butylbenzene µg/m ³	sec-Butylbenzene µg/m ³	cis-1,2-Dichloroethene µg/m ³	Di-isopropylether µg/m ³	Ethylbenzene µg/m ³	Isopropylbenzene µg/m ³	4-Isopropyltoluene µg/m ³	Methylene chloride µg/m ³	Methyl tert-butyl ether µg/m ³	Naphthalene µg/m ³	n-Propylbenzene µg/m ³	Tetrachloroethene µg/m ³	Toluene µg/m ³	m,p-Xylenes µg/m ³	o-Xylene µg/m ³	Gasoline Range Organics (GRO) µg/m ³
RSL _r		0.36				730	1.1	420		100	11	0.83	1,000	11	5,200	100	100	31
DTSC-SL _r		0.097	210	420	8.3					1				0.46	83			
RSL _i		1.6					4.9	1,800		1,200	47	0.36	4,400	47	22,000	440	440	130
DTSC-SL _i		0.42	880	1,800	35	3,100				12				2	350			
ESL Tier 1		3.2			280		37			34	360	2.8		15	10,000	3,500	3,500	3,300
SV1-5	7/27/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	<8	<8	<16	<8	<2,000
SV1-15	7/27/2021	13	<12	<12	<8	<40	<8	57	321	20	<40	<40	<8	<8	16	<16	<8	25,000
SV2-5	7/27/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	<8	<8	<16	<8	<2,000
SV2-15	7/27/2021	<8	<12	<12	<8	<40	<8	<8	<8	17	<40	<40	<8	<8	<8	<16	<8	<2,000
SV2-15 REP	7/27/2021	<8	<12	<12	<8	<40	<8	<8	<8	26	<40	<40	<8	<8	<8	<16	<8	<2,000
SV3-5	7/27/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	18	<8	<16	<8	<2,000
SV3-15	7/27/2021	<8	<12	<12	<8	<40	<8	<8	<8	8	<40	<40	<8	17	<8	<16	<8	<2,000
SV4-5	7/27/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	22	<8	<16	<8	<2,000
SV4-15	7/27/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	12	<8	<16	<8	<2,000
SV5-5	7/27/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	<8	<8	<16	<8	<2,000
SV5-15	7/27/2021	<8	<12	<12	<8	<40	<8	<8	<8	9	<40	<40	<8	<8	<8	<16	<8	<2,000
SV6-5	7/27/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	17	<8	<16	<8	<2,000
SV6-15	7/27/2021	243	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	8	<8	<16	<8	317,000
SV7-5	7/27/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	<8	<8	<16	<8	<2,000
SV7-15	7/27/2021	8,850	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	<8	4,210	799	441	46,300,000
SV8-5	7/27/2021	20	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	23	15	<16	<8	<2,000
SV8-15	7/27/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	<8	<8	<16	<8	<2,000
SV9-5	7/27/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	<8	<8	<16	<8	<2,000
SV9-15	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	34	13	<16	<8	<2,000
SV9-15 REP	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	34	14	<16	<8	<2,000
SV10-5	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	9	<8	<16	<8	<2,000
SV10-15	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	8	<8	<16	<8	<2,000
SV11-5	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	24	<8	<16	<8	<2,000
SV11-15	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	<8	<8	<16	<8	<2,000
SV12-5	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	8	<8	<16	<8	<2,000
SV12-15	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	9	<8	<16	<8	<2,000

Table 5 - Soil Vapor Analytical Results

SAMPLE ID	DATE SAMPLED	Benzene µg/m ³	n-Butylbenzene µg/m ³	sec-Butylbenzene µg/m ³	cis-1,2-Dichloroethene µg/m ³	Di-isopropylether µg/m ³	Ethylbenzene µg/m ³	Isopropylbenzene µg/m ³	4-Isopropyltoluene µg/m ³	Methylene chloride µg/m ³	Methyl tert-butyl ether µg/m ³	Naphthalene µg/m ³	n-Propylbenzene µg/m ³	Tetrachloroethene µg/m ³	Toluene µg/m ³	m,p-Xylenes µg/m ³	o-Xylene µg/m ³	Gasoline Range Organics (GRO) µg/m ³
RSL _r		0.36				730	1.1	420		100	11	0.83	1,000	11	5,200	100	100	31
DTSC-SL _r		0.097	210	420	8.3					1				0.46	83			
RSL _i		1.6					4.9	1,800		1,200	47	0.36	4,400	47	22,000	440	440	130
DTSC-SL _i		0.42	880	1,800	35	3,100				12				2	350			
ESL Tier 1		3.2			280		37			34	360	2.8		15	10,000	3,500	3,500	3,300
SV13-5	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	16	<8	<16	<8	<2,000
SV13-5 REP	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	25	<8	<16	<8	<2,000
SV13-15	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	<8	<8	<16	<8	<2,000
SV14-5	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	10	<8	<16	<8	<2,000
SV14-15	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	<8	<8	<16	<8	<2,000
SV15-5	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	37	<8	<16	<8	<2,000
SV15-15	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	29	<8	<16	<8	<2,000
SV16-5	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	15	<8	<16	<8	<2,000
SV16-15	7/28/2021	27	<12	<12	51	<40	74	<8	16	<8	<40	41	<8	18	44	287	84	46,800
SV17-5	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	32	<8	<16	<8	<2,000
SV17-15	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	10	<8	<16	<8	<2,000
SV18-5	7/28/2021	<8	<12	<12	<8	<40	<8	<8	<8	<8	<40	<40	<8	13	<8	<16	<8	<2,000
SV18-15	7/28/2021	1,150	<12	<12	<8	4,780	1,910	2,490	<8	<8	8,610	826	2,640	<8	<8	1,720	<8	3,380,000
SV19-5	7/28/2021	18	649	2,380	<8	<40	2,730	4,290	13	<8	121,000*	405	5,810	42	25	<16	<8	900,000

Notes: µg/m³ = micrograms per cubic meter

<x = concentration is less than the Reporting Limit, i.e., not detected; **BOLD** exceeds the screening level

Blank cell screening threshold not available

Analytical results are included as Appendix C

Only detected concentrations of volatiles in the vapor phase are presented in this table

Soil vapor was collected from dual-nested soil vapor probes installed at 5-foot bgs and 15-foot bgs

ESL Tier 1 = San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels 2019 (Rev. 2)

RSL_r = USEPA Regional Screening Level for residential air, RSL_i = USEPA Regional Screening Levels for industrial air (May 2021)

DTSC SL_r = CalEPA DTSC Screening Level for residential air, DTSC SL_i = CalEPA DTSC Screening Level for industrial air (June 2020)

carcinogenic values were preferentially used for all screening levels

* = dilution factor 1/3

Table 6 - Exposure Point Concentrations, Slope Factors and Reference Doses

SOIL MATRIX ANALYTE	MAX mg/kg	95UCL mg/kg	SFo	IUR	RfDo	RfCi
C4-C12	2,600	199			4.0E-03 ^b	3.0E+01 ^b
C13-C22	2,500	346.3			4.0E-03 ^b	3.0E+00 ^b
C23-C40	2,200	246.7			4.0E-02 ^b	
benzene	0.0081		1.0E-01 ^a	2.9E-05 ^a	4.0E-03 ^a	3.0E+00 ^a
n-butylbenzene	1.7				5.0E-02 ^a	2.0E+02 ^a
sec-butylbenzene	0.068				1.0E-01 ^a	4.0E+02 ^a
tert-butylbenzene	0.012				1.0E-01 ^a	4.0E+02 ^a
ethylbenzene	0.023		1.1E-02 ^a	2.5E-06 ^a	1.0E-01 ^a	1.0E+03 ^a
isopropylbenzene	3				1.0E-01 ^a	4.0E+02 ^a
methyl tert-butyl ether	14		1.8E-03 ^a	2.6E-07 ^a		3.0E+03 ^a
naphthalene	13		1.2E-01 ^a	3.4E-05 ^a	2.0E-02 ^a	3.0E+00 ^a
n-propylbenzene	5.7				1.0E-01 ^b	1.0E+03 ^b
m,p-xylenes	0.11				2.0E-01 ^a	1.0E+02 ^a
o-xylene	0.43				2.0E-01 ^a	1.0E+02 ^a
acenaphthene	1.6				6.0E-02 ^a	2.4E+02 ^a
anthracene	2.1				3.0E-01 ^a	1.2E+03 ^a
benzo(a)anthracene	1.3		1.0E-01 ^a	1.1E-04 ^a		
2,4-dinitrophenol	0.92				2.0E-03 ^a	
chrysene	1.5		1.0E-03 ^a	1.1E-05 ^a		
4,6-dinitro-2-methylphenol	0.4				8.0E-05 ^a	
2,4-dinitrotoluene	1.1		3.1E-01 ^a	8.9E-05 ^a	2.0E-03 ^a	
2,6-dinitrotoluene	1.2		1.5E+00 ^a		3.0E-04 ^a	
fluorene	3				4.0E-02 ^a	1.6E+02 ^a
2-methylnaphthalene	12				4.0E-03 ^a	
naphthalene	5.2		1.2E-01 ^a	3.4E-05 ^a	2.0E-02 ^a	3.0E+00 ^a
4-nitroaniline	0.85		2.0E-02 ^a		4.0E-03 ^a	6.0E+00 ^a
4-nitrosodi-n-propylamine	0.91		7.0E+00 ^b	2.0E-03 ^b		
phenanthrene*	9.7					
pyrene	8.5				3.0E-02 ^a	1.2E+02 ^a
selenium	7.4				5.0E-03 ^a	2.0E+01 ^a
lead	61	14.37	LeadSpread	LeadSpread	LeadSpread	LeadSpread
SOIL VAPOR ANALYTE	MAX µg/m ³	95UCL µg/m ³				
benzene	8,850	1,558		ESL & VURAM models		ESL & VURAM models
n-butylbenzene**	649					VURAM model
sec-butylbenzene**	2,380					VURAM model
cis-1,2-dichloroethene**	51					VURAM model
di-isopropylether**	4,780					VURAM model
ethylbenzene	2,730	292.3		ESL & VURAM models		ESL & VURAM models
isopropylbenzene**	4,290	427.5				VURAM model
p-isopropyltoluene**	321	32.1				VURAM model
methylene chloride	26	10.06		ESL & VURAM models		ESL & VURAM models
methyl tert-butyl ether	121,000	21,698		ESL & VURAM models		ESL & VURAM models
naphthalene	826	112.5		ESL & VURAM models		ESL & VURAM models
n-propylbenzene**	5,810	1,179				VURAM model
tetrachloroethene	42	17.88		ESL & VURAM models		ESL & VURAM models
toluene	4,210	814.4				ESL & VURAM models
m,p-xylenes	1,720	180.1				ESL & VURAM models
o-xylene	441	87.33				ESL & VURAM models
gasoline range organics	46,300,000	8,550,284				ESL & VURAM models

Notes:

95UCL calculated using ProUCL version 5.1.02

EPCs are highlighted

SFo = Slope Factor, oral route of exposure (mg/kg-day)⁻¹

IUR = inhalation unit risk factor, inhalation route of exposure (µg/m³)⁻¹

RfDo = Reference Dose, oral route of exposure (mg/kg-day)

RfCi = Reference Concentration, inhalation route of exposure (µg/m³)

^aDTSC HERO Note 10 (February 2019), ^bUSEPA RSL tables (May 2021)

aromatic values were used for carbon chains (USEPA RSL May 2021)

** chemical specific data unavailable in ESL model, therefore analyte was not quantitatively assessed using the ESL model

naphthalene was detected as a VOC and SVOC in the soil matrix, the greatest detected concentration was used as the EPC

*phenanthrene was not quantitatively assessed as toxicity criteria is unavailable

Table 7 - Exposure Parameters

Exposure Parameter	Notation	Receptor Populations				Units	Reference
		Commercial Worker	Construction Worker	Residential User			
				Adult	Child		
General Parameters							
Body Weight	BW	80	80	80	15	kg	DTSC
Exposure Duration	ED	25	1	20	6	years	DTSC
Exposure Frequency	EF	250	250	350	350	days/year	DTSC
Exposure Time	ET	8	8	24	24	hours/day	DTSC
Soil Ingestion Pathway							
Soil Ingestion Rate	IR	100	330	100	200	mg/day	DTSC
Averaging Time carcinogens 70dx365d/yr	Atc	25550	25550	25550	25550	days	DTSC
Averaging Time noncarcinogens EDx365d/yr	Atnc	9125	365	7300	2190	days	DTSC
Dermal Contact with Soil							
Skin Surface Area	SA	6,032	6,032	6,032	2,900	cm ² /event	OEHHA
Soil-to-Skin Adherence factor	AF	0.2	0.8	0.07	0.2	mg/cm ²	OEHHA
Fraction of Chemical Dermally Absorbed	ABS	chem specific	chem specific	ch sp	ch sp	unitless	DTSC
Averaging Time carcinogens 70dx365d/yr	Atc	25550	25550	25550	25550	days	DTSC
Averaging Time noncarcinogens EDx365d/yr	Atnc	9125	365	7300	2190	days	DTSC
Inhalation of Outdoor Air							
Particulate Emission Factor	PEF	1.36E+09	1.00E+06	1.36E+09	1.36E+09	m ³ /kg	DTSC
Exposure Time (site visit duration)	ET	6	12	6	6	hours/day	USEPA
Averaging Time carcinogens 70dx365d/yrx24hr/d	Atc	613200	613200	613200	613200	hours	DTSC
Averaging Time noncarcinogens EDx365d/yrx24h/d	Atnc	219000	8760	175200	52560	hours	DTSC

Notes:

ABS = 0.1 for VOCs, 0.13 for naphthalene, 0.01 for most metals (DTSC June 2020; USEPA RSL May 2021)

Table 8
Estimated Risks and Hazards - Residential

ANALYTE	RISK_o	RISK_i	HAZARD_o	HAZARD_i
soil				
C4-C12			9.05E-01	4.67E-06
C13-C22			1.58E+00	8.15E-05
C23-C40			1.12E-01	
benzene	1.54E-09	1.54E-14	3.69E-05	1.905E-09
n-butylbenzene			6.19E-04	5.993E-09
sec-butylbenzene			1.24E-05	1.20E-10
tert-butylbenzene			2.18E-06	2.11E-11
ethylbenzene	4.81E-10	3.76E-15	4.19E-06	1.62E-11
isopropylbenzene			5.46E-04	5.30E-09
methyl tert-butyl ether	4.79E-08	2.38E-13		3.29E-09
naphthalene	3.33E-06	2.89E-11	1.32E-02	3.06E-06
n-propylbenzene			1.04E-03	4.02E-09
m,p-xylenes			1.00E-05	7.76E-10
o-xylene			3.91E-05	3.03E-09
acenaphthene			5.20E-04	4.71E-09
anthracene			1.28E-04	1.23E-09
benzo(a)anthracene	2.77E-07	9.36E-12		
2,4-dinitrophenol			8.37E-03	
chrysene	3.20E-09	1.08E-12		
4,6-dinitro-2-methylphenol			9.10E-02	
2,4-dinitrotoluene	6.48E-07	6.48E-07	1.00E-02	
2,6-dinitrotoluene	3.42E-06		7.28E-02	
fluorene			1.52E-03	1.32E-08
2-methylnaphthalene			5.46E-02	
4-nitroaniline	3.23E-08	1.19E-10	3.87E-03	9.99E-08
4-nitrosodi-n-propylamine	1.21E-05			
pyrene			5.70E-03	4.99E-08
selenium			2.13E-02	2.61E-07
soil vapor				
benzene		4.80E-04		1.50E+01
ethylbenzene		7.30E-05		7.90E-02
methylene chloride		3.00E-07		7.20E-04
methyl tert-butyl ether		3.40E-04		1.20E+00
naphthalene		2.10E-03		5.60E+01
tetrachloroethene		1.20E-06		1.30E-02
toluene				7.80E-02
xylenes				6.20E-01
gasoline range organics				4.30E+02
Sum	1.99E-05	3.00E-03	2.88	503
Total Risk = 3.02E-03				
Total Hazard = 506				

Table 9
Estimated Risks and Hazards - Commercial

ANALYTE	RISK_o	RISK_i	HAZARD_o	HAZARD_i
soil				
C4-C12			9.40E-02	8.33E-07
C13-C22			1.64E-01	1.46E-05
C23-C40			1.17E-02	
benzene	5.47E-10	1.06E-14	3.83E-06	3.40E-10
n-butylbenzene			6.42E-05	1.07E-09
sec-butylbenzene			1.28E-06	2.14E-11
tert-butylbenzene			2.27E-07	3.78E-12
ethylbenzene	1.71E-10	2.58E-15	4.34E-07	2.89E-12
isopropylbenzene			5.67E-05	9.46E-10
methyl tert-butyl ether	1.70E-08	1.64E-13		5.88E-10
naphthalene	1.34E-06	1.99E-11	1.56E-03	5.46E-07
n-propylbenzene			1.08E-04	7.17E-10
m,p-xylenes			1.04E-06	1.39E-10
o-xylene			4.06E-06	5.41E-10
acenaphthene			6.16E-05	8.42E-10
anthracene			1.52E-05	2.20E-10
benzo(a)anthracene	1.12E-07	6.43E-12		
2,4-dinitrophenol			8.69E-04	
chrysene	1.29E-09	7.42E-13		
4,6-dinitro-2-methylphenol			9.44E-03	
2,4-dinitrotoluene	2.30E-07	4.40E-12	1.04E-03	
2,6-dinitrotoluene	1.22E-06		7.56E-03	
fluorene			1.80E-04	2.37E-09
2-methylnaphthalene			5.67E-03	
4-nitroaniline	1.15E-08	8.18E-11	4.01E-04	1.78E-08
4-nitrosodi-n-propylamine	4.30E-06			
pyrene			6.75E-04	8.92E-09
selenium			1.42E-03	4.66E-08
soil vapor				
benzene		1.10E-04		3.60E+00
ethylbenzene		1.70E-05		1.90E-02
methylene chloride		2.50E-08		1.70E-04
methyl tert-butyl ether		7.70E-05		2.80E-01
naphthalene		4.80E-04		1.30E+01
tetrachloroethene		2.70E-07		3.10E-03
toluene				1.90E-02
xylenes				1.50E-01
gasoline range organics				1.00E+02
Sum	7.23E-06	6.84E-04	0.30	117
Total Risk = 6.91E-04				
Total Hazard = 117				

Table 10
Estimated Risks and Hazards - Construction Worker

ANALYTE	RISK_o	RISK_i	HAZARD_o	HAZARD_i
soil				
C4-C12			4.85E-01	2.27E-03
C13-C22			8.43E-01	3.95E-02
C23-C40			6.01E-02	
benzene	8.02E-11	4.11E-12	1.97E-05	9.25E-07
n-butylbenzene			3.31E-04	2.91E-06
sec-butylbenzene			6.62E-06	5.82E-09
tert-butylbenzene			1.17E-06	1.03E-08
ethylbenzene	2.50E-11	3.06E-14	2.24E-06	7.88E-09
isopropylbenzene			2.92E-04	2.57E-06
methyl tert-butyl ether	2.49E-09	3.31E-16		1.60E-06
naphthalene	2.01E-07	5.66E-12	8.21E-03	1.48E-03
n-propylbenzene			5.55E-04	1.95E-06
m,p-xylenes			5.36E-06	3.77E-07
o-xylene			2.09E-05	1.47E-06
acenaphthene			3.23E-04	2.28E-06
anthracene			7.96E-05	5.99E-07
benzo(a)anthracene	1.68E-08	5.92E-11		
2,4-dinitrophenol			4.48E-03	
chrysene	1.94E-10	5.92E-13		
4,6-dinitro-2-methylphenol			4.87E-02	
2,4-dinitrotoluene	3.38E-08	3.88E-11	5.36E-03	
2,6-dinitrotoluene	1.78E-07		3.90E-02	
fluorene			9.47E-04	6.42E-06
2-methylnaphthalene			2.92E-02	
4-nitroaniline	1.68E-09	1.96E-08	2.07E-03	4.85E-05
4-nitrosodi-n-propylamine	6.31E-07			
pyrene			3.54E-03	2.43E-05
selenium			1.44E-02	1.27E-04
soil vapor				
benzene		1.78E-07		2.08E-02
di-isopropylether				5.33E-03
ethylbenzene		7.63E-08		2.48E-04
isopropylbenzene				3.40E-02
isopropyltoluene				2.38E-03
methylene chloride		1.64E-12		1.15E-05
methyl tert-butyl ether		3.87E-07		4.30E-02
naphthalene		2.77E-07		1.99E-01
n-propylbenzene				4.17E-03
tetrachloroethene		3.83E-11		2.69E-04
toluene				1.51E-04
xylenes				4.41E-03
gasoline range organics				3.73E+00
Sum	1.07E-06	9.38E-07	1.55	4
Total Risk = 2.0E-06				
Total Hazard = 6				

Table 11
Summary of Risks and Hazards

	Receptor Population		
	Residential	Construction	Commercial
∑ Risk	3.02E-03	2.00E-06	6.91E-04
Hazard Index	506	6	117

Notes:

∑Risk = Estimated risks due to ingestion and dermal contact and inhalation of constituents in soil and soil vapor

Hazard Index = Estimated hazards due to ingestion and dermal contact and inhalation of constituents in soil and soil vapor

FIGURES



Figure 1: Site Location Map
Town Center Northwest
Signal Hill, CA

Mearns Consulting LLC



Figure 2: Site Map
Town Center Northwest
Signal Hill, CA

Mearns Consulting LLC



0 300 feet



EXPLANATION

Oil well location:

- Active injection well
- Active production well
- Idle production well
- Idle injection well
- Previously abandoned well

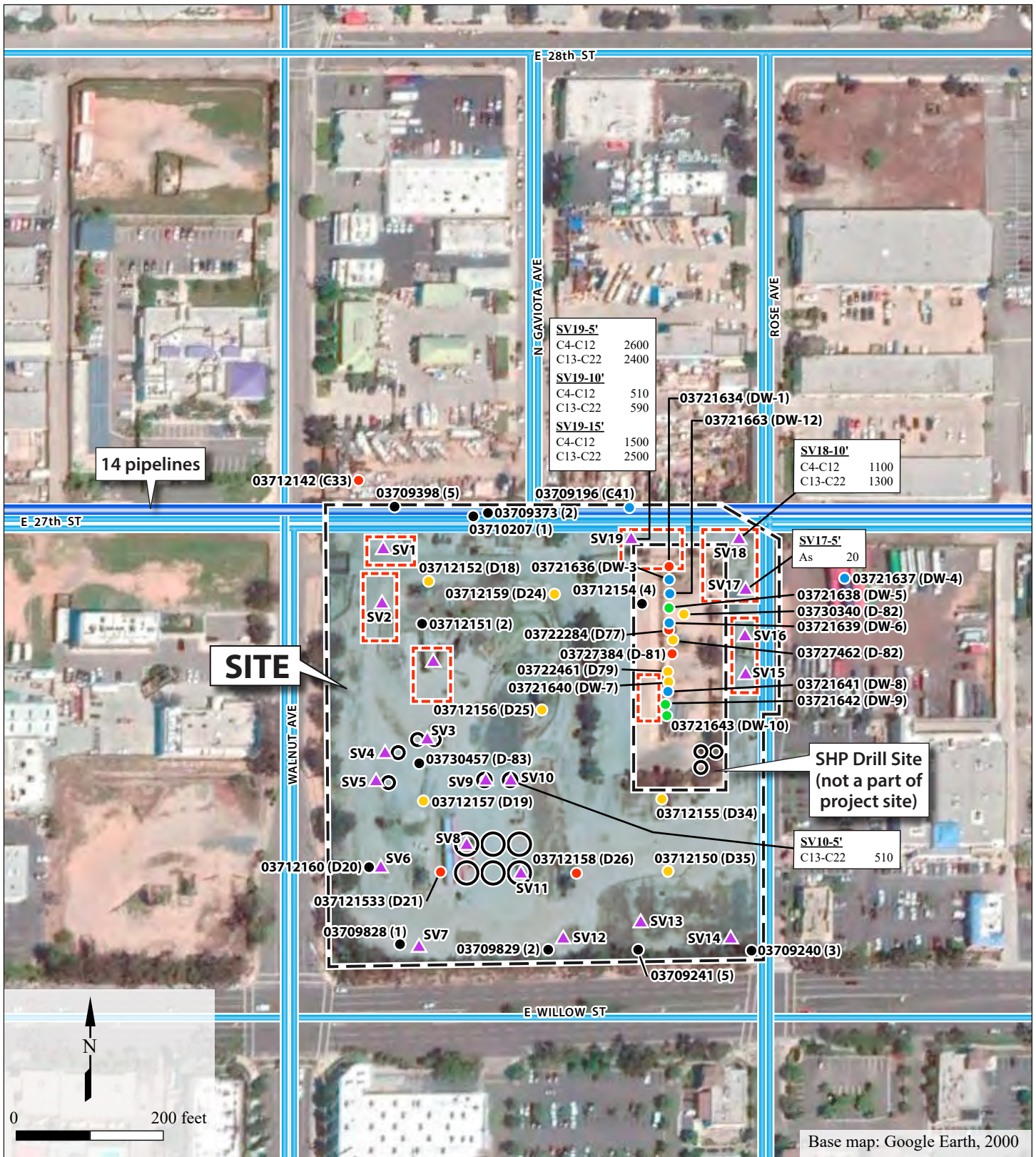


0 200 feet

Base map: Google Earth 2020
Oil well data source: CalGEM

**Figure 3: Oil Wells:
Active, Idle, and Previously Abandoned
Town Center Northwest
Signal Hill, CA**

Mearns Consulting LLC



EXPLANATION

Oil well location:

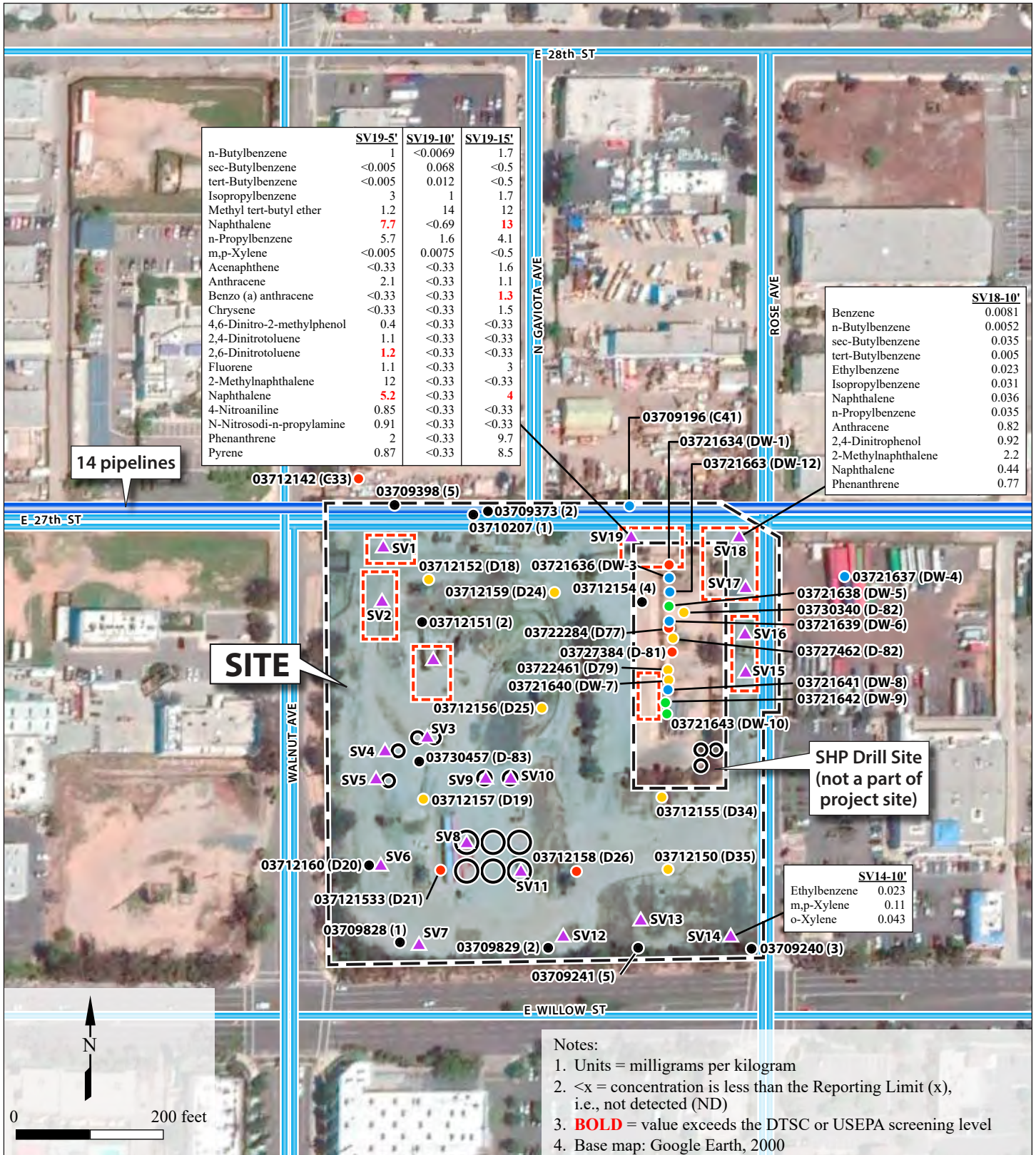
- Active injection well
- Active production well
- Idle production well
- Idle injection well
- Previously abandoned well

- Pipeline
- Above ground storage tank
- ▭ Potential sump
- ▲ Soil boring, sample depth indicated in feet bgs, sample concentrations in milligrams per kilogram, As = arsenic

**Figure 4: Concentrations of Metals and Carbon Chains That Exceed Screening Thresholds
Town Center Northwest
Signal Hill, CA**

Mearns Consulting LLC

Base map: Google Earth, 2000
Oil well data source: CalGEM



	SV19-5'	SV19-10'	SV19-15'
n-Butylbenzene	1	<0.0069	1.7
sec-Butylbenzene	<0.005	0.068	<0.5
tert-Butylbenzene	<0.005	0.012	<0.5
Isopropylbenzene	3	1	1.7
Methyl tert-butyl ether	1.2	14	12
Naphthalene	7.7	<0.69	13
n-Propylbenzene	5.7	1.6	4.1
m,p-Xylene	<0.005	0.0075	<0.5
Acenaphthene	<0.33	<0.33	1.6
Anthracene	2.1	<0.33	1.1
Benzo (a) anthracene	<0.33	<0.33	1.3
Chrysene	<0.33	<0.33	1.5
4,6-Dinitro-2-methylphenol	0.4	<0.33	<0.33
2,4-Dinitrotoluene	1.1	<0.33	<0.33
2,6-Dinitrotoluene	1.2	<0.33	<0.33
Fluorene	1.1	<0.33	3
2-Methylnaphthalene	12	<0.33	<0.33
Naphthalene	5.2	<0.33	4
4-Nitroaniline	0.85	<0.33	<0.33
N-Nitrosodi-n-propylamine	0.91	<0.33	<0.33
Phenanthrene	2	<0.33	9.7
Pyrene	0.87	<0.33	8.5

	SV18-10'
Benzene	0.0081
n-Butylbenzene	0.0052
sec-Butylbenzene	0.035
tert-Butylbenzene	0.005
Ethylbenzene	0.023
Isopropylbenzene	0.031
Naphthalene	0.036
n-Propylbenzene	0.035
Anthracene	0.82
2,4-Dinitrophenol	0.92
2-Methylnaphthalene	2.2
Naphthalene	0.44
Phenanthrene	0.77

	SV14-10'
Ethylbenzene	0.023
m,p-Xylene	0.11
o-Xylene	0.043

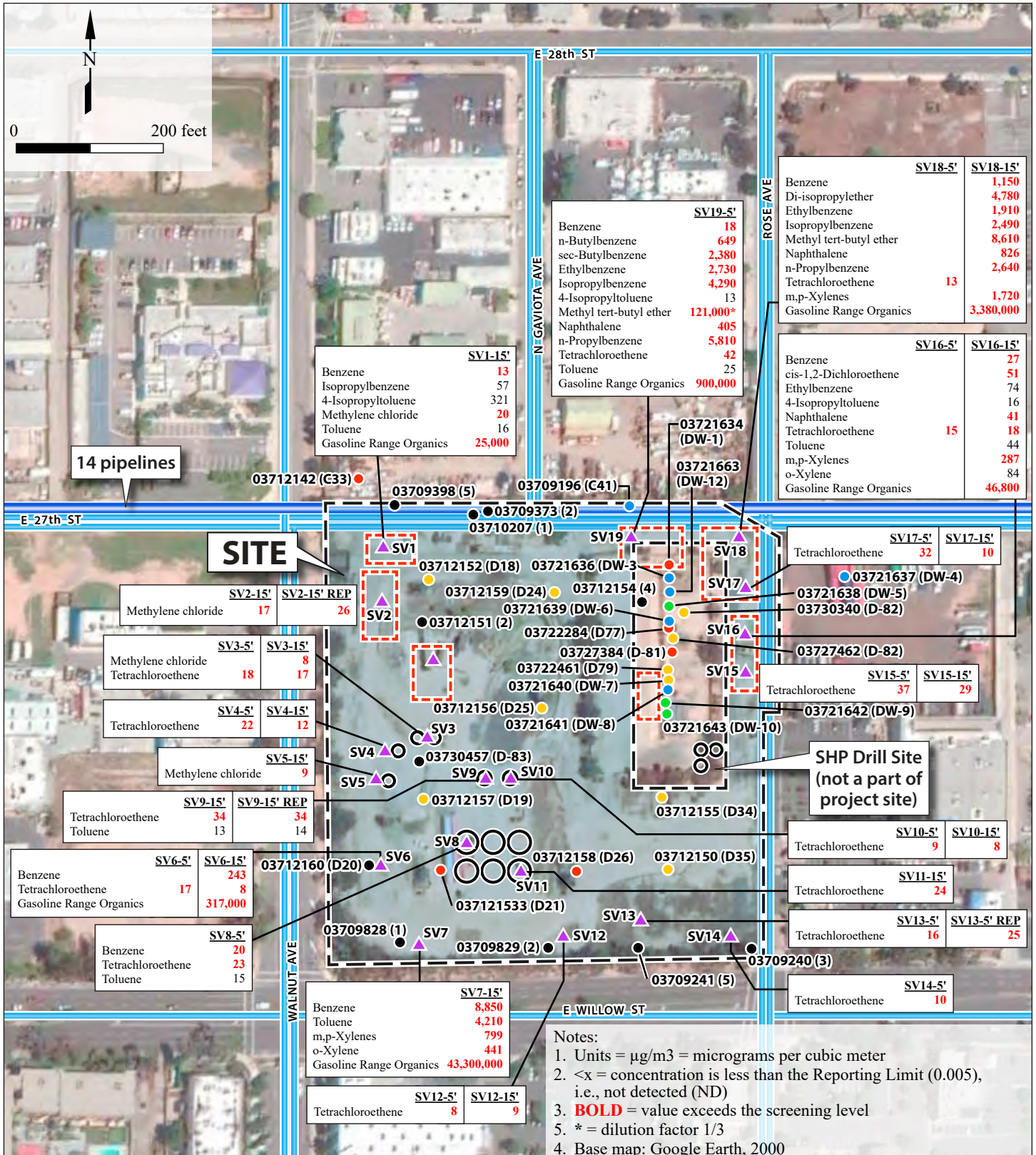
- Notes:
1. Units = milligrams per kilogram
 2. <x = concentration is less than the Reporting Limit (x), i.e., not detected (ND)
 3. **BOLD** = value exceeds the DTSC or USEPA screening level
 4. Base map: Google Earth, 2000
 5. Oil well data source: CalGEM

EXPLANATION

- Oil well location:
- Active injection well
 - Active production well
 - Idle production well
 - Idle injection well
 - Previously abandoned well
 - Above ground storage tank
 - Potential sump
 - ▲ Soil boring, sample depth indicated in feet bgs

Figure 5: Detected Concentrations of VOCs and SVOCs in Soil
 Town Center Northwest
 Signal Hill, CA

Mearns Consulting LLC



14 pipelines

SITE

**SHP Drill Site
(not a part of
project site)**

- Notes:
1. Units = $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter
 2. <x = concentration is less than the Reporting Limit (0.005), i.e., not detected (ND)
 3. **BOLD** = value exceeds the screening level
 5. * = dilution factor 1/3
 4. Base map: Google Earth, 2000
 5. Oil well data source: CalGEM

EXPLANATION

Oil well location:

- Active injection well
- Active production well
- Idle production well
- Idle injection well
- Previously abandoned well

- Pipeline
- Above ground storage tank
- Potential sump
- ▲ Soil boring, sample depth indicated in feet bgs

Figure 6: Soil Vapor Analytical Results
Town Center Northwest
Signal Hill, CA

Mearns Consulting LLC

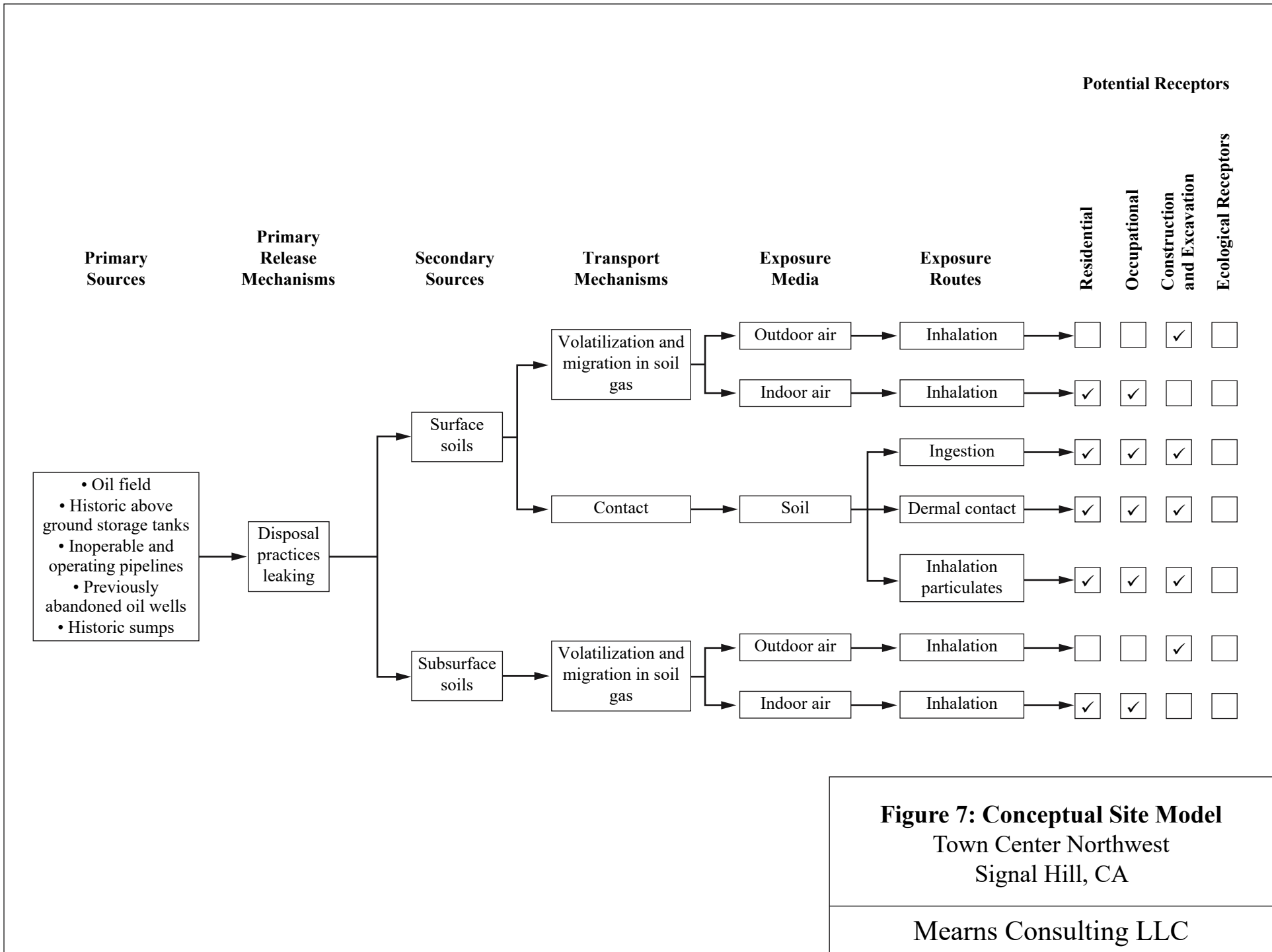


Figure 7: Conceptual Site Model
 Town Center Northwest
 Signal Hill, CA

Mearns Consulting LLC

APPENDIX A

**Sierra Analytical Labs, Inc.
July 12 and 13, 2021
Soil Matrix Data**



19 July 2021

Susan Mearns
Mearns Consulting LLC
738 Ashland Avenue
Santa Monica, CA 90405

RE:Town Center Northwest

Work Order No.: 2107160

Attached are the results of the analyses for samples received by the laboratory on 07/12/21 15:44.

The samples were received by Sierra Analytical Labs, Inc. with a chain of custody record attached or completed at the submittal of the samples.

The analyses were performed according to the prescribed method as outlined by EPA, Standard Methods, and A.S.T.M.

The remaining portions of the samples will be disposed of within 30 days from the date of this report.
If you require any additional retaining time, please advise us.

Sincerely,

A handwritten signature in black ink that reads "Richard K. Forsyth". The signature is written in a cursive style and is positioned above a horizontal line.

Richard K. Forsyth

Laboratory Director

Sierra Analytical Labs, Inc. is certified by the California Department of Health Services (DOHS),
Environmental Laboratory Accreditation Program (ELAP) No. 2320.



Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SV1-5	2107160-01	Soil	07/12/21 08:54	07/12/21 15:44
SV1-10	2107160-02	Soil	07/12/21 10:39	07/12/21 15:44
SV1-15	2107160-03	Soil	07/12/21 10:43	07/12/21 15:44
SV2-5	2107160-04	Soil	07/12/21 11:20	07/12/21 15:44
SV2-10	2107160-05	Soil	07/12/21 11:23	07/12/21 15:44
SV2-15	2107160-06	Soil	07/12/21 11:36	07/12/21 15:44
SV3-5	2107160-07	Soil	07/12/21 12:35	07/12/21 15:44
SV3-10	2107160-08	Soil	07/12/21 12:39	07/12/21 15:44
SV3-15	2107160-09	Soil	07/12/21 12:44	07/12/21 15:44
SV4-5	2107160-10	Soil	07/12/21 13:09	07/12/21 15:44
SV4-10	2107160-11	Soil	07/12/21 13:18	07/12/21 15:44
SV4-15	2107160-12	Soil	07/12/21 13:21	07/12/21 15:44
SV5-5	2107160-13	Soil	07/12/21 13:50	07/12/21 15:44
SV5-10	2107160-14	Soil	07/12/21 14:02	07/12/21 15:44
SV5-15	2107160-15	Soil	07/12/21 14:07	07/12/21 15:44

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-----------------	-------	----------	-------	----------	----------	--------	-------

SV1-5 (2107160-01) Soil Sampled: 07/12/21 08:54 Received: 07/12/21 15:44

Silver	ND	2.0	mg/kg	1	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	68	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	5.4	3.3	"	"	"	"	"	"	
Chromium	9.8	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1307	07/13/21	07/14/21 17:48	EPA 7199A	
Copper	8.8	5.0	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1309	07/13/21	07/13/21 20:26	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Nickel	6.4	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	15	5.1	"	"	"	"	"	"	
Zinc	27	7.0	"	"	"	"	"	"	

SV1-10 (2107160-02) Soil Sampled: 07/12/21 10:39 Received: 07/12/21 15:44

Silver	ND	2.0	mg/kg	1	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	77	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	7.1	3.3	"	"	"	"	"	"	
Chromium	21	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1307	07/13/21	07/14/21 17:48	EPA 7199A	
Copper	20	5.0	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Mercury	ND	0.81	"	"	B1G1309	07/13/21	07/13/21 20:26	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Nickel	12	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	24	5.1	"	"	"	"	"	"	
Zinc	42	7.0	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV1-15 (2107160-03) Soil Sampled: 07/12/21 10:43 Received: 07/12/21 15:44									
Silver	ND	2.0	mg/kg	1	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	45	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	ND	3.3	"	"	"	"	"	"	
Chromium	7.0	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1307	07/13/21	07/14/21 17:48	EPA 7199A	
Copper	ND	5.0	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1309	07/13/21	07/13/21 20:26	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Nickel	3.6	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	6.6	5.1	"	"	"	"	"	"	
Zinc	22	7.0	"	"	"	"	"	"	
SV2-5 (2107160-04) Soil Sampled: 07/12/21 11:20 Received: 07/12/21 15:44									
Silver	ND	2.0	mg/kg	1	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	74	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	5.5	3.3	"	"	"	"	"	"	
Chromium	11	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1307	07/13/21	07/14/21 17:48	EPA 7199A	
Copper	13	5.0	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1309	07/13/21	07/13/21 20:26	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Nickel	6.2	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	13	5.1	"	"	"	"	"	"	
Zinc	28	7.0	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
SV2-10 (2107160-05) Soil Sampled: 07/12/21 11:23 Received: 07/12/21 15:44										
Silver	ND	2.0	mg/kg	1	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	82	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	9.3	3.3	"	"	"	"	"	"		
Chromium	18	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1307	07/13/21	07/14/21 17:48	EPA 7199A		
Copper	18	5.0	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1309	07/13/21	07/13/21 20:26	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B		
Nickel	12	3.0	"	"	"	"	"	"		
Lead	ND	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	31	5.1	"	"	"	"	"	"		
Zinc	36	7.0	"	"	"	"	"	"		

SV2-15 (2107160-06) Soil Sampled: 07/12/21 11:36 Received: 07/12/21 15:44

Silver	ND	2.0	mg/kg	1	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	81	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	6.6	3.3	"	"	"	"	"	"	
Chromium	21	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1307	07/13/21	07/14/21 17:48	EPA 7199A	
Copper	14	5.0	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1309	07/13/21	07/13/21 20:26	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Nickel	11	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	28	5.1	"	"	"	"	"	"	
Zinc	36	7.0	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV3-5 (2107160-07) Soil Sampled: 07/12/21 12:35 Received: 07/12/21 15:44									
Silver	ND	2.0	mg/kg	1	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	67	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	5.6	3.3	"	"	"	"	"	"	
Chromium	12	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1307	07/13/21	07/14/21 17:48	EPA 7199A	
Copper	11	5.0	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Mercury	ND	0.81	"	"	B1G1309	07/13/21	07/13/21 20:26	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Nickel	4.3	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	18	5.1	"	"	"	"	"	"	
Zinc	25	7.0	"	"	"	"	"	"	

SV3-10 (2107160-08) Soil Sampled: 07/12/21 12:39 Received: 07/12/21 15:44

Silver	ND	2.0	mg/kg	1	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	50	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	6.4	3.3	"	"	"	"	"	"	
Chromium	18	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1307	07/13/21	07/14/21 17:48	EPA 7199A	
Copper	17	5.0	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Mercury	ND	0.78	"	"	B1G1309	07/13/21	07/13/21 20:26	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Nickel	9.5	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	31	5.1	"	"	"	"	"	"	
Zinc	34	7.0	"	"	"	"	"	"	

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Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV3-15 (2107160-09) Soil Sampled: 07/12/21 12:44 Received: 07/12/21 15:44

Silver	ND	2.0	mg/kg	1	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	32	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	3.7	3.3	"	"	"	"	"	"	
Chromium	8.3	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1307	07/13/21	07/14/21 17:48	EPA 7199A	
Copper	6.2	5.0	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1309	07/13/21	07/13/21 20:26	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Nickel	5.0	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	18	5.1	"	"	"	"	"	"	
Zinc	18	7.0	"	"	"	"	"	"	

SV4-5 (2107160-10) Soil Sampled: 07/12/21 13:09 Received: 07/12/21 15:44

Silver	ND	2.0	mg/kg	1	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	63	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	8.2	3.3	"	"	"	"	"	"	
Chromium	13	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1307	07/13/21	07/14/21 17:48	EPA 7199A	
Copper	14	5.0	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1309	07/13/21	07/13/21 20:26	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Nickel	8.0	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	25	5.1	"	"	"	"	"	"	
Zinc	26	7.0	"	"	"	"	"	"	

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Reported:
07/19/21 09:26

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
SV4-10 (2107160-11) Soil Sampled: 07/12/21 13:18 Received: 07/12/21 15:44										
Silver	ND	2.0	mg/kg	1	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	40	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	4.6	3.3	"	"	"	"	"	"		
Chromium	14	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1307	07/13/21	07/14/21 17:48	EPA 7199A		
Copper	12	5.0	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1309	07/13/21	07/13/21 20:26	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B		
Nickel	7.0	3.0	"	"	"	"	"	"		
Lead	ND	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	21	5.1	"	"	"	"	"	"		
Zinc	25	7.0	"	"	"	"	"	"		

SV4-15 (2107160-12) Soil Sampled: 07/12/21 13:21 Received: 07/12/21 15:44

Silver	ND	2.0	mg/kg	1	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	26	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	3.7	3.3	"	"	"	"	"	"	
Chromium	8.1	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1307	07/13/21	07/14/21 17:48	EPA 7199A	
Copper	6.8	5.0	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1309	07/13/21	07/13/21 20:26	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Nickel	5.7	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	14	5.1	"	"	"	"	"	"	
Zinc	20	7.0	"	"	"	"	"	"	

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Project: Town Center Northwest
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Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV5-5 (2107160-13) Soil Sampled: 07/12/21 13:50 Received: 07/12/21 15:44									
Silver	ND	2.0	mg/kg	1	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	82	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	8.1	3.3	"	"	"	"	"	"	
Chromium	18	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1307	07/13/21	07/14/21 17:48	EPA 7199A	
Copper	17	5.0	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1309	07/13/21	07/13/21 20:26	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Nickel	10	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	34	5.1	"	"	"	"	"	"	
Zinc	34	7.0	"	"	"	"	"	"	

SV5-10 (2107160-14) Soil Sampled: 07/12/21 14:02 Received: 07/12/21 15:44

Silver	ND	2.0	mg/kg	1	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	47	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	5.1	3.3	"	"	"	"	"	"	
Chromium	12	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1307	07/13/21	07/14/21 17:48	EPA 7199A	
Copper	11	5.0	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1309	07/13/21	07/13/21 20:26	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Nickel	7.8	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	21	5.1	"	"	"	"	"	"	
Zinc	24	7.0	"	"	"	"	"	"	

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 Santa Monica CA, 90405

Project: Town Center Northwest
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 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV5-15 (2107160-15) Soil Sampled: 07/12/21 14:07 Received: 07/12/21 15:44										
Silver	ND	2.0		mg/kg	1	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Arsenic	ND	5.5		"	"	"	"	"	"	
Barium	61	6.0		"	"	"	"	"	"	
Beryllium	ND	2.2		"	"	"	"	"	"	
Cadmium	ND	2.5		"	"	"	"	"	"	
Cobalt	6.1	3.3		"	"	"	"	"	"	
Chromium	14	2.3		"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10		"	"	B1G1307	07/13/21	07/14/21 17:48	EPA 7199A	
Copper	15	5.0		"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Mercury	ND	0.90		"	"	B1G1309	07/13/21	07/13/21 20:26	EPA 7471A	
Molybdenum	ND	5.2		"	"	B1G1308	07/13/21	07/14/21 17:06	EPA 6010B	
Nickel	8.8	3.0		"	"	"	"	"	"	
Lead	ND	7.1		"	"	"	"	"	"	
Antimony	ND	8.0		"	"	"	"	"	"	
Selenium	ND	6.9		"	"	"	"	"	"	
Thallium	ND	17		"	"	"	"	"	"	
Vanadium	28	5.1		"	"	"	"	"	"	
Zinc	30	7.0		"	"	"	"	"	"	

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 Santa Monica CA, 90405

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 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV1-5 (2107160-01) Soil Sampled: 07/12/21 08:54 Received: 07/12/21 15:44									
<i>Surrogate: o-Terphenyl</i>		67.5 %	60-175		B1G1401	07/14/21	07/14/21 12:21	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		96.4 %	35-130		B1G1302	07/13/21	07/14/21 08:03	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	"
SV1-10 (2107160-02) Soil Sampled: 07/12/21 10:39 Received: 07/12/21 15:44									
<i>Surrogate: o-Terphenyl</i>		91.5 %	60-175		B1G1401	07/14/21	07/14/21 12:21	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		98.5 %	35-130		B1G1302	07/13/21	07/14/21 08:03	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	"
SV1-15 (2107160-03) Soil Sampled: 07/12/21 10:43 Received: 07/12/21 15:44									
<i>Surrogate: o-Terphenyl</i>		66.4 %	60-175		B1G1401	07/14/21	07/14/21 12:21	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		92.0 %	35-130		B1G1302	07/13/21	07/14/21 08:03	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	"
SV2-5 (2107160-04) Soil Sampled: 07/12/21 11:20 Received: 07/12/21 15:44									
<i>Surrogate: o-Terphenyl</i>		69.9 %	60-175		B1G1401	07/14/21	07/14/21 12:21	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	35	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		91.9 %	35-130		B1G1302	07/13/21	07/14/21 08:03	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.042	"	"	"	"	"	"	"

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Project: Town Center Northwest
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 Project Manager: Susan Mearns

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 07/19/21 09:26

Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV2-10 (2107160-05) Soil Sampled: 07/12/21 11:23 Received: 07/12/21 15:44									
<i>Surrogate: o-Terphenyl</i>		91.3 %	60-175		BIG1401	07/14/21	07/14/21 12:21	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		98.5 %	35-130		BIG1302	07/13/21	07/14/21 08:03	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.045	"	"	"	"	"	"	
SV2-15 (2107160-06) Soil Sampled: 07/12/21 11:36 Received: 07/12/21 15:44									
<i>Surrogate: o-Terphenyl</i>		68.0 %	60-175		BIG1401	07/14/21	07/14/21 12:21	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		91.4 %	35-130		BIG1302	07/13/21	07/14/21 08:03	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	
SV3-5 (2107160-07) Soil Sampled: 07/12/21 12:35 Received: 07/12/21 15:44									
<i>Surrogate: o-Terphenyl</i>		73.0 %	60-175		BIG1401	07/14/21	07/14/21 12:21	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		93.7 %	35-130		BIG1302	07/13/21	07/14/21 08:03	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.042	"	"	"	"	"	"	
SV3-10 (2107160-08) Soil Sampled: 07/12/21 12:39 Received: 07/12/21 15:44									
<i>Surrogate: o-Terphenyl</i>		76.6 %	60-175		BIG1401	07/14/21	07/14/21 12:21	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		91.5 %	35-130		BIG1302	07/13/21	07/14/21 08:03	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV3-15 (2107160-09) Soil Sampled: 07/12/21 12:44 Received: 07/12/21 15:44									
<i>Surrogate: o-Terphenyl</i>		77.7 %	60-175		B1G1401	07/14/21	07/14/21 12:21	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		93.0 %	35-130		B1G1302	07/13/21	07/14/21 08:03	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	
SV4-5 (2107160-10) Soil Sampled: 07/12/21 13:09 Received: 07/12/21 15:44									
<i>Surrogate: o-Terphenyl</i>		74.6 %	60-175		B1G1401	07/14/21	07/14/21 12:21	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		96.7 %	35-130		B1G1302	07/13/21	07/14/21 08:03	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	
SV4-10 (2107160-11) Soil Sampled: 07/12/21 13:18 Received: 07/12/21 15:44									
<i>Surrogate: o-Terphenyl</i>		76.4 %	60-175		B1G1401	07/14/21	07/14/21 12:21	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		94.0 %	35-130		B1G1302	07/13/21	07/14/21 08:03	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	
SV4-15 (2107160-12) Soil Sampled: 07/12/21 13:21 Received: 07/12/21 15:44									
<i>Surrogate: o-Terphenyl</i>		65.2 %	60-175		B1G1401	07/14/21	07/14/21 12:21	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		84.3 %	35-130		B1G1302	07/13/21	07/14/21 08:03	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	

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Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV5-5 (2107160-13) Soil Sampled: 07/12/21 13:50 Received: 07/12/21 15:44

<i>Surrogate: o-Terphenyl</i>		67.5 %	60-175		BIG1401	07/14/21	07/14/21 12:21	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		95.6 %	35-130		BIG1302	07/13/21	07/14/21 08:03	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	

SV5-10 (2107160-14) Soil Sampled: 07/12/21 14:02 Received: 07/12/21 15:44

<i>Surrogate: o-Terphenyl</i>		71.2 %	60-175		BIG1401	07/14/21	07/14/21 12:21	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		87.6 %	35-130		BIG1302	07/13/21	07/14/21 08:03	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	

SV5-15 (2107160-15) Soil Sampled: 07/12/21 14:07 Received: 07/12/21 15:44

<i>Surrogate: o-Terphenyl</i>		73.6 %	60-175		BIG1401	07/14/21	07/14/21 12:21	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		87.4 %	35-130		BIG1302	07/13/21	07/14/21 08:03	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	

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Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV1-5 (2107160-01) Soil Sampled: 07/12/21 08:54 Received: 07/12/21 15:44

Surrogate: Dibromofluoromethane		112 %		80-120	BIG1312	07/13/21	07/14/21 08:23	EPA 8260B	
Surrogate: Toluene-d8		99.7 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.8 %		74-121	"	"	"	"	
Benzene	ND	4.5	"	"	"	"	"	"	
Bromobenzene	ND	4.5	"	"	"	"	"	"	
Bromochloromethane	ND	4.5	"	"	"	"	"	"	
Bromodichloromethane	ND	4.5	"	"	"	"	"	"	
Bromoform	ND	4.5	"	"	"	"	"	"	
Bromomethane	ND	4.5	"	"	"	"	"	"	
n-Butylbenzene	ND	4.5	"	"	"	"	"	"	
sec-Butylbenzene	ND	4.5	"	"	"	"	"	"	
tert-Butylbenzene	ND	4.5	"	"	"	"	"	"	
Carbon tetrachloride	ND	4.5	"	"	"	"	"	"	
Chlorobenzene	ND	4.5	"	"	"	"	"	"	
Chloroethane	ND	4.5	"	"	"	"	"	"	
Chloroform	ND	4.5	"	"	"	"	"	"	
Chloromethane	ND	4.5	"	"	"	"	"	"	
2-Chlorotoluene	ND	4.5	"	"	"	"	"	"	
4-Chlorotoluene	ND	4.5	"	"	"	"	"	"	
Dibromochloromethane	ND	4.5	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	4.5	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	4.5	"	"	"	"	"	"	
Dibromomethane	ND	4.5	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	4.5	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	4.5	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	4.5	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	4.5	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.5	"	"	"	"	"	"	
1,2-Dichloroethane	ND	4.5	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.5	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.5	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	4.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	4.5	"	"	"	"	"	"	
1,3-Dichloropropane	ND	4.5	"	"	"	"	"	"	
2,2-Dichloropropane	ND	4.5	"	"	"	"	"	"	
1,1-Dichloropropene	ND	4.5	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.5	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.5	"	"	"	"	"	"	
Ethylbenzene	ND	4.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	4.5	"	"	"	"	"	"	
Isopropylbenzene	ND	4.5	"	"	"	"	"	"	

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 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV1-5 (2107160-01) Soil Sampled: 07/12/21 08:54 Received: 07/12/21 15:44

p-Isopropyltoluene	ND	4.5	µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
Methylene chloride	ND	4.5	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	4.5	"	"	"	"	"	"	
Naphthalene	ND	4.5	"	"	"	"	"	"	
n-Propylbenzene	ND	4.5	"	"	"	"	"	"	
Styrene	ND	4.5	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	4.5	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	4.5	"	"	"	"	"	"	
Tetrachloroethane	ND	4.5	"	"	"	"	"	"	
Toluene	ND	4.5	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.5	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	4.5	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	4.5	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	4.5	"	"	"	"	"	"	
Trichloroethene	ND	4.5	"	"	"	"	"	"	
Trichlorofluoromethane	ND	4.5	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	4.5	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	4.5	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	4.5	"	"	"	"	"	"	
Vinyl chloride	ND	4.5	"	"	"	"	"	"	
m,p-Xylene	ND	4.5	"	"	"	"	"	"	
o-Xylene	ND	4.5	"	"	"	"	"	"	

SV1-10 (2107160-02) Soil Sampled: 07/12/21 10:39 Received: 07/12/21 15:44

Surrogate: Dibromofluoromethane		114 %		80-120	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
Surrogate: Toluene-d8		99.4 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.0 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV1-10 (2107160-02) Soil Sampled: 07/12/21 10:39 Received: 07/12/21 15:44										
2-Chlorotoluene	ND	5.0		µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
4-Chlorotoluene	ND	5.0		"	"	"	"	"	"	
Dibromochloromethane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0		"	"	"	"	"	"	
Dibromomethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0		"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0		"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	

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 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV1-10 (2107160-02) Soil Sampled: 07/12/21 10:39 Received: 07/12/21 15:44

1,2,4-Trimethylbenzene	ND	5.0	µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV1-15 (2107160-03) Soil Sampled: 07/12/21 10:43 Received: 07/12/21 15:44

<i>Surrogate: Dibromofluoromethane</i>		115 %		80-120	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		101 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		95.9 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV1-15 (2107160-03) Soil Sampled: 07/12/21 10:43 Received: 07/12/21 15:44										
2,2-Dichloropropane	ND	5.0		µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
Vinyl chloride	ND	5.0		"	"	"	"	"	"	
m,p-Xylene	ND	5.0		"	"	"	"	"	"	
o-Xylene	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV2-5 (2107160-04) Soil Sampled: 07/12/21 11:20 Received: 07/12/21 15:44

Surrogate: Dibromofluoromethane		113 %	80-120		BIG1312	07/13/21	07/14/21 08:23	EPA 8260B	
Surrogate: Toluene-d8		101 %	81-117		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.8 %	74-121		"	"	"	"	
Benzene	ND	4.2	"	"	"	"	"	"	
Bromobenzene	ND	4.2	"	"	"	"	"	"	
Bromochloromethane	ND	4.2	"	"	"	"	"	"	
Bromodichloromethane	ND	4.2	"	"	"	"	"	"	
Bromoform	ND	4.2	"	"	"	"	"	"	
Bromomethane	ND	4.2	"	"	"	"	"	"	
n-Butylbenzene	ND	4.2	"	"	"	"	"	"	
sec-Butylbenzene	ND	4.2	"	"	"	"	"	"	
tert-Butylbenzene	ND	4.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	4.2	"	"	"	"	"	"	
Chlorobenzene	ND	4.2	"	"	"	"	"	"	
Chloroethane	ND	4.2	"	"	"	"	"	"	
Chloroform	ND	4.2	"	"	"	"	"	"	
Chloromethane	ND	4.2	"	"	"	"	"	"	
2-Chlorotoluene	ND	4.2	"	"	"	"	"	"	
4-Chlorotoluene	ND	4.2	"	"	"	"	"	"	
Dibromochloromethane	ND	4.2	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	4.2	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	4.2	"	"	"	"	"	"	
Dibromomethane	ND	4.2	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	4.2	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	4.2	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	4.2	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	4.2	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.2	"	"	"	"	"	"	
1,2-Dichloroethane	ND	4.2	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.2	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.2	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	4.2	"	"	"	"	"	"	
1,2-Dichloropropane	ND	4.2	"	"	"	"	"	"	
1,3-Dichloropropane	ND	4.2	"	"	"	"	"	"	
2,2-Dichloropropane	ND	4.2	"	"	"	"	"	"	
1,1-Dichloropropene	ND	4.2	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.2	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.2	"	"	"	"	"	"	
Ethylbenzene	ND	4.2	"	"	"	"	"	"	
Hexachlorobutadiene	ND	4.2	"	"	"	"	"	"	
Isopropylbenzene	ND	4.2	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV2-5 (2107160-04) Soil Sampled: 07/12/21 11:20 Received: 07/12/21 15:44

p-Isopropyltoluene	ND	4.2	µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
Methylene chloride	ND	4.2	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	4.2	"	"	"	"	"	"	
Naphthalene	ND	4.2	"	"	"	"	"	"	
n-Propylbenzene	ND	4.2	"	"	"	"	"	"	
Styrene	ND	4.2	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	4.2	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	4.2	"	"	"	"	"	"	
Tetrachloroethane	ND	4.2	"	"	"	"	"	"	
Toluene	ND	4.2	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.2	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	4.2	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	4.2	"	"	"	"	"	"	
Trichloroethene	ND	4.2	"	"	"	"	"	"	
Trichlorofluoromethane	ND	4.2	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	4.2	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	4.2	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	4.2	"	"	"	"	"	"	
Vinyl chloride	ND	4.2	"	"	"	"	"	"	
m,p-Xylene	ND	4.2	"	"	"	"	"	"	
o-Xylene	ND	4.2	"	"	"	"	"	"	

SV2-10 (2107160-05) Soil Sampled: 07/12/21 11:23 Received: 07/12/21 15:44

Surrogate: Dibromofluoromethane		111 %		80-120	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
Surrogate: Toluene-d8		100 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.5 %		74-121	"	"	"	"	
Benzene	ND	3.9	"	"	"	"	"	"	
Bromobenzene	ND	3.9	"	"	"	"	"	"	
Bromochloromethane	ND	3.9	"	"	"	"	"	"	
Bromodichloromethane	ND	3.9	"	"	"	"	"	"	
Bromoform	ND	3.9	"	"	"	"	"	"	
Bromomethane	ND	3.9	"	"	"	"	"	"	
n-Butylbenzene	ND	3.9	"	"	"	"	"	"	
sec-Butylbenzene	ND	3.9	"	"	"	"	"	"	
tert-Butylbenzene	ND	3.9	"	"	"	"	"	"	
Carbon tetrachloride	ND	3.9	"	"	"	"	"	"	
Chlorobenzene	ND	3.9	"	"	"	"	"	"	
Chloroethane	ND	3.9	"	"	"	"	"	"	
Chloroform	ND	3.9	"	"	"	"	"	"	
Chloromethane	ND	3.9	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV2-10 (2107160-05) Soil Sampled: 07/12/21 11:23 Received: 07/12/21 15:44										
2-Chlorotoluene	ND	3.9		µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
4-Chlorotoluene	ND	3.9		"	"	"	"	"	"	
Dibromochloromethane	ND	3.9		"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	3.9		"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	3.9		"	"	"	"	"	"	
Dibromomethane	ND	3.9		"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	3.9		"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	3.9		"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	3.9		"	"	"	"	"	"	
Dichlorodifluoromethane	ND	3.9		"	"	"	"	"	"	
1,1-Dichloroethane	ND	3.9		"	"	"	"	"	"	
1,2-Dichloroethane	ND	3.9		"	"	"	"	"	"	
1,1-Dichloroethene	ND	3.9		"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	3.9		"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	3.9		"	"	"	"	"	"	
1,2-Dichloropropane	ND	3.9		"	"	"	"	"	"	
1,3-Dichloropropane	ND	3.9		"	"	"	"	"	"	
2,2-Dichloropropane	ND	3.9		"	"	"	"	"	"	
1,1-Dichloropropene	ND	3.9		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	3.9		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	3.9		"	"	"	"	"	"	
Ethylbenzene	ND	3.9		"	"	"	"	"	"	
Hexachlorobutadiene	ND	3.9		"	"	"	"	"	"	
Isopropylbenzene	ND	3.9		"	"	"	"	"	"	
p-Isopropyltoluene	ND	3.9		"	"	"	"	"	"	
Methylene chloride	ND	3.9		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	3.9		"	"	"	"	"	"	
Naphthalene	ND	3.9		"	"	"	"	"	"	
n-Propylbenzene	ND	3.9		"	"	"	"	"	"	
Styrene	ND	3.9		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	3.9		"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	3.9		"	"	"	"	"	"	
Tetrachloroethene	ND	3.9		"	"	"	"	"	"	
Toluene	ND	3.9		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	3.9		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	3.9		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	3.9		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	3.9		"	"	"	"	"	"	
Trichloroethene	ND	3.9		"	"	"	"	"	"	
Trichlorofluoromethane	ND	3.9		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	3.9		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV2-10 (2107160-05) Soil Sampled: 07/12/21 11:23 Received: 07/12/21 15:44

1,2,4-Trimethylbenzene	ND	3.9	µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
1,3,5-Trimethylbenzene	ND	3.9	"	"	"	"	"	"	
Vinyl chloride	ND	3.9	"	"	"	"	"	"	
m,p-Xylene	ND	3.9	"	"	"	"	"	"	
o-Xylene	ND	3.9	"	"	"	"	"	"	

SV2-15 (2107160-06) Soil Sampled: 07/12/21 11:36 Received: 07/12/21 15:44

<i>Surrogate: Dibromofluoromethane</i>		116 %		80-120	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		102 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		95.2 %		74-121	"	"	"	"	
Benzene	ND	4.4	"	"	"	"	"	"	
Bromobenzene	ND	4.4	"	"	"	"	"	"	
Bromochloromethane	ND	4.4	"	"	"	"	"	"	
Bromodichloromethane	ND	4.4	"	"	"	"	"	"	
Bromoform	ND	4.4	"	"	"	"	"	"	
Bromomethane	ND	4.4	"	"	"	"	"	"	
n-Butylbenzene	ND	4.4	"	"	"	"	"	"	
sec-Butylbenzene	ND	4.4	"	"	"	"	"	"	
tert-Butylbenzene	ND	4.4	"	"	"	"	"	"	
Carbon tetrachloride	ND	4.4	"	"	"	"	"	"	
Chlorobenzene	ND	4.4	"	"	"	"	"	"	
Chloroethane	ND	4.4	"	"	"	"	"	"	
Chloroform	ND	4.4	"	"	"	"	"	"	
Chloromethane	ND	4.4	"	"	"	"	"	"	
2-Chlorotoluene	ND	4.4	"	"	"	"	"	"	
4-Chlorotoluene	ND	4.4	"	"	"	"	"	"	
Dibromochloromethane	ND	4.4	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	4.4	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	4.4	"	"	"	"	"	"	
Dibromomethane	ND	4.4	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	4.4	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	4.4	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	4.4	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	4.4	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.4	"	"	"	"	"	"	
1,2-Dichloroethane	ND	4.4	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.4	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.4	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	4.4	"	"	"	"	"	"	
1,2-Dichloropropane	ND	4.4	"	"	"	"	"	"	
1,3-Dichloropropane	ND	4.4	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV2-15 (2107160-06) Soil Sampled: 07/12/21 11:36 Received: 07/12/21 15:44										
2,2-Dichloropropane	ND	4.4		µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
1,1-Dichloropropene	ND	4.4		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.4		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.4		"	"	"	"	"	"	
Ethylbenzene	ND	4.4		"	"	"	"	"	"	
Hexachlorobutadiene	ND	4.4		"	"	"	"	"	"	
Isopropylbenzene	ND	4.4		"	"	"	"	"	"	
p-Isopropyltoluene	ND	4.4		"	"	"	"	"	"	
Methylene chloride	ND	4.4		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	4.4		"	"	"	"	"	"	
Naphthalene	ND	4.4		"	"	"	"	"	"	
n-Propylbenzene	ND	4.4		"	"	"	"	"	"	
Styrene	ND	4.4		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	4.4		"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	4.4		"	"	"	"	"	"	
Tetrachloroethene	ND	4.4		"	"	"	"	"	"	
Toluene	ND	4.4		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.4		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	4.4		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	4.4		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	4.4		"	"	"	"	"	"	
Trichloroethene	ND	4.4		"	"	"	"	"	"	
Trichlorofluoromethane	ND	4.4		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	4.4		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	4.4		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	4.4		"	"	"	"	"	"	
Vinyl chloride	ND	4.4		"	"	"	"	"	"	
m,p-Xylene	ND	4.4		"	"	"	"	"	"	
o-Xylene	ND	4.4		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV3-5 (2107160-07) Soil Sampled: 07/12/21 12:35 Received: 07/12/21 15:44

Surrogate: Dibromofluoromethane		114 %		80-120	BIG1312	07/13/21	07/14/21 08:23	EPA 8260B	
Surrogate: Toluene-d8		101 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.7 %		74-121	"	"	"	"	
Benzene	ND	4.2	"	"	"	"	"	"	
Bromobenzene	ND	4.2	"	"	"	"	"	"	
Bromochloromethane	ND	4.2	"	"	"	"	"	"	
Bromodichloromethane	ND	4.2	"	"	"	"	"	"	
Bromoform	ND	4.2	"	"	"	"	"	"	
Bromomethane	ND	4.2	"	"	"	"	"	"	
n-Butylbenzene	ND	4.2	"	"	"	"	"	"	
sec-Butylbenzene	ND	4.2	"	"	"	"	"	"	
tert-Butylbenzene	ND	4.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	4.2	"	"	"	"	"	"	
Chlorobenzene	ND	4.2	"	"	"	"	"	"	
Chloroethane	ND	4.2	"	"	"	"	"	"	
Chloroform	ND	4.2	"	"	"	"	"	"	
Chloromethane	ND	4.2	"	"	"	"	"	"	
2-Chlorotoluene	ND	4.2	"	"	"	"	"	"	
4-Chlorotoluene	ND	4.2	"	"	"	"	"	"	
Dibromochloromethane	ND	4.2	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	4.2	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	4.2	"	"	"	"	"	"	
Dibromomethane	ND	4.2	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	4.2	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	4.2	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	4.2	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	4.2	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.2	"	"	"	"	"	"	
1,2-Dichloroethane	ND	4.2	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.2	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.2	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	4.2	"	"	"	"	"	"	
1,2-Dichloropropane	ND	4.2	"	"	"	"	"	"	
1,3-Dichloropropane	ND	4.2	"	"	"	"	"	"	
2,2-Dichloropropane	ND	4.2	"	"	"	"	"	"	
1,1-Dichloropropene	ND	4.2	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.2	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.2	"	"	"	"	"	"	
Ethylbenzene	ND	4.2	"	"	"	"	"	"	
Hexachlorobutadiene	ND	4.2	"	"	"	"	"	"	
Isopropylbenzene	ND	4.2	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV3-5 (2107160-07) Soil Sampled: 07/12/21 12:35 Received: 07/12/21 15:44

p-Isopropyltoluene	ND	4.2	µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
Methylene chloride	ND	4.2	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	4.2	"	"	"	"	"	"	
Naphthalene	ND	4.2	"	"	"	"	"	"	
n-Propylbenzene	ND	4.2	"	"	"	"	"	"	
Styrene	ND	4.2	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	4.2	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	4.2	"	"	"	"	"	"	
Tetrachloroethane	ND	4.2	"	"	"	"	"	"	
Toluene	ND	4.2	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.2	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	4.2	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	4.2	"	"	"	"	"	"	
Trichloroethene	ND	4.2	"	"	"	"	"	"	
Trichlorofluoromethane	ND	4.2	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	4.2	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	4.2	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	4.2	"	"	"	"	"	"	
Vinyl chloride	ND	4.2	"	"	"	"	"	"	
m,p-Xylene	ND	4.2	"	"	"	"	"	"	
o-Xylene	ND	4.2	"	"	"	"	"	"	

SV3-10 (2107160-08) Soil Sampled: 07/12/21 12:39 Received: 07/12/21 15:44

Surrogate: Dibromofluoromethane		116 %	80-120		B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
Surrogate: Toluene-d8		101 %	81-117		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.2 %	74-121		"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV3-10 (2107160-08) Soil Sampled: 07/12/21 12:39 Received: 07/12/21 15:44										
2-Chlorotoluene	ND	5.0		µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
4-Chlorotoluene	ND	5.0		"	"	"	"	"	"	
Dibromochloromethane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0		"	"	"	"	"	"	
Dibromomethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0		"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0		"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV3-10 (2107160-08) Soil Sampled: 07/12/21 12:39 Received: 07/12/21 15:44

1,2,4-Trimethylbenzene	ND	5.0	µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV3-15 (2107160-09) Soil Sampled: 07/12/21 12:44 Received: 07/12/21 15:44

<i>Surrogate: Dibromofluoromethane</i>		118 %		80-120	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		101 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		95.7 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV3-15 (2107160-09) Soil Sampled: 07/12/21 12:44 Received: 07/12/21 15:44										
2,2-Dichloropropane	ND	5.0		µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	"
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	"
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	"
Ethylbenzene	ND	5.0		"	"	"	"	"	"	"
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	"
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	"
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	"
Methylene chloride	ND	5.0		"	"	"	"	"	"	"
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	"
Naphthalene	ND	5.0		"	"	"	"	"	"	"
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	"
Styrene	ND	5.0		"	"	"	"	"	"	"
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	"
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	"
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	"
Toluene	ND	5.0		"	"	"	"	"	"	"
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	"
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	"
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	"
Trichloroethene	ND	5.0		"	"	"	"	"	"	"
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	"
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	"
1,2,4-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	"
1,3,5-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	"
Vinyl chloride	ND	5.0		"	"	"	"	"	"	"
m,p-Xylene	ND	5.0		"	"	"	"	"	"	"
o-Xylene	ND	5.0		"	"	"	"	"	"	"

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV4-5 (2107160-10) Soil Sampled: 07/12/21 13:09 Received: 07/12/21 15:44

Surrogate: Dibromofluoromethane		117 %		80-120	BIG1312	07/13/21	07/14/21 08:23	EPA 8260B	
Surrogate: Toluene-d8		100 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.6 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV4-5 (2107160-10) Soil Sampled: 07/12/21 13:09 Received: 07/12/21 15:44

p-Isopropyltoluene	ND	5.0	µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV4-10 (2107160-11) Soil Sampled: 07/12/21 13:18 Received: 07/12/21 15:44

Surrogate: Dibromofluoromethane		119 %		80-120	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
Surrogate: Toluene-d8		99.8 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.6 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV4-10 (2107160-11) Soil Sampled: 07/12/21 13:18 Received: 07/12/21 15:44										
2-Chlorotoluene	ND	5.0		µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
4-Chlorotoluene	ND	5.0		"	"	"	"	"	"	
Dibromochloromethane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0		"	"	"	"	"	"	
Dibromomethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0		"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0		"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV4-10 (2107160-11) Soil Sampled: 07/12/21 13:18 Received: 07/12/21 15:44

1,2,4-Trimethylbenzene	ND	5.0	µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV4-15 (2107160-12) Soil Sampled: 07/12/21 13:21 Received: 07/12/21 15:44

<i>Surrogate: Dibromofluoromethane</i>		118 %		80-120	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		101 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		94.5 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV4-15 (2107160-12) Soil Sampled: 07/12/21 13:21 Received: 07/12/21 15:44										
2,2-Dichloropropane	ND	5.0		µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	"
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	"
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	"
Ethylbenzene	ND	5.0		"	"	"	"	"	"	"
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	"
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	"
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	"
Methylene chloride	ND	5.0		"	"	"	"	"	"	"
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	"
Naphthalene	ND	5.0		"	"	"	"	"	"	"
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	"
Styrene	ND	5.0		"	"	"	"	"	"	"
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	"
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	"
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	"
Toluene	ND	5.0		"	"	"	"	"	"	"
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	"
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	"
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	"
Trichloroethene	ND	5.0		"	"	"	"	"	"	"
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	"
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	"
1,2,4-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	"
1,3,5-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	"
Vinyl chloride	ND	5.0		"	"	"	"	"	"	"
m,p-Xylene	ND	5.0		"	"	"	"	"	"	"
o-Xylene	ND	5.0		"	"	"	"	"	"	"

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								

SV5-5 (2107160-13) Soil Sampled: 07/12/21 13:50 Received: 07/12/21 15:44

Surrogate: Dibromofluoromethane		118 %		80-120		BIG1312	07/13/21	07/14/21 08:23	EPA 8260B	
Surrogate: Toluene-d8		102 %		81-117		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.0 %		74-121		"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV5-5 (2107160-13) Soil Sampled: 07/12/21 13:50 Received: 07/12/21 15:44

p-Isopropyltoluene	ND	5.0	µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV5-10 (2107160-14) Soil Sampled: 07/12/21 14:02 Received: 07/12/21 15:44

Surrogate: Dibromofluoromethane		100 %	80-120		B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
Surrogate: Toluene-d8		101 %	81-117		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.4 %	74-121		"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV5-10 (2107160-14) Soil Sampled: 07/12/21 14:02 Received: 07/12/21 15:44										
2-Chlorotoluene	ND	5.0		µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
4-Chlorotoluene	ND	5.0		"	"	"	"	"	"	
Dibromochloromethane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0		"	"	"	"	"	"	
Dibromomethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0		"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0		"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV5-10 (2107160-14) Soil Sampled: 07/12/21 14:02 Received: 07/12/21 15:44

1,2,4-Trimethylbenzene	ND	5.0	µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV5-15 (2107160-15) Soil Sampled: 07/12/21 14:07 Received: 07/12/21 15:44

<i>Surrogate: Dibromofluoromethane</i>		100 %		80-120	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		101 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		94.1 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	

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 738 Ashland Avenue
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Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV5-15 (2107160-15) Soil Sampled: 07/12/21 14:07 Received: 07/12/21 15:44										
2,2-Dichloropropane	ND	5.0		µg/kg	1	B1G1312	07/13/21	07/14/21 08:23	EPA 8260B	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	"
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	"
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	"
Ethylbenzene	ND	5.0		"	"	"	"	"	"	"
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	"
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	"
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	"
Methylene chloride	ND	5.0		"	"	"	"	"	"	"
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	"
Naphthalene	ND	5.0		"	"	"	"	"	"	"
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	"
Styrene	ND	5.0		"	"	"	"	"	"	"
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	"
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	"
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	"
Toluene	ND	5.0		"	"	"	"	"	"	"
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	"
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	"
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	"
Trichloroethene	ND	5.0		"	"	"	"	"	"	"
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	"
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	"
1,2,4-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	"
1,3,5-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	"
Vinyl chloride	ND	5.0		"	"	"	"	"	"	"
m,p-Xylene	ND	5.0		"	"	"	"	"	"	"
o-Xylene	ND	5.0		"	"	"	"	"	"	"

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 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV1-5 (2107160-01) Soil Sampled: 07/12/21 08:54 Received: 07/12/21 15:44									
Surrogate: 2-Fluorophenol		99.9 %		25-121	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
Surrogate: Phenol-d6		102 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		67.5 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		41.6 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		28.7 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		119 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV1-5 (2107160-01) Soil Sampled: 07/12/21 08:54 Received: 07/12/21 15:44										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV1-10 (2107160-02) Soil Sampled: 07/12/21 10:39 Received: 07/12/21 15:44									
Surrogate: 2-Fluorophenol		107 %	25-121		B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
Surrogate: Phenol-d6		104 %	24-113		"	"	"	"	
Surrogate: Nitrobenzene-d5		64.3 %	23-120		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		68.0 %	30-115		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		31.5 %	19-122		"	"	"	"	
Surrogate: Terphenyl-d14		73.0 %	18-137		"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV1-10 (2107160-02) Soil Sampled: 07/12/21 10:39 Received: 07/12/21 15:44										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV1-15 (2107160-03) Soil Sampled: 07/12/21 10:43 Received: 07/12/21 15:44									
Surrogate: 2-Fluorophenol		118 %	25-121		B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
Surrogate: Phenol-d6		101 %	24-113		"	"	"	"	
Surrogate: Nitrobenzene-d5		64.5 %	23-120		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		58.7 %	30-115		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		27.1 %	19-122		"	"	"	"	
Surrogate: Terphenyl-d14		94.1 %	18-137		"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV1-15 (2107160-03) Soil Sampled: 07/12/21 10:43 Received: 07/12/21 15:44										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	"
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	"
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	"
Fluoranthene	ND	0.33		"	"	"	"	"	"	"
Fluorene	ND	0.33		"	"	"	"	"	"	"
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	"
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	"
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	"
Hexachloroethane	ND	0.33		"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	"
Isophorone	ND	0.33		"	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	"
2-Methylphenol	ND	0.33		"	"	"	"	"	"	"
4-Methylphenol	ND	0.33		"	"	"	"	"	"	"
Naphthalene	ND	0.33		"	"	"	"	"	"	"
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
Nitrobenzene	ND	0.33		"	"	"	"	"	"	"
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	"
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	"
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	"
Diphenylamine	ND	0.33		"	"	"	"	"	"	"
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	"
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	"
Phenanthrene	ND	0.33		"	"	"	"	"	"	"
Phenol	ND	0.33		"	"	"	"	"	"	"
Pyrene	ND	0.33		"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	"
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	"
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	"

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV2-5 (2107160-04) Soil Sampled: 07/12/21 11:20 Received: 07/12/21 15:44									
Surrogate: 2-Fluorophenol		115 %		25-121	BIG1405	07/14/21	07/14/21 14:33	EPA 8270C	
Surrogate: Phenol-d6		105 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		75.7 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		69.5 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		76.1 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		96.6 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV2-5 (2107160-04) Soil Sampled: 07/12/21 11:20 Received: 07/12/21 15:44										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV2-10 (2107160-05) Soil Sampled: 07/12/21 11:23 Received: 07/12/21 15:44									
Surrogate: 2-Fluorophenol		63.4 %		25-121	BIG1405	07/14/21	07/14/21 14:33	EPA 8270C	
Surrogate: Phenol-d6		90.1 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		82.0 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		86.8 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		53.8 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		92.7 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV2-10 (2107160-05) Soil Sampled: 07/12/21 11:23 Received: 07/12/21 15:44										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV2-15 (2107160-06) Soil Sampled: 07/12/21 11:36 Received: 07/12/21 15:44									
Surrogate: 2-Fluorophenol		61.9 %		25-121	BIG1405	07/14/21	07/14/21 14:33	EPA 8270C	
Surrogate: Phenol-d6		110 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		80.1 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		94.3 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		51.8 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		111 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV2-15 (2107160-06) Soil Sampled: 07/12/21 11:36 Received: 07/12/21 15:44										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV3-5 (2107160-07) Soil Sampled: 07/12/21 12:35 Received: 07/12/21 15:44									
Surrogate: 2-Fluorophenol		63.7 %		25-121	BIG1405	07/14/21	07/14/21 14:33	EPA 8270C	
Surrogate: Phenol-d6		70.1 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		83.4 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		82.1 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		56.1 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		89.4 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV3-5 (2107160-07) Soil Sampled: 07/12/21 12:35 Received: 07/12/21 15:44										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV3-10 (2107160-08) Soil Sampled: 07/12/21 12:39 Received: 07/12/21 15:44									
Surrogate: 2-Fluorophenol		72.1 %		25-121	BIG1405	07/14/21	07/14/21 14:33	EPA 8270C	
Surrogate: Phenol-d6		59.9 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		97.4 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		114 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		35.7 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		87.6 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV3-10 (2107160-08) Soil Sampled: 07/12/21 12:39 Received: 07/12/21 15:44										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV3-15 (2107160-09) Soil Sampled: 07/12/21 12:44 Received: 07/12/21 15:44									
Surrogate: 2-Fluorophenol		103 %		25-121	BIG1405	07/14/21	07/14/21 14:33	EPA 8270C	
Surrogate: Phenol-d6		69.7 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		102 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		41.5 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		53.9 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		89.7 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV3-15 (2107160-09) Soil Sampled: 07/12/21 12:44 Received: 07/12/21 15:44										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV4-5 (2107160-10) Soil Sampled: 07/12/21 13:09 Received: 07/12/21 15:44

Surrogate: 2-Fluorophenol		103 %		25-121	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
Surrogate: Phenol-d6		65.7 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		95.9 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		48.8 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		58.5 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		88.0 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV4-5 (2107160-10) Soil Sampled: 07/12/21 13:09 Received: 07/12/21 15:44										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV4-10 (2107160-11) Soil Sampled: 07/12/21 13:18 Received: 07/12/21 15:44									
Surrogate: 2-Fluorophenol		106 %		25-121	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
Surrogate: Phenol-d6		53.9 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		74.9 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		75.3 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		51.7 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		94.0 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV4-10 (2107160-11) Soil Sampled: 07/12/21 13:18 Received: 07/12/21 15:44										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	"
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	"
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	"
Fluoranthene	ND	0.33		"	"	"	"	"	"	"
Fluorene	ND	0.33		"	"	"	"	"	"	"
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	"
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	"
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	"
Hexachloroethane	ND	0.33		"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	"
Isophorone	ND	0.33		"	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	"
2-Methylphenol	ND	0.33		"	"	"	"	"	"	"
4-Methylphenol	ND	0.33		"	"	"	"	"	"	"
Naphthalene	ND	0.33		"	"	"	"	"	"	"
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
Nitrobenzene	ND	0.33		"	"	"	"	"	"	"
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	"
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	"
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	"
Diphenylamine	ND	0.33		"	"	"	"	"	"	"
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	"
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	"
Phenanthrene	ND	0.33		"	"	"	"	"	"	"
Phenol	ND	0.33		"	"	"	"	"	"	"
Pyrene	ND	0.33		"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	"
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	"
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	"

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV4-15 (2107160-12) Soil Sampled: 07/12/21 13:21 Received: 07/12/21 15:44									
Surrogate: 2-Fluorophenol		109 %		25-121	BIG1405	07/14/21	07/14/21 14:33	EPA 8270C	
Surrogate: Phenol-d6		82.7 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		99.5 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		74.4 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		49.5 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		78.1 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV4-15 (2107160-12) Soil Sampled: 07/12/21 13:21 Received: 07/12/21 15:44										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV5-5 (2107160-13) Soil Sampled: 07/12/21 13:50 Received: 07/12/21 15:44

Surrogate: 2-Fluorophenol		111 %		25-121	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
Surrogate: Phenol-d6		85.4 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		101 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		49.9 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		35.5 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		88.2 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV5-5 (2107160-13) Soil Sampled: 07/12/21 13:50 Received: 07/12/21 15:44										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV5-10 (2107160-14) Soil Sampled: 07/12/21 14:02 Received: 07/12/21 15:44									
Surrogate: 2-Fluorophenol		55.4 %		25-121	BIG1405	07/14/21	07/14/21 14:33	EPA 8270C	
Surrogate: Phenol-d6		98.9 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		60.5 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		81.9 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		39.9 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		117 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV5-10 (2107160-14) Soil Sampled: 07/12/21 14:02 Received: 07/12/21 15:44										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	"
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	"
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	"
Fluoranthene	ND	0.33		"	"	"	"	"	"	"
Fluorene	ND	0.33		"	"	"	"	"	"	"
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	"
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	"
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	"
Hexachloroethane	ND	0.33		"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	"
Isophorone	ND	0.33		"	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	"
2-Methylphenol	ND	0.33		"	"	"	"	"	"	"
4-Methylphenol	ND	0.33		"	"	"	"	"	"	"
Naphthalene	ND	0.33		"	"	"	"	"	"	"
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
Nitrobenzene	ND	0.33		"	"	"	"	"	"	"
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	"
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	"
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	"
Diphenylamine	ND	0.33		"	"	"	"	"	"	"
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	"
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	"
Phenanthrene	ND	0.33		"	"	"	"	"	"	"
Phenol	ND	0.33		"	"	"	"	"	"	"
Pyrene	ND	0.33		"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	"
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	"
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	"

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV5-15 (2107160-15) Soil Sampled: 07/12/21 14:07 Received: 07/12/21 15:44									
Surrogate: 2-Fluorophenol		91.5 %		25-121	BIG1405	07/14/21	07/14/21 14:33	EPA 8270C	
Surrogate: Phenol-d6		61.0 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		39.5 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		72.5 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		83.1 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		85.4 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV5-15 (2107160-15) Soil Sampled: 07/12/21 14:07 Received: 07/12/21 15:44										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1405	07/14/21	07/14/21 14:33	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	"
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	"
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	"
Fluoranthene	ND	0.33		"	"	"	"	"	"	"
Fluorene	ND	0.33		"	"	"	"	"	"	"
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	"
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	"
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	"
Hexachloroethane	ND	0.33		"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	"
Isophorone	ND	0.33		"	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	"
2-Methylphenol	ND	0.33		"	"	"	"	"	"	"
4-Methylphenol	ND	0.33		"	"	"	"	"	"	"
Naphthalene	ND	0.33		"	"	"	"	"	"	"
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
Nitrobenzene	ND	0.33		"	"	"	"	"	"	"
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	"
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	"
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	"
Diphenylamine	ND	0.33		"	"	"	"	"	"	"
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	"
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	"
Phenanthrene	ND	0.33		"	"	"	"	"	"	"
Phenol	ND	0.33		"	"	"	"	"	"	"
Pyrene	ND	0.33		"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	"
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	"
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	"

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Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1307 - EPA 3060A

Blank (B1G1307-BLK1)

Prepared: 07/13/21 Analyzed: 07/14/21

Hexavalent Chromium ND 0.10 mg/kg

LCS (B1G1307-BS1)

Prepared: 07/13/21 Analyzed: 07/14/21

Hexavalent Chromium 0.151 0.10 mg/kg 0.150 101 80-120

Matrix Spike (B1G1307-MS1)

Source: 2107160-01

Prepared: 07/13/21 Analyzed: 07/14/21

Hexavalent Chromium 0.160 0.10 mg/kg 0.149 ND 107 75-125

Matrix Spike Dup (B1G1307-MSD1)

Source: 2107160-01

Prepared: 07/13/21 Analyzed: 07/14/21

Hexavalent Chromium 0.154 0.10 mg/kg 0.149 ND 104 75-125 3.48 20

Batch B1G1308 - EPA 3050B

Blank (B1G1308-BLK1)

Prepared: 07/13/21 Analyzed: 07/14/21

Barium	ND	6.0	mg/kg							
Beryllium	ND	2.2	"							
Antimony	ND	8.0	"							
Cadmium	ND	2.5	"							
Lead	ND	7.1	"							
Thallium	ND	17	"							
Nickel	ND	3.0	"							
Selenium	ND	6.9	"							
Chromium	ND	2.3	"							
Molybdenum	ND	5.2	"							
Copper	ND	5.0	"							
Cobalt	ND	3.3	"							
Zinc	ND	7.0	"							
Silver	ND	2.0	"							
Arsenic	ND	5.5	"							
Vanadium	ND	5.1	"							

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Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1308 - EPA 3050B

LCS (B1G1308-BS1)

Prepared: 07/13/21 Analyzed: 07/14/21

Cadmium	94.4	2.5	mg/kg	100		94.4	80-120			
Zinc	99.5	7.0	"	100		99.5	80-120			
Molybdenum	111	5.2	"	100		111	80-120			
Chromium	85.0	2.3	"	100		85.0	80-120			
Nickel	113	3.0	"	100		113	80-120			
Cobalt	80.4	3.3	"	100		80.4	80-120			
Silver	89.3	2.0	"	100		89.3	60-140			
Lead	101	7.1	"	100		101	80-120			
Copper	103	5.0	"	100		103	78-122			
Arsenic	109	5.5	"	100		109	78-122			
Barium	99.8	6.0	"	100		99.8	80-120			
Selenium	95.1	6.9	"	100		95.1	76-124			
Thallium	97.4	17	"	100		97.4	80-120			
Vanadium	99.8	5.1	"	100		99.8	80-120			
Beryllium	98.2	2.2	"	100		98.2	80-120			
Antimony	110	8.0	"	100		110	75-125			

LCS Dup (B1G1308-BSD1)

Prepared: 07/13/21 Analyzed: 07/14/21

Nickel	116	3.0	mg/kg	100		116	80-120	2.60	20	
Vanadium	95.9	5.1	"	100		95.9	80-120	3.99	20	
Antimony	94.0	8.0	"	100		94.0	75-125	16.0	20	
Lead	96.8	7.1	"	100		96.8	80-120	4.37	20	
Thallium	96.3	17	"	100		96.3	80-120	1.11	20	
Selenium	94.0	6.9	"	100		94.0	76-124	1.22	20	
Copper	113	5.0	"	100		113	78-122	9.46	20	
Zinc	87.6	7.0	"	100		87.6	80-120	12.6	20	
Molybdenum	96.4	5.2	"	100		96.4	80-120	13.8	20	
Cadmium	94.6	2.5	"	100		94.6	80-120	0.212	20	
Arsenic	105	5.5	"	100		105	78-122	3.43	20	
Barium	101	6.0	"	100		101	80-120	0.948	20	
Beryllium	104	2.2	"	100		104	80-120	5.48	20	
Silver	92.1	2.0	"	100		92.1	60-140	3.03	40	
Cobalt	97.7	3.3	"	100		97.7	80-120	19.5	20	
Chromium	99.7	2.3	"	100		99.7	80-120	15.9	20	

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Metals by EPA 6000/7000 Series Methods - Quality Control

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1308 - EPA 3050B

Matrix Spike (B1G1308-MS1)	Source: 2107160-01			Prepared: 07/13/21		Analyzed: 07/14/21				
Lead	95.9	7.1	mg/kg	99.0	5.52	91.3	70-130			
Arsenic	88.1	5.5	"	99.0	ND	89.0	70-130			
Copper	114	5.0	"	99.0	8.79	106	70-130			
Barium	160	6.0	"	99.0	67.9	93.5	70-130			
Antimony	91.4	8.0	"	99.0	1.56	90.8	60-140			
Chromium	95.2	2.3	"	99.0	9.80	86.2	70-130			
Cadmium	92.0	2.5	"	99.0	0.470	92.4	70-130			
Silver	100	2.0	"	99.0	ND	101	60-140			
Molybdenum	80.0	5.2	"	99.0	0.644	80.2	70-130			
Thallium	91.3	17	"	99.0	ND	92.2	70-130			
Selenium	87.0	6.9	"	99.0	ND	87.8	70-130			
Vanadium	97.6	5.1	"	99.0	14.8	83.6	70-130			
Nickel	93.3	3.0	"	99.0	6.44	87.7	70-130			
Cobalt	99.8	3.3	"	99.0	5.40	95.4	70-130			
Zinc	114	7.0	"	99.0	27.3	87.7	70-130			
Beryllium	79.7	2.2	"	99.0	0.446	80.0	70-130			

Matrix Spike Dup (B1G1308-MSD1)	Source: 2107160-01			Prepared: 07/13/21		Analyzed: 07/14/21				
Silver	95.7	2.0	mg/kg	98.4	ND	97.3	60-140	4.62	40	
Vanadium	104	5.1	"	98.4	14.8	90.6	70-130	6.34	20	
Thallium	99.6	17	"	98.4	ND	101	70-130	8.64	20	
Zinc	122	7.0	"	98.4	27.3	96.6	70-130	7.05	20	
Chromium	99.0	2.3	"	98.4	9.80	90.7	70-130	3.96	20	
Molybdenum	85.9	5.2	"	98.4	0.644	86.7	70-130	7.17	20	
Copper	123	5.0	"	98.4	8.79	116	70-130	7.73	30	
Antimony	98.7	8.0	"	98.4	1.56	98.7	60-140	7.69	20	
Barium	175	6.0	"	98.4	67.9	109	70-130	8.76	20	
Lead	104	7.1	"	98.4	5.52	100	70-130	8.31	30	
Beryllium	85.1	2.2	"	98.4	0.446	86.0	70-130	6.57	20	
Nickel	98.9	3.0	"	98.4	6.44	93.9	70-130	5.80	20	
Cadmium	95.7	2.5	"	98.4	0.470	96.8	70-130	3.98	20	
Arsenic	97.4	5.5	"	98.4	ND	98.9	70-130	10.0	20	
Selenium	96.1	6.9	"	98.4	ND	97.6	70-130	10.0	20	
Cobalt	105	3.3	"	98.4	5.40	102	70-130	5.44	20	

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Metals by EPA 6000/7000 Series Methods - Quality Control

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1309 - EPA 7471A

Blank (B1G1309-BLK1)

Prepared & Analyzed: 07/13/21

Mercury ND 0.90 mg/kg

LCS (B1G1309-BS1)

Prepared & Analyzed: 07/13/21

Mercury 0.16 0.90 mg/kg 0.167 94.9 70-130

Matrix Spike (B1G1309-MS1)

Source: 2107160-01

Prepared & Analyzed: 07/13/21

Mercury 0.15 0.90 mg/kg 0.158 ND 97.6 70-130

Matrix Spike Dup (B1G1309-MSD1)

Source: 2107160-01

Prepared & Analyzed: 07/13/21

Mercury 0.16 0.90 mg/kg 0.157 ND 99.4 70-130 1.67 30

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Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1302 - EPA 5035 P & T

Blank (B1G1302-BLK1)

Prepared: 07/13/21 Analyzed: 07/14/21

Total Petroleum Hydrocarbons (C4-C12) ND 0.050 mg/kg

LCS (B1G1302-BS1)

Prepared: 07/13/21 Analyzed: 07/14/21

Gasoline Range Hydrocarbons (C4-C12) 0.525 0.050 mg/kg 0.600 87.5 80-120

Matrix Spike (B1G1302-MS1)

Source: 2107160-01

Prepared: 07/13/21 Analyzed: 07/14/21

Gasoline Range Hydrocarbons (C4-C12) 0.493 0.050 mg/kg 0.600 ND 82.2 50-150

Matrix Spike Dup (B1G1302-MSD1)

Source: 2107160-01

Prepared: 07/13/21 Analyzed: 07/14/21

Gasoline Range Hydrocarbons (C4-C12) 0.551 0.050 mg/kg 0.600 ND 91.8 50-150 11.1 30

Batch B1G1401 - EPA 3550B Solid Ext

Blank (B1G1401-BLK1)

Prepared & Analyzed: 07/14/21

Total Petroleum Hydrocarbons (C13-C22) ND 5.0 mg/kg

Total Petroleum Hydrocarbons (C23-C40) ND 5.0 "

LCS (B1G1401-BS1)

Prepared & Analyzed: 07/14/21

Diesel Range Organics (C10-C24) 16.9 5.0 mg/kg 20.0 84.4 80-120

Matrix Spike (B1G1401-MS1)

Source: 2107164-04

Prepared & Analyzed: 07/14/21

Diesel Range Organics (C10-C24) 15.4 5.0 mg/kg 20.0 ND 77.0 50-150

Matrix Spike Dup (B1G1401-MSD1)

Source: 2107164-04

Prepared & Analyzed: 07/14/21

Diesel Range Organics (C10-C24) 14.7 5.0 mg/kg 20.0 ND 73.4 50-150 4.74 30

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1312 - EPA 5035 P & T

Blank (B1G1312-BLK1)

Prepared: 07/13/21 Analyzed: 07/14/21

Benzene	ND	5.0	µg/kg							
Bromobenzene	ND	5.0	"							
Bromochloromethane	ND	5.0	"							
Bromodichloromethane	ND	5.0	"							
Bromoform	ND	5.0	"							
Bromomethane	ND	5.0	"							
n-Butylbenzene	ND	5.0	"							
sec-Butylbenzene	ND	5.0	"							
tert-Butylbenzene	ND	5.0	"							
Carbon tetrachloride	ND	5.0	"							
Chlorobenzene	ND	5.0	"							
Chloroethane	ND	5.0	"							
Chloroform	ND	5.0	"							
Chloromethane	ND	5.0	"							
2-Chlorotoluene	ND	5.0	"							
4-Chlorotoluene	ND	5.0	"							
Dibromochloromethane	ND	5.0	"							
1,2-Dibromo-3-chloropropane	ND	5.0	"							
1,2-Dibromoethane (EDB)	ND	5.0	"							
Dibromomethane	ND	5.0	"							
1,2-Dichlorobenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	5.0	"							
1,4-Dichlorobenzene	ND	5.0	"							
Dichlorodifluoromethane	ND	5.0	"							
1,1-Dichloroethane	ND	5.0	"							
1,2-Dichloroethane	ND	5.0	"							
1,1-Dichloroethene	ND	5.0	"							
cis-1,2-Dichloroethene	ND	5.0	"							
trans-1,2-Dichloroethene	ND	5.0	"							
1,2-Dichloropropane	ND	5.0	"							
1,3-Dichloropropane	ND	5.0	"							
2,2-Dichloropropane	ND	5.0	"							
1,1-Dichloropropene	ND	5.0	"							
cis-1,3-Dichloropropene	ND	5.0	"							
trans-1,3-Dichloropropene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
Hexachlorobutadiene	ND	5.0	"							

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1312 - EPA 5035 P & T

Blank (B1G1312-BLK1)

Prepared: 07/13/21 Analyzed: 07/14/21

Isopropylbenzene	ND	5.0	µg/kg							
p-Isopropyltoluene	ND	5.0	"							
Methylene chloride	ND	5.0	"							
Methyl tert-butyl ether	ND	5.0	"							
Naphthalene	ND	5.0	"							
n-Propylbenzene	ND	5.0	"							
Styrene	ND	5.0	"							
1,1,1,2-Tetrachloroethane	ND	5.0	"							
1,1,2,2-Tetrachloroethane	ND	5.0	"							
Tetrachloroethene	ND	5.0	"							
Toluene	ND	5.0	"							
1,2,3-Trichlorobenzene	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	5.0	"							
1,1,1-Trichloroethane	ND	5.0	"							
1,1,2-Trichloroethane	ND	5.0	"							
Trichloroethene	ND	5.0	"							
Trichlorofluoromethane	ND	5.0	"							
1,2,3-Trichloropropane	ND	5.0	"							
1,2,4-Trimethylbenzene	ND	5.0	"							
1,3,5-Trimethylbenzene	ND	5.0	"							
Vinyl chloride	ND	5.0	"							
m,p-Xylene	ND	5.0	"							
o-Xylene	ND	5.0	"							

LCS (B1G1312-BS1)

Prepared: 07/13/21 Analyzed: 07/14/21

Benzene	54.6	5.0	µg/kg	50.0	109	80-120
Chlorobenzene	47.7	5.0	"	50.0	95.4	80-120
1,1-Dichloroethene	56.6	5.0	"	50.0	113	80-120
Toluene	47.8	5.0	"	50.0	95.6	80-120
Trichloroethene	55.3	5.0	"	50.0	111	80-120

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1312 - EPA 5035 P & T

Matrix Spike (B1G1312-MS1)

Source: 2107160-01

Prepared: 07/13/21 Analyzed: 07/14/21

Benzene	50.2	5.0	µg/kg	50.0	ND	100	37-151			
Chlorobenzene	41.5	5.0	"	50.0	ND	83.0	37-160			
1,1-Dichloroethene	51.2	5.0	"	50.0	ND	102	50-150			
Toluene	43.5	5.0	"	50.0	ND	86.9	47-150			
Trichloroethene	50.2	5.0	"	50.0	ND	100	71-157			

Matrix Spike Dup (B1G1312-MSD1)

Source: 2107160-01

Prepared: 07/13/21 Analyzed: 07/14/21

Benzene	51.0	5.0	µg/kg	50.0	ND	102	37-151	1.40	30	
Chlorobenzene	42.0	5.0	"	50.0	ND	84.0	37-160	1.20	30	
1,1-Dichloroethene	49.6	5.0	"	50.0	ND	99.2	50-150	3.21	30	
Toluene	43.3	5.0	"	50.0	ND	86.5	47-150	0.461	30	
Trichloroethene	56.5	5.0	"	50.0	ND	113	71-157	11.8	30	

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Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1405 - EPA 3550B Solid Ext

Blank (B1G1405-BLK1)

Prepared & Analyzed: 07/14/21

Acenaphthene	ND	0.33	mg/kg							
Acenaphthylene	ND	0.33	"							
Anthracene	ND	0.33	"							
Benzidine	ND	0.33	"							
Benzo (a) anthracene	ND	0.33	"							
Benzo (b) fluoranthene	ND	0.33	"							
Benzo (k) fluoranthene	ND	0.33	"							
Benzo (a) pyrene	ND	0.33	"							
Benzo (g,h,i) perylene	ND	0.33	"							
Benzyl alcohol	ND	0.33	"							
Bis(2-chloroethyl)ether	ND	0.33	"							
Bis(2-chloroethoxy)methane	ND	0.33	"							
Bis(2-ethylhexyl)phthalate	ND	0.33	"							
Bis(2-chloroisopropyl)ether	ND	0.33	"							
4-Bromophenyl phenyl ether	ND	0.33	"							
Butyl benzyl phthalate	ND	0.33	"							
4-Chloroaniline	ND	0.33	"							
2-Chlorophenol	ND	0.33	"							
4-Chloro-3-methylphenol	ND	0.33	"							
2-Chloronaphthalene	ND	0.33	"							
4-Chlorophenyl phenyl ether	ND	0.33	"							
Chrysene	ND	0.33	"							
Dibenz (a,h) anthracene	ND	0.33	"							
Dibenzofuran	ND	0.33	"							
1,3-Dichlorobenzene	ND	0.33	"							
1,2-Dichlorobenzene	ND	0.33	"							
1,4-Dichlorobenzene	ND	0.33	"							
3,3'-Dichlorobenzidine	ND	0.33	"							
2,4-Dichlorophenol	ND	0.33	"							
Diethyl phthalate	ND	0.33	"							
2,4-Dimethylphenol	ND	0.33	"							
Dimethyl phthalate	ND	0.33	"							
Di-n-butyl phthalate	ND	0.33	"							
2,4-Dinitrophenol	ND	0.33	"							
4,6-Dinitro-2-methylphenol	ND	0.33	"							
2,4-Dinitrotoluene	ND	0.33	"							
2,6-Dinitrotoluene	ND	0.33	"							

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1405 - EPA 3550B Solid Ext

Blank (B1G1405-BLK1)

Prepared & Analyzed: 07/14/21

Di-n-octyl phthalate	ND	0.33	mg/kg							
1,2-Diphenylhydrazine	ND	0.33	"							
Fluoranthene	ND	0.33	"							
Fluorene	ND	0.33	"							
Hexachlorobenzene	ND	0.33	"							
Hexachlorobutadiene	ND	0.33	"							
Hexachlorocyclopentadiene	ND	0.33	"							
Hexachloroethane	ND	0.33	"							
Indeno (1,2,3-cd) pyrene	ND	0.33	"							
Isophorone	ND	0.33	"							
2-Methylnaphthalene	ND	0.33	"							
2-Methylphenol	ND	0.33	"							
4-Methylphenol	ND	0.33	"							
Naphthalene	ND	0.33	"							
2-Nitroaniline	ND	0.33	"							
3-Nitroaniline	ND	0.33	"							
4-Nitroaniline	ND	0.33	"							
Nitrobenzene	ND	0.33	"							
2-Nitrophenol	ND	0.33	"							
4-Nitrophenol	ND	0.33	"							
N-Nitrosodimethylamine	ND	0.33	"							
Diphenylamine	ND	0.33	"							
N-Nitrosodi-n-propylamine	ND	0.33	"							
Pentachlorophenol	ND	0.33	"							
Phenanthrene	ND	0.33	"							
Phenol	ND	0.33	"							
Pyrene	ND	0.33	"							
1,2,4-Trichlorobenzene	ND	0.33	"							
2,4,5-Trichlorophenol	ND	0.33	"							
2,4,6-Trichlorophenol	ND	0.33	"							

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B1G1405 - EPA 3550B Solid Ext

LCS (B1G1405-BS1)

Prepared & Analyzed: 07/14/21

Acenaphthene	0.858	0.33	mg/kg	1.00		85.8	47-145			
2-Chlorophenol	1.86	0.33	"	2.00		93.2	23-134			
4-Chloro-3-methylphenol	2.15	0.33	"	2.00		108	22-147			
1,4-Dichlorobenzene	0.795	0.33	"	1.00		79.5	20-124			
2,4-Dinitrotoluene	0.517	0.33	"	1.00		51.7	39-139			
4-Nitrophenol	0.628	0.33	"	2.00		31.4	0-132			
N-Nitrosodi-n-propylamine	0.741	0.33	"	1.00		74.1	0-230			
Pentachlorophenol	0.387	0.33	"	2.00		19.4	14-176			
Phenol	1.56	0.33	"	2.00		77.9	5-112			
Pyrene	1.09	0.33	"	1.00		109	52-115			
1,2,4-Trichlorobenzene	0.632	0.33	"	1.00		63.2	44-142			

Matrix Spike (B1G1405-MS1)

Source: 2107160-01

Prepared & Analyzed: 07/14/21

Acenaphthene	0.942	0.33	mg/kg	1.00	ND	94.2	47-145			
2-Chlorophenol	1.93	0.33	"	2.00	ND	96.3	23-134			
4-Chloro-3-methylphenol	1.89	0.33	"	2.00	ND	94.4	22-147			
1,4-Dichlorobenzene	0.919	0.33	"	1.00	ND	91.9	20-124			
2,4-Dinitrotoluene	0.541	0.33	"	1.00	ND	54.1	39-139			
4-Nitrophenol	0.607	0.33	"	2.00	ND	30.4	0-132			
N-Nitrosodi-n-propylamine	0.885	0.33	"	1.00	ND	88.5	0-230			
Pentachlorophenol	0.571	0.33	"	2.00	ND	28.6	14-176			
Phenol	1.62	0.33	"	2.00	ND	81.0	5-112			
Pyrene	0.917	0.33	"	1.00	ND	91.7	52-115			
1,2,4-Trichlorobenzene	0.831	0.33	"	1.00	ND	83.1	44-142			

Matrix Spike Dup (B1G1405-MSD1)

Source: 2107160-01

Prepared & Analyzed: 07/14/21

Acenaphthene	1.02	0.33	mg/kg	1.00	ND	102	47-145	7.46	30	
2-Chlorophenol	2.10	0.33	"	2.00	ND	105	23-134	8.88	30	
4-Chloro-3-methylphenol	1.81	0.33	"	2.00	ND	90.3	22-147	4.49	30	
1,4-Dichlorobenzene	0.983	0.33	"	1.00	ND	98.3	20-124	6.73	30	
2,4-Dinitrotoluene	0.466	0.33	"	1.00	ND	46.6	39-139	14.9	30	
4-Nitrophenol	0.644	0.33	"	2.00	ND	32.2	0-132	5.92	30	
N-Nitrosodi-n-propylamine	0.913	0.33	"	1.00	ND	91.3	0-230	3.11	30	
Pentachlorophenol	0.595	0.33	"	2.00	ND	29.8	14-176	4.12	30	
Phenol	1.63	0.33	"	2.00	ND	81.4	5-112	0.492	30	
Pyrene	1.15	0.33	"	1.00	ND	115	52-115	22.3	30	
1,2,4-Trichlorobenzene	0.863	0.33	"	1.00	ND	86.3	44-142	3.78	30	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/19/21 09:26

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



SIERRA ANALYTICAL

TEL: 949 • 348 • 9389
FAX: 949 • 348 • 9115

26052 Merit Circle • Suite 104 • Laguna Hills, CA • 92653

CHAIN OF CUSTODY RECORD

Date: 7 / 12 / 21

Page: 1 of 2

2107160.

Lab Work Order No.:

Client Project ID:

Client: MEARNS

Client Address: CONSULTING, COPP

738 ASHLAND AVE

SANTA MONICA CA 90405

Client Tel. No.: 310 403 1921

Client Fax No.: SUSAN L MEARNS PHD

Client Proj. Mgr.:

TOWN CENTER NORTHWEST

Turn Around Time Requested: 24 Hour 48 Hour 72 Hour 4 Day 5 Day Normal Mobile

Container Type: Immediate 48 Hour 72 Hour 4 Day 5 Day Normal Mobile

Analyses Requested

Client Sample ID	Sierra No.	Date	Time	Matrix	Preservative	Container Type	No. of Containers	TLC METRS 6000/3000	4#	4# C12 8015B	4# C12 8015B	4# C12 8015B	4# C12 8015B	VOLS 8260B/5035B	VOLS 8260B/5035B	VOLS 8260B/5035B
SV1-5	01	7-12-21	0854	SOIL	100	AGITATE SW	1/4	X	X	X	X	X	X	X	X	X
SV1-10	02		1039					X	X	X	X	X	X	X	X	X
SV1-15	03		1043					X	X	X	X	X	X	X	X	X
SV2-5	04		1120					X	X	X	X	X	X	X	X	X
SV2-10	05		1123					X	X	X	X	X	X	X	X	X
SV2-15	06		1136					X	X	X	X	X	X	X	X	X
SV3-5	07		1235					X	X	X	X	X	X	X	X	X
SV3-10	08		1239					X	X	X	X	X	X	X	X	X
SV3-15	09		1244					X	X	X	X	X	X	X	X	X
SV4-5	10		1301					X	X	X	X	X	X	X	X	X

Total Number of Containers Submitted to Laboratory: 60

Total Number of Containers Received by Laboratory: 60

The delivery of samples and the signature on this chain of custody form constitutes authorization to perform the analyses specified above under SIERRA's Terms and Conditions, unless otherwise agreed upon in writing between SIERRA and CLIENT. * - Samples determined to be hazardous by SIERRA will be returned to CLIENT.

Sample Disposal: Return to Client Lab Disposal * Archive ___ mos. Other ___

FOR LABORATORY USE ONLY - Sample Receipt Conditions

Correct Temp (°C) Preservatives - Verified By Other

Sample Seals Security Labels Storage Location Appropriate Sample Container

51a

53

Special Instructions:

SHIP VIA HAND DELIVERED

Received By: [Signature] Date: 7/12/21

Company: SIERRA

Received By: [Signature] Date: 7/12/21

Company: SIERRA



22 July 2021

Susan Mearns
Mearns Consulting LLC
738 Ashland Avenue
Santa Monica, CA 90405

RE:Town Center Northwest

Work Order No.: 2107188

Attached are the results of the analyses for samples received by the laboratory on 07/13/21 17:07.

The samples were received by Sierra Analytical Labs, Inc. with a chain of custody record attached or completed at the submittal of the samples.

The analyses were performed according to the prescribed method as outlined by EPA, Standard Methods, and A.S.T.M.

The remaining portions of the samples will be disposed of within 30 days from the date of this report.
If you require any additional retaining time, please advise us.

Sincerely,

A handwritten signature in black ink that reads "Richard K. Forsyth". The signature is written in a cursive style and is positioned above a horizontal line.

Richard K. Forsyth

Laboratory Director

Sierra Analytical Labs, Inc. is certified by the California Department of Health Services (DOHS),
Environmental Laboratory Accreditation Program (ELAP) No. 2320.



Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SV6-5	2107188-01	Soil	07/13/21 07:35	07/13/21 17:07
SV6-10	2107188-02	Soil	07/13/21 07:44	07/13/21 17:07
SV6-15	2107188-03	Soil	07/13/21 07:51	07/13/21 17:07
SV7-5	2107188-04	Soil	07/13/21 08:15	07/13/21 17:07
SV7-10	2107188-05	Soil	07/13/21 08:25	07/13/21 17:07
SV7-15	2107188-06	Soil	07/13/21 08:30	07/13/21 17:07
SV8-5	2107188-07	Soil	07/13/21 08:56	07/13/21 17:07
SV8-10	2107188-08	Soil	07/13/21 08:58	07/13/21 17:07
SV8-15	2107188-09	Soil	07/13/21 09:06	07/13/21 17:07
SV9-5	2107188-10	Soil	07/13/21 09:19	07/13/21 17:07
SV9-10	2107188-11	Soil	07/13/21 09:22	07/13/21 17:07
SV9-15	2107188-12	Soil	07/13/21 09:24	07/13/21 17:07
SV10-5	2107188-13	Soil	07/13/21 09:32	07/13/21 17:07
SV10-10	2107188-14	Soil	07/13/21 09:36	07/13/21 17:07
SV10-15	2107188-15	Soil	07/13/21 09:52	07/13/21 17:07
SV11-5	2107188-16	Soil	07/13/21 10:16	07/13/21 17:07

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SV11-10	2107188-17	Soil	07/13/21 10:20	07/13/21 17:07
SV11-15	2107188-18	Soil	07/13/21 10:26	07/13/21 17:07
SV12-5	2107188-19	Soil	07/13/21 10:49	07/13/21 17:07
SV12-10	2107188-20	Soil	07/13/21 10:58	07/13/21 17:07
SV12-15	2107188-21	Soil	07/13/21 11:07	07/13/21 17:07
SV13-5	2107188-22	Soil	07/13/21 11:26	07/13/21 17:07
SV13-10	2107188-23	Soil	07/13/21 11:31	07/13/21 17:07
SV13-15	2107188-24	Soil	07/13/21 11:38	07/13/21 17:07
SV14-5	2107188-25	Soil	07/13/21 12:49	07/13/21 17:07
SV14-10	2107188-26	Soil	07/13/21 12:54	07/13/21 17:07
SV14-15	2107188-27	Soil	07/13/21 13:01	07/13/21 17:07
SV15-5	2107188-28	Soil	07/13/21 13:19	07/13/21 17:07
SV15-10	2107188-29	Soil	07/13/21 13:23	07/13/21 17:07
SV15-15	2107188-30	Soil	07/13/21 13:27	07/13/21 17:07
SV16-5	2107188-31	Soil	07/13/21 13:54	07/13/21 17:07
SV16-10	2107188-32	Soil	07/13/21 13:57	07/13/21 17:07
SV16-15	2107188-33	Soil	07/13/21 14:00	07/13/21 17:07

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SV17-5	2107188-34	Soil	07/13/21 14:44	07/13/21 17:07
SV17-10	2107188-35	Soil	07/13/21 14:48	07/13/21 17:07
SV17-15	2107188-36	Soil	07/13/21 14:53	07/13/21 17:07
SV18-5	2107188-37	Soil	07/13/21 15:19	07/13/21 17:07
SV18-10	2107188-38	Soil	07/13/21 15:25	07/13/21 17:07
SV18-15	2107188-39	Soil	07/13/21 15:29	07/13/21 17:07
SV19-5	2107188-40	Soil	07/13/21 15:49	07/13/21 17:07
SV19-10	2107188-41	Soil	07/13/21 15:54	07/13/21 17:07
SV19-15	2107188-42	Soil	07/13/21 15:59	07/13/21 17:07

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV6-5 (2107188-01) Soil Sampled: 07/13/21 07:35 Received: 07/13/21 17:07

Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	83	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	7.6	3.3	"	"	"	"	"	"	
Chromium	14	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A	
Copper	14	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Nickel	8.5	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	24	5.1	"	"	"	"	"	"	
Zinc	28	7.0	"	"	"	"	"	"	

SV6-10 (2107188-02) Soil Sampled: 07/13/21 07:44 Received: 07/13/21 17:07

Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	66	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	6.4	3.3	"	"	"	"	"	"	
Chromium	21	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A	
Copper	16	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Nickel	12	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	31	5.1	"	"	"	"	"	"	
Zinc	40	7.0	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV6-15 (2107188-03) Soil Sampled: 07/13/21 07:51 Received: 07/13/21 17:07

Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	42	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	4.3	3.3	"	"	"	"	"	"	
Chromium	9.4	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A	
Copper	9.0	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Nickel	6.4	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	14	5.1	"	"	"	"	"	"	
Zinc	27	7.0	"	"	"	"	"	"	

SV7-5 (2107188-04) Soil Sampled: 07/13/21 08:15 Received: 07/13/21 17:07

Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	73	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	7.2	3.3	"	"	"	"	"	"	
Chromium	16	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A	
Copper	13	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Nickel	11	3.0	"	"	"	"	"	"	
Lead	7.2	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	27	5.1	"	"	"	"	"	"	
Zinc	34	7.0	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
SV7-10 (2107188-05) Soil Sampled: 07/13/21 08:25 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	50	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	6.6	3.3	"	"	"	"	"	"		
Chromium	13	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A		
Copper	11	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Nickel	7.6	3.0	"	"	"	"	"	"		
Lead	ND	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	19	5.1	"	"	"	"	"	"		
Zinc	25	7.0	"	"	"	"	"	"		

SV7-15 (2107188-06) Soil Sampled: 07/13/21 08:30 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	37	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	3.6	3.3	"	"	"	"	"	"		
Chromium	10	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A		
Copper	8.4	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Nickel	6.7	3.0	"	"	"	"	"	"		
Lead	ND	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	16	5.1	"	"	"	"	"	"		
Zinc	20	7.0	"	"	"	"	"	"		

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 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV8-5 (2107188-07) Soil Sampled: 07/13/21 08:56 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	30	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	ND	3.3	"	"	"	"	"	"	
Chromium	5.7	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A	
Copper	7.8	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Nickel	4.0	3.0	"	"	"	"	"	"	
Lead	19	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	9.1	5.1	"	"	"	"	"	"	
Zinc	26	7.0	"	"	"	"	"	"	

SV8-10 (2107188-08) Soil Sampled: 07/13/21 08:58 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	58	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	10	3.3	"	"	"	"	"	"	
Chromium	12	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A	
Copper	11	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Nickel	7.8	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	21	5.1	"	"	"	"	"	"	
Zinc	25	7.0	"	"	"	"	"	"	

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Metals by EPA 6000/7000 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
SV8-15 (2107188-09) Soil Sampled: 07/13/21 09:06 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	50	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	4.6	3.3	"	"	"	"	"	"		
Chromium	17	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A		
Copper	12	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Mercury	ND	0.81	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Nickel	9.8	3.0	"	"	"	"	"	"		
Lead	ND	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	19	5.1	"	"	"	"	"	"		
Zinc	29	7.0	"	"	"	"	"	"		
SV9-5 (2107188-10) Soil Sampled: 07/13/21 09:19 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	3100	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	5.1	3.3	"	"	"	"	"	"		
Chromium	26	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A		
Copper	31	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Nickel	20	3.0	"	"	"	"	"	"		
Lead	24	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	28	5.1	"	"	"	"	"	"		
Zinc	73	7.0	"	"	"	"	"	"		

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Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV9-10 (2107188-11) Soil Sampled: 07/13/21 09:22 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	77	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	6.2	3.3	"	"	"	"	"	"	
Chromium	17	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A	
Copper	12	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Nickel	8.3	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	23	5.1	"	"	"	"	"	"	
Zinc	27	7.0	"	"	"	"	"	"	

SV9-15 (2107188-12) Soil Sampled: 07/13/21 09:24 Received: 07/13/21 17:07

Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	110	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	10	3.3	"	"	"	"	"	"	
Chromium	30	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A	
Copper	17	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Nickel	16	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	33	5.1	"	"	"	"	"	"	
Zinc	45	7.0	"	"	"	"	"	"	

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 Project Manager: Susan Mearns

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Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV10-5 (2107188-13) Soil Sampled: 07/13/21 09:32 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	650	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	10	3.3	"	"	"	"	"	"	
Chromium	25	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A	
Copper	31	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Nickel	24	3.0	"	"	"	"	"	"	
Lead	42	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	36	5.1	"	"	"	"	"	"	
Zinc	100	7.0	"	"	"	"	"	"	
SV10-10 (2107188-14) Soil Sampled: 07/13/21 09:36 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	49	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	4.9	3.3	"	"	"	"	"	"	
Chromium	10	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A	
Copper	8.3	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Mercury	ND	0.79	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Nickel	6.0	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	16	5.1	"	"	"	"	"	"	
Zinc	20	7.0	"	"	"	"	"	"	

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Project: Town Center Northwest
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 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV10-15 (2107188-15) Soil Sampled: 07/13/21 09:52 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	81	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	11	3.3	"	"	"	"	"	"	
Chromium	21	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A	
Copper	15	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Mercury	ND	0.79	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Nickel	13	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	36	5.1	"	"	"	"	"	"	
Zinc	42	7.0	"	"	"	"	"	"	

SV11-5 (2107188-16) Soil Sampled: 07/13/21 10:16 Received: 07/13/21 17:07

Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	150	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	10	3.3	"	"	"	"	"	"	
Chromium	19	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A	
Copper	21	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Mercury	ND	0.78	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Nickel	15	3.0	"	"	"	"	"	"	
Lead	17	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	29	5.1	"	"	"	"	"	"	
Zinc	60	7.0	"	"	"	"	"	"	

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 Project Number: [none]
 Project Manager: Susan Mearns

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Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV11-10 (2107188-17) Soil Sampled: 07/13/21 10:20 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	130	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	8.5	3.3	"	"	"	"	"	"	
Chromium	15	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A	
Copper	10	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Nickel	8.1	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	23	5.1	"	"	"	"	"	"	
Zinc	28	7.0	"	"	"	"	"	"	

SV11-15 (2107188-18) Soil Sampled: 07/13/21 10:26 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	64	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	6.0	3.3	"	"	"	"	"	"	
Chromium	19	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A	
Copper	11	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B	
Nickel	11	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	23	5.1	"	"	"	"	"	"	
Zinc	31	7.0	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
SV12-5 (2107188-19) Soil Sampled: 07/13/21 10:49 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	83	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	5.4	3.3	"	"	"	"	"	"		
Chromium	12	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A		
Copper	7.8	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Nickel	6.4	3.0	"	"	"	"	"	"		
Lead	ND	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	18	5.1	"	"	"	"	"	"		
Zinc	23	7.0	"	"	"	"	"	"		
SV12-10 (2107188-20) Soil Sampled: 07/13/21 10:58 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	46	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	5.4	3.3	"	"	"	"	"	"		
Chromium	10	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1417	07/14/21	07/19/21 15:20	EPA 7199A		
Copper	6.7	5.0	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1414	07/14/21	07/16/21 20:28	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1411	07/14/21	07/19/21 14:17	EPA 6010B		
Nickel	5.7	3.0	"	"	"	"	"	"		
Lead	ND	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	16	5.1	"	"	"	"	"	"		
Zinc	20	7.0	"	"	"	"	"	"		

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
SV12-15 (2107188-21) Soil Sampled: 07/13/21 11:07 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	32	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	3.3	3.3	"	"	"	"	"	"		
Chromium	7.0	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A		
Copper	ND	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Nickel	4.5	3.0	"	"	"	"	"	"		
Lead	ND	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	9.2	5.1	"	"	"	"	"	"		
Zinc	16	7.0	"	"	"	"	"	"		

SV13-5 (2107188-22) Soil Sampled: 07/13/21 11:26 Received: 07/13/21 17:07

Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	83	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	7.1	3.3	"	"	"	"	"	"	
Chromium	15	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A	
Copper	9.8	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Nickel	8.7	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	23	5.1	"	"	"	"	"	"	
Zinc	31	7.0	"	"	"	"	"	"	

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 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
SV13-10 (2107188-23) Soil Sampled: 07/13/21 11:31 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	100	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	5.7	3.3	"	"	"	"	"	"		
Chromium	21	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A		
Copper	13	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Nickel	10	3.0	"	"	"	"	"	"		
Lead	ND	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	26	5.1	"	"	"	"	"	"		
Zinc	37	7.0	"	"	"	"	"	"		
SV13-15 (2107188-24) Soil Sampled: 07/13/21 11:38 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	46	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	4.5	3.3	"	"	"	"	"	"		
Chromium	12	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A		
Copper	8.0	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Nickel	7.0	3.0	"	"	"	"	"	"		
Lead	ND	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	16	5.1	"	"	"	"	"	"		
Zinc	26	7.0	"	"	"	"	"	"		

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 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV14-5 (2107188-25) Soil Sampled: 07/13/21 12:49 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	50	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	4.7	3.3	"	"	"	"	"	"	
Chromium	11	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A	
Copper	7.4	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Nickel	5.9	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	15	5.1	"	"	"	"	"	"	
Zinc	22	7.0	"	"	"	"	"	"	

SV14-10 (2107188-26) Soil Sampled: 07/13/21 12:54 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	88	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	5.6	3.3	"	"	"	"	"	"	
Chromium	22	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A	
Copper	12	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Mercury	ND	0.78	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Nickel	9.1	3.0	"	"	"	"	"	"	
Lead	26	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	17	5.1	"	"	"	"	"	"	
Zinc	61	7.0	"	"	"	"	"	"	

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 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV14-15 (2107188-27) Soil Sampled: 07/13/21 13:01 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	38	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	3.8	3.3	"	"	"	"	"	"	
Chromium	12	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A	
Copper	6.9	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Mercury	ND	0.79	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Nickel	6.4	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	13	5.1	"	"	"	"	"	"	
Zinc	28	7.0	"	"	"	"	"	"	

SV15-5 (2107188-28) Soil Sampled: 07/13/21 13:19 Received: 07/13/21 17:07

Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	110	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	4.9	3.3	"	"	"	"	"	"	
Chromium	12	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A	
Copper	9.0	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Mercury	ND	0.79	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Nickel	6.7	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	19	5.1	"	"	"	"	"	"	
Zinc	28	7.0	"	"	"	"	"	"	

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 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
SV15-10 (2107188-29) Soil Sampled: 07/13/21 13:23 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	79	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	7.8	3.3	"	"	"	"	"	"		
Chromium	16	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A		
Copper	13	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Nickel	12	3.0	"	"	"	"	"	"		
Lead	ND	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	26	5.1	"	"	"	"	"	"		
Zinc	38	7.0	"	"	"	"	"	"		
SV15-15 (2107188-30) Soil Sampled: 07/13/21 13:27 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	64	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	4.9	3.3	"	"	"	"	"	"		
Chromium	11	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A		
Copper	6.9	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Nickel	7.7	3.0	"	"	"	"	"	"		
Lead	ND	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	16	5.1	"	"	"	"	"	"		
Zinc	26	7.0	"	"	"	"	"	"		

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
SV16-5 (2107188-31) Soil Sampled: 07/13/21 13:54 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	160	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	7.4	3.3	"	"	"	"	"	"		
Chromium	17	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A		
Copper	20	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Nickel	11	3.0	"	"	"	"	"	"		
Lead	19	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	24	5.1	"	"	"	"	"	"		
Zinc	63	7.0	"	"	"	"	"	"		
SV16-10 (2107188-32) Soil Sampled: 07/13/21 13:57 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	130	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	11	3.3	"	"	"	"	"	"		
Chromium	24	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A		
Copper	27	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Nickel	16	3.0	"	"	"	"	"	"		
Lead	27	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	36	5.1	"	"	"	"	"	"		
Zinc	86	7.0	"	"	"	"	"	"		

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 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
SV16-15 (2107188-33) Soil Sampled: 07/13/21 14:00 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	720	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	8.0	3.3	"	"	"	"	"	"		
Chromium	23	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A		
Copper	37	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Nickel	16	3.0	"	"	"	"	"	"		
Lead	61	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	28	5.1	"	"	"	"	"	"		
Zinc	90	7.0	"	"	"	"	"	"		
SV17-5 (2107188-34) Soil Sampled: 07/13/21 14:44 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Arsenic	20	5.5	"	"	"	"	"	"		
Barium	88	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	6.7	3.3	"	"	"	"	"	"		
Chromium	18	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A		
Copper	47	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Nickel	17	3.0	"	"	"	"	"	"		
Lead	57	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	21	5.1	"	"	"	"	"	"		
Zinc	180	7.0	"	"	"	"	"	"		

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							
SV17-10 (2107188-35) Soil Sampled: 07/13/21 14:48 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	170	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	9.2	3.3	"	"	"	"	"	"		
Chromium	20	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A		
Copper	21	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Nickel	13	3.0	"	"	"	"	"	"		
Lead	12	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	28	5.1	"	"	"	"	"	"		
Zinc	61	7.0	"	"	"	"	"	"		
SV17-15 (2107188-36) Soil Sampled: 07/13/21 14:53 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	240	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	16	3.3	"	"	"	"	"	"		
Chromium	35	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A		
Copper	35	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Nickel	19	3.0	"	"	"	"	"	"		
Lead	12	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	7.4	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	47	5.1	"	"	"	"	"	"		
Zinc	120	7.0	"	"	"	"	"	"		

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Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV18-5 (2107188-37) Soil Sampled: 07/13/21 15:19 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	110	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	8.2	3.3	"	"	"	"	"	"	
Chromium	18	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A	
Copper	16	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Nickel	12	3.0	"	"	"	"	"	"	
Lead	14	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	28	5.1	"	"	"	"	"	"	
Zinc	66	7.0	"	"	"	"	"	"	
SV18-10 (2107188-38) Soil Sampled: 07/13/21 15:25 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	94	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	9.8	3.3	"	"	"	"	"	"	
Chromium	18	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A	
Copper	14	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B	
Nickel	12	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	32	5.1	"	"	"	"	"	"	
Zinc	40	7.0	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
SV18-15 (2107188-39) Soil Sampled: 07/13/21 15:29 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	100	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	7.7	3.3	"	"	"	"	"	"		
Chromium	25	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A		
Copper	16	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Nickel	16	3.0	"	"	"	"	"	"		
Lead	ND	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	35	5.1	"	"	"	"	"	"		
Zinc	54	7.0	"	"	"	"	"	"		

SV19-5 (2107188-40) Soil Sampled: 07/13/21 15:49 Received: 07/13/21 17:07										
Silver	ND	2.0	mg/kg	1	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	74	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	6.9	3.3	"	"	"	"	"	"		
Chromium	14	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G1418	07/14/21	07/19/21 16:44	EPA 7199A		
Copper	11	5.0	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Mercury	ND	0.90	"	"	B1G1415	07/14/21	07/16/21 20:30	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G1412	07/14/21	07/19/21 15:58	EPA 6010B		
Nickel	11	3.0	"	"	"	"	"	"		
Lead	ND	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	24	5.1	"	"	"	"	"	"		
Zinc	33	7.0	"	"	"	"	"	"		

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Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV19-10 (2107188-41) Soil Sampled: 07/13/21 15:54 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1413	07/14/21	07/19/21 16:48	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	66	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	7.3	3.3	"	"	"	"	"	"	
Chromium	17	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1419	07/14/21	07/19/21 17:00	EPA 7199A	
Copper	12	5.0	"	"	B1G1413	07/14/21	07/19/21 16:48	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1416	07/14/21	07/16/21 20:32	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1413	07/14/21	07/19/21 16:48	EPA 6010B	
Nickel	12	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	23	5.1	"	"	"	"	"	"	
Zinc	35	7.0	"	"	"	"	"	"	
SV19-15 (2107188-42) Soil Sampled: 07/13/21 15:59 Received: 07/13/21 17:07									
Silver	ND	2.0	mg/kg	1	B1G1413	07/14/21	07/19/21 16:48	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	46	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	5.2	3.3	"	"	"	"	"	"	
Chromium	10	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G1419	07/14/21	07/19/21 17:00	EPA 7199A	
Copper	7.8	5.0	"	"	B1G1413	07/14/21	07/19/21 16:48	EPA 6010B	
Mercury	ND	0.90	"	"	B1G1416	07/14/21	07/16/21 20:32	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G1413	07/14/21	07/19/21 16:48	EPA 6010B	
Nickel	8.1	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	15	5.1	"	"	"	"	"	"	
Zinc	28	7.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV6-5 (2107188-01) Soil Sampled: 07/13/21 07:35 Received: 07/13/21 17:07

<i>Surrogate: o-Terphenyl</i>		61.2 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		91.0 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	

SV6-10 (2107188-02) Soil Sampled: 07/13/21 07:44 Received: 07/13/21 17:07

<i>Surrogate: o-Terphenyl</i>		78.5 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		95.5 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	

SV6-15 (2107188-03) Soil Sampled: 07/13/21 07:51 Received: 07/13/21 17:07

<i>Surrogate: o-Terphenyl</i>		73.8 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		98.4 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	

SV7-5 (2107188-04) Soil Sampled: 07/13/21 08:15 Received: 07/13/21 17:07

<i>Surrogate: o-Terphenyl</i>		78.6 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		93.3 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.062	"	"	"	"	"	"	

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Project: Town Center Northwest
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 Project Manager: Susan Mearns

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 07/22/21 13:51

Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV7-10 (2107188-05) Soil Sampled: 07/13/21 08:25 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		74.3 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		90.3 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.071	"	"	"	"	"	"	
SV7-15 (2107188-06) Soil Sampled: 07/13/21 08:30 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		65.6 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		86.7 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	
SV8-5 (2107188-07) Soil Sampled: 07/13/21 08:56 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		129 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	27	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		93.5 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.042	"	"	"	"	"	"	
SV8-10 (2107188-08) Soil Sampled: 07/13/21 08:58 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		60.8 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		93.9 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	

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Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV8-15 (2107188-09) Soil Sampled: 07/13/21 09:06 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		66.0 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		101 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	
SV9-5 (2107188-10) Soil Sampled: 07/13/21 09:19 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		%	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	S-03
Total Petroleum Hydrocarbons (C13-C22)	110	100	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	550	100	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		83.3 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.067	"	"	"	"	"	"	
SV9-10 (2107188-11) Soil Sampled: 07/13/21 09:22 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		100 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	50	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		94.4 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.043	"	"	"	"	"	"	
SV9-15 (2107188-12) Soil Sampled: 07/13/21 09:24 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		90.6 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		95.3 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	

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Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV10-5 (2107188-13) Soil Sampled: 07/13/21 09:32 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		%	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	S-03
Total Petroleum Hydrocarbons (C13-C22)	510	100	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	650	100	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		80.6 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.084	"	"	"	"	"	"	
SV10-10 (2107188-14) Soil Sampled: 07/13/21 09:36 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		79.0 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	52	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		88.6 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	
SV10-15 (2107188-15) Soil Sampled: 07/13/21 09:52 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		68.8 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		97.1 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	
SV11-5 (2107188-16) Soil Sampled: 07/13/21 10:16 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		86.1 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	160	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		94.5 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	

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Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV11-10 (2107188-17) Soil Sampled: 07/13/21 10:20 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		120 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	39	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	200	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		91.6 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	"
SV11-15 (2107188-18) Soil Sampled: 07/13/21 10:26 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		72.6 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		95.7 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	"
SV12-5 (2107188-19) Soil Sampled: 07/13/21 10:49 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		97.9 %	60-175		BIG1504	07/15/21	07/15/21 14:41	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		83.5 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.070	"	"	"	"	"	"	"
SV12-10 (2107188-20) Soil Sampled: 07/13/21 10:58 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		111 %	60-175		BIG1601	07/15/21	07/16/21 08:00	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		79.2 %	35-130		BIG1502	"	07/15/21 12:38	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	"

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Project Manager: Susan Mearns

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Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV12-15 (2107188-21) Soil Sampled: 07/13/21 11:07 Received: 07/13/21 17:07

<i>Surrogate: o-Terphenyl</i>		91.5 %	60-175		B1G1601	07/15/21	07/16/21 08:00	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		88.6 %	35-130		B1G1503	"	07/15/21 13:57	"	"
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	"

SV13-5 (2107188-22) Soil Sampled: 07/13/21 11:26 Received: 07/13/21 17:07

<i>Surrogate: o-Terphenyl</i>		107 %	60-175		B1G1601	07/15/21	07/16/21 08:00	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		79.8 %	35-130		B1G1503	"	07/15/21 13:57	"	"
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	"

SV13-10 (2107188-23) Soil Sampled: 07/13/21 11:31 Received: 07/13/21 17:07

<i>Surrogate: o-Terphenyl</i>		80.4 %	60-175		B1G1602	07/15/21	07/16/21 08:18	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		96.1 %	35-130		B1G1913	07/19/21	07/20/21 10:02	"	"
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	"

SV13-15 (2107188-24) Soil Sampled: 07/13/21 11:38 Received: 07/13/21 17:07

<i>Surrogate: o-Terphenyl</i>		111 %	60-175		B1G1602	07/15/21	07/16/21 08:18	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		90.6 %	35-130		B1G1913	07/19/21	07/20/21 10:02	"	"
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	"

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Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV14-5 (2107188-25) Soil Sampled: 07/13/21 12:49 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		133 %	60-175		BIG1602	07/15/21	07/16/21 08:18	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		99.2 %	35-130		BIG1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	
SV14-10 (2107188-26) Soil Sampled: 07/13/21 12:54 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		183 %	60-175		BIG1602	07/15/21	07/16/21 08:18	EPA 8015B	S-07
Total Petroleum Hydrocarbons (C13-C22)	53	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	180	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		91.6 %	35-130		BIG1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	0.21	0.050	"	"	"	"	"	"	
SV14-15 (2107188-27) Soil Sampled: 07/13/21 13:01 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		71.9 %	60-175		BIG1602	07/15/21	07/16/21 08:18	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		96.1 %	35-130		BIG1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	
SV15-5 (2107188-28) Soil Sampled: 07/13/21 13:19 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		85.8 %	60-175		BIG1602	07/15/21	07/16/21 08:18	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		82.0 %	35-130		BIG1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.060	"	"	"	"	"	"	

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Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV15-10 (2107188-29) Soil Sampled: 07/13/21 13:23 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		66.1 %	60-175		B1G1602	07/15/21	07/16/21 08:18	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		90.3 %	35-130		B1G1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.056	"	"	"	"	"	"	"
SV15-15 (2107188-30) Soil Sampled: 07/13/21 13:27 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		98.6 %	60-175		B1G1602	07/15/21	07/16/21 08:18	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		83.7 %	35-130		B1G1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.065	"	"	"	"	"	"	"
SV16-5 (2107188-31) Soil Sampled: 07/13/21 13:54 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		148 %	60-175		B1G1602	07/15/21	07/16/21 08:18	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	190	10	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	500	10	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		89.3 %	35-130		B1G1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.058	"	"	"	"	"	"	"
SV16-10 (2107188-32) Soil Sampled: 07/13/21 13:57 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		106 %	60-175		B1G1602	07/15/21	07/16/21 08:18	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		88.7 %	35-130		B1G1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.063	"	"	"	"	"	"	"

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Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV16-15 (2107188-33) Soil Sampled: 07/13/21 14:00 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		134 %	60-175		B1G1602	07/15/21	07/16/21 08:18	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	150	10	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	200	10	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		86.4 %	35-130		B1G1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	0.26	0.059	"	"	"	"	"	"	"
SV17-5 (2107188-34) Soil Sampled: 07/13/21 14:44 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		85.6 %	60-175		B1G1602	07/15/21	07/16/21 08:18	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	34	10	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	650	10	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		98.3 %	35-130		B1G1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	0.052	0.050	"	"	"	"	"	"	"
SV17-10 (2107188-35) Soil Sampled: 07/13/21 14:48 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		155 %	60-175		B1G1602	07/15/21	07/16/21 08:18	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	79	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		93.5 %	35-130		B1G1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	"
SV17-15 (2107188-36) Soil Sampled: 07/13/21 14:53 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		137 %	60-175		B1G1602	07/15/21	07/16/21 08:18	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	"
Total Petroleum Hydrocarbons (C23-C40)	78	5.0	"	"	"	"	"	"	"
<i>Surrogate: a,a,a-Trifluorotoluene</i>		92.8 %	35-130		B1G1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	"	"	"	"	"	"	"

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Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV18-5 (2107188-37) Soil Sampled: 07/13/21 15:19 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		196 %	60-175		B1G1602	07/15/21	07/16/21 08:18	EPA 8015B	S-07
Total Petroleum Hydrocarbons (C13-C22)	110	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	600	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		76.6 %	35-130		B1G1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	ND	0.10	"	"	"	"	"	"	
SV18-10 (2107188-38) Soil Sampled: 07/13/21 15:25 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		%	60-175		B1G1602	07/15/21	07/16/21 08:18	EPA 8015B	S-03
Total Petroleum Hydrocarbons (C13-C22)	1300	250	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	2200	250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		108 %	35-130		B1G1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	1100	6.3	"	100	"	"	"	"	
SV18-15 (2107188-39) Soil Sampled: 07/13/21 15:29 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		94.7 %	60-175		B1G1602	07/15/21	07/16/21 08:18	EPA 8015B	
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		133 %	35-130		B1G1913	07/19/21	07/20/21 10:02	"	S-07
Total Petroleum Hydrocarbons (C4-C12)	0.48	0.044	"	"	"	"	"	"	
SV19-5 (2107188-40) Soil Sampled: 07/13/21 15:49 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		%	60-175		B1G1602	07/15/21	07/16/21 08:18	EPA 8015B	S-03
Total Petroleum Hydrocarbons (C13-C22)	2400	250	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	ND	250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		93.8 %	35-130		B1G1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	2600	25	"	500	"	"	"	"	

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Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV19-10 (2107188-41) Soil Sampled: 07/13/21 15:54 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		%	60-175		B1G1602	07/15/21	07/16/21 08:18	EPA 8015B	S-03
Total Petroleum Hydrocarbons (C13-C22)	590	25	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	270	25	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		94.8 %	35-130		B1G1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	510	22	"	500	"	"	"	"	
SV19-15 (2107188-42) Soil Sampled: 07/13/21 15:59 Received: 07/13/21 17:07									
<i>Surrogate: o-Terphenyl</i>		%	60-175		B1G1602	07/15/21	07/16/21 08:18	EPA 8015B	S-03
Total Petroleum Hydrocarbons (C13-C22)	2500	250	"	"	"	"	"	"	
Total Petroleum Hydrocarbons (C23-C40)	530	250	"	"	"	"	"	"	
<i>Surrogate: a,a,a-Trifluorotoluene</i>		116 %	35-130		B1G1913	07/19/21	07/20/21 10:02	"	
Total Petroleum Hydrocarbons (C4-C12)	1500	25	"	500	"	"	"	"	

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Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV6-5 (2107188-01) Soil Sampled: 07/13/21 07:35 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		120 %		80-120	BIG1407	07/14/21	07/15/21 07:36	EPA 8260B	
Surrogate: Toluene-d8		99.9 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.5 %		74-121	"	"	"	"	
Benzene	ND	5.8	"	"	"	"	"	"	
Bromobenzene	ND	5.8	"	"	"	"	"	"	
Bromochloromethane	ND	5.8	"	"	"	"	"	"	
Bromodichloromethane	ND	5.8	"	"	"	"	"	"	
Bromoform	ND	5.8	"	"	"	"	"	"	
Bromomethane	ND	5.8	"	"	"	"	"	"	
n-Butylbenzene	ND	5.8	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.8	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.8	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.8	"	"	"	"	"	"	
Chlorobenzene	ND	5.8	"	"	"	"	"	"	
Chloroethane	ND	5.8	"	"	"	"	"	"	
Chloroform	ND	5.8	"	"	"	"	"	"	
Chloromethane	ND	5.8	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.8	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.8	"	"	"	"	"	"	
Dibromochloromethane	ND	5.8	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.8	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.8	"	"	"	"	"	"	
Dibromomethane	ND	5.8	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.8	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.8	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.8	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.8	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.8	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.8	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.8	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.8	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.8	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.8	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.8	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.8	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.8	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.8	"	"	"	"	"	"	
Ethylbenzene	ND	5.8	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.8	"	"	"	"	"	"	
Isopropylbenzene	ND	5.8	"	"	"	"	"	"	

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Project: Town Center Northwest
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Project Manager: Susan Mearns

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Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV6-5 (2107188-01) Soil Sampled: 07/13/21 07:35 Received: 07/13/21 17:07

p-Isopropyltoluene	ND	5.8	µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Methylene chloride	ND	5.8	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.8	"	"	"	"	"	"	
Naphthalene	ND	5.8	"	"	"	"	"	"	
n-Propylbenzene	ND	5.8	"	"	"	"	"	"	
Styrene	ND	5.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.8	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.8	"	"	"	"	"	"	
Tetrachloroethene	ND	5.8	"	"	"	"	"	"	
Toluene	ND	5.8	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.8	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.8	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.8	"	"	"	"	"	"	
Trichloroethene	ND	5.8	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.8	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.8	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.8	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.8	"	"	"	"	"	"	
Vinyl chloride	ND	5.8	"	"	"	"	"	"	
m,p-Xylene	ND	5.8	"	"	"	"	"	"	
o-Xylene	ND	5.8	"	"	"	"	"	"	

SV6-10 (2107188-02) Soil Sampled: 07/13/21 07:44 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		100 %	80-120		B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Surrogate: Toluene-d8		101 %	81-117		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.4 %	74-121		"	"	"	"	
Benzene	ND	9.9	"	"	"	"	"	"	
Bromobenzene	ND	9.9	"	"	"	"	"	"	
Bromochloromethane	ND	9.9	"	"	"	"	"	"	
Bromodichloromethane	ND	9.9	"	"	"	"	"	"	
Bromoform	ND	9.9	"	"	"	"	"	"	
Bromomethane	ND	9.9	"	"	"	"	"	"	
n-Butylbenzene	ND	9.9	"	"	"	"	"	"	
sec-Butylbenzene	ND	9.9	"	"	"	"	"	"	
tert-Butylbenzene	ND	9.9	"	"	"	"	"	"	
Carbon tetrachloride	ND	9.9	"	"	"	"	"	"	
Chlorobenzene	ND	9.9	"	"	"	"	"	"	
Chloroethane	ND	9.9	"	"	"	"	"	"	
Chloroform	ND	9.9	"	"	"	"	"	"	
Chloromethane	ND	9.9	"	"	"	"	"	"	

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Project: Town Center Northwest
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Project Manager: Susan Mearns

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Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV6-10 (2107188-02) Soil Sampled: 07/13/21 07:44 Received: 07/13/21 17:07									
2-Chlorotoluene	ND	9.9	µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
4-Chlorotoluene	ND	9.9	"	"	"	"	"	"	
Dibromochloromethane	ND	9.9	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	9.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	9.9	"	"	"	"	"	"	
Dibromomethane	ND	9.9	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	9.9	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	9.9	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	9.9	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	9.9	"	"	"	"	"	"	
1,1-Dichloroethane	ND	9.9	"	"	"	"	"	"	
1,2-Dichloroethane	ND	9.9	"	"	"	"	"	"	
1,1-Dichloroethene	ND	9.9	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	9.9	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	9.9	"	"	"	"	"	"	
1,2-Dichloropropane	ND	9.9	"	"	"	"	"	"	
1,3-Dichloropropane	ND	9.9	"	"	"	"	"	"	
2,2-Dichloropropane	ND	9.9	"	"	"	"	"	"	
1,1-Dichloropropene	ND	9.9	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	9.9	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	9.9	"	"	"	"	"	"	
Ethylbenzene	ND	9.9	"	"	"	"	"	"	
Hexachlorobutadiene	ND	9.9	"	"	"	"	"	"	
Isopropylbenzene	ND	9.9	"	"	"	"	"	"	
p-Isopropyltoluene	ND	9.9	"	"	"	"	"	"	
Methylene chloride	ND	9.9	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	9.9	"	"	"	"	"	"	
Naphthalene	ND	9.9	"	"	"	"	"	"	
n-Propylbenzene	ND	9.9	"	"	"	"	"	"	
Styrene	ND	9.9	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	9.9	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	9.9	"	"	"	"	"	"	
Tetrachloroethene	ND	9.9	"	"	"	"	"	"	
Toluene	ND	9.9	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	9.9	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	9.9	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	9.9	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	9.9	"	"	"	"	"	"	
Trichloroethene	ND	9.9	"	"	"	"	"	"	
Trichlorofluoromethane	ND	9.9	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	9.9	"	"	"	"	"	"	

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Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV6-10 (2107188-02) Soil Sampled: 07/13/21 07:44 Received: 07/13/21 17:07

1,2,4-Trimethylbenzene	ND	9.9	µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
1,3,5-Trimethylbenzene	ND	9.9	"	"	"	"	"	"	
Vinyl chloride	ND	9.9	"	"	"	"	"	"	
m,p-Xylene	ND	9.9	"	"	"	"	"	"	
o-Xylene	ND	9.9	"	"	"	"	"	"	

SV6-15 (2107188-03) Soil Sampled: 07/13/21 07:51 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		105 %		80-120	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		101 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		98.3 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV6-15 (2107188-03) Soil Sampled: 07/13/21 07:51 Received: 07/13/21 17:07										
2,2-Dichloropropane	ND	5.0		µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
Vinyl chloride	ND	5.0		"	"	"	"	"	"	
m,p-Xylene	ND	5.0		"	"	"	"	"	"	
o-Xylene	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV7-5 (2107188-04) Soil Sampled: 07/13/21 08:15 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		104 %	80-120		B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Surrogate: Toluene-d8		99.7 %	81-117		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.7 %	74-121		"	"	"	"	
Benzene	ND	6.0	"	"	"	"	"	"	
Bromobenzene	ND	6.0	"	"	"	"	"	"	
Bromochloromethane	ND	6.0	"	"	"	"	"	"	
Bromodichloromethane	ND	6.0	"	"	"	"	"	"	
Bromoform	ND	6.0	"	"	"	"	"	"	
Bromomethane	ND	6.0	"	"	"	"	"	"	
n-Butylbenzene	ND	6.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	6.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	6.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.0	"	"	"	"	"	"	
Chlorobenzene	ND	6.0	"	"	"	"	"	"	
Chloroethane	ND	6.0	"	"	"	"	"	"	
Chloroform	ND	6.0	"	"	"	"	"	"	
Chloromethane	ND	6.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	6.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	6.0	"	"	"	"	"	"	
Dibromochloromethane	ND	6.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	6.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	6.0	"	"	"	"	"	"	
Dibromomethane	ND	6.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	6.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	6.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	6.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	6.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	6.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	6.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	6.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	6.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	6.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	6.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	6.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	6.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	6.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	6.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	6.0	"	"	"	"	"	"	
Ethylbenzene	ND	6.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	6.0	"	"	"	"	"	"	
Isopropylbenzene	ND	6.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV7-5 (2107188-04) Soil Sampled: 07/13/21 08:15 Received: 07/13/21 17:07

p-Isopropyltoluene	ND	6.0	µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Methylene chloride	ND	6.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	6.0	"	"	"	"	"	"	
Naphthalene	ND	6.0	"	"	"	"	"	"	
n-Propylbenzene	ND	6.0	"	"	"	"	"	"	
Styrene	ND	6.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	6.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	6.0	"	"	"	"	"	"	
Tetrachloroethane	ND	6.0	"	"	"	"	"	"	
Toluene	ND	6.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	6.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	6.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	6.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	6.0	"	"	"	"	"	"	
Trichloroethene	ND	6.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	6.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	6.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	6.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	6.0	"	"	"	"	"	"	
Vinyl chloride	ND	6.0	"	"	"	"	"	"	
m,p-Xylene	ND	6.0	"	"	"	"	"	"	
o-Xylene	ND	6.0	"	"	"	"	"	"	

SV7-10 (2107188-05) Soil Sampled: 07/13/21 08:25 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		103 %	80-120		B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Surrogate: Toluene-d8		102 %	81-117		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.0 %	74-121		"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV7-10 (2107188-05) Soil Sampled: 07/13/21 08:25 Received: 07/13/21 17:07										
2-Chlorotoluene	ND	5.0		µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
4-Chlorotoluene	ND	5.0		"	"	"	"	"	"	
Dibromochloromethane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0		"	"	"	"	"	"	
Dibromomethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0		"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0		"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV7-10 (2107188-05) Soil Sampled: 07/13/21 08:25 Received: 07/13/21 17:07

1,2,4-Trimethylbenzene	ND	5.0	µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV7-15 (2107188-06) Soil Sampled: 07/13/21 08:30 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		101 %		80-120	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		99.2 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		97.2 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV7-15 (2107188-06) Soil Sampled: 07/13/21 08:30 Received: 07/13/21 17:07										
2,2-Dichloropropane	ND	5.0		µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
Vinyl chloride	ND	5.0		"	"	"	"	"	"	
m,p-Xylene	ND	5.0		"	"	"	"	"	"	
o-Xylene	ND	5.0		"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV8-5 (2107188-07) Soil Sampled: 07/13/21 08:56 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		109 %		80-120	BIG1407	07/14/21	07/15/21 07:36	EPA 8260B	
Surrogate: Toluene-d8		97.4 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %		74-121	"	"	"	"	
Benzene	ND	4.0	"	"	"	"	"	"	
Bromobenzene	ND	4.0	"	"	"	"	"	"	
Bromochloromethane	ND	4.0	"	"	"	"	"	"	
Bromodichloromethane	ND	4.0	"	"	"	"	"	"	
Bromoform	ND	4.0	"	"	"	"	"	"	
Bromomethane	ND	4.0	"	"	"	"	"	"	
n-Butylbenzene	ND	4.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	4.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	4.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	4.0	"	"	"	"	"	"	
Chlorobenzene	ND	4.0	"	"	"	"	"	"	
Chloroethane	ND	4.0	"	"	"	"	"	"	
Chloroform	ND	4.0	"	"	"	"	"	"	
Chloromethane	ND	4.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	4.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	4.0	"	"	"	"	"	"	
Dibromochloromethane	ND	4.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	4.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	4.0	"	"	"	"	"	"	
Dibromomethane	ND	4.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	4.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	4.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	4.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	4.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	4.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	4.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	4.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	4.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	4.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.0	"	"	"	"	"	"	
Ethylbenzene	ND	4.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	4.0	"	"	"	"	"	"	
Isopropylbenzene	ND	4.0	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV8-5 (2107188-07) Soil Sampled: 07/13/21 08:56 Received: 07/13/21 17:07

p-Isopropyltoluene	ND	4.0	µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Methylene chloride	ND	4.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	4.0	"	"	"	"	"	"	
Naphthalene	ND	4.0	"	"	"	"	"	"	
n-Propylbenzene	ND	4.0	"	"	"	"	"	"	
Styrene	ND	4.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	4.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	4.0	"	"	"	"	"	"	
Tetrachloroethane	ND	4.0	"	"	"	"	"	"	
Toluene	ND	4.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	4.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	4.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	4.0	"	"	"	"	"	"	
Trichloroethene	ND	4.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	4.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	4.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	4.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	4.0	"	"	"	"	"	"	
Vinyl chloride	ND	4.0	"	"	"	"	"	"	
m,p-Xylene	ND	4.0	"	"	"	"	"	"	
o-Xylene	ND	4.0	"	"	"	"	"	"	

SV8-10 (2107188-08) Soil Sampled: 07/13/21 08:58 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		108 %	80-120		B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Surrogate: Toluene-d8		99.9 %	81-117		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.1 %	74-121		"	"	"	"	
Benzene	ND	4.4	"	"	"	"	"	"	
Bromobenzene	ND	4.4	"	"	"	"	"	"	
Bromochloromethane	ND	4.4	"	"	"	"	"	"	
Bromodichloromethane	ND	4.4	"	"	"	"	"	"	
Bromoform	ND	4.4	"	"	"	"	"	"	
Bromomethane	ND	4.4	"	"	"	"	"	"	
n-Butylbenzene	ND	4.4	"	"	"	"	"	"	
sec-Butylbenzene	ND	4.4	"	"	"	"	"	"	
tert-Butylbenzene	ND	4.4	"	"	"	"	"	"	
Carbon tetrachloride	ND	4.4	"	"	"	"	"	"	
Chlorobenzene	ND	4.4	"	"	"	"	"	"	
Chloroethane	ND	4.4	"	"	"	"	"	"	
Chloroform	ND	4.4	"	"	"	"	"	"	
Chloromethane	ND	4.4	"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV8-10 (2107188-08) Soil Sampled: 07/13/21 08:58 Received: 07/13/21 17:07									
2-Chlorotoluene	ND	4.4	µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
4-Chlorotoluene	ND	4.4	"	"	"	"	"	"	
Dibromochloromethane	ND	4.4	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	4.4	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	4.4	"	"	"	"	"	"	
Dibromomethane	ND	4.4	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	4.4	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	4.4	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	4.4	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	4.4	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.4	"	"	"	"	"	"	
1,2-Dichloroethane	ND	4.4	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.4	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.4	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	4.4	"	"	"	"	"	"	
1,2-Dichloropropane	ND	4.4	"	"	"	"	"	"	
1,3-Dichloropropane	ND	4.4	"	"	"	"	"	"	
2,2-Dichloropropane	ND	4.4	"	"	"	"	"	"	
1,1-Dichloropropene	ND	4.4	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.4	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.4	"	"	"	"	"	"	
Ethylbenzene	ND	4.4	"	"	"	"	"	"	
Hexachlorobutadiene	ND	4.4	"	"	"	"	"	"	
Isopropylbenzene	ND	4.4	"	"	"	"	"	"	
p-Isopropyltoluene	ND	4.4	"	"	"	"	"	"	
Methylene chloride	ND	4.4	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	4.4	"	"	"	"	"	"	
Naphthalene	ND	4.4	"	"	"	"	"	"	
n-Propylbenzene	ND	4.4	"	"	"	"	"	"	
Styrene	ND	4.4	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	4.4	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	4.4	"	"	"	"	"	"	
Tetrachloroethene	ND	4.4	"	"	"	"	"	"	
Toluene	ND	4.4	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.4	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	4.4	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	4.4	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	4.4	"	"	"	"	"	"	
Trichloroethene	ND	4.4	"	"	"	"	"	"	
Trichlorofluoromethane	ND	4.4	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	4.4	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV8-10 (2107188-08) Soil Sampled: 07/13/21 08:58 Received: 07/13/21 17:07

1,2,4-Trimethylbenzene	ND	4.4	µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
1,3,5-Trimethylbenzene	ND	4.4	"	"	"	"	"	"	
Vinyl chloride	ND	4.4	"	"	"	"	"	"	
m,p-Xylene	ND	4.4	"	"	"	"	"	"	
o-Xylene	ND	4.4	"	"	"	"	"	"	

SV8-15 (2107188-09) Soil Sampled: 07/13/21 09:06 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		108 %		80-120	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		100 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		96.7 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV8-15 (2107188-09) Soil Sampled: 07/13/21 09:06 Received: 07/13/21 17:07										
2,2-Dichloropropane	ND	5.0		µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
Vinyl chloride	ND	5.0		"	"	"	"	"	"	
m,p-Xylene	ND	5.0		"	"	"	"	"	"	
o-Xylene	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV9-5 (2107188-10) Soil Sampled: 07/13/21 09:19 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		115 %		80-120	BIG1407	07/14/21	07/15/21 07:36	EPA 8260B	
Surrogate: Toluene-d8		99.0 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		109 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								

SV9-5 (2107188-10) Soil Sampled: 07/13/21 09:19 Received: 07/13/21 17:07

p-Isopropyltoluene	ND	5.0	µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV9-10 (2107188-11) Soil Sampled: 07/13/21 09:22 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		104 %	80-120		B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Surrogate: Toluene-d8		99.6 %	81-117		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.7 %	74-121		"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV9-10 (2107188-11) Soil Sampled: 07/13/21 09:22 Received: 07/13/21 17:07										
2-Chlorotoluene	ND	5.0		µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
4-Chlorotoluene	ND	5.0		"	"	"	"	"	"	
Dibromochloromethane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0		"	"	"	"	"	"	
Dibromomethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0		"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0		"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								

SV9-10 (2107188-11) Soil Sampled: 07/13/21 09:22 Received: 07/13/21 17:07

1,2,4-Trimethylbenzene	ND	5.0		µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
1,3,5-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
Vinyl chloride	ND	5.0		"	"	"	"	"	"	
m,p-Xylene	ND	5.0		"	"	"	"	"	"	
o-Xylene	ND	5.0		"	"	"	"	"	"	

SV9-15 (2107188-12) Soil Sampled: 07/13/21 09:24 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		107 %		80-120		B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		102 %		81-117		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		95.3 %		74-121		"	"	"	"	
Benzene	ND	5.0		"	"	"	"	"	"	
Bromobenzene	ND	5.0		"	"	"	"	"	"	
Bromochloromethane	ND	5.0		"	"	"	"	"	"	
Bromodichloromethane	ND	5.0		"	"	"	"	"	"	
Bromoform	ND	5.0		"	"	"	"	"	"	
Bromomethane	ND	5.0		"	"	"	"	"	"	
n-Butylbenzene	ND	5.0		"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0		"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0		"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0		"	"	"	"	"	"	
Chlorobenzene	ND	5.0		"	"	"	"	"	"	
Chloroethane	ND	5.0		"	"	"	"	"	"	
Chloroform	ND	5.0		"	"	"	"	"	"	
Chloromethane	ND	5.0		"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0		"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0		"	"	"	"	"	"	
Dibromochloromethane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0		"	"	"	"	"	"	
Dibromomethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0		"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV9-15 (2107188-12) Soil Sampled: 07/13/21 09:24 Received: 07/13/21 17:07										
2,2-Dichloropropane	ND	5.0		µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
Vinyl chloride	ND	5.0		"	"	"	"	"	"	
m,p-Xylene	ND	5.0		"	"	"	"	"	"	
o-Xylene	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV10-5 (2107188-13) Soil Sampled: 07/13/21 09:32 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		116 %	80-120		B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Surrogate: Toluene-d8		99.7 %	81-117		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		114 %	74-121		"	"	"	"	
Benzene	ND	5.6	"	"	"	"	"	"	
Bromobenzene	ND	5.6	"	"	"	"	"	"	
Bromochloromethane	ND	5.6	"	"	"	"	"	"	
Bromodichloromethane	ND	5.6	"	"	"	"	"	"	
Bromoform	ND	5.6	"	"	"	"	"	"	
Bromomethane	ND	5.6	"	"	"	"	"	"	
n-Butylbenzene	ND	5.6	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.6	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.6	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.6	"	"	"	"	"	"	
Chlorobenzene	ND	5.6	"	"	"	"	"	"	
Chloroethane	ND	5.6	"	"	"	"	"	"	
Chloroform	ND	5.6	"	"	"	"	"	"	
Chloromethane	ND	5.6	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.6	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.6	"	"	"	"	"	"	
Dibromochloromethane	ND	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.6	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.6	"	"	"	"	"	"	
Dibromomethane	ND	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.6	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.6	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.6	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.6	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.6	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.6	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.6	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.6	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.6	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.6	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.6	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.6	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.6	"	"	"	"	"	"	
Ethylbenzene	ND	5.6	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.6	"	"	"	"	"	"	
Isopropylbenzene	ND	5.6	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV10-5 (2107188-13) Soil Sampled: 07/13/21 09:32 Received: 07/13/21 17:07

p-Isopropyltoluene	ND	5.6	µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Methylene chloride	ND	5.6	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.6	"	"	"	"	"	"	
Naphthalene	ND	5.6	"	"	"	"	"	"	
n-Propylbenzene	ND	5.6	"	"	"	"	"	"	
Styrene	ND	5.6	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.6	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.6	"	"	"	"	"	"	
Tetrachloroethene	ND	5.6	"	"	"	"	"	"	
Toluene	ND	5.6	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.6	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.6	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.6	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.6	"	"	"	"	"	"	
Trichloroethene	ND	5.6	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.6	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.6	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.6	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.6	"	"	"	"	"	"	
Vinyl chloride	ND	5.6	"	"	"	"	"	"	
m,p-Xylene	ND	5.6	"	"	"	"	"	"	
o-Xylene	ND	5.6	"	"	"	"	"	"	

SV10-10 (2107188-14) Soil Sampled: 07/13/21 09:36 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		106 %	80-120		B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Surrogate: Toluene-d8		103 %	81-117		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.0 %	74-121		"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV10-10 (2107188-14) Soil Sampled: 07/13/21 09:36 Received: 07/13/21 17:07										
2-Chlorotoluene	ND	5.0		µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
4-Chlorotoluene	ND	5.0		"	"	"	"	"	"	
Dibromochloromethane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0		"	"	"	"	"	"	
Dibromomethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0		"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0		"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV10-10 (2107188-14) Soil Sampled: 07/13/21 09:36 Received: 07/13/21 17:07

1,2,4-Trimethylbenzene	ND	5.0	µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV10-15 (2107188-15) Soil Sampled: 07/13/21 09:52 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		119 %		80-120	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		103 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		96.3 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV10-15 (2107188-15) Soil Sampled: 07/13/21 09:52 Received: 07/13/21 17:07										
2,2-Dichloropropane	ND	5.0		µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
Vinyl chloride	ND	5.0		"	"	"	"	"	"	
m,p-Xylene	ND	5.0		"	"	"	"	"	"	
o-Xylene	ND	5.0		"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV11-5 (2107188-16) Soil Sampled: 07/13/21 10:16 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		105 %	80-120		B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Surrogate: Toluene-d8		102 %	81-117		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	74-121		"	"	"	"	
Benzene	ND	5.6	"	"	"	"	"	"	
Bromobenzene	ND	5.6	"	"	"	"	"	"	
Bromochloromethane	ND	5.6	"	"	"	"	"	"	
Bromodichloromethane	ND	5.6	"	"	"	"	"	"	
Bromoform	ND	5.6	"	"	"	"	"	"	
Bromomethane	ND	5.6	"	"	"	"	"	"	
n-Butylbenzene	ND	5.6	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.6	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.6	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.6	"	"	"	"	"	"	
Chlorobenzene	ND	5.6	"	"	"	"	"	"	
Chloroethane	ND	5.6	"	"	"	"	"	"	
Chloroform	ND	5.6	"	"	"	"	"	"	
Chloromethane	ND	5.6	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.6	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.6	"	"	"	"	"	"	
Dibromochloromethane	ND	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.6	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.6	"	"	"	"	"	"	
Dibromomethane	ND	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.6	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.6	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.6	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.6	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.6	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.6	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.6	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.6	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.6	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.6	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.6	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.6	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.6	"	"	"	"	"	"	
Ethylbenzene	ND	5.6	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.6	"	"	"	"	"	"	
Isopropylbenzene	ND	5.6	"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV11-5 (2107188-16) Soil Sampled: 07/13/21 10:16 Received: 07/13/21 17:07

p-Isopropyltoluene	ND	5.6	µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Methylene chloride	ND	5.6	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.6	"	"	"	"	"	"	
Naphthalene	ND	5.6	"	"	"	"	"	"	
n-Propylbenzene	ND	5.6	"	"	"	"	"	"	
Styrene	ND	5.6	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.6	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.6	"	"	"	"	"	"	
Tetrachloroethene	ND	5.6	"	"	"	"	"	"	
Toluene	ND	5.6	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.6	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.6	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.6	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.6	"	"	"	"	"	"	
Trichloroethene	ND	5.6	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.6	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.6	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.6	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.6	"	"	"	"	"	"	
Vinyl chloride	ND	5.6	"	"	"	"	"	"	
m,p-Xylene	ND	5.6	"	"	"	"	"	"	
o-Xylene	ND	5.6	"	"	"	"	"	"	

SV11-10 (2107188-17) Soil Sampled: 07/13/21 10:20 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		102 %		80-120	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Surrogate: Toluene-d8		98.3 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.1 %		74-121	"	"	"	"	
Benzene	ND	5.8	"	"	"	"	"	"	
Bromobenzene	ND	5.8	"	"	"	"	"	"	
Bromochloromethane	ND	5.8	"	"	"	"	"	"	
Bromodichloromethane	ND	5.8	"	"	"	"	"	"	
Bromoform	ND	5.8	"	"	"	"	"	"	
Bromomethane	ND	5.8	"	"	"	"	"	"	
n-Butylbenzene	ND	5.8	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.8	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.8	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.8	"	"	"	"	"	"	
Chlorobenzene	ND	5.8	"	"	"	"	"	"	
Chloroethane	ND	5.8	"	"	"	"	"	"	
Chloroform	ND	5.8	"	"	"	"	"	"	
Chloromethane	ND	5.8	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV11-10 (2107188-17) Soil Sampled: 07/13/21 10:20 Received: 07/13/21 17:07										
2-Chlorotoluene	ND	5.8		µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
4-Chlorotoluene	ND	5.8		"	"	"	"	"	"	
Dibromochloromethane	ND	5.8		"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.8		"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.8		"	"	"	"	"	"	
Dibromomethane	ND	5.8		"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.8		"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.8		"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.8		"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.8		"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.8		"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.8		"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.8		"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.8		"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.8		"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.8		"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.8		"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.8		"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.8		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.8		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.8		"	"	"	"	"	"	
Ethylbenzene	ND	5.8		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.8		"	"	"	"	"	"	
Isopropylbenzene	ND	5.8		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.8		"	"	"	"	"	"	
Methylene chloride	ND	5.8		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.8		"	"	"	"	"	"	
Naphthalene	ND	5.8		"	"	"	"	"	"	
n-Propylbenzene	ND	5.8		"	"	"	"	"	"	
Styrene	ND	5.8		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.8		"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.8		"	"	"	"	"	"	
Tetrachloroethene	ND	5.8		"	"	"	"	"	"	
Toluene	ND	5.8		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.8		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.8		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.8		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.8		"	"	"	"	"	"	
Trichloroethene	ND	5.8		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.8		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.8		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV11-10 (2107188-17) Soil Sampled: 07/13/21 10:20 Received: 07/13/21 17:07

1,2,4-Trimethylbenzene	ND	5.8	µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
1,3,5-Trimethylbenzene	ND	5.8	"	"	"	"	"	"	
Vinyl chloride	ND	5.8	"	"	"	"	"	"	
m,p-Xylene	ND	5.8	"	"	"	"	"	"	
o-Xylene	ND	5.8	"	"	"	"	"	"	

SV11-15 (2107188-18) Soil Sampled: 07/13/21 10:26 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		106 %		80-120	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		102 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		96.2 %		74-121	"	"	"	"	
Benzene	ND	6.4	"	"	"	"	"	"	
Bromobenzene	ND	6.4	"	"	"	"	"	"	
Bromochloromethane	ND	6.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.4	"	"	"	"	"	"	
Bromoform	ND	6.4	"	"	"	"	"	"	
Bromomethane	ND	6.4	"	"	"	"	"	"	
n-Butylbenzene	ND	6.4	"	"	"	"	"	"	
sec-Butylbenzene	ND	6.4	"	"	"	"	"	"	
tert-Butylbenzene	ND	6.4	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	
Chlorobenzene	ND	6.4	"	"	"	"	"	"	
Chloroethane	ND	6.4	"	"	"	"	"	"	
Chloroform	ND	6.4	"	"	"	"	"	"	
Chloromethane	ND	6.4	"	"	"	"	"	"	
2-Chlorotoluene	ND	6.4	"	"	"	"	"	"	
4-Chlorotoluene	ND	6.4	"	"	"	"	"	"	
Dibromochloromethane	ND	6.4	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	6.4	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	6.4	"	"	"	"	"	"	
Dibromomethane	ND	6.4	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	6.4	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	6.4	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	6.4	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	6.4	"	"	"	"	"	"	
1,1-Dichloroethane	ND	6.4	"	"	"	"	"	"	
1,2-Dichloroethane	ND	6.4	"	"	"	"	"	"	
1,1-Dichloroethene	ND	6.4	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	6.4	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	6.4	"	"	"	"	"	"	
1,2-Dichloropropane	ND	6.4	"	"	"	"	"	"	
1,3-Dichloropropane	ND	6.4	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV11-15 (2107188-18) Soil Sampled: 07/13/21 10:26 Received: 07/13/21 17:07										
2,2-Dichloropropane	ND	6.4		µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
1,1-Dichloropropene	ND	6.4		"	"	"	"	"	"	"
cis-1,3-Dichloropropene	ND	6.4		"	"	"	"	"	"	"
trans-1,3-Dichloropropene	ND	6.4		"	"	"	"	"	"	"
Ethylbenzene	ND	6.4		"	"	"	"	"	"	"
Hexachlorobutadiene	ND	6.4		"	"	"	"	"	"	"
Isopropylbenzene	ND	6.4		"	"	"	"	"	"	"
p-Isopropyltoluene	ND	6.4		"	"	"	"	"	"	"
Methylene chloride	ND	6.4		"	"	"	"	"	"	"
Methyl tert-butyl ether	ND	6.4		"	"	"	"	"	"	"
Naphthalene	ND	6.4		"	"	"	"	"	"	"
n-Propylbenzene	ND	6.4		"	"	"	"	"	"	"
Styrene	ND	6.4		"	"	"	"	"	"	"
1,1,1,2-Tetrachloroethane	ND	6.4		"	"	"	"	"	"	"
1,1,1,2,2-Tetrachloroethane	ND	6.4		"	"	"	"	"	"	"
Tetrachloroethene	ND	6.4		"	"	"	"	"	"	"
Toluene	ND	6.4		"	"	"	"	"	"	"
1,2,3-Trichlorobenzene	ND	6.4		"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	6.4		"	"	"	"	"	"	"
1,1,1-Trichloroethane	ND	6.4		"	"	"	"	"	"	"
1,1,2-Trichloroethane	ND	6.4		"	"	"	"	"	"	"
Trichloroethene	ND	6.4		"	"	"	"	"	"	"
Trichlorofluoromethane	ND	6.4		"	"	"	"	"	"	"
1,2,3-Trichloropropane	ND	6.4		"	"	"	"	"	"	"
1,2,4-Trimethylbenzene	ND	6.4		"	"	"	"	"	"	"
1,3,5-Trimethylbenzene	ND	6.4		"	"	"	"	"	"	"
Vinyl chloride	ND	6.4		"	"	"	"	"	"	"
m,p-Xylene	ND	6.4		"	"	"	"	"	"	"
o-Xylene	ND	6.4		"	"	"	"	"	"	"

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV12-5 (2107188-19) Soil Sampled: 07/13/21 10:49 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		110 %		80-120	BIG1407	07/14/21	07/15/21 07:36	EPA 8260B	
Surrogate: Toluene-d8		101 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.6 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV12-5 (2107188-19) Soil Sampled: 07/13/21 10:49 Received: 07/13/21 17:07

p-Isopropyltoluene	ND	5.0	µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV12-10 (2107188-20) Soil Sampled: 07/13/21 10:58 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		106 %	80-120		B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
Surrogate: Toluene-d8		101 %	81-117		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.4 %	74-121		"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV12-10 (2107188-20) Soil Sampled: 07/13/21 10:58 Received: 07/13/21 17:07										
2-Chlorotoluene	ND	5.0		µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
4-Chlorotoluene	ND	5.0		"	"	"	"	"	"	
Dibromochloromethane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0		"	"	"	"	"	"	
Dibromomethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0		"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0		"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV12-10 (2107188-20) Soil Sampled: 07/13/21 10:58 Received: 07/13/21 17:07

1,2,4-Trimethylbenzene	ND	5.0	µg/kg	1	B1G1407	07/14/21	07/15/21 07:36	EPA 8260B	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV12-15 (2107188-21) Soil Sampled: 07/13/21 11:07 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		102 %		80-120	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		99.5 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		98.6 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV12-15 (2107188-21) Soil Sampled: 07/13/21 11:07 Received: 07/13/21 17:07										
2,2-Dichloropropane	ND	5.0		µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
Vinyl chloride	ND	5.0		"	"	"	"	"	"	
m,p-Xylene	ND	5.0		"	"	"	"	"	"	
o-Xylene	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV13-5 (2107188-22) Soil Sampled: 07/13/21 11:26 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		107 %		80-120	BIG1505	07/15/21	07/15/21 13:22	EPA 8260B	
Surrogate: Toluene-d8		98.9 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.6 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV13-5 (2107188-22) Soil Sampled: 07/13/21 11:26 Received: 07/13/21 17:07

p-Isopropyltoluene	ND	5.0	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV13-10 (2107188-23) Soil Sampled: 07/13/21 11:31 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		104 %		80-120	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
Surrogate: Toluene-d8		101 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV13-10 (2107188-23) Soil Sampled: 07/13/21 11:31 Received: 07/13/21 17:07										
2-Chlorotoluene	ND	5.0		µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
4-Chlorotoluene	ND	5.0		"	"	"	"	"	"	
Dibromochloromethane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0		"	"	"	"	"	"	
Dibromomethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0		"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0		"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV13-10 (2107188-23) Soil Sampled: 07/13/21 11:31 Received: 07/13/21 17:07

1,2,4-Trimethylbenzene	ND	5.0	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV13-15 (2107188-24) Soil Sampled: 07/13/21 11:38 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		106 %		80-120	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		101 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		97.4 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV13-15 (2107188-24) Soil Sampled: 07/13/21 11:38 Received: 07/13/21 17:07										
2,2-Dichloropropane	ND	5.0		µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	"
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	"
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	"
Ethylbenzene	ND	5.0		"	"	"	"	"	"	"
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	"
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	"
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	"
Methylene chloride	ND	5.0		"	"	"	"	"	"	"
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	"
Naphthalene	ND	5.0		"	"	"	"	"	"	"
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	"
Styrene	ND	5.0		"	"	"	"	"	"	"
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	"
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	"
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	"
Toluene	ND	5.0		"	"	"	"	"	"	"
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	"
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	"
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	"
Trichloroethene	ND	5.0		"	"	"	"	"	"	"
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	"
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	"
1,2,4-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	"
1,3,5-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	"
Vinyl chloride	ND	5.0		"	"	"	"	"	"	"
m,p-Xylene	ND	5.0		"	"	"	"	"	"	"
o-Xylene	ND	5.0		"	"	"	"	"	"	"

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV14-5 (2107188-25) Soil Sampled: 07/13/21 12:49 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		104 %		80-120	BIG1505	07/15/21	07/15/21 13:22	EPA 8260B	
Surrogate: Toluene-d8		103 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.6 %		74-121	"	"	"	"	
Benzene	ND	5.6	"	"	"	"	"	"	
Bromobenzene	ND	5.6	"	"	"	"	"	"	
Bromochloromethane	ND	5.6	"	"	"	"	"	"	
Bromodichloromethane	ND	5.6	"	"	"	"	"	"	
Bromoform	ND	5.6	"	"	"	"	"	"	
Bromomethane	ND	5.6	"	"	"	"	"	"	
n-Butylbenzene	ND	5.6	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.6	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.6	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.6	"	"	"	"	"	"	
Chlorobenzene	ND	5.6	"	"	"	"	"	"	
Chloroethane	ND	5.6	"	"	"	"	"	"	
Chloroform	ND	5.6	"	"	"	"	"	"	
Chloromethane	ND	5.6	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.6	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.6	"	"	"	"	"	"	
Dibromochloromethane	ND	5.6	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.6	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.6	"	"	"	"	"	"	
Dibromomethane	ND	5.6	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.6	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.6	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.6	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.6	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.6	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.6	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.6	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.6	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.6	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.6	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.6	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.6	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.6	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.6	"	"	"	"	"	"	
Ethylbenzene	ND	5.6	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.6	"	"	"	"	"	"	
Isopropylbenzene	ND	5.6	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV14-5 (2107188-25) Soil **Sampled: 07/13/21 12:49** **Received: 07/13/21 17:07**

p-Isopropyltoluene	ND	5.6	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
Methylene chloride	ND	5.6	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.6	"	"	"	"	"	"	
Naphthalene	ND	5.6	"	"	"	"	"	"	
n-Propylbenzene	ND	5.6	"	"	"	"	"	"	
Styrene	ND	5.6	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.6	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.6	"	"	"	"	"	"	
Tetrachloroethene	ND	5.6	"	"	"	"	"	"	
Toluene	ND	5.6	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.6	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.6	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.6	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.6	"	"	"	"	"	"	
Trichloroethene	ND	5.6	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.6	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.6	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.6	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.6	"	"	"	"	"	"	
Vinyl chloride	ND	5.6	"	"	"	"	"	"	
m,p-Xylene	ND	5.6	"	"	"	"	"	"	
o-Xylene	ND	5.6	"	"	"	"	"	"	

SV14-10 (2107188-26) Soil **Sampled: 07/13/21 12:54** **Received: 07/13/21 17:07**

<i>Surrogate: Dibromofluoromethane</i>		104 %		80-120	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		103 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		100 %		74-121	"	"	"	"	
Benzene	ND	5.9	"	"	"	"	"	"	
Bromobenzene	ND	5.9	"	"	"	"	"	"	
Bromochloromethane	ND	5.9	"	"	"	"	"	"	
Bromodichloromethane	ND	5.9	"	"	"	"	"	"	
Bromoform	ND	5.9	"	"	"	"	"	"	
Bromomethane	ND	5.9	"	"	"	"	"	"	
n-Butylbenzene	ND	5.9	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.9	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.9	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.9	"	"	"	"	"	"	
Chlorobenzene	ND	5.9	"	"	"	"	"	"	
Chloroethane	ND	5.9	"	"	"	"	"	"	
Chloroform	ND	5.9	"	"	"	"	"	"	
Chloromethane	ND	5.9	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							
SV14-10 (2107188-26) Soil Sampled: 07/13/21 12:54 Received: 07/13/21 17:07										
2-Chlorotoluene	ND	5.9	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B		
4-Chlorotoluene	ND	5.9	"	"	"	"	"	"		
Dibromochloromethane	ND	5.9	"	"	"	"	"	"		
1,2-Dibromo-3-chloropropane	ND	5.9	"	"	"	"	"	"		
1,2-Dibromoethane (EDB)	ND	5.9	"	"	"	"	"	"		
Dibromomethane	ND	5.9	"	"	"	"	"	"		
1,2-Dichlorobenzene	ND	5.9	"	"	"	"	"	"		
1,3-Dichlorobenzene	ND	5.9	"	"	"	"	"	"		
1,4-Dichlorobenzene	ND	5.9	"	"	"	"	"	"		
Dichlorodifluoromethane	ND	5.9	"	"	"	"	"	"		
1,1-Dichloroethane	ND	5.9	"	"	"	"	"	"		
1,2-Dichloroethane	ND	5.9	"	"	"	"	"	"		
1,1-Dichloroethene	ND	5.9	"	"	"	"	"	"		
cis-1,2-Dichloroethene	ND	5.9	"	"	"	"	"	"		
trans-1,2-Dichloroethene	ND	5.9	"	"	"	"	"	"		
1,2-Dichloropropane	ND	5.9	"	"	"	"	"	"		
1,3-Dichloropropane	ND	5.9	"	"	"	"	"	"		
2,2-Dichloropropane	ND	5.9	"	"	"	"	"	"		
1,1-Dichloropropene	ND	5.9	"	"	"	"	"	"		
cis-1,3-Dichloropropene	ND	5.9	"	"	"	"	"	"		
trans-1,3-Dichloropropene	ND	5.9	"	"	"	"	"	"		
Ethylbenzene	23	5.9	"	"	"	"	"	"		
Hexachlorobutadiene	ND	5.9	"	"	"	"	"	"		
Isopropylbenzene	ND	5.9	"	"	"	"	"	"		
p-Isopropyltoluene	ND	5.9	"	"	"	"	"	"		
Methylene chloride	ND	5.9	"	"	"	"	"	"		
Methyl tert-butyl ether	ND	5.9	"	"	"	"	"	"		
Naphthalene	ND	5.9	"	"	"	"	"	"		
n-Propylbenzene	ND	5.9	"	"	"	"	"	"		
Styrene	ND	5.9	"	"	"	"	"	"		
1,1,1,2-Tetrachloroethane	ND	5.9	"	"	"	"	"	"		
1,1,2,2-Tetrachloroethane	ND	5.9	"	"	"	"	"	"		
Tetrachloroethene	ND	5.9	"	"	"	"	"	"		
Toluene	ND	5.9	"	"	"	"	"	"		
1,2,3-Trichlorobenzene	ND	5.9	"	"	"	"	"	"		
1,2,4-Trichlorobenzene	ND	5.9	"	"	"	"	"	"		
1,1,1-Trichloroethane	ND	5.9	"	"	"	"	"	"		
1,1,2-Trichloroethane	ND	5.9	"	"	"	"	"	"		
Trichloroethene	ND	5.9	"	"	"	"	"	"		
Trichlorofluoromethane	ND	5.9	"	"	"	"	"	"		
1,2,3-Trichloropropane	ND	5.9	"	"	"	"	"	"		

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV14-10 (2107188-26) Soil Sampled: 07/13/21 12:54 Received: 07/13/21 17:07

1,2,4-Trimethylbenzene	ND	5.9	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
1,3,5-Trimethylbenzene	ND	5.9	"	"	"	"	"	"	
Vinyl chloride	ND	5.9	"	"	"	"	"	"	
m,p-Xylene	110	5.9	"	"	"	"	"	"	
o-Xylene	43	5.9	"	"	"	"	"	"	

SV14-15 (2107188-27) Soil Sampled: 07/13/21 13:01 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		101 %		80-120	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		102 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		98.9 %		74-121	"	"	"	"	
Benzene	ND	5.7	"	"	"	"	"	"	
Bromobenzene	ND	5.7	"	"	"	"	"	"	
Bromochloromethane	ND	5.7	"	"	"	"	"	"	
Bromodichloromethane	ND	5.7	"	"	"	"	"	"	
Bromoform	ND	5.7	"	"	"	"	"	"	
Bromomethane	ND	5.7	"	"	"	"	"	"	
n-Butylbenzene	ND	5.7	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.7	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.7	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.7	"	"	"	"	"	"	
Chlorobenzene	ND	5.7	"	"	"	"	"	"	
Chloroethane	ND	5.7	"	"	"	"	"	"	
Chloroform	ND	5.7	"	"	"	"	"	"	
Chloromethane	ND	5.7	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.7	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.7	"	"	"	"	"	"	
Dibromochloromethane	ND	5.7	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.7	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.7	"	"	"	"	"	"	
Dibromomethane	ND	5.7	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.7	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.7	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.7	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.7	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.7	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.7	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.7	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.7	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.7	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.7	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.7	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV14-15 (2107188-27) Soil Sampled: 07/13/21 13:01 Received: 07/13/21 17:07										
2,2-Dichloropropane	ND	5.7		µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
1,1-Dichloropropene	ND	5.7		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.7		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.7		"	"	"	"	"	"	
Ethylbenzene	ND	5.7		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.7		"	"	"	"	"	"	
Isopropylbenzene	ND	5.7		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.7		"	"	"	"	"	"	
Methylene chloride	ND	5.7		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.7		"	"	"	"	"	"	
Naphthalene	ND	5.7		"	"	"	"	"	"	
n-Propylbenzene	ND	5.7		"	"	"	"	"	"	
Styrene	ND	5.7		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.7		"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	5.7		"	"	"	"	"	"	
Tetrachloroethene	ND	5.7		"	"	"	"	"	"	
Toluene	ND	5.7		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.7		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.7		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.7		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.7		"	"	"	"	"	"	
Trichloroethene	ND	5.7		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.7		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.7		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.7		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.7		"	"	"	"	"	"	
Vinyl chloride	ND	5.7		"	"	"	"	"	"	
m,p-Xylene	ND	5.7		"	"	"	"	"	"	
o-Xylene	ND	5.7		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV15-5 (2107188-28) Soil Sampled: 07/13/21 13:19 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		101 %		80-120	BIG1505	07/15/21	07/15/21 13:22	EPA 8260B	
Surrogate: Toluene-d8		102 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.7 %		74-121	"	"	"	"	
Benzene	ND	8.7	"	"	"	"	"	"	
Bromobenzene	ND	8.7	"	"	"	"	"	"	
Bromochloromethane	ND	8.7	"	"	"	"	"	"	
Bromodichloromethane	ND	8.7	"	"	"	"	"	"	
Bromoform	ND	8.7	"	"	"	"	"	"	
Bromomethane	ND	8.7	"	"	"	"	"	"	
n-Butylbenzene	ND	8.7	"	"	"	"	"	"	
sec-Butylbenzene	ND	8.7	"	"	"	"	"	"	
tert-Butylbenzene	ND	8.7	"	"	"	"	"	"	
Carbon tetrachloride	ND	8.7	"	"	"	"	"	"	
Chlorobenzene	ND	8.7	"	"	"	"	"	"	
Chloroethane	ND	8.7	"	"	"	"	"	"	
Chloroform	ND	8.7	"	"	"	"	"	"	
Chloromethane	ND	8.7	"	"	"	"	"	"	
2-Chlorotoluene	ND	8.7	"	"	"	"	"	"	
4-Chlorotoluene	ND	8.7	"	"	"	"	"	"	
Dibromochloromethane	ND	8.7	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	8.7	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	8.7	"	"	"	"	"	"	
Dibromomethane	ND	8.7	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	8.7	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	8.7	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	8.7	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	8.7	"	"	"	"	"	"	
1,1-Dichloroethane	ND	8.7	"	"	"	"	"	"	
1,2-Dichloroethane	ND	8.7	"	"	"	"	"	"	
1,1-Dichloroethene	ND	8.7	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	8.7	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.7	"	"	"	"	"	"	
1,2-Dichloropropane	ND	8.7	"	"	"	"	"	"	
1,3-Dichloropropane	ND	8.7	"	"	"	"	"	"	
2,2-Dichloropropane	ND	8.7	"	"	"	"	"	"	
1,1-Dichloropropene	ND	8.7	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	8.7	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	8.7	"	"	"	"	"	"	
Ethylbenzene	ND	8.7	"	"	"	"	"	"	
Hexachlorobutadiene	ND	8.7	"	"	"	"	"	"	
Isopropylbenzene	ND	8.7	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV15-5 (2107188-28) Soil Sampled: 07/13/21 13:19 Received: 07/13/21 17:07

p-Isopropyltoluene	ND	8.7	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
Methylene chloride	ND	8.7	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	8.7	"	"	"	"	"	"	
Naphthalene	ND	8.7	"	"	"	"	"	"	
n-Propylbenzene	ND	8.7	"	"	"	"	"	"	
Styrene	ND	8.7	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	8.7	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	8.7	"	"	"	"	"	"	
Tetrachloroethene	ND	8.7	"	"	"	"	"	"	
Toluene	ND	8.7	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	8.7	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	8.7	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	8.7	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	8.7	"	"	"	"	"	"	
Trichloroethene	ND	8.7	"	"	"	"	"	"	
Trichlorofluoromethane	ND	8.7	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	8.7	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	8.7	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	8.7	"	"	"	"	"	"	
Vinyl chloride	ND	8.7	"	"	"	"	"	"	
m,p-Xylene	ND	8.7	"	"	"	"	"	"	
o-Xylene	ND	8.7	"	"	"	"	"	"	

SV15-10 (2107188-29) Soil Sampled: 07/13/21 13:23 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		107 %	80-120		B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
Surrogate: Toluene-d8		101 %	81-117		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.2 %	74-121		"	"	"	"	
Benzene	ND	6.0	"	"	"	"	"	"	
Bromobenzene	ND	6.0	"	"	"	"	"	"	
Bromochloromethane	ND	6.0	"	"	"	"	"	"	
Bromodichloromethane	ND	6.0	"	"	"	"	"	"	
Bromoform	ND	6.0	"	"	"	"	"	"	
Bromomethane	ND	6.0	"	"	"	"	"	"	
n-Butylbenzene	ND	6.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	6.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	6.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.0	"	"	"	"	"	"	
Chlorobenzene	ND	6.0	"	"	"	"	"	"	
Chloroethane	ND	6.0	"	"	"	"	"	"	
Chloroform	ND	6.0	"	"	"	"	"	"	
Chloromethane	ND	6.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV15-10 (2107188-29) Soil Sampled: 07/13/21 13:23 Received: 07/13/21 17:07									
2-Chlorotoluene	ND	6.0	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
4-Chlorotoluene	ND	6.0	"	"	"	"	"	"	
Dibromochloromethane	ND	6.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	6.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	6.0	"	"	"	"	"	"	
Dibromomethane	ND	6.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	6.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	6.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	6.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	6.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	6.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	6.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	6.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	6.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	6.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	6.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	6.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	6.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	6.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	6.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	6.0	"	"	"	"	"	"	
Ethylbenzene	ND	6.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	6.0	"	"	"	"	"	"	
Isopropylbenzene	ND	6.0	"	"	"	"	"	"	
p-Isopropyltoluene	ND	6.0	"	"	"	"	"	"	
Methylene chloride	ND	6.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	6.0	"	"	"	"	"	"	
Naphthalene	ND	6.0	"	"	"	"	"	"	
n-Propylbenzene	ND	6.0	"	"	"	"	"	"	
Styrene	ND	6.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	6.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	6.0	"	"	"	"	"	"	
Tetrachloroethene	ND	6.0	"	"	"	"	"	"	
Toluene	ND	6.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	6.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	6.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	6.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	6.0	"	"	"	"	"	"	
Trichloroethene	ND	6.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	6.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	6.0	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV15-10 (2107188-29) Soil Sampled: 07/13/21 13:23 Received: 07/13/21 17:07

1,2,4-Trimethylbenzene	ND	6.0	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
1,3,5-Trimethylbenzene	ND	6.0	"	"	"	"	"	"	
Vinyl chloride	ND	6.0	"	"	"	"	"	"	
m,p-Xylene	ND	6.0	"	"	"	"	"	"	
o-Xylene	ND	6.0	"	"	"	"	"	"	

SV15-15 (2107188-30) Soil Sampled: 07/13/21 13:27 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		109 %		80-120	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		100 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		97.1 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV15-15 (2107188-30) Soil Sampled: 07/13/21 13:27 Received: 07/13/21 17:07										
2,2-Dichloropropane	ND	5.0		µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
Vinyl chloride	ND	5.0		"	"	"	"	"	"	
m,p-Xylene	ND	5.0		"	"	"	"	"	"	
o-Xylene	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV16-5 (2107188-31) Soil Sampled: 07/13/21 13:54 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		105 %		80-120	BIG1505	07/15/21	07/15/21 13:22	EPA 8260B	
Surrogate: Toluene-d8		100 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %		74-121	"	"	"	"	
Benzene	ND	6.4	"	"	"	"	"	"	
Bromobenzene	ND	6.4	"	"	"	"	"	"	
Bromochloromethane	ND	6.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.4	"	"	"	"	"	"	
Bromoform	ND	6.4	"	"	"	"	"	"	
Bromomethane	ND	6.4	"	"	"	"	"	"	
n-Butylbenzene	ND	6.4	"	"	"	"	"	"	
sec-Butylbenzene	ND	6.4	"	"	"	"	"	"	
tert-Butylbenzene	ND	6.4	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	
Chlorobenzene	ND	6.4	"	"	"	"	"	"	
Chloroethane	ND	6.4	"	"	"	"	"	"	
Chloroform	ND	6.4	"	"	"	"	"	"	
Chloromethane	ND	6.4	"	"	"	"	"	"	
2-Chlorotoluene	ND	6.4	"	"	"	"	"	"	
4-Chlorotoluene	ND	6.4	"	"	"	"	"	"	
Dibromochloromethane	ND	6.4	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	6.4	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	6.4	"	"	"	"	"	"	
Dibromomethane	ND	6.4	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	6.4	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	6.4	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	6.4	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	6.4	"	"	"	"	"	"	
1,1-Dichloroethane	ND	6.4	"	"	"	"	"	"	
1,2-Dichloroethane	ND	6.4	"	"	"	"	"	"	
1,1-Dichloroethene	ND	6.4	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	6.4	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	6.4	"	"	"	"	"	"	
1,2-Dichloropropane	ND	6.4	"	"	"	"	"	"	
1,3-Dichloropropane	ND	6.4	"	"	"	"	"	"	
2,2-Dichloropropane	ND	6.4	"	"	"	"	"	"	
1,1-Dichloropropene	ND	6.4	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	6.4	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	6.4	"	"	"	"	"	"	
Ethylbenzene	ND	6.4	"	"	"	"	"	"	
Hexachlorobutadiene	ND	6.4	"	"	"	"	"	"	
Isopropylbenzene	ND	6.4	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV16-5 (2107188-31) Soil Sampled: 07/13/21 13:54 Received: 07/13/21 17:07

p-Isopropyltoluene	ND	6.4	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
Methylene chloride	ND	6.4	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	6.4	"	"	"	"	"	"	
Naphthalene	ND	6.4	"	"	"	"	"	"	
n-Propylbenzene	ND	6.4	"	"	"	"	"	"	
Styrene	ND	6.4	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	6.4	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	6.4	"	"	"	"	"	"	
Tetrachloroethane	ND	6.4	"	"	"	"	"	"	
Toluene	ND	6.4	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	6.4	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	6.4	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	6.4	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	6.4	"	"	"	"	"	"	
Trichloroethene	ND	6.4	"	"	"	"	"	"	
Trichlorofluoromethane	ND	6.4	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	6.4	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	6.4	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	6.4	"	"	"	"	"	"	
Vinyl chloride	ND	6.4	"	"	"	"	"	"	
m,p-Xylene	ND	6.4	"	"	"	"	"	"	
o-Xylene	ND	6.4	"	"	"	"	"	"	

SV16-10 (2107188-32) Soil Sampled: 07/13/21 13:57 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		107 %	80-120		B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
Surrogate: Toluene-d8		104 %	81-117		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.3 %	74-121		"	"	"	"	
Benzene	ND	6.7	"	"	"	"	"	"	
Bromobenzene	ND	6.7	"	"	"	"	"	"	
Bromochloromethane	ND	6.7	"	"	"	"	"	"	
Bromodichloromethane	ND	6.7	"	"	"	"	"	"	
Bromoform	ND	6.7	"	"	"	"	"	"	
Bromomethane	ND	6.7	"	"	"	"	"	"	
n-Butylbenzene	ND	6.7	"	"	"	"	"	"	
sec-Butylbenzene	ND	6.7	"	"	"	"	"	"	
tert-Butylbenzene	ND	6.7	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.7	"	"	"	"	"	"	
Chlorobenzene	ND	6.7	"	"	"	"	"	"	
Chloroethane	ND	6.7	"	"	"	"	"	"	
Chloroform	ND	6.7	"	"	"	"	"	"	
Chloromethane	ND	6.7	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
SV16-10 (2107188-32) Soil Sampled: 07/13/21 13:57 Received: 07/13/21 17:07										
2-Chlorotoluene	ND	6.7	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B		
4-Chlorotoluene	ND	6.7	"	"	"	"	"	"		
Dibromochloromethane	ND	6.7	"	"	"	"	"	"		
1,2-Dibromo-3-chloropropane	ND	6.7	"	"	"	"	"	"		
1,2-Dibromoethane (EDB)	ND	6.7	"	"	"	"	"	"		
Dibromomethane	ND	6.7	"	"	"	"	"	"		
1,2-Dichlorobenzene	ND	6.7	"	"	"	"	"	"		
1,3-Dichlorobenzene	ND	6.7	"	"	"	"	"	"		
1,4-Dichlorobenzene	ND	6.7	"	"	"	"	"	"		
Dichlorodifluoromethane	ND	6.7	"	"	"	"	"	"		
1,1-Dichloroethane	ND	6.7	"	"	"	"	"	"		
1,2-Dichloroethane	ND	6.7	"	"	"	"	"	"		
1,1-Dichloroethene	ND	6.7	"	"	"	"	"	"		
cis-1,2-Dichloroethene	ND	6.7	"	"	"	"	"	"		
trans-1,2-Dichloroethene	ND	6.7	"	"	"	"	"	"		
1,2-Dichloropropane	ND	6.7	"	"	"	"	"	"		
1,3-Dichloropropane	ND	6.7	"	"	"	"	"	"		
2,2-Dichloropropane	ND	6.7	"	"	"	"	"	"		
1,1-Dichloropropene	ND	6.7	"	"	"	"	"	"		
cis-1,3-Dichloropropene	ND	6.7	"	"	"	"	"	"		
trans-1,3-Dichloropropene	ND	6.7	"	"	"	"	"	"		
Ethylbenzene	ND	6.7	"	"	"	"	"	"		
Hexachlorobutadiene	ND	6.7	"	"	"	"	"	"		
Isopropylbenzene	ND	6.7	"	"	"	"	"	"		
p-Isopropyltoluene	ND	6.7	"	"	"	"	"	"		
Methylene chloride	ND	6.7	"	"	"	"	"	"		
Methyl tert-butyl ether	ND	6.7	"	"	"	"	"	"		
Naphthalene	ND	6.7	"	"	"	"	"	"		
n-Propylbenzene	ND	6.7	"	"	"	"	"	"		
Styrene	ND	6.7	"	"	"	"	"	"		
1,1,1,2-Tetrachloroethane	ND	6.7	"	"	"	"	"	"		
1,1,2,2-Tetrachloroethane	ND	6.7	"	"	"	"	"	"		
Tetrachloroethene	ND	6.7	"	"	"	"	"	"		
Toluene	ND	6.7	"	"	"	"	"	"		
1,2,3-Trichlorobenzene	ND	6.7	"	"	"	"	"	"		
1,2,4-Trichlorobenzene	ND	6.7	"	"	"	"	"	"		
1,1,1-Trichloroethane	ND	6.7	"	"	"	"	"	"		
1,1,2-Trichloroethane	ND	6.7	"	"	"	"	"	"		
Trichloroethene	ND	6.7	"	"	"	"	"	"		
Trichlorofluoromethane	ND	6.7	"	"	"	"	"	"		
1,2,3-Trichloropropane	ND	6.7	"	"	"	"	"	"		

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV16-10 (2107188-32) Soil Sampled: 07/13/21 13:57 Received: 07/13/21 17:07

1,2,4-Trimethylbenzene	ND	6.7	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
1,3,5-Trimethylbenzene	ND	6.7	"	"	"	"	"	"	
Vinyl chloride	ND	6.7	"	"	"	"	"	"	
m,p-Xylene	ND	6.7	"	"	"	"	"	"	
o-Xylene	ND	6.7	"	"	"	"	"	"	

SV16-15 (2107188-33) Soil Sampled: 07/13/21 14:00 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		111 %		80-120	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		102 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		114 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV16-15 (2107188-33) Soil Sampled: 07/13/21 14:00 Received: 07/13/21 17:07										
2,2-Dichloropropane	ND	5.0		µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	14	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
Vinyl chloride	ND	5.0		"	"	"	"	"	"	
m,p-Xylene	ND	5.0		"	"	"	"	"	"	
o-Xylene	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV17-5 (2107188-34) Soil Sampled: 07/13/21 14:44 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		119 %		80-120	BIG1505	07/15/21	07/15/21 13:22	EPA 8260B	
Surrogate: Toluene-d8		104 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV17-5 (2107188-34) Soil Sampled: 07/13/21 14:44 Received: 07/13/21 17:07

p-Isopropyltoluene	ND	5.0	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV17-10 (2107188-35) Soil Sampled: 07/13/21 14:48 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		120 %		80-120	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		106 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		103 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV17-10 (2107188-35) Soil Sampled: 07/13/21 14:48 Received: 07/13/21 17:07										
2-Chlorotoluene	ND	5.0		µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
4-Chlorotoluene	ND	5.0		"	"	"	"	"	"	
Dibromochloromethane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0		"	"	"	"	"	"	
Dibromomethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0		"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0		"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV17-10 (2107188-35) Soil Sampled: 07/13/21 14:48 Received: 07/13/21 17:07

1,2,4-Trimethylbenzene	ND	5.0	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV17-15 (2107188-36) Soil Sampled: 07/13/21 14:53 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		102 %		80-120	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		106 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		102 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV17-15 (2107188-36) Soil Sampled: 07/13/21 14:53 Received: 07/13/21 17:07										
2,2-Dichloropropane	ND	5.0		µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	ND	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	ND	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	ND	5.0		"	"	"	"	"	"	
n-Propylbenzene	ND	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0		"	"	"	"	"	"	
Vinyl chloride	ND	5.0		"	"	"	"	"	"	
m,p-Xylene	ND	5.0		"	"	"	"	"	"	
o-Xylene	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV18-5 (2107188-37) Soil Sampled: 07/13/21 15:19 Received: 07/13/21 17:07

Surrogate: Dibromofluoromethane		106 %		80-120	BIG1505	07/15/21	07/15/21 13:22	EPA 8260B	
Surrogate: Toluene-d8		102 %		81-117	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		103 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	ND	5.0	"	"	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	"	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV18-5 (2107188-37) Soil Sampled: 07/13/21 15:19 Received: 07/13/21 17:07

p-Isopropyltoluene	ND	5.0	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0	"	"	"	"	"	"	
Naphthalene	ND	5.0	"	"	"	"	"	"	
n-Propylbenzene	ND	5.0	"	"	"	"	"	"	
Styrene	ND	5.0	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV18-10 (2107188-38) Soil Sampled: 07/13/21 15:25 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		116 %	80-120		B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		108 %	81-117		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		92.6 %	74-121		"	"	"	"	
Benzene	8.1	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	5.2	5.0	"	"	"	"	"	"	
sec-Butylbenzene	35	5.0	"	"	"	"	"	"	
tert-Butylbenzene	5.0	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV18-10 (2107188-38) Soil Sampled: 07/13/21 15:25 Received: 07/13/21 17:07										
2-Chlorotoluene	ND	5.0		µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
4-Chlorotoluene	ND	5.0		"	"	"	"	"	"	
Dibromochloromethane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0		"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0		"	"	"	"	"	"	
Dibromomethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0		"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0		"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0		"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0		"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0		"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0		"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0		"	"	"	"	"	"	
Ethylbenzene	23	5.0		"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0		"	"	"	"	"	"	
Isopropylbenzene	31	5.0		"	"	"	"	"	"	
p-Isopropyltoluene	ND	5.0		"	"	"	"	"	"	
Methylene chloride	ND	5.0		"	"	"	"	"	"	
Methyl tert-butyl ether	ND	5.0		"	"	"	"	"	"	
Naphthalene	36	5.0		"	"	"	"	"	"	
n-Propylbenzene	35	5.0		"	"	"	"	"	"	
Styrene	ND	5.0		"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0		"	"	"	"	"	"	
Tetrachloroethene	ND	5.0		"	"	"	"	"	"	
Toluene	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0		"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0		"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0		"	"	"	"	"	"	
Trichloroethene	ND	5.0		"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0		"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV18-10 (2107188-38) Soil Sampled: 07/13/21 15:25 Received: 07/13/21 17:07

1,2,4-Trimethylbenzene	ND	5.0	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV18-15 (2107188-39) Soil Sampled: 07/13/21 15:29 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		110 %		80-120	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		103 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		102 %		74-121	"	"	"	"	
Benzene	ND	4.4	"	"	"	"	"	"	
Bromobenzene	ND	4.4	"	"	"	"	"	"	
Bromochloromethane	ND	4.4	"	"	"	"	"	"	
Bromodichloromethane	ND	4.4	"	"	"	"	"	"	
Bromoform	ND	4.4	"	"	"	"	"	"	
Bromomethane	ND	4.4	"	"	"	"	"	"	
n-Butylbenzene	ND	4.4	"	"	"	"	"	"	
sec-Butylbenzene	ND	4.4	"	"	"	"	"	"	
tert-Butylbenzene	ND	4.4	"	"	"	"	"	"	
Carbon tetrachloride	ND	4.4	"	"	"	"	"	"	
Chlorobenzene	ND	4.4	"	"	"	"	"	"	
Chloroethane	ND	4.4	"	"	"	"	"	"	
Chloroform	ND	4.4	"	"	"	"	"	"	
Chloromethane	ND	4.4	"	"	"	"	"	"	
2-Chlorotoluene	ND	4.4	"	"	"	"	"	"	
4-Chlorotoluene	ND	4.4	"	"	"	"	"	"	
Dibromochloromethane	ND	4.4	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	4.4	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	4.4	"	"	"	"	"	"	
Dibromomethane	ND	4.4	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	4.4	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	4.4	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	4.4	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	4.4	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.4	"	"	"	"	"	"	
1,2-Dichloroethane	ND	4.4	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.4	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.4	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	4.4	"	"	"	"	"	"	
1,2-Dichloropropane	ND	4.4	"	"	"	"	"	"	
1,3-Dichloropropane	ND	4.4	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							
SV18-15 (2107188-39) Soil Sampled: 07/13/21 15:29 Received: 07/13/21 17:07										
2,2-Dichloropropane	ND	4.4	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B		
1,1-Dichloropropene	ND	4.4	"	"	"	"	"	"		
cis-1,3-Dichloropropene	ND	4.4	"	"	"	"	"	"		
trans-1,3-Dichloropropene	ND	4.4	"	"	"	"	"	"		
Ethylbenzene	ND	4.4	"	"	"	"	"	"		
Hexachlorobutadiene	ND	4.4	"	"	"	"	"	"		
Isopropylbenzene	ND	4.4	"	"	"	"	"	"		
p-Isopropyltoluene	ND	4.4	"	"	"	"	"	"		
Methylene chloride	ND	4.4	"	"	"	"	"	"		
Methyl tert-butyl ether	ND	4.4	"	"	"	"	"	"		
Naphthalene	ND	4.4	"	"	"	"	"	"		
n-Propylbenzene	ND	4.4	"	"	"	"	"	"		
Styrene	ND	4.4	"	"	"	"	"	"		
1,1,1,2-Tetrachloroethane	ND	4.4	"	"	"	"	"	"		
1,1,1,2,2-Tetrachloroethane	ND	4.4	"	"	"	"	"	"		
Tetrachloroethene	ND	4.4	"	"	"	"	"	"		
Toluene	ND	4.4	"	"	"	"	"	"		
1,2,3-Trichlorobenzene	ND	4.4	"	"	"	"	"	"		
1,2,4-Trichlorobenzene	ND	4.4	"	"	"	"	"	"		
1,1,1-Trichloroethane	ND	4.4	"	"	"	"	"	"		
1,1,2-Trichloroethane	ND	4.4	"	"	"	"	"	"		
Trichloroethene	ND	4.4	"	"	"	"	"	"		
Trichlorofluoromethane	ND	4.4	"	"	"	"	"	"		
1,2,3-Trichloropropane	ND	4.4	"	"	"	"	"	"		
1,2,4-Trimethylbenzene	ND	4.4	"	"	"	"	"	"		
1,3,5-Trimethylbenzene	ND	4.4	"	"	"	"	"	"		
Vinyl chloride	ND	4.4	"	"	"	"	"	"		
m,p-Xylene	ND	4.4	"	"	"	"	"	"		
o-Xylene	ND	4.4	"	"	"	"	"	"		

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV19-5 (2107188-40) Soil Sampled: 07/13/21 15:49 Received: 07/13/21 17:07									
<i>Surrogate: Dibromofluoromethane</i>		100 %		80-120	BIG1505	07/15/21	07/15/21 13:22	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		105 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		105 %		74-121	"	"	"	"	
Benzene	ND	5.0	"	"	"	"	"	"	
Bromobenzene	ND	5.0	"	"	"	"	"	"	
Bromochloromethane	ND	5.0	"	"	"	"	"	"	
Bromodichloromethane	ND	5.0	"	"	"	"	"	"	
Bromoform	ND	5.0	"	"	"	"	"	"	
Bromomethane	ND	5.0	"	"	"	"	"	"	
n-Butylbenzene	1000	500	"	100	"	"	"	"	
sec-Butylbenzene	ND	5.0	"	1	"	"	"	"	
tert-Butylbenzene	ND	5.0	"	"	"	"	"	"	
Carbon tetrachloride	ND	5.0	"	"	"	"	"	"	
Chlorobenzene	ND	5.0	"	"	"	"	"	"	
Chloroethane	ND	5.0	"	"	"	"	"	"	
Chloroform	ND	5.0	"	"	"	"	"	"	
Chloromethane	ND	5.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
4-Chlorotoluene	ND	5.0	"	"	"	"	"	"	
Dibromochloromethane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	5.0	"	"	"	"	"	"	
Dibromomethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	5.0	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloroethene	ND	5.0	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	5.0	"	"	"	"	"	"	
1,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,3-Dichloropropane	ND	5.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	5.0	"	"	"	"	"	"	
1,1-Dichloropropene	ND	5.0	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Hexachlorobutadiene	ND	5.0	"	"	"	"	"	"	
Isopropylbenzene	3000	500	"	100	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV19-5 (2107188-40) Soil Sampled: 07/13/21 15:49 Received: 07/13/21 17:07

p-Isopropyltoluene	ND	5.0	µg/kg	1	B1G1505	07/15/21	07/15/21 13:22	EPA 8260B	
Methylene chloride	ND	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	1200	500	"	100	"	"	"	"	
Naphthalene	7700	500	"	"	"	"	"	"	
n-Propylbenzene	5700	500	"	"	"	"	"	"	
Styrene	ND	5.0	"	1	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	5.0	"	"	"	"	"	"	
Tetrachloroethene	ND	5.0	"	"	"	"	"	"	
Toluene	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	5.0	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.0	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.0	"	"	"	"	"	"	
Trichloroethene	ND	5.0	"	"	"	"	"	"	
Trichlorofluoromethane	ND	5.0	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
Vinyl chloride	ND	5.0	"	"	"	"	"	"	
m,p-Xylene	ND	5.0	"	"	"	"	"	"	
o-Xylene	ND	5.0	"	"	"	"	"	"	

SV19-10 (2107188-41) Soil Sampled: 07/13/21 15:54 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		104 %		80-120	B1G1507	07/16/21	07/19/21 13:35	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		112 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		117 %		74-121	"	"	"	"	
Benzene	ND	6.9	"	"	"	"	"	"	
Bromobenzene	ND	6.9	"	"	"	"	"	"	
Bromochloromethane	ND	6.9	"	"	"	"	"	"	
Bromodichloromethane	ND	6.9	"	"	"	"	"	"	
Bromoform	ND	6.9	"	"	"	"	"	"	
Bromomethane	ND	6.9	"	"	"	"	"	"	
n-Butylbenzene	ND	6.9	"	"	"	"	"	"	
sec-Butylbenzene	68	6.9	"	"	"	"	"	"	
tert-Butylbenzene	12	6.9	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.9	"	"	"	"	"	"	
Chlorobenzene	ND	6.9	"	"	"	"	"	"	
Chloroethane	ND	6.9	"	"	"	"	"	"	
Chloroform	ND	6.9	"	"	"	"	"	"	
Chloromethane	ND	6.9	"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							
SV19-10 (2107188-41) Soil Sampled: 07/13/21 15:54 Received: 07/13/21 17:07										
2-Chlorotoluene	ND	6.9	µg/kg	1	B1G1507	07/16/21	07/19/21 13:35	EPA 8260B		
4-Chlorotoluene	ND	6.9	"	"	"	"	"	"		
Dibromochloromethane	ND	6.9	"	"	"	"	"	"		
1,2-Dibromo-3-chloropropane	ND	6.9	"	"	"	"	"	"		
1,2-Dibromoethane (EDB)	ND	6.9	"	"	"	"	"	"		
Dibromomethane	ND	6.9	"	"	"	"	"	"		
1,2-Dichlorobenzene	ND	6.9	"	"	"	"	"	"		
1,3-Dichlorobenzene	ND	6.9	"	"	"	"	"	"		
1,4-Dichlorobenzene	ND	6.9	"	"	"	"	"	"		
Dichlorodifluoromethane	ND	6.9	"	"	"	"	"	"		
1,1-Dichloroethane	ND	6.9	"	"	"	"	"	"		
1,2-Dichloroethane	ND	6.9	"	"	"	"	"	"		
1,1-Dichloroethene	ND	6.9	"	"	"	"	"	"		
cis-1,2-Dichloroethene	ND	6.9	"	"	"	"	"	"		
trans-1,2-Dichloroethene	ND	6.9	"	"	"	"	"	"		
1,2-Dichloropropane	ND	6.9	"	"	"	"	"	"		
1,3-Dichloropropane	ND	6.9	"	"	"	"	"	"		
2,2-Dichloropropane	ND	6.9	"	"	"	"	"	"		
1,1-Dichloropropene	ND	6.9	"	"	"	"	"	"		
cis-1,3-Dichloropropene	ND	6.9	"	"	"	"	"	"		
trans-1,3-Dichloropropene	ND	6.9	"	"	"	"	"	"		
Ethylbenzene	ND	6.9	"	"	"	"	"	"		
Hexachlorobutadiene	ND	6.9	"	"	"	"	"	"		
Isopropylbenzene	1000	690	"	100	"	"	"	"		
p-Isopropyltoluene	ND	6.9	"	1	"	"	"	"		
Methylene chloride	ND	6.9	"	"	"	"	"	"		
Methyl tert-butyl ether	14000	690	"	100	"	"	"	"		
Naphthalene	ND	690	"	"	"	"	"	"		
n-Propylbenzene	1600	690	"	"	"	"	"	"		
Styrene	ND	6.9	"	1	"	"	"	"		
1,1,1,2-Tetrachloroethane	ND	6.9	"	"	"	"	"	"		
1,1,2,2-Tetrachloroethane	ND	6.9	"	"	"	"	"	"		
Tetrachloroethene	ND	6.9	"	"	"	"	"	"		
Toluene	ND	6.9	"	"	"	"	"	"		
1,2,3-Trichlorobenzene	ND	6.9	"	"	"	"	"	"		
1,2,4-Trichlorobenzene	ND	6.9	"	"	"	"	"	"		
1,1,1-Trichloroethane	ND	6.9	"	"	"	"	"	"		
1,1,2-Trichloroethane	ND	6.9	"	"	"	"	"	"		
Trichloroethene	ND	6.9	"	"	"	"	"	"		
Trichlorofluoromethane	ND	6.9	"	"	"	"	"	"		
1,2,3-Trichloropropane	ND	6.9	"	"	"	"	"	"		

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting			Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units							

SV19-10 (2107188-41) Soil Sampled: 07/13/21 15:54 Received: 07/13/21 17:07

1,2,4-Trimethylbenzene	ND	6.9	µg/kg	1	B1G1507	07/16/21	07/19/21 13:35	EPA 8260B	
1,3,5-Trimethylbenzene	ND	6.9	"	"	"	"	"	"	
Vinyl chloride	ND	6.9	"	"	"	"	"	"	
m,p-Xylene	7.5	6.9	"	"	"	"	"	"	
o-Xylene	ND	6.9	"	"	"	"	"	"	

SV19-15 (2107188-42) Soil Sampled: 07/13/21 15:59 Received: 07/13/21 17:07

<i>Surrogate: Dibromofluoromethane</i>		105 %		80-120	B1G1507	07/16/21	07/19/21 13:35	EPA 8260B	
<i>Surrogate: Toluene-d8</i>		109 %		81-117	"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		95.8 %		74-121	"	"	"	"	
Benzene	ND	500	"	100	"	"	"	"	
Bromobenzene	ND	500	"	"	"	"	"	"	
Bromochloromethane	ND	500	"	"	"	"	"	"	
Bromodichloromethane	ND	500	"	"	"	"	"	"	
Bromoform	ND	500	"	"	"	"	"	"	
Bromomethane	ND	500	"	"	"	"	"	"	
n-Butylbenzene	1700	500	"	"	"	"	"	"	
sec-Butylbenzene	ND	500	"	"	"	"	"	"	
tert-Butylbenzene	ND	500	"	"	"	"	"	"	
Carbon tetrachloride	ND	500	"	"	"	"	"	"	
Chlorobenzene	ND	500	"	"	"	"	"	"	
Chloroethane	ND	500	"	"	"	"	"	"	
Chloroform	ND	500	"	"	"	"	"	"	
Chloromethane	ND	500	"	"	"	"	"	"	
2-Chlorotoluene	ND	500	"	"	"	"	"	"	
4-Chlorotoluene	ND	500	"	"	"	"	"	"	
Dibromochloromethane	ND	500	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	500	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	500	"	"	"	"	"	"	
Dibromomethane	ND	500	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	500	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	500	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	500	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethane	ND	500	"	"	"	"	"	"	
1,2-Dichloroethane	ND	500	"	"	"	"	"	"	
1,1-Dichloroethene	ND	500	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	500	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	500	"	"	"	"	"	"	
1,2-Dichloropropane	ND	500	"	"	"	"	"	"	
1,3-Dichloropropane	ND	500	"	"	"	"	"	"	

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 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV19-15 (2107188-42) Soil Sampled: 07/13/21 15:59 Received: 07/13/21 17:07										
2,2-Dichloropropane	ND	500		µg/kg	100	B1G1507	07/16/21	07/19/21 13:35	EPA 8260B	
1,1-Dichloropropene	ND	500		"	"	"	"	"	"	"
cis-1,3-Dichloropropene	ND	500		"	"	"	"	"	"	"
trans-1,3-Dichloropropene	ND	500		"	"	"	"	"	"	"
Ethylbenzene	ND	500		"	"	"	"	"	"	"
Hexachlorobutadiene	ND	500		"	"	"	"	"	"	"
Isopropylbenzene	1700	500		"	"	"	"	"	"	"
p-Isopropyltoluene	ND	500		"	"	"	"	"	"	"
Methylene chloride	ND	500		"	"	"	"	"	"	"
Methyl tert-butyl ether	12000	500		"	"	"	"	"	"	"
Naphthalene	13000	500		"	"	"	"	"	"	"
n-Propylbenzene	4100	500		"	"	"	"	"	"	"
Styrene	ND	500		"	"	"	"	"	"	"
1,1,1,2-Tetrachloroethane	ND	500		"	"	"	"	"	"	"
1,1,1,2,2-Tetrachloroethane	ND	500		"	"	"	"	"	"	"
Tetrachloroethene	ND	500		"	"	"	"	"	"	"
Toluene	ND	500		"	"	"	"	"	"	"
1,2,3-Trichlorobenzene	ND	500		"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	500		"	"	"	"	"	"	"
1,1,1-Trichloroethane	ND	500		"	"	"	"	"	"	"
1,1,2-Trichloroethane	ND	500		"	"	"	"	"	"	"
Trichloroethene	ND	500		"	"	"	"	"	"	"
Trichlorofluoromethane	ND	500		"	"	"	"	"	"	"
1,2,3-Trichloropropane	ND	500		"	"	"	"	"	"	"
1,2,4-Trimethylbenzene	ND	500		"	"	"	"	"	"	"
1,3,5-Trimethylbenzene	ND	500		"	"	"	"	"	"	"
Vinyl chloride	ND	500		"	"	"	"	"	"	"
m,p-Xylene	ND	500		"	"	"	"	"	"	"
o-Xylene	ND	500		"	"	"	"	"	"	"

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								

SV6-5 (2107188-01) Soil Sampled: 07/13/21 07:35 Received: 07/13/21 17:07

Surrogate: 2-Fluorophenol		101 %		25-121		BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		72.7 %		24-113		"	"	"	"	
Surrogate: Nitrobenzene-d5		48.5 %		23-120		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		92.5 %		30-115		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		97.3 %		19-122		"	"	"	"	
Surrogate: Terphenyl-d14		129 %		18-137		"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV6-5 (2107188-01) Soil Sampled: 07/13/21 07:35 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV6-10 (2107188-02) Soil Sampled: 07/13/21 07:44 Received: 07/13/21 17:07

Surrogate: 2-Fluorophenol		90.3 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		42.7 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		58.8 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		83.3 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		34.4 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		113 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV6-10 (2107188-02) Soil Sampled: 07/13/21 07:44 Received: 07/13/21 17:07									
2,4-Dinitrotoluene	ND	0.33	mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33	"	"	"	"	"	"	
Fluoranthene	ND	0.33	"	"	"	"	"	"	
Fluorene	ND	0.33	"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33	"	"	"	"	"	"	
Hexachloroethane	ND	0.33	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33	"	"	"	"	"	"	
Isophorone	ND	0.33	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33	"	"	"	"	"	"	
2-Methylphenol	ND	0.33	"	"	"	"	"	"	
4-Methylphenol	ND	0.33	"	"	"	"	"	"	
Naphthalene	ND	0.33	"	"	"	"	"	"	
2-Nitroaniline	ND	0.33	"	"	"	"	"	"	
3-Nitroaniline	ND	0.33	"	"	"	"	"	"	
4-Nitroaniline	ND	0.33	"	"	"	"	"	"	
Nitrobenzene	ND	0.33	"	"	"	"	"	"	
2-Nitrophenol	ND	0.33	"	"	"	"	"	"	
4-Nitrophenol	ND	0.33	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33	"	"	"	"	"	"	
Diphenylamine	ND	0.33	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33	"	"	"	"	"	"	
Pentachlorophenol	ND	0.33	"	"	"	"	"	"	
Phenanthrene	ND	0.33	"	"	"	"	"	"	
Phenol	ND	0.33	"	"	"	"	"	"	
Pyrene	ND	0.33	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV6-15 (2107188-03) Soil Sampled: 07/13/21 07:51 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		83.7 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		34.7 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		48.1 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		76.0 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		23.7 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		44.6 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV6-15 (2107188-03) Soil Sampled: 07/13/21 07:51 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV7-5 (2107188-04) Soil Sampled: 07/13/21 08:15 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		77.3 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		85.9 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		41.2 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		104 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		82.9 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		77.4 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV7-5 (2107188-04) Soil Sampled: 07/13/21 08:15 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV7-10 (2107188-05) Soil Sampled: 07/13/21 08:25 Received: 07/13/21 17:07

Surrogate: 2-Fluorophenol		89.6 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		43.5 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		47.5 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		74.5 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		80.8 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		102 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV7-10 (2107188-05) Soil Sampled: 07/13/21 08:25 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV7-15 (2107188-06) Soil Sampled: 07/13/21 08:30 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		69.8 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		64.9 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		36.9 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		41.0 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		78.2 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		129 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV7-15 (2107188-06) Soil Sampled: 07/13/21 08:30 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV8-5 (2107188-07) Soil Sampled: 07/13/21 08:56 Received: 07/13/21 17:07

Surrogate: 2-Fluorophenol		119 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		31.3 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		48.1 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		42.5 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		29.5 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		45.6 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV8-5 (2107188-07) Soil Sampled: 07/13/21 08:56 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SV8-10 (2107188-08) Soil Sampled: 07/13/21 08:58 Received: 07/13/21 17:07

Surrogate: 2-Fluorophenol		105 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		79.2 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		51.9 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		61.3 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		53.7 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		90.2 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV8-10 (2107188-08) Soil Sampled: 07/13/21 08:58 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV8-15 (2107188-09) Soil Sampled: 07/13/21 09:06 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		95.7 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		28.9 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		85.6 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		105 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		50.9 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		122 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV8-15 (2107188-09) Soil Sampled: 07/13/21 09:06 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV9-5 (2107188-10) Soil Sampled: 07/13/21 09:19 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		99.3 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		77.7 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		52.5 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		45.8 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		59.7 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		99.6 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV9-5 (2107188-10) Soil Sampled: 07/13/21 09:19 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV9-10 (2107188-11) Soil Sampled: 07/13/21 09:22 Received: 07/13/21 17:07

Surrogate: 2-Fluorophenol		90.1 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		56.8 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		44.2 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		38.5 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		42.3 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		95.3 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV9-10 (2107188-11) Soil Sampled: 07/13/21 09:22 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV9-15 (2107188-12) Soil Sampled: 07/13/21 09:24 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		95.9 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		47.9 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		80.5 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		64.1 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		49.9 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		71.1 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV9-15 (2107188-12) Soil Sampled: 07/13/21 09:24 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV10-5 (2107188-13) Soil Sampled: 07/13/21 09:32 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		103 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		71.9 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		73.2 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		50.0 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		83.4 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		44.3 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV10-5 (2107188-13) Soil Sampled: 07/13/21 09:32 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV10-10 (2107188-14) Soil Sampled: 07/13/21 09:36 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		103 %	25-121		BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		65.1 %	24-113		"	"	"	"	
Surrogate: Nitrobenzene-d5		51.5 %	23-120		"	"	"	"	
Surrogate: 2-Fluorobiphenyl		83.2 %	30-115		"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		57.1 %	19-122		"	"	"	"	
Surrogate: Terphenyl-d14		87.8 %	18-137		"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV10-10 (2107188-14) Soil Sampled: 07/13/21 09:36 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	"
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	"
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	"
Fluoranthene	ND	0.33		"	"	"	"	"	"	"
Fluorene	ND	0.33		"	"	"	"	"	"	"
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	"
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	"
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	"
Hexachloroethane	ND	0.33		"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	"
Isophorone	ND	0.33		"	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	"
2-Methylphenol	ND	0.33		"	"	"	"	"	"	"
4-Methylphenol	ND	0.33		"	"	"	"	"	"	"
Naphthalene	ND	0.33		"	"	"	"	"	"	"
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
Nitrobenzene	ND	0.33		"	"	"	"	"	"	"
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	"
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	"
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	"
Diphenylamine	ND	0.33		"	"	"	"	"	"	"
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	"
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	"
Phenanthrene	ND	0.33		"	"	"	"	"	"	"
Phenol	ND	0.33		"	"	"	"	"	"	"
Pyrene	ND	0.33		"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	"
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	"
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	"

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Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV10-15 (2107188-15) Soil Sampled: 07/13/21 09:52 Received: 07/13/21 17:07									
<i>Surrogate: 2-Fluorophenol</i>		101 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
<i>Surrogate: Phenol-d6</i>		32.2 %		24-113	"	"	"	"	
<i>Surrogate: Nitrobenzene-d5</i>		48.3 %		23-120	"	"	"	"	
<i>Surrogate: 2-Fluorobiphenyl</i>		76.0 %		30-115	"	"	"	"	
<i>Surrogate: 2,4,6-Tribromophenol</i>		82.8 %		19-122	"	"	"	"	
<i>Surrogate: Terphenyl-d14</i>		58.0 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV10-15 (2107188-15) Soil Sampled: 07/13/21 09:52 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV11-5 (2107188-16) Soil Sampled: 07/13/21 10:16 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		104 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		77.2 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		54.4 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		48.9 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		73.3 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		102 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV11-5 (2107188-16) Soil Sampled: 07/13/21 10:16 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV11-10 (2107188-17) Soil Sampled: 07/13/21 10:20 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		93.7 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		77.7 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		52.6 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		80.9 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		45.2 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		52.4 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV11-10 (2107188-17) Soil Sampled: 07/13/21 10:20 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV11-15 (2107188-18) Soil Sampled: 07/13/21 10:26 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		95.9 %		25-121	BIG1603	07/15/21	07/16/21 08:50	EPA 8270C	
Surrogate: Phenol-d6		25.9 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		59.6 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		86.7 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		39.3 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		56.2 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV11-15 (2107188-18) Soil Sampled: 07/13/21 10:26 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1603	07/15/21	07/16/21 08:50	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV12-5 (2107188-19) Soil Sampled: 07/13/21 10:49 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		93.4 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		68.0 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		36.9 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		66.9 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		42.3 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		72.7 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV12-5 (2107188-19) Soil Sampled: 07/13/21 10:49 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV12-10 (2107188-20) Soil Sampled: 07/13/21 10:58 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		78.5 %		25-121	BIG1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		31.5 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		42.5 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		106 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		80.9 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		49.7 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV12-10 (2107188-20) Soil Sampled: 07/13/21 10:58 Received: 07/13/21 17:07									
2,4-Dinitrotoluene	ND	0.33	mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33	"	"	"	"	"	"	
Fluoranthene	ND	0.33	"	"	"	"	"	"	
Fluorene	ND	0.33	"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33	"	"	"	"	"	"	
Hexachloroethane	ND	0.33	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33	"	"	"	"	"	"	
Isophorone	ND	0.33	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33	"	"	"	"	"	"	
2-Methylphenol	ND	0.33	"	"	"	"	"	"	
4-Methylphenol	ND	0.33	"	"	"	"	"	"	
Naphthalene	ND	0.33	"	"	"	"	"	"	
2-Nitroaniline	ND	0.33	"	"	"	"	"	"	
3-Nitroaniline	ND	0.33	"	"	"	"	"	"	
4-Nitroaniline	ND	0.33	"	"	"	"	"	"	
Nitrobenzene	ND	0.33	"	"	"	"	"	"	
2-Nitrophenol	ND	0.33	"	"	"	"	"	"	
4-Nitrophenol	ND	0.33	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33	"	"	"	"	"	"	
Diphenylamine	ND	0.33	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33	"	"	"	"	"	"	
Pentachlorophenol	ND	0.33	"	"	"	"	"	"	
Phenanthrene	ND	0.33	"	"	"	"	"	"	
Phenol	ND	0.33	"	"	"	"	"	"	
Pyrene	ND	0.33	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV12-15 (2107188-21) Soil Sampled: 07/13/21 11:07 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		89.4 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		26.1 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		35.1 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		77.8 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		27.8 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		114 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV12-15 (2107188-21) Soil Sampled: 07/13/21 11:07 Received: 07/13/21 17:07									
2,4-Dinitrotoluene	ND	0.33	mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33	"	"	"	"	"	"	
Fluoranthene	ND	0.33	"	"	"	"	"	"	
Fluorene	ND	0.33	"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33	"	"	"	"	"	"	
Hexachloroethane	ND	0.33	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33	"	"	"	"	"	"	
Isophorone	ND	0.33	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33	"	"	"	"	"	"	
2-Methylphenol	ND	0.33	"	"	"	"	"	"	
4-Methylphenol	ND	0.33	"	"	"	"	"	"	
Naphthalene	ND	0.33	"	"	"	"	"	"	
2-Nitroaniline	ND	0.33	"	"	"	"	"	"	
3-Nitroaniline	ND	0.33	"	"	"	"	"	"	
4-Nitroaniline	ND	0.33	"	"	"	"	"	"	
Nitrobenzene	ND	0.33	"	"	"	"	"	"	
2-Nitrophenol	ND	0.33	"	"	"	"	"	"	
4-Nitrophenol	ND	0.33	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33	"	"	"	"	"	"	
Diphenylamine	ND	0.33	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33	"	"	"	"	"	"	
Pentachlorophenol	ND	0.33	"	"	"	"	"	"	
Phenanthrene	ND	0.33	"	"	"	"	"	"	
Phenol	ND	0.33	"	"	"	"	"	"	
Pyrene	ND	0.33	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV13-5 (2107188-22) Soil Sampled: 07/13/21 11:26 Received: 07/13/21 17:07

Surrogate: 2-Fluorophenol		101 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		67.4 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		50.5 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		89.7 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		52.0 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		68.6 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV13-5 (2107188-22) Soil Sampled: 07/13/21 11:26 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV13-10 (2107188-23) Soil Sampled: 07/13/21 11:31 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		95.9 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		27.2 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		44.5 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		80.3 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		44.4 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		110 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV13-10 (2107188-23) Soil Sampled: 07/13/21 11:31 Received: 07/13/21 17:07									
2,4-Dinitrotoluene	ND	0.33	mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33	"	"	"	"	"	"	
Fluoranthene	ND	0.33	"	"	"	"	"	"	
Fluorene	ND	0.33	"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33	"	"	"	"	"	"	
Hexachloroethane	ND	0.33	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33	"	"	"	"	"	"	
Isophorone	ND	0.33	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33	"	"	"	"	"	"	
2-Methylphenol	ND	0.33	"	"	"	"	"	"	
4-Methylphenol	ND	0.33	"	"	"	"	"	"	
Naphthalene	ND	0.33	"	"	"	"	"	"	
2-Nitroaniline	ND	0.33	"	"	"	"	"	"	
3-Nitroaniline	ND	0.33	"	"	"	"	"	"	
4-Nitroaniline	ND	0.33	"	"	"	"	"	"	
Nitrobenzene	ND	0.33	"	"	"	"	"	"	
2-Nitrophenol	ND	0.33	"	"	"	"	"	"	
4-Nitrophenol	ND	0.33	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33	"	"	"	"	"	"	
Diphenylamine	ND	0.33	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33	"	"	"	"	"	"	
Pentachlorophenol	ND	0.33	"	"	"	"	"	"	
Phenanthrene	ND	0.33	"	"	"	"	"	"	
Phenol	ND	0.33	"	"	"	"	"	"	
Pyrene	ND	0.33	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV13-15 (2107188-24) Soil Sampled: 07/13/21 11:38 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		92.9 %		25-121	BIG1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		35.1 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		36.8 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		50.0 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		42.9 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		136 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
SV13-15 (2107188-24) Soil Sampled: 07/13/21 11:38 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33	mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C		
2,6-Dinitrotoluene	ND	0.33	"	"	"	"	"	"		
Di-n-octyl phthalate	ND	0.33	"	"	"	"	"	"		
1,2-Diphenylhydrazine	ND	0.33	"	"	"	"	"	"		
Fluoranthene	ND	0.33	"	"	"	"	"	"		
Fluorene	ND	0.33	"	"	"	"	"	"		
Hexachlorobenzene	ND	0.33	"	"	"	"	"	"		
Hexachlorobutadiene	ND	0.33	"	"	"	"	"	"		
Hexachlorocyclopentadiene	ND	0.33	"	"	"	"	"	"		
Hexachloroethane	ND	0.33	"	"	"	"	"	"		
Indeno (1,2,3-cd) pyrene	ND	0.33	"	"	"	"	"	"		
Isophorone	ND	0.33	"	"	"	"	"	"		
2-Methylnaphthalene	ND	0.33	"	"	"	"	"	"		
2-Methylphenol	ND	0.33	"	"	"	"	"	"		
4-Methylphenol	ND	0.33	"	"	"	"	"	"		
Naphthalene	ND	0.33	"	"	"	"	"	"		
2-Nitroaniline	ND	0.33	"	"	"	"	"	"		
3-Nitroaniline	ND	0.33	"	"	"	"	"	"		
4-Nitroaniline	ND	0.33	"	"	"	"	"	"		
Nitrobenzene	ND	0.33	"	"	"	"	"	"		
2-Nitrophenol	ND	0.33	"	"	"	"	"	"		
4-Nitrophenol	ND	0.33	"	"	"	"	"	"		
N-Nitrosodimethylamine	ND	0.33	"	"	"	"	"	"		
Diphenylamine	ND	0.33	"	"	"	"	"	"		
N-Nitrosodi-n-propylamine	ND	0.33	"	"	"	"	"	"		
Pentachlorophenol	ND	0.33	"	"	"	"	"	"		
Phenanthrene	ND	0.33	"	"	"	"	"	"		
Phenol	ND	0.33	"	"	"	"	"	"		
Pyrene	ND	0.33	"	"	"	"	"	"		
1,2,4-Trichlorobenzene	ND	0.33	"	"	"	"	"	"		
2,4,5-Trichlorophenol	ND	0.33	"	"	"	"	"	"		
2,4,6-Trichlorophenol	ND	0.33	"	"	"	"	"	"		

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV14-5 (2107188-25) Soil Sampled: 07/13/21 12:49 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		95.9 %		25-121	BIG1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		57.3 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		41.2 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		74.1 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		34.0 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		88.9 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV14-5 (2107188-25) Soil Sampled: 07/13/21 12:49 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV14-10 (2107188-26) Soil Sampled: 07/13/21 12:54 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		104 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		50.1 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		59.2 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		90.4 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		42.9 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		60.8 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV14-10 (2107188-26) Soil Sampled: 07/13/21 12:54 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV14-15 (2107188-27) Soil Sampled: 07/13/21 13:01 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		105 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		86.3 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		55.4 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		89.5 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		50.5 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		105 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV14-15 (2107188-27) Soil Sampled: 07/13/21 13:01 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	"
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	"
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	"
Fluoranthene	ND	0.33		"	"	"	"	"	"	"
Fluorene	ND	0.33		"	"	"	"	"	"	"
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	"
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	"
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	"
Hexachloroethane	ND	0.33		"	"	"	"	"	"	"
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	"
Isophorone	ND	0.33		"	"	"	"	"	"	"
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	"
2-Methylphenol	ND	0.33		"	"	"	"	"	"	"
4-Methylphenol	ND	0.33		"	"	"	"	"	"	"
Naphthalene	ND	0.33		"	"	"	"	"	"	"
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	"
Nitrobenzene	ND	0.33		"	"	"	"	"	"	"
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	"
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	"
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	"
Diphenylamine	ND	0.33		"	"	"	"	"	"	"
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	"
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	"
Phenanthrene	ND	0.33		"	"	"	"	"	"	"
Phenol	ND	0.33		"	"	"	"	"	"	"
Pyrene	ND	0.33		"	"	"	"	"	"	"
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	"
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	"
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	"

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV15-5 (2107188-28) Soil Sampled: 07/13/21 13:19 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		96.8 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		64.7 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		87.3 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		87.0 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		55.8 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		131 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV15-5 (2107188-28) Soil Sampled: 07/13/21 13:19 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV15-10 (2107188-29) Soil Sampled: 07/13/21 13:23 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		102 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		90.7 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		41.6 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		45.2 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		46.7 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		66.1 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV15-10 (2107188-29) Soil Sampled: 07/13/21 13:23 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV15-15 (2107188-30) Soil Sampled: 07/13/21 13:27 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		99.9 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		77.6 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		32.5 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		40.6 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		47.3 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		132 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV15-15 (2107188-30) Soil Sampled: 07/13/21 13:27 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV16-5 (2107188-31) Soil Sampled: 07/13/21 13:54 Received: 07/13/21 17:07

Surrogate: 2-Fluorophenol		94.6 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		62.9 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		50.3 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		50.6 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		65.8 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		115 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV16-5 (2107188-31) Soil Sampled: 07/13/21 13:54 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV16-10 (2107188-32) Soil Sampled: 07/13/21 13:57 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		76.5 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		52.7 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		50.1 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		60.6 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		70.6 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		101 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV16-10 (2107188-32) Soil Sampled: 07/13/21 13:57 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV16-15 (2107188-33) Soil Sampled: 07/13/21 14:00 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		104 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		65.4 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		58.6 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		50.7 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		32.6 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		43.7 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV16-15 (2107188-33) Soil Sampled: 07/13/21 14:00 Received: 07/13/21 17:07									
2,4-Dinitrotoluene	ND	0.33	mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33	"	"	"	"	"	"	
Fluoranthene	ND	0.33	"	"	"	"	"	"	
Fluorene	ND	0.33	"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33	"	"	"	"	"	"	
Hexachloroethane	ND	0.33	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33	"	"	"	"	"	"	
Isophorone	ND	0.33	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33	"	"	"	"	"	"	
2-Methylphenol	ND	0.33	"	"	"	"	"	"	
4-Methylphenol	ND	0.33	"	"	"	"	"	"	
Naphthalene	ND	0.33	"	"	"	"	"	"	
2-Nitroaniline	ND	0.33	"	"	"	"	"	"	
3-Nitroaniline	ND	0.33	"	"	"	"	"	"	
4-Nitroaniline	ND	0.33	"	"	"	"	"	"	
Nitrobenzene	ND	0.33	"	"	"	"	"	"	
2-Nitrophenol	ND	0.33	"	"	"	"	"	"	
4-Nitrophenol	ND	0.33	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33	"	"	"	"	"	"	
Diphenylamine	ND	0.33	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33	"	"	"	"	"	"	
Pentachlorophenol	ND	0.33	"	"	"	"	"	"	
Phenanthrene	ND	0.33	"	"	"	"	"	"	
Phenol	ND	0.33	"	"	"	"	"	"	
Pyrene	ND	0.33	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV17-5 (2107188-34) Soil Sampled: 07/13/21 14:44 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		99.3 %		25-121	BIG1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		65.9 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		65.8 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		56.3 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		75.3 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		110 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV17-5 (2107188-34) Soil Sampled: 07/13/21 14:44 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV17-10 (2107188-35) Soil Sampled: 07/13/21 14:48 Received: 07/13/21 17:07

Surrogate: 2-Fluorophenol		98.1 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		55.7 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		46.4 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		45.0 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		86.1 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		99.1 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV17-10 (2107188-35) Soil Sampled: 07/13/21 14:48 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SV17-15 (2107188-36) Soil Sampled: 07/13/21 14:53 Received: 07/13/21 17:07

Surrogate: 2-Fluorophenol		102 %		25-121	BIG1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		31.3 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		51.3 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		41.5 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		61.9 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		92.1 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV17-15 (2107188-36) Soil Sampled: 07/13/21 14:53 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV18-5 (2107188-37) Soil Sampled: 07/13/21 15:19 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		98.7 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		24.4 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		63.4 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		60.5 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		67.6 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		66.6 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV18-5 (2107188-37) Soil Sampled: 07/13/21 15:19 Received: 07/13/21 17:07									
2,4-Dinitrotoluene	ND	0.33	mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33	"	"	"	"	"	"	
Fluoranthene	ND	0.33	"	"	"	"	"	"	
Fluorene	ND	0.33	"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33	"	"	"	"	"	"	
Hexachloroethane	ND	0.33	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33	"	"	"	"	"	"	
Isophorone	ND	0.33	"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33	"	"	"	"	"	"	
2-Methylphenol	ND	0.33	"	"	"	"	"	"	
4-Methylphenol	ND	0.33	"	"	"	"	"	"	
Naphthalene	ND	0.33	"	"	"	"	"	"	
2-Nitroaniline	ND	0.33	"	"	"	"	"	"	
3-Nitroaniline	ND	0.33	"	"	"	"	"	"	
4-Nitroaniline	ND	0.33	"	"	"	"	"	"	
Nitrobenzene	ND	0.33	"	"	"	"	"	"	
2-Nitrophenol	ND	0.33	"	"	"	"	"	"	
4-Nitrophenol	ND	0.33	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33	"	"	"	"	"	"	
Diphenylamine	ND	0.33	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33	"	"	"	"	"	"	
Pentachlorophenol	ND	0.33	"	"	"	"	"	"	
Phenanthrene	ND	0.33	"	"	"	"	"	"	
Phenol	ND	0.33	"	"	"	"	"	"	
Pyrene	ND	0.33	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33	"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV18-10 (2107188-38) Soil Sampled: 07/13/21 15:25 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		115 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		76.7 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		56.5 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		77.9 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		102 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		64.9 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	0.82	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	0.92	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV18-10 (2107188-38) Soil Sampled: 07/13/21 15:25 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	2.2	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	0.44	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	0.77	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV18-15 (2107188-39) Soil Sampled: 07/13/21 15:29 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		81.6 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		52.1 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		33.1 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		40.9 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		58.5 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		129 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV18-15 (2107188-39) Soil Sampled: 07/13/21 15:29 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV19-5 (2107188-40) Soil Sampled: 07/13/21 15:49 Received: 07/13/21 17:07									
Surrogate: 2-Fluorophenol		57.3 %		25-121	BIG1916	07/19/21	07/20/21 10:43	EPA 8270C	
Surrogate: Phenol-d6		100 %		24-113	"	"	"	"	
Surrogate: Nitrobenzene-d5		78.4 %		23-120	"	"	"	"	
Surrogate: 2-Fluorobiphenyl		53.3 %		30-115	"	"	"	"	
Surrogate: 2,4,6-Tribromophenol		60.7 %		19-122	"	"	"	"	
Surrogate: Terphenyl-d14		90.7 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	2.1	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	0.40	0.33	"	"	"	"	"	"	

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738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
SV19-5 (2107188-40) Soil Sampled: 07/13/21 15:49 Received: 07/13/21 17:07									
2,4-Dinitrotoluene	1.1	0.33	mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	1.2	0.33	"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33	"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33	"	"	"	"	"	"	
Fluoranthene	ND	0.33	"	"	"	"	"	"	
Fluorene	1.1	0.33	"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33	"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33	"	"	"	"	"	"	
Hexachloroethane	ND	0.33	"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33	"	"	"	"	"	"	
Isophorone	ND	0.33	"	"	"	"	"	"	
2-Methylnaphthalene	12	0.33	"	"	"	"	"	"	
2-Methylphenol	ND	0.33	"	"	"	"	"	"	
4-Methylphenol	ND	0.33	"	"	"	"	"	"	
Naphthalene	5.2	0.33	"	"	"	"	"	"	
2-Nitroaniline	ND	0.33	"	"	"	"	"	"	
3-Nitroaniline	ND	0.33	"	"	"	"	"	"	
4-Nitroaniline	0.85	0.33	"	"	"	"	"	"	
Nitrobenzene	ND	0.33	"	"	"	"	"	"	
2-Nitrophenol	ND	0.33	"	"	"	"	"	"	
4-Nitrophenol	ND	0.33	"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33	"	"	"	"	"	"	
Diphenylamine	ND	0.33	"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	0.91	0.33	"	"	"	"	"	"	
Pentachlorophenol	ND	0.33	"	"	"	"	"	"	
Phenanthrene	2.0	0.33	"	"	"	"	"	"	
Phenol	ND	0.33	"	"	"	"	"	"	
Pyrene	0.87	0.33	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33	"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33	"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33	"	"	"	"	"	"	

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Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV19-10 (2107188-41) Soil Sampled: 07/13/21 15:54 Received: 07/13/21 17:07									
<i>Surrogate: 2-Fluorophenol</i>		109 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
<i>Surrogate: Phenol-d6</i>		83.5 %		24-113	"	"	"	"	
<i>Surrogate: Nitrobenzene-d5</i>		70.9 %		23-120	"	"	"	"	
<i>Surrogate: 2-Fluorobiphenyl</i>		84.0 %		30-115	"	"	"	"	
<i>Surrogate: 2,4,6-Tribromophenol</i>		94.5 %		19-122	"	"	"	"	
<i>Surrogate: Terphenyl-d14</i>		117 %		18-137	"	"	"	"	
Acenaphthene	ND	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	ND	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	ND	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	ND	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV19-10 (2107188-41) Soil Sampled: 07/13/21 15:54 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	ND	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	ND	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	ND	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	ND	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SV19-15 (2107188-42) Soil Sampled: 07/13/21 15:59 Received: 07/13/21 17:07									
<i>Surrogate: 2-Fluorophenol</i>		61.7 %		25-121	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
<i>Surrogate: Phenol-d6</i>		110 %		24-113	"	"	"	"	
<i>Surrogate: Nitrobenzene-d5</i>		87.4 %		23-120	"	"	"	"	
<i>Surrogate: 2-Fluorobiphenyl</i>		108 %		30-115	"	"	"	"	
<i>Surrogate: 2,4,6-Tribromophenol</i>		103 %		19-122	"	"	"	"	
<i>Surrogate: Terphenyl-d14</i>		90.2 %		18-137	"	"	"	"	
Acenaphthene	1.6	0.33	"	"	"	"	"	"	
Acenaphthylene	ND	0.33	"	"	"	"	"	"	
Anthracene	1.1	0.33	"	"	"	"	"	"	
Benzidine	ND	0.33	"	"	"	"	"	"	
Benzo (a) anthracene	1.3	0.33	"	"	"	"	"	"	
Benzo (b) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (k) fluoranthene	ND	0.33	"	"	"	"	"	"	
Benzo (a) pyrene	ND	0.33	"	"	"	"	"	"	
Benzo (g,h,i) perylene	ND	0.33	"	"	"	"	"	"	
Benzyl alcohol	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethyl)ether	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroethoxy)methane	ND	0.33	"	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	0.33	"	"	"	"	"	"	
Bis(2-chloroisopropyl)ether	ND	0.33	"	"	"	"	"	"	
4-Bromophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Butyl benzyl phthalate	ND	0.33	"	"	"	"	"	"	
4-Chloroaniline	ND	0.33	"	"	"	"	"	"	
2-Chlorophenol	ND	0.33	"	"	"	"	"	"	
4-Chloro-3-methylphenol	ND	0.33	"	"	"	"	"	"	
2-Chloronaphthalene	ND	0.33	"	"	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	0.33	"	"	"	"	"	"	
Chrysene	1.5	0.33	"	"	"	"	"	"	
Dibenz (a,h) anthracene	ND	0.33	"	"	"	"	"	"	
Dibenzofuran	ND	0.33	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.33	"	"	"	"	"	"	
3,3'-Dichlorobenzidine	ND	0.33	"	"	"	"	"	"	
2,4-Dichlorophenol	ND	0.33	"	"	"	"	"	"	
Diethyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dimethylphenol	ND	0.33	"	"	"	"	"	"	
Dimethyl phthalate	ND	0.33	"	"	"	"	"	"	
Di-n-butyl phthalate	ND	0.33	"	"	"	"	"	"	
2,4-Dinitrophenol	ND	0.33	"	"	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	0.33	"	"	"	"	"	"	

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Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SV19-15 (2107188-42) Soil Sampled: 07/13/21 15:59 Received: 07/13/21 17:07										
2,4-Dinitrotoluene	ND	0.33		mg/kg	1	B1G1916	07/19/21	07/20/21 10:43	EPA 8270C	
2,6-Dinitrotoluene	ND	0.33		"	"	"	"	"	"	
Di-n-octyl phthalate	ND	0.33		"	"	"	"	"	"	
1,2-Diphenylhydrazine	ND	0.33		"	"	"	"	"	"	
Fluoranthene	ND	0.33		"	"	"	"	"	"	
Fluorene	3.0	0.33		"	"	"	"	"	"	
Hexachlorobenzene	ND	0.33		"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.33		"	"	"	"	"	"	
Hexachlorocyclopentadiene	ND	0.33		"	"	"	"	"	"	
Hexachloroethane	ND	0.33		"	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	ND	0.33		"	"	"	"	"	"	
Isophorone	ND	0.33		"	"	"	"	"	"	
2-Methylnaphthalene	ND	0.33		"	"	"	"	"	"	
2-Methylphenol	ND	0.33		"	"	"	"	"	"	
4-Methylphenol	ND	0.33		"	"	"	"	"	"	
Naphthalene	4.0	0.33		"	"	"	"	"	"	
2-Nitroaniline	ND	0.33		"	"	"	"	"	"	
3-Nitroaniline	ND	0.33		"	"	"	"	"	"	
4-Nitroaniline	ND	0.33		"	"	"	"	"	"	
Nitrobenzene	ND	0.33		"	"	"	"	"	"	
2-Nitrophenol	ND	0.33		"	"	"	"	"	"	
4-Nitrophenol	ND	0.33		"	"	"	"	"	"	
N-Nitrosodimethylamine	ND	0.33		"	"	"	"	"	"	
Diphenylamine	ND	0.33		"	"	"	"	"	"	
N-Nitrosodi-n-propylamine	ND	0.33		"	"	"	"	"	"	
Pentachlorophenol	ND	0.33		"	"	"	"	"	"	
Phenanthrene	9.7	0.33		"	"	"	"	"	"	
Phenol	ND	0.33		"	"	"	"	"	"	
Pyrene	8.5	0.33		"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.33		"	"	"	"	"	"	
2,4,5-Trichlorophenol	ND	0.33		"	"	"	"	"	"	
2,4,6-Trichlorophenol	ND	0.33		"	"	"	"	"	"	

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Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1411 - EPA 3050B

Blank (B1G1411-BLK1)

Prepared: 07/14/21 Analyzed: 07/19/21

Silver	ND	2.0	mg/kg							
Cadmium	ND	2.5	"							
Barium	ND	6.0	"							
Nickel	ND	3.0	"							
Lead	ND	7.1	"							
Vanadium	ND	5.1	"							
Arsenic	ND	5.5	"							
Cobalt	ND	3.3	"							
Thallium	ND	17	"							
Copper	ND	5.0	"							
Selenium	ND	6.9	"							
Molybdenum	ND	5.2	"							
Antimony	ND	8.0	"							
Beryllium	ND	2.2	"							
Zinc	ND	7.0	"							
Chromium	ND	2.3	"							

LCS (B1G1411-BS1)

Prepared: 07/14/21 Analyzed: 07/19/21

Nickel	104	3.0	mg/kg	100	104	80-120
Molybdenum	103	5.2	"	100	103	80-120
Arsenic	98.8	5.5	"	100	98.8	78-122
Beryllium	97.9	2.2	"	100	97.9	80-120
Chromium	102	2.3	"	100	102	80-120
Barium	105	6.0	"	100	105	80-120
Cadmium	102	2.5	"	100	102	80-120
Silver	98.5	2.0	"	100	98.5	60-140
Vanadium	98.2	5.1	"	100	98.2	80-120
Antimony	112	8.0	"	100	112	75-125
Copper	113	5.0	"	100	113	78-122
Zinc	101	7.0	"	100	101	80-120
Selenium	97.3	6.9	"	100	97.3	76-124
Lead	99.3	7.1	"	100	99.3	80-120
Cobalt	107	3.3	"	100	107	80-120
Thallium	104	17	"	100	104	80-120

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1411 - EPA 3050B

LCS Dup (B1G1411-bsd1)

Prepared: 07/14/21 Analyzed: 07/19/21

Zinc	100	7.0	mg/kg	100		100	80-120	0.670	20	
Chromium	101	2.3	"	100		101	80-120	1.01	20	
Selenium	95.4	6.9	"	100		95.4	76-124	1.97	20	
Thallium	103	17	"	100		103	80-120	0.897	20	
Vanadium	96.9	5.1	"	100		96.9	80-120	1.33	20	
Cobalt	106	3.3	"	100		106	80-120	0.962	20	
Lead	98.2	7.1	"	100		98.2	80-120	1.11	20	
Silver	93.1	2.0	"	100		93.1	60-140	5.64	40	
Antimony	109	8.0	"	100		109	75-125	2.95	20	
Arsenic	96.4	5.5	"	100		96.4	78-122	2.56	20	
Molybdenum	100	5.2	"	100		100	80-120	2.66	20	
Copper	110	5.0	"	100		110	78-122	2.58	20	
Barium	104	6.0	"	100		104	80-120	0.887	20	
Nickel	104	3.0	"	100		104	80-120	0.817	20	
Cadmium	101	2.5	"	100		101	80-120	1.06	20	
Beryllium	98.0	2.2	"	100		98.0	80-120	0.0255	20	

Matrix Spike (B1G1411-MS1)

Source: 2107188-01

Prepared: 07/14/21 Analyzed: 07/19/21

Selenium	96.5	6.9	mg/kg	98.8	ND	97.7	70-130			
Molybdenum	98.2	5.2	"	98.8	0.661	98.8	70-130			
Cobalt	107	3.3	"	98.8	7.64	101	70-130			
Thallium	98.5	17	"	98.8	ND	99.7	70-130			
Lead	101	7.1	"	98.8	4.55	97.8	70-130			
Silver	108	2.0	"	98.8	0.220	109	60-140			
Barium	238	6.0	"	98.8	82.6	158	70-130			QM-07
Beryllium	94.0	2.2	"	98.8	ND	95.1	70-130			
Nickel	106	3.0	"	98.8	8.55	98.6	70-130			
Vanadium	118	5.1	"	98.8	24.0	94.8	70-130			
Arsenic	98.8	5.5	"	98.8	ND	100	70-130			
Zinc	143	7.0	"	98.8	28.5	116	70-130			
Copper	115	5.0	"	98.8	13.6	103	70-130			
Chromium	110	2.3	"	98.8	13.7	97.2	70-130			
Cadmium	98.0	2.5	"	98.8	ND	99.2	70-130			
Antimony	91.6	8.0	"	98.8	ND	92.7	60-140			

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Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

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Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1411 - EPA 3050B

Matrix Spike Dup (B1G1411-MSD1)

Source: 2107188-01

Prepared: 07/14/21 Analyzed: 07/19/21

Antimony	92.1	8.0	mg/kg	98.4	ND	93.6	60-140	0.599	20	
Cobalt	108	3.3	"	98.4	7.64	102	70-130	0.817	20	
Arsenic	99.3	5.5	"	98.4	ND	101	70-130	0.452	20	
Silver	109	2.0	"	98.4	0.220	110	60-140	0.790	40	
Beryllium	94.4	2.2	"	98.4	ND	95.9	70-130	0.469	20	
Chromium	110	2.3	"	98.4	13.7	97.9	70-130	0.279	20	
Molybdenum	93.1	5.2	"	98.4	0.661	93.9	70-130	5.42	20	
Thallium	98.8	17	"	98.4	ND	100	70-130	0.255	20	
Selenium	96.6	6.9	"	98.4	ND	98.2	70-130	0.116	20	
Cadmium	98.8	2.5	"	98.4	ND	100	70-130	0.758	20	
Vanadium	118	5.1	"	98.4	24.0	95.5	70-130	0.296	20	
Zinc	127	7.0	"	98.4	28.5	99.9	70-130	12.1	20	
Lead	102	7.1	"	98.4	4.55	98.7	70-130	0.480	30	
Nickel	106	3.0	"	98.4	8.55	99.2	70-130	0.187	20	
Copper	116	5.0	"	98.4	13.6	104	70-130	0.758	30	
Barium	240	6.0	"	98.4	82.6	160	70-130	0.493	20	QM-07

Batch B1G1412 - EPA 3050B

Blank (B1G1412-BLK1)

Prepared: 07/14/21 Analyzed: 07/19/21

Zinc	ND	7.0	mg/kg
Thallium	ND	17	"
Selenium	ND	6.9	"
Lead	ND	7.1	"
Copper	ND	5.0	"
Antimony	ND	8.0	"
Nickel	ND	3.0	"
Molybdenum	ND	5.2	"
Barium	ND	6.0	"
Chromium	ND	2.3	"
Arsenic	ND	5.5	"
Vanadium	ND	5.1	"
Cobalt	ND	3.3	"
Silver	ND	2.0	"
Beryllium	ND	2.2	"
Cadmium	ND	2.5	"

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 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

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Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1412 - EPA 3050B

LCS (B1G1412-BS1)

Prepared: 07/14/21 Analyzed: 07/19/21

Thallium	104	17	mg/kg	100	104	104	80-120			
Cadmium	104	2.5	"	100	104	104	80-120			
Beryllium	94.1	2.2	"	100	94.1	94.1	80-120			
Lead	95.0	7.1	"	100	95.0	95.0	80-120			
Vanadium	91.6	5.1	"	100	91.6	91.6	80-120			
Copper	100	5.0	"	100	100	100	78-122			
Silver	101	2.0	"	100	101	101	60-140			
Antimony	102	8.0	"	100	102	102	75-125			
Nickel	98.4	3.0	"	100	98.4	98.4	80-120			
Cobalt	107	3.3	"	100	107	107	80-120			
Zinc	100	7.0	"	100	100	100	80-120			
Molybdenum	99.8	5.2	"	100	99.8	99.8	80-120			
Barium	106	6.0	"	100	106	106	80-120			
Chromium	98.3	2.3	"	100	98.3	98.3	80-120			
Arsenic	95.4	5.5	"	100	95.4	95.4	78-122			
Selenium	93.8	6.9	"	100	93.8	93.8	76-124			

LCS Dup (B1G1412-BSD1)

Prepared: 07/14/21 Analyzed: 07/19/21

Beryllium	88.7	2.2	mg/kg	100	88.7	88.7	80-120	5.85	20	
Copper	104	5.0	"	100	104	104	78-122	3.97	20	
Lead	90.2	7.1	"	100	90.2	90.2	80-120	5.18	20	
Antimony	96.2	8.0	"	100	96.2	96.2	75-125	5.41	20	
Chromium	92.4	2.3	"	100	92.4	92.4	80-120	6.16	20	
Silver	92.1	2.0	"	100	92.1	92.1	60-140	8.97	40	
Molybdenum	94.6	5.2	"	100	94.6	94.6	80-120	5.30	20	
Barium	99.2	6.0	"	100	99.2	99.2	80-120	6.23	20	
Nickel	93.0	3.0	"	100	93.0	93.0	80-120	5.67	20	
Cobalt	100	3.3	"	100	100	100	80-120	6.16	20	
Cadmium	97.6	2.5	"	100	97.6	97.6	80-120	6.06	20	
Selenium	88.5	6.9	"	100	88.5	88.5	76-124	5.79	20	
Arsenic	90.0	5.5	"	100	90.0	90.0	78-122	5.72	20	
Thallium	98.6	17	"	100	98.6	98.6	80-120	5.26	20	
Zinc	95.2	7.0	"	100	95.2	95.2	80-120	5.29	20	
Vanadium	86.4	5.1	"	100	86.4	86.4	80-120	5.87	20	

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Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

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Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1412 - EPA 3050B

Matrix Spike (B1G1412-MS1)

Source: 2107188-21

Prepared: 07/14/21 Analyzed: 07/19/21

Antimony	87.8	8.0	mg/kg	97.5	ND	90.1	60-140			
Chromium	100	2.3	"	97.5	7.00	95.6	70-130			
Lead	91.1	7.1	"	97.5	1.24	92.2	70-130			
Nickel	96.1	3.0	"	97.5	4.45	94.0	70-130			
Beryllium	90.5	2.2	"	97.5	ND	92.8	70-130			
Copper	96.9	5.0	"	97.5	4.43	94.9	70-130			
Silver	91.4	2.0	"	97.5	ND	93.8	60-140			
Barium	140	6.0	"	97.5	32.0	110	70-130			
Cobalt	103	3.3	"	97.5	3.34	102	70-130			
Arsenic	93.7	5.5	"	97.5	ND	96.1	70-130			
Selenium	91.6	6.9	"	97.5	ND	94.0	70-130			
Molybdenum	91.7	5.2	"	97.5	ND	94.1	70-130			
Vanadium	99.3	5.1	"	97.5	9.20	92.4	70-130			
Thallium	96.4	17	"	97.5	ND	98.9	70-130			
Zinc	113	7.0	"	97.5	15.9	99.4	70-130			
Cadmium	99.5	2.5	"	97.5	ND	102	70-130			

Matrix Spike Dup (B1G1412-MSD1)

Source: 2107188-21

Prepared: 07/14/21 Analyzed: 07/19/21

Cadmium	96.2	2.5	mg/kg	97.0	ND	99.2	70-130	3.32	20	
Copper	111	5.0	"	97.0	4.43	110	70-130	14.0	30	
Silver	91.1	2.0	"	97.0	ND	94.0	60-140	0.326	40	
Arsenic	91.1	5.5	"	97.0	ND	93.9	70-130	2.80	20	
Antimony	85.4	8.0	"	97.0	ND	88.0	60-140	2.84	20	
Cobalt	101	3.3	"	97.0	3.34	100	70-130	2.40	20	
Lead	88.7	7.1	"	97.0	1.24	90.2	70-130	2.65	30	
Beryllium	88.7	2.2	"	97.0	ND	91.4	70-130	2.01	20	
Molybdenum	89.6	5.2	"	97.0	ND	92.4	70-130	2.28	20	
Thallium	93.5	17	"	97.0	ND	96.4	70-130	2.99	20	
Selenium	89.1	6.9	"	97.0	ND	91.8	70-130	2.85	20	
Vanadium	97.1	5.1	"	97.0	9.20	90.6	70-130	2.24	20	
Barium	136	6.0	"	97.0	32.0	108	70-130	2.35	20	
Chromium	102	2.3	"	97.0	7.00	98.2	70-130	2.04	20	
Nickel	93.9	3.0	"	97.0	4.45	92.3	70-130	2.23	20	
Zinc	111	7.0	"	97.0	15.9	97.7	70-130	1.94	20	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1413 - EPA 3050B

Blank (B1G1413-BLK1)

Prepared: 07/14/21 Analyzed: 07/19/21

Selenium	ND	6.9	mg/kg							
Vanadium	ND	5.1	"							
Copper	ND	5.0	"							
Antimony	ND	8.0	"							
Silver	ND	2.0	"							
Lead	ND	7.1	"							
Molybdenum	ND	5.2	"							
Thallium	ND	17	"							
Cadmium	ND	2.5	"							
Arsenic	ND	5.5	"							
Cobalt	ND	3.3	"							
Nickel	ND	3.0	"							
Beryllium	ND	2.2	"							
Chromium	ND	2.3	"							
Barium	ND	6.0	"							
Zinc	ND	7.0	"							

LCS (B1G1413-BS1)

Prepared: 07/14/21 Analyzed: 07/19/21

Chromium	99.8	2.3	mg/kg	100	99.8	80-120
Zinc	109	7.0	"	100	109	80-120
Barium	108	6.0	"	100	108	80-120
Vanadium	90.2	5.1	"	100	90.2	80-120
Beryllium	93.3	2.2	"	100	93.3	80-120
Nickel	101	3.0	"	100	101	80-120
Cadmium	106	2.5	"	100	106	80-120
Antimony	104	8.0	"	100	104	75-125
Selenium	102	6.9	"	100	102	76-124
Silver	107	2.0	"	100	107	60-140
Copper	96.1	5.0	"	100	96.1	78-122
Lead	102	7.1	"	100	102	80-120
Arsenic	103	5.5	"	100	103	78-122
Molybdenum	96.6	5.2	"	100	96.6	80-120
Thallium	108	17	"	100	108	80-120
Cobalt	111	3.3	"	100	111	80-120

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 Santa Monica CA, 90405

Project: Town Center Northwest
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 Project Manager: Susan Mearns

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Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1413 - EPA 3050B

LCS Dup (B1G1413-BSD1)

Prepared: 07/14/21 Analyzed: 07/19/21

Silver	108	2.0	mg/kg	100	108	108	60-140	1.37	40	
Molybdenum	101	5.2	"	100	101	101	80-120	4.23	20	
Nickel	98.9	3.0	"	100	98.9	98.9	80-120	1.93	20	
Barium	107	6.0	"	100	107	107	80-120	1.32	20	
Chromium	98.9	2.3	"	100	98.9	98.9	80-120	0.931	20	
Lead	99.9	7.1	"	100	99.9	99.9	80-120	2.35	20	
Thallium	107	17	"	100	107	107	80-120	0.535	20	
Zinc	109	7.0	"	100	109	109	80-120	0.459	20	
Cadmium	104	2.5	"	100	104	104	80-120	2.29	20	
Arsenic	102	5.5	"	100	102	102	78-122	1.78	20	
Antimony	101	8.0	"	100	101	101	75-125	2.83	20	
Selenium	100	6.9	"	100	100	100	76-124	1.88	20	
Vanadium	88.6	5.1	"	100	88.6	88.6	80-120	1.76	20	
Beryllium	92.1	2.2	"	100	92.1	92.1	80-120	1.27	20	
Cobalt	109	3.3	"	100	109	109	80-120	1.30	20	
Copper	95.7	5.0	"	100	95.7	95.7	78-122	0.417	20	

Matrix Spike (B1G1413-MS1)

Source: 2107188-41

Prepared: 07/14/21 Analyzed: 07/19/21

Barium	185	6.0	mg/kg	99.2	65.7	120	70-130			
Nickel	101	3.0	"	99.2	11.6	89.7	70-130			
Zinc	137	7.0	"	99.2	34.9	103	70-130			
Vanadium	110	5.1	"	99.2	22.6	88.4	70-130			
Thallium	90.3	17	"	99.2	ND	91.0	70-130			
Selenium	90.7	6.9	"	99.2	ND	91.5	70-130			
Silver	108	2.0	"	99.2	ND	109	60-140			
Lead	89.6	7.1	"	99.2	4.09	86.2	70-130			
Molybdenum	83.6	5.2	"	99.2	0.725	83.5	70-130			
Copper	97.7	5.0	"	99.2	12.2	86.2	70-130			
Chromium	107	2.3	"	99.2	17.0	90.9	70-130			
Cobalt	101	3.3	"	99.2	7.33	94.8	70-130			
Beryllium	83.1	2.2	"	99.2	ND	83.8	70-130			
Arsenic	93.8	5.5	"	99.2	ND	94.6	70-130			
Antimony	73.9	8.0	"	99.2	ND	74.4	60-140			
Cadmium	98.4	2.5	"	99.2	ND	99.2	70-130			

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Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

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Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1413 - EPA 3050B

Matrix Spike Dup (B1G1413-MSD1)

Source: 2107188-41

Prepared: 07/14/21 Analyzed: 07/19/21

Antimony	65.3	8.0	mg/kg	99.8	ND	65.4	60-140	12.3	20	
Selenium	86.7	6.9	"	99.8	ND	86.9	70-130	4.56	20	
Vanadium	103	5.1	"	99.8	22.6	80.7	70-130	6.68	20	
Barium	172	6.0	"	99.8	65.7	107	70-130	7.03	20	
Zinc	129	7.0	"	99.8	34.9	94.2	70-130	6.12	20	
Arsenic	82.3	5.5	"	99.8	ND	82.5	70-130	13.1	20	
Lead	79.1	7.1	"	99.8	4.09	75.2	70-130	12.4	30	
Thallium	81.9	17	"	99.8	ND	82.0	70-130	9.75	20	
Beryllium	77.9	2.2	"	99.8	ND	78.1	70-130	6.48	20	
Cobalt	94.9	3.3	"	99.8	7.33	87.8	70-130	6.63	20	
Chromium	100	2.3	"	99.8	17.0	83.3	70-130	6.76	20	
Nickel	87.8	3.0	"	99.8	11.6	76.4	70-130	13.6	20	
Cadmium	91.8	2.5	"	99.8	ND	92.0	70-130	6.88	20	
Copper	110	5.0	"	99.8	12.2	97.9	70-130	11.7	30	
Silver	104	2.0	"	99.8	ND	105	60-140	3.66	40	
Molybdenum	95.4	5.2	"	99.8	0.725	94.8	70-130	13.1	20	

Batch B1G1414 - EPA 7471A

Blank (B1G1414-BLK1)

Prepared: 07/14/21 Analyzed: 07/16/21

Mercury	ND	0.90	mg/kg							
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LCS (B1G1414-BS1)

Prepared: 07/14/21 Analyzed: 07/16/21

Mercury	0.12	0.90	mg/kg	0.167		70.5	70-130			
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Matrix Spike (B1G1414-MS1)

Source: 2107188-01

Prepared: 07/14/21 Analyzed: 07/16/21

Mercury	0.16	0.90	mg/kg	0.163	ND	100	70-130			
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Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

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Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1414 - EPA 7471A

Matrix Spike Dup (B1G1414-MSD1)		Source: 2107188-01			Prepared: 07/14/21 Analyzed: 07/16/21					
Mercury	0.16	0.90	mg/kg	0.162	ND	99.9	70-130	0.871	30	

Batch B1G1415 - EPA 7471A

Blank (B1G1415-BLK1)		Prepared: 07/14/21 Analyzed: 07/16/21								
Mercury	ND	0.90	mg/kg							

LCS (B1G1415-BS1)		Prepared: 07/14/21 Analyzed: 07/16/21								
Mercury	0.12	0.90	mg/kg	0.167		70.6	70-130			

Matrix Spike (B1G1415-MS1)		Source: 2107188-21			Prepared: 07/14/21 Analyzed: 07/16/21					
Mercury	0.16	0.90	mg/kg	0.161	ND	101	70-130			

Matrix Spike Dup (B1G1415-MSD1)		Source: 2107188-21			Prepared: 07/14/21 Analyzed: 07/16/21					
Mercury	0.16	0.90	mg/kg	0.158	ND	100	70-130	1.79	30	

Batch B1G1416 - EPA 7471A

Blank (B1G1416-BLK1)		Prepared: 07/14/21 Analyzed: 07/16/21								
Mercury	ND	0.90	mg/kg							

LCS (B1G1416-BS1)		Prepared: 07/14/21 Analyzed: 07/16/21								
Mercury	0.12	0.90	mg/kg	0.167		70.7	70-130			

Matrix Spike (B1G1416-MS1)		Source: 2107188-41			Prepared: 07/14/21 Analyzed: 07/16/21					
Mercury	0.20	0.90	mg/kg	0.161	ND	124	70-130			

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 Project Manager: Susan Mearns

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Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1416 - EPA 7471A

Matrix Spike Dup (B1G1416-MSD1)		Source: 2107188-41		Prepared: 07/14/21		Analyzed: 07/16/21				
Mercury	0.19	0.90	mg/kg	0.158	ND	122	70-130	4.05	30	

Batch B1G1417 - EPA 3060A

Blank (B1G1417-BLK1)				Prepared: 07/14/21		Analyzed: 07/19/21				
Hexavalent Chromium	ND	0.10	mg/kg							

LCS (B1G1417-BS1)				Prepared: 07/14/21		Analyzed: 07/19/21				
Hexavalent Chromium	0.161	0.10	mg/kg	0.150		107	80-120			

Matrix Spike (B1G1417-MS1)		Source: 2107188-01		Prepared: 07/14/21		Analyzed: 07/19/21				
Hexavalent Chromium	0.200	0.10	mg/kg	0.149	0.0624	92.3	75-125			

Matrix Spike Dup (B1G1417-MSD1)		Source: 2107188-01		Prepared: 07/14/21		Analyzed: 07/19/21				
Hexavalent Chromium	0.199	0.10	mg/kg	0.149	0.0624	91.4	75-125	0.823	20	

Batch B1G1418 - EPA 3060A

Blank (B1G1418-BLK1)				Prepared: 07/14/21		Analyzed: 07/19/21				
Hexavalent Chromium	ND	0.10	mg/kg							

LCS (B1G1418-BS1)				Prepared: 07/14/21		Analyzed: 07/19/21				
Hexavalent Chromium	0.152	0.10	mg/kg	0.150		101	80-120			

Matrix Spike (B1G1418-MS1)		Source: 2107188-21		Prepared: 07/14/21		Analyzed: 07/19/21				
Hexavalent Chromium	0.149	0.10	mg/kg	0.149	ND	99.9	75-125			

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Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1418 - EPA 3060A

Matrix Spike Dup (B1G1418-MSD1)		Source: 2107188-21			Prepared: 07/14/21 Analyzed: 07/19/21					
Hexavalent Chromium	0.142	0.10	mg/kg	0.149	ND	95.6	75-125	4.53	20	

Batch B1G1419 - EPA 3060A

Blank (B1G1419-BLK1)					Prepared: 07/14/21 Analyzed: 07/19/21					
Hexavalent Chromium	ND	0.10	mg/kg							

LCS (B1G1419-BS1)					Prepared: 07/14/21 Analyzed: 07/19/21					
Hexavalent Chromium	0.144	0.10	mg/kg	0.150		96.2	80-120			

Matrix Spike (B1G1419-MS1)		Source: 2107188-41			Prepared: 07/14/21 Analyzed: 07/19/21					
Hexavalent Chromium	0.146	0.10	mg/kg	0.145	0.0341	77.2	75-125			

Matrix Spike Dup (B1G1419-MSD1)		Source: 2107188-41			Prepared: 07/14/21 Analyzed: 07/19/21					
Hexavalent Chromium	0.145	0.10	mg/kg	0.145	0.0341	76.9	75-125	0.525	20	

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Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1502 - EPA 5035 P & T

Blank (B1G1502-BLK1)										
										Prepared & Analyzed: 07/15/21
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	mg/kg							
LCS (B1G1502-BS1)										
										Prepared & Analyzed: 07/15/21
Gasoline Range Hydrocarbons (C4-C12)	0.570	0.050	mg/kg	0.600		95.0	80-120			
Matrix Spike (B1G1502-MS1)										
										Source: 2107188-01
										Prepared & Analyzed: 07/15/21
Gasoline Range Hydrocarbons (C4-C12)	0.455	0.050	mg/kg	0.600	ND	75.8	50-150			
Matrix Spike Dup (B1G1502-MSD1)										
										Source: 2107188-01
										Prepared & Analyzed: 07/15/21
Gasoline Range Hydrocarbons (C4-C12)	0.480	0.050	mg/kg	0.600	ND	80.0	50-150	5.35	30	

Batch B1G1503 - EPA 5035 P & T

Blank (B1G1503-BLK1)										
										Prepared & Analyzed: 07/15/21
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	mg/kg							
LCS (B1G1503-BS1)										
										Prepared & Analyzed: 07/15/21
Gasoline Range Hydrocarbons (C4-C12)	0.531	0.050	mg/kg	0.600		88.5	80-120			
Matrix Spike (B1G1503-MS1)										
										Source: 2107204-01
										Prepared & Analyzed: 07/15/21
Gasoline Range Hydrocarbons (C4-C12)	0.466	0.050	mg/kg	0.600	ND	77.7	50-150			
Matrix Spike Dup (B1G1503-MSD1)										
										Source: 2107204-01
										Prepared & Analyzed: 07/15/21
Gasoline Range Hydrocarbons (C4-C12)	0.371	0.050	mg/kg	0.600	ND	61.8	50-150	22.7	30	

Batch B1G1504 - EPA 3550B Solid Ext

Blank (B1G1504-BLK1)										
										Prepared & Analyzed: 07/15/21
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	mg/kg							
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"							

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Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1504 - EPA 3550B Solid Ext

LCS (B1G1504-BS1)										
Prepared & Analyzed: 07/15/21										
Diesel Range Organics (C10-C24)	18.1	5.0	mg/kg	20.0		90.7	80-120			
Matrix Spike (B1G1504-MS1)										
Source: 2107188-01 Prepared & Analyzed: 07/15/21										
Diesel Range Organics (C10-C24)	19.6	5.0	mg/kg	20.0	ND	98.1	50-150			
Matrix Spike Dup (B1G1504-MSD1)										
Source: 2107188-01 Prepared & Analyzed: 07/15/21										
Diesel Range Organics (C10-C24)	20.2	5.0	mg/kg	20.0	ND	101	50-150	2.77	30	

Batch B1G1601 - EPA 3550B Solid Ext

Blank (B1G1601-BLK1)										
Prepared: 07/15/21 Analyzed: 07/16/21										
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	mg/kg							
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"							
LCS (B1G1601-BS1)										
Prepared: 07/15/21 Analyzed: 07/16/21										
Diesel Range Organics (C10-C24)	16.3	5.0	mg/kg	20.0		81.5	80-120			
Matrix Spike (B1G1601-MS1)										
Source: 2107204-01 Prepared: 07/15/21 Analyzed: 07/16/21										
Diesel Range Organics (C10-C24)	19.7	5.0	mg/kg	20.0	ND	98.6	50-150			
Matrix Spike Dup (B1G1601-MSD1)										
Source: 2107204-01 Prepared: 07/15/21 Analyzed: 07/16/21										
Diesel Range Organics (C10-C24)	22.5	5.0	mg/kg	20.0	ND	112	50-150	13.1	30	

Batch B1G1602 - EPA 3550B Solid Ext

Blank (B1G1602-BLK1)										
Prepared: 07/15/21 Analyzed: 07/16/21										
Total Petroleum Hydrocarbons (C13-C22)	ND	5.0	mg/kg							
Total Petroleum Hydrocarbons (C23-C40)	ND	5.0	"							

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Total Petroleum Hydrocarbons Carbon Range Analysis by GC-FID - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1602 - EPA 3550B Solid Ext

LCS (B1G1602-BS1)										
					Prepared: 07/15/21 Analyzed: 07/16/21					
Diesel Range Organics (C10-C24)	16.9	5.0	mg/kg	20.0		84.7	80-120			
Matrix Spike (B1G1602-MS1)										
					Source: 2107188-23 Prepared: 07/15/21 Analyzed: 07/16/21					
Diesel Range Organics (C10-C24)	16.0	5.0	mg/kg	20.0	ND	79.8	50-150			
Matrix Spike Dup (B1G1602-MSD1)										
					Source: 2107188-23 Prepared: 07/15/21 Analyzed: 07/16/21					
Diesel Range Organics (C10-C24)	18.3	5.0	mg/kg	20.0	ND	91.4	50-150	13.6	30	

Batch B1G1913 - EPA 5035 P & T

Blank (B1G1913-BLK1)										
					Prepared: 07/19/21 Analyzed: 07/20/21					
Total Petroleum Hydrocarbons (C4-C12)	ND	0.050	mg/kg							
LCS (B1G1913-BS1)										
					Prepared: 07/19/21 Analyzed: 07/20/21					
Gasoline Range Hydrocarbons (C4-C12)	0.697	0.050	mg/kg	0.600		116	80-120			
Matrix Spike (B1G1913-MS1)										
					Source: 2107188-23 Prepared: 07/19/21 Analyzed: 07/20/21					
Gasoline Range Hydrocarbons (C4-C12)	0.570	0.050	mg/kg	0.600	ND	95.0	50-150			
Matrix Spike Dup (B1G1913-MSD1)										
					Source: 2107188-23 Prepared: 07/19/21 Analyzed: 07/20/21					
Gasoline Range Hydrocarbons (C4-C12)	0.456	0.050	mg/kg	0.600	ND	76.0	50-150	22.2	30	

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1407 - EPA 5035 P & T

Blank (B1G1407-BLK1)

Prepared: 07/14/21 Analyzed: 07/15/21

Benzene	ND	5.0	µg/kg							
Bromobenzene	ND	5.0	"							
Bromochloromethane	ND	5.0	"							
Bromodichloromethane	ND	5.0	"							
Bromoform	ND	5.0	"							
Bromomethane	ND	5.0	"							
n-Butylbenzene	ND	5.0	"							
sec-Butylbenzene	ND	5.0	"							
tert-Butylbenzene	ND	5.0	"							
Carbon tetrachloride	ND	5.0	"							
Chlorobenzene	ND	5.0	"							
Chloroethane	ND	5.0	"							
Chloroform	ND	5.0	"							
Chloromethane	ND	5.0	"							
2-Chlorotoluene	ND	5.0	"							
4-Chlorotoluene	ND	5.0	"							
Dibromochloromethane	ND	5.0	"							
1,2-Dibromo-3-chloropropane	ND	5.0	"							
1,2-Dibromoethane (EDB)	ND	5.0	"							
Dibromomethane	ND	5.0	"							
1,2-Dichlorobenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	5.0	"							
1,4-Dichlorobenzene	ND	5.0	"							
Dichlorodifluoromethane	ND	5.0	"							
1,1-Dichloroethane	ND	5.0	"							
1,2-Dichloroethane	ND	5.0	"							
1,1-Dichloroethene	ND	5.0	"							
cis-1,2-Dichloroethene	ND	5.0	"							
trans-1,2-Dichloroethene	ND	5.0	"							
1,2-Dichloropropane	ND	5.0	"							
1,3-Dichloropropane	ND	5.0	"							
2,2-Dichloropropane	ND	5.0	"							
1,1-Dichloropropene	ND	5.0	"							
cis-1,3-Dichloropropene	ND	5.0	"							
trans-1,3-Dichloropropene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
Hexachlorobutadiene	ND	5.0	"							

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1407 - EPA 5035 P & T

Blank (B1G1407-BLK1)

Prepared: 07/14/21 Analyzed: 07/15/21

Isopropylbenzene	ND	5.0	µg/kg							
p-Isopropyltoluene	ND	5.0	"							
Methylene chloride	ND	5.0	"							
Methyl tert-butyl ether	ND	5.0	"							
Naphthalene	ND	5.0	"							
n-Propylbenzene	ND	5.0	"							
Styrene	ND	5.0	"							
1,1,1,2-Tetrachloroethane	ND	5.0	"							
1,1,2,2-Tetrachloroethane	ND	5.0	"							
Tetrachloroethene	ND	5.0	"							
Toluene	ND	5.0	"							
1,2,3-Trichlorobenzene	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	5.0	"							
1,1,1-Trichloroethane	ND	5.0	"							
1,1,2-Trichloroethane	ND	5.0	"							
Trichloroethene	ND	5.0	"							
Trichlorofluoromethane	ND	5.0	"							
1,2,3-Trichloropropane	ND	5.0	"							
1,2,4-Trimethylbenzene	ND	5.0	"							
1,3,5-Trimethylbenzene	ND	5.0	"							
Vinyl chloride	ND	5.0	"							
m,p-Xylene	ND	5.0	"							
o-Xylene	ND	5.0	"							

LCS (B1G1407-BS1)

Prepared: 07/14/21 Analyzed: 07/15/21

Benzene	50.3	5.0	µg/kg	50.0	101	80-120
Chlorobenzene	40.1	5.0	"	50.0	80.2	80-120
1,1-Dichloroethene	49.0	5.0	"	50.0	98.0	80-120
Toluene	42.3	5.0	"	50.0	84.7	80-120
Trichloroethene	50.2	5.0	"	50.0	100	80-120

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1407 - EPA 5035 P & T

Matrix Spike (B1G1407-MS1)		Source: 2107188-01		Prepared: 07/14/21		Analyzed: 07/15/21	
Benzene	49.1	5.0	µg/kg	50.0	ND	98.2	37-151
Chlorobenzene	38.2	5.0	"	50.0	ND	76.4	37-160
1,1-Dichloroethene	48.0	5.0	"	50.0	ND	96.0	50-150
Toluene	40.2	5.0	"	50.0	ND	80.3	47-150
Trichloroethene	48.1	5.0	"	50.0	ND	96.2	71-157

Matrix Spike Dup (B1G1407-MSD1)		Source: 2107188-01		Prepared: 07/14/21		Analyzed: 07/15/21			
Benzene	47.4	5.0	µg/kg	50.0	ND	94.8	37-151	3.56	30
Chlorobenzene	36.9	5.0	"	50.0	ND	73.9	37-160	3.33	30
1,1-Dichloroethene	44.6	5.0	"	50.0	ND	89.2	50-150	7.37	30
Toluene	37.8	5.0	"	50.0	ND	75.5	47-150	6.14	30
Trichloroethene	46.2	5.0	"	50.0	ND	92.5	71-157	3.92	30

Batch B1G1505 - EPA 5035 P & T

Blank (B1G1505-BLK1)				Prepared & Analyzed: 07/15/21	
Benzene	ND	5.0	µg/kg		
Bromobenzene	ND	5.0	"		
Bromochloromethane	ND	5.0	"		
Bromodichloromethane	ND	5.0	"		
Bromoform	ND	5.0	"		
Bromomethane	ND	5.0	"		
n-Butylbenzene	ND	5.0	"		
sec-Butylbenzene	ND	5.0	"		
tert-Butylbenzene	ND	5.0	"		
Carbon tetrachloride	ND	5.0	"		
Chlorobenzene	ND	5.0	"		
Chloroethane	ND	5.0	"		
Chloroform	ND	5.0	"		
Chloromethane	ND	5.0	"		
2-Chlorotoluene	ND	5.0	"		
4-Chlorotoluene	ND	5.0	"		
Dibromochloromethane	ND	5.0	"		
1,2-Dibromo-3-chloropropane	ND	5.0	"		
1,2-Dibromoethane (EDB)	ND	5.0	"		
Dibromomethane	ND	5.0	"		
1,2-Dichlorobenzene	ND	5.0	"		
1,3-Dichlorobenzene	ND	5.0	"		

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1505 - EPA 5035 P & T

Blank (B1G1505-BLK1)

Prepared & Analyzed: 07/15/21

1,4-Dichlorobenzene	ND	5.0	µg/kg							
Dichlorodifluoromethane	ND	5.0	"							
1,1-Dichloroethane	ND	5.0	"							
1,2-Dichloroethane	ND	5.0	"							
1,1-Dichloroethene	ND	5.0	"							
cis-1,2-Dichloroethene	ND	5.0	"							
trans-1,2-Dichloroethene	ND	5.0	"							
1,2-Dichloropropane	ND	5.0	"							
1,3-Dichloropropane	ND	5.0	"							
2,2-Dichloropropane	ND	5.0	"							
1,1-Dichloropropene	ND	5.0	"							
cis-1,3-Dichloropropene	ND	5.0	"							
trans-1,3-Dichloropropene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
Hexachlorobutadiene	ND	5.0	"							
Isopropylbenzene	ND	5.0	"							
p-Isopropyltoluene	ND	5.0	"							
Methylene chloride	ND	5.0	"							
Methyl tert-butyl ether	ND	5.0	"							
Naphthalene	ND	5.0	"							
n-Propylbenzene	ND	5.0	"							
Styrene	ND	5.0	"							
1,1,1,2-Tetrachloroethane	ND	5.0	"							
1,1,2,2-Tetrachloroethane	ND	5.0	"							
Tetrachloroethene	ND	5.0	"							
Toluene	ND	5.0	"							
1,2,3-Trichlorobenzene	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	5.0	"							
1,1,1-Trichloroethane	ND	5.0	"							
1,1,2-Trichloroethane	ND	5.0	"							
Trichloroethene	ND	5.0	"							
Trichlorofluoromethane	ND	5.0	"							
1,2,3-Trichloropropane	ND	5.0	"							
1,2,4-Trimethylbenzene	ND	5.0	"							
1,3,5-Trimethylbenzene	ND	5.0	"							
Vinyl chloride	ND	5.0	"							
m,p-Xylene	ND	5.0	"							

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738 Ashland Avenue
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Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

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07/22/21 13:51

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1505 - EPA 5035 P & T

Blank (B1G1505-BLK1)

Prepared & Analyzed: 07/15/21

o-Xylene	ND	5.0	µg/kg							
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LCS (B1G1505-BS1)

Prepared & Analyzed: 07/15/21

Benzene	48.1	5.0	µg/kg	50.0		96.2	80-120			
Chlorobenzene	47.1	5.0	"	50.0		94.2	80-120			
1,1-Dichloroethene	45.5	5.0	"	50.0		90.9	80-120			
Toluene	40.0	5.0	"	50.0		80.0	80-120			
Trichloroethene	54.0	5.0	"	50.0		108	80-120			

Matrix Spike (B1G1505-MS1)

Source: 2107188-21

Prepared & Analyzed: 07/15/21

Benzene	47.2	5.0	µg/kg	50.0	ND	94.5	37-151			
Chlorobenzene	41.2	5.0	"	50.0	ND	82.3	37-160			
1,1-Dichloroethene	42.9	5.0	"	50.0	ND	85.8	50-150			
Toluene	43.1	5.0	"	50.0	ND	86.3	47-150			
Trichloroethene	55.4	5.0	"	50.0	ND	111	71-157			

Matrix Spike Dup (B1G1505-MSD1)

Source: 2107188-21

Prepared & Analyzed: 07/15/21

Benzene	48.8	5.0	µg/kg	50.0	ND	97.6	37-151	3.23	30	
Chlorobenzene	41.6	5.0	"	50.0	ND	83.2	37-160	1.04	30	
1,1-Dichloroethene	44.7	5.0	"	50.0	ND	89.4	50-150	4.13	30	
Toluene	45.5	5.0	"	50.0	ND	90.9	47-150	5.26	30	
Trichloroethene	56.1	5.0	"	50.0	ND	112	71-157	1.18	30	

Batch B1G1507 - EPA 5035 P & T

Blank (B1G1507-BLK1)

Prepared: 07/16/21 Analyzed: 07/19/21

Benzene	ND	5.0	µg/kg							
Bromobenzene	ND	5.0	"							
Bromochloromethane	ND	5.0	"							
Bromodichloromethane	ND	5.0	"							
Bromoform	ND	5.0	"							
Bromomethane	ND	5.0	"							
n-Butylbenzene	ND	5.0	"							
sec-Butylbenzene	ND	5.0	"							
tert-Butylbenzene	ND	5.0	"							
Carbon tetrachloride	ND	5.0	"							
Chlorobenzene	ND	5.0	"							
Chloroethane	ND	5.0	"							
Chloroform	ND	5.0	"							

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Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1507 - EPA 5035 P & T

Blank (B1G1507-BLK1)

Prepared: 07/16/21 Analyzed: 07/19/21

Chloromethane	ND	5.0	µg/kg							
2-Chlorotoluene	ND	5.0	"							
4-Chlorotoluene	ND	5.0	"							
Dibromochloromethane	ND	5.0	"							
1,2-Dibromo-3-chloropropane	ND	5.0	"							
1,2-Dibromoethane (EDB)	ND	5.0	"							
Dibromomethane	ND	5.0	"							
1,2-Dichlorobenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	5.0	"							
1,4-Dichlorobenzene	ND	5.0	"							
Dichlorodifluoromethane	ND	5.0	"							
1,1-Dichloroethane	ND	5.0	"							
1,2-Dichloroethane	ND	5.0	"							
1,1-Dichloroethene	ND	5.0	"							
cis-1,2-Dichloroethene	ND	5.0	"							
trans-1,2-Dichloroethene	ND	5.0	"							
1,2-Dichloropropane	ND	5.0	"							
1,3-Dichloropropane	ND	5.0	"							
2,2-Dichloropropane	ND	5.0	"							
1,1-Dichloropropene	ND	5.0	"							
cis-1,3-Dichloropropene	ND	5.0	"							
trans-1,3-Dichloropropene	ND	5.0	"							
Ethylbenzene	ND	5.0	"							
Hexachlorobutadiene	ND	5.0	"							
Isopropylbenzene	ND	5.0	"							
p-Isopropyltoluene	ND	5.0	"							
Methylene chloride	ND	5.0	"							
Methyl tert-butyl ether	ND	5.0	"							
Naphthalene	ND	5.0	"							
n-Propylbenzene	ND	5.0	"							
Styrene	ND	5.0	"							
1,1,1,2-Tetrachloroethane	ND	5.0	"							
1,1,2,2-Tetrachloroethane	ND	5.0	"							
Tetrachloroethene	ND	5.0	"							
Toluene	ND	5.0	"							
1,2,3-Trichlorobenzene	ND	5.0	"							
1,2,4-Trichlorobenzene	ND	5.0	"							

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Project: Town Center Northwest
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Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1507 - EPA 5035 P & T

Blank (B1G1507-BLK1)

Prepared: 07/16/21 Analyzed: 07/19/21

1,1,1-Trichloroethane	ND	5.0	µg/kg							
1,1,2-Trichloroethane	ND	5.0	"							
Trichloroethene	ND	5.0	"							
Trichlorofluoromethane	ND	5.0	"							
1,2,3-Trichloropropane	ND	5.0	"							
1,2,4-Trimethylbenzene	ND	5.0	"							
1,3,5-Trimethylbenzene	ND	5.0	"							
Vinyl chloride	ND	5.0	"							
m,p-Xylene	ND	5.0	"							
o-Xylene	ND	5.0	"							

LCS (B1G1507-BS1)

Prepared: 07/16/21 Analyzed: 07/19/21

Benzene	48.2	5.0	µg/kg	50.0		96.4	80-120			
Chlorobenzene	47.1	5.0	"	50.0		94.2	80-120			
1,1-Dichloroethene	44.3	5.0	"	50.0		88.6	80-120			
Toluene	42.8	5.0	"	50.0		85.7	80-120			
Trichloroethene	50.8	5.0	"	50.0		102	80-120			

Matrix Spike (B1G1507-MS1)

Source: 2107118-05

Prepared: 07/16/21 Analyzed: 07/19/21

Benzene	40.2	5.0	µg/kg	50.0	ND	80.4	37-151			
Chlorobenzene	34.2	5.0	"	50.0	ND	68.4	37-160			
1,1-Dichloroethene	36.1	5.0	"	50.0	ND	72.3	50-150			
Toluene	36.4	5.0	"	50.0	ND	72.7	47-150			
Trichloroethene	43.2	5.0	"	50.0	ND	86.5	71-157			

Matrix Spike Dup (B1G1507-MSD1)

Source: 2107118-05

Prepared: 07/16/21 Analyzed: 07/19/21

Benzene	44.9	5.0	µg/kg	50.0	ND	89.8	37-151	11.0	30	
Chlorobenzene	37.3	5.0	"	50.0	ND	74.6	37-160	8.73	30	
1,1-Dichloroethene	39.1	5.0	"	50.0	ND	78.1	50-150	7.79	30	
Toluene	39.4	5.0	"	50.0	ND	78.9	47-150	8.12	30	
Trichloroethene	48.5	5.0	"	50.0	ND	97.0	71-157	11.4	30	

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Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

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Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1603 - EPA 3550B Solid Ext

Blank (B1G1603-BLK1)

Prepared: 07/15/21 Analyzed: 07/16/21

Acenaphthene	ND	0.33	mg/kg							
Acenaphthylene	ND	0.33	"							
Anthracene	ND	0.33	"							
Benzidine	ND	0.33	"							
Benzo (a) anthracene	ND	0.33	"							
Benzo (b) fluoranthene	ND	0.33	"							
Benzo (k) fluoranthene	ND	0.33	"							
Benzo (a) pyrene	ND	0.33	"							
Benzo (g,h,i) perylene	ND	0.33	"							
Benzyl alcohol	ND	0.33	"							
Bis(2-chloroethyl)ether	ND	0.33	"							
Bis(2-chloroethoxy)methane	ND	0.33	"							
Bis(2-ethylhexyl)phthalate	ND	0.33	"							
Bis(2-chloroisopropyl)ether	ND	0.33	"							
4-Bromophenyl phenyl ether	ND	0.33	"							
Butyl benzyl phthalate	ND	0.33	"							
4-Chloroaniline	ND	0.33	"							
2-Chlorophenol	ND	0.33	"							
4-Chloro-3-methylphenol	ND	0.33	"							
2-Chloronaphthalene	ND	0.33	"							
4-Chlorophenyl phenyl ether	ND	0.33	"							
Chrysene	ND	0.33	"							
Dibenz (a,h) anthracene	ND	0.33	"							
Dibenzofuran	ND	0.33	"							
1,3-Dichlorobenzene	ND	0.33	"							
1,2-Dichlorobenzene	ND	0.33	"							
1,4-Dichlorobenzene	ND	0.33	"							
3,3'-Dichlorobenzidine	ND	0.33	"							
2,4-Dichlorophenol	ND	0.33	"							
Diethyl phthalate	ND	0.33	"							
2,4-Dimethylphenol	ND	0.33	"							
Dimethyl phthalate	ND	0.33	"							
Di-n-butyl phthalate	ND	0.33	"							
2,4-Dinitrophenol	ND	0.33	"							
4,6-Dinitro-2-methylphenol	ND	0.33	"							
2,4-Dinitrotoluene	ND	0.33	"							
2,6-Dinitrotoluene	ND	0.33	"							

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 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1603 - EPA 3550B Solid Ext

Blank (B1G1603-BLK1)

Prepared: 07/15/21 Analyzed: 07/16/21

Di-n-octyl phthalate	ND	0.33	mg/kg							
1,2-Diphenylhydrazine	ND	0.33	"							
Fluoranthene	ND	0.33	"							
Fluorene	ND	0.33	"							
Hexachlorobenzene	ND	0.33	"							
Hexachlorobutadiene	ND	0.33	"							
Hexachlorocyclopentadiene	ND	0.33	"							
Hexachloroethane	ND	0.33	"							
Indeno (1,2,3-cd) pyrene	ND	0.33	"							
Isophorone	ND	0.33	"							
2-Methylnaphthalene	ND	0.33	"							
2-Methylphenol	ND	0.33	"							
4-Methylphenol	ND	0.33	"							
Naphthalene	ND	0.33	"							
2-Nitroaniline	ND	0.33	"							
3-Nitroaniline	ND	0.33	"							
4-Nitroaniline	ND	0.33	"							
Nitrobenzene	ND	0.33	"							
2-Nitrophenol	ND	0.33	"							
4-Nitrophenol	ND	0.33	"							
N-Nitrosodimethylamine	ND	0.33	"							
Diphenylamine	ND	0.33	"							
N-Nitrosodi-n-propylamine	ND	0.33	"							
Pentachlorophenol	ND	0.33	"							
Phenanthrene	ND	0.33	"							
Phenol	ND	0.33	"							
Pyrene	ND	0.33	"							
1,2,4-Trichlorobenzene	ND	0.33	"							
2,4,5-Trichlorophenol	ND	0.33	"							
2,4,6-Trichlorophenol	ND	0.33	"							

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Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
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Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1603 - EPA 3550B Solid Ext

LCS (B1G1603-BS1)

Prepared: 07/15/21 Analyzed: 07/16/21

Acenaphthene	0.843	0.33	mg/kg	1.00		84.3	47-145			
2-Chlorophenol	2.07	0.33	"	2.00		104	23-134			
4-Chloro-3-methylphenol	1.94	0.33	"	2.00		96.8	22-147			
1,4-Dichlorobenzene	0.791	0.33	"	1.00		79.1	20-124			
2,4-Dinitrotoluene	0.496	0.33	"	1.00		49.6	39-139			
4-Nitrophenol	0.636	0.33	"	2.00		31.8	0-132			
N-Nitrosodi-n-propylamine	0.683	0.33	"	1.00		68.3	0-230			
Pentachlorophenol	0.446	0.33	"	2.00		22.3	14-176			
Phenol	1.73	0.33	"	2.00		86.4	5-112			
Pyrene	0.831	0.33	"	1.00		83.1	52-115			
1,2,4-Trichlorobenzene	0.729	0.33	"	1.00		72.9	44-142			

Matrix Spike (B1G1603-MS1)

Source: 2107188-01

Prepared: 07/15/21 Analyzed: 07/16/21

Acenaphthene	0.909	0.33	mg/kg	1.00	ND	90.9	47-145			
2-Chlorophenol	1.84	0.33	"	2.00	ND	91.8	23-134			
4-Chloro-3-methylphenol	1.65	0.33	"	2.00	ND	82.6	22-147			
1,4-Dichlorobenzene	0.894	0.33	"	1.00	ND	89.4	20-124			
2,4-Dinitrotoluene	0.537	0.33	"	1.00	ND	53.7	39-139			
4-Nitrophenol	0.655	0.33	"	2.00	ND	32.8	0-132			
N-Nitrosodi-n-propylamine	0.881	0.33	"	1.00	ND	88.1	0-230			
Pentachlorophenol	0.351	0.33	"	2.00	ND	17.6	14-176			
Phenol	1.59	0.33	"	2.00	ND	79.5	5-112			
Pyrene	0.953	0.33	"	1.00	ND	95.3	52-115			
1,2,4-Trichlorobenzene	0.820	0.33	"	1.00	ND	82.0	44-142			

Matrix Spike Dup (B1G1603-MSD1)

Source: 2107188-01

Prepared: 07/15/21 Analyzed: 07/16/21

Acenaphthene	1.03	0.33	mg/kg	1.00	ND	103	47-145	12.8	30	
2-Chlorophenol	1.90	0.33	"	2.00	ND	95.0	23-134	3.37	30	
4-Chloro-3-methylphenol	1.90	0.33	"	2.00	ND	94.8	22-147	13.7	30	
1,4-Dichlorobenzene	0.981	0.33	"	1.00	ND	98.1	20-124	9.28	30	
2,4-Dinitrotoluene	0.527	0.33	"	1.00	ND	52.7	39-139	1.88	30	
4-Nitrophenol	0.642	0.33	"	2.00	ND	32.1	0-132	2.00	30	
N-Nitrosodi-n-propylamine	0.938	0.33	"	1.00	ND	93.8	0-230	6.27	30	
Pentachlorophenol	0.414	0.33	"	2.00	ND	20.7	14-176	16.5	30	
Phenol	1.84	0.33	"	2.00	ND	92.1	5-112	14.7	30	
Pyrene	0.846	0.33	"	1.00	ND	84.6	52-115	11.9	30	
1,2,4-Trichlorobenzene	0.708	0.33	"	1.00	ND	70.8	44-142	14.7	30	

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

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 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1916 - EPA 3550B Solid Ext

Blank (B1G1916-BLK1)

Prepared: 07/19/21 Analyzed: 07/20/21

Acenaphthene	ND	0.33	mg/kg							
Acenaphthylene	ND	0.33	"							
Anthracene	ND	0.33	"							
Benzidine	ND	0.33	"							
Benzo (a) anthracene	ND	0.33	"							
Benzo (b) fluoranthene	ND	0.33	"							
Benzo (k) fluoranthene	ND	0.33	"							
Benzo (a) pyrene	ND	0.33	"							
Benzo (g,h,i) perylene	ND	0.33	"							
Benzyl alcohol	ND	0.33	"							
Bis(2-chloroethyl)ether	ND	0.33	"							
Bis(2-chloroethoxy)methane	ND	0.33	"							
Bis(2-ethylhexyl)phthalate	ND	0.33	"							
Bis(2-chloroisopropyl)ether	ND	0.33	"							
4-Bromophenyl phenyl ether	ND	0.33	"							
Butyl benzyl phthalate	ND	0.33	"							
4-Chloroaniline	ND	0.33	"							
2-Chlorophenol	ND	0.33	"							
4-Chloro-3-methylphenol	ND	0.33	"							
2-Chloronaphthalene	ND	0.33	"							
4-Chlorophenyl phenyl ether	ND	0.33	"							
Chrysene	ND	0.33	"							
Dibenz (a,h) anthracene	ND	0.33	"							
Dibenzofuran	ND	0.33	"							
1,3-Dichlorobenzene	ND	0.33	"							
1,2-Dichlorobenzene	ND	0.33	"							
1,4-Dichlorobenzene	ND	0.33	"							
3,3'-Dichlorobenzidine	ND	0.33	"							
2,4-Dichlorophenol	ND	0.33	"							
Diethyl phthalate	ND	0.33	"							
2,4-Dimethylphenol	ND	0.33	"							
Dimethyl phthalate	ND	0.33	"							
Di-n-butyl phthalate	ND	0.33	"							
2,4-Dinitrophenol	ND	0.33	"							
4,6-Dinitro-2-methylphenol	ND	0.33	"							
2,4-Dinitrotoluene	ND	0.33	"							
2,6-Dinitrotoluene	ND	0.33	"							

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1916 - EPA 3550B Solid Ext

Blank (B1G1916-BLK1)

Prepared: 07/19/21 Analyzed: 07/20/21

Di-n-octyl phthalate	ND	0.33	mg/kg							
1,2-Diphenylhydrazine	ND	0.33	"							
Fluoranthene	ND	0.33	"							
Fluorene	ND	0.33	"							
Hexachlorobenzene	ND	0.33	"							
Hexachlorobutadiene	ND	0.33	"							
Hexachlorocyclopentadiene	ND	0.33	"							
Hexachloroethane	ND	0.33	"							
Indeno (1,2,3-cd) pyrene	ND	0.33	"							
Isophorone	ND	0.33	"							
2-Methylnaphthalene	ND	0.33	"							
2-Methylphenol	ND	0.33	"							
4-Methylphenol	ND	0.33	"							
Naphthalene	ND	0.33	"							
2-Nitroaniline	ND	0.33	"							
3-Nitroaniline	ND	0.33	"							
4-Nitroaniline	ND	0.33	"							
Nitrobenzene	ND	0.33	"							
2-Nitrophenol	ND	0.33	"							
4-Nitrophenol	ND	0.33	"							
N-Nitrosodimethylamine	ND	0.33	"							
Diphenylamine	ND	0.33	"							
N-Nitrosodi-n-propylamine	ND	0.33	"							
Pentachlorophenol	ND	0.33	"							
Phenanthrene	ND	0.33	"							
Phenol	ND	0.33	"							
Pyrene	ND	0.33	"							
1,2,4-Trichlorobenzene	ND	0.33	"							
2,4,5-Trichlorophenol	ND	0.33	"							
2,4,6-Trichlorophenol	ND	0.33	"							

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1916 - EPA 3550B Solid Ext

Blank (B1G1916-BLK2)

Prepared: 07/19/21 Analyzed: 07/20/21

Acenaphthene	ND	0.33	mg/kg							
Acenaphthylene	ND	0.33	"							
Anthracene	ND	0.33	"							
Benzidine	ND	0.33	"							
Benzo (a) anthracene	ND	0.33	"							
Benzo (b) fluoranthene	ND	0.33	"							
Benzo (k) fluoranthene	ND	0.33	"							
Benzo (a) pyrene	ND	0.33	"							
Benzo (g,h,i) perylene	ND	0.33	"							
Benzyl alcohol	ND	0.33	"							
Bis(2-chloroethyl)ether	ND	0.33	"							
Bis(2-chloroethoxy)methane	ND	0.33	"							
Bis(2-ethylhexyl)phthalate	ND	0.33	"							
Bis(2-chloroisopropyl)ether	ND	0.33	"							
4-Bromophenyl phenyl ether	ND	0.33	"							
Butyl benzyl phthalate	ND	0.33	"							
4-Chloroaniline	ND	0.33	"							
2-Chlorophenol	ND	0.33	"							
4-Chloro-3-methylphenol	ND	0.33	"							
2-Chloronaphthalene	ND	0.33	"							
4-Chlorophenyl phenyl ether	ND	0.33	"							
Chrysene	ND	0.33	"							
Dibenz (a,h) anthracene	ND	0.33	"							
Dibenzofuran	ND	0.33	"							
1,3-Dichlorobenzene	ND	0.33	"							
1,2-Dichlorobenzene	ND	0.33	"							
1,4-Dichlorobenzene	ND	0.33	"							
3,3'-Dichlorobenzidine	ND	0.33	"							
2,4-Dichlorophenol	ND	0.33	"							
Diethyl phthalate	ND	0.33	"							
2,4-Dimethylphenol	ND	0.33	"							
Dimethyl phthalate	ND	0.33	"							
Di-n-butyl phthalate	ND	0.33	"							
2,4-Dinitrophenol	ND	0.33	"							
4,6-Dinitro-2-methylphenol	ND	0.33	"							
2,4-Dinitrotoluene	ND	0.33	"							
2,6-Dinitrotoluene	ND	0.33	"							

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1916 - EPA 3550B Solid Ext

Blank (B1G1916-BLK2)

Prepared: 07/19/21 Analyzed: 07/20/21

Di-n-octyl phthalate	ND	0.33	mg/kg							
1,2-Diphenylhydrazine	ND	0.33	"							
Fluoranthene	ND	0.33	"							
Fluorene	ND	0.33	"							
Hexachlorobenzene	ND	0.33	"							
Hexachlorobutadiene	ND	0.33	"							
Hexachlorocyclopentadiene	ND	0.33	"							
Hexachloroethane	ND	0.33	"							
Indeno (1,2,3-cd) pyrene	ND	0.33	"							
Isophorone	ND	0.33	"							
2-Methylnaphthalene	ND	0.33	"							
2-Methylphenol	ND	0.33	"							
4-Methylphenol	ND	0.33	"							
Naphthalene	ND	0.33	"							
2-Nitroaniline	ND	0.33	"							
3-Nitroaniline	ND	0.33	"							
4-Nitroaniline	ND	0.33	"							
Nitrobenzene	ND	0.33	"							
2-Nitrophenol	ND	0.33	"							
4-Nitrophenol	ND	0.33	"							
N-Nitrosodimethylamine	ND	0.33	"							
Diphenylamine	ND	0.33	"							
N-Nitrosodi-n-propylamine	ND	0.33	"							
Pentachlorophenol	ND	0.33	"							
Phenanthrene	ND	0.33	"							
Phenol	ND	0.33	"							
Pyrene	ND	0.33	"							
1,2,4-Trichlorobenzene	ND	0.33	"							
2,4,5-Trichlorophenol	ND	0.33	"							
2,4,6-Trichlorophenol	ND	0.33	"							

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: Town Center Northwest
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch B1G1916 - EPA 3550B Solid Ext

LCS (B1G1916-BS1)

Prepared: 07/19/21 Analyzed: 07/20/21

Acenaphthene	0.848	0.33	mg/kg	1.00		84.8	47-145			
2-Chlorophenol	1.85	0.33	"	2.00		92.3	23-134			
4-Chloro-3-methylphenol	1.96	0.33	"	2.00		98.2	22-147			
1,4-Dichlorobenzene	0.815	0.33	"	1.00		81.5	20-124			
2,4-Dinitrotoluene	0.479	0.33	"	1.00		47.9	39-139			
4-Nitrophenol	0.664	0.33	"	2.00		33.2	0-132			
N-Nitrosodi-n-propylamine	0.797	0.33	"	1.00		79.7	0-230			
Pentachlorophenol	0.379	0.33	"	2.00		19.0	14-176			
Phenol	1.78	0.33	"	2.00		89.0	5-112			
Pyrene	0.709	0.33	"	1.00		70.9	52-115			
1,2,4-Trichlorobenzene	0.729	0.33	"	1.00		72.9	44-142			

LCS (B1G1916-BS2)

Prepared: 07/19/21 Analyzed: 07/20/21

Acenaphthene	0.844	0.33	mg/kg	1.00		84.4	47-145			
2-Chlorophenol	1.81	0.33	"	2.00		90.6	23-134			
4-Chloro-3-methylphenol	2.16	0.33	"	2.00		108	22-147			
1,4-Dichlorobenzene	0.796	0.33	"	1.00		79.6	20-124			
2,4-Dinitrotoluene	0.523	0.33	"	1.00		52.3	39-139			
4-Nitrophenol	0.642	0.33	"	2.00		32.1	0-132			
N-Nitrosodi-n-propylamine	0.711	0.33	"	1.00		71.1	0-230			
Pentachlorophenol	0.351	0.33	"	2.00		17.6	14-176			
Phenol	1.65	0.33	"	2.00		82.6	5-112			
Pyrene	0.694	0.33	"	1.00		69.4	52-115			
1,2,4-Trichlorobenzene	0.615	0.33	"	1.00		61.5	44-142			

Matrix Spike (B1G1916-MS1)

Source: 2107188-19

Prepared: 07/19/21 Analyzed: 07/20/21

Acenaphthene	0.919	0.33	mg/kg	1.00	ND	91.9	47-145			
2-Chlorophenol	1.82	0.33	"	2.00	ND	91.2	23-134			
4-Chloro-3-methylphenol	1.84	0.33	"	2.00	ND	91.9	22-147			
1,4-Dichlorobenzene	0.880	0.33	"	1.00	ND	88.0	20-124			
2,4-Dinitrotoluene	0.899	0.33	"	1.00	ND	89.9	39-139			
4-Nitrophenol	0.634	0.33	"	2.00	ND	31.7	0-132			
N-Nitrosodi-n-propylamine	0.834	0.33	"	1.00	ND	83.4	0-230			
Pentachlorophenol	0.413	0.33	"	2.00	ND	20.6	14-176			
Phenol	1.68	0.33	"	2.00	ND	84.2	5-112			
Pyrene	0.866	0.33	"	1.00	ND	86.6	52-115			
1,2,4-Trichlorobenzene	0.810	0.33	"	1.00	ND	81.0	44-142			

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G1916 - EPA 3550B Solid Ext

Matrix Spike (B1G1916-MS2)

Source: 2107188-30

Prepared: 07/19/21 Analyzed: 07/20/21

Acenaphthene	0.919	0.33	mg/kg	1.00	ND	91.9	47-145			
2-Chlorophenol	1.82	0.33	"	2.00	ND	91.2	23-134			
4-Chloro-3-methylphenol	1.84	0.33	"	2.00	ND	91.9	22-147			
1,4-Dichlorobenzene	0.880	0.33	"	1.00	ND	88.0	20-124			
2,4-Dinitrotoluene	0.544	0.33	"	1.00	ND	54.4	39-139			
4-Nitrophenol	0.634	0.33	"	2.00	ND	31.7	0-132			
N-Nitrosodi-n-propylamine	0.834	0.33	"	1.00	ND	83.4	0-230			
Pentachlorophenol	0.413	0.33	"	2.00	ND	20.6	14-176			
Phenol	1.68	0.33	"	2.00	ND	84.2	5-112			
Pyrene	0.866	0.33	"	1.00	ND	86.6	52-115			
1,2,4-Trichlorobenzene	0.810	0.33	"	1.00	ND	81.0	44-142			

Matrix Spike Dup (B1G1916-MSD1)

Source: 2107188-19

Prepared: 07/19/21 Analyzed: 07/20/21

Acenaphthene	0.968	0.33	mg/kg	1.00	ND	96.8	47-145	5.19	30	
2-Chlorophenol	1.85	0.33	"	2.00	ND	92.3	23-134	1.25	30	
4-Chloro-3-methylphenol	2.06	0.33	"	2.00	ND	103	22-147	11.2	30	
1,4-Dichlorobenzene	0.923	0.33	"	1.00	ND	92.3	20-124	4.77	30	
2,4-Dinitrotoluene	0.920	0.33	"	1.00	ND	92.0	39-139	2.31	30	
4-Nitrophenol	0.629	0.33	"	2.00	ND	31.4	0-132	0.792	30	
N-Nitrosodi-n-propylamine	0.847	0.33	"	1.00	ND	84.7	0-230	1.55	30	
Pentachlorophenol	0.458	0.33	"	2.00	ND	22.9	14-176	10.3	30	
Phenol	1.67	0.33	"	2.00	ND	83.4	5-112	0.955	30	
Pyrene	0.995	0.33	"	1.00	ND	99.5	52-115	13.9	30	
1,2,4-Trichlorobenzene	0.710	0.33	"	1.00	ND	71.0	44-142	13.2	30	

Matrix Spike Dup (B1G1916-MSD2)

Source: 2107188-30

Prepared: 07/19/21 Analyzed: 07/20/21

Acenaphthene	1.00	0.33	mg/kg	1.00	ND	100	47-145	8.44	30	
2-Chlorophenol	1.92	0.33	"	2.00	ND	96.0	23-134	5.13	30	
4-Chloro-3-methylphenol	1.99	0.33	"	2.00	ND	99.4	22-147	7.79	30	
1,4-Dichlorobenzene	0.920	0.33	"	1.00	ND	92.0	20-124	4.44	30	
2,4-Dinitrotoluene	0.594	0.33	"	1.00	ND	59.4	39-139	8.79	30	
4-Nitrophenol	0.650	0.33	"	2.00	ND	32.5	0-132	2.49	30	
N-Nitrosodi-n-propylamine	0.899	0.33	"	1.00	ND	89.9	0-230	7.50	30	
Pentachlorophenol	0.489	0.33	"	2.00	ND	24.4	14-176	16.9	30	
Phenol	1.72	0.33	"	2.00	ND	86.2	5-112	2.35	30	
Pyrene	0.679	0.33	"	1.00	ND	67.9	52-115	24.2	30	
1,2,4-Trichlorobenzene	0.723	0.33	"	1.00	ND	72.3	44-142	11.4	30	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: Town Center Northwest
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/22/21 13:51

Notes and Definitions

S-07 Surrogate recovery outside of control limits due to coelution with high levels of petroleum hydrocarbons.

S-03 Surrogate diluted out.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

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SIERRA ANALYTICAL

TEL: 949 • 348 • 9389

FAX: 949 • 348 • 9115

26052 Merit Circle • Suite 104 • Laguna Hills, CA • 92653

CHAIN OF CUSTODY RECORD

Date: 7/12/21 Page: 13 of 5

Lab Work Order No.: 2107188

Client: MEARNS CONSULTING CORP
 Client Address: 738 ASHLAND AVE
SANTA MONICA CA 90405

Client Tel. No.: 310 403 1921
 Client Fax. No.:
 Client Proj. Mgr.: SUSAN L MEARNS PHD

Client Project ID: TOWN CENTER NORTHWEST

Turn Around Time Requested:
 Immediate 24 Hour
 48 Hour 72 Hour
 1 Day 5 Day
 Normal Mobile

Analyses Requested

Analyses Requested	T1LC METALS	CR ⁶	C4-C12	8015B	C13-C22	8015B	C23-C40	8015B	VOCs	8260B / 5035B	SVDGs	8270C
SV6-5	X	X	X	X	X	X	X	X	X	X		
SV6-10	X	X	X	X	X	X	X	X	X	X		
SV6-15	X	X	X	X	X	X	X	X	X	X		
SV7-5	X	X	X	X	X	X	X	X	X	X		
SV7-10	X	X	X	X	X	X	X	X	X	X		
SV7-15	X	X	X	X	X	X	X	X	X	X		
SV8-5	X	X	X	X	X	X	X	X	X	X		
SV8-10	X	X	X	X	X	X	X	X	X	X		
SV8-15	X	X	X	X	X	X	X	X	X	X		
SV9-5	X	X	X	X	X	X	X	X	X	X		

Geotracker EDD Info:
 Client LOGCODE:
 Site Global ID:
 Field Point Names / Comments:

Client Sample ID	Sierra No.	Date	Time	Matrix	Preservative	Container Type	No. of Containers
SV6-5	01	7/12/21	0735	SOIL	ICE PRESRV	ACETATE SLN VOA VIALS	1/4
SV6-10	02		0744				
SV6-15	03		0751				
SV7-5	04		0815				
SV7-10	05		0825				
SV7-15	06		0830				
SV8-5	07		0856				
SV8-10	08		0858				
SV8-15	09		0906				
SV9-5	10		0919				

Shipped Via: HAND DELIVERED

Relinquished By: SCOTT FAYAN Date: 7/12/21 Time: 1707

Received By: JFK Date: 7/15/21 Time: 1707

Company: Sierra

Special Instructions:

Total Number of Containers Submitted to Laboratory: _____

Total Number of Containers Received by Laboratory: _____

FOR LABORATORY USE ONLY - Sample Receipt Conditions:

Intact Chilled - Temp (°C) 5.00

Sample Seals Preservatives - Verified By [Signature]

Properly Labelled Other

Appropriate Sample Container Storage Location R5-B4-50a1

Sample Disposal:
 Return to Client
 Lab Disposal *
 Archive ___ mos.
 Other _____



SIERRA ANALYTICAL

TEL: 949 • 348 • 9389

FAX: 949 • 348 • 9115

26052 Merit Circle • Suite 104 • Laguna Hills, CA • 92653

CHAIN OF CUSTODY RECORD

Date: 7 / 13 / 21

Page: 2 of 5

Lab Work Order No.: 2107188

Client: MEARNS CONSULTING Corp
 Client Address: 738 ASHLAND AVE
SANTA MONICA CA 90405

Client Tel. No.: 310 403 1921
 Client Fax. No.:
 Client Proj. Mgr.: SUSAN L MEARNS PHD

Client Project ID:

TOWN CENTER NORTHWEST

Turn Around Time Requested:
 Immediate 24 Hour
 48 Hour 72 Hour
 4 Day 5 Day
 Normal Mobile

Analyses Requested

TTL METALS	CR th	C4-C12	C22	C23-C40	VOCS	SVOCS
6000/7000		8015 B	8015 B	8015 B	8240 PA / 5035P	5270C
X	X	X	X	X	X	X
X	X	X	X	X	X	X
X	X	X	X	X	X	X
X	X	X	X	X	X	X
X	X	X	X	X	X	X
X	X	X	X	X	X	X
X	X	X	X	X	X	X
X	X	X	X	X	X	X
X	X	X	X	X	X	X

Geotracker EDD Info:
 Client LOGCODE
 Site Global ID
 Field Point Names / Comments

Client Sample ID.	Sierra No.	Date	Time	Matrix	Preservative	Container Type	No. of Containers
SV9-10	11	7-13-21	0922	SOIL	ICE PRESRV	ACETATE SW 10A VIALS	1/4
SV9-15	12		0924				
SV10-5	13		0932				
SV10-10	14		0936				
SV10-15	15		0952				
SV11-5	16		1016				
SV11-10	17		1020				
SV11-15	18		1026				
SV12-5	19		1049				
SV12-10	20		1058				

1. Relinquished By: Scott Fagan Date: 7/13/21
 Received By: [Signature] Date: 7/13/21
 Company: 1707 Company: SICOM Time: 1707

2. Relinquished By: _____ Date: _____
 Received By: _____ Date: _____
 Company: _____ Time: _____ Company: _____ Time: _____

3. Relinquished By: _____ Date: _____
 Received By: _____ Date: _____
 Company: _____ Time: _____ Company: _____ Time: _____

Total Number of Containers Submitted to Laboratory: _____

Total Number of Containers Received by Laboratory: _____

Sample Disposal:
 Return to Client
 Lab Disposal
 Archive _____ mos.
 Other _____

Special Instructions:

FOR LABORATORY USE ONLY - Sample Receipt Conditions:
 Intact Chilled - Temp (°C) 50
 Sample Seals Preservatives - Verified By [Signature]
 Properly Labelled Other _____
 Appropriate Sample Container Storage Location (15-Blue Soil)



SIERRA ANALYTICAL

TEL: 949 • 348 • 9389

FAX: 949 • 348 • 9115

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CHAIN OF CUSTODY RECORD

Date: 7/13/21 Page: 3 of 5

Lab Work Order No.: 2107188

Client: MEARNIS CONSULTING Corp
Client Address: 738 ASHLAND AVE
SANTA MONICA CA 90405
Client Tel. No.: 310 403 1921
Client Fax. No.:
Client Proj. Mgr.: SUGAN L MEARNIS PHD

Client Project ID:

TOWN CENTER NORTHWEST

Turn Around Time Requested:
Immediate 24 Hour
48 Hour 72 Hour
1 Day 5 Day
Normal Mobile

Analyses Requested

Table with columns for analyses: TLIC METALS, CR#6, C4-C12, C13-C16, VOLs, G104, G270C. Rows 1-30 with 'X' marks in various columns.

Geotracker EDD Info:

Client LOGCODE

Site Global ID

Field Point Names / Comments

Main table with columns: Client Sample ID, Sierra No., Date, Time, Matrix, Preservative, Container Type, No. of Containers. Rows 1-30.

Signature and Transfer Log section:
1. Relinquished By: Scott Fagan (7/13/21)
2. Relinquished By: Scott Fagan (7/13/21)
3. Relinquished By:
4. Relinquished By:

Sample Disposal and Laboratory Count section:
Total Number of Containers Submitted to Laboratory
Sample Disposal: Return to Client, Lab Disposal, Archive, Other
Total Number of Containers Received by Laboratory

FOR LABORATORY USE ONLY - Sample Receipt Conditions:
Insect, Sample Seals, Properly Labelled, Appropriate Sample Containers
Cooled - Temp (°C), Preservatives - Verified, Other, Storage Location



SIERRA ANALYTICAL

TEL: 949 • 348 • 9389

FAX: 949 • 348 • 9115

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CHAIN OF CUSTODY RECORD

Date: 7 / 13 / 21 Page: 4 of 5

Lab Work Order No.: 2107098

Client: MEARNS CONSULTING CORP
 Client Address: 738 ASHLAND AVE
SANTA MONICA CA 90405

Client Tel. No.: 310 403 1921
 Client Fax. No.:
 Client Proj. Mgr.: SUSAN L MEARNS PHD

Client Project ID:

TOWN CENTER NORTHWEST

Turn Around Time Requested:
 Immediate 24 Hour
 48 Hour 72 Hour
 4 Day 5 Day
 Normal Mobile

Analyses Requested

TLIC METALS	CR+6	C4-C12	C13-C22	C23-C46	VOCS	SVOCs											
X	X	X	X	X	X	X											
X	X	X	X	X	X	X											
X	X	X	X	X	X	X											
X	X	X	X	X	X	X											
X	X	X	X	X	X	X											
X	X	X	X	X	X	X											
X	X	X	X	X	X	X											
X	X	X	X	X	X	X											
X	X	X	X	X	X	X											

Geotracker EDD Info:
 Client LOGCODE
 Site Global ID
 Field Point Names / Comments

Client Sample ID.	Sierra No.	Date	Time	Matrix	Preservative	Container Type	No. of Containers
SV16-5	31	7/13/21	1354	SOIL	ICE PRESV	ACETATE SW VOA VIALS	1/4
SV16-10	32		1357				
SV16-15	33		1400				
SV17-5	34		1444				
SV17-10	35		1448				
SV17-15	36		1453				
SV18-5	37		1519				
SV18-10	38		1525				
SV18-15	39		1529				
SV19-5	40		1549				

1. Shipper Signature: Scott Fagan Shipped Via: HAND DELIVERED
 Company: SUSAN L MEARNS PHD (Carrier/Waybill No.)
 2. Relinquished By: Scott Fagan Date: 7/13/21 Received By: [Signature] Date: 7/13/21
 Company: [Signature] Time: 1707 Company: SIERRA Time: 1707

Total Number of Containers Submitted to Laboratory
 Total Number of Containers Received by Laboratory

Sample Disposal:
 Return to Client
 Lab Disposal
 Archive mos.
 Other _____

Special Instructions:

FOR LABORATORY USE ONLY - Sample Receipt Conditions:
 Intact Chilled / Temp (°C)
 Sample Seals Preservatives - Verified By: [Signature]
 Properly Labelled Other _____
 Appropriate Sample Container Storage Location



SIERRA ANALYTICAL

TEL: 949 • 348 • 9389

FAX: 949 • 348 • 9115

26052 Merit Circle • Suite 104 • Laguna Hills, CA • 92653

CHAIN OF CUSTODY RECORD

Date: 7/13/21

Page: 5 of 5

Lab Work Order No.:

2107188

Client: MEARNS CONSULTING CORP

Client Project ID:

Client Address: 738 ASHLAND AVE

SANTA MONICA CA 90405

TOWN CENTER NORTH WEST

Analyses Requested

Client Tel. No.: 310 403 1921

Client Fax. No.:

Client Proj. Mgr.: SANSAN L MEARNS PHD

Turn Around Time Requested:
Immediate 24 Hour
48 Hour 72 Hour
4 Day 5 Day
Normal Mobile

Geotracker EDD Info:

Client LOGCODE

Site Global ID

Field Point Names / Comments

Table with columns: Client Sample ID, Sierra No., Date, Time, Matrix, Preservative, Container Type, No. of Containers, and various analysis codes (TLC, CR, C1-C12, C13-C24, C23-C40, Vol, S1004, S270C).

Handwritten signatures and stamps for Sample Received, Relinquished, and Company information.

Form sections for Total Number of Containers Submitted to Laboratory, Sample Disposal, and Total Number of Containers Received by Laboratory.

Special Instructions section.

FOR LABORATORY USE ONLY - Sample Receipt Conditions:
Intact, Sample Seal, Properly Labelled, Appropriate Sample Container, Chilled - Temp (C) 50, Preservatives - Verified By, Other, Storage Location.

APPENDIX B

**Sierra Analytical Labs
Background Soil Matrix Data
April 4, 2005 and July 6, 2021**



Mearns Consulting Corporation
738 Ashland Avenue
Santa Monica CA, 90405

Project: City of Signal Hill
Project Number: Las Brisas
Project Manager: Susan Mearns

Reported:
04/12/05 14:01

Metals by EPA 6000/7000 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Offsite-1 (0504072-33) Soil Sampled: 04/04/05 13:20 Received: 04/04/05 14:15										
Silver	ND	0.80		mg/kg	1	B5D0709	04/07/05	04/11/05	EPA 6010B	
Arsenic	5.2	1.7		"	"	"	"	"	"	
Barium	97	3.3		"	"	"	"	"	"	
Beryllium	ND	0.75		"	"	"	"	"	"	
Cadmium	ND	0.51		"	"	"	"	"	"	
Cobalt	8.1	2.2		"	"	"	"	"	"	
Chromium	21	0.98		"	"	"	"	"	"	
Copper	25	2.2		"	"	"	"	"	"	
Mercury	ND	0.16		"	"	B5D0711	04/07/05	04/08/05	EPA 7471A	
Molybdenum	ND	1.7		"	"	B5D0709	04/07/05	04/11/05	EPA 6010B	
Nickel	12	0.79		"	"	"	"	"	"	
Lead	12	1.3		"	"	"	"	"	"	
Antimony	ND	1.6		"	"	"	"	"	"	
Selenium	ND	1.9		"	"	"	"	"	"	
Thallium	ND	1.5		"	"	"	"	"	"	
Vanadium	35	0.73		"	"	"	"	"	"	
Zinc	62	1.3		"	"	"	"	"	"	
Offsite-5 (0504072-34) Soil Sampled: 04/04/05 13:25 Received: 04/04/05 14:15										
Silver	ND	0.80		mg/kg	1	B5D0709	04/07/05	04/11/05	EPA 6010B	
Arsenic	12	1.7		"	"	"	"	"	"	
Barium	160	3.3		"	"	"	"	"	"	
Beryllium	1.1	0.75		"	"	"	"	"	"	
Cadmium	ND	0.51		"	"	"	"	"	"	
Cobalt	17	2.2		"	"	"	"	"	"	
Chromium	50	0.98		"	"	"	"	"	"	
Copper	64	2.2		"	"	"	"	"	"	
Mercury	ND	0.18		"	"	B5D0711	04/07/05	04/08/05	EPA 7471A	
Molybdenum	ND	1.7		"	"	B5D0709	04/07/05	04/11/05	EPA 6010B	
Nickel	30	0.79		"	"	"	"	"	"	
Lead	8.1	1.3		"	"	"	"	"	"	
Antimony	2.3	1.6		"	"	"	"	"	"	
Selenium	ND	1.9		"	"	"	"	"	"	
Thallium	ND	1.5		"	"	"	"	"	"	
Vanadium	75	0.73		"	"	"	"	"	"	
Zinc	99	1.3		"	"	"	"	"	"	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Mearns Consulting Corporation
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: City of Signal Hill
 Project Number: Las Brisas
 Project Manager: Susan Mearns

Reported:
 04/12/05 14:01

Metals by EPA 6000/7000 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Offsite-10 (0504072-35) Soil Sampled: 04/04/05 13:29 Received: 04/04/05 14:15										
Silver	ND	0.80		mg/kg	1	B5D0709	04/07/05	04/11/05	EPA 6010B	
Arsenic	12	1.7		"	"	"	"	"	"	"
Barium	170	3.3		"	"	"	"	"	"	"
Beryllium	ND	0.75		"	"	"	"	"	"	"
Cadmium	ND	0.51		"	"	"	"	"	"	"
Cobalt	14	2.2		"	"	"	"	"	"	"
Chromium	32	0.98		"	"	"	"	"	"	"
Copper	35	2.2		"	"	"	"	"	"	"
Mercury	ND	0.18		"	"	B5D0711	04/07/05	04/08/05	EPA 7471A	
Molybdenum	ND	1.7		"	"	B5D0709	04/07/05	04/11/05	EPA 6010B	
Nickel	22	0.79		"	"	"	"	"	"	"
Lead	5.6	1.3		"	"	"	"	"	"	"
Antimony	ND	1.6		"	"	"	"	"	"	"
Selenium	ND	1.9		"	"	"	"	"	"	"
Thallium	ND	1.5		"	"	"	"	"	"	"
Vanadium	58	0.73		"	"	"	"	"	"	"
Zinc	67	1.3		"	"	"	"	"	"	"

Offsite-20 (0504072-36) Soil Sampled: 04/04/05 13:36 Received: 04/04/05 14:15										
Silver	ND	0.80		mg/kg	1	B5D0709	04/07/05	04/11/05	EPA 6010B	
Arsenic	14	1.7		"	"	"	"	"	"	"
Barium	73	3.3		"	"	"	"	"	"	"
Beryllium	0.95	0.75		"	"	"	"	"	"	"
Cadmium	ND	0.51		"	"	"	"	"	"	"
Cobalt	17	2.2		"	"	"	"	"	"	"
Chromium	35	0.98		"	"	"	"	"	"	"
Copper	80	2.2		"	"	"	"	"	"	"
Mercury	ND	0.15		"	"	B5D0711	04/07/05	04/08/05	EPA 7471A	
Molybdenum	ND	1.7		"	"	B5D0709	04/07/05	04/11/05	EPA 6010B	
Nickel	22	0.79		"	"	"	"	"	"	"
Lead	10	1.3		"	"	"	"	"	"	"
Antimony	ND	1.6		"	"	"	"	"	"	"
Selenium	ND	1.9		"	"	"	"	"	"	"
Thallium	ND	1.5		"	"	"	"	"	"	"
Vanadium	67	0.73		"	"	"	"	"	"	"
Zinc	95	1.3		"	"	"	"	"	"	"

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13 July 2021

Susan Mearns
Mearns Consulting LLC
738 Ashland Avenue
Santa Monica, CA 90405

RE:1905 E 21st St. - Spud Field

Work Order No.: 2107058

Attached are the results of the analyses for samples received by the laboratory on 07/06/21 14:35.

The samples were received by Sierra Analytical Labs, Inc. with a chain of custody record attached or completed at the submittal of the samples.

The analyses were performed according to the prescribed method as outlined by EPA, Standard Methods, and A.S.T.M.

The remaining portions of the samples will be disposed of within 30 days from the date of this report.
If you require any additional retaining time, please advise us.

Sincerely,

Richard K. Forsyth

Laboratory Director

Sierra Analytical Labs, Inc. is certified by the California Department of Health Services (DOHS),
Environmental Laboratory Accreditation Program (ELAP) No. 2320.



Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: 1905 E 21st St. - Spud Field
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/13/21 12:23

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB1-5	2107058-01	Soil	07/06/21 07:40	07/06/21 14:35
SB2-5	2107058-02	Soil	07/06/21 07:51	07/06/21 14:35
SB3-5	2107058-03	Soil	07/06/21 08:01	07/06/21 14:35
SB4-5	2107058-04	Soil	07/06/21 08:08	07/06/21 14:35
SB5-5	2107058-05	Soil	07/06/21 08:16	07/06/21 14:35
SB6-5	2107058-06	Soil	07/06/21 08:23	07/06/21 14:35
SB7-5	2107058-07	Soil	07/06/21 08:31	07/06/21 14:35
SB8-5	2107058-08	Soil	07/06/21 08:38	07/06/21 14:35
SB9-5	2107058-09	Soil	07/06/21 08:47	07/06/21 14:35
SB10-5	2107058-10	Soil	07/06/21 08:58	07/06/21 14:35
SB11-5	2107058-11	Soil	07/06/21 09:10	07/06/21 14:35

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: 1905 E 21st St. - Spud Field
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/13/21 12:23

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SB1-5 (2107058-01) Soil Sampled: 07/06/21 07:40 Received: 07/06/21 14:35

Silver	ND	2.0	mg/kg	1	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	84	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	11	3.3	"	"	"	"	"	"	
Chromium	36	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G0711	07/07/21	07/09/21 12:47	EPA 7199A	
Copper	40	5.0	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Mercury	ND	0.90	"	"	B1G0613	07/06/21	07/06/21 20:35	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Nickel	21	3.0	"	"	"	"	"	"	
Lead	8.8	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	46	5.1	"	"	"	"	"	"	
Zinc	54	7.0	"	"	"	"	"	"	

SB2-5 (2107058-02) Soil Sampled: 07/06/21 07:51 Received: 07/06/21 14:35

Silver	ND	2.0	mg/kg	1	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	69	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	9.3	3.3	"	"	"	"	"	"	
Chromium	21	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G0711	07/07/21	07/09/21 12:47	EPA 7199A	
Copper	26	5.0	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Mercury	ND	0.90	"	"	B1G0613	07/06/21	07/06/21 20:35	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Nickel	15	3.0	"	"	"	"	"	"	
Lead	ND	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	36	5.1	"	"	"	"	"	"	
Zinc	39	7.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: 1905 E 21st St. - Spud Field
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/13/21 12:23

Metals by EPA 6000/7000 Series Methods
Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
SB3-5 (2107058-03) Soil Sampled: 07/06/21 08:01 Received: 07/06/21 14:35										
Silver	ND	2.0	mg/kg	1	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	48	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	4.6	3.3	"	"	"	"	"	"		
Chromium	9.0	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G0711	07/07/21	07/09/21 12:47	EPA 7199A		
Copper	16	5.0	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B		
Mercury	ND	0.90	"	"	B1G0613	07/06/21	07/06/21 20:35	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B		
Nickel	6.2	3.0	"	"	"	"	"	"		
Lead	ND	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	16	5.1	"	"	"	"	"	"		
Zinc	29	7.0	"	"	"	"	"	"		
SB4-5 (2107058-04) Soil Sampled: 07/06/21 08:08 Received: 07/06/21 14:35										
Silver	ND	2.0	mg/kg	1	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	170	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	14	3.3	"	"	"	"	"	"		
Chromium	42	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G0711	07/07/21	07/09/21 12:47	EPA 7199A		
Copper	45	5.0	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B		
Mercury	ND	0.90	"	"	B1G0613	07/06/21	07/06/21 20:35	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B		
Nickel	26	3.0	"	"	"	"	"	"		
Lead	9.5	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	58	5.1	"	"	"	"	"	"		
Zinc	74	7.0	"	"	"	"	"	"		

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: 1905 E 21st St. - Spud Field
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/13/21 12:23

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SB5-5 (2107058-05) Soil Sampled: 07/06/21 08:16 Received: 07/06/21 14:35

Silver	ND	2.0	mg/kg	1	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	97	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	16	3.3	"	"	"	"	"	"	
Chromium	30	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G0711	07/07/21	07/09/21 12:47	EPA 7199A	
Copper	40	5.0	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Mercury	ND	0.90	"	"	B1G0613	07/06/21	07/06/21 20:35	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Nickel	27	3.0	"	"	"	"	"	"	
Lead	8.5	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	52	5.1	"	"	"	"	"	"	
Zinc	56	7.0	"	"	"	"	"	"	

SB6-5 (2107058-06) Soil Sampled: 07/06/21 08:23 Received: 07/06/21 14:35

Silver	ND	2.0	mg/kg	1	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	130	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	22	3.3	"	"	"	"	"	"	
Chromium	42	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G0711	07/07/21	07/09/21 12:47	EPA 7199A	
Copper	46	5.0	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Mercury	ND	0.90	"	"	B1G0613	07/06/21	07/06/21 20:35	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Nickel	33	3.0	"	"	"	"	"	"	
Lead	11	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	71	5.1	"	"	"	"	"	"	
Zinc	85	7.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: 1905 E 21st St. - Spud Field
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/13/21 12:23

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes	
		Limit	Units							
SB7-5 (2107058-07) Soil Sampled: 07/06/21 08:31 Received: 07/06/21 14:35										
Silver	ND	2.0	mg/kg	1	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B		
Arsenic	ND	5.5	"	"	"	"	"	"		
Barium	80	6.0	"	"	"	"	"	"		
Beryllium	ND	2.2	"	"	"	"	"	"		
Cadmium	ND	2.5	"	"	"	"	"	"		
Cobalt	12	3.3	"	"	"	"	"	"		
Chromium	24	2.3	"	"	"	"	"	"		
Hexavalent Chromium	ND	0.10	"	"	B1G0711	07/07/21	07/09/21 12:47	EPA 7199A		
Copper	26	5.0	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B		
Mercury	ND	0.90	"	"	B1G0613	07/06/21	07/06/21 20:35	EPA 7471A		
Molybdenum	ND	5.2	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B		
Nickel	19	3.0	"	"	"	"	"	"		
Lead	ND	7.1	"	"	"	"	"	"		
Antimony	ND	8.0	"	"	"	"	"	"		
Selenium	ND	6.9	"	"	"	"	"	"		
Thallium	ND	17	"	"	"	"	"	"		
Vanadium	43	5.1	"	"	"	"	"	"		
Zinc	47	7.0	"	"	"	"	"	"		

SB8-5 (2107058-08) Soil Sampled: 07/06/21 08:38 Received: 07/06/21 14:35

Silver	ND	2.0	mg/kg	1	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	180	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	17	3.3	"	"	"	"	"	"	
Chromium	38	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G0711	07/07/21	07/09/21 12:47	EPA 7199A	
Copper	37	5.0	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Mercury	ND	0.90	"	"	B1G0613	07/06/21	07/06/21 20:35	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Nickel	32	3.0	"	"	"	"	"	"	
Lead	11	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	68	5.1	"	"	"	"	"	"	
Zinc	51	7.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: 1905 E 21st St. - Spud Field
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/13/21 12:23

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						

SB9-5 (2107058-09) Soil Sampled: 07/06/21 08:47 Received: 07/06/21 14:35

Silver	ND	2.0	mg/kg	1	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	87	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	14	3.3	"	"	"	"	"	"	
Chromium	30	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G0711	07/07/21	07/09/21 12:47	EPA 7199A	
Copper	28	5.0	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Mercury	ND	0.90	"	"	B1G0613	07/06/21	07/06/21 20:35	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Nickel	24	3.0	"	"	"	"	"	"	
Lead	9.0	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	54	5.1	"	"	"	"	"	"	
Zinc	38	7.0	"	"	"	"	"	"	

SB10-5 (2107058-10) Soil Sampled: 07/06/21 08:58 Received: 07/06/21 14:35

Silver	ND	2.0	mg/kg	1	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Arsenic	ND	5.5	"	"	"	"	"	"	
Barium	98	6.0	"	"	"	"	"	"	
Beryllium	ND	2.2	"	"	"	"	"	"	
Cadmium	ND	2.5	"	"	"	"	"	"	
Cobalt	13	3.3	"	"	"	"	"	"	
Chromium	27	2.3	"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10	"	"	B1G0711	07/07/21	07/09/21 12:47	EPA 7199A	
Copper	30	5.0	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Mercury	ND	0.90	"	"	B1G0613	07/06/21	07/06/21 20:35	EPA 7471A	
Molybdenum	ND	5.2	"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Nickel	23	3.0	"	"	"	"	"	"	
Lead	7.5	7.1	"	"	"	"	"	"	
Antimony	ND	8.0	"	"	"	"	"	"	
Selenium	ND	6.9	"	"	"	"	"	"	
Thallium	ND	17	"	"	"	"	"	"	
Vanadium	51	5.1	"	"	"	"	"	"	
Zinc	39	7.0	"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: 1905 E 21st St. - Spud Field
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/13/21 12:23

Metals by EPA 6000/7000 Series Methods

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
SB11-5 (2107058-11) Soil Sampled: 07/06/21 09:10 Received: 07/06/21 14:35										
Silver	ND	2.0		mg/kg	1	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Arsenic	ND	5.5		"	"	"	"	"	"	
Barium	120	6.0		"	"	"	"	"	"	
Beryllium	ND	2.2		"	"	"	"	"	"	
Cadmium	ND	2.5		"	"	"	"	"	"	
Cobalt	9.8	3.3		"	"	"	"	"	"	
Chromium	22	2.3		"	"	"	"	"	"	
Hexavalent Chromium	ND	0.10		"	"	B1G0711	07/07/21	07/09/21 12:47	EPA 7199A	
Copper	14	5.0		"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Mercury	ND	0.90		"	"	B1G0613	07/06/21	07/06/21 20:35	EPA 7471A	
Molybdenum	ND	5.2		"	"	B1G0611	07/06/21	07/07/21 13:55	EPA 6010B	
Nickel	16	3.0		"	"	"	"	"	"	
Lead	ND	7.1		"	"	"	"	"	"	
Antimony	ND	8.0		"	"	"	"	"	"	
Selenium	ND	6.9		"	"	"	"	"	"	
Thallium	ND	17		"	"	"	"	"	"	
Vanadium	39	5.1		"	"	"	"	"	"	
Zinc	31	7.0		"	"	"	"	"	"	

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: 1905 E 21st St. - Spud Field
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/13/21 12:23

Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G0611 - EPA 3050B

Blank (B1G0611-BLK1)

Prepared: 07/06/21 Analyzed: 07/07/21

Antimony	ND	8.0	mg/kg							
Selenium	ND	6.9	"							
Cadmium	ND	2.5	"							
Vanadium	ND	5.1	"							
Chromium	ND	2.3	"							
Cobalt	ND	3.3	"							
Zinc	ND	7.0	"							
Thallium	ND	17	"							
Copper	ND	5.0	"							
Barium	ND	6.0	"							
Lead	ND	7.1	"							
Arsenic	ND	5.5	"							
Molybdenum	ND	5.2	"							
Nickel	ND	3.0	"							
Silver	ND	2.0	"							
Beryllium	ND	2.2	"							

LCS (B1G0611-BS1)

Prepared: 07/06/21 Analyzed: 07/07/21

Copper	107	5.0	mg/kg	100		107	78-122			
Lead	112	7.1	"	100		112	80-120			
Antimony	103	8.0	"	100		103	75-125			
Chromium	111	2.3	"	100		111	80-120			
Selenium	105	6.9	"	100		105	76-124			
Cobalt	119	3.3	"	100		119	80-120			
Beryllium	107	2.2	"	100		107	80-120			
Silver	106	2.0	"	100		106	60-140			
Arsenic	105	5.5	"	100		105	78-122			
Barium	112	6.0	"	100		112	80-120			
Zinc	110	7.0	"	100		110	80-120			
Nickel	119	3.0	"	100		119	80-120			
Vanadium	107	5.1	"	100		107	80-120			
Cadmium	103	2.5	"	100		103	80-120			
Molybdenum	108	5.2	"	100		108	80-120			
Thallium	114	17	"	100		114	80-120			

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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: 1905 E 21st St. - Spud Field
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/13/21 12:23

Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G0611 - EPA 3050B

LCS Dup (B1G0611-BSD1)

Prepared: 07/06/21 Analyzed: 07/07/21

Beryllium	105	2.2	mg/kg	100	105	80-120	1.49	20	
Chromium	106	2.3	"	100	106	80-120	4.14	20	
Cadmium	97.5	2.5	"	100	97.5	80-120	5.78	20	
Copper	112	5.0	"	100	112	78-122	4.64	20	
Arsenic	101	5.5	"	100	101	78-122	3.70	20	
Cobalt	116	3.3	"	100	116	80-120	2.58	20	
Silver	108	2.0	"	100	108	60-140	1.96	40	
Molybdenum	105	5.2	"	100	105	80-120	3.50	20	
Barium	109	6.0	"	100	109	80-120	2.55	20	
Vanadium	105	5.1	"	100	105	80-120	1.32	20	
Selenium	100	6.9	"	100	100	76-124	4.29	20	
Antimony	112	8.0	"	100	112	75-125	8.57	20	
Nickel	115	3.0	"	100	115	80-120	3.21	20	
Lead	115	7.1	"	100	115	80-120	3.08	20	
Thallium	107	17	"	100	107	80-120	6.02	20	
Zinc	109	7.0	"	100	109	80-120	1.23	20	

Matrix Spike (B1G0611-MS1)

Source: 2107028-01

Prepared: 07/06/21 Analyzed: 07/07/21

Vanadium	126	5.1	mg/kg	96.8	32.6	96.9	70-130		
Barium	192	6.0	"	96.8	83.1	113	70-130		
Cobalt	102	3.3	"	96.8	7.94	97.4	70-130		
Molybdenum	82.1	5.2	"	96.8	0.635	84.2	70-130		
Cadmium	84.1	2.5	"	96.8	1.03	85.8	70-130		
Zinc	132	7.0	"	96.8	46.6	88.5	70-130		
Arsenic	86.3	5.5	"	96.8	ND	89.2	70-130		
Selenium	86.0	6.9	"	96.8	1.66	87.2	70-130		
Silver	99.9	2.0	"	96.8	0.269	103	60-140		
Beryllium	88.1	2.2	"	96.8	0.220	91.1	70-130		
Antimony	94.6	8.0	"	96.8	5.77	91.8	60-140		
Chromium	109	2.3	"	96.8	17.4	94.5	70-130		
Nickel	110	3.0	"	96.8	15.2	97.7	70-130		
Thallium	85.0	17	"	96.8	ND	87.8	70-130		
Lead	129	7.1	"	96.8	22.8	109	70-130		
Copper	135	5.0	"	96.8	25.5	113	70-130		

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 738 Ashland Avenue
 Santa Monica CA, 90405

Project: 1905 E 21st St. - Spud Field
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/13/21 12:23

Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G0611 - EPA 3050B

Matrix Spike Dup (B1G0611-MSD1)

Source: 2107028-01

Prepared: 07/06/21 Analyzed: 07/07/21

Barium	193	6.0	mg/kg	96.7	83.1	114	70-130	0.455	20	
Molybdenum	82.3	5.2	"	96.7	0.635	84.4	70-130	0.168	20	
Silver	98.4	2.0	"	96.7	0.269	101	60-140	1.49	40	
Arsenic	87.1	5.5	"	96.7	ND	90.0	70-130	0.880	20	
Zinc	148	7.0	"	96.7	46.6	105	70-130	11.0	20	
Nickel	107	3.0	"	96.7	15.2	95.2	70-130	2.37	20	
Cobalt	103	3.3	"	96.7	7.94	98.1	70-130	0.588	20	
Copper	136	5.0	"	96.7	25.5	115	70-130	1.31	30	
Beryllium	87.0	2.2	"	96.7	0.220	90.0	70-130	1.31	20	
Thallium	85.1	17	"	96.7	ND	88.0	70-130	0.102	20	
Lead	127	7.1	"	96.7	22.8	108	70-130	1.16	30	
Chromium	110	2.3	"	96.7	17.4	95.8	70-130	1.07	20	
Cadmium	86.2	2.5	"	96.7	1.03	88.1	70-130	2.52	20	
Vanadium	124	5.1	"	96.7	32.6	94.2	70-130	2.17	20	
Antimony	91.9	8.0	"	96.7	5.77	89.1	60-140	2.90	20	
Selenium	87.0	6.9	"	96.7	1.66	88.3	70-130	1.16	20	

Batch B1G0613 - EPA 7471A

Blank (B1G0613-BLK1)

Prepared & Analyzed: 07/06/21

Mercury	ND	0.90	mg/kg							
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LCS (B1G0613-BS1)

Prepared & Analyzed: 07/06/21

Mercury	0.20	0.90	mg/kg	0.167		118	70-130			
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Matrix Spike (B1G0613-MS1)

Source: 2107028-01

Prepared & Analyzed: 07/06/21

Mercury	0.24	0.90	mg/kg	0.163	0.09	90.8	70-130			
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Mearns Consulting LLC
 738 Ashland Avenue
 Santa Monica CA, 90405

Project: 1905 E 21st St. - Spud Field
 Project Number: [none]
 Project Manager: Susan Mearns

Reported:
 07/13/21 12:23

Metals by EPA 6000/7000 Series Methods - Quality Control

Sierra Analytical Labs, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B1G0613 - EPA 7471A

Matrix Spike Dup (B1G0613-MSD1)		Source: 2107028-01			Prepared & Analyzed: 07/06/21					
Mercury	0.24	0.90	mg/kg	0.162	0.09	89.1	70-130	1.57	30	

Batch B1G0711 - EPA 3060A

Blank (B1G0711-BLK1)		Prepared: 07/07/21 Analyzed: 07/09/21								
Hexavalent Chromium	ND	0.10	mg/kg							

LCS (B1G0711-BS1)		Prepared: 07/07/21 Analyzed: 07/09/21								
Hexavalent Chromium	0.158	0.10	mg/kg	0.150		105	80-120			

Matrix Spike (B1G0711-MS1)		Source: 2107058-01			Prepared: 07/07/21 Analyzed: 07/09/21					
Hexavalent Chromium	0.175	0.10	mg/kg	0.149	0.0273	99.1	75-125			

Matrix Spike Dup (B1G0711-MSD1)		Source: 2107058-01			Prepared: 07/07/21 Analyzed: 07/09/21					
Hexavalent Chromium	0.183	0.10	mg/kg	0.150	0.0273	104	75-125	4.44	20	

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Mearns Consulting LLC
738 Ashland Avenue
Santa Monica CA, 90405

Project: 1905 E 21st St. - Spud Field
Project Number: [none]
Project Manager: Susan Mearns

Reported:
07/13/21 12:23

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

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SIERRA ANALYTICAL

TEL: 949 • 348 • 9389

FAX: 949 • 348 • 9115

26052 Merit Circle • Suite 104 • Laguna Hills, CA • 92653

CHAIN OF CUSTODY RECORD

Date: 7 / 6 / 21

Page: 1 of 2

Lab Work Order No.:

2107058

Client: MEARNS CONSULTING CORP
 Client Address: 738 ASHLAND AVE
SANTA MONICA CA 90405
 Client Tel. No.: 310 403 1921
 Client Fax. No.: 310 396 6878
 Client Proj. Mgr.: SUSAN L MEARNS PHD

Client Project ID:

1905 E 21st St. SPUD FIELD

Turn Around Time Requested:
 Immediate 24 Hour
 48 Hour 72 Hour
 4 Day 5 Day
 Normal Mobile

Analyses Requested

Geotracker EDD Info:

Client LOGCODE

Site Global ID

Field Point Names / Comments

Client Sample ID.	Sierra No.	Date	Time	Matrix	Preservative	Container Type	No. of Containers	TLC	Cr 16	Metals	6000	7000
SB1-5	01	7.6.21	0740	SOIL	ICE	ACETATE SW	1	X	X			
SB2-5	02		0751					X	X			
SB3-5	03		0801					X	X			
SB4-5	04		0808					X	X			
SB5-5	05		0816					X	X			
SB6-5	06		0823					X	X			
SB7-5	07		0831					X	X			
SB8-5	08		0838					X	X			
SB9-5	09		0847					X	X			
SB10-5	10		0858					X	X			

1 Shipped Via: HAND DELIVERED
 Signature: Scott Fagan
 Private Label: SUSAN L MEARNS PHD
 Requisitioned By: Scott Fagan
 Date: 7/6/21
 Time: 2:35
 Received By: [Signature]
 Date: 7/6/21
 Time: 1435

Total Number of Containers Submitted to Laboratory: 11

Sample Disposal:

- Return to Client
- Lab Disposal *
- Archive max
- Other

2 Requisitioned By: [Signature]
 Date: 7/6/21
 Time: 2:35
 Received By: [Signature]
 Date: 7/6/21
 Time: 1435
 Company: [Signature]
 Special Instructions: COLLECTED VIA GDS PROBE 5410 5' bgs

Total Number of Containers Received by Laboratory: 11

FOR LABORATORY USE ONLY - Sample Receipt Conditions:

- Intact
- Chilled - Temp (°C): 5°C
- Sample Seals
- Preservative - Verified By:
- Properly Labelled
- Other:
- Appropriate Sample Container
- Storage Location: B2



SIERRA ANALYTICAL

TEL: 949 • 348 • 9389
FAX: 949 • 348 • 9115

26052 Merit Circle • Suite 104 • Laguna Hills, CA • 92653

CHAIN OF CUSTODY RECORD

Date: 7 / 6 / 21

Page: 2 of 2

Lab Work Order No.:

2107053

Client: MEARNS CONSULTING CORP
Client Address: 738 ASHLAND AVE
SANTA MONICA CA 90405
Client Tel. No.: 310 403 1921
Client Fax. No.: 310 396 6878
Client Proj. Mgr.: SUSAN L MEARNS PHD

Client Project ID:

1905 E 21st St. - Spud Field

Turn Around Time Requested:
 Immediate 24 Hour
 48 Hour 72 Hour
 4 Day 5 Day
 Normal Mobile

Analyses Requested

Analyses Requested	Requested	Received	Released	Returned	Other
TILC METALS	X	X			
6000 / 7000					
Cr to					

Geotracker EDD Info:
Client LOGCODE
Site Global ID
Field Point Names / Comments

Client Sample ID.	Sierra No.	Date	Time	Matrix	Preservative	Container Type	No. of Containers
SB11-5	11	7-6-21	0910	SOIL	ICE	ACETATE SLX	1

Total Number of Containers Submitted to Laboratory
11

Total Number of Containers Received by Laboratory
11

Sample Disposal:
 Return to Client
 Lab Disposal
 Archive ___ mos.
 Other ___

1. Sample Signature: Scott Fagan Shipped Via: HAND DELIVERED
2. Requisition By: Scott Fagan Date: 7/6/21 Received By: [Signature] Date: 7/6/21
Company: Sierra Time: 14:35
3. Relinquished By: _____ Date: _____ Received By: _____ Date: _____
Company: _____ Time: _____ Company: _____ Time: _____
4. Relinquished By: _____ Date: _____ Received By: _____ Date: _____
Company: _____ Time: _____ Company: _____ Time: _____

FOR LABORATORY USE ONLY - Sample Receipt Conditions:
 Intact Chilled - Temp (°C) 5°C
 Sample Seal Preservative - Verified By: _____
 Properly Labelled Other _____
 Appropriate Sample Container Storage Location B2

Special Instructions: _____

APPENDIX C

**Jones Environmental Labs, Inc.
July 27 and 28, 2021
Soil Vapor Data**



714-449-9937
562-646-1611

11007 FOREST PLACE
SANTA FE SPRINGS, CA 90670
WWW.JONESENV.COM

JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Mearns Consulting Group
Client Address: 738 Ashland Avenue,
Santa Monica CA 90405

Report date: 7/27/2021
Jones Ref. No.: E-1172

Attn: Susan L Mearns PhD

Date Sampled: 7/27/2021

Date Received: 7/27/2021

Project: Town Center Northwest
Project Address: 2690 Walnut Ave
Signal Hill, CA

Date Analyzed: 7/27/2021

Physical State: Soil Gas

ANALYSES REQUESTED

1. EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sampling – Soil Gas samples were collected in glass gas-tight syringes equipped with Teflon plungers.

A tracer gas mixture of n-pentane, n-hexane, and n-heptane was placed at the tubing-surface interface before sampling. These compounds were analyzed during the 8260B analytical run to determine if there were surface leaks into the subsurface due to improper installation of the probe. No tracer was detected in any of the samples reported herein.

The sampling rate was approximately 200 cc/min, except when noted differently on the chain of custody record, using a glass gas-tight syringe. Purging was completed using a pump set at approximately 200 cc/min, except when noted differently on the chain of custody record. A default of 3 purge volumes was used as recommended by July 2015 DTSC/RWQCB guidance documents.

Prior to purging and sampling of soil gas at each point, a shut-in test was conducted to check for leaks in the above ground fittings. The shut-in test was performed on the above ground apparatus by evacuating the line to a vacuum of 100 inches of water, sealing the entire system and watching the vacuum for at least one minute. A vacuum gauge attached in parallel to the apparatus measured the vacuum. If there was any observable loss of vacuum, the fittings were adjusted as needed until the vacuum did not change noticeably. The soil gas sample was then taken.

No flow conditions occur when a sampling rate greater than 10 mL/min cannot be maintained without applying a vacuum greater than 100 inches of water to the sampling train. The sampling train is left at a vacuum for no less than three minutes. If the vacuum does not subside appreciably after three minutes, the sample location is determined to be a no flow sample.

Analytical – Soil Gas samples were analyzed using EPA Method 8260 that includes extra compounds required by DTSC/RWQCB (such as Freon 113). Instrument Continuing Calibration Verification, QC Reference Standards, Instrument Blanks and Sampling Blanks were analyzed every 12 hours as prescribed by the method. In addition, a Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) were analyzed with each batch of Soil Gas samples. A duplicate/replicate sample was analyzed each day of the sampling activity. All samples were injected into the GC/MS system within 30 minutes of collection.

Approval: _____

Annalise O'Toole
Mobile Lab Manager



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562-646-1611

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Attn: Susan L Mearns PhD

Date Sampled: 7/27/2021
Date Received: 7/27/2021

Project: Town Center Northwest
Project Address: 2690 Walnut Ave
Signal Hill, CA

Date Analyzed: 7/27/2021
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SV1-5'	SV1-15'	SV2-5'	SV2-15'	SV2-15' REP		
<u>Jones ID:</u>	E-1172-01	E-1172-02	E-1172-03	E-1172-04	E-1172-05	<u>Reporting Limit</u>	<u>Units</u>
Analytes:							
Benzene	ND	13	ND	ND	ND	8	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	8	µg/m3
Bromoform	ND	ND	ND	ND	ND	8	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
Chloroform	ND	ND	ND	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	12	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	12	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	8	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	32	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	16	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	10	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SV1-5'	SV1-15'	SV2-5'	SV2-15'	SV2-15' REP		
<u>Jones ID:</u>	E-1172-01	E-1172-02	E-1172-03	E-1172-04	E-1172-05	<u>Reporting Limit</u>	<u>Units</u>
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Freon 113	ND	ND	ND	ND	ND	16	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	24	µg/m3
Isopropylbenzene	ND	57	ND	ND	ND	8	µg/m3
4-Isopropyltoluene	ND	321	ND	ND	ND	8	µg/m3
Methylene chloride	ND	20	ND	17	26	8	µg/m3
Naphthalene	ND	ND	ND	ND	ND	40	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Styrene	ND	ND	ND	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	16	µg/m3
Tetrachloroethene	ND	ND	ND	ND	ND	8	µg/m3
Toluene	ND	16	ND	ND	ND	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	32	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	8	µg/m3
m,p-Xylene	ND	ND	ND	ND	ND	16	µg/m3
o-Xylene	ND	ND	ND	ND	ND	8	µg/m3
MTBE	ND	ND	ND	ND	ND	40	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	40	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	40	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	25000	ND	ND	ND	2000	µg/m3
Tracer:							
n-Pentane	ND	ND	ND	ND	ND	80	µg/m3
n-Hexane	ND	ND	ND	ND	ND	80	µg/m3
n-Heptane	ND	ND	ND	ND	ND	80	µg/m3
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						QC Limits	
Dibromofluoromethane	104%	101%	102%	101%	100%	60 - 140	
Toluene-d8	94%	95%	94%	92%	93%	60 - 140	
4-Bromofluorobenzene	94%	97%	94%	92%	92%	60 - 140	
Batch ID:	E3-072721-01	E3-072721-01	E3-072721-01	E3-072721-01	E3-072721-01		

ND = Value below reporting limit



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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Mearns Consulting Group
Client Address: 738 Ashland Avenue,
Santa Monica CA 90405

Report date: 7/27/2021
Jones Ref. No.: E-1172

Attn: Susan L Mearns PhD
Project: Town Center Northwest
Project Address: 2690 Walnut Ave
Signal Hill, CA

Date Sampled: 7/27/2021
Date Received: 7/27/2021
Date Analyzed: 7/27/2021
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SV3-5'	SV3-15'	SV4-5'	SV4-15'	SV5-5'		
<u>Jones ID:</u>	E-1172-06	E-1172-07	E-1172-08	E-1172-09	E-1172-10	<u>Reporting Limit</u>	<u>Units</u>
Analytes:							
Benzene	ND	ND	ND	ND	ND	8	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	8	µg/m3
Bromoform	ND	ND	ND	ND	ND	8	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
Chloroform	ND	ND	ND	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	12	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	12	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	8	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	32	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	16	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	10	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SV3-5'	SV3-15'	SV4-5'	SV4-15'	SV5-5'		
<u>Jones ID:</u>	E-1172-06	E-1172-07	E-1172-08	E-1172-09	E-1172-10	<u>Reporting Limit</u>	<u>Units</u>
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Freon 113	ND	ND	ND	ND	ND	16	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	24	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	8	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	8	µg/m3
Methylene chloride	ND	8	ND	ND	ND	8	µg/m3
Naphthalene	ND	ND	ND	ND	ND	40	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Styrene	ND	ND	ND	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	16	µg/m3
Tetrachloroethene	18	17	22	12	ND	8	µg/m3
Toluene	ND	ND	ND	ND	ND	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	32	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	8	µg/m3
m,p-Xylene	ND	ND	ND	ND	ND	16	µg/m3
o-Xylene	ND	ND	ND	ND	ND	8	µg/m3
MTBE	ND	ND	ND	ND	ND	40	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	40	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	40	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	ND	ND	ND	2000	µg/m3
Tracer:							
n-Pentane	ND	ND	ND	ND	ND	80	µg/m3
n-Hexane	ND	ND	ND	ND	ND	80	µg/m3
n-Heptane	ND	ND	ND	ND	ND	80	µg/m3
<u>Dilution Factor</u>	1	1	1	1	1		
Surrogate Recoveries:						QC Limits	
Dibromofluoromethane	104%	102%	104%	100%	106%	60 - 140	
Toluene-d8	93%	94%	93%	92%	93%	60 - 140	
4-Bromofluorobenzene	93%	92%	94%	93%	92%	60 - 140	
<u>Batch ID:</u>	E3-072721-01	E3-072721-01	E3-072721-01	E3-072721-01	E3-072721-01		

ND = Value below reporting limit



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Report date: 7/27/2021
Jones Ref. No.: E-1172

Attn: Susan L Mearns PhD
Project: Town Center Northwest
Project Address: 2690 Walnut Ave
Signal Hill, CA

Date Sampled: 7/27/2021
Date Received: 7/27/2021
Date Analyzed: 7/27/2021
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SV5-15'	SV6-5'	SV6-15'	SV7-5'	SV7-15'		
<u>Jones ID:</u>	E-1172-11	E-1172-12	E-1172-13	E-1172-14	E-1172-15	<u>Reporting Limit</u>	<u>Units</u>
Analytes:							
Benzene	ND	ND	243	ND	8850	8	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	8	µg/m3
Bromoform	ND	ND	ND	ND	ND	8	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
Chloroform	ND	ND	ND	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	12	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	12	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	8	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	32	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	16	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	10	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SV5-15'	SV6-5'	SV6-15'	SV7-5'	SV7-15'		
<u>Jones ID:</u>	E-1172-11	E-1172-12	E-1172-13	E-1172-14	E-1172-15	<u>Reporting Limit</u>	<u>Units</u>
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Freon 113	ND	ND	ND	ND	ND	16	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	24	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	8	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	8	µg/m3
Methylene chloride	9	ND	ND	ND	ND	8	µg/m3
Naphthalene	ND	ND	ND	ND	ND	40	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Styrene	ND	ND	ND	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	16	µg/m3
Tetrachloroethene	ND	17	8	ND	ND	8	µg/m3
Toluene	ND	ND	ND	ND	4210	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	32	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	8	µg/m3
m,p-Xylene	ND	ND	ND	ND	799	16	µg/m3
o-Xylene	ND	ND	ND	ND	441	8	µg/m3
MTBE	ND	ND	ND	ND	ND	40	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	40	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	40	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	317000	ND	46300000	2000	µg/m3
Tracer:							
n-Pentane	ND	ND	ND	ND	ND	80	µg/m3
n-Hexane	ND	ND	ND	ND	ND	80	µg/m3
n-Heptane	ND	ND	ND	ND	ND	80	µg/m3
<u>Dilution Factor</u>	1	1	1	1	30		
<u>Surrogate Recoveries:</u>						<u>QC Limits</u>	
Dibromofluoromethane	102%	100%	97%	100%	97%	60 - 140	
Toluene-d8	95%	92%	101%	93%	97%	60 - 140	
4-Bromofluorobenzene	94%	94%	91%	93%	96%	60 - 140	
<u>Batch ID:</u>	E3-072721-01	E3-072721-01	E3-072721-01	E3-072721-01	E3-072721-01		

ND = Value below reporting limit



714-449-9937
562-646-1611

11007 FOREST PLACE
SANTA FE SPRINGS, CA 90670
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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Mearns Consulting Group
Client Address: 738 Ashland Avenue,
Santa Monica CA 90405

Report date: 7/27/2021
Jones Ref. No.: E-1172

Attn: Susan L Mearns PhD

Date Sampled: 7/27/2021
Date Received: 7/27/2021

Project: Town Center Northwest
Project Address: 2690 Walnut Ave
Signal Hill, CA

Date Analyzed: 7/27/2021
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SV8-5'	SV8-15'	SV9-5'		
<u>Jones ID:</u>	E-1172-16	E-1172-17	E-1172-18	<u>Reporting Limit</u>	<u>Units</u>
Analytes:					
Benzene	20	ND	ND	8	µg/m3
Bromobenzene	ND	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	ND	8	µg/m3
Bromoform	ND	ND	ND	8	µg/m3
n-Butylbenzene	ND	ND	ND	12	µg/m3
sec-Butylbenzene	ND	ND	ND	12	µg/m3
tert-Butylbenzene	ND	ND	ND	12	µg/m3
Carbon tetrachloride	ND	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	ND	8	µg/m3
Chloroform	ND	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	ND	12	µg/m3
4-Chlorotoluene	ND	ND	ND	12	µg/m3
Dibromochloromethane	ND	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	8	µg/m3
Dibromomethane	ND	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	16	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	16	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	16	µg/m3
Dichlorodifluoromethane	ND	ND	ND	32	µg/m3
1,1-Dichloroethane	ND	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	ND	16	µg/m3
1,1-Dichloropropene	ND	ND	ND	10	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID:	SV8-5'	SV8-15'	SV9-5'		
Jones ID:	E-1172-16	E-1172-17	E-1172-18	Reporting Limit	Units
Analytes:					
cis-1,3-Dichloropropene	ND	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	8	µg/m3
Ethylbenzene	ND	ND	ND	8	µg/m3
Freon 113	ND	ND	ND	16	µg/m3
Hexachlorobutadiene	ND	ND	ND	24	µg/m3
Isopropylbenzene	ND	ND	ND	8	µg/m3
4-Isopropyltoluene	ND	ND	ND	8	µg/m3
Methylene chloride	ND	ND	ND	8	µg/m3
Naphthalene	ND	ND	ND	40	µg/m3
n-Propylbenzene	ND	ND	ND	8	µg/m3
Styrene	ND	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	16	µg/m3
Tetrachloroethene	23	ND	ND	8	µg/m3
Toluene	15	ND	ND	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	16	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	16	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	8	µg/m3
Trichloroethene	ND	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	ND	32	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	ND	8	µg/m3
m,p-Xylene	ND	ND	ND	16	µg/m3
o-Xylene	ND	ND	ND	8	µg/m3
MTBE	ND	ND	ND	40	µg/m3
Ethyl-tert-butylether	ND	ND	ND	40	µg/m3
Di-isopropylether	ND	ND	ND	40	µg/m3
tert-amylmethylether	ND	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	ND	2000	µg/m3
Tracer:					
n-Pentane	ND	ND	ND	80	µg/m3
n-Hexane	ND	ND	ND	80	µg/m3
n-Heptane	ND	ND	ND	80	µg/m3
Dilution Factor	1	1	1		
Surrogate Recoveries:				QC Limits	
Dibromofluoromethane	95%	96%	95%	60 - 140	
Toluene-d8	94%	92%	93%	60 - 140	
4-Bromofluorobenzene	95%	96%	94%	60 - 140	
Batch ID:	E3-072721-01	E3-072721-01	E3-072721-01		

ND = Value below reporting limit



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11007 FOREST PLACE
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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client: Mearns Consulting Group
Client Address: 738 Ashland Avenue,
Santa Monica CA 90405

Report date: 7/27/2021
Jones Ref. No.: E-1172

Attn: Susan L Mearns PhD

Date Sampled: 7/27/2021
Date Received: 7/27/2021

Project: Town Center Northwest
Project Address: 2690 Walnut Ave
Signal Hill, CA

Date Analyzed: 7/27/2021
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	METHOD	SAMPLING		
	BLANK	BLANK		
<u>Jones ID:</u>	072721- E3MB1	072721- E3SB1	<u>Reporting Limit</u>	<u>Units</u>
Analytes:				
Benzene	ND	ND	8	µg/m3
Bromobenzene	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	8	µg/m3
Bromoform	ND	ND	8	µg/m3
n-Butylbenzene	ND	ND	12	µg/m3
sec-Butylbenzene	ND	ND	12	µg/m3
tert-Butylbenzene	ND	ND	12	µg/m3
Carbon tetrachloride	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	8	µg/m3
Chloroform	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	12	µg/m3
4-Chlorotoluene	ND	ND	12	µg/m3
Dibromochloromethane	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	8	µg/m3
Dibromomethane	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	16	µg/m3
1,3-Dichlorobenzene	ND	ND	16	µg/m3
1,4-Dichlorobenzene	ND	ND	16	µg/m3
Dichlorodifluoromethane	ND	ND	32	µg/m3
1,1-Dichloroethane	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	16	µg/m3
1,1-Dichloropropene	ND	ND	10	µg/m3

JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	METHOD BLANK	SAMPLING BLANK		
<u>Jones ID:</u>	072721- E3MB1	072721- E3SB1	<u>Reporting Limit</u>	<u>Units</u>
Analytes:				
cis-1,3-Dichloropropene	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	8	µg/m3
Ethylbenzene	ND	ND	8	µg/m3
Freon 113	ND	ND	16	µg/m3
Hexachlorobutadiene	ND	ND	24	µg/m3
Isopropylbenzene	ND	ND	8	µg/m3
4-Isopropyltoluene	ND	ND	8	µg/m3
Methylene chloride	ND	ND	8	µg/m3
Naphthalene	ND	ND	40	µg/m3
n-Propylbenzene	ND	ND	8	µg/m3
Styrene	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	16	µg/m3
Tetrachloroethene	ND	ND	8	µg/m3
Toluene	ND	ND	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	16	µg/m3
1,2,4-Trichlorobenzene	ND	ND	16	µg/m3
1,1,1-Trichloroethane	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	8	µg/m3
Trichloroethene	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	32	µg/m3
1,2,3-Trichloropropane	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	8	µg/m3
m,p-Xylene	ND	ND	16	µg/m3
o-Xylene	ND	ND	8	µg/m3
MTBE	ND	ND	40	µg/m3
Ethyl-tert-butylether	ND	ND	40	µg/m3
Di-isopropylether	ND	ND	40	µg/m3
tert-amylmethylether	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	2000	µg/m3
Tracer:				
n-Pentane	ND	ND	80	µg/m3
n-Hexane	ND	ND	80	µg/m3
n-Heptane	ND	ND	80	µg/m3
<u>Dilution Factor</u>	1	1		
<u>Surrogate Recoveries:</u>			<u>QC Limits</u>	
Dibromofluoromethane	106%	100%	60 - 140	
Toluene-d8	96%	96%	60 - 140	
4-Bromofluorobenzene	93%	95%	60 - 140	
<u>Batch ID:</u>	E3-072721- 01	E3-072721- 01		

ND = Value below reporting limit



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562-646-1611

11007 FOREST PLACE
SANTA FE SPRINGS, CA 90670
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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client: Mearns Consulting Group
Client Address: 738 Ashland Avenue,
Santa Monica CA 90405

Report date: 7/27/2021
Jones Ref. No.: E-1172

Attn: Susan L Mearns PhD

Date Sampled: 7/27/2021
Date Received: 7/27/2021

Project: Town Center Northwest
Project Address: 2690 Walnut Ave
Signal Hill, CA

Date Analyzed: 7/27/2021
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

QC ID: E3-072721-01

Jones ID: **072721-E3LCS1** **072721-E3LCSD1** **072721-E3CCV1**

<u>Parameter</u>	LCS Recovery (%)	LCSD Recovery (%)	<u>RPD</u>	Acceptability Range (%)	<u>CCV</u>	Acceptability Range (%)
Vinyl chloride	121%	114%	5.7%	60 - 140	109%	80 - 120
1,1-Dichloroethene	110%	101%	8.1%	60 - 140	80%	80 - 120
Cis-1,2-Dichloroethene	105%	102%	3.5%	70 - 130	86%	80 - 120
1,1,1-Trichloroethane	98%	104%	6.6%	70 - 130	85%	80 - 120
Benzene	113%	119%	4.9%	70 - 130	101%	80 - 120
Trichloroethene	115%	119%	3.7%	70 - 130	101%	80 - 120
Toluene	104%	109%	4.2%	70 - 130	97%	80 - 120
Tetrachloroethene	116%	114%	2.0%	70 - 130	97%	80 - 120
Chlorobenzene	109%	113%	3.7%	70 - 130	95%	80 - 120
Ethylbenzene	99%	108%	9.2%	70 - 130	94%	80 - 120
1,2,4 Trimethylbenzene	92%	93%	1.2%	70 - 130	87%	80 - 120
Gasoline Range Organics (C4-C12)	102%	107%	5.0%	70 - 130	95%	80 - 120

Surrogate Recovery:

Dibromofluoromethane	102%	102%		60 - 140	100%	60 - 140
Toluene-ds	97%	96%		60 - 140	95%	60 - 140
4-Bromofluorobenzene	96%	96%		60 - 140	97%	60 - 140

LCS = Laboratory Control Sample
LCSD = Laboratory Control Sample Duplicate
CCV = Continuing Calibration Verification
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 20%

Client
Mearns Consulting Group

Project Name
Town Center Northwest

Project Address
2690 Walnut Ave

Signal Hill, CA

Phone

Date
7/27/2021

Client Project #

Turn Around Requested

Immediate Attention
 Rush 24 Hours
 Rush 48 Hours
 Rush 72 Hours
 Normal
 Mobile Lab

Reporting Limits

Standard Low Level* MDL*
*surcharge for these limits

Purge Number:
 1P 3P 7P 10P

Shut-In Test: Y N

Report Options
 EDD _____
 EDF* - 10% Surcharge _____

Global ID _____

Tracer
 n-pentane
 n-hexane
 n-heptane
 Isopropyl Alcohol
 1,1-DFA

Analysis Requested

Sample Method: Soil Gas (SG), Air (A), Mineral (M)	EPA 8260B (VOCs)	Gasoline Range Organics	Magnetic Vacuum (mV ₂ O)	Number of Containers
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LAB USE ONLY

Jones Project #
E-1172


Page
 1 of 2

Sample Container:
GASTIGHT GLASS SYRINGE
If different than above, see Notes.

Report To
Susan L Mearns PhD

Sampler
Casey Ellis

Sample ID	Purge Number	Purge Volume (gal.)	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample ID	Purge Rate (mL/min)	Pump Used	Magnetics	Sample Method: Soil Gas (SG), Air (A), Mineral (M)	EPA 8260B (VOCs)	Gasoline Range Organics	Magnetic Vacuum (mV ₂ O)	Number of Containers	Notes & Special Instructions
SV1-5'	3	1310	7/27/21	7:54	7:58	E-1172-01	200	CASEY.1	118012	SG	X	X	<2	1	
SV1-15'	3	1470	7/27/21	8:12	8:14	E-1172-02	200	CASEY.2	M100.114	SG	X	X	6	1	
SV2-5'	3	1310	7/27/21	8:30	8:32	E-1172-03	200	CASEY.1	M100.201	SG	X	X	6	1	
SV2-15'	3	1470	7/27/21	8:51	8:52	E-1172-04	200	CASEY.2	M100.203	SG	X	X	<2	1	
SV2-15' REP	3	1470	7/27/21	10:05	10:08	E-1172-05	200	CASEY.2	M100.203	SG	X	X	<2	1	
SV3-5'	3	1310	7/27/21	9:24	9:27	E-1172-06	200	CASEY.1	118012	SG	X	X	<2	1	
SV3-15'	3	1470	7/27/21	9:43	9:46	E-1172-07	200	CASEY.2	M100.114	SG	X	X	<2	1	
SV4-5'	3	1310	7/27/21	10:24	10:26	E-1172-08	200	CASEY.1	M100.201	SG	X	X	<2	1	
SV4-15'	3	1470	7/27/21	10:42	10:44	E-1172-09	200	CASEY.2	M100.203	SG	X	X	<2	1	
SV5-5'	3	1310	7/27/21	11:01	11:03	E-1172-10	200	CASEY.1	118012	SG	X	X	<2	1	

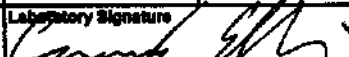
Representative Signature


Printed Name
SUSAN MEARNS

Company
 Mearns Consulting Group

Date
 7/27/2021

Time
 14:30

Laboratory Signature


Printed Name
CASEY ELLIS

Company
 JONES ENVIRONMENTAL, INC.

Date
 7/27/2021

Time
 14:30

10 Total Number of Containers

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been requested, and the information provided herein is correct and accurate.



11007 Forest Pl.
Santa Fe Springs, CA 90670
(714) 448-8637
Fax (714) 448-8685
www.jonesenv.com

Soil-Gas Chain-of-Custody Record

Client:
Mearns Consulting Group

Project Name:
Town Center Northwest

Project Address:
2690 Walnut Ave

Signal Hill, CA

Phone:

Date: 7/27/2021

Client Project #:

Turn Around Requested:

- Immediate Attention
- Rush 24 Hours
- Rush 48 Hours
- Rush 72 Hours
- Normal
- Mobile Lab

Reporting Limits:

Standard Low Level* MDL* Units: 10/10³
*surcharge for these limits

Purge Number:
 1P 3P 7P 10P

Shut-In Test: (Y) / N

Report Options:
EDD _____
EDF* - 10% Surcharge _____
*Global ID _____

LAB USE ONLY

Jones Project #
E-1172

Page
2 of 2

Sample Container:
GASTIGHT GLASS SYRINGE
If different than above, see Notes.

Report To: Susan L Mearns PhD

Sampler: Casey Ellis

Tracer:
 n-pentane
 n-hexane
 n-heptane
 Isopropyl Alcohol
 1,1-DFA

Analysis Requested:

Sample Matrix: Soil Gas (EG), Air (A), Material (M)	EPA 8260B (VOCs)	Gasoline Range Organics	Magnethetic Vacuum (InH ₂ O)	Number of Containers
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Sample ID	Purge Number	Purge Volume (mL)	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample ID	Purge Rate (mL/min)	Pump Used	Magnethetic	Sample Matrix: Soil Gas (EG), Air (A), Material (M)	EPA 8260B (VOCs)	Gasoline Range Organics	Magnethetic Vacuum (InH ₂ O)	Number of Containers	Notes & Special Instructions
SV5-15'	3	1470	7/27/21	11:18	11:21	E-1172-11	200	CASEY.2	M100.114	SG	X	X	<2	1	
SV6-5'	3	1310	7/27/21	11:38	11:40	E-1172-12	200	CASEY.1	M100.201	SG	X	X	<2	1	
SV6-15'	3	1470	7/27/21	11:57	12:00	E-1172-13	200	CASEY.2	M100.203	SG	X	X	<2	1	
SV7-5'	3	1310	7/27/21	12:08	12:18	E-1172-14	200	CASEY.1	118012	SG	X	X	<2	1	
SV7-15'	3	1470	7/27/21	12:34	12:38	E-1172-15	200	CASEY.2	M100.114	SG	X	X	<2	1	
SV8-5'	3	1310	7/27/21	12:55	12:57	E-1172-16	200	CASEY.1	M100.201	SG	X	X	<2	1	
SV8-15'	3	1470	7/27/21	13:13	13:18	E-1172-17	200	CASEY.2	M100.203	SG	X	X	6	1	
SV9-5'	3	1310	7/27/21	13:54	13:58	E-1172-18	200	CASEY.1	118012	SG	X	X	<2	1	
SV7-15' DII	-	-	7/27/21	13:32	13:37	-	-	-	M100.114	SG	X	X	<2	1	

Representative Signature:	Printed Name: SUSAN MEARNS	Laboratory Signature:	Printed Name: CASEY ELLIS	Total Number of Containers: 9
Company: Mearns Consulting Group	Date: 7/27/2021 Time: 14:30	Company: JONES ENVIRONMENTAL, INC.	Date: 7/27/2021 Time: 14:30	Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been requested, and the information provided herein is correct and accurate.
Representative Signature:	Printed Name:	Laboratory Signature:	Printed Name:	
Company:	Date: Time:	Company:	Date: Time:	



714-449-9937
562-646-1611

11007 FOREST PLACE
SANTA FE SPRINGS, CA 90670
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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Mearns Consulting Group
Client Address: 738 Ashland Avenue,
Santa Monica CA 90405

Report date: 7/28/2021
Jones Ref. No.: E-1173

Attn: Susan L Mearns PhD

Date Sampled: 7/28/2021
Date Received: 7/28/2021

Project: Town Center Northwest
Project Address: 2690 Walnut Ave
Signal Hill, CA

Date Analyzed: 7/28/2021
Physical State: Soil Gas

ANALYSES REQUESTED

1. EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sampling – Soil Gas samples were collected in glass gas-tight syringes equipped with Teflon plungers.

A tracer gas mixture of n-pentane, n-hexane, and n-heptane was placed at the tubing-surface interface before sampling. These compounds were analyzed during the 8260B analytical run to determine if there were surface leaks into the subsurface due to improper installation of the probe. No tracer was detected in any of the samples reported herein.

The sampling rate was approximately 200 cc/min, except when noted differently on the chain of custody record, using a glass gas-tight syringe. Purging was completed using a pump set at approximately 200 cc/min, except when noted differently on the chain of custody record. A default of 3 purge volumes was used as recommended by July 2015 DTSC/RWQCB guidance documents.

Prior to purging and sampling of soil gas at each point, a shut-in test was conducted to check for leaks in the above ground fittings. The shut-in test was performed on the above ground apparatus by evacuating the line to a vacuum of 100 inches of water, sealing the entire system and watching the vacuum for at least one minute. A vacuum gauge attached in parallel to the apparatus measured the vacuum. If there was any observable loss of vacuum, the fittings were adjusted as needed until the vacuum did not change noticeably. The soil gas sample was then taken.

No flow conditions occur when a sampling rate greater than 10 mL/min cannot be maintained without applying a vacuum greater than 100 inches of water to the sampling train. The sampling train is left at a vacuum for no less than three minutes. If the vacuum does not subside appreciably after three minutes, the sample location is determined to be a no flow sample.

Analytical – Soil Gas samples were analyzed using EPA Method 8260 that includes extra compounds required by DTSC/RWQCB (such as Freon 113). Instrument Continuing Calibration Verification, QC Reference Standards, Instrument Blanks and Sampling Blanks were analyzed every 12 hours as prescribed by the method. In addition, a Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) were analyzed with each batch of Soil Gas samples. A duplicate/replicate sample was analyzed each day of the sampling activity. All samples were injected into the GC/MS system within 30 minutes of collection.

Approval: _____

Annalise O'Toole
Mobile Lab Manager



714-449-9937
562-646-1611

11007 FOREST PLACE
SANTA FE SPRINGS, CA 90670
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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Mearns Consulting Group
Client Address: 738 Ashland Avenue,
Santa Monica CA 90405

Report date: 7/28/2021
Jones Ref. No.: E-1173

Attn: Susan L Mearns PhD

Date Sampled: 7/28/2021
Date Received: 7/28/2021

Project: Town Center Northwest
Project Address: 2690 Walnut Ave
Signal Hill, CA

Date Analyzed: 7/28/2021
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SV9-15'	SV9-15' REP	SV10-5'	SV10-15'	SV11-5'		
<u>Jones ID:</u>	E-1173-01	E-1173-02	E-1173-03	E-1173-04	E-1173-05	<u>Reporting Limit</u>	<u>Units</u>
Analytes:							
Benzene	ND	ND	ND	ND	ND	8	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	8	µg/m3
Bromoform	ND	ND	ND	ND	ND	8	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
Chloroform	ND	ND	ND	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	12	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	12	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	8	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	32	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	16	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	10	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SV9-15'	SV9-15' REP	SV10-5'	SV10-15'	SV11-5'		
<u>Jones ID:</u>	E-1173-01	E-1173-02	E-1173-03	E-1173-04	E-1173-05	<u>Reporting Limit</u>	<u>Units</u>
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Freon 113	ND	ND	ND	ND	ND	16	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	24	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	8	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	8	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	8	µg/m3
Naphthalene	ND	ND	ND	ND	ND	40	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Styrene	ND	ND	ND	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	16	µg/m3
Tetrachloroethene	34	34	9	8	24	8	µg/m3
Toluene	13	14	ND	ND	ND	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	32	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	8	µg/m3
m,p-Xylene	ND	ND	ND	ND	ND	16	µg/m3
o-Xylene	ND	ND	ND	ND	ND	8	µg/m3
MTBE	ND	ND	ND	ND	ND	40	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	40	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	40	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	ND	ND	ND	2000	µg/m3
Tracer:							
n-Pentane	ND	ND	ND	ND	ND	80	µg/m3
n-Hexane	ND	ND	ND	ND	ND	80	µg/m3
n-Heptane	ND	ND	ND	ND	ND	80	µg/m3
<u>Dilution Factor</u>	1	1	1	1	1		
<u>Surrogate Recoveries:</u>						<u>QC Limits</u>	
Dibromofluoromethane	114%^	119%^	108%	123%^	107%	60 - 140	
Toluene-d8	103%	104%	89%	102%	89%	60 - 140	
4-Bromofluorobenzene	108%	@	97%	108%	96%	60 - 140	
<u>Batch ID:</u>	E2-072821-01	E2-072821-01	E3-072821-01	E2-072821-01	E3-072821-01		

ND = Value below reporting limit

@= Surrogate outside acceptable limits. All other QC parameters in control, therefore data was accepted.

^ = 1,2-dichloroethane-d4 used as surrogate for this batch.



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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Mearns Consulting Group
Client Address: 738 Ashland Avenue,
Santa Monica CA 90405

Report date: 7/28/2021
Jones Ref. No.: E-1173

Attn: Susan L Mearns PhD
Project: Town Center Northwest
Project Address: 2690 Walnut Ave
Signal Hill, CA

Date Sampled: 7/28/2021
Date Received: 7/28/2021
Date Analyzed: 7/28/2021
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SV11-15'	SV12-5'	SV12-15'	SV13-5'	SV13-5' REP		
<u>Jones ID:</u>	E-1173-06	E-1173-07	E-1173-08	E-1173-09	E-1173-10	<u>Reporting Limit</u>	<u>Units</u>
Analytes:							
Benzene	ND	ND	ND	ND	ND	8	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	8	µg/m3
Bromoform	ND	ND	ND	ND	ND	8	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
Chloroform	ND	ND	ND	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	12	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	12	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	8	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	32	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	16	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	10	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SV11-15'	SV12-5'	SV12-15'	SV13-5'	SV13-5' REP		
<u>Jones ID:</u>	E-1173-06	E-1173-07	E-1173-08	E-1173-09	E-1173-10	<u>Reporting Limit</u>	<u>Units</u>
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Freon 113	ND	ND	ND	ND	ND	16	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	24	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	8	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	8	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	8	µg/m3
Naphthalene	ND	ND	ND	ND	ND	40	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Styrene	ND	ND	ND	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	16	µg/m3
Tetrachloroethene	ND	8	9	16	25	8	µg/m3
Toluene	ND	ND	ND	ND	ND	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	32	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	8	µg/m3
m,p-Xylene	ND	ND	ND	ND	ND	16	µg/m3
o-Xylene	ND	ND	ND	ND	ND	8	µg/m3
MTBE	ND	ND	ND	ND	ND	40	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	40	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	40	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	ND	ND	ND	2000	µg/m3
Tracer:							
n-Pentane	ND	ND	ND	ND	ND	80	µg/m3
n-Hexane	ND	ND	ND	ND	ND	80	µg/m3
n-Heptane	ND	ND	ND	ND	ND	80	µg/m3
Dilution Factor	1	1	1	1	1		
Surrogate Recoveries:						QC Limits	
Dibromofluoromethane	122%^	105%	124%^	106%	108%	60 - 140	
Toluene-d8	105%	87%	102%	87%	88%	60 - 140	
4-Bromofluorobenzene	107%	97%	105%	96%	96%	60 - 140	
Batch ID:	E2-072821-01	E3-072821-01	E2-072821-01	E3-072821-01	E3-072821-01		

ND = Value below reporting limit

^ = 1,2-dichloroethane-d4 used as surrogate for this batch.



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Project: Town Center Northwest
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Date Sampled: 7/28/2021
Date Received: 7/28/2021
Date Analyzed: 7/28/2021
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SV13-15'	SV14-5'	SV14-15'	SV15-5'	SV15-15'		
<u>Jones ID:</u>	E-1173-11	E-1173-12	E-1173-13	E-1173-14	E-1173-15	<u>Reporting Limit</u>	<u>Units</u>
Analytes:							
Benzene	ND	ND	ND	ND	ND	8	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	8	µg/m3
Bromoform	ND	ND	ND	ND	ND	8	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
Chloroform	ND	ND	ND	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	12	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	12	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	8	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	32	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	16	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	10	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SV13-15'	SV14-5'	SV14-15'	SV15-5'	SV15-15'		
<u>Jones ID:</u>	E-1173-11	E-1173-12	E-1173-13	E-1173-14	E-1173-15	<u>Reporting Limit</u>	<u>Units</u>
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
Ethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Freon 113	ND	ND	ND	ND	ND	16	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	24	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	8	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	ND	8	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	8	µg/m3
Naphthalene	ND	ND	ND	ND	ND	40	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Styrene	ND	ND	ND	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	16	µg/m3
Tetrachloroethene	ND	10	ND	37	29	8	µg/m3
Toluene	ND	ND	ND	ND	ND	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	32	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	8	µg/m3
m,p-Xylene	ND	ND	ND	ND	ND	16	µg/m3
o-Xylene	ND	ND	ND	ND	ND	8	µg/m3
MTBE	ND	ND	ND	ND	ND	40	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	40	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	40	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	ND	ND	ND	2000	µg/m3
Tracer:							
n-Pentane	ND	ND	ND	ND	ND	80	µg/m3
n-Hexane	ND	ND	ND	ND	ND	80	µg/m3
n-Heptane	ND	ND	ND	ND	ND	80	µg/m3
<u>Dilution Factor</u>	1	1	1	1	1		
Surrogate Recoveries:						QC Limits	
Dibromofluoromethane	126%^	108%	123%^	105%	119%^	60 - 140	
Toluene-d8	106%	85%	102%	86%	101%	60 - 140	
4-Bromofluorobenzene	106%	98%	104%	95%	82%	60 - 140	
<u>Batch ID:</u>	E2-072821-01	E3-072821-01	E2-072821-01	E3-072821-01	E2-072821-01		

ND = Value below reporting limit

^ = 1,2-dichloroethane-d4 used as surrogate for this batch.



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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Mearns Consulting Group
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Attn: Susan L Mearns PhD
Project: Town Center Northwest
Project Address: 2690 Walnut Ave
Signal Hill, CA

Date Sampled: 7/28/2021
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Date Analyzed: 7/28/2021
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SV16-5'	SV16-15'	SV17-5'	SV17-15'	SV18-5'		
<u>Jones ID:</u>	E-1173-16	E-1173-17	E-1173-18	E-1173-19	E-1173-20	<u>Reporting Limit</u>	<u>Units</u>
Analytes:							
Benzene	ND	27	ND	ND	ND	8	µg/m3
Bromobenzene	ND	ND	ND	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	ND	ND	ND	8	µg/m3
Bromoform	ND	ND	ND	ND	ND	8	µg/m3
n-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	ND	12	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	ND	ND	ND	8	µg/m3
Chloroform	ND	ND	ND	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	ND	12	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	ND	12	µg/m3
Dibromochloromethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	ND	8	µg/m3
Dibromomethane	ND	ND	ND	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	ND	32	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	51	ND	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	ND	16	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	ND	10	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SV16-5'	SV16-15'	SV17-5'	SV17-15'	SV18-5'		
<u>Jones ID:</u>	E-1173-16	E-1173-17	E-1173-18	E-1173-19	E-1173-20	<u>Reporting Limit</u>	<u>Units</u>
Analytes:							
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	8	µg/m3
Ethylbenzene	ND	74	ND	ND	ND	8	µg/m3
Freon 113	ND	ND	ND	ND	ND	16	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	ND	24	µg/m3
Isopropylbenzene	ND	ND	ND	ND	ND	8	µg/m3
4-Isopropyltoluene	ND	16	ND	ND	ND	8	µg/m3
Methylene chloride	ND	ND	ND	ND	ND	8	µg/m3
Naphthalene	ND	41	ND	ND	ND	40	µg/m3
n-Propylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Styrene	ND	ND	ND	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	16	µg/m3
Tetrachloroethene	15	18	32	10	13	8	µg/m3
Toluene	ND	44	ND	ND	ND	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	16	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	8	µg/m3
Trichloroethene	ND	ND	ND	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	ND	32	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	ND	ND	ND	8	µg/m3
m,p-Xylene	ND	287	ND	ND	ND	16	µg/m3
o-Xylene	ND	84	ND	ND	ND	8	µg/m3
MTBE	ND	ND	ND	ND	ND	40	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	ND	40	µg/m3
Di-isopropylether	ND	ND	ND	ND	ND	40	µg/m3
tert-amylmethylether	ND	ND	ND	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	46800	ND	ND	ND	2000	µg/m3
Tracer:							
n-Pentane	ND	ND	ND	ND	ND	80	µg/m3
n-Hexane	ND	ND	ND	ND	ND	80	µg/m3
n-Heptane	ND	ND	ND	ND	ND	80	µg/m3
<u>Dilution Factor</u>	1	1	1	1	1		
Surrogate Recoveries:						QC Limits	
Dibromofluoromethane	112%	124%^	108%	121%^	106%	60 - 140	
Toluene-d8	86%	101%	85%	99%	86%	60 - 140	
4-Bromofluorobenzene	97%	114%	96%	104%	97%	60 - 140	
<u>Batch ID:</u>	E3-072821-01	E2-072821-01	E3-072821-01	E2-072821-01	E3-072821-01		

ND = Value below reporting limit

^ = 1,2-dichloroethane-d4 used as surrogate for this batch.



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JONES ENVIRONMENTAL LABORATORY RESULTS

Client: Mearns Consulting Group
Client Address: 738 Ashland Avenue,
Santa Monica CA 90405

Report date: 7/28/2021
Jones Ref. No.: E-1173

Attn: Susan L Mearns PhD
Project: Town Center Northwest
Project Address: 2690 Walnut Ave
Signal Hill, CA

Date Sampled: 7/28/2021
Date Received: 7/28/2021
Date Analyzed: 7/28/2021
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Sample ID: SV18-15' SV19-5'

Jones ID: E-1173-21 E-1173-22

Analytes:

	E-1173-21	E-1173-22	<u>Reporting Limit</u>	<u>Units</u>
Benzene	1150	18	8	µg/m3
Bromobenzene	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	8	µg/m3
Bromoform	ND	ND	8	µg/m3
n-Butylbenzene	ND	649	12	µg/m3
sec-Butylbenzene	ND	2380	12	µg/m3
tert-Butylbenzene	ND	ND	12	µg/m3
Carbon tetrachloride	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	8	µg/m3
Chloroform	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	12	µg/m3
4-Chlorotoluene	ND	ND	12	µg/m3
Dibromochloromethane	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	8	µg/m3
Dibromomethane	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	16	µg/m3
1,3-Dichlorobenzene	ND	ND	16	µg/m3
1,4-Dichlorobenzene	ND	ND	16	µg/m3
Dichlorodifluoromethane	ND	ND	32	µg/m3
1,1-Dichloroethane	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	16	µg/m3
1,1-Dichloropropene	ND	ND	10	µg/m3

JONES ENVIRONMENTAL LABORATORY RESULTS

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	SV18-15'	SV19-5'		
<u>Jones ID:</u>	E-1173-21	E-1173-22	<u>Reporting Limit</u>	<u>Units</u>
Analytes:				
cis-1,3-Dichloropropene	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	8	µg/m3
Ethylbenzene	1910	2730	8	µg/m3
Freon 113	ND	ND	16	µg/m3
Hexachlorobutadiene	ND	ND	24	µg/m3
Isopropylbenzene	2490	4290	8	µg/m3
4-Isopropyltoluene	ND	13	8	µg/m3
Methylene chloride	ND	ND	8	µg/m3
Naphthalene	826	405	40	µg/m3
n-Propylbenzene	2640	5810	8	µg/m3
Styrene	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	16	µg/m3
Tetrachloroethene	ND	42	8	µg/m3
Toluene	ND	25	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	16	µg/m3
1,2,4-Trichlorobenzene	ND	ND	16	µg/m3
1,1,1-Trichloroethane	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	8	µg/m3
Trichloroethene	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	32	µg/m3
1,2,3-Trichloropropane	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	8	µg/m3
m,p-Xylene	1720	ND	16	µg/m3
o-Xylene	ND	ND	8	µg/m3
MTBE	8610	121000*	40	µg/m3
Ethyl-tert-butylether	ND	ND	40	µg/m3
Di-isopropylether	4780	ND	40	µg/m3
tert-amylmethylether	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	3380000	900000	2000	µg/m3
Tracer:				
n-Pentane	ND	ND	80	µg/m3
n-Hexane	ND	ND	80	µg/m3
n-Heptane	ND	ND	80	µg/m3
Dilution Factor	12.5	1/3*		
Surrogate Recoveries:			QC Limits	
Dibromofluoromethane	115%	103%	60 - 140	
Toluene-d ₈	106%	115%	60 - 140	
4-Bromofluorobenzene	123%	●	60 - 140	
Batch ID:	E2-072721-01	E3-072721-01		

ND = Value below reporting limit

● = Hydrocarbon interference prevented adequate surrogate recovery.

^ = 1,2-dichloroethane-d4 used as surrogate for this batch.

* = Dilutions for these compound(s); first number for all others



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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client: Mearns Consulting Group
Client Address: 738 Ashland Avenue,
Santa Monica CA 90405

Report date: 7/28/2021
Jones Ref. No.: E-1173

Attn: Susan L Mearns PhD

Date Sampled: 7/28/2021
Date Received: 7/28/2021

Project: Town Center Northwest
Project Address: 2690 Walnut Ave
Signal Hill, CA

Date Analyzed: 7/28/2021
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	METHOD	SAMPLING	METHOD	SAMPLING		
	BLANK	BLANK	BLANK	BLANK		
<u>Jones ID:</u>	072821- E2MB1	072821- E2SB1	072821- E3MB1	072821- E3SB1	<u>Reporting Limit</u>	<u>Units</u>
Analytes:						
Benzene	ND	ND	ND	ND	8	µg/m3
Bromobenzene	ND	ND	ND	ND	8	µg/m3
Bromodichloromethane	ND	ND	ND	ND	8	µg/m3
Bromoform	ND	ND	ND	ND	8	µg/m3
n-Butylbenzene	ND	ND	ND	ND	12	µg/m3
sec-Butylbenzene	ND	ND	ND	ND	12	µg/m3
tert-Butylbenzene	ND	ND	ND	ND	12	µg/m3
Carbon tetrachloride	ND	ND	ND	ND	8	µg/m3
Chlorobenzene	ND	ND	ND	ND	8	µg/m3
Chloroform	ND	ND	ND	ND	8	µg/m3
2-Chlorotoluene	ND	ND	ND	ND	12	µg/m3
4-Chlorotoluene	ND	ND	ND	ND	12	µg/m3
Dibromochloromethane	ND	ND	ND	ND	8	µg/m3
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	8	µg/m3
1,2-Dibromoethane (EDB)	ND	ND	ND	ND	8	µg/m3
Dibromomethane	ND	ND	ND	ND	8	µg/m3
1,2- Dichlorobenzene	ND	ND	ND	ND	16	µg/m3
1,3-Dichlorobenzene	ND	ND	ND	ND	16	µg/m3
1,4-Dichlorobenzene	ND	ND	ND	ND	16	µg/m3
Dichlorodifluoromethane	ND	ND	ND	ND	32	µg/m3
1,1-Dichloroethane	ND	ND	ND	ND	8	µg/m3
1,2-Dichloroethane	ND	ND	ND	ND	8	µg/m3
1,1-Dichloroethene	ND	ND	ND	ND	8	µg/m3
cis-1,2-Dichloroethene	ND	ND	ND	ND	8	µg/m3
trans-1,2-Dichloroethene	ND	ND	ND	ND	8	µg/m3
1,2-Dichloropropane	ND	ND	ND	ND	8	µg/m3
1,3-Dichloropropane	ND	ND	ND	ND	8	µg/m3
2,2-Dichloropropane	ND	ND	ND	ND	16	µg/m3
1,1-Dichloropropene	ND	ND	ND	ND	10	µg/m3

JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

<u>Sample ID:</u>	METHOD BLANK	SAMPLING BLANK	METHOD BLANK	SAMPLING BLANK		
<u>Jones ID:</u>	072821- E2MB1	072821- E2SB1	072821- E3MB1	072821- E3SB1	<u>Reporting Limit</u>	<u>Units</u>
Analytes:						
cis-1,3-Dichloropropene	ND	ND	ND	ND	8	µg/m3
trans-1,3-Dichloropropene	ND	ND	ND	ND	8	µg/m3
Ethylbenzene	ND	ND	ND	ND	8	µg/m3
Freon 113	ND	ND	ND	ND	16	µg/m3
Hexachlorobutadiene	ND	ND	ND	ND	24	µg/m3
Isopropylbenzene	ND	ND	ND	ND	8	µg/m3
4-Isopropyltoluene	ND	ND	ND	ND	8	µg/m3
Methylene chloride	ND	ND	ND	ND	8	µg/m3
Naphthalene	ND	ND	ND	ND	40	µg/m3
n-Propylbenzene	ND	ND	ND	ND	8	µg/m3
Styrene	ND	ND	ND	ND	8	µg/m3
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	8	µg/m3
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	16	µg/m3
Tetrachloroethene	ND	ND	ND	ND	8	µg/m3
Toluene	ND	ND	ND	ND	8	µg/m3
1,2,3-Trichlorobenzene	ND	ND	ND	ND	16	µg/m3
1,2,4-Trichlorobenzene	ND	ND	ND	ND	16	µg/m3
1,1,1-Trichloroethane	ND	ND	ND	ND	8	µg/m3
1,1,2-Trichloroethane	ND	ND	ND	ND	8	µg/m3
Trichloroethene	ND	ND	ND	ND	8	µg/m3
Trichlorofluoromethane	ND	ND	ND	ND	32	µg/m3
1,2,3-Trichloropropane	ND	ND	ND	ND	8	µg/m3
1,2,4-Trimethylbenzene	ND	ND	ND	ND	8	µg/m3
1,3,5-Trimethylbenzene	ND	ND	ND	ND	8	µg/m3
Vinyl chloride	ND	ND	ND	ND	8	µg/m3
m,p-Xylene	ND	ND	ND	ND	16	µg/m3
o-Xylene	ND	ND	ND	ND	8	µg/m3
MTBE	ND	ND	ND	ND	40	µg/m3
Ethyl-tert-butylether	ND	ND	ND	ND	40	µg/m3
Di-isopropylether	ND	ND	ND	ND	40	µg/m3
tert-amylmethylether	ND	ND	ND	ND	40	µg/m3
tert-Butylalcohol	ND	ND	ND	ND	400	µg/m3
Gasoline Range Organics (C4-C12)	ND	ND	ND	ND	2000	µg/m3
Tracer:						
n-Pentane	ND	ND	ND	ND	80	µg/m3
n-Hexane	ND	ND	ND	ND	80	µg/m3
n-Heptane	ND	ND	ND	ND	80	µg/m3
<u>Dilution Factor</u>	1	1	1	1		
<u>Surrogate Recoveries:</u>					<u>QC Limits</u>	
Dibromofluoromethane	121%^	114%^	105%	100%	60 - 140	
Toluene-d8	100%	104%	93%	90%	60 - 140	
4-Bromofluorobenzene	106%	107%	98%	96%	60 - 140	
<u>Batch ID:</u>	E2-072821- 01	E2-072821- 01	E3-072721- 01	E3-072721- 01		

ND = Value below reporting limit

^ = 1,2-dichloroethane-d4 used as surrogate for this batch.



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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client: Mearns Consulting Group
Client Address: 738 Ashland Avenue,
Santa Monica CA 90405

Report date: 7/28/2021
Jones Ref. No.: E-1173

Attn: Susan L Mearns PhD

Date Sampled: 7/28/2021
Date Received: 7/28/2021

Project: Town Center Northwest
Project Address: 2690 Walnut Ave
Signal Hill, CA

Date Analyzed: 7/28/2021
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

Batch ID: E2-072821-01

Jones ID: **072821-E2LCS1** **072821-E2LCSD1** **072821-E2CCV1**

<u>Parameter</u>	LCS Recovery (%)	LCSD Recovery (%)	<u>RPD</u>	Acceptability Range (%)	<u>CCV</u>	Acceptability Range (%)
Vinyl chloride	142% ¹	151% ¹	6.2%	60 - 140	50% ¹	80 - 120
1,1-Dichloroethene	121%	126%	3.7%	60 - 140	103%	80 - 120
Cis-1,2-Dichloroethene	124%	129%	4.0%	70 - 130	106%	80 - 120
1,1,1-Trichloroethane	124%	121%	2.5%	70 - 130	112%	80 - 120
Benzene	119%	124%	4.4%	70 - 130	110%	80 - 120
Trichloroethene	106%	112%	5.9%	70 - 130	103%	80 - 120
Toluene	120%	128%	6.8%	70 - 130	116%	80 - 120
Tetrachloroethene	129%	134% ²	3.9%	70 - 130	120%	80 - 120
Chlorobenzene	99%	101%	2.3%	70 - 130	96%	80 - 120
Ethylbenzene	78%	83%	6.3%	70 - 130	87%	80 - 120
1,2,4 Trimethylbenzene	119%	123%	3.1%	70 - 130	118%	80 - 120
Gasoline Range Organics (C4-C12)	109%	115%	5.0%	70 - 130	108%	80 - 120

Surrogate Recovery:

1,2-Dichloroethane-d4	120%	119%		60 - 140	110%	60 - 140
Toluene-ds	101%	102%		60 - 140	102%	60 - 140
4-Bromofluorobenzene	105%	105%		60 - 140	108%	60 - 140

¹Recovery outside of acceptable limits. If compound was found in sample, the sample would have been re-ran for confirmation.

²Recovery outside of acceptable limits. CCV and LCS recoveries and LCS/LCSD RPD were within QC limits, therefore data was accepted.

LCS = Laboratory Control Sample

LCSD = Laboratory Control Sample Duplicate

CCV = Continuing Calibration Verification

RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 20%



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JONES ENVIRONMENTAL QUALITY CONTROL INFORMATION

Client: Mearns Consulting Group
Client Address: 738 Ashland Avenue,
Santa Monica CA 90405

Report date: 7/28/2021
Jones Ref. No.: E-1173

Attn: Susan L Mearns PhD

Date Sampled: 7/28/2021
Date Received: 7/28/2021

Project: Town Center Northwest
Project Address: 2690 Walnut Ave
Signal Hill, CA

Date Analyzed: 7/28/2021
Physical State: Soil Gas

EPA 8260B – Volatile Organics by GC/MS + Oxygenates/Gasoline Range Organics

QC ID: E3-072821-01

Jones ID: **072821-E3LCS1** **072821-E3LCSD1** **072821-E3CCV1**

<u>Parameter</u>	LCS Recovery (%)	LCSD Recovery (%)	<u>RPD</u>	Acceptability Range (%)	<u>CCV</u>	Acceptability Range (%)
Vinyl chloride	83%	81%	2.2%	60 - 140	100%	80 - 120
1,1-Dichloroethene	110%	101%	8.9%	60 - 140	94%	80 - 120
Cis-1,2-Dichloroethene	111%	109%	1.8%	70 - 130	101%	80 - 120
1,1,1-Trichloroethane	100%	98%	2.4%	70 - 130	99%	80 - 120
Benzene	124%	124%	0.3%	70 - 130	118%	80 - 120
Trichloroethene	126%	112%	12.1%	70 - 130	109%	80 - 120
Toluene	104%	103%	1.6%	70 - 130	105%	80 - 120
Tetrachloroethene	106%	112%	5.8%	70 - 130	103%	80 - 120
Chlorobenzene	110%	109%	0.7%	70 - 130	112%	80 - 120
Ethylbenzene	103%	99%	4.3%	70 - 130	106%	80 - 120
1,2,4 Trimethylbenzene	91%	91%	0.3%	70 - 130	99%	80 - 120
Gasoline Range Organics (C4-C12)	106%	104%	1.4%	70 - 130	107%	80 - 120
<u>Surrogate Recovery:</u>						
Dibromofluoromethane	100%	102%		60 - 140	100%	60 - 140
Toluene-ds	94%	94%		60 - 140	93%	60 - 140
4-Bromofluorobenzene	97%	100%		60 - 140	98%	60 - 140

LCS = Laboratory Control Sample
LCSD = Laboratory Control Sample Duplicate
CCV = Continuing Calibration Verification
RPD = Relative Percent Difference; Acceptability range for RPD is ≤ 20%



11007 Forest Pl.
Santa Fe Springs, CA 90670
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Soil-Gas Chain-of-Custody Record

Client:
Mearns Consulting Group

Project Name:
Town Center Northwest

Project Address:
2690 Walnut Ave
Signal Hill, CA

Phone:

Date:
7/28/2021

Client Project #:

Turn Around Requested:
 Immediate Attention
 Rush 24 Hours
 Rush 48 Hours
 Rush 72 Hours
 Normal
 Mobile Lab

Reporting Limits:
 Standard Low Level* MCL*
*surcharge for these limits

Purge Number:
 1P 3P 7P 10P

Shut-In Test: (Y) / N

Report Options:
 EDD _____
 EDF* - 10% Surcharge _____

Global ID: _____

Tracer:
 n-pentane
 n-hexane
 n-heptane
 Isopropyl Alcohol
 1,1-DFA

Analysis Requested:

Sample Matrix: Soil Gas (SG), Air (A), Mineral (M)	EPA 8210G (VOCs)	Gasoline Range Organics	Magnethic Vacuum (in H ₂ O)	Number of Containers
SG	X	X	10	1
SG	X	X	10	1
SG	X	X	2	1
SG	X	X	2	1
SG	X	X	2	1
SG	X	X	2	1
SG	X	X	2	1
SG	X	X	2	1
SG	X	X	2	1
SG	X	X	2	1

LAB USE ONLY

Jones Project #
E-1173

Page
1 of 3

Sample Container:
GASTIGHT GLASS SYRINGE
If different than above, see Notes.

Report To: Susan L. Mearns PhD
Sampler: Casey Ellis

Sample ID	Purge Number	Purge Volume (mL)	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample ID	Purge Rate (mL/min)	Pump Used	Magnethic	Sample Matrix: Soil Gas (SG), Air (A), Mineral (M)	EPA 8210G (VOCs)	Gasoline Range Organics	Magnethic Vacuum (in H ₂ O)	Number of Containers	Notes & Special Instructions
SV9-15'	3	1470	7/28/21	7:13	7:15	E-1173-01	200	CASEY.2	M100.203	SG	X	X	10	1	
SV9-15' REP	3	1470	7/28/21	7:23	7:31	E-1173-02	200	CASEY.2	M100.203	SG	X	X	10	1	
SV10-5'	3	1310	7/28/21	7:25	7:28	E-1173-03	200	CASEY.1	118012	SG	X	X	2	1	
SV10-15'	3	1470	7/28/21	7:44	7:49	E-1173-04	200	CASEY.2	M100.114	SG	X	X	2	1	
SV11-5'	3	1310	7/28/21	7:41	7:47	E-1173-05	200	CASEY.1	M100.201	SG	X	X	2	1	
SV11-15'	3	1470	7/28/21	8:03	8:07	E-1173-06	200	CASEY.2	M100.203	SG	X	X	2	1	
SV12-5'	3	1310	7/28/21	8:00	8:05	E-1173-07	200	CASEY.1	118012	SG	X	X	2	1	
SV12-15'	3	1470	7/28/21	8:20	8:25	E-1173-08	200	CASEY.2	M100.114	SG	X	X	2	1	
SV13-5'	3	1310	7/28/21	8:23	8:24	E-1173-09	200	CASEY.1	M100.201	SG	X	X	2	1	
SV13-5' REP	3	1310	7/28/21	8:33	8:42	E-1173-10	200	CASEY.1	M100.201	SG	X	X	2	1	

Representative Signature: *[Signature]*
Printed Name: SUSAN MEARNS

Company: Mearns Consulting Group
Date: 7/28/2021
Time: 11:45

Laboratory Signature: *[Signature]*
Printed Name: CASEY ELLIS

Company: JONES ENVIRONMENTAL, INC.
Date: 7/28/2021
Time: 11:45

10 Total Number of Containers

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been requested, and the information provided herein is correct and accurate.



11007 Forest Pl.
 Santa Fe Springs, CA 90670
 (714) 449-9937
 Fax (714) 449-9985
 www.jonesenv.com

Soil-Gas Chain-of-Custody Record

Client
Mearns Consulting Group

Project Name
Town Center Northwest

Project Address
2690 Walnut Ave

Signal Hill, CA

Email

Phone

Date
7/28/2021

Client Project #

Turn Around Requested
 Immediate Attention
 Rush 24 Hours
 Rush 48 Hours
 Rush 72 Hours
 Normal
 Mobile Lab

Reporting Limits
 Standard Low Level* MDL*
*surcharge for these limits

Purge Number:
 1P 3P 7P 10P

Shut-In Test: Y N

Report Options
 EDF* - 10% Surcharge

Global ID:

Tracer
 n-pentane
 n-hexane
 n-heptane
 Isopropyl Alcohol
 1,1-DFA

Analysis Requested

LAB USE ONLY

Jones Project #
E-1173

Page
 2 of 3

Sample Container
GASTIGHT GLASS SYRINGE

if different than above, see Notes.

Report To
Susan L. Mearns PhD

Sampler
Casey Ellis

Sample ID	Purge Number	Purge Volume (mL)	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample ID	Purge Rate (mL/min)	Pump Used	Magnehelic	Sample Matrix: See Chain of Custody Manual (S)	EPA 80005 (VOCs)	Gasoline Range Organics	Magnehelic Vapour (mH ₂ O)	Number of Containers	Notes & Special Instructions
SV13-15'	3	1470	7/28/21	8:34	8:43	E-1173-11	200	CASEY.2	M100.203	SG	X	X	<2	1	
SV14-5'	3	1310	7/28/21	8:56	9:01	E-1173-12	200	CASEY.1	118012	SG	X	X	<2	1	
SV14-15'	3	1470	7/28/21	8:57	9:02	E-1173-13	200	CASEY.2	M100.114	SG	X	X	<2	1	
SV15-5'	3	1310	7/28/21	9:16	9:19	E-1173-14	200	CASEY.1	M100.201	SG	X	X	<2	1	
SV15-15'	3	1470	7/28/21	9:17	9:20	E-1173-15	200	CASEY.2	M100.203	SG	X	X	<2	1	
SV16-5'	3	1310	7/28/21	9:33	9:38	E-1173-16	200	CASEY.1	118012	SG	X	X	<2	1	
SV16-15'	3	1470	7/28/21	9:34	9:39	E-1173-17	200	CASEY.2	M100.114	SG	X	X	<2	1	
SV17-5'	3	1310	7/28/21	9:52	9:57	E-1173-18	200	CASEY.1	M100.201	SG	X	X	<2	1	
SV17-15'	3	1470	7/28/21	9:53	9:58	E-1173-19	200	CASEY.2	M100.203	SG	X	X	<2	1	
SV18-5'	3	1310	7/28/21	10:13	10:16	E-1173-20	200	CASEY.1	118012	SG	X	X	<2	1	

Representative Signature

Printed Name
 SUSAN MEARN'S

Company
 Mearns Consulting Group

Date
 7/28/2021

Time
 11:45

Laboratory Signature

Printed Name
 CASEY ELLIS

Company
 JONES ENVIRONMENTAL, INC.

Date
 7/28/2021

Time
 11:45

10 Total Number of Containers

Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been requested, and the information provided herein is correct and accurate.



11007 Forest Pl.
 Santa Fe Springs, CA 90670
 (714) 448-9937
 Fax (714) 448-0085
 www.jonesenv.com

Soil-Gas Chain-of-Custody Record

Client:
Mearns Consulting Group

Project Name:
Town Center Northwest

Project Address:
2699 Walnut Ave.

Signal Hill, CA

Phone:

Date:
7/28/2021

Client Project #

Turn Around Requested:

Immediate Attention
 Rush 24 Hours
 Rush 48 Hours
 Rush 72 Hours
 Normal
 Mobile Lab

Reporting Limits:

Standard Low Level* MDL* **Units: 100/m³**
 *surcharge for these limits

Purge Number:
 1P 3P 7P 10P

Shut-In Test: N

Report Options:
 EDD _____
 EDF* - 10% Surcharge _____

*Global ID _____

LAB USE ONLY

Jones Project #
E-1173

Page
 3 of 3

Sample Container:
GASTIGHT GLASS SYRINGE
 If different than above, see notes.

Report To:
Susan L Mearns PhD

Sampler:
Casey Ellis

Sample ID	Purge Number	Purge Volume (mL)	Date	Sample Collection Time	Sample Analysis Time	Laboratory Sample ID	Purge Rate (mL/min)	Pump Used	Magnetics	Sample Matrix: Soil Gas (SG), Air (A), Natural (N)	EPA 8260B (VOCs)	Gasoline Range Organics	Magnetic Vacuum (mVH ₂ O)	Number of Containers	Notes & Special Instructions
SV18-15'	3	1470	7/28/21	10:14	10:17	E-1173-21	200	CASEY.2	M100.114	SG	X	X	36	1	
SV19-5'	3	1310	7/28/21	10:32	10:36	E-1173-22	200	CASEY.1	M100.201	SG	X	X	<2	1	
SV18-15' DIL	-	-	7/28/21	10:46	10:48	-	-	CASEY.2	M100.114	SG	X	X	36	1	
SV19-5' DIL	-	-	7/28/21	11:10	11:12	-	-	CASEY.1	M100.201	SG	X	X	<2	1	

Representative Signature: 	Printed Name: SUSAN MEARNS	Laboratory Signature: 	Printed Name: CASEY ELLIS	Total Number of Containers: 4
Company: Mearns Consulting Group	Date: 7/28/2021	Time: 11:45	Company: JONES ENVIRONMENTAL, INC.	Date: 7/28/2021
Representative Signature:	Printed Name:	Laboratory Signature:	Printed Name:	Client signature on this Chain of Custody form constitutes acknowledgement that the above analyses have been requested, and the information provided herein is correct and accurate.
Company:	Date:	Time:	Company:	

APPENDIX D
Boring Logs

Boring Location	SV1	Elevation and Datum	GROUND SURFACE		
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET		
Drilling Equipment	Geoprobe 7800	Number of Samples	3		
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA		
Type of Perforation	6" SS slotted probe	Start Date	7/12/21	Completion Date	7/12/21
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA		
Type of Seal	BENTONITE	Logged By	SRF	Checked By	SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1								
2								
3								
4								
5	CLAY: Lt brn, firm, dense, masive Pr Plasticity		CL	#3 Sand 1/4" poly tubing	0	SV1-5'	5-5.5'	NO STAIN NO ODOR
6								
7								
8								
9								
10	CLAY: Lt-med brn, firm, dense, massive pr plastivity		CL		0	SV1-10'	10.0-10.5	NO STAIN NO ODOR
11								
12								
13								
14	SAND: Gry-Grn, v fn massive, "sugar Sand"			Hydrated bentonite 6" SS Probe				
15								
16	TD 15.5'		SP		0	SV1-15'	15-15.5	NO STAIN NO ODOR

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BORING LOG SV1

Town Center NW
Signal Hill, California

Project Number

Date
July 12, 2021

PM

Page
1 of 1

Boring Location	SV2	Elevation and Datum	GROUND SURFACE		
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET		
Drilling Equipment	Geoprobe 7800	Number of Samples	3		
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA		
Type of Perforation	6" SS slotted probe	Start Date	7/12/21	Completion Date	7/12/21
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA		
Type of Seal	BENTONITE	Logged By	SRF	Checked By	SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1								
2								
3								
4								
5	CLAY: Lt brn, firm, dense, masive Pr Plasticity		CL	#3 Sand 1/4" poly tubing	0	SV2-5'	5-5.5'	NO STAIN NO ODOR
6								
7				Bentonite				
8								
9								
10	CLAY: Lt-med brn, firm, dense, massive pr plasticity		CL		0	SV2-10'	10.0-10.5	NO STAIN NO ODOR
11								
12								
13								
14				Hydrated bentonite				
15	SILT: Buff, massive, v fn sandy TD 15.5'		ML	6" SS Probe	0	SV2-15'	15-15.5	NO STAIN NO ODOR
16								

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BORING LOG SV2
Town Center NW
Signal Hill, California

Boring Location	SV3	Elevation and Datum	GROUND SURFACE	
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET	
Drilling Equipment	Geoprobe 7800	Number of Samples	3	
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA	
Type of Perforation	6" SS slotted probe	Start Date	7/12/21	Completion Date
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA	
Type of Seal	BENTONITE	Logged By	SRF	Checked By
				SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1								
2								
3								
4								
5	CLAY: Lt brn, firm, dense, masive Pr Plasticity		CL		0	SV3-5'	5-5.5'	NO STAIN NO ODOR
6								
7								
8								
9								
10	CLAY: Lt-med brn, firm, dense, massive pr plasticity		CL		0	SV3-10'	10.0-10.5	NO STAIN NO ODOR
11								
12								
13								
14								
15	SILT: Buff, massive, v fn sandy TD 15.5'		ML		0	SV3-15'	15-15.5	NO STAIN NO ODOR
16								

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CORP.**

BORING LOG SV3

Town Center NW
Signal Hill, California







Boring Location	SV4	Elevation and Datum	GROUND SURFACE		
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET		
Drilling Equipment	Geoprobe 7800	Number of Samples	3		
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA		
Type of Perforation	6" SS slotted probe	Start Date	7/12/21	Completion Date	7/12/21
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA		
Type of Seal	BENTONITE	Logged By	SRF	Checked By	SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1								
2								
3								
4								
5	CLAY: Lt brn, firm, dense, masive Pr Plasticity		CL	#3 Sand Bentonite 1/4" poly tubing	0	SV4-5'	5-5.5'	NO STAIN NO ODOR
6								
7								
8	Macro core refusal 8', change to large bore							
9								
10	CLAY: Lt-med brn, firm, dense, massive pr plasticity		CL		0	SV4-10'	10.0-10.5	NO STAIN NO ODOR
11								
12								
13								
14								
15	SILT: Buff, massive, v fn sandy TD 15.5'		ML	Hydrated bentonite 6" SS Probe	0	SV4-15'	15-15.5	NO STAIN NO ODOR
16								

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BORING LOG SV4
Town Center NW
Signal Hill, California

Boring Location	SV5	Elevation and Datum	GROUND SURFACE		
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET		
Drilling Equipment	Geoprobe 7800	Number of Samples	3		
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA		
Type of Perforation	6" SS slotted probe	Start Date	7/12/21	Completion Date	7/12/21
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA		
Type of Seal	BENTONITE	Logged By	SRF	Checked By	SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1								
2								
3								
4								
5	CLAY: Med brn, firm, dense, masive Pr Plasticity		CL		0	SV5-5'	5-5.5'	NO STAIN NO ODOR
6								
7								
8								
9								
10	CLAY: Lt-med brn, firm, dense, massive silty, pr plasticity		CL		0	SV5-10'	10.0-10.5	NO STAIN NO ODOR
11								
12								
13								
14								
15	SILT: Buff, massive, v fn sandy TD 15.5'		ML		0	SV5-15'	15-15.5	NO STAIN NO ODOR
16								

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BORING LOG SV5
Town Center NW
Signal Hill, California

Project Number Date PM Page
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Boring Location	SV6	Elevation and Datum	GROUND SURFACE		
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET		
Drilling Equipment	Geoprobe 7800	Number of Samples	3		
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA		
Type of Perforation	6" SS slotted probe	Start Date	7/13/21	Completion Date	7/13/21
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA		
Type of Seal	BENTONITE	Logged By	SRF	Checked By	SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1								
2								
3								
4								
5	CLAY: Lt brn, firm, dense, masive Pr Plasticity		CL	#3 Sand Bentonite 1/4" poly tubing	0	SV6-5'	5-5.5'	NO STAIN NO ODOR
6								
7								
8								
9								
10	CLAY: Lt-med brn, firm, dense, massive pr plasticity		CL		0	SV6-10'	10.0-10.5	NO STAIN NO ODOR
11								
12								
13								
14								
15	SILT: Off wht, massive, v fn sandy TD 15.5'		ML	Hydrated bentonite 6" SS Probe	0	SV6-15'	15-15.5	NO STAIN NO ODOR
16								

**MEARNS
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BORING LOG SV6

Town Center NW
Signal Hill, California

Boring Location	SV7	Elevation and Datum	GROUND SURFACE	
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET	
Drilling Equipment	Geoprobe 7800	Number of Samples	3	
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA	
Type of Perforation	6" SS slotted probe	Start Date	7/13/21	Completion Date
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA	
Type of Seal	BENTONITE	Logged By	SRF	Checked By
				SRF







DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1								
2								
3								
4								
5	CLAY: Lt brn, firm, dense, masive Pr Plasticity		CL		0	SV7-5'	5-5.5'	NO STAIN NO ODOR
6								
7								
8								
9								
10	CLAY: Lt-med brn, firm, dense, massive pr plasticity		CL		0	SV7-10'	10.0-10.5'	NO STAIN NO ODOR
11								
12								
13								
14								
15	SILT: Buff, massive, v fn sandy TD 15.5'		ML		0	SV7-15'	15-15.5'	NO STAIN NO ODOR
16								

**MEARNS
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CORP.**

BORING LOG SV7

Town Center NW
Signal Hill, California

Boring Location	SV8	Elevation and Datum	GROUND SURFACE		
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET		
Drilling Equipment	Geoprobe 7800	Number of Samples	3		
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA		
Type of Perforation	6" SS slotted probe	Start Date	7/13/21	Completion Date	7/13/21
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA		
Type of Seal	BENTONITE	Logged By	SRF	Checked By	SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1								
2								
3								
4								
5	CLAY: Lt brn, firm, dense, masive Pr Plasticity		CL		0	SV8-5'	5-5.5'	SLT STAIN NO ODOR
6								
7								
8								
9								
10	CLAY: Lt-med brn, firm, dense, massive pr plasticity		CL		0	SV8-10'	10.0-10.5'	NO STAIN NO ODOR
11								
12								
13								
14								
15	CLAY Buff, firm, massive, silty TD 15.5' pr plasticity		CL		0	SV8-15'	15-15.5'	NO STAIN NO ODOR
16								

**MEARNS
CONSULTING
CORP.**

BORING LOG SV8

Town Center NW
Signal Hill, California

Project Number

Date







PM

Page

July 13, 2021

1 of 1

Boring Location	SV9	Elevation and Datum	GROUND SURFACE	
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET	
Drilling Equipment	Geoprobe 7800	Number of Samples	3	
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA	
Type of Perforation	6" SS slotted probe	Start Date	7/13/21	Completion Date
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA	
Type of Seal	BENTONITE	Logged By	SRF	Checked By
				SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1								
2								
3								
4								
5	CLAY: Dk brn, firm, dense, masive Pr Plasticity		CL	 #3 Sand	0	SV9-5.0	5-5.5'	NO STAIN NO ODOR
6								
7								
8								
9								
10	CLAY: Med brn, firm, dense, massive pr plasticity		CL		0	SV9-10'	10.0-10.5'	NO STAIN NO ODOR
11								
12								
13								
14								
15	CLAY Med brn, firm, firm, dense massive, pr plasticity TD 15.5'		CL	 Hydrated bentonite  6" SS Probe	0	SV9-15'	15-15.5'	NO STAIN NO ODOR
16								






**MEARNS
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CORP.**

BORING LOG SV9

Town Center NW
Signal Hill, California

Project Number Date PM Page
 July 13, 2021 1 of 1

Boring Location	SV10	Elevation and Datum	GROUND SURFACE	
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET	
Drilling Equipment	Geoprobe 7800	Number of Samples	3	
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA	
Type of Perforation	6" SS slotted probe	Start Date	7/13/21	Completion Date
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA	
Type of Seal	BENTONITE	Logged By	SRF	Checked By
				SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1								
2								
3								
4								
5	CLAY: Dk brn, firm, dense, masive Pr Plasticity		CL	 #3 Sand	0	SV10-5.0	5-5.5'	NO STAIN NO ODOR
6								
7								
8								
9								
10	CLAY: Med brn, firm, dense, massive pr plasticity		CL		0	SV10-10'	10.0-10.5'	NO STAIN NO ODOR
11								
12								
13								
14								
15	CLAY Med brn, firm, firm, dense massive, pr plasticity TD 15.5'		CL	 Hydrated bentonite 6" SS Probe	0	SV10-15'	15-15.5'	NO STAIN NO ODOR
16								






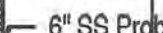
**MEARNS
CONSULTING
CORP.**

BORING LOG SV10

Town Center NW
Signal Hill, California

Project Number	Date	PM	Page
	July 13, 2021		1 of 1




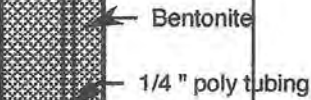

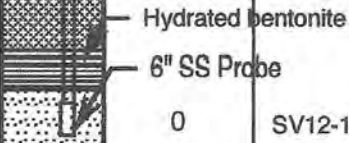
Boring Location	SV11	Elevation and Datum	GROUND SURFACE		
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET		
Drilling Equipment	Geoprobe 7800	Number of Samples	3		
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA		
Type of Perforation	6" SS slotted probe	Start Date	7/13/21	Completion Date	7/13/21
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA		
Type of Seal	BENTONITE	Logged By	SRF	Checked By	SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONST.	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1								
2								
3								
4								
5	CLAY: Dk brn, firm, dense, masive Pr Plasticity		CL	 #3 Sand	0	SV11-5.0	5-5.5'	SLT STAIN V SLT ODOR
6								
7								
8								
9								
10	CLAY: Med brn, firm, dense, massive pr plasticity		CL		0	SV11-10'	10.0-10.5'	NO STAIN NO ODOR
11								
12								
13								
14								
15	CLAY Med brn, firm, firm, dense massive, pr plasticity TD 15.5'		CL	 Hydrated bentonite  6" SS Probe	0	SV11-15'	15-15.5'	NO STAIN NO ODOR
16								

**MEARNS
CONSULTING
CORP.**

BORING LOG SV11
Town Center NW
Signal Hill, California

Boring Location	SV12	Elevation and Datum	GROUND SURFACE	
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET	
Drilling Equipment	Geoprobe 7800	Number of Samples	3	
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA	
Type of Perforation	6" SS slotted probe	Start Date	7/13/21	Completion Date
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA	
Type of Seal	BENTONITE	Logged By	SRF	Checked By
				SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1								
2								
3								
4								
5	CLAY: Dk brn, firm, dense, masive Pr Plasticity		CL		0	SV12-5.0	5-5.5'	NO STAIN NO ODOR
6								
7								
8								
9								
10	CLAY: Med brn, firm, dense, massive pr plasticity		CL		0	SV12-10'	10.0-10.5'	NO STAIN NO ODOR
11								
12								
13								
14								
15	SILT: Buff, massive, v fn sandy TD 15.5'		ML		0	SV12-15'	15-15.5'	NO STAIN NO ODOR
16								

**MEARNS
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BORING LOG SV12

Town Center NW
Signal Hill, California

Project Number	Date	PM	Page
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Boring Location	SV13	Elevation and Datum	GROUND SURFACE	
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET	
Drilling Equipment	Geoprobe 7800	Number of Samples	3	
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA	
Type of Perforation	6" SS slotted probe	Start Date	7/13/21	Completion Date
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA	
Type of Seal	BENTONITE	Logged By	SRF	Checked By
				SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1								
2								
3								
4								
5	CLAY: Lt brn, firm, dense, masive Pr Plasticity		CL		0	SV13-5.0	5-5.5'	NO STAIN NO ODOR
6								
7								
8								
9								
10	CLAY: Lt brn, firm, dense, massive pr plasticity		CL		0	SV13-10'	10.0-10.5	NO STAIN NO ODOR
11								
12								
13								
14								
15	SILT: Buff, massive, v fn sandy TD 15.5'		ML		0	SV13-15'	15-15.5	NO STAIN NO ODOR
16								

**MEARNS
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BORING LOG SV13

Town Center NW
Signal Hill, California

Project Number Date PM Page
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Boring Location	SV14	Elevation and Datum	GROUND SURFACE		
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET		
Drilling Equipment	Geoprobe 7800	Number of Samples	3		
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA		
Type of Perforation	6" SS slotted probe	Start Date	7/13/21	Completion Date	7/13/21
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA		
Type of Seal	BENTONITE	Logged By	SRF	Checked By	SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1								
2								
3								
4								
5	CLAY: Lt brn, firm, dense, masive Pr Plasticity		CL		0	SV14-5.0	5-5.5'	NO STAIN NO ODOR
6								
7								
8								
9								
10	CLAY: Lt brn, firm, dense, massive pr plasticity		CL		0	SV14-10'	10.0-10.5'	NO STAIN NO ODOR
11								
12								
13								
14								
15	CLAY: Lt brn, silty, massive, pr plasticity TD 15.5'		CL		0	SV14-15'	15-15.5'	NO STAIN NO ODOR
16								

**MEARNS
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BORING LOG SV14
Town Center NW
Signal Hill, California

Boring Location	SV15	Elevation and Datum	GROUND SURFACE	
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET	
Drilling Equipment	Geoprobe 7800	Number of Samples	3	
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA	
Type of Perforation	6" SS slotted probe	Start Date	7/13/21	Completion Date
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA	
Type of Seal	BENTONITE	Logged By	SRF	Checked By
				SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1								
2								
3								
4								
5	CLAY: Lt brn, firm, dense, masive Pr Plasticity		CL	#3 Sand 1/4" poly tubing	0	SV15-5.0	5-5.5'	NO STAIN NO ODOR
6								
7								
8								
9								
10	CLAY: Lt brn, firm, dense, massive pr plasticity		CL		0	SV15-10'	10.0-10.5	NO STAIN NO ODOR
11								
12								
13								
14								
15	CLAY: Buff, massive		ML	Hydrated bentonite 6" SS Probe	0	SV15-15'	15-15.5	NO STAIN NO ODOR
16	TD 15.5'							

**MEARNS
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BORING LOG SV15

Town Center NW
Signal Hill, California

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Boring Location	SV16	Elevation and Datum	GROUND SURFACE	
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET	
Drilling Equipment	Geoprobe 7800	Number of Samples	3	
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA	
Type of Perforation	6" SS slotted probe	Start Date	7/13/21	Completion Date
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA	
Type of Seal	BENTONITE	Logged By	SRF	Checked By
				SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1								
2								
3								
4								
5	CLAY: Med brn, firm, dense, masive Pr Plasticity		CL	#3 Sand 1 Bentonite 1/4" poly tubing	0	SV16-5.0	5-5.5'	NO STAIN NO ODOR
6								
7								
8								
9								
10	CLAY: Lt brn, firm, dense, massive pr plasticity		CL		0	SV16-10'	10.0-10.5'	NO STAIN NO ODOR
11								
12								
13								
14								
15	CLAY: Dk brn-blk, firm, dense, massive pr plassticity TD 15.5'		CL	Hydrated bentonite 6" SS Probe	4.7	SV16-15'	15-15.5'	SLT STAIN SLT ODOR
16								

**MEARNS
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BORING LOG SV16

Town Center NW
Signal Hill, California

Project Number	Date	PM	Page
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Boring Location	SV17	Elevation and Datum	GROUND SURFACE		
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET		
Drilling Equipment	Geoprobe 7800	Number of Samples	3		
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA		
Type of Perforation	6" SS slotted probe	Start Date	7/13/21	Completion Date	7/13/21
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA		
Type of Seal	BENTONITE	Logged By	SRF	Checked By	SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
0 - 4		Gravel						
5	CLAY: Med brn, firm, dense, masive Pr Plasticity		CL	#3 Sand	0	SV17-5.0	5-5.5'	V SLT STAIN NO ODOR
5 - 10				Bentonite				
5 - 10				1/4" poly tubing				
10	CLAY: Lt brn, firm, dense, massive pr plasticity		CL		0	SV17-10'	10.0-10.5'	V SLT STAIN NO ODOR
10 - 15				Hydrated bentonite				
10 - 15				6" SS Probe				
15	CLAY: Dk brn, firm, dense, massive pr plasticity TD 15.5'		CL		0	SV17-15'	15-15.5'	V SLT STAIN NO ODOR

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BORING LOG SV17

Town Center NW
Signal Hill, California

Project Number	Date	PM	Page
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Boring Location	SV18	Elevation and Datum	GROUND SURFACE	
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET	
Drilling Equipment	Geoprobe 7800	Number of Samples	3	
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA	
Type of Perforation	6" SS slotted probe	Start Date	7/13/21	Completion Date
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA	
Type of Seal	BENTONITE	Logged By	SRF	Checked By
				SRF




DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
5	CLAY: Med brn, firm, dense, masive Pr Plasticity		CL	#3 Sand Bentonite 1/4" poly tubing	0	SV18-5.0	5-5.5'	V SLT STAIN NO ODOR
10	CLAY: Blk, firm, dense, massive pr plasticity		CL	Hydrated bentonite 6" SS Probe	16.7	SV18-10'	10.0-10.5'	MOD SLT STAIN SLT ODOR
15	CLAY: Blk., firm, dense, massive TD 15.5' pr plassticity		CL		11.7	SV18-15'	15-15.5'	MOD STAIN SLT ODOR

**MEARNS
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BORING LOG SV18

Town Center NW
Signal Hill, California

Boring Location	SV19	Elevation and Datum	GROUND SURFACE		
Drilling Company	Kehoe Drilling	Completion Depth	15 FEET		
Drilling Equipment	Geoprobe 7800	Number of Samples	3		
Boring	2 1/4 INCH DIAMETER	Water Depth at Date of Installation	NA		
Type of Perforation	6" SS slotted probe	Start Date	7/13/21	Completion Date	7/13/21
Type of Perforation Backfill	#3 Sand	Date Developed and Sampled	NA		
Type of Seal	BENTONITE	Logged By	SRF	Checked By	SRF

DEPTH (FEET)	DESCRIPTION	LOG DATA				SAMPLE DATA		REMARKS
		LITHOLOGY	USCS	WELL CONSTR	OVA-PPM	SAMPLE NUMBER	SAMPLE INTERVAL	
0	Dirt Surface							
1				1/4" poly tubing				
2				Hydrated bentonite				
3				#3 Sand				
4				Bentonite				
5	CLAY: Blk, firm, dense, masive Pr Plasticity		CL		1384	SV19-5.0	5-5.5'	GD STAIN MOD ODOR
6								
7								
8								
9								
10	CLAY: Blk., dense, massive, moist pr plasticity		CL		681	SV19-10'	10.0-10.5'	GD STAIN MOD ODOR
11								
12								
13								
14								
15	CLAY: Blk., firm, dense, massive, moist TD 15.5' pr plassticity		CL		908	SV19-15'	15-15.5'	GD STAIN MOD ODOR
16								

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BORING LOG SV19

Town Center NW
Signal Hill, California

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APPENDIX E

Metals Statistical Analyses

Multiple Box Plots

Ordered Observations

18

15

12

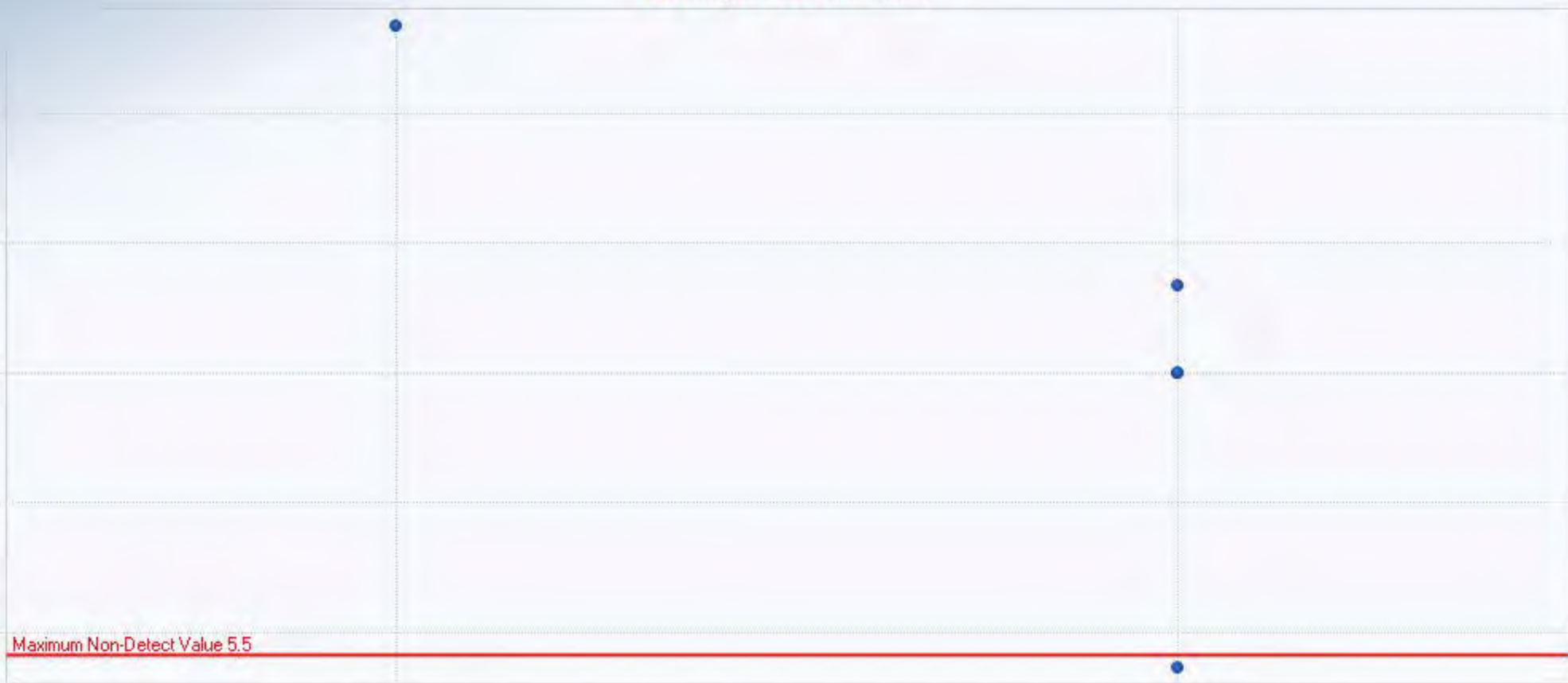
9

6

Maximum Non-Detect Value 5.5

As

Bkgnd As



Multiple Histogram Reported values used for nondetects

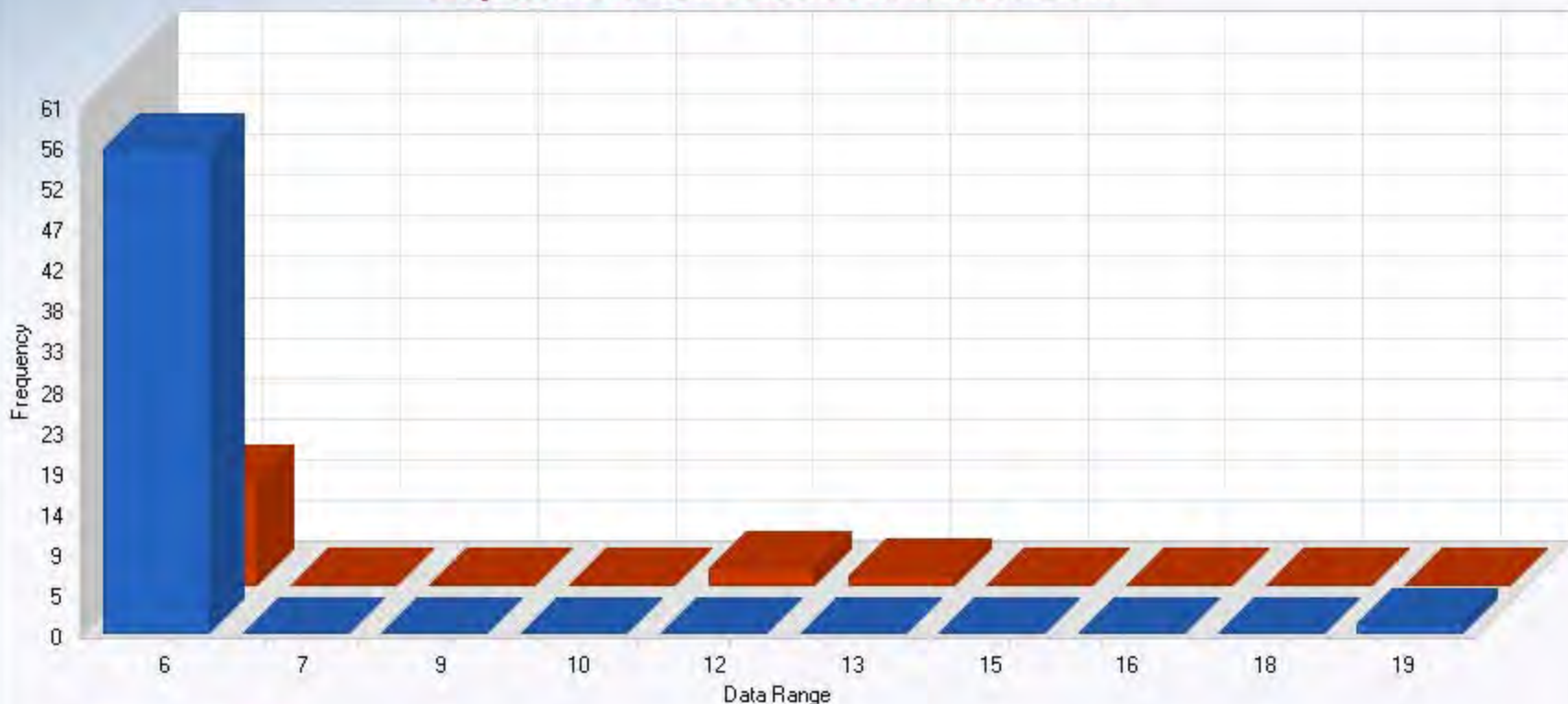
- Normal Distribution
- Less Bins
- More Bins

As

Number of Values	57
Number of Values	57
Mean	5.75
SD	1.92

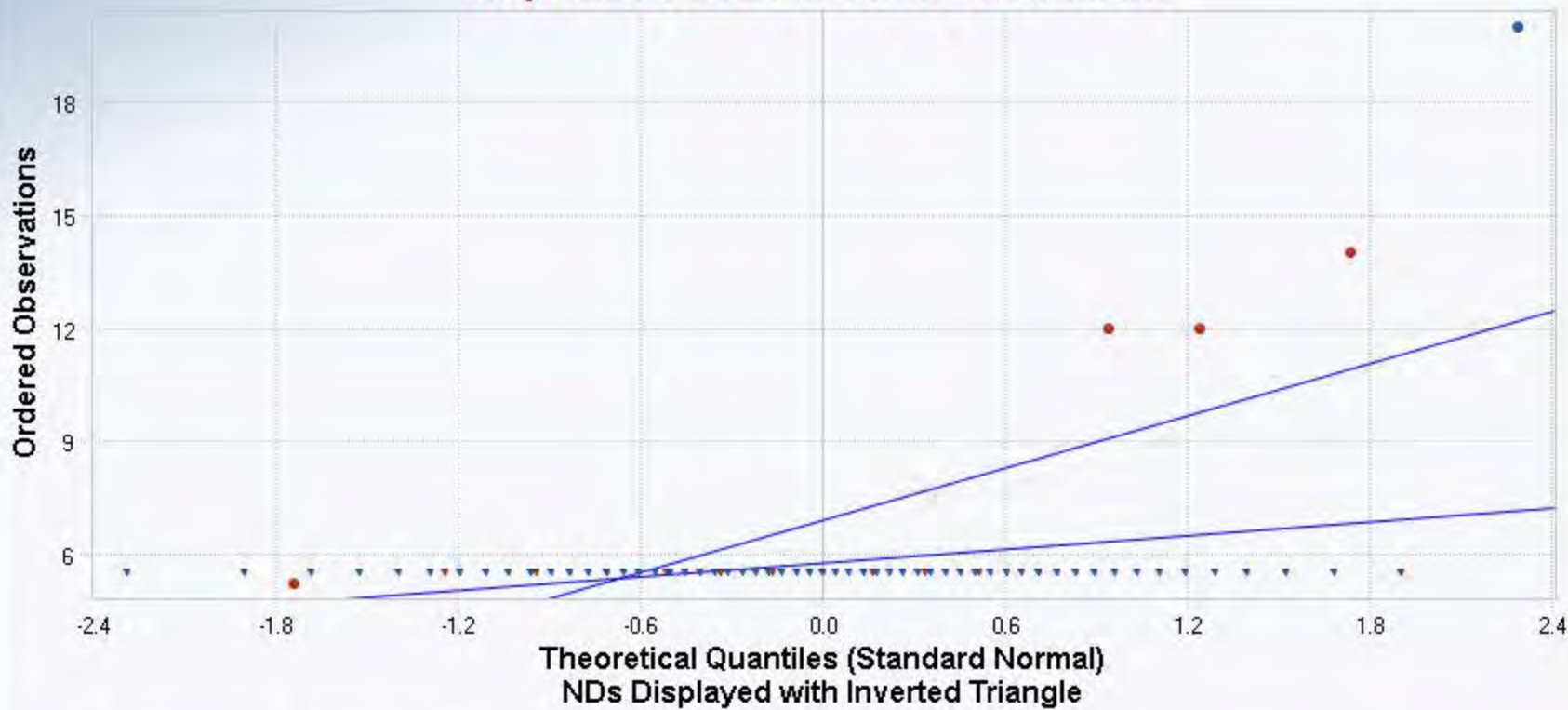
Bkgnd As

Number of Values	15
Number of Values	15
Mean	6.91
SD	3.01



Q-Q Plot

Reported values used for nondetects



As

Total Number of Data = 57
Number of Non-Detects = 56
Number of Detects = 1
Detected Mean = 20
Detected Sd = N/A
Slope (displayed data) = 0.614
Intercept (displayed data) = 5.754
Correlation, R = 0.314

Bkgnd As

Total Number of Data = 15
Number of Non-Detects = 11
Number of Detects = 4
Detected Mean = 10.8
Detected Sd = 3.851
Slope (displayed data) = 2.314
Intercept (displayed data) = 6.913
Correlation, R = 0.734

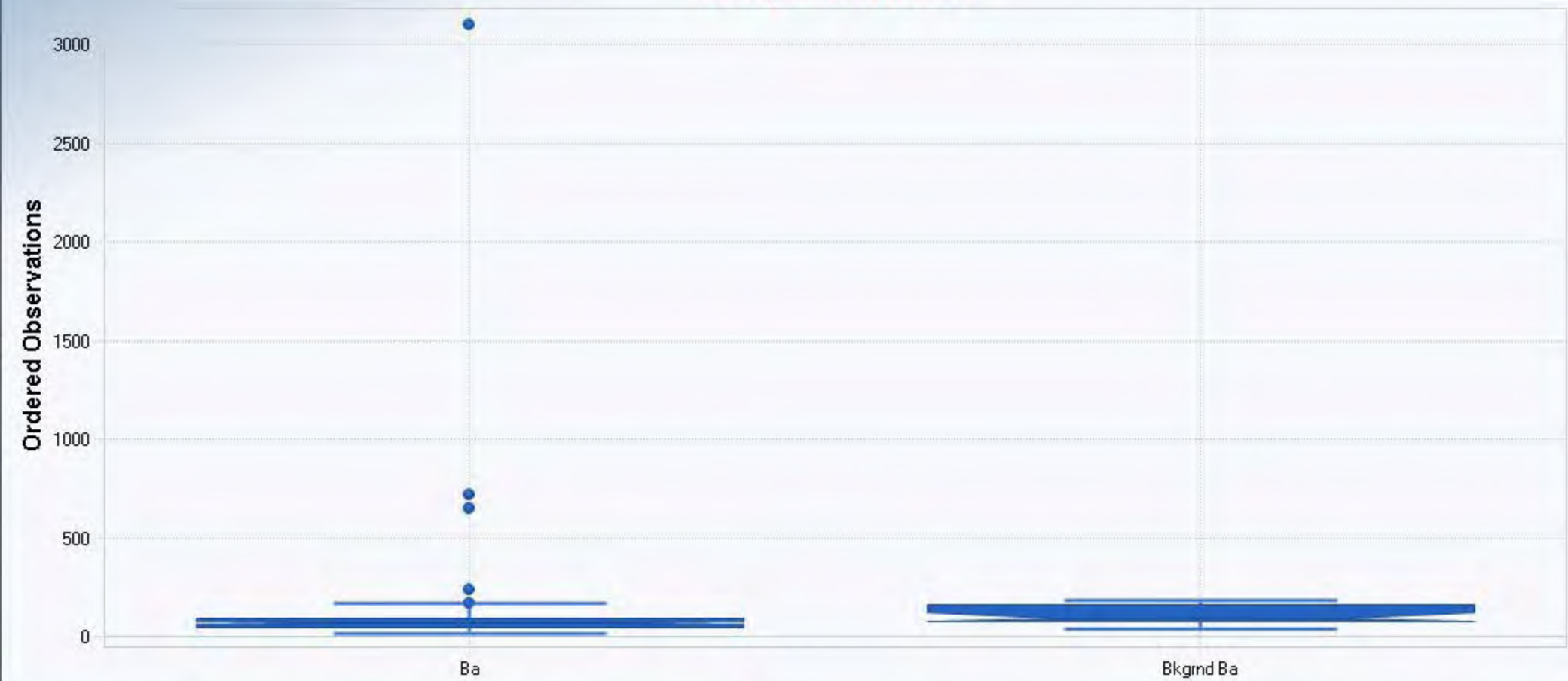
Best Fit Line

	A	B	C	D	E	F	G	H	I	J	K	L
1	Tarone-Ware Sample 1 vs Sample 2 Comparison Hypothesis Test for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation		ProUCL 5.18/7/2021 10:47:43 AM									
5	From File		Metals in Soil TCNW.xls									
6	Full Precision		OFF									
7	Confidence Coefficient		95%									
8	Selected Null Hypothesis		Sample 1 Mean/Median <= Sample 2 Mean/Median (Form 1)									
9	Alternative Hypothesis		Sample 1 Mean/Median > Sample 2 Mean/Median									
10												
11												
12	Sample 1 Data: As											
13	Sample 2 Data: Bkgrnd As											
14												
15	Raw Statistics											
16			Sample 1	Sample 2								
17	Number of Valid Data		57	15								
18	Number of Non-Detects		56	11								
19	Number of Detects		1	4								
20	Minimum Non-Detect		5.5	5.5								
21	Maximum Non-Detect		5.5	5.5								
22	Percent Non-detects		98.25%	73.33%								
23	Minimum Detect		20	5.2								
24	Maximum Detect		20	14								
25	Mean of Detects		20	10.8								
26	Median of Detects		20	12								
27	SD of Detects		N/A	3.851								
28	KM Mean		5.754	6.693								
29	KM SD		1.904	3.016								
30												
31	Sample 1 vs Sample 2 Tarone-Ware Test											
32												
33	H0: Mean/Median of Sample 1 <= Mean/Median of Sample 2											
34												
35	TW Statistic		-2.699									
36	TW Critical Value (0.05)		1.645									
37	P-Value		0.997									
38												
39	Conclusion with Alpha = 0.05											
40	Do Not Reject H0, Conclude Sample 1 <= Sample 2											
41	P-Value >= alpha (0.05)											
42												

	A	B	C	D	E	F	G	H	I	J	K	L
1	Wilcoxon-Mann-Whitney Sample 1 vs Sample 2 Comparison Test for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 10:48:12 AM								
5	From File			Metals in Soil TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Selected Null Hypothesis			Sample 1 Mean/Median <= Sample 2 Mean/Median (Form 1)								
9	Alternative Hypothesis			Sample 1 Mean/Median > Sample 2 Mean/Median								
10												
11												
12	Sample 1 Data: As											
13	Sample 2 Data: Bkgrnd As											
14												
15	Raw Statistics											
16				Sample 1	Sample 2							
17	Number of Valid Data			57	15							
18	Number of Non-Detects			56	11							
19	Number of Detect Data			1	4							
20	Minimum Non-Detect			5.5	5.5							
21	Maximum Non-Detect			5.5	5.5							
22	Percent Non-detects			98.25%	73.33%							
23	Minimum Detect			20	5.2							
24	Maximum Detect			20	14							
25	Mean of Detects			20	10.8							
26	Median of Detects			20	12							
27	SD of Detects			N/A	3.851							
28												
29	WMW test is meant for a Single Detection Limit Case											
30	Use of Gehan or T-W test is suggested when multiple detection limits are present											
31	All observations <= 5.5 (Max DL) are ranked the same											
32												
33	Wilcoxon-Mann-Whitney (WMW) Test											
34												
35	H0: Mean/Median of Sample 1 <= Mean/Median of Sample 2											
36												
37	Sample 1 Rank Sum W-Stat			2004								
38	Standardized WMW U-Stat			-2.69								
39	Mean (U)			427.5								
40	SD(U) - Adj ties			72.12								
41	Approximate U-Stat Critical Value (0.05)			1.645								
42	P-Value (Adjusted for Ties)			0.996								
43												
44	Conclusion with Alpha = 0.05											
45	Do Not Reject H0, Conclude Sample 1 <= Sample 2											
46	P-Value >= alpha (0.05)											
47												

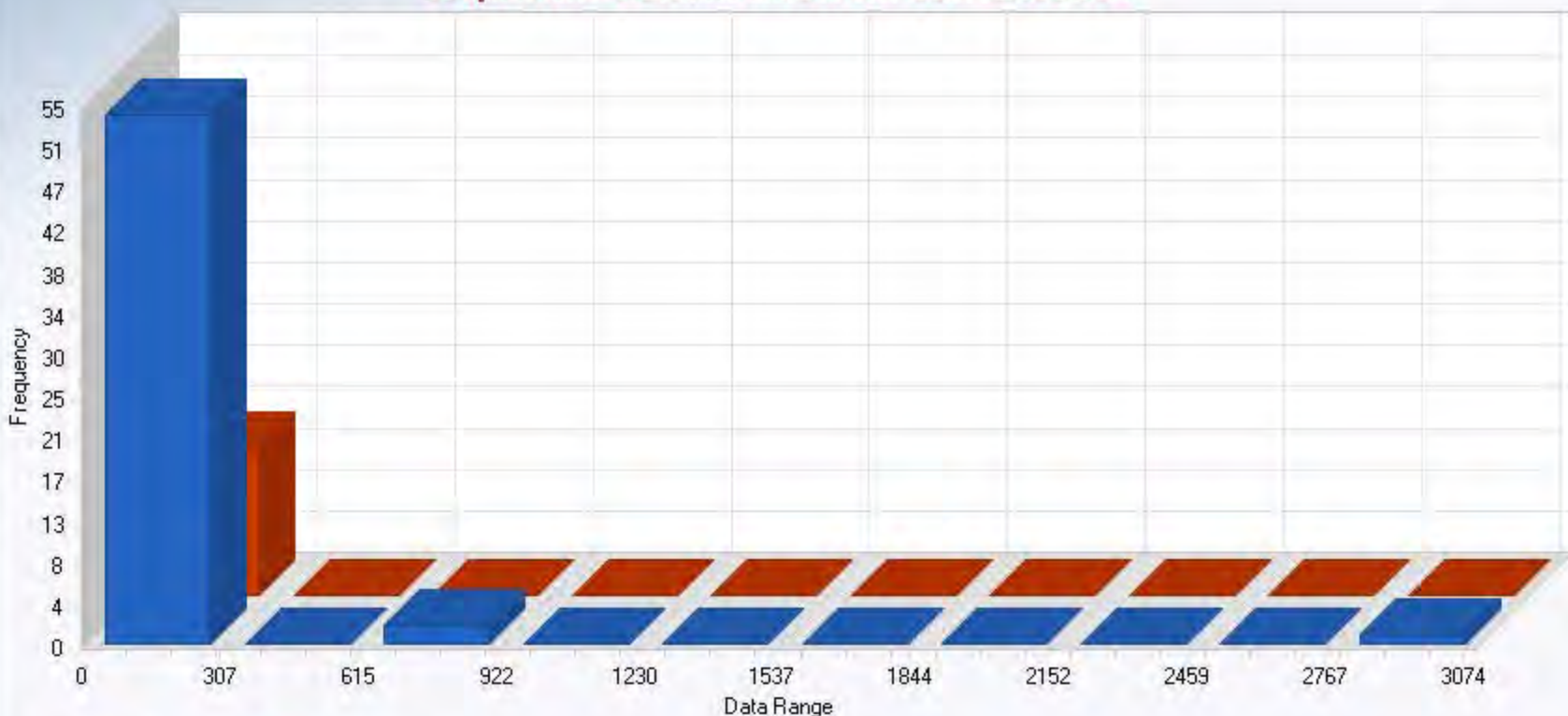
	A	B	C	D	E	F	G	H	I	J	K	L
1	Gehan Sample 1 vs Sample 2 Comparison Hypothesis Test for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 10:46:30 AM								
5	From File			Metals in Soil TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Selected Null Hypothesis			Sample 1 Mean/Median <= Sample 2 Mean/Median (Form 1)								
9	Alternative Hypothesis			Sample 1 Mean/Median > Sample 2 Mean/Median								
10												
11												
12	Sample 1 Data: As											
13	Sample 2 Data: Bkgrnd As											
14												
15	Raw Statistics											
16				Sample 1	Sample 2							
17	Number of Valid Data			57	15							
18	Number of Non-Detects			56	11							
19	Number of Detect Data			1	4							
20	Minimum Non-Detect			5.5	5.5							
21	Maximum Non-Detect			5.5	5.5							
22	Percent Non-detects			98.25%	73.33%							
23	Minimum Detect			20	5.2							
24	Maximum Detect			20	14							
25	Mean of Detects			20	10.8							
26	Median of Detects			20	12							
27	SD of Detects			N/A	3.851							
28	KM Mean			5.754	6.693							
29	KM SD			1.904	3.016							
30												
31	Sample 1 vs Sample 2 Gehan Test											
32												
33	H0: Mean/Median of Sample 1 <= Mean/Median of background											
34												
35	Gehan z Test Value			-2.672								
36	Critical z (0.05)			1.645								
37	P-Value			0.996								
38												
39	Conclusion with Alpha = 0.05											
40	Do Not Reject H0, Conclude Sample 1 <= Sample 2											
41	P-Value >= alpha (0.05)											
42												

Multiple Box Plots



	A	B	C	D	E	F	G	H	I	J	K	L
1	Gehan Sample 1 vs Sample 2 Comparison Hypothesis Test for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 10:50:43 AM								
5	From File			Metals in Soil TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Selected Null Hypothesis			Sample 1 Mean/Median <= Sample 2 Mean/Median (Form 1)								
9	Alternative Hypothesis			Sample 1 Mean/Median > Sample 2 Mean/Median								
10												
11												
12	Sample 1 Data: Ba											
13	Sample 2 Data: Bkgrnd Ba											
14												
15	Raw Statistics											
16				Sample 1	Sample 2							
17	Number of Valid Data			57	15							
18	Number of Non-Detects			0	0							
19	Number of Detect Data			57	15							
20	Minimum Non-Detect			N/A	N/A							
21	Maximum Non-Detect			N/A	N/A							
22	Percent Non-detects			0.00%	0.00%							
23	Minimum Detect			26	48							
24	Maximum Detect			3100	180							
25	Mean of Detects			151.1	110.9							
26	Median of Detects			74	97							
27	SD of Detects			415.1	41.89							
28	KM Mean			151.1	110.9							
29	KM SD			415.1	41.89							
30												
31	Sample 1 vs Sample 2 Gehan Test											
32												
33	H0: Mean/Median of Sample 1 <= Mean/Median of background											
34												
35	Gehan z Test Value			-2.655								
36	Critical z (0.05)			1.645								
37	P-Value			0.996								
38												
39	Conclusion with Alpha = 0.05											
40	Do Not Reject H0, Conclude Sample 1 <= Sample 2											
41	P-Value >= alpha (0.05)											
42												

Multiple Histogram Reported values used for nondetects



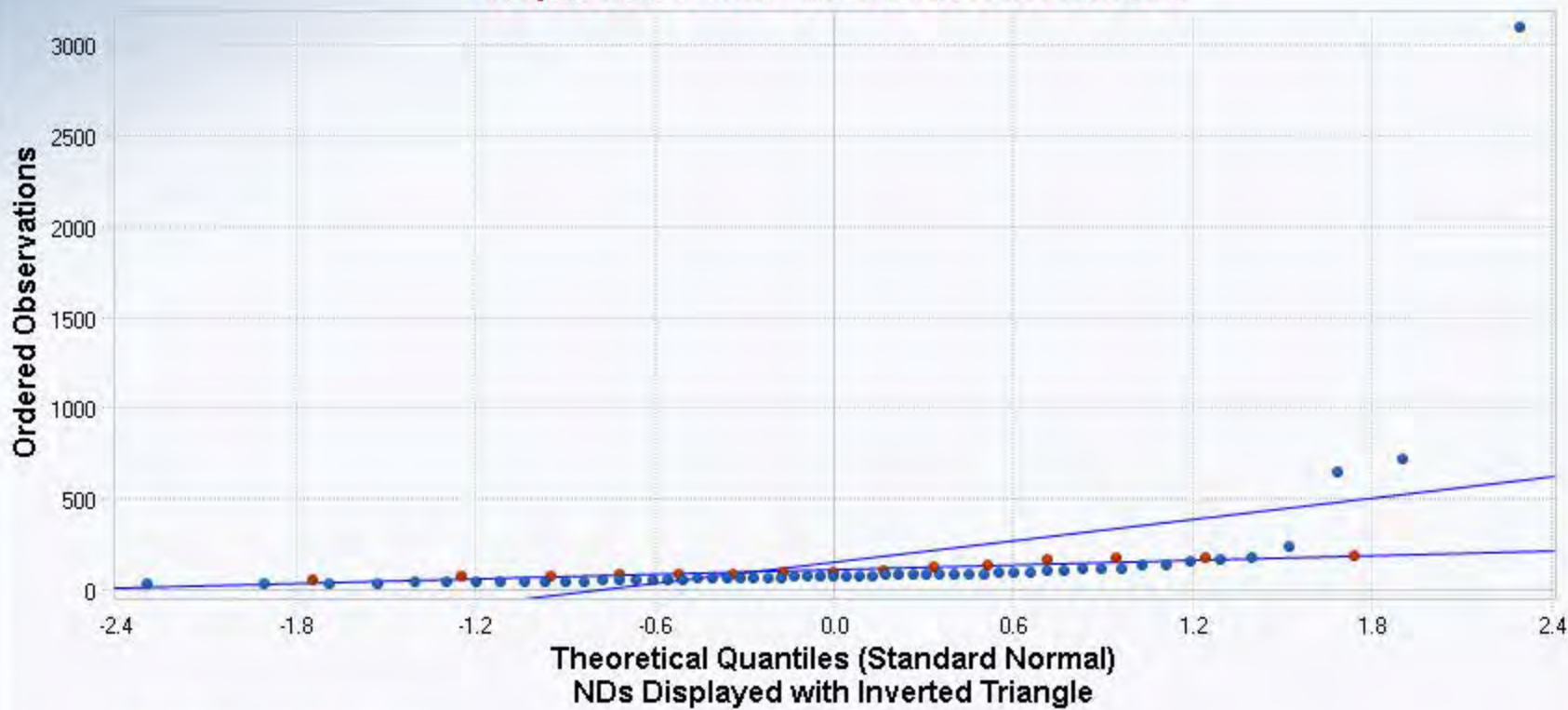
■ Ba
 ■ Bkgrnd Ba

- Normal Distribution
- Less Bins
- More Bins

Ba	
Number of Values	57
Number of Values	57
Mean	151.09
SD	415.12
Bkgrnd Ba	
Number of Values	15
Number of Values	15
Mean	110.87
SD	41.89

Q-Q Plot

Reported values used for nondetects



Ba

Total Number of Data = 57

Number of Non-Detects = 0

Number of Detects = 57

Detected Mean = 151.1

Detected Sd = 415.1

Slope (displayed data) = 198.9

Intercept (displayed data) = 151.1

Correlation, R = 0.471

Bkgnd Ba

Total Number of Data = 15

Number of Non-Detects = 0

Number of Detects = 15

Detected Mean = 110.9

Detected Sd = 41.89

Slope (displayed data) = 42.22

Intercept (displayed data) = 110.9

Correlation, R = 0.962

Best Fit Line

	A	B	C	D	E	F	G	H	I	J	K	L
1	Tarone-Ware Sample 1 vs Sample 2 Comparison Hypothesis Test for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation		ProUCL 5.18/7/2021 10:51:09 AM									
5	From File		Metals in Soil TCNW.xls									
6	Full Precision		OFF									
7	Confidence Coefficient		95%									
8	Selected Null Hypothesis		Sample 1 Mean/Median <= Sample 2 Mean/Median (Form 1)									
9	Alternative Hypothesis		Sample 1 Mean/Median > Sample 2 Mean/Median									
10												
11												
12	Sample 1 Data: Ba											
13	Sample 2 Data: Bkgrnd Ba											
14												
15	Raw Statistics											
16			Sample 1	Sample 2								
17	Number of Valid Data		57	15								
18	Number of Non-Detects		0	0								
19	Number of Detects		57	15								
20	Minimum Non-Detect		N/A	N/A								
21	Maximum Non-Detect		N/A	N/A								
22	Percent Non-detects		0.00%	0.00%								
23	Minimum Detect		26	48								
24	Maximum Detect		3100	180								
25	Mean of Detects		151.1	110.9								
26	Median of Detects		74	97								
27	SD of Detects		415.1	41.89								
28	KM Mean		151.1	110.9								
29	KM SD		415.1	41.89								
30												
31	Sample 1 vs Sample 2 Tarone-Ware Test											
32												
33	H0: Mean/Median of Sample 1 <= Mean/Median of Sample 2											
34												
35	TW Statistic		-3.113									
36	TW Critical Value (0.05)		1.645									
37	P-Value		0.999									
38												
39	Conclusion with Alpha = 0.05											
40	Do Not Reject H0, Conclude Sample 1 <= Sample 2											
41	P-Value >= alpha (0.05)											
42												

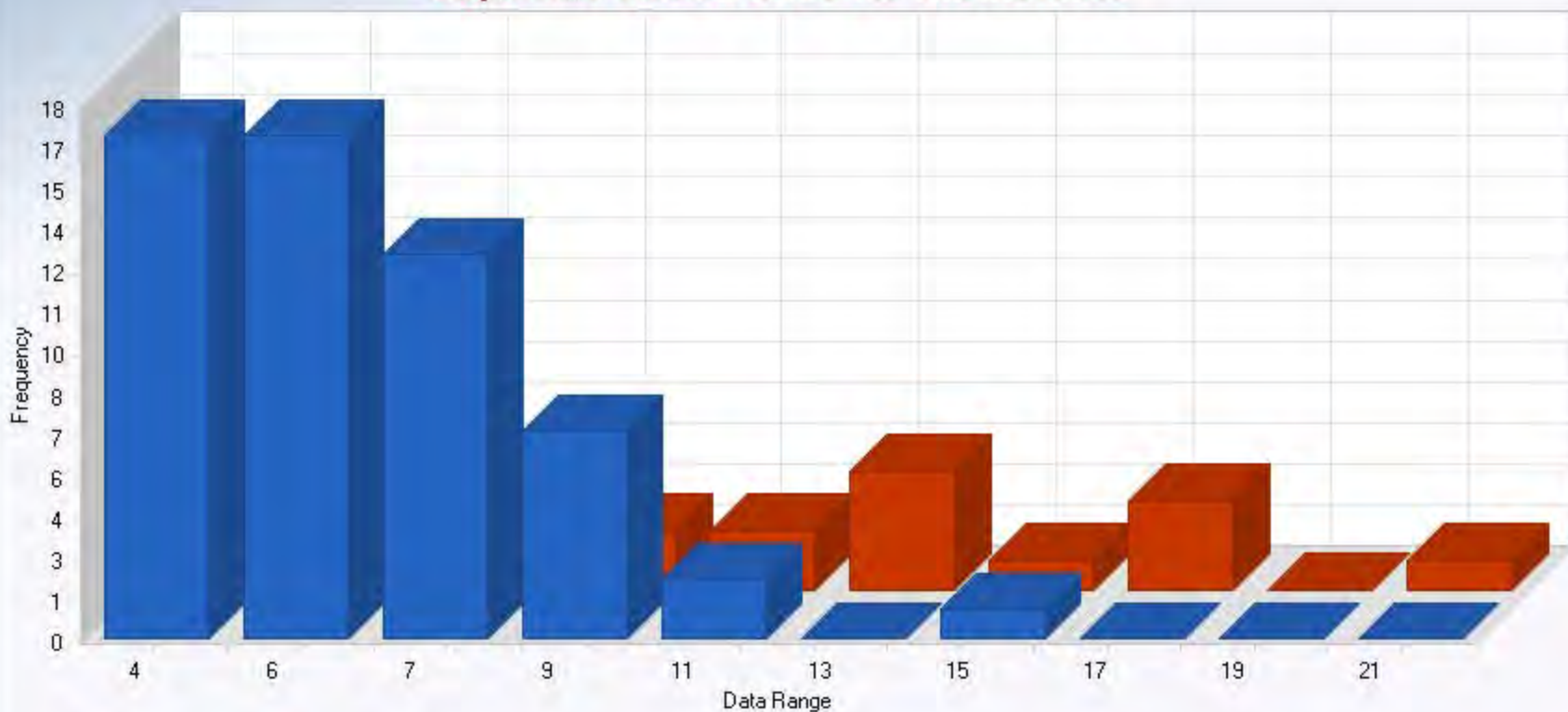
	A	B	C	D	E	F	G	H	I	J	K	L
1	Wilcoxon-Mann-Whitney Sample 1 vs Sample 2 Comparison Test for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation		ProUCL 5.18/7/2021 10:51:36 AM									
5	From File		Metals in Soil TCNW.xls									
6	Full Precision		OFF									
7	Confidence Coefficient		95%									
8	Selected Null Hypothesis		Sample 1 Mean/Median <= Sample 2 Mean/Median (Form 1)									
9	Alternative Hypothesis		Sample 1 Mean/Median > Sample 2 Mean/Median									
10												
11												
12	Sample 1 Data: Ba											
13	Sample 2 Data: Bkgrnd Ba											
14												
15	Raw Statistics											
16			Sample 1	Sample 2								
17	Number of Valid Data		57	15								
18	Number of Non-Detects		0	0								
19	Number of Detect Data		57	15								
20	Minimum Non-Detect		N/A	N/A								
21	Maximum Non-Detect		N/A	N/A								
22	Percent Non-detects		0.00%	0.00%								
23	Minimum Detect		26	48								
24	Maximum Detect		3100	180								
25	Mean of Detects		151.1	110.9								
26	Median of Detects		74	97								
27	SD of Detects		415.1	41.89								
28												
29	Wilcoxon-Mann-Whitney (WMW) Test											
30												
31	H0: Mean/Median of Sample 1 <= Mean/Median of Sample 2											
32												
33	Sample 1 Rank Sum W-Stat		1892									
34	Standardized WMW U-Stat		-2.622									
35	Mean (U)		427.5									
36	SD(U) - Adj ties		72.1									
37	Approximate U-Stat Critical Value (0.05)		1.645									
38	P-Value (Adjusted for Ties)		0.996									
39												
40	Conclusion with Alpha = 0.05											
41	Do Not Reject H0, Conclude Sample 1 <= Sample 2											
42	P-Value >= alpha (0.05)											
43												

Multiple Box Plots



	A	B	C	D	E	F	G	H	I	J	K	L
1	Gehan Sample 1 vs Sample 2 Comparison Hypothesis Test for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 10:53:47 AM								
5	From File			Metals in Soil TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Selected Null Hypothesis			Sample 1 Mean/Median <= Sample 2 Mean/Median (Form 1)								
9	Alternative Hypothesis			Sample 1 Mean/Median > Sample 2 Mean/Median								
10												
11												
12	Sample 1 Data: Co											
13	Sample 2 Data: Bkgrnd Co											
14												
15	Raw Statistics											
16				Sample 1	Sample 2							
17	Number of Valid Data			57	15							
18	Number of Non-Detects			2	0							
19	Number of Detect Data			55	15							
20	Minimum Non-Detect			3.3	N/A							
21	Maximum Non-Detect			3.3	N/A							
22	Percent Non-detects			3.51%	0.00%							
23	Minimum Detect			3.3	4.6							
24	Maximum Detect			16	22							
25	Mean of Detects			6.798	13.25							
26	Median of Detects			6.4	14							
27	SD of Detects			2.374	4.339							
28	KM Mean			6.675	13.25							
29	KM SD			2.399	4.339							
30												
31	Sample 1 vs Sample 2 Gehan Test											
32												
33	H0: Mean/Median of Sample 1 <= Mean/Median of background											
34												
35	Gehan z Test Value			-4.818								
36	Critical z (0.05)			1.645								
37	P-Value			1								
38												
39	Conclusion with Alpha = 0.05											
40	Do Not Reject H0, Conclude Sample 1 <= Sample 2											
41	P-Value >= alpha (0.05)											
42												

Multiple Histogram Reported values used for nondetects



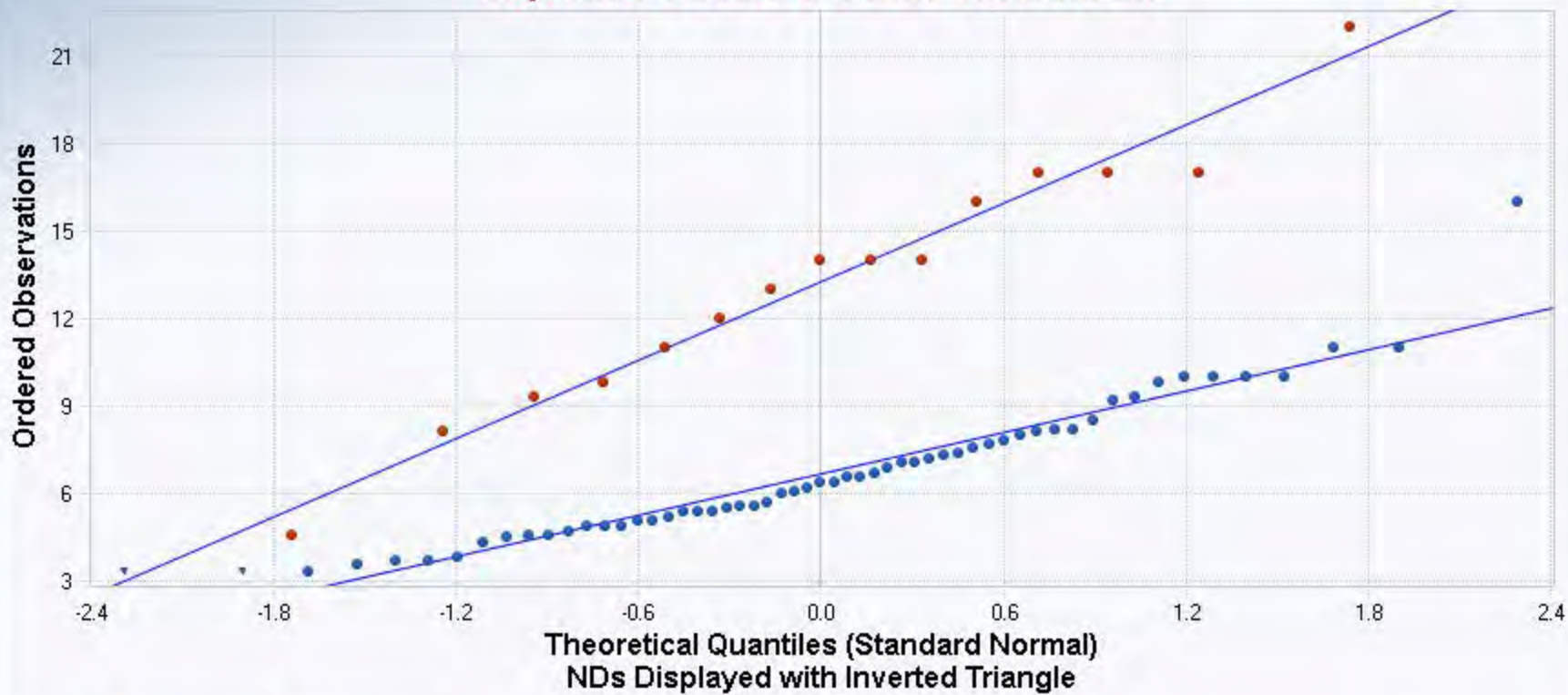
■ Co ■ Bkgrnd Co

- Normal Distribution
- Less Bins
- More Bins

Co	
Number of Values	57
Number of Values	57
Mean	6.68
SD	2.42
Bkgrnd Co	
Number of Values	15
Number of Values	15
Mean	13.25
SD	4.34

Q-Q Plot

Reported values used for nondetects



Co

Total Number of Data = 57
Number of Non-Detects = 2
Number of Detects = 55
Detected Mean = 6.798
Detected Sd = 2.374
Slope (displayed data) = 2.36
Intercept (displayed data) = 6.675
Correlation, R = 0.959

Bkgnd Co

Total Number of Data = 15
Number of Non-Detects = 0
Number of Detects = 15
Detected Mean = 13.25
Detected Sd = 4.339
Slope (displayed data) = 4.478
Intercept (displayed data) = 13.25
Correlation, R = 0.986

Best Fit Line

	A	B	C	D	E	F	G	H	I	J	K	L
1	Tarone-Ware Sample 1 vs Sample 2 Comparison Hypothesis Test for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation		ProUCL 5.18/7/2021 10:54:12 AM									
5	From File		Metals in Soil TCNW.xls									
6	Full Precision		OFF									
7	Confidence Coefficient		95%									
8	Selected Null Hypothesis		Sample 1 Mean/Median <= Sample 2 Mean/Median (Form 1)									
9	Alternative Hypothesis		Sample 1 Mean/Median > Sample 2 Mean/Median									
10												
11												
12	Sample 1 Data: Co											
13	Sample 2 Data: Bkgrnd Co											
14												
15	Raw Statistics											
16			Sample 1	Sample 2								
17	Number of Valid Data		57	15								
18	Number of Non-Detects		2	0								
19	Number of Detects		55	15								
20	Minimum Non-Detect		3.3	N/A								
21	Maximum Non-Detect		3.3	N/A								
22	Percent Non-detects		3.51%	0.00%								
23	Minimum Detect		3.3	4.6								
24	Maximum Detect		16	22								
25	Mean of Detects		6.798	13.25								
26	Median of Detects		6.4	14								
27	SD of Detects		2.374	4.339								
28	KM Mean		6.675	13.25								
29	KM SD		2.399	4.339								
30												
31	Sample 1 vs Sample 2 Tarone-Ware Test											
32												
33	H0: Mean/Median of Sample 1 <= Mean/Median of Sample 2											
34												
35	TW Statistic		-6.311									
36	TW Critical Value (0.05)		1.645									
37	P-Value		1									
38												
39	Conclusion with Alpha = 0.05											
40	Do Not Reject H0, Conclude Sample 1 <= Sample 2											
41	P-Value >= alpha (0.05)											
42												

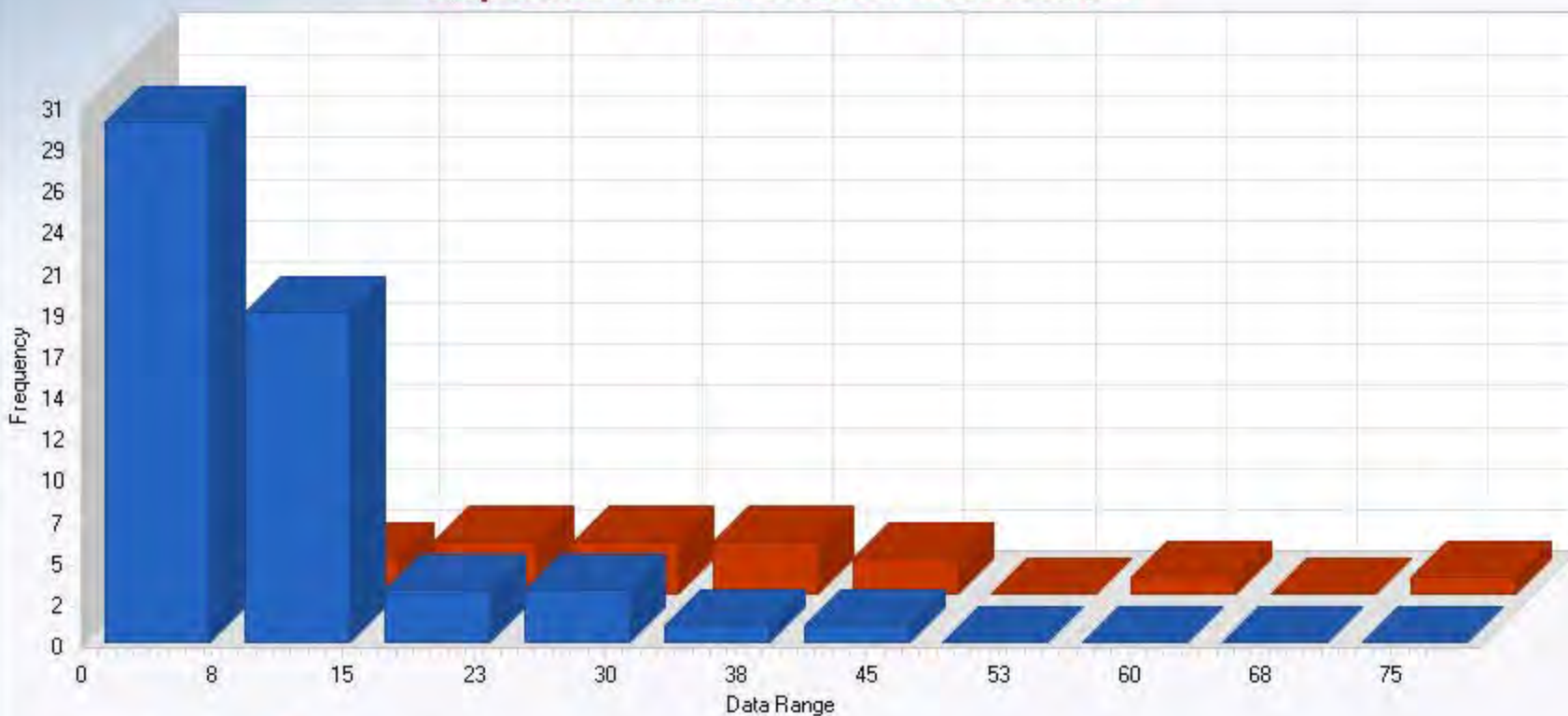
	A	B	C	D	E	F	G	H	I	J	K	L
1	Wilcoxon-Mann-Whitney Sample 1 vs Sample 2 Comparison Test for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 10:54:40 AM								
5	From File			Metals in Soil TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Selected Null Hypothesis			Sample 1 Mean/Median <= Sample 2 Mean/Median (Form 1)								
9	Alternative Hypothesis			Sample 1 Mean/Median > Sample 2 Mean/Median								
10												
11												
12	Sample 1 Data: Co											
13	Sample 2 Data: Bkgrnd Co											
14												
15	Raw Statistics											
16				Sample 1	Sample 2							
17	Number of Valid Data			57	15							
18	Number of Non-Detects			2	0							
19	Number of Detect Data			55	15							
20	Minimum Non-Detect			3.3	N/A							
21	Maximum Non-Detect			3.3	N/A							
22	Percent Non-detects			3.51%	0.00%							
23	Minimum Detect			3.3	4.6							
24	Maximum Detect			16	22							
25	Mean of Detects			6.798	13.25							
26	Median of Detects			6.4	14							
27	SD of Detects			2.374	4.339							
28												
29	Wilcoxon-Mann-Whitney (WMW) Test											
30												
31	H0: Mean/Median of Sample 1 <= Mean/Median of Sample 2											
32												
33	Sample 1 Rank Sum W-Stat			1737								
34	Standardized WMW U-Stat			-4.772								
35	Mean (U)			427.5								
36	SD(U) - Adj ties			72.09								
37	Approximate U-Stat Critical Value (0.05)			1.645								
38	P-Value (Adjusted for Ties)			1								
39												
40	Conclusion with Alpha = 0.05											
41	Do Not Reject H0, Conclude Sample 1 <= Sample 2											
42	P-Value >= alpha (0.05)											
43												

Multiple Box Plots



	A	B	C	D	E	F	G	H	I	J	K	L
1	Gehan Sample 1 vs Sample 2 Comparison Hypothesis Test for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 11:00:48 AM								
5	From File			Metals in Soil TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Selected Null Hypothesis			Sample 1 Mean/Median <= Sample 2 Mean/Median (Form 1)								
9	Alternative Hypothesis			Sample 1 Mean/Median > Sample 2 Mean/Median								
10												
11												
12	Sample 1 Data: Cu											
13	Sample 2 Data: Bkgrnd Cu											
14												
15	Raw Statistics											
16				Sample 1	Sample 2							
17	Number of Valid Data			57	15							
18	Number of Non-Detects			2	0							
19	Number of Detect Data			55	15							
20	Minimum Non-Detect			5	N/A							
21	Maximum Non-Detect			5	N/A							
22	Percent Non-detects			3.51%	0.00%							
23	Minimum Detect			6.2	14							
24	Maximum Detect			47	80							
25	Mean of Detects			14.67	36.8							
26	Median of Detects			12	35							
27	SD of Detects			8.303	17.38							
28	KM Mean			14.33	36.8							
29	KM SD			8.275	17.38							
30												
31	Sample 1 vs Sample 2 Gehan Test											
32												
33	H0: Mean/Median of Sample 1 <= Mean/Median of background											
34												
35	Gehan z Test Value			-4.985								
36	Critical z (0.05)			1.645								
37	P-Value			1								
38												
39	Conclusion with Alpha = 0.05											
40	Do Not Reject H0, Conclude Sample 1 <= Sample 2											
41	P-Value >= alpha (0.05)											
42												

Multiple Histogram Reported values used for nondetects



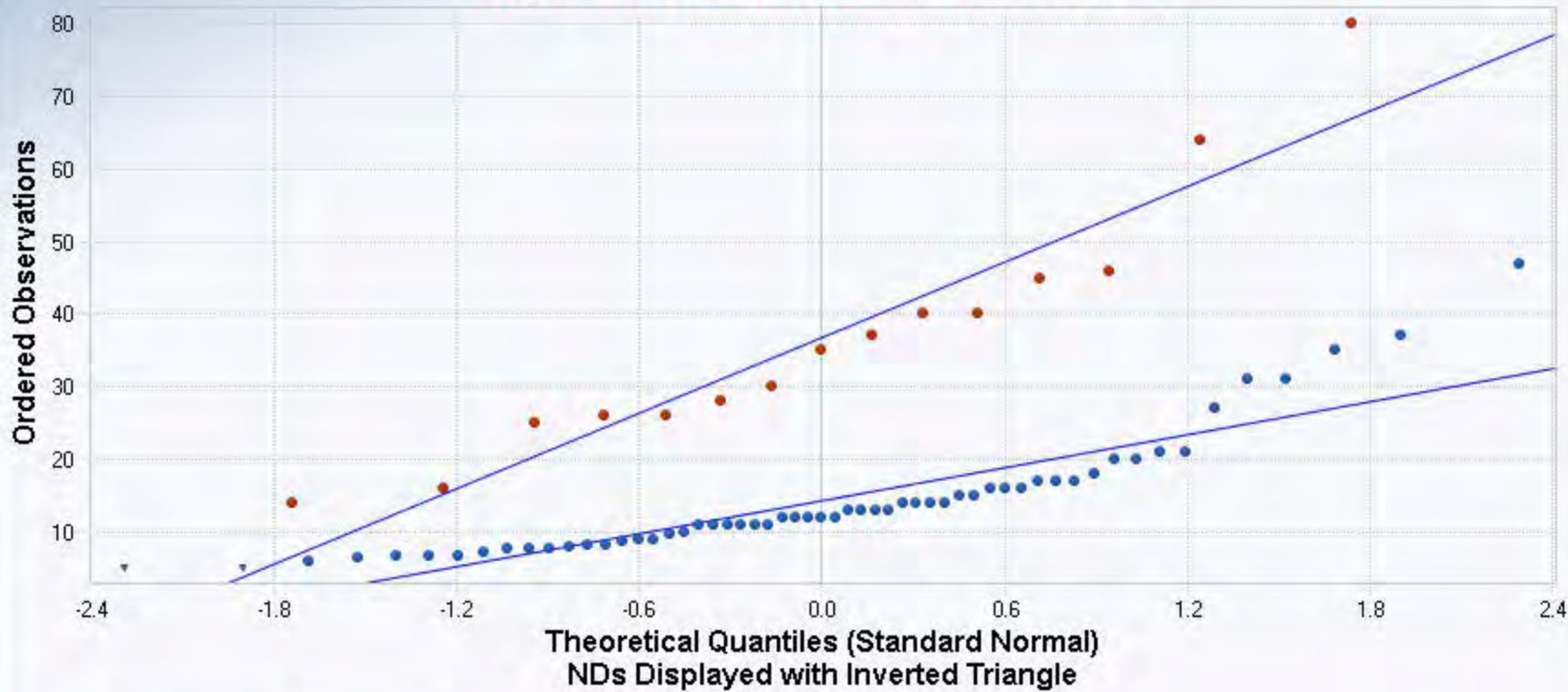
■ Cu ■ Bkgnd Cu

- Normal Distribution
- Less Bins
- More Bins

Cu	
Number of Values	57
Number of Values	57
Mean	14.33
SD	8.35
Bkgnd Cu	
Number of Values	15
Number of Values	15
Mean	36.80
SD	17.38

Q-Q Plot

Reported values used for nondetects



Cu

Total Number of Data = 57
Number of Non-Detects = 2
Number of Detects = 55
Detected Mean = 14.67
Detected Sd = 8.303
Slope (displayed data) = 7.597
Intercept (displayed data) = 14.33
Correlation, R = 0.895

Bkgnd Cu

Total Number of Data = 15
Number of Non-Detects = 0
Number of Detects = 15
Detected Mean = 36.8
Detected Sd = 17.38
Slope (displayed data) = 17.26
Intercept (displayed data) = 36.8
Correlation, R = 0.948

■ Best Fit Line

	A	B	C	D	E	F	G	H	I	J	K	L
1	Tarone-Ware Sample 1 vs Sample 2 Comparison Hypothesis Test for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation		ProUCL 5.18/7/2021 11:01:15 AM									
5	From File		Metals in Soil TCNW.xls									
6	Full Precision		OFF									
7	Confidence Coefficient		95%									
8	Selected Null Hypothesis		Sample 1 Mean/Median <= Sample 2 Mean/Median (Form 1)									
9	Alternative Hypothesis		Sample 1 Mean/Median > Sample 2 Mean/Median									
10												
11												
12	Sample 1 Data: Cu											
13	Sample 2 Data: Bkgrnd Cu											
14												
15	Raw Statistics											
16			Sample 1	Sample 2								
17	Number of Valid Data		57	15								
18	Number of Non-Detects		2	0								
19	Number of Detects		55	15								
20	Minimum Non-Detect		5	N/A								
21	Maximum Non-Detect		5	N/A								
22	Percent Non-detects		3.51%	0.00%								
23	Minimum Detect		6.2	14								
24	Maximum Detect		47	80								
25	Mean of Detects		14.67	36.8								
26	Median of Detects		12	35								
27	SD of Detects		8.303	17.38								
28	KM Mean		14.33	36.8								
29	KM SD		8.275	17.38								
30												
31	Sample 1 vs Sample 2 Tarone-Ware Test											
32												
33	H0: Mean/Median of Sample 1 <= Mean/Median of Sample 2											
34												
35	TW Statistic		-6.986									
36	TW Critical Value (0.05)		1.645									
37	P-Value		1									
38												
39	Conclusion with Alpha = 0.05											
40	Do Not Reject H0, Conclude Sample 1 <= Sample 2											
41	P-Value >= alpha (0.05)											
42												

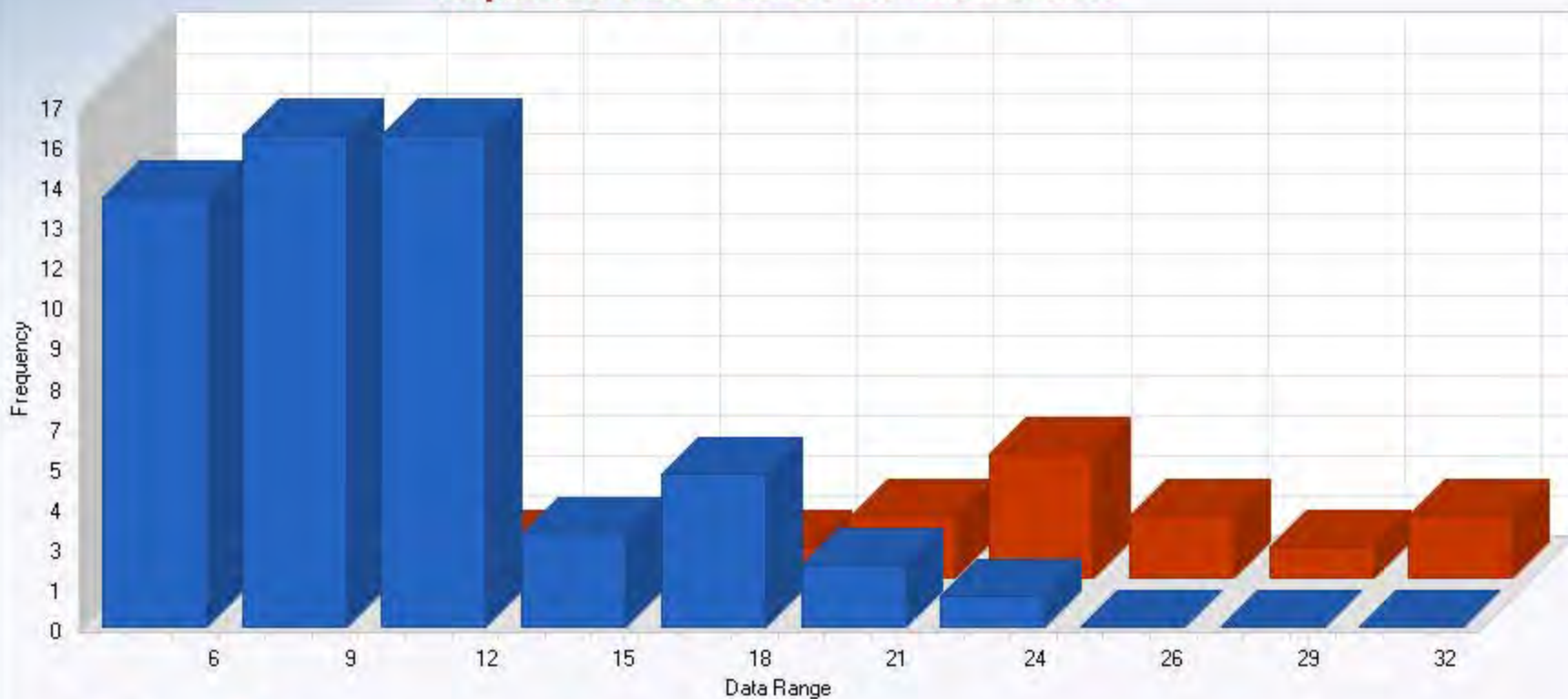
	A	B	C	D	E	F	G	H	I	J	K	L
1	Wilcoxon-Mann-Whitney Sample 1 vs Sample 2 Comparison Test for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 11:01:41 AM								
5	From File			Metals in Soil TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Selected Null Hypothesis			Sample 1 Mean/Median <= Sample 2 Mean/Median (Form 1)								
9	Alternative Hypothesis			Sample 1 Mean/Median > Sample 2 Mean/Median								
10												
11												
12	Sample 1 Data: Cu											
13	Sample 2 Data: Bkgrnd Cu											
14												
15	Raw Statistics											
16				Sample 1	Sample 2							
17	Number of Valid Data			57	15							
18	Number of Non-Detects			2	0							
19	Number of Detect Data			55	15							
20	Minimum Non-Detect			5	N/A							
21	Maximum Non-Detect			5	N/A							
22	Percent Non-detects			3.51%	0.00%							
23	Minimum Detect			6.2	14							
24	Maximum Detect			47	80							
25	Mean of Detects			14.67	36.8							
26	Median of Detects			12	35							
27	SD of Detects			8.303	17.38							
28												
29	Wilcoxon-Mann-Whitney (WMW) Test											
30												
31	H0: Mean/Median of Sample 1 <= Mean/Median of Sample 2											
32												
33	Sample 1 Rank Sum W-Stat			1726								
34	Standardized WMW U-Stat			-4.934								
35	Mean (U)			427.5								
36	SD(U) - Adj ties			72.05								
37	Approximate U-Stat Critical Value (0.05)			1.645								
38	P-Value (Adjusted for Ties)			1								
39												
40	Conclusion with Alpha = 0.05											
41	Do Not Reject H0, Conclude Sample 1 <= Sample 2											
42	P-Value >= alpha (0.05)											
43												

Multiple Box Plots



	A	B	C	D	E	F	G	H	I	J	K	L
1	Gehan Sample 1 vs Sample 2 Comparison Hypothesis Test for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 11:02:04 AM								
5	From File			Metals in Soil TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Selected Null Hypothesis			Sample 1 Mean/Median <= Sample 2 Mean/Median (Form 1)								
9	Alternative Hypothesis			Sample 1 Mean/Median > Sample 2 Mean/Median								
10												
11												
12	Sample 1 Data: Ni											
13	Sample 2 Data: Bkgrnd Ni											
14												
15	Raw Statistics											
16				Sample 1	Sample 2							
17	Number of Valid Data			57	15							
18	Number of Non-Detects			0	0							
19	Number of Detect Data			57	15							
20	Minimum Non-Detect			N/A	N/A							
21	Maximum Non-Detect			N/A	N/A							
22	Percent Non-detects			0.00%	0.00%							
23	Minimum Detect			3.6	6.2							
24	Maximum Detect			24	33							
25	Mean of Detects			9.925	21.88							
26	Median of Detects			8.8	22							
27	SD of Detects			4.284	7.442							
28	KM Mean			9.925	21.88							
29	KM SD			4.284	7.442							
30												
31	Sample 1 vs Sample 2 Gehan Test											
32												
33	H0: Mean/Median of Sample 1 <= Mean/Median of background											
34												
35	Gehan z Test Value			-4.874								
36	Critical z (0.05)			1.645								
37	P-Value			1								
38												
39	Conclusion with Alpha = 0.05											
40	Do Not Reject H0, Conclude Sample 1 <= Sample 2											
41	P-Value >= alpha (0.05)											
42												

Multiple Histogram Reported values used for nondetects



■ Ni
 ■ Bkgnd Ni

Normal Distribution
 Less Bins
 More Bins

Ni

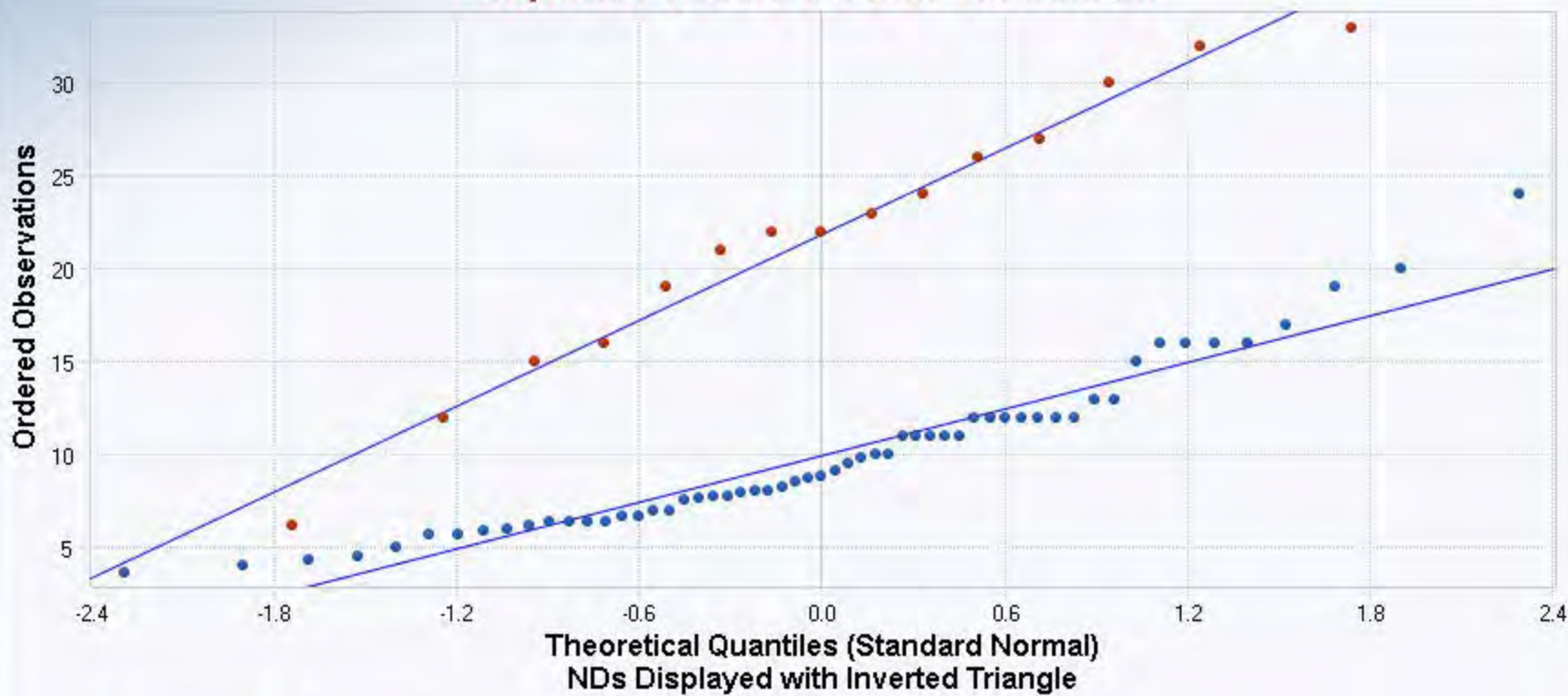
Number of Values	57
Number of Values	57
Mean	9.92
SD	4.28

Bkgnd Ni

Number of Values	15
Number of Values	15
Mean	21.88
SD	7.44

Q-Q Plot

Reported values used for nondetects



Ni

Total Number of Data = 57
Number of Non-Detects = 0
Number of Detects = 57
Detected Mean = 9.925
Detected Sd = 4.284
Slope (displayed data) = 4.191
Intercept (displayed data) = 9.925
Correlation, R = 0.962

Bkgnd Ni

Total Number of Data = 15
Number of Non-Detects = 0
Number of Detects = 15
Detected Mean = 21.88
Detected Sd = 7.442
Slope (displayed data) = 7.701
Intercept (displayed data) = 21.88
Correlation, R = 0.988

Best Fit Line

	A	B	C	D	E	F	G	H	I	J	K	L
1	Tarone-Ware Sample 1 vs Sample 2 Comparison Hypothesis Test for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation		ProUCL 5.18/7/2021 11:02:31 AM									
5	From File		Metals in Soil TCNW.xls									
6	Full Precision		OFF									
7	Confidence Coefficient		95%									
8	Selected Null Hypothesis		Sample 1 Mean/Median <= Sample 2 Mean/Median (Form 1)									
9	Alternative Hypothesis		Sample 1 Mean/Median > Sample 2 Mean/Median									
10												
11												
12	Sample 1 Data: Ni											
13	Sample 2 Data: Bkgrnd Ni											
14												
15	Raw Statistics											
16			Sample 1	Sample 2								
17	Number of Valid Data		57	15								
18	Number of Non-Detects		0	0								
19	Number of Detects		57	15								
20	Minimum Non-Detect		N/A	N/A								
21	Maximum Non-Detect		N/A	N/A								
22	Percent Non-detects		0.00%	0.00%								
23	Minimum Detect		3.6	6.2								
24	Maximum Detect		24	33								
25	Mean of Detects		9.925	21.88								
26	Median of Detects		8.8	22								
27	SD of Detects		4.284	7.442								
28	KM Mean		9.925	21.88								
29	KM SD		4.284	7.442								
30												
31	Sample 1 vs Sample 2 Tarone-Ware Test											
32												
33	H0: Mean/Median of Sample 1 <= Mean/Median of Sample 2											
34												
35	TW Statistic		-6.342									
36	TW Critical Value (0.05)		1.645									
37	P-Value		1									
38												
39	Conclusion with Alpha = 0.05											
40	Do Not Reject H0, Conclude Sample 1 <= Sample 2											
41	P-Value >= alpha (0.05)											
42												

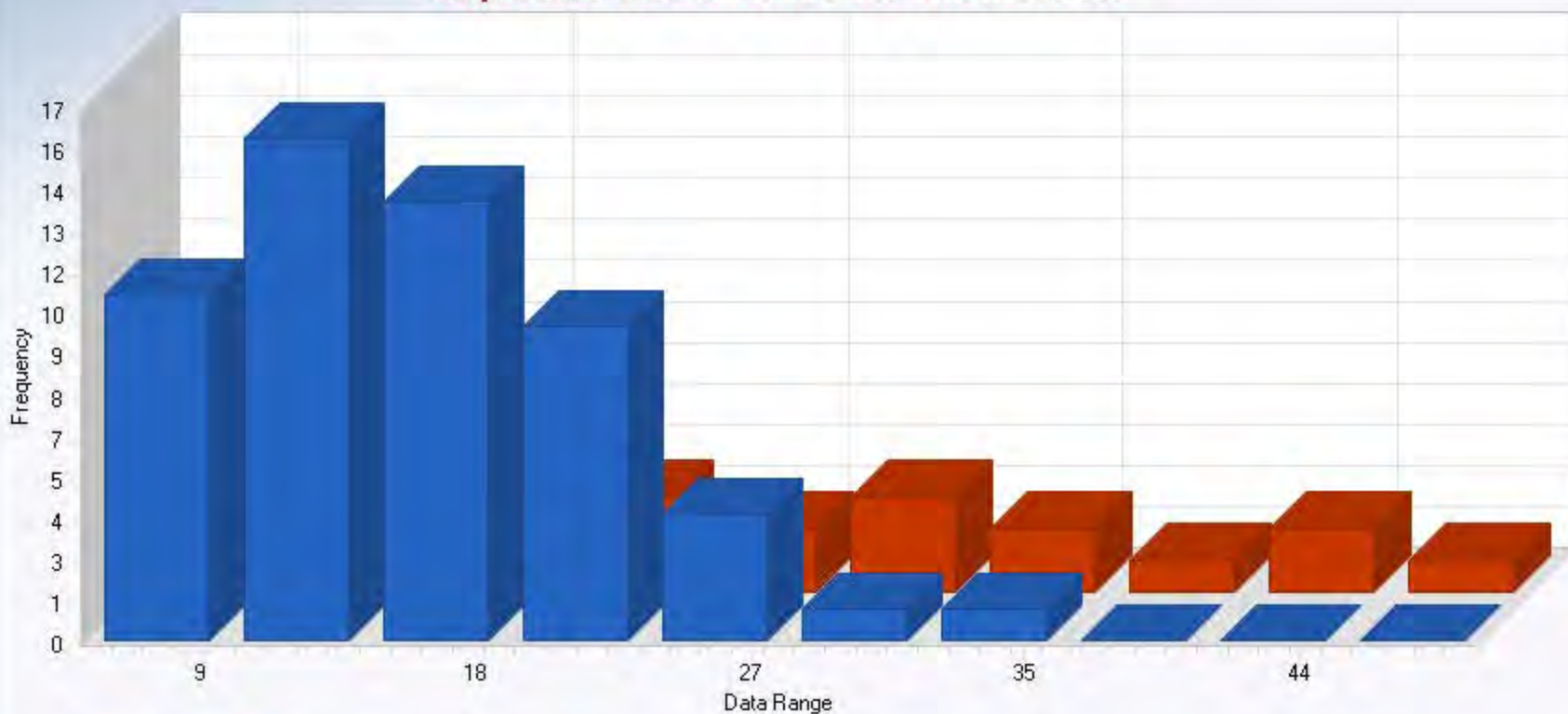
	A	B	C	D	E	F	G	H	I	J	K	L
1	Wilcoxon-Mann-Whitney Sample 1 vs Sample 2 Comparison Test for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation		ProUCL 5.18/7/2021 11:02:53 AM									
5	From File		Metals in Soil TCNW.xls									
6	Full Precision		OFF									
7	Confidence Coefficient		95%									
8	Selected Null Hypothesis		Sample 1 Mean/Median <= Sample 2 Mean/Median (Form 1)									
9	Alternative Hypothesis		Sample 1 Mean/Median > Sample 2 Mean/Median									
10												
11												
12	Sample 1 Data: Ni											
13	Sample 2 Data: Bkgrnd Ni											
14												
15	Raw Statistics											
16			Sample 1	Sample 2								
17	Number of Valid Data		57	15								
18	Number of Non-Detects		0	0								
19	Number of Detect Data		57	15								
20	Minimum Non-Detect		N/A	N/A								
21	Maximum Non-Detect		N/A	N/A								
22	Percent Non-detects		0.00%	0.00%								
23	Minimum Detect		3.6	6.2								
24	Maximum Detect		24	33								
25	Mean of Detects		9.925	21.88								
26	Median of Detects		8.8	22								
27	SD of Detects		4.284	7.442								
28												
29	Wilcoxon-Mann-Whitney (WMW) Test											
30												
31	H0: Mean/Median of Sample 1 <= Mean/Median of Sample 2											
32												
33	Sample 1 Rank Sum W-Stat		1737									
34	Standardized WMW U-Stat		-4.782									
35	Mean (U)		427.5									
36	SD(U) - Adj ties		72.04									
37	Approximate U-Stat Critical Value (0.05)		1.645									
38	P-Value (Adjusted for Ties)		1									
39												
40	Conclusion with Alpha = 0.05											
41	Do Not Reject H0, Conclude Sample 1 <= Sample 2											
42	P-Value >= alpha (0.05)											
43												

Multiple Box Plots



	A	B	C	D	E	F	G	H	I	J	K	L
1	Gehan Sample 1 vs Sample 2 Comparison Hypothesis Test for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 10:56:51 AM								
5	From File			Metals in Soil TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Selected Null Hypothesis			Sample 1 Mean/Median <= Sample 2 Mean/Median (Form 1)								
9	Alternative Hypothesis			Sample 1 Mean/Median > Sample 2 Mean/Median								
10												
11												
12	Sample 1 Data: Cr											
13	Sample 2 Data: Bkgrnd Cr											
14												
15	Raw Statistics											
16				Sample 1	Sample 2							
17	Number of Valid Data			57	15							
18	Number of Non-Detects			0	0							
19	Number of Detect Data			57	15							
20	Minimum Non-Detect			N/A	N/A							
21	Maximum Non-Detect			N/A	N/A							
22	Percent Non-detects			0.00%	0.00%							
23	Minimum Detect			5.7	9							
24	Maximum Detect			35	50							
25	Mean of Detects			15.88	30.6							
26	Median of Detects			15	30							
27	SD of Detects			5.966	10.43							
28	KM Mean			15.88	30.6							
29	KM SD			5.966	10.43							
30												
31	Sample 1 vs Sample 2 Gehan Test											
32												
33	H0: Mean/Median of Sample 1 <= Mean/Median of background											
34												
35	Gehan z Test Value			-4.749								
36	Critical z (0.05)			1.645								
37	P-Value			1								
38												
39	Conclusion with Alpha = 0.05											
40	Do Not Reject H0, Conclude Sample 1 <= Sample 2											
41	P-Value >= alpha (0.05)											
42												

Multiple Histogram Reported values used for nondetects



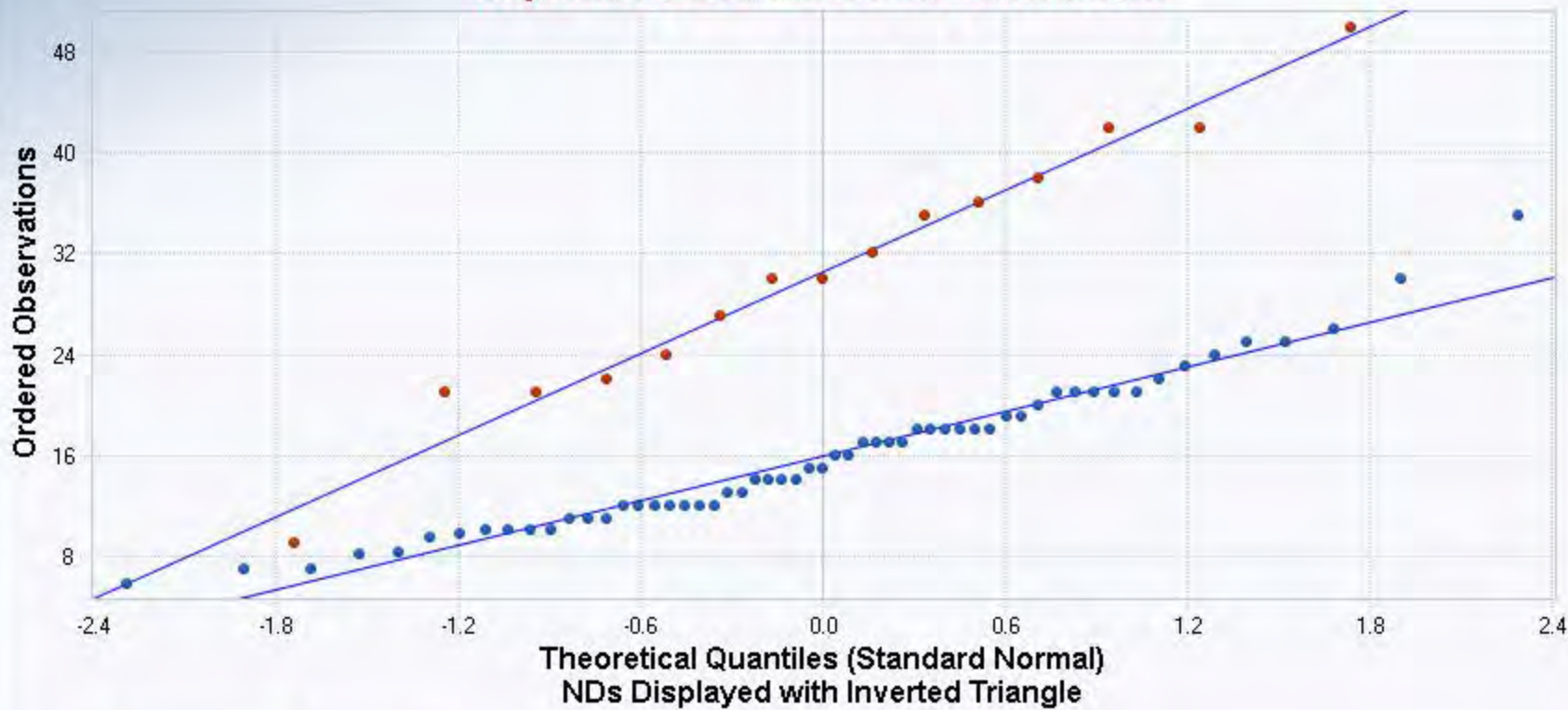
■ Cr
 ■ Bkgnd Cr

- Normal Distribution
- Less Bins
- More Bins

Cr	
Number of Values	57
Number of Values	57
Mean	15.88
SD	5.97
Bkgnd Cr	
Number of Values	15
Number of Values	15
Mean	30.60
SD	10.43

Q-Q Plot

Reported values used for nondetects



Cr

Total Number of Data = 57
Number of Non-Detects = 0
Number of Detects = 57
Detected Mean = 15.88
Detected Sd = 5.966
Slope (displayed data) = 5.935
Intercept (displayed data) = 15.88
Correlation, R = 0.978

Bkgnd Cr

Total Number of Data = 15
Number of Non-Detects = 0
Number of Detects = 15
Detected Mean = 30.6
Detected Sd = 10.43
Slope (displayed data) = 10.8
Intercept (displayed data) = 30.6
Correlation, R = 0.989

Best Fit Line

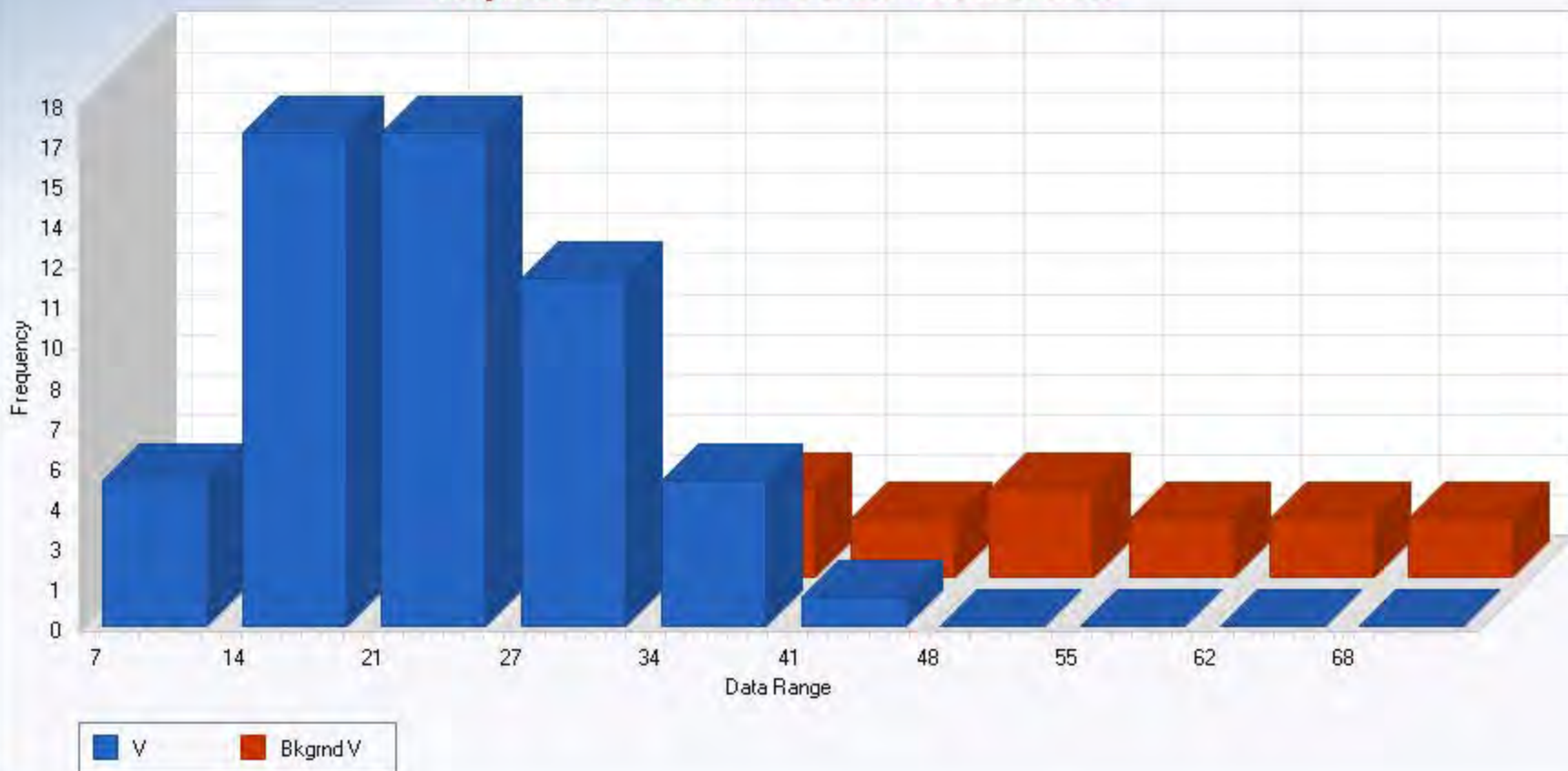
	A	B	C	D	E	F	G	H	I	J	K	L
1	Tarone-Ware Sample 1 vs Sample 2 Comparison Hypothesis Test for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 10:57:34 AM								
5	From File			Metals in Soil TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Selected Null Hypothesis			Sample 1 Mean/Median <= Sample 2 Mean/Median (Form 1)								
9	Alternative Hypothesis			Sample 1 Mean/Median > Sample 2 Mean/Median								
10												
11												
12	Sample 1 Data: Cr											
13	Sample 2 Data: Bkgrnd Cr											
14												
15	Raw Statistics											
16				Sample 1	Sample 2							
17	Number of Valid Data			57	15							
18	Number of Non-Detects			0	0							
19	Number of Detects			57	15							
20	Minimum Non-Detect			N/A	N/A							
21	Maximum Non-Detect			N/A	N/A							
22	Percent Non-detects			0.00%	0.00%							
23	Minimum Detect			5.7	9							
24	Maximum Detect			35	50							
25	Mean of Detects			15.88	30.6							
26	Median of Detects			15	30							
27	SD of Detects			5.966	10.43							
28	KM Mean			15.88	30.6							
29	KM SD			5.966	10.43							
30												
31	Sample 1 vs Sample 2 Tarone-Ware Test											
32												
33	H0: Mean/Median of Sample 1 <= Mean/Median of Sample 2											
34												
35	TW Statistic			-6.006								
36	TW Critical Value (0.05)			1.645								
37	P-Value			1								
38												
39	Conclusion with Alpha = 0.05											
40	Do Not Reject H0, Conclude Sample 1 <= Sample 2											
41	P-Value >= alpha (0.05)											
42												

	A	B	C	D	E	F	G	H	I	J	K	L
1	Wilcoxon-Mann-Whitney Sample 1 vs Sample 2 Comparison Test for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation		ProUCL 5.18/7/2021 10:58:13 AM									
5	From File		Metals in Soil TCNW.xls									
6	Full Precision		OFF									
7	Confidence Coefficient		95%									
8	Selected Null Hypothesis		Sample 1 Mean/Median <= Sample 2 Mean/Median (Form 1)									
9	Alternative Hypothesis		Sample 1 Mean/Median > Sample 2 Mean/Median									
10												
11												
12	Sample 1 Data: Cr											
13	Sample 2 Data: Bkgrnd Cr											
14												
15	Raw Statistics											
16			Sample 1	Sample 2								
17	Number of Valid Data		57	15								
18	Number of Non-Detects		0	0								
19	Number of Detect Data		57	15								
20	Minimum Non-Detect		N/A	N/A								
21	Maximum Non-Detect		N/A	N/A								
22	Percent Non-detects		0.00%	0.00%								
23	Minimum Detect		5.7	9								
24	Maximum Detect		35	50								
25	Mean of Detects		15.88	30.6								
26	Median of Detects		15	30								
27	SD of Detects		5.966	10.43								
28												
29	Wilcoxon-Mann-Whitney (WMW) Test											
30												
31	H0: Mean/Median of Sample 1 <= Mean/Median of Sample 2											
32												
33	Sample 1 Rank Sum W-Stat		1746									
34	Standardized WMW U-Stat		-4.659									
35	Mean (U)		427.5									
36	SD(U) - Adj ties		72.01									
37	Approximate U-Stat Critical Value (0.05)		1.645									
38	P-Value (Adjusted for Ties)		1									
39												
40	Conclusion with Alpha = 0.05											
41	Do Not Reject H0, Conclude Sample 1 <= Sample 2											
42	P-Value >= alpha (0.05)											
43												

Multiple Box Plots



Multiple Histogram Reported values used for nondetects



- Normal Distribution
- Less Bins
- More Bins

V

Number of Values	57
Number of Values	57
Mean	22.98
SD	7.99

BkgndV

Number of Values	15
Number of Values	15
Mean	51.27
SD	15.96

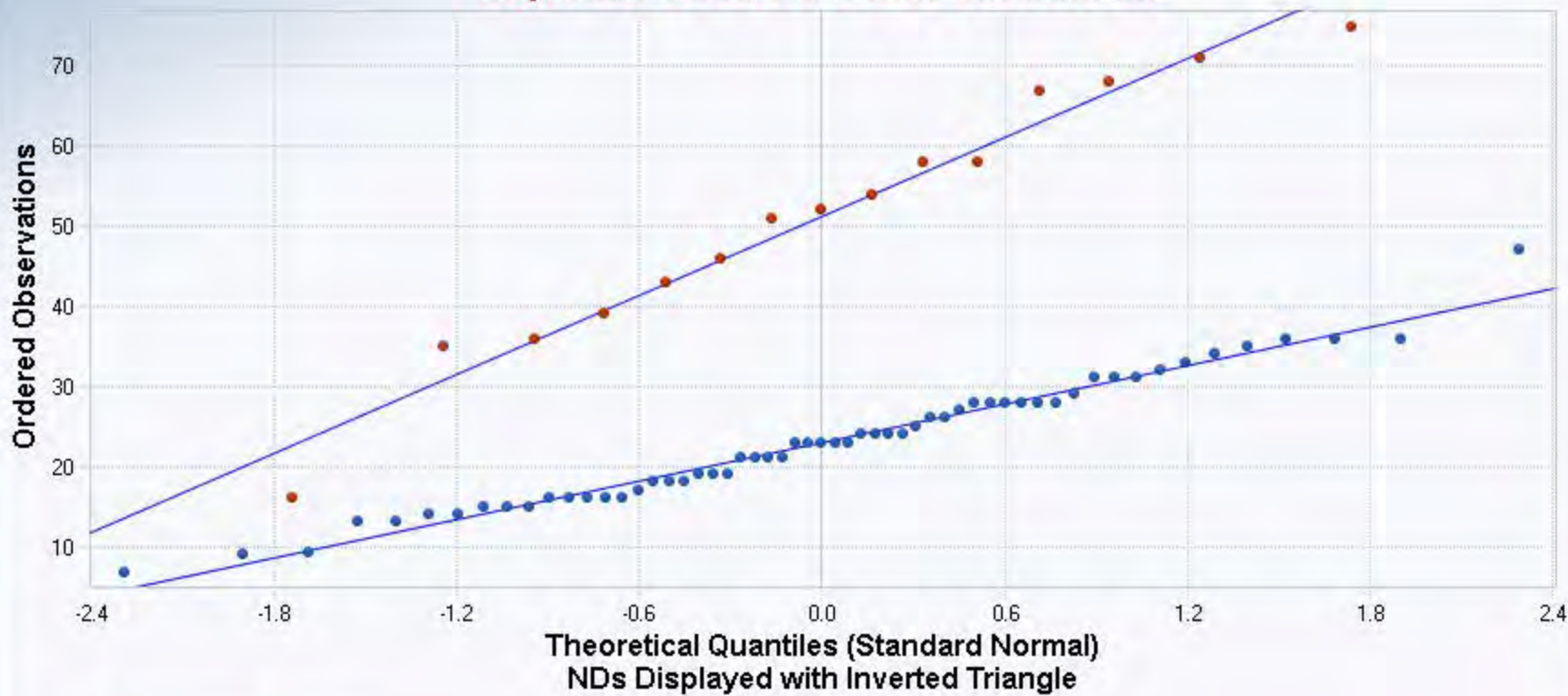
	A	B	C	D	E	F	G	H	I	J	K	L
1	Tarone-Ware Sample 1 vs Sample 2 Comparison Hypothesis Test for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation		ProUCL 5.18/7/2021 11:03:44 AM									
5	From File		Metals in Soil TCNW.xls									
6	Full Precision		OFF									
7	Confidence Coefficient		95%									
8	Selected Null Hypothesis		Sample 1 Mean/Median <= Sample 2 Mean/Median (Form 1)									
9	Alternative Hypothesis		Sample 1 Mean/Median > Sample 2 Mean/Median									
10												
11												
12	Sample 1 Data: V											
13	Sample 2 Data: Bkgrnd V											
14												
15	Raw Statistics											
16			Sample 1	Sample 2								
17	Number of Valid Data		57	15								
18	Number of Non-Detects		0	0								
19	Number of Detects		57	15								
20	Minimum Non-Detect		N/A	N/A								
21	Maximum Non-Detect		N/A	N/A								
22	Percent Non-detects		0.00%	0.00%								
23	Minimum Detect		6.6	16								
24	Maximum Detect		47	75								
25	Mean of Detects		22.98	51.27								
26	Median of Detects		23	52								
27	SD of Detects		7.991	15.96								
28	KM Mean		22.98	51.27								
29	KM SD		7.991	15.96								
30												
31	Sample 1 vs Sample 2 Tarone-Ware Test											
32												
33	H0: Mean/Median of Sample 1 <= Mean/Median of Sample 2											
34												
35	TW Statistic		-7.434									
36	TW Critical Value (0.05)		1.645									
37	P-Value		1									
38												
39	Conclusion with Alpha = 0.05											
40	Do Not Reject H0, Conclude Sample 1 <= Sample 2											
41	P-Value >= alpha (0.05)											
42												

	A	B	C	D	E	F	G	H	I	J	K	L
1	Wilcoxon-Mann-Whitney Sample 1 vs Sample 2 Comparison Test for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation		ProUCL 5.18/7/2021 11:04:08 AM									
5	From File		Metals in Soil TCNW.xls									
6	Full Precision		OFF									
7	Confidence Coefficient		95%									
8	Selected Null Hypothesis		Sample 1 Mean/Median <= Sample 2 Mean/Median (Form 1)									
9	Alternative Hypothesis		Sample 1 Mean/Median > Sample 2 Mean/Median									
10												
11												
12	Sample 1 Data: V											
13	Sample 2 Data: Bkgrnd V											
14												
15	Raw Statistics											
16			Sample 1	Sample 2								
17	Number of Valid Data		57	15								
18	Number of Non-Detects		0	0								
19	Number of Detect Data		57	15								
20	Minimum Non-Detect		N/A	N/A								
21	Maximum Non-Detect		N/A	N/A								
22	Percent Non-detects		0.00%	0.00%								
23	Minimum Detect		6.6	16								
24	Maximum Detect		47	75								
25	Mean of Detects		22.98	51.27								
26	Median of Detects		23	52								
27	SD of Detects		7.991	15.96								
28												
29	Wilcoxon-Mann-Whitney (WMW) Test											
30												
31	H0: Mean/Median of Sample 1 <= Mean/Median of Sample 2											
32												
33	Sample 1 Rank Sum W-Stat		1708									
34	Standardized WMW U-Stat		-5.185									
35	Mean (U)		427.5									
36	SD(U) - Adj ties		72.04									
37	Approximate U-Stat Critical Value (0.05)		1.645									
38	P-Value (Adjusted for Ties)		1									
39												
40	Conclusion with Alpha = 0.05											
41	Do Not Reject H0, Conclude Sample 1 <= Sample 2											
42	P-Value >= alpha (0.05)											
43												

	A	B	C	D	E	F	G	H	I	J	K	L
1	Gehan Sample 1 vs Sample 2 Comparison Hypothesis Test for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 11:03:19 AM								
5	From File			Metals in Soil TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Selected Null Hypothesis			Sample 1 Mean/Median <= Sample 2 Mean/Median (Form 1)								
9	Alternative Hypothesis			Sample 1 Mean/Median > Sample 2 Mean/Median								
10												
11												
12	Sample 1 Data: V											
13	Sample 2 Data: Bkgrnd V											
14												
15	Raw Statistics											
16				Sample 1	Sample 2							
17	Number of Valid Data			57	15							
18	Number of Non-Detects			0	0							
19	Number of Detect Data			57	15							
20	Minimum Non-Detect			N/A	N/A							
21	Maximum Non-Detect			N/A	N/A							
22	Percent Non-detects			0.00%	0.00%							
23	Minimum Detect			6.6	16							
24	Maximum Detect			47	75							
25	Mean of Detects			22.98	51.27							
26	Median of Detects			23	52							
27	SD of Detects			7.991	15.96							
28	KM Mean			22.98	51.27							
29	KM SD			7.991	15.96							
30												
31	Sample 1 vs Sample 2 Gehan Test											
32												
33	H0: Mean/Median of Sample 1 <= Mean/Median of background											
34												
35	Gehan z Test Value			-5.234								
36	Critical z (0.05)			1.645								
37	P-Value			1								
38												
39	Conclusion with Alpha = 0.05											
40	Do Not Reject H0, Conclude Sample 1 <= Sample 2											
41	P-Value >= alpha (0.05)											
42												

Q-Q Plot

Reported values used for nondetects



V

Total Number of Data = 57
Number of Non-Detects = 0
Number of Detects = 57
Detected Mean = 22.98
Detected Sd = 7.991
Slope (displayed data) = 8.038
Intercept (displayed data) = 22.98
Correlation, R = 0.989

Bkgnd V

Total Number of Data = 15
Number of Non-Detects = 0
Number of Detects = 15
Detected Mean = 51.27
Detected Sd = 15.96
Slope (displayed data) = 16.44
Intercept (displayed data) = 51.27
Correlation, R = 0.984

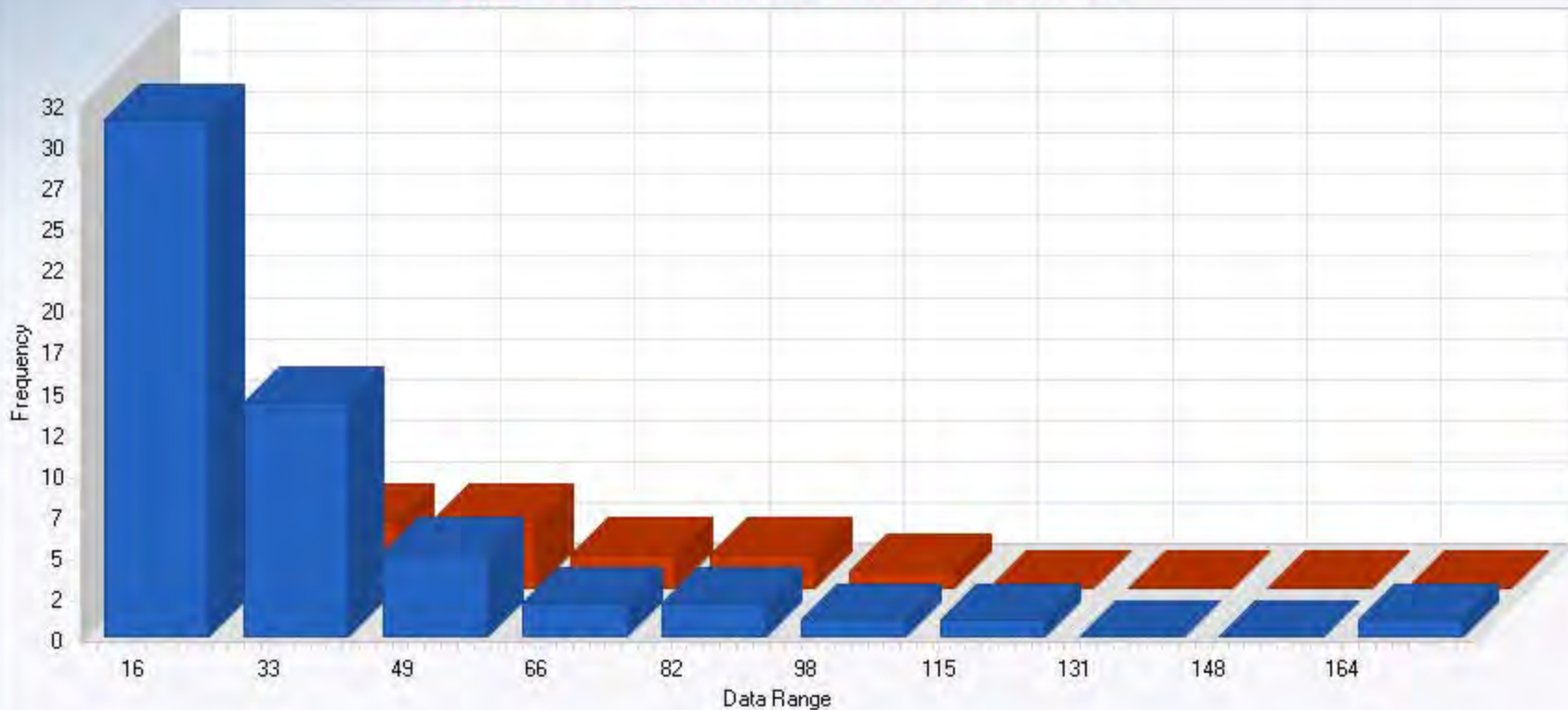
Best Fit Line

Multiple Box Plots



	A	B	C	D	E	F	G	H	I	J	K	L
1	Gehan Sample 1 vs Sample 2 Comparison Hypothesis Test for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 11:04:33 AM								
5	From File			Metals in Soil TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Selected Null Hypothesis			Sample 1 Mean/Median <= Sample 2 Mean/Median (Form 1)								
9	Alternative Hypothesis			Sample 1 Mean/Median > Sample 2 Mean/Median								
10												
11												
12	Sample 1 Data: Zn											
13	Sample 2 Data: Bkgrnd Zn											
14												
15	Raw Statistics											
16				Sample 1	Sample 2							
17	Number of Valid Data			57	15							
18	Number of Non-Detects			0	0							
19	Number of Detect Data			57	15							
20	Minimum Non-Detect			N/A	N/A							
21	Maximum Non-Detect			N/A	N/A							
22	Percent Non-detects			0.00%	0.00%							
23	Minimum Detect			16	29							
24	Maximum Detect			180	99							
25	Mean of Detects			40.68	57.73							
26	Median of Detects			30	54							
27	SD of Detects			28.51	22.38							
28	KM Mean			40.68	57.73							
29	KM SD			28.51	22.38							
30												
31	Sample 1 vs Sample 2 Gehan Test											
32												
33	H0: Mean/Median of Sample 1 <= Mean/Median of background											
34												
35	Gehan z Test Value			-3.404								
36	Critical z (0.05)			1.645								
37	P-Value			1								
38												
39	Conclusion with Alpha = 0.05											
40	Do Not Reject H0, Conclude Sample 1 <= Sample 2											
41	P-Value >= alpha (0.05)											
42												

Multiple Histogram Reported values used for nondetects



■ Zn
 ■ Bkgnd Zn

- Normal Distribution
- Less Bins
- More Bins

Zn

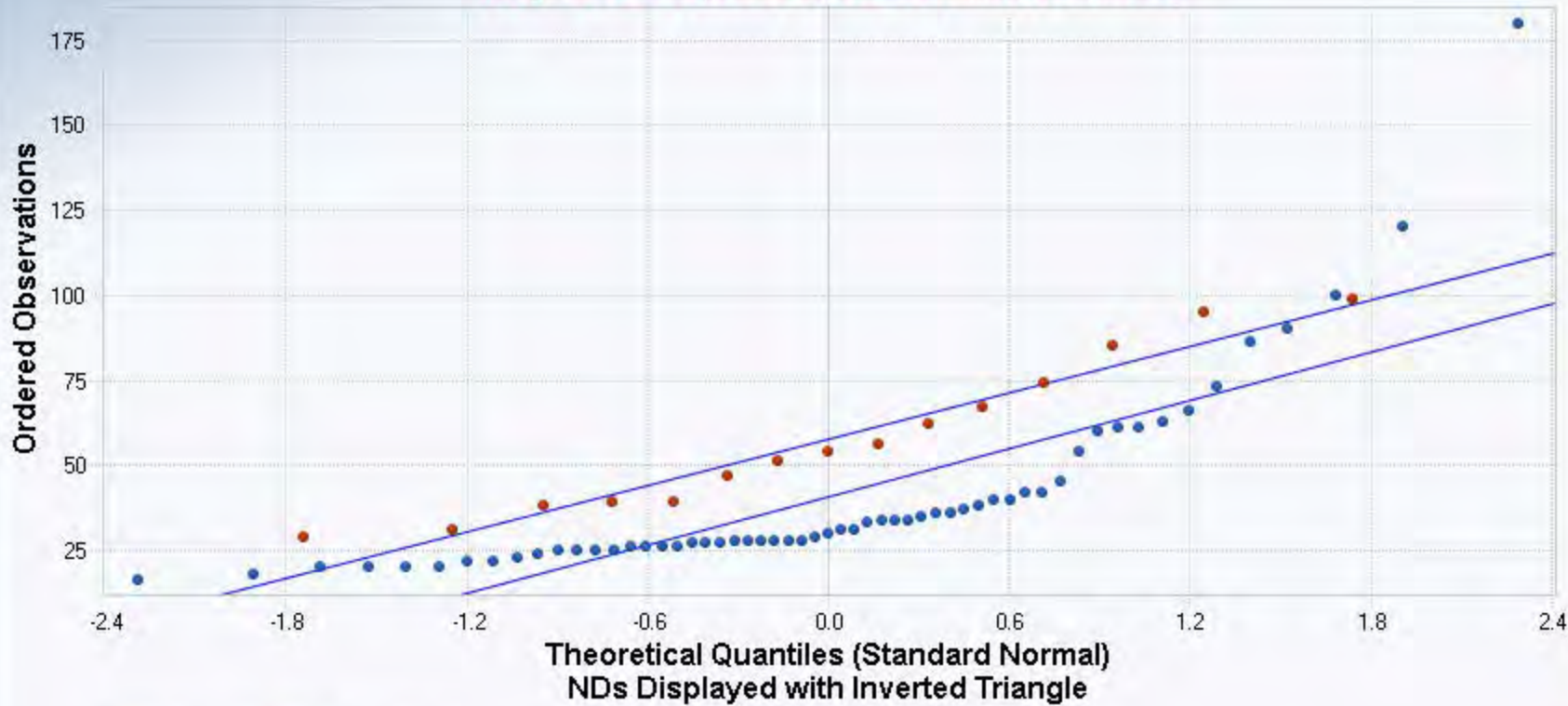
Number of Values	57
Number of Values	57
Mean	40.68
SD	28.51

Bkgnd Zn

Number of Values	15
Number of Values	15
Mean	57.73
SD	22.38

Q-Q Plot

Reported values used for nondetects



Zn

Total Number of Data = 57
Number of Non-Detects = 0
Number of Detects = 57
Detected Mean = 40.68
Detected Sd = 28.51
Slope (displayed data) = 23.65
Intercept (displayed data) = 40.68
Correlation, R = 0.816

Bkgnd Zn

Total Number of Data = 15
Number of Non-Detects = 0
Number of Detects = 15
Detected Mean = 57.73
Detected Sd = 22.38
Slope (displayed data) = 22.8
Intercept (displayed data) = 57.73
Correlation, R = 0.973

Best Fit Line

	A	B	C	D	E	F	G	H	I	J	K	L
1	Tarone-Ware Sample 1 vs Sample 2 Comparison Hypothesis Test for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation		ProUCL 5.18/7/2021 11:04:56 AM									
5	From File		Metals in Soil TCNW.xls									
6	Full Precision		OFF									
7	Confidence Coefficient		95%									
8	Selected Null Hypothesis		Sample 1 Mean/Median <= Sample 2 Mean/Median (Form 1)									
9	Alternative Hypothesis		Sample 1 Mean/Median > Sample 2 Mean/Median									
10												
11												
12	Sample 1 Data: Zn											
13	Sample 2 Data: Bkgrnd Zn											
14												
15	Raw Statistics											
16			Sample 1	Sample 2								
17	Number of Valid Data		57	15								
18	Number of Non-Detects		0	0								
19	Number of Detects		57	15								
20	Minimum Non-Detect		N/A	N/A								
21	Maximum Non-Detect		N/A	N/A								
22	Percent Non-detects		0.00%	0.00%								
23	Minimum Detect		16	29								
24	Maximum Detect		180	99								
25	Mean of Detects		40.68	57.73								
26	Median of Detects		30	54								
27	SD of Detects		28.51	22.38								
28	KM Mean		40.68	57.73								
29	KM SD		28.51	22.38								
30												
31	Sample 1 vs Sample 2 Tarone-Ware Test											
32												
33	H0: Mean/Median of Sample 1 <= Mean/Median of Sample 2											
34												
35	TW Statistic		-4.224									
36	TW Critical Value (0.05)		1.645									
37	P-Value		1									
38												
39	Conclusion with Alpha = 0.05											
40	Do Not Reject H0, Conclude Sample 1 <= Sample 2											
41	P-Value >= alpha (0.05)											
42												

	A	B	C	D	E	F	G	H	I	J	K	L
1	Wilcoxon-Mann-Whitney Sample 1 vs Sample 2 Comparison Test for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 11:05:20 AM								
5	From File			Metals in Soil TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Selected Null Hypothesis			Sample 1 Mean/Median <= Sample 2 Mean/Median (Form 1)								
9	Alternative Hypothesis			Sample 1 Mean/Median > Sample 2 Mean/Median								
10												
11												
12	Sample 1 Data: Zn											
13	Sample 2 Data: Bkgrnd Zn											
14												
15	Raw Statistics											
16				Sample 1	Sample 2							
17	Number of Valid Data			57	15							
18	Number of Non-Detects			0	0							
19	Number of Detect Data			57	15							
20	Minimum Non-Detect			N/A	N/A							
21	Maximum Non-Detect			N/A	N/A							
22	Percent Non-detects			0.00%	0.00%							
23	Minimum Detect			16	29							
24	Maximum Detect			180	99							
25	Mean of Detects			40.68	57.73							
26	Median of Detects			30	54							
27	SD of Detects			28.51	22.38							
28												
29	Wilcoxon-Mann-Whitney (WMW) Test											
30												
31	H0: Mean/Median of Sample 1 <= Mean/Median of Sample 2											
32												
33	Sample 1 Rank Sum W-Stat			1838								
34	Standardized WMW U-Stat			-3.379								
35	Mean (U)			427.5								
36	SD(U) - Adj ties			72.08								
37	Approximate U-Stat Critical Value (0.05)			1.645								
38	P-Value (Adjusted for Ties)			1								
39												
40	Conclusion with Alpha = 0.05											
41	Do Not Reject H0, Conclude Sample 1 <= Sample 2											
42	P-Value >= alpha (0.05)											
43												

APPENDIX F

ProUCL Statistical Analyses

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 10:39:02 AM								
5	From File			Soil Vapor TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10	4-Isopropyltoluene											
11												
12	General Statistics											
13	Total Number of Observations				40		Number of Distinct Observations				4	
14	Number of Detects				3		Number of Non-Detects				37	
15	Number of Distinct Detects				3		Number of Distinct Non-Detects				1	
16	Minimum Detect				13		Minimum Non-Detect				8	
17	Maximum Detect				321		Maximum Non-Detect				8	
18	Variance Detects				31316		Percent Non-Detects				92.5%	
19	Mean Detects				116.7		SD Detects				177	
20	Median Detects				16		CV Detects				1.517	
21	Skewness Detects				1.731		Kurtosis Detects				N/A	
22	Mean of Logged Detects				3.703		SD of Logged Detects				1.794	
23												
24	Warning: Data set has only 3 Detected Values.											
25	This is not enough to compute meaningful or reliable statistics and estimates.											
26												
27												
28	Normal GOF Test on Detects Only											
29	Shapiro Wilk Test Statistic				0.757		Shapiro Wilk GOF Test					
30	5% Shapiro Wilk Critical Value				0.767		Detected Data Not Normal at 5% Significance Level					
31	Lilliefors Test Statistic				0.382		Lilliefors GOF Test					
32	5% Lilliefors Critical Value				0.425		Detected Data appear Normal at 5% Significance Level					
33	Detected Data appear Approximate Normal at 5% Significance Level											
34												
35	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
36	KM Mean				16.15		KM Standard Error of Mean				9.457	
37	KM SD				48.84		95% KM (BCA) UCL				N/A	
38	95% KM (t) UCL				32.08		95% KM (Percentile Bootstrap) UCL				N/A	
39	95% KM (z) UCL				31.71		95% KM Bootstrap t UCL				N/A	
40	90% KM Chebyshev UCL				44.52		95% KM Chebyshev UCL				57.37	
41	97.5% KM Chebyshev UCL				75.21		99% KM Chebyshev UCL				110.2	
42												
43	Gamma GOF Tests on Detected Observations Only											
44	Not Enough Data to Perform GOF Test											
45												
46	Gamma Statistics on Detected Data Only											
47	k hat (MLE)				0.587		k star (bias corrected MLE)				N/A	
48	Theta hat (MLE)				198.8		Theta star (bias corrected MLE)				N/A	
49	nu hat (MLE)				3.521		nu star (bias corrected)				N/A	
50	Mean (detects)				116.7							

	A	B	C	D	E	F	G	H	I	J	K	L
101												
102	DL/2 Statistics											
103	DL/2 Normal						DL/2 Log-Transformed					
104	Mean in Original Scale					12.45	Mean in Log Scale					1.56
105	SD in Original Scale					50.09	SD in Log Scale					0.74
106	95% t UCL (Assumes normality)					25.79	95% H-Stat UCL					8.05
107	DL/2 is not a recommended method, provided for comparisons and historical reasons											
108												
109	Nonparametric Distribution Free UCL Statistics											
110	Detected Data appear Approximate Normal Distributed at 5% Significance Level											
111												
112	Suggested UCL to Use											
113	95% KM (t) UCL					32.08						
114												
115	When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test											
116	When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL											
117												
118	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
119	Recommendations are based upon data size, data distribution, and skewness.											
120	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
121	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
122												

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 10:35:30 AM								
5	From File			Soil Vapor TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10	Benzene											
11												
12	General Statistics											
13	Total Number of Observations				40		Number of Distinct Observations				8	
14	Number of Detects				7		Number of Non-Detects				33	
15	Number of Distinct Detects				7		Number of Distinct Non-Detects				1	
16	Minimum Detect				13		Minimum Non-Detect				8	
17	Maximum Detect				8850		Maximum Non-Detect				8	
18	Variance Detects				10748016		Percent Non-Detects				82.5%	
19	Mean Detects				1474		SD Detects				3278	
20	Median Detects				27		CV Detects				2.224	
21	Skewness Detects				2.563		Kurtosis Detects				6.636	
22	Mean of Logged Detects				4.768		SD of Logged Detects				2.519	
23												
24	Normal GOF Test on Detects Only											
25	Shapiro Wilk Test Statistic				0.537		Shapiro Wilk GOF Test					
26	5% Shapiro Wilk Critical Value				0.803		Detected Data Not Normal at 5% Significance Level					
27	Lilliefors Test Statistic				0.397		Lilliefors GOF Test					
28	5% Lilliefors Critical Value				0.304		Detected Data Not Normal at 5% Significance Level					
29	Detected Data Not Normal at 5% Significance Level											
30												
31	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
32	KM Mean			264.6		KM Standard Error of Mean				236.8		
33	KM SD			1387		95% KM (BCA) UCL				706.3		
34	95% KM (t) UCL			663.6		95% KM (Percentile Bootstrap) UCL				706		
35	95% KM (z) UCL			654.1		95% KM Bootstrap t UCL				9577		
36	90% KM Chebyshev UCL			975		95% KM Chebyshev UCL				1297		
37	97.5% KM Chebyshev UCL			1743		99% KM Chebyshev UCL				2621		
38												
39	Gamma GOF Tests on Detected Observations Only											
40	A-D Test Statistic			0.798		Anderson-Darling GOF Test						
41	5% A-D Critical Value			0.793		Detected Data Not Gamma Distributed at 5% Significance Level						
42	K-S Test Statistic			0.314		Kolmogorov-Smirnov GOF						
43	5% K-S Critical Value			0.337		Detected data appear Gamma Distributed at 5% Significance Level						
44	Detected data follow Appr. Gamma Distribution at 5% Significance Level											
45												
46	Gamma Statistics on Detected Data Only											
47	k hat (MLE)			0.276		k star (bias corrected MLE)				0.253		
48	Theta hat (MLE)			5334		Theta star (bias corrected MLE)				5823		
49	nu hat (MLE)			3.87		nu star (bias corrected)				3.545		
50	Mean (detects)			1474								

	A	B	C	D	E	F	G	H	I	J	K	L
51												
52	Gamma ROS Statistics using Imputed Non-Detects											
53	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
54	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
55	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
56	This is especially true when the sample size is small.											
57	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
58		Minimum	0.01						Mean	258		
59		Maximum	8850						Median	0.01		
60		SD	1406						CV	5.447		
61		k hat (MLE)	0.0958						k star (bias corrected MLE)	0.105		
62		Theta hat (MLE)	2692						Theta star (bias corrected MLE)	2450		
63		nu hat (MLE)	7.668						nu star (bias corrected)	8.426		
64		Adjusted Level of Significance (β)	0.044									
65		Approximate Chi Square Value (8.43, α)	2.984						Adjusted Chi Square Value (8.43, β)	2.864		
66		95% Gamma Approximate UCL (use when $n \geq 50$)	728.6						95% Gamma Adjusted UCL (use when $n < 50$)	759.2		
67												
68	Estimates of Gamma Parameters using KM Estimates											
69		Mean (KM)	264.6						SD (KM)	1387		
70		Variance (KM)	1922668						SE of Mean (KM)	236.8		
71		k hat (KM)	0.0364						k star (KM)	0.0504		
72		nu hat (KM)	2.914						nu star (KM)	4.029		
73		theta hat (KM)	7266						theta star (KM)	5255		
74		80% gamma percentile (KM)	36.8						90% gamma percentile (KM)	407.7		
75		95% gamma percentile (KM)	1411						99% gamma percentile (KM)	5740		
76												
77	Gamma Kaplan-Meier (KM) Statistics											
78		Approximate Chi Square Value (4.03, α)	0.733						Adjusted Chi Square Value (4.03, β)	0.684		
79		95% Gamma Approximate KM-UCL (use when $n \geq 50$)	1454						95% Gamma Adjusted KM-UCL (use when $n < 50$)	1558		
80	95% Gamma Adjusted KM-UCL (use when $k \leq 1$ and $15 < n < 50$)											
81												
82	Lognormal GOF Test on Detected Observations Only											
83		Shapiro Wilk Test Statistic	0.846						Shapiro Wilk GOF Test			
84		5% Shapiro Wilk Critical Value	0.803						Detected Data appear Lognormal at 5% Significance Level			
85		Lilliefors Test Statistic	0.292						Lilliefors GOF Test			
86		5% Lilliefors Critical Value	0.304						Detected Data appear Lognormal at 5% Significance Level			
87	Detected Data appear Lognormal at 5% Significance Level											
88												
89	Lognormal ROS Statistics Using Imputed Non-Detects											
90		Mean in Original Scale	258.1						Mean in Log Scale	-5.21		
91		SD in Original Scale	1405						SD in Log Scale	6.67		
92		95% t UCL (assumes normality of ROS data)	632.6						95% Percentile Bootstrap UCL	693.8		
93		95% BCA Bootstrap UCL	1114						95% Bootstrap t UCL	9479		
94		95% H-UCL (Log ROS)	4.639E+12									
95												
96	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution											
97		KM Mean (logged)	2.55						KM Geo Mean	12.81		
98		KM SD (logged)	1.413						95% Critical H Value (KM-Log)	2.929		
99		KM Standard Error of Mean (logged)	0.241						95% H-UCL (KM -Log)	67.37		
100		KM SD (logged)	1.413						95% Critical H Value (KM-Log)	2.929		

	A	B	C	D	E	F	G	H	I	J	K	L
101	KM Standard Error of Mean (logged)					0.241						
102												
103	DL/2 Statistics											
104	DL/2 Normal						DL/2 Log-Transformed					
105	Mean in Original Scale					261.3	Mean in Log Scale					1.978
106	SD in Original Scale					1405	SD in Log Scale					1.634
107	95% t UCL (Assumes normality)					635.6	95% H-Stat UCL					64.07
108	DL/2 is not a recommended method, provided for comparisons and historical reasons											
109												
110	Nonparametric Distribution Free UCL Statistics											
111	Detected Data appear Approximate Gamma Distributed at 5% Significance Level											
112												
113	Suggested UCL to Use											
114	Adjusted KM-UCL (use when $k \leq 1$ and $15 < n < 50$ but $k \leq 1$)					1558						
115												
116	When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test											
117	When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL											
118												
119	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
120	Recommendations are based upon data size, data distribution, and skewness.											
121	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
122	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
123												

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 10:32:06 AM								
5	From File			CC in Soil TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10	C4-C12											
11												
12	General Statistics											
13	Total Number of Observations				57		Number of Distinct Observations				23	
14	Number of Detects				8		Number of Non-Detects				49	
15	Number of Distinct Detects				8		Number of Distinct Non-Detects				15	
16	Minimum Detect				0.052		Minimum Non-Detect				0.042	
17	Maximum Detect				2600		Maximum Non-Detect				0.1	
18	Variance Detects				914737		Percent Non-Detects				85.96%	
19	Mean Detects				713.9		SD Detects				956.4	
20	Median Detects				255.2		CV Detects				1.34	
21	Skewness Detects				1.261		Kurtosis Detects				0.877	
22	Mean of Logged Detects				2.727		SD of Logged Detects				4.74	
23												
24	Normal GOF Test on Detects Only											
25	Shapiro Wilk Test Statistic				0.804		Shapiro Wilk GOF Test					
26	5% Shapiro Wilk Critical Value				0.818		Detected Data Not Normal at 5% Significance Level					
27	Lilliefors Test Statistic				0.272		Lilliefors GOF Test					
28	5% Lilliefors Critical Value				0.283		Detected Data appear Normal at 5% Significance Level					
29	Detected Data appear Approximate Normal at 5% Significance Level											
30												
31	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
32	KM Mean			100.2		KM Standard Error of Mean				59.03		
33	KM SD			416.9		95% KM (BCA) UCL				208.8		
34	95% KM (t) UCL			199		95% KM (Percentile Bootstrap) UCL				191.5		
35	95% KM (z) UCL			197.3		95% KM Bootstrap t UCL				328.1		
36	90% KM Chebyshev UCL			277.3		95% KM Chebyshev UCL				357.6		
37	97.5% KM Chebyshev UCL			468.9		99% KM Chebyshev UCL				687.6		
38												
39	Gamma GOF Tests on Detected Observations Only											
40	A-D Test Statistic			0.813		Anderson-Darling GOF Test						
41	5% A-D Critical Value			0.842		Detected data appear Gamma Distributed at 5% Significance Level						
42	K-S Test Statistic			0.306		Kolmogorov-Smirnov GOF						
43	5% K-S Critical Value			0.324		Detected data appear Gamma Distributed at 5% Significance Level						
44	Detected data appear Gamma Distributed at 5% Significance Level											
45												
46	Gamma Statistics on Detected Data Only											
47	k hat (MLE)			0.193		k star (bias corrected MLE)				0.204		
48	Theta hat (MLE)			3707		Theta star (bias corrected MLE)				3505		
49	nu hat (MLE)			3.081		nu star (bias corrected)				3.259		
50	Mean (detects)			713.9								

	A	B	C	D	E	F	G	H	I	J	K	L
101												
102	DL/2 Statistics											
103	DL/2 Normal						DL/2 Log-Transformed					
104	Mean in Original Scale				100.2		Mean in Log Scale				-2.743	
105	SD in Original Scale				420.6		SD in Log Scale				2.794	
106	95% t UCL (Assumes normality)				193.4		95% H-Stat UCL				21.78	
107	DL/2 is not a recommended method, provided for comparisons and historical reasons											
108												
109	Nonparametric Distribution Free UCL Statistics											
110	Detected Data appear Approximate Normal Distributed at 5% Significance Level											
111												
112	Suggested UCL to Use											
113	95% KM (t) UCL				199							
114												
115	When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test											
116	When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL											
117												
118	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
119	Recommendations are based upon data size, data distribution, and skewness.											
120	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
121	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
122												

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 10:33:05 AM								
5	From File			CC in Soil TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10	C13-C22											
11												
12	General Statistics											
13	Total Number of Observations				57		Number of Distinct Observations				12	
14	Number of Detects				12		Number of Non-Detects				45	
15	Number of Distinct Detects				11		Number of Distinct Non-Detects				1	
16	Minimum Detect				34		Minimum Non-Detect				5	
17	Maximum Detect				2500		Maximum Non-Detect				5	
18	Variance Detects				825618		Percent Non-Detects				78.95%	
19	Mean Detects				665.5		SD Detects				908.6	
20	Median Detects				170		CV Detects				1.365	
21	Skewness Detects				1.502		Kurtosis Detects				0.892	
22	Mean of Logged Detects				5.518		SD of Logged Detects				1.535	
23												
24	Normal GOF Test on Detects Only											
25	Shapiro Wilk Test Statistic				0.712		Shapiro Wilk GOF Test					
26	5% Shapiro Wilk Critical Value				0.859		Detected Data Not Normal at 5% Significance Level					
27	Lilliefors Test Statistic				0.283		Lilliefors GOF Test					
28	5% Lilliefors Critical Value				0.243		Detected Data Not Normal at 5% Significance Level					
29	Detected Data Not Normal at 5% Significance Level											
30												
31	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
32	KM Mean			144.1		KM Standard Error of Mean				66.61		
33	KM SD			481.5		95% KM (BCA) UCL				267.4		
34	95% KM (t) UCL			255.5		95% KM (Percentile Bootstrap) UCL				259.6		
35	95% KM (z) UCL			253.6		95% KM Bootstrap t UCL				399.4		
36	90% KM Chebyshev UCL			343.9		95% KM Chebyshev UCL				434.4		
37	97.5% KM Chebyshev UCL			560		99% KM Chebyshev UCL				806.8		
38												
39	Gamma GOF Tests on Detected Observations Only											
40	A-D Test Statistic			0.615		Anderson-Darling GOF Test						
41	5% A-D Critical Value			0.775		Detected data appear Gamma Distributed at 5% Significance Level						
42	K-S Test Statistic			0.228		Kolmogorov-Smirnov GOF						
43	5% K-S Critical Value			0.257		Detected data appear Gamma Distributed at 5% Significance Level						
44	Detected data appear Gamma Distributed at 5% Significance Level											
45												
46	Gamma Statistics on Detected Data Only											
47	k hat (MLE)			0.625		k star (bias corrected MLE)				0.524		
48	Theta hat (MLE)			1065		Theta star (bias corrected MLE)				1270		
49	nu hat (MLE)			15		nu star (bias corrected)				12.58		
50	Mean (detects)			665.5								

	A	B	C	D	E	F	G	H	I	J	K	L
101												
102	DL/2 Statistics											
103	DL/2 Normal						DL/2 Log-Transformed					
104	Mean in Original Scale					142.1	Mean in Log Scale					1.885
105	SD in Original Scale					486.4	SD in Log Scale					2.011
106	95% t UCL (Assumes normality)					249.8	95% H-Stat UCL					137.7
107	DL/2 is not a recommended method, provided for comparisons and historical reasons											
108												
109	Nonparametric Distribution Free UCL Statistics											
110	Detected Data appear Gamma Distributed at 5% Significance Level											
111												
112	Suggested UCL to Use											
113	95% KM Approximate Gamma UCL					346.3						
114												
115	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
116	Recommendations are based upon data size, data distribution, and skewness.											
117	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
118	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
119												

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 10:33:31 AM								
5	From File			CC in Soil TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10	C23-C40											
11												
12	General Statistics											
13	Total Number of Observations				57		Number of Distinct Observations				17	
14	Number of Detects				18		Number of Non-Detects				39	
15	Number of Distinct Detects				16		Number of Distinct Non-Detects				2	
16	Minimum Detect				5		Minimum Non-Detect				5	
17	Maximum Detect				2200		Maximum Non-Detect				250	
18	Variance Detects				258494		Percent Non-Detects				68.42%	
19	Mean Detects				388.3		SD Detects				508.4	
20	Median Detects				200		CV Detects				1.309	
21	Skewness Detects				2.884		Kurtosis Detects				10.03	
22	Mean of Logged Detects				5.226		SD of Logged Detects				1.429	
23												
24	Normal GOF Test on Detects Only											
25	Shapiro Wilk Test Statistic				0.657		Shapiro Wilk GOF Test					
26	5% Shapiro Wilk Critical Value				0.897		Detected Data Not Normal at 5% Significance Level					
27	Lilliefors Test Statistic				0.248		Lilliefors GOF Test					
28	5% Lilliefors Critical Value				0.202		Detected Data Not Normal at 5% Significance Level					
29	Detected Data Not Normal at 5% Significance Level											
30												
31	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
32	KM Mean		126.4		KM Standard Error of Mean				44.97			
33	KM SD		329.9		95% KM (BCA) UCL				207.7			
34	95% KM (t) UCL		201.6		95% KM (Percentile Bootstrap) UCL				203.4			
35	95% KM (z) UCL		200.4		95% KM Bootstrap t UCL				277.1			
36	90% KM Chebyshev UCL		261.3		95% KM Chebyshev UCL				322.4			
37	97.5% KM Chebyshev UCL		407.2		99% KM Chebyshev UCL				573.8			
38												
39	Gamma GOF Tests on Detected Observations Only											
40	A-D Test Statistic		0.359		Anderson-Darling GOF Test							
41	5% A-D Critical Value		0.775		Detected data appear Gamma Distributed at 5% Significance Level							
42	K-S Test Statistic		0.137		Kolmogorov-Smirnov GOF							
43	5% K-S Critical Value		0.211		Detected data appear Gamma Distributed at 5% Significance Level							
44	Detected data appear Gamma Distributed at 5% Significance Level											
45												
46	Gamma Statistics on Detected Data Only											
47	k hat (MLE)		0.806		k star (bias corrected MLE)				0.708			
48	Theta hat (MLE)		482		Theta star (bias corrected MLE)				548.1			
49	nu hat (MLE)		29		nu star (bias corrected)				25.5			
50	Mean (detects)		388.3									

	A	B	C	D	E	F	G	H	I	J	K	L	
101													
102	DL/2 Statistics												
103	DL/2 Normal						DL/2 Log-Transformed						
104	Mean in Original Scale					126.5	Mean in Log Scale					2.346	
105	SD in Original Scale					333.1	SD in Log Scale					2.187	
106	95% t UCL (Assumes normality)					200.3	95% H-Stat UCL					376	
107	DL/2 is not a recommended method, provided for comparisons and historical reasons												
108													
109	Nonparametric Distribution Free UCL Statistics												
110	Detected Data appear Gamma Distributed at 5% Significance Level												
111													
112	Suggested UCL to Use												
113	95% KM Approximate Gamma UCL					246.7							
114													
115	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.												
116	Recommendations are based upon data size, data distribution, and skewness.												
117	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).												
118	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.												
119													

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 10:37:25 AM								
5	From File			Soil Vapor TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10	cis-1,2-Dichloroethene											
11												
12	General Statistics											
13	Total Number of Observations				40		Number of Distinct Observations				2	
14	Number of Detects				1		Number of Non-Detects				39	
15	Number of Distinct Detects				1		Number of Distinct Non-Detects				1	
16												
17	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!											
18	It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).											
19												
20	The data set for variable cis-1,2-Dichloroethene was not processed!											
21												
22												

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 10:37:49 AM								
5	From File			Soil Vapor TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10	Di-isopropylether											
11												
12	General Statistics											
13	Total Number of Observations				40		Number of Distinct Observations				2	
14	Number of Detects				1		Number of Non-Detects				39	
15	Number of Distinct Detects				1		Number of Distinct Non-Detects				1	
16												
17	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!											
18	It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).											
19												
20	The data set for variable Di-isopropylether was not processed!											
21												
22												

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 10:38:11 AM								
5	From File			Soil Vapor TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10	Ethylbenzene											
11												
12	General Statistics											
13	Total Number of Observations				40		Number of Distinct Observations				4	
14	Number of Detects				3		Number of Non-Detects				37	
15	Number of Distinct Detects				3		Number of Distinct Non-Detects				1	
16	Minimum Detect				74		Minimum Non-Detect				8	
17	Maximum Detect				2730		Maximum Non-Detect				8	
18	Variance Detects				1849605		Percent Non-Detects				92.5%	
19	Mean Detects				1571		SD Detects				1360	
20	Median Detects				1910		CV Detects				0.866	
21	Skewness Detects				-1.051		Kurtosis Detects				N/A	
22	Mean of Logged Detects				6.59		SD of Logged Detects				1.988	
23												
24	Warning: Data set has only 3 Detected Values.											
25	This is not enough to compute meaningful or reliable statistics and estimates.											
26												
27												
28	Normal GOF Test on Detects Only											
29	Shapiro Wilk Test Statistic				0.953		Shapiro Wilk GOF Test					
30	5% Shapiro Wilk Critical Value				0.767		Detected Data appear Normal at 5% Significance Level					
31	Lilliefors Test Statistic				0.265		Lilliefors GOF Test					
32	5% Lilliefors Critical Value				0.425		Detected Data appear Normal at 5% Significance Level					
33	Detected Data appear Normal at 5% Significance Level											
34												
35	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
36	KM Mean				125.3		KM Standard Error of Mean				99.13	
37	KM SD				511.9		95% KM (BCA) UCL				N/A	
38	95% KM (t) UCL				292.3		95% KM (Percentile Bootstrap) UCL				N/A	
39	95% KM (z) UCL				288.3		95% KM Bootstrap t UCL				N/A	
40	90% KM Chebyshev UCL				422.6		95% KM Chebyshev UCL				557.3	
41	97.5% KM Chebyshev UCL				744.3		99% KM Chebyshev UCL				1112	
42												
43	Gamma GOF Tests on Detected Observations Only											
44	Not Enough Data to Perform GOF Test											
45												
46	Gamma Statistics on Detected Data Only											
47	k hat (MLE)				0.775		k star (bias corrected MLE)				N/A	
48	Theta hat (MLE)				2028		Theta star (bias corrected MLE)				N/A	
49	nu hat (MLE)				4.648		nu star (bias corrected)				N/A	
50	Mean (detects)				1571							

	A	B	C	D	E	F	G	H	I	J	K	L
51												
52	Gamma ROS Statistics using Imputed Non-Detects											
53	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
54	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
55	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
56	This is especially true when the sample size is small.											
57	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
58		Minimum	0.01		Mean	117.9						
59		Maximum	2730		Median	0.01						
60		SD	520.1		CV	4.413						
61		k hat (MLE)	0.0957		k star (bias corrected MLE)	0.105						
62		Theta hat (MLE)	1232		Theta star (bias corrected MLE)	1121						
63		nu hat (MLE)	7.654		nu star (bias corrected)	8.413						
64		Adjusted Level of Significance (β)	0.044									
65		Approximate Chi Square Value (8.41, α)	2.977		Adjusted Chi Square Value (8.41, β)	2.856						
66		95% Gamma Approximate UCL (use when $n \geq 50$)	333.1		95% Gamma Adjusted UCL (use when $n < 50$)	N/A						
67												
68	Estimates of Gamma Parameters using KM Estimates											
69		Mean (KM)	125.3		SD (KM)	511.9						
70		Variance (KM)	262034		SE of Mean (KM)	99.13						
71		k hat (KM)	0.0599		k star (KM)	0.072						
72		nu hat (KM)	4.789		nu star (KM)	5.764						
73		theta hat (KM)	2092		theta star (KM)	1738						
74		80% gamma percentile (KM)	47.9		90% gamma percentile (KM)	276.3						
75		95% gamma percentile (KM)	722.7		99% gamma percentile (KM)	2329						
76												
77	Gamma Kaplan-Meier (KM) Statistics											
78		Approximate Chi Square Value (5.76, α)	1.52		Adjusted Chi Square Value (5.76, β)	1.441						
79		95% Gamma Approximate KM-UCL (use when $n \geq 50$)	474.8		95% Gamma Adjusted KM-UCL (use when $n < 50$)	501						
80	95% Gamma Adjusted KM-UCL (use when $k \leq 1$ and $15 < n < 50$)											
81												
82	Lognormal GOF Test on Detected Observations Only											
83		Shapiro Wilk Test Statistic	0.823		Shapiro Wilk GOF Test							
84		5% Shapiro Wilk Critical Value	0.767	Detected Data appear Lognormal at 5% Significance Level								
85		Lilliefors Test Statistic	0.353		Lilliefors GOF Test							
86		5% Lilliefors Critical Value	0.425	Detected Data appear Lognormal at 5% Significance Level								
87	Detected Data appear Lognormal at 5% Significance Level											
88												
89	Lognormal ROS Statistics Using Imputed Non-Detects											
90		Mean in Original Scale	118.8		Mean in Log Scale	-5.693						
91		SD in Original Scale	519.9		SD in Log Scale	6.444						
92		95% t UCL (assumes normality of ROS data)	257.3		95% Percentile Bootstrap UCL	260.3						
93		95% BCA Bootstrap UCL	329.5		95% Bootstrap t UCL	5265						
94		95% H-UCL (Log ROS)	2.935E+11									
95												
96	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution											
97		KM Mean (logged)	2.418		KM Geo Mean	11.22						
98		KM SD (logged)	1.269		95% Critical H Value (KM-Log)	2.739						
99		KM Standard Error of Mean (logged)	0.246		95% H-UCL (KM -Log)	43.76						
100		KM SD (logged)	1.269		95% Critical H Value (KM-Log)	2.739						

	A	B	C	D	E	F	G	H	I	J	K	L
101	KM Standard Error of Mean (logged)					0.246						
102												
103	DL/2 Statistics											
104	DL/2 Normal						DL/2 Log-Transformed					
105	Mean in Original Scale					121.6	Mean in Log Scale					1.777
106	SD in Original Scale					519.3	SD in Log Scale					1.459
107	95% t UCL (Assumes normality)					259.9	95% H-Stat UCL					34.5
108	DL/2 is not a recommended method, provided for comparisons and historical reasons											
109												
110	Nonparametric Distribution Free UCL Statistics											
111	Detected Data appear Normal Distributed at 5% Significance Level											
112												
113	Suggested UCL to Use											
114	95% KM (t) UCL					292.3						
115												
116	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
117	Recommendations are based upon data size, data distribution, and skewness.											
118	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
119	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
120												

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 10:45:46 AM								
5	From File			Soil Vapor TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10	Gasoline Range Organics (GRO)											
11												
12	General Statistics											
13	Total Number of Observations				40		Number of Distinct Observations				7	
14	Number of Detects				6		Number of Non-Detects				34	
15	Number of Distinct Detects				6		Number of Distinct Non-Detects				1	
16	Minimum Detect				25000		Minimum Non-Detect				2000	
17	Maximum Detect				46300000		Maximum Non-Detect				2000	
18	Variance Detects				3.446E+14		Percent Non-Detects				85%	
19	Mean Detects				8494800		SD Detects				18563717	
20	Median Detects				608500		CV Detects				2.185	
21	Skewness Detects				2.425		Kurtosis Detects				5.901	
22	Mean of Logged Detects				13.32		SD of Logged Detects				2.795	
23												
24	Normal GOF Test on Detects Only											
25	Shapiro Wilk Test Statistic				0.549		Shapiro Wilk GOF Test					
26	5% Shapiro Wilk Critical Value				0.788		Detected Data Not Normal at 5% Significance Level					
27	Lilliefors Test Statistic				0.442		Lilliefors GOF Test					
28	5% Lilliefors Critical Value				0.325		Detected Data Not Normal at 5% Significance Level					
29	Detected Data Not Normal at 5% Significance Level											
30												
31	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
32	KM Mean				1275920		KM Standard Error of Mean				1252271	
33	KM SD				7229988		95% KM (BCA) UCL				3599815	
34	95% KM (t) UCL				3385840		95% KM (Percentile Bootstrap) UCL				3582945	
35	95% KM (z) UCL				3335722		95% KM Bootstrap t UCL				56368730	
36	90% KM Chebyshev UCL				5032732		95% KM Chebyshev UCL				6734441	
37	97.5% KM Chebyshev UCL				9096348		99% KM Chebyshev UCL				13735855	
38												
39	Gamma GOF Tests on Detected Observations Only											
40	A-D Test Statistic				0.475		Anderson-Darling GOF Test					
41	5% A-D Critical Value				0.778		Detected data appear Gamma Distributed at 5% Significance Level					
42	K-S Test Statistic				0.242		Kolmogorov-Smirnov GOF					
43	5% K-S Critical Value				0.359		Detected data appear Gamma Distributed at 5% Significance Level					
44	Detected data appear Gamma Distributed at 5% Significance Level											
45												
46	Gamma Statistics on Detected Data Only											
47	k hat (MLE)				0.267		k star (bias corrected MLE)				0.245	
48	Theta hat (MLE)				31808921		Theta star (bias corrected MLE)				34723719	
49	nu hat (MLE)				3.205		nu star (bias corrected)				2.936	
50	Mean (detects)				8494800							

	A	B	C	D	E	F	G	H	I	J	K	L
51												
52	Gamma ROS Statistics using Imputed Non-Detects											
53	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
54	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
55	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
56	This is especially true when the sample size is small.											
57	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
58		Minimum	0.01		Mean	1274220						
59		Maximum	46300000		Median	0.01						
60		SD	7322397		CV	5.747						
61		k hat (MLE)	0.0544		k star (bias corrected MLE)	0.067						
62		Theta hat (MLE)	23438755		Theta star (bias corrected MLE)	19031505						
63		nu hat (MLE)	4.349		nu star (bias corrected)	5.356						
64		Adjusted Level of Significance (β)	0.044									
65		Approximate Chi Square Value (5.36, α)	1.32		Adjusted Chi Square Value (5.36, β)	1.248						
66		95% Gamma Approximate UCL (use when $n \geq 50$)	5169542		95% Gamma Adjusted UCL (use when $n < 50$)	5470073						
67												
68	Estimates of Gamma Parameters using KM Estimates											
69		Mean (KM)	1275920		SD (KM)	7229988						
70		Variance (KM)	5.227E+13		SE of Mean (KM)	1252271						
71		k hat (KM)	0.0311		k star (KM)	0.0455						
72		nu hat (KM)	2.492		nu star (KM)	3.638						
73		theta hat (KM)	40968653		theta star (KM)	28057804						
74		80% gamma percentile (KM)	121335		90% gamma percentile (KM)	1705881						
75		95% gamma percentile (KM)	6532692		99% gamma percentile (KM)	28788821						
76												
77	Gamma Kaplan-Meier (KM) Statistics											
78		Approximate Chi Square Value (3.64, α)	0.584		Adjusted Chi Square Value (3.64, β)	0.543						
79		95% Gamma Approximate KM-UCL (use when $n \geq 50$)	7946506		95% Gamma Adjusted KM-UCL (use when $n < 50$)	8550284						
80		95% Gamma Adjusted KM-UCL (use when $k \leq 1$ and $15 < n < 50$)										
81												
82	Lognormal GOF Test on Detected Observations Only											
83		Shapiro Wilk Test Statistic	0.962		Shapiro Wilk GOF Test							
84		5% Shapiro Wilk Critical Value	0.788		Detected Data appear Lognormal at 5% Significance Level							
85		Lilliefors Test Statistic	0.154		Lilliefors GOF Test							
86		5% Lilliefors Critical Value	0.325		Detected Data appear Lognormal at 5% Significance Level							
87	Detected Data appear Lognormal at 5% Significance Level											
88												
89	Lognormal ROS Statistics Using Imputed Non-Detects											
90		Mean in Original Scale	1274477		Mean in Log Scale	0.71						
91		SD in Original Scale	7322351		SD in Log Scale	7.996						
92		95% t UCL (assumes normality of ROS data)	3225167		95% Percentile Bootstrap UCL	3581629						
93		95% BCA Bootstrap UCL	5788332		95% Bootstrap t UCL	65642478						
94		95% H-UCL (Log ROS)	5.371E+21									
95												
96	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution											
97		KM Mean (logged)	8.459		KM Geo Mean	4719						
98		KM SD (logged)	2.27		95% Critical H Value (KM-Log)	4.183						
99		KM Standard Error of Mean (logged)	0.393		95% H-UCL (KM -Log)	283682						
100		KM SD (logged)	2.27		95% Critical H Value (KM-Log)	4.183						

	A	B	C	D	E	F	G	H	I	J	K	L
101	KM Standard Error of Mean (logged)					0.393						
102												
103	DL/2 Statistics											
104	DL/2 Normal						DL/2 Log-Transformed					
105	Mean in Original Scale					1275070	Mean in Log Scale					7.87
106	SD in Original Scale					7322245	SD in Log Scale					2.527
107	95% t UCL (Assumes normality)					3225732	95% H-Stat UCL					406646
108	DL/2 is not a recommended method, provided for comparisons and historical reasons											
109												
110	Nonparametric Distribution Free UCL Statistics											
111	Detected Data appear Gamma Distributed at 5% Significance Level											
112												
113	Suggested UCL to Use											
114	Adjusted KM-UCL (use when $k \leq 1$ and $15 < n < 50$ but $k \leq 1$)					8550284						
115												
116	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
117	Recommendations are based upon data size, data distribution, and skewness.											
118	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
119	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
120												

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 10:38:36 AM								
5	From File			Soil Vapor TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10	Isopropylbenzene											
11												
12	General Statistics											
13	Total Number of Observations				40		Number of Distinct Observations				4	
14	Number of Detects				3		Number of Non-Detects				37	
15	Number of Distinct Detects				3		Number of Distinct Non-Detects				1	
16	Minimum Detect				57		Minimum Non-Detect				8	
17	Maximum Detect				4290		Maximum Non-Detect				8	
18	Variance Detects				4512963		Percent Non-Detects				92.5%	
19	Mean Detects				2279		SD Detects				2124	
20	Median Detects				2490		CV Detects				0.932	
21	Skewness Detects				-0.443		Kurtosis Detects				N/A	
22	Mean of Logged Detects				6.742		SD of Logged Detects				2.353	
23												
24	Warning: Data set has only 3 Detected Values.											
25	This is not enough to compute meaningful or reliable statistics and estimates.											
26												
27												
28	Normal GOF Test on Detects Only											
29	Shapiro Wilk Test Statistic				0.993		Shapiro Wilk GOF Test					
30	5% Shapiro Wilk Critical Value				0.767		Detected Data appear Normal at 5% Significance Level					
31	Lilliefors Test Statistic				0.206		Lilliefors GOF Test					
32	5% Lilliefors Critical Value				0.425		Detected Data appear Normal at 5% Significance Level					
33	Detected Data appear Normal at 5% Significance Level											
34												
35	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
36	KM Mean				178.3		KM Standard Error of Mean				147.9	
37	KM SD				763.8		95% KM (BCA) UCL				N/A	
38	95% KM (t) UCL				427.5		95% KM (Percentile Bootstrap) UCL				N/A	
39	95% KM (z) UCL				421.6		95% KM Bootstrap t UCL				N/A	
40	90% KM Chebyshev UCL				622.1		95% KM Chebyshev UCL				823.1	
41	97.5% KM Chebyshev UCL				1102		99% KM Chebyshev UCL				1650	
42												
43	Gamma GOF Tests on Detected Observations Only											
44	Not Enough Data to Perform GOF Test											
45												
46	Gamma Statistics on Detected Data Only											
47	k hat (MLE)				0.621		k star (bias corrected MLE)				N/A	
48	Theta hat (MLE)				3667		Theta star (bias corrected MLE)				N/A	
49	nu hat (MLE)				3.729		nu star (bias corrected)				N/A	
50	Mean (detects)				2279							

	A	B	C	D	E	F	G	H	I	J	K	L
51												
52	Gamma ROS Statistics using Imputed Non-Detects											
53	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
54	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
55	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
56	This is especially true when the sample size is small.											
57	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
58		Minimum	0.01		Mean	170.9						
59		Maximum	4290		Median	0.01						
60		SD	775.2		CV	4.535						
61		k hat (MLE)	0.0922		k star (bias corrected MLE)	0.102						
62		Theta hat (MLE)	1854		Theta star (bias corrected MLE)	1676						
63		nu hat (MLE)	7.377		nu star (bias corrected)	8.157						
64		Adjusted Level of Significance (β)	0.044									
65		Approximate Chi Square Value (8.16, α)	2.826		Adjusted Chi Square Value (8.16, β)	2.71						
66		95% Gamma Approximate UCL (use when $n \geq 50$)	493.3		95% Gamma Adjusted UCL (use when $n < 50$)	N/A						
67												
68	Estimates of Gamma Parameters using KM Estimates											
69		Mean (KM)	178.3		SD (KM)	763.8						
70		Variance (KM)	583446		SE of Mean (KM)	147.9						
71		k hat (KM)	0.0545		k star (KM)	0.0671						
72		nu hat (KM)	4.36		nu star (KM)	5.367						
73		theta hat (KM)	3272		theta star (KM)	2658						
74		80% gamma percentile (KM)	57.71		90% gamma percentile (KM)	371.7						
75		95% gamma percentile (KM)	1020		99% gamma percentile (KM)	3426						
76												
77	Gamma Kaplan-Meier (KM) Statistics											
78		Approximate Chi Square Value (5.37, α)	1.325		Adjusted Chi Square Value (5.37, β)	1.253						
79		95% Gamma Approximate KM-UCL (use when $n \geq 50$)	722.1		95% Gamma Adjusted KM-UCL (use when $n < 50$)	764.1						
80	95% Gamma Adjusted KM-UCL (use when $k \leq 1$ and $15 < n < 50$)											
81												
82	Lognormal GOF Test on Detected Observations Only											
83		Shapiro Wilk Test Statistic	0.843		Shapiro Wilk GOF Test							
84		5% Shapiro Wilk Critical Value	0.767	Detected Data appear Lognormal at 5% Significance Level								
85		Lilliefors Test Statistic	0.343		Lilliefors GOF Test							
86		5% Lilliefors Critical Value	0.425	Detected Data appear Lognormal at 5% Significance Level								
87	Detected Data appear Lognormal at 5% Significance Level											
88												
89	Lognormal ROS Statistics Using Imputed Non-Detects											
90		Mean in Original Scale	171.4		Mean in Log Scale	-8.029						
91		SD in Original Scale	775.1		SD in Log Scale	7.748						
92		95% t UCL (assumes normality of ROS data)	377.9		95% Percentile Bootstrap UCL	387.3						
93		95% BCA Bootstrap UCL	512.8		95% Bootstrap t UCL	14775						
94		95% H-UCL (Log ROS)	4.332E+16									
95												
96	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution											
97		KM Mean (logged)	2.429		KM Geo Mean	11.35						
98		KM SD (logged)	1.336		95% Critical H Value (KM-Log)	2.827						
99		KM Standard Error of Mean (logged)	0.259		95% H-UCL (KM -Log)	50.74						
100		KM SD (logged)	1.336		95% Critical H Value (KM-Log)	2.827						

	A	B	C	D	E	F	G	H	I	J	K	L
101	KM Standard Error of Mean (logged)					0.259						
102												
103	DL/2 Statistics											
104	DL/2 Normal						DL/2 Log-Transformed					
105	Mean in Original Scale					174.6	Mean in Log Scale					1.788
106	SD in Original Scale					774.4	SD in Log Scale					1.525
107	95% t UCL (Assumes normality)					380.9	95% H-Stat UCL					40.6
108	DL/2 is not a recommended method, provided for comparisons and historical reasons											
109												
110	Nonparametric Distribution Free UCL Statistics											
111	Detected Data appear Normal Distributed at 5% Significance Level											
112												
113	Suggested UCL to Use											
114	95% KM (t) UCL					427.5						
115												
116	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
117	Recommendations are based upon data size, data distribution, and skewness.											
118	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
119	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
120												

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 10:34:14 AM								
5	From File			Metals in Soil TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10	Pb											
11												
12	General Statistics											
13	Total Number of Observations				57		Number of Distinct Observations				12	
14	Number of Detects				13		Number of Non-Detects				44	
15	Number of Distinct Detects				11		Number of Distinct Non-Detects				1	
16	Minimum Detect				7.2		Minimum Non-Detect				7.1	
17	Maximum Detect				61		Maximum Non-Detect				7.1	
18	Variance Detects				292.9		Percent Non-Detects				77.19%	
19	Mean Detects				25.94		SD Detects				17.12	
20	Median Detects				19		CV Detects				0.66	
21	Skewness Detects				1.22		Kurtosis Detects				0.473	
22	Mean of Logged Detects				3.071		SD of Logged Detects				0.628	
23												
24	Normal GOF Test on Detects Only											
25	Shapiro Wilk Test Statistic				0.845		Shapiro Wilk GOF Test					
26	5% Shapiro Wilk Critical Value				0.866		Detected Data Not Normal at 5% Significance Level					
27	Lilliefors Test Statistic				0.245		Lilliefors GOF Test					
28	5% Lilliefors Critical Value				0.234		Detected Data Not Normal at 5% Significance Level					
29	Detected Data Not Normal at 5% Significance Level											
30												
31	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
32	KM Mean		11.4		KM Standard Error of Mean				1.536			
33	KM SD		11.14		95% KM (BCA) UCL				14.12			
34	95% KM (t) UCL		13.97		95% KM (Percentile Bootstrap) UCL				13.97			
35	95% KM (z) UCL		13.92		95% KM Bootstrap t UCL				15.38			
36	90% KM Chebyshev UCL		16		95% KM Chebyshev UCL				18.09			
37	97.5% KM Chebyshev UCL		20.99		99% KM Chebyshev UCL				26.68			
38												
39	Gamma GOF Tests on Detected Observations Only											
40	A-D Test Statistic		0.385		Anderson-Darling GOF Test							
41	5% A-D Critical Value		0.74		Detected data appear Gamma Distributed at 5% Significance Level							
42	K-S Test Statistic		0.164		Kolmogorov-Smirnov GOF							
43	5% K-S Critical Value		0.238		Detected data appear Gamma Distributed at 5% Significance Level							
44	Detected data appear Gamma Distributed at 5% Significance Level											
45												
46	Gamma Statistics on Detected Data Only											
47	k hat (MLE)		2.869		k star (bias corrected MLE)				2.258			
48	Theta hat (MLE)		9.041		Theta star (bias corrected MLE)				11.49			
49	nu hat (MLE)		74.59		nu star (bias corrected)				58.71			
50	Mean (detects)		25.94									

	A	B	C	D	E	F	G	H	I	J	K	L
101												
102	DL/2 Statistics											
103	DL/2 Normal						DL/2 Log-Transformed					
104	Mean in Original Scale					8.656	Mean in Log Scale					1.678
105	SD in Original Scale					12.35	SD in Log Scale					0.817
106	95% t UCL (Assumes normality)					11.39	95% H-Stat UCL					9.455
107	DL/2 is not a recommended method, provided for comparisons and historical reasons											
108												
109	Nonparametric Distribution Free UCL Statistics											
110	Detected Data appear Gamma Distributed at 5% Significance Level											
111												
112	Suggested UCL to Use											
113	95% KM Approximate Gamma UCL					14.37	95% GROS Approximate Gamma UCL					11.13
114												
115	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
116	Recommendations are based upon data size, data distribution, and skewness.											
117	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
118	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
119												

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 10:45:00 AM								
5	From File			Soil Vapor TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10	m,p-Xylenes											
11												
12	General Statistics											
13	Total Number of Observations				40		Number of Distinct Observations				4	
14	Number of Detects				3		Number of Non-Detects				37	
15	Number of Distinct Detects				3		Number of Distinct Non-Detects				1	
16	Minimum Detect				287		Minimum Non-Detect				16	
17	Maximum Detect				1720		Maximum Non-Detect				16	
18	Variance Detects				527312		Percent Non-Detects				92.5%	
19	Mean Detects				935.3		SD Detects				726.2	
20	Median Detects				799		CV Detects				0.776	
21	Skewness Detects				0.815		Kurtosis Detects				N/A	
22	Mean of Logged Detects				6.598		SD of Logged Detects				0.898	
23												
24	Warning: Data set has only 3 Detected Values.											
25	This is not enough to compute meaningful or reliable statistics and estimates.											
26												
27												
28	Normal GOF Test on Detects Only											
29	Shapiro Wilk Test Statistic				0.974		Shapiro Wilk GOF Test					
30	5% Shapiro Wilk Critical Value				0.767		Detected Data appear Normal at 5% Significance Level					
31	Lilliefors Test Statistic				0.241		Lilliefors GOF Test					
32	5% Lilliefors Critical Value				0.425		Detected Data appear Normal at 5% Significance Level					
33	Detected Data appear Normal at 5% Significance Level											
34												
35	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
36	KM Mean		84.95		KM Standard Error of Mean				56.46			
37	KM SD		291.5		95% KM (BCA) UCL				N/A			
38	95% KM (t) UCL		180.1		95% KM (Percentile Bootstrap) UCL				N/A			
39	95% KM (z) UCL		177.8		95% KM Bootstrap t UCL				N/A			
40	90% KM Chebyshev UCL		254.3		95% KM Chebyshev UCL				331			
41	97.5% KM Chebyshev UCL		437.5		99% KM Chebyshev UCL				646.7			
42												
43	Gamma GOF Tests on Detected Observations Only											
44	Not Enough Data to Perform GOF Test											
45												
46	Gamma Statistics on Detected Data Only											
47	k hat (MLE)		2.208		k star (bias corrected MLE)				N/A			
48	Theta hat (MLE)		423.7		Theta star (bias corrected MLE)				N/A			
49	nu hat (MLE)		13.25		nu star (bias corrected)				N/A			
50	Mean (detects)		935.3									

	A	B	C	D	E	F	G	H	I	J	K	L
51												
52	Gamma ROS Statistics using Imputed Non-Detects											
53	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
54	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
55	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
56	This is especially true when the sample size is small.											
57	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
58		Minimum	0.01		Mean	70.16						
59		Maximum	1720		Median	0.01						
60		SD	298.8		CV	4.259						
61		k hat (MLE)	0.101		k star (bias corrected MLE)	0.11						
62		Theta hat (MLE)	693.5		Theta star (bias corrected MLE)	636.4						
63		nu hat (MLE)	8.093		nu star (bias corrected)	8.82						
64		Adjusted Level of Significance (β)	0.044									
65		Approximate Chi Square Value (8.82, α)	3.218		Adjusted Chi Square Value (8.82, β)	3.092						
66		95% Gamma Approximate UCL (use when $n \geq 50$)	192.3		95% Gamma Adjusted UCL (use when $n < 50$)	N/A						
67												
68	Estimates of Gamma Parameters using KM Estimates											
69		Mean (KM)	84.95		SD (KM)	291.5						
70		Variance (KM)	85000		SE of Mean (KM)	56.46						
71		k hat (KM)	0.0849		k star (KM)	0.0952						
72		nu hat (KM)	6.792		nu star (KM)	7.616						
73		theta hat (KM)	1001		theta star (KM)	892.3						
74		80% gamma percentile (KM)	54.75		90% gamma percentile (KM)	221.3						
75		95% gamma percentile (KM)	494.2		99% gamma percentile (KM)	1383						
76												
77	Gamma Kaplan-Meier (KM) Statistics											
78		Approximate Chi Square Value (7.62, α)	2.515		Adjusted Chi Square Value (7.62, β)	2.406						
79		95% Gamma Approximate KM-UCL (use when $n \geq 50$)	257.3		95% Gamma Adjusted KM-UCL (use when $n < 50$)	268.9						
80	95% Gamma Adjusted KM-UCL (use when $k \leq 1$ and $15 < n < 50$)											
81												
82	Lognormal GOF Test on Detected Observations Only											
83		Shapiro Wilk Test Statistic	0.993		Shapiro Wilk GOF Test							
84		5% Shapiro Wilk Critical Value	0.767	Detected Data appear Lognormal at 5% Significance Level								
85		Lilliefors Test Statistic	0.205		Lilliefors GOF Test							
86		5% Lilliefors Critical Value	0.425	Detected Data appear Lognormal at 5% Significance Level								
87	Detected Data appear Lognormal at 5% Significance Level											
88												
89	Lognormal ROS Statistics Using Imputed Non-Detects											
90		Mean in Original Scale	79.41		Mean in Log Scale	0.195						
91		SD in Original Scale	297.4		SD in Log Scale	3.357						
92		95% t UCL (assumes normality of ROS data)	158.6		95% Percentile Bootstrap UCL	162.9						
93		95% BCA Bootstrap UCL	215.2		95% Bootstrap t UCL	523.3						
94		95% H-UCL (Log ROS)	8101									
95												
96	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution											
97		KM Mean (logged)	3.059		KM Geo Mean	21.32						
98		KM SD (logged)	1.027		95% Critical H Value (KM-Log)	2.44						
99		KM Standard Error of Mean (logged)	0.199		95% H-UCL (KM -Log)	53.97						
100		KM SD (logged)	1.027		95% Critical H Value (KM-Log)	2.44						

	A	B	C	D	E	F	G	H	I	J	K	L
101	KM Standard Error of Mean (logged)					0.199						
102												
103	DL/2 Statistics											
104	DL/2 Normal						DL/2 Log-Transformed					
105	Mean in Original Scale					77.55	Mean in Log Scale					2.418
106	SD in Original Scale					297	SD in Log Scale					1.222
107	95% t UCL (Assumes normality)					156.7	95% H-Stat UCL					40.03
108	DL/2 is not a recommended method, provided for comparisons and historical reasons											
109												
110	Nonparametric Distribution Free UCL Statistics											
111	Detected Data appear Normal Distributed at 5% Significance Level											
112												
113	Suggested UCL to Use											
114	95% KM (t) UCL					180.1						
115												
116	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
117	Recommendations are based upon data size, data distribution, and skewness.											
118	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
119	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
120												

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 10:39:27 AM								
5	From File			Soil Vapor TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10	Methylene chloride											
11												
12	General Statistics											
13	Total Number of Observations				40		Number of Distinct Observations				5	
14	Number of Detects				5		Number of Non-Detects				35	
15	Number of Distinct Detects				5		Number of Distinct Non-Detects				1	
16	Minimum Detect				8		Minimum Non-Detect				8	
17	Maximum Detect				26		Maximum Non-Detect				8	
18	Variance Detects				57.5		Percent Non-Detects				87.5%	
19	Mean Detects				16		SD Detects				7.583	
20	Median Detects				17		CV Detects				0.474	
21	Skewness Detects				0.201		Kurtosis Detects				-1.666	
22	Mean of Logged Detects				2.673		SD of Logged Detects				0.513	
23												
24	Normal GOF Test on Detects Only											
25	Shapiro Wilk Test Statistic				0.929		Shapiro Wilk GOF Test					
26	5% Shapiro Wilk Critical Value				0.762		Detected Data appear Normal at 5% Significance Level					
27	Lilliefors Test Statistic				0.222		Lilliefors GOF Test					
28	5% Lilliefors Critical Value				0.343		Detected Data appear Normal at 5% Significance Level					
29	Detected Data appear Normal at 5% Significance Level											
30												
31	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
32	KM Mean				9		KM Standard Error of Mean				0.631	
33	KM SD				3.571		95% KM (BCA) UCL				10.05	
34	95% KM (t) UCL				10.06		95% KM (Percentile Bootstrap) UCL				10.03	
35	95% KM (z) UCL				10.04		95% KM Bootstrap t UCL				10.24	
36	90% KM Chebyshev UCL				10.89		95% KM Chebyshev UCL				11.75	
37	97.5% KM Chebyshev UCL				12.94		99% KM Chebyshev UCL				15.28	
38												
39	Gamma GOF Tests on Detected Observations Only											
40	A-D Test Statistic				0.342		Anderson-Darling GOF Test					
41	5% A-D Critical Value				0.681		Detected data appear Gamma Distributed at 5% Significance Level					
42	K-S Test Statistic				0.251		Kolmogorov-Smirnov GOF					
43	5% K-S Critical Value				0.358		Detected data appear Gamma Distributed at 5% Significance Level					
44	Detected data appear Gamma Distributed at 5% Significance Level											
45												
46	Gamma Statistics on Detected Data Only											
47	k hat (MLE)				5.169		k star (bias corrected MLE)				2.201	
48	Theta hat (MLE)				3.096		Theta star (bias corrected MLE)				7.27	
49	nu hat (MLE)				51.69		nu star (bias corrected)				22.01	
50	Mean (detects)				16							

	A	B	C	D	E	F	G	H	I	J	K	L	
51													
52	Gamma ROS Statistics using Imputed Non-Detects												
53	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs												
54	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)												
55	For such situations, GROS method may yield incorrect values of UCLs and BTVs												
56	This is especially true when the sample size is small.												
57	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates												
58	Minimum					0.01						Mean	2.136
59	Maximum					26						Median	0.01
60	SD					5.867						CV	2.747
61	k hat (MLE)					0.179						k star (bias corrected MLE)	0.182
62	Theta hat (MLE)					11.93						Theta star (bias corrected MLE)	11.72
63	nu hat (MLE)					14.32						nu star (bias corrected)	14.58
64	Adjusted Level of Significance (β)					0.044							
65	Approximate Chi Square Value (14.58, α)					6.971						Adjusted Chi Square Value (14.58, β)	6.774
66	95% Gamma Approximate UCL (use when $n \geq 50$)					4.468						95% Gamma Adjusted UCL (use when $n < 50$)	4.598
67													
68	Estimates of Gamma Parameters using KM Estimates												
69	Mean (KM)					9						SD (KM)	3.571
70	Variance (KM)					12.75						SE of Mean (KM)	0.631
71	k hat (KM)					6.353						k star (KM)	5.893
72	nu hat (KM)					508.2						nu star (KM)	471.5
73	theta hat (KM)					1.417						theta star (KM)	1.527
74	80% gamma percentile (KM)					11.88						90% gamma percentile (KM)	13.96
75	95% gamma percentile (KM)					15.84						99% gamma percentile (KM)	19.78
76													
77	Gamma Kaplan-Meier (KM) Statistics												
78	Approximate Chi Square Value (471.45, α)					422.1						Adjusted Chi Square Value (471.45, β)	420.4
79	95% Gamma Approximate KM-UCL (use when $n \geq 50$)					10.05						95% Gamma Adjusted KM-UCL (use when $n < 50$)	10.09
80													
81	Lognormal GOF Test on Detected Observations Only												
82	Shapiro Wilk Test Statistic					0.907						Shapiro Wilk GOF Test	
83	5% Shapiro Wilk Critical Value					0.762						Detected Data appear Lognormal at 5% Significance Level	
84	Lilliefors Test Statistic					0.223						Lilliefors GOF Test	
85	5% Lilliefors Critical Value					0.343						Detected Data appear Lognormal at 5% Significance Level	
86	Detected Data appear Lognormal at 5% Significance Level												
87													
88	Lognormal ROS Statistics Using Imputed Non-Detects												
89	Mean in Original Scale					3.32						Mean in Log Scale	0.172
90	SD in Original Scale					5.619						SD in Log Scale	1.499
91	95% t UCL (assumes normality of ROS data)					4.816						95% Percentile Bootstrap UCL	4.851
92	95% BCA Bootstrap UCL					5.293						95% Bootstrap t UCL	5.678
93	95% H-UCL (Log ROS)					7.591							
94													
95	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution												
96	KM Mean (logged)					2.154						KM Geo Mean	8.616
97	KM SD (logged)					0.255						95% Critical H Value (KM-Log)	1.766
98	KM Standard Error of Mean (logged)					0.045						95% H-UCL (KM -Log)	9.564
99	KM SD (logged)					0.255						95% Critical H Value (KM-Log)	1.766
100	KM Standard Error of Mean (logged)					0.045							

	A	B	C	D	E	F	G	H	I	J	K	L
101												
102	DL/2 Statistics											
103	DL/2 Normal						DL/2 Log-Transformed					
104	Mean in Original Scale					5.5	Mean in Log Scale					1.547
105	SD in Original Scale					4.696	SD in Log Scale					0.461
106	95% t UCL (Assumes normality)					6.751	95% H-Stat UCL					6.008
107	DL/2 is not a recommended method, provided for comparisons and historical reasons											
108												
109	Nonparametric Distribution Free UCL Statistics											
110	Detected Data appear Normal Distributed at 5% Significance Level											
111												
112	Suggested UCL to Use											
113	95% KM (t) UCL					10.06						
114												
115	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
116	Recommendations are based upon data size, data distribution, and skewness.											
117	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
118	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
119												

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 10:43:03 AM								
5	From File			Soil Vapor TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10	Methyl tert-butyl ether											
11												
12	General Statistics											
13	Total Number of Observations				40		Number of Distinct Observations				3	
14	Number of Detects				2		Number of Non-Detects				38	
15	Number of Distinct Detects				2		Number of Distinct Non-Detects				1	
16	Minimum Detect				8610		Minimum Non-Detect				40	
17	Maximum Detect				121000		Maximum Non-Detect				40	
18	Variance Detects				6.316E+9		Percent Non-Detects				95%	
19	Mean Detects				64805		SD Detects				79472	
20	Median Detects				64805		CV Detects				1.226	
21	Skewness Detects				N/A		Kurtosis Detects				N/A	
22	Mean of Logged Detects				10.38		SD of Logged Detects				1.869	
23												
24	Warning: Data set has only 2 Detected Values.											
25	This is not enough to compute meaningful or reliable statistics and estimates.											
26												
27												
28	Normal GOF Test on Detects Only											
29	Not Enough Data to Perform GOF Test											
30												
31	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
32	KM Mean				3278		KM Standard Error of Mean				4226	
33	KM SD				18898		95% KM (BCA) UCL				N/A	
34	95% KM (t) UCL				10398		95% KM (Percentile Bootstrap) UCL				N/A	
35	95% KM (z) UCL				10229		95% KM Bootstrap t UCL				N/A	
36	90% KM Chebyshev UCL				15955		95% KM Chebyshev UCL				21698	
37	97.5% KM Chebyshev UCL				29668		99% KM Chebyshev UCL				45324	
38												
39	Gamma GOF Tests on Detected Observations Only											
40	Not Enough Data to Perform GOF Test											
41												
42	Gamma Statistics on Detected Data Only											
43	k hat (MLE)				0.845		k star (bias corrected MLE)				N/A	
44	Theta hat (MLE)				76658		Theta star (bias corrected MLE)				N/A	
45	nu hat (MLE)				3.382		nu star (bias corrected)				N/A	
46	Mean (detects)				64805							
47												
48	Estimates of Gamma Parameters using KM Estimates											
49	Mean (KM)				3278		SD (KM)				18898	
50	Variance (KM)				3.571E+8		SE of Mean (KM)				4226	

	A	B	C	D	E	F	G	H	I	J	K	L
51					k hat (KM)	0.0301					k star (KM)	0.0445
52					nu hat (KM)	2.407					nu star (KM)	3.56
53					theta hat (KM)	108940					theta star (KM)	73665
54					80% gamma percentile (KM)	285.8					90% gamma percentile (KM)	4242
55					95% gamma percentile (KM)	16620					99% gamma percentile (KM)	74567
56												
57	Gamma Kaplan-Meier (KM) Statistics											
58											Adjusted Level of Significance (β)	0.044
59					Approximate Chi Square Value (3.56, α)	0.556					Adjusted Chi Square Value (3.56, β)	0.516
60					95% Gamma Approximate KM-UCL (use when $n \geq 50$)	20988					95% Gamma Adjusted KM-UCL (use when $n < 50$)	22604
61	95% Gamma Adjusted KM-UCL (use when $k \leq 1$ and $15 < n < 50$)											
62												
63	Lognormal GOF Test on Detected Observations Only											
64	Not Enough Data to Perform GOF Test											
65												
66	Lognormal ROS Statistics Using Imputed Non-Detects											
67					Mean in Original Scale	3249					Mean in Log Scale	-7.361
68					SD in Original Scale	19144					SD in Log Scale	8.523
69					95% t UCL (assumes normality of ROS data)	8349					95% Percentile Bootstrap UCL	9291
70					95% BCA Bootstrap UCL	12747					95% Bootstrap t UCL	1517994
71					95% H-UCL (Log ROS)	1.367E+21						
72												
73	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution											
74					KM Mean (logged)	4.024					KM Geo Mean	55.9
75					KM SD (logged)	1.488					95% Critical H Value (KM-Log)	3.033
76					KM Standard Error of Mean (logged)	0.333					95% H-UCL (KM -Log)	348.7
77					KM SD (logged)	1.488					95% Critical H Value (KM-Log)	3.033
78					KM Standard Error of Mean (logged)	0.333						
79												
80	DL/2 Statistics											
81	DL/2 Normal						DL/2 Log-Transformed					
82					Mean in Original Scale	3259					Mean in Log Scale	3.365
83					SD in Original Scale	19142					SD in Log Scale	1.658
84					95% t UCL (Assumes normality)	8359					95% H-Stat UCL	272.4
85	DL/2 is not a recommended method, provided for comparisons and historical reasons											
86												
87	Nonparametric Distribution Free UCL Statistics											
88	Data do not follow a Discernible Distribution at 5% Significance Level											
89												
90	Suggested UCL to Use											
91					95% KM (Chebyshev) UCL	21698						
92												
93	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
94	Recommendations are based upon data size, data distribution, and skewness.											
95	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
96	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
97												

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 10:43:26 AM								
5	From File			Soil Vapor TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10	Naphthalene											
11												
12	General Statistics											
13	Total Number of Observations				40		Number of Distinct Observations				4	
14	Number of Detects				3		Number of Non-Detects				37	
15	Number of Distinct Detects				3		Number of Distinct Non-Detects				1	
16	Minimum Detect				41		Minimum Non-Detect				40	
17	Maximum Detect				826		Maximum Non-Detect				40	
18	Variance Detects				154327		Percent Non-Detects				92.5%	
19	Mean Detects				424		SD Detects				392.8	
20	Median Detects				405		CV Detects				0.927	
21	Skewness Detects				0.217		Kurtosis Detects				N/A	
22	Mean of Logged Detects				5.478		SD of Logged Detects				1.569	
23												
24	Warning: Data set has only 3 Detected Values.											
25	This is not enough to compute meaningful or reliable statistics and estimates.											
26												
27												
28	Normal GOF Test on Detects Only											
29	Shapiro Wilk Test Statistic				0.998		Shapiro Wilk GOF Test					
30	5% Shapiro Wilk Critical Value				0.767		Detected Data appear Normal at 5% Significance Level					
31	Lilliefors Test Statistic				0.186		Lilliefors GOF Test					
32	5% Lilliefors Critical Value				0.425		Detected Data appear Normal at 5% Significance Level					
33	Detected Data appear Normal at 5% Significance Level											
34												
35	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
36	KM Mean				68.8		KM Standard Error of Mean				25.94	
37	KM SD				134		95% KM (BCA) UCL				N/A	
38	95% KM (t) UCL				112.5		95% KM (Percentile Bootstrap) UCL				N/A	
39	95% KM (z) UCL				111.5		95% KM Bootstrap t UCL				N/A	
40	90% KM Chebyshev UCL				146.6		95% KM Chebyshev UCL				181.9	
41	97.5% KM Chebyshev UCL				230.8		99% KM Chebyshev UCL				326.9	
42												
43	Gamma GOF Tests on Detected Observations Only											
44	Not Enough Data to Perform GOF Test											
45												
46	Gamma Statistics on Detected Data Only											
47	k hat (MLE)				1.009		k star (bias corrected MLE)				N/A	
48	Theta hat (MLE)				420.4		Theta star (bias corrected MLE)				N/A	
49	nu hat (MLE)				6.052		nu star (bias corrected)				N/A	
50	Mean (detects)				424							

	A	B	C	D	E	F	G	H	I	J	K	L
101												
102	DL/2 Statistics											
103	DL/2 Normal						DL/2 Log-Transformed					
104	Mean in Original Scale					50.3	Mean in Log Scale					3.182
105	SD in Original Scale					139.7	SD in Log Scale					0.751
106	95% t UCL (Assumes normality)					87.53	95% H-Stat UCL					41.34
107	DL/2 is not a recommended method, provided for comparisons and historical reasons											
108												
109	Nonparametric Distribution Free UCL Statistics											
110	Detected Data appear Normal Distributed at 5% Significance Level											
111												
112	Suggested UCL to Use											
113	95% KM (t) UCL					112.5						
114												
115	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
116	Recommendations are based upon data size, data distribution, and skewness.											
117	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
118	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
119												

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 10:36:18 AM								
5	From File			Soil Vapor TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10	n-Butylbenzene											
11												
12	General Statistics											
13	Total Number of Observations				40		Number of Distinct Observations				2	
14	Number of Detects				1		Number of Non-Detects				39	
15	Number of Distinct Detects				1		Number of Distinct Non-Detects				1	
16												
17	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!											
18	It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).											
19												
20	The data set for variable n-Butylbenzene was not processed!											
21												
22												

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 10:43:50 AM								
5	From File			Soil Vapor TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10	n-Propylbenzene											
11												
12	General Statistics											
13	Total Number of Observations				40		Number of Distinct Observations				3	
14	Number of Detects				2		Number of Non-Detects				38	
15	Number of Distinct Detects				2		Number of Distinct Non-Detects				1	
16	Minimum Detect				2640		Minimum Non-Detect				8	
17	Maximum Detect				5810		Maximum Non-Detect				8	
18	Variance Detects				5024450		Percent Non-Detects				95%	
19	Mean Detects				4225		SD Detects				2242	
20	Median Detects				4225		CV Detects				0.531	
21	Skewness Detects				N/A		Kurtosis Detects				N/A	
22	Mean of Logged Detects				8.273		SD of Logged Detects				0.558	
23												
24	Warning: Data set has only 2 Detected Values.											
25	This is not enough to compute meaningful or reliable statistics and estimates.											
26												
27												
28	Normal GOF Test on Detects Only											
29	Not Enough Data to Perform GOF Test											
30												
31	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
32	KM Mean			218.9		KM Standard Error of Mean			220.3			
33	KM SD			985		95% KM (BCA) UCL			N/A			
34	95% KM (t) UCL			590		95% KM (Percentile Bootstrap) UCL			N/A			
35	95% KM (z) UCL			581.1		95% KM Bootstrap t UCL			N/A			
36	90% KM Chebyshev UCL			879.6		95% KM Chebyshev UCL			1179			
37	97.5% KM Chebyshev UCL			1594		99% KM Chebyshev UCL			2410			
38												
39	Gamma GOF Tests on Detected Observations Only											
40	Not Enough Data to Perform GOF Test											
41												
42	Gamma Statistics on Detected Data Only											
43	k hat (MLE)			6.755		k star (bias corrected MLE)			N/A			
44	Theta hat (MLE)			625.4		Theta star (bias corrected MLE)			N/A			
45	nu hat (MLE)			27.02		nu star (bias corrected)			N/A			
46	Mean (detects)			4225								
47												
48	Estimates of Gamma Parameters using KM Estimates											
49	Mean (KM)			218.9		SD (KM)			985			
50	Variance (KM)			970308		SE of Mean (KM)			220.3			

	A	B	C	D	E	F	G	H	I	J	K	L
51					k hat (KM)	0.0494					k star (KM)	0.0623
52					nu hat (KM)	3.949					nu star (KM)	4.986
53					theta hat (KM)	4434					theta star (KM)	3511
54					80% gamma percentile (KM)	58.66					90% gamma percentile (KM)	427.2
55					95% gamma percentile (KM)	1236					99% gamma percentile (KM)	4343
56												
57	Gamma Kaplan-Meier (KM) Statistics											
58											Adjusted Level of Significance (β)	0.044
59					Approximate Chi Square Value (4.99, α)	1.146					Adjusted Chi Square Value (4.99, β)	1.08
60					95% Gamma Approximate KM-UCL (use when $n \geq 50$)	952.4					95% Gamma Adjusted KM-UCL (use when $n < 50$)	1011
61	95% Gamma Adjusted KM-UCL (use when $k \leq 1$ and $15 < n < 50$)											
62												
63	Lognormal GOF Test on Detected Observations Only											
64	Not Enough Data to Perform GOF Test											
65												
66	Lognormal ROS Statistics Using Imputed Non-Detects											
67					Mean in Original Scale	301.7					Mean in Log Scale	2.977
68					SD in Original Scale	997.2					SD in Log Scale	2.544
69					95% t UCL (assumes normality of ROS data)	567.3					95% Percentile Bootstrap UCL	590.5
70					95% BCA Bootstrap UCL	752.1					95% Bootstrap t UCL	1513
71					95% H-UCL (Log ROS)	3260						
72												
73	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution											
74					KM Mean (logged)	2.389					KM Geo Mean	10.9
75					KM SD (logged)	1.353					95% Critical H Value (KM-Log)	2.849
76					KM Standard Error of Mean (logged)	0.302					95% H-UCL (KM -Log)	50.46
77					KM SD (logged)	1.353					95% Critical H Value (KM-Log)	2.849
78					KM Standard Error of Mean (logged)	0.302						
79												
80	DL/2 Statistics											
81	DL/2 Normal						DL/2 Log-Transformed					
82					Mean in Original Scale	215.1					Mean in Log Scale	1.731
83					SD in Original Scale	998.4					SD in Log Scale	1.523
84					95% t UCL (Assumes normality)	481					95% H-Stat UCL	38.13
85	DL/2 is not a recommended method, provided for comparisons and historical reasons											
86												
87	Nonparametric Distribution Free UCL Statistics											
88	Data do not follow a Discernible Distribution at 5% Significance Level											
89												
90	Suggested UCL to Use											
91					95% KM (Chebyshev) UCL	1179						
92												
93	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
94	Recommendations are based upon data size, data distribution, and skewness.											
95	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
96	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
97												

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 10:45:24 AM								
5	From File			Soil Vapor TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10	o-Xylene											
11												
12	General Statistics											
13	Total Number of Observations				40		Number of Distinct Observations				3	
14	Number of Detects				2		Number of Non-Detects				38	
15	Number of Distinct Detects				2		Number of Distinct Non-Detects				1	
16	Minimum Detect				84		Minimum Non-Detect				8	
17	Maximum Detect				441		Maximum Non-Detect				8	
18	Variance Detects				63725		Percent Non-Detects				95%	
19	Mean Detects				262.5		SD Detects				252.4	
20	Median Detects				262.5		CV Detects				0.962	
21	Skewness Detects				N/A		Kurtosis Detects				N/A	
22	Mean of Logged Detects				5.26		SD of Logged Detects				1.173	
23												
24	Warning: Data set has only 2 Detected Values.											
25	This is not enough to compute meaningful or reliable statistics and estimates.											
26												
27												
28	Normal GOF Test on Detects Only											
29	Not Enough Data to Perform GOF Test											
30												
31	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
32	KM Mean			20.73		KM Standard Error of Mean				15.28		
33	KM SD			68.34		95% KM (BCA) UCL				N/A		
34	95% KM (t) UCL			46.47		95% KM (Percentile Bootstrap) UCL				N/A		
35	95% KM (z) UCL			45.86		95% KM Bootstrap t UCL				N/A		
36	90% KM Chebyshev UCL			66.57		95% KM Chebyshev UCL				87.33		
37	97.5% KM Chebyshev UCL			116.1		99% KM Chebyshev UCL				172.8		
38												
39	Gamma GOF Tests on Detected Observations Only											
40	Not Enough Data to Perform GOF Test											
41												
42	Gamma Statistics on Detected Data Only											
43	k hat (MLE)			1.76		k star (bias corrected MLE)				N/A		
44	Theta hat (MLE)			149.2		Theta star (bias corrected MLE)				N/A		
45	nu hat (MLE)			7.038		nu star (bias corrected)				N/A		
46	Mean (detects)			262.5								
47												
48	Estimates of Gamma Parameters using KM Estimates											
49	Mean (KM)			20.73		SD (KM)				68.34		
50	Variance (KM)			4670		SE of Mean (KM)				15.28		

	A	B	C	D	E	F	G	H	I	J	K	L
51					k hat (KM)	0.092					k star (KM)	0.102
52					nu hat (KM)	7.359					nu star (KM)	8.14
53					theta hat (KM)	225.3					theta star (KM)	203.7
54					80% gamma percentile (KM)	14.74					90% gamma percentile (KM)	55.55
55					95% gamma percentile (KM)	120.2					99% gamma percentile (KM)	326.4
56												
57	Gamma Kaplan-Meier (KM) Statistics											
58											Adjusted Level of Significance (β)	0.044
59					Approximate Chi Square Value (8.14, α)	2.816					Adjusted Chi Square Value (8.14, β)	2.7
60					95% Gamma Approximate KM-UCL (use when $n \geq 50$)	59.9					95% Gamma Adjusted KM-UCL (use when $n < 50$)	62.48
61	95% Gamma Adjusted KM-UCL (use when $k \leq 1$ and $15 < n < 50$)											
62												
63	Lognormal GOF Test on Detected Observations Only											
64	Not Enough Data to Perform GOF Test											
65												
66	Lognormal ROS Statistics Using Imputed Non-Detects											
67					Mean in Original Scale	13.57					Mean in Log Scale	-5.873
68					SD in Original Scale	70.58					SD in Log Scale	5.348
69					95% t UCL (assumes normality of ROS data)	32.37					95% Percentile Bootstrap UCL	35.33
70					95% BCA Bootstrap UCL	50.97					95% Bootstrap t UCL	637.4
71					95% H-UCL (Log ROS)	11636631						
72												
73	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution											
74					KM Mean (logged)	2.238					KM Geo Mean	9.379
75					KM SD (logged)	0.718					95% Critical H Value (KM-Log)	2.108
76					KM Standard Error of Mean (logged)	0.16					95% H-UCL (KM -Log)	15.46
77					KM SD (logged)	0.718					95% Critical H Value (KM-Log)	2.108
78					KM Standard Error of Mean (logged)	0.16						
79												
80	DL/2 Statistics											
81	DL/2 Normal						DL/2 Log-Transformed					
82					Mean in Original Scale	16.93					Mean in Log Scale	1.58
83					SD in Original Scale	69.92					SD in Log Scale	0.875
84					95% t UCL (Assumes normality)	35.55					95% H-Stat UCL	9.788
85	DL/2 is not a recommended method, provided for comparisons and historical reasons											
86												
87	Nonparametric Distribution Free UCL Statistics											
88	Data do not follow a Discernible Distribution at 5% Significance Level											
89												
90	Suggested UCL to Use											
91					95% KM (Chebyshev) UCL	87.33						
92												
93	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
94	Recommendations are based upon data size, data distribution, and skewness.											
95	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
96	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
97												

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 10:37:01 AM								
5	From File			Soil Vapor TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10	sec-Butylbenzene											
11												
12	General Statistics											
13	Total Number of Observations				40		Number of Distinct Observations				2	
14	Number of Detects				1		Number of Non-Detects				39	
15	Number of Distinct Detects				1		Number of Distinct Non-Detects				1	
16												
17	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!											
18	It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).											
19												
20	The data set for variable sec-Butylbenzene was not processed!											
21												
22												

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 10:34:39 AM								
5	From File			Metals in Soil TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10	Se											
11												
12	General Statistics											
13	Total Number of Observations				57		Number of Distinct Observations				2	
14	Number of Detects				1		Number of Non-Detects				56	
15	Number of Distinct Detects				1		Number of Distinct Non-Detects				1	
16												
17	Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!											
18	It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).											
19												
20	The data set for variable Se was not processed!											
21												
22												

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 10:44:14 AM								
5	From File			Soil Vapor TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10	Tetrachloroethene											
11												
12	General Statistics											
13	Total Number of Observations				40		Number of Distinct Observations				18	
14	Number of Detects				25		Number of Non-Detects				15	
15	Number of Distinct Detects				18		Number of Distinct Non-Detects				1	
16	Minimum Detect				8		Minimum Non-Detect				8	
17	Maximum Detect				42		Maximum Non-Detect				8	
18	Variance Detects				103.9		Percent Non-Detects				37.5%	
19	Mean Detects				19.6		SD Detects				10.19	
20	Median Detects				17		CV Detects				0.52	
21	Skewness Detects				0.674		Kurtosis Detects				-0.616	
22	Mean of Logged Detects				2.843		SD of Logged Detects				0.532	
23												
24	Normal GOF Test on Detects Only											
25	Shapiro Wilk Test Statistic				0.911		Shapiro Wilk GOF Test					
26	5% Shapiro Wilk Critical Value				0.918		Detected Data Not Normal at 5% Significance Level					
27	Lilliefors Test Statistic				0.162		Lilliefors GOF Test					
28	5% Lilliefors Critical Value				0.173		Detected Data appear Normal at 5% Significance Level					
29	Detected Data appear Approximate Normal at 5% Significance Level											
30												
31	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
32	KM Mean				15.25		KM Standard Error of Mean				1.564	
33	KM SD				9.69		95% KM (BCA) UCL				17.65	
34	95% KM (t) UCL				17.88		95% KM (Percentile Bootstrap) UCL				17.85	
35	95% KM (z) UCL				17.82		95% KM Bootstrap t UCL				18.28	
36	90% KM Chebyshev UCL				19.94		95% KM Chebyshev UCL				22.07	
37	97.5% KM Chebyshev UCL				25.01		99% KM Chebyshev UCL				30.81	
38												
39	Gamma GOF Tests on Detected Observations Only											
40	A-D Test Statistic				0.464		Anderson-Darling GOF Test					
41	5% A-D Critical Value				0.749		Detected data appear Gamma Distributed at 5% Significance Level					
42	K-S Test Statistic				0.127		Kolmogorov-Smirnov GOF					
43	5% K-S Critical Value				0.175		Detected data appear Gamma Distributed at 5% Significance Level					
44	Detected data appear Gamma Distributed at 5% Significance Level											
45												
46	Gamma Statistics on Detected Data Only											
47	k hat (MLE)				3.93		k star (bias corrected MLE)				3.485	
48	Theta hat (MLE)				4.987		Theta star (bias corrected MLE)				5.624	
49	nu hat (MLE)				196.5		nu star (bias corrected)				174.2	
50	Mean (detects)				19.6							

	A	B	C	D	E	F	G	H	I	J	K	L
51												
52	Gamma ROS Statistics using Imputed Non-Detects											
53	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
54	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
55	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
56	This is especially true when the sample size is small.											
57	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
58		Minimum	0.01		Mean	12.91						
59		Maximum	42		Median	9.5						
60		SD	11.92		CV	0.923						
61		k hat (MLE)	0.464		k star (bias corrected MLE)	0.446						
62		Theta hat (MLE)	27.83		Theta star (bias corrected MLE)	28.96						
63		nu hat (MLE)	37.12		nu star (bias corrected)	35.67						
64		Adjusted Level of Significance (β)	0.044									
65		Approximate Chi Square Value (35.67, α)	23		Adjusted Chi Square Value (35.67, β)	22.62						
66		95% Gamma Approximate UCL (use when $n \geq 50$)	20.02		95% Gamma Adjusted UCL (use when $n < 50$)	20.36						
67												
68	Estimates of Gamma Parameters using KM Estimates											
69		Mean (KM)	15.25		SD (KM)	9.69						
70		Variance (KM)	93.89		SE of Mean (KM)	1.564						
71		k hat (KM)	2.477		k star (KM)	2.308						
72		nu hat (KM)	198.2		nu star (KM)	184.6						
73		theta hat (KM)	6.157		theta star (KM)	6.608						
74		80% gamma percentile (KM)	22.45		90% gamma percentile (KM)	28.69						
75		95% gamma percentile (KM)	34.59		99% gamma percentile (KM)	47.58						
76												
77	Gamma Kaplan-Meier (KM) Statistics											
78		Approximate Chi Square Value (184.63, α)	154.2		Adjusted Chi Square Value (184.63, β)	153.2						
79		95% Gamma Approximate KM-UCL (use when $n \geq 50$)	18.26		95% Gamma Adjusted KM-UCL (use when $n < 50$)	18.38						
80												
81	Lognormal GOF Test on Detected Observations Only											
82		Shapiro Wilk Test Statistic	0.937		Shapiro Wilk GOF Test							
83		5% Shapiro Wilk Critical Value	0.918		Detected Data appear Lognormal at 5% Significance Level							
84		Lilliefors Test Statistic	0.125		Lilliefors GOF Test							
85		5% Lilliefors Critical Value	0.173		Detected Data appear Lognormal at 5% Significance Level							
86	Detected Data appear Lognormal at 5% Significance Level											
87												
88	Lognormal ROS Statistics Using Imputed Non-Detects											
89		Mean in Original Scale	14.07		Mean in Log Scale	2.342						
90		SD in Original Scale	10.83		SD in Log Scale	0.813						
91		95% t UCL (assumes normality of ROS data)	16.95		95% Percentile Bootstrap UCL	16.92						
92		95% BCA Bootstrap UCL	17.1		95% Bootstrap t UCL	17.42						
93		95% H-UCL (Log ROS)	19.3									
94												
95	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution											
96		KM Mean (logged)	2.557		KM Geo Mean	12.89						
97		KM SD (logged)	0.553		95% Critical H Value (KM-Log)	1.963						
98		KM Standard Error of Mean (logged)	0.0893		95% H-UCL (KM -Log)	17.88						
99		KM SD (logged)	0.553		95% Critical H Value (KM-Log)	1.963						
100		KM Standard Error of Mean (logged)	0.0893									

	A	B	C	D	E	F	G	H	I	J	K	L
101												
102	DL/2 Statistics											
103	DL/2 Normal						DL/2 Log-Transformed					
104	Mean in Original Scale					13.75	Mean in Log Scale					2.297
105	SD in Original Scale					11.07	SD in Log Scale					0.827
106	95% t UCL (Assumes normality)					16.7	95% H-Stat UCL					18.78
107	DL/2 is not a recommended method, provided for comparisons and historical reasons											
108												
109	Nonparametric Distribution Free UCL Statistics											
110	Detected Data appear Approximate Normal Distributed at 5% Significance Level											
111												
112	Suggested UCL to Use											
113	95% KM (t) UCL					17.88						
114												
115	When a data set follows an approximate (e.g., normal) distribution passing one of the GOF test											
116	When applicable, it is suggested to use a UCL based upon a distribution (e.g., gamma) passing both GOF tests in ProUCL											
117												
118	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
119	Recommendations are based upon data size, data distribution, and skewness.											
120	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
121	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
122												

	A	B	C	D	E	F	G	H	I	J	K	L
1	UCL Statistics for Data Sets with Non-Detects											
2												
3	User Selected Options											
4	Date/Time of Computation			ProUCL 5.18/7/2021 10:44:37 AM								
5	From File			Soil Vapor TCNW.xls								
6	Full Precision			OFF								
7	Confidence Coefficient			95%								
8	Number of Bootstrap Operations			2000								
9												
10	Toluene											
11												
12	General Statistics											
13	Total Number of Observations				40		Number of Distinct Observations				8	
14	Number of Detects				7		Number of Non-Detects				33	
15	Number of Distinct Detects				7		Number of Distinct Non-Detects				1	
16	Minimum Detect				13		Minimum Non-Detect				8	
17	Maximum Detect				4210		Maximum Non-Detect				8	
18	Variance Detects				2506738		Percent Non-Detects				82.5%	
19	Mean Detects				619.6		SD Detects				1583	
20	Median Detects				16		CV Detects				2.555	
21	Skewness Detects				2.645		Kurtosis Detects				6.999	
22	Mean of Logged Detects				3.719		SD of Logged Detects				2.085	
23												
24	Normal GOF Test on Detects Only											
25	Shapiro Wilk Test Statistic				0.459		Shapiro Wilk GOF Test					
26	5% Shapiro Wilk Critical Value				0.803		Detected Data Not Normal at 5% Significance Level					
27	Lilliefors Test Statistic				0.499		Lilliefors GOF Test					
28	5% Lilliefors Critical Value				0.304		Detected Data Not Normal at 5% Significance Level					
29	Detected Data Not Normal at 5% Significance Level											
30												
31	Kaplan-Meier (KM) Statistics using Normal Critical Values and other Nonparametric UCLs											
32	KM Mean			115		KM Standard Error of Mean				112		
33	KM SD			655.8		95% KM (BCA) UCL				326		
34	95% KM (t) UCL			303.7		95% KM (Percentile Bootstrap) UCL				324.8		
35	95% KM (z) UCL			299.2		95% KM Bootstrap t UCL				20591		
36	90% KM Chebyshev UCL			451		95% KM Chebyshev UCL				603.2		
37	97.5% KM Chebyshev UCL			814.4		99% KM Chebyshev UCL				1229		
38												
39	Gamma GOF Tests on Detected Observations Only											
40	A-D Test Statistic			1.712		Anderson-Darling GOF Test						
41	5% A-D Critical Value			0.799		Detected Data Not Gamma Distributed at 5% Significance Level						
42	K-S Test Statistic			0.467		Kolmogorov-Smirnov GOF						
43	5% K-S Critical Value			0.338		Detected Data Not Gamma Distributed at 5% Significance Level						
44	Detected Data Not Gamma Distributed at 5% Significance Level											
45												
46	Gamma Statistics on Detected Data Only											
47	k hat (MLE)			0.26		k star (bias corrected MLE)				0.244		
48	Theta hat (MLE)			2380		Theta star (bias corrected MLE)				2539		
49	nu hat (MLE)			3.645		nu star (bias corrected)				3.416		
50	Mean (detects)			619.6								

	A	B	C	D	E	F	G	H	I	J	K	L
51												
52	Gamma ROS Statistics using Imputed Non-Detects											
53	GROS may not be used when data set has > 50% NDs with many tied observations at multiple DLs											
54	GROS may not be used when kstar of detects is small such as <1.0, especially when the sample size is small (e.g., <15-20)											
55	For such situations, GROS method may yield incorrect values of UCLs and BTVs											
56	This is especially true when the sample size is small.											
57	For gamma distributed detected data, BTVs and UCLs may be computed using gamma distribution on KM estimates											
58		Minimum	0.01		Mean	108.4						
59		Maximum	4210		Median	0.01						
60		SD	665.2		CV	6.135						
61		k hat (MLE)	0.103		k star (bias corrected MLE)	0.112						
62		Theta hat (MLE)	1050		Theta star (bias corrected MLE)	966.7						
63		nu hat (MLE)	8.259		nu star (bias corrected)	8.973						
64		Adjusted Level of Significance (β)	0.044									
65		Approximate Chi Square Value (8.97, α)	3.311		Adjusted Chi Square Value (8.97, β)	3.183						
66		95% Gamma Approximate UCL (use when $n \geq 50$)	293.9		95% Gamma Adjusted UCL (use when $n < 50$)	305.7						
67												
68	Estimates of Gamma Parameters using KM Estimates											
69		Mean (KM)	115		SD (KM)	655.8						
70		Variance (KM)	430010		SE of Mean (KM)	112						
71		k hat (KM)	0.0308		k star (KM)	0.0451						
72		nu hat (KM)	2.461		nu star (KM)	3.61						
73		theta hat (KM)	3738		theta star (KM)	2549						
74		80% gamma percentile (KM)	10.61		90% gamma percentile (KM)	152						
75		95% gamma percentile (KM)	586.9		99% gamma percentile (KM)	2603						
76												
77	Gamma Kaplan-Meier (KM) Statistics											
78		Approximate Chi Square Value (3.61, α)	0.574		Adjusted Chi Square Value (3.61, β)	0.533						
79		95% Gamma Approximate KM-UCL (use when $n \geq 50$)	723.4		95% Gamma Adjusted KM-UCL (use when $n < 50$)	778.6						
80	95% Gamma Adjusted KM-UCL (use when $k \leq 1$ and $15 < n < 50$)											
81												
82	Lognormal GOF Test on Detected Observations Only											
83		Shapiro Wilk Test Statistic	0.62		Shapiro Wilk GOF Test							
84		5% Shapiro Wilk Critical Value	0.803	Detected Data Not Lognormal at 5% Significance Level								
85		Lilliefors Test Statistic	0.345		Lilliefors GOF Test							
86		5% Lilliefors Critical Value	0.304	Detected Data Not Lognormal at 5% Significance Level								
87	Detected Data Not Lognormal at 5% Significance Level											
88												
89	Lognormal ROS Statistics Using Imputed Non-Detects											
90		Mean in Original Scale	108.6		Mean in Log Scale	-3.556						
91		SD in Original Scale	665.2		SD in Log Scale	4.878						
92		95% t UCL (assumes normality of ROS data)	285.8		95% Percentile Bootstrap UCL	318.8						
93		95% BCA Bootstrap UCL	425.4		95% Bootstrap t UCL	13248						
94		95% H-UCL (Log ROS)	2938285									
95												
96	Statistics using KM estimates on Logged Data and Assuming Lognormal Distribution											
97		KM Mean (logged)	2.366		KM Geo Mean	10.66						
98		KM SD (logged)	1.02		95% Critical H Value (KM-Log)	2.431						
99		KM Standard Error of Mean (logged)	0.174		95% H-UCL (KM -Log)	26.66						
100		KM SD (logged)	1.02		95% Critical H Value (KM-Log)	2.431						

	A	B	C	D	E	F	G	H	I	J	K	L
101	KM Standard Error of Mean (logged)					0.174						
102												
103	DL/2 Statistics											
104	DL/2 Normal						DL/2 Log-Transformed					
105	Mean in Original Scale					111.7	Mean in Log Scale					1.795
106	SD in Original Scale					664.7	SD in Log Scale					1.214
107	95% t UCL (Assumes normality)					288.8	95% H-Stat UCL					21.13
108	DL/2 is not a recommended method, provided for comparisons and historical reasons											
109												
110	Nonparametric Distribution Free UCL Statistics											
111	Data do not follow a Discernible Distribution at 5% Significance Level											
112												
113	Suggested UCL to Use											
114	97.5% KM (Chebyshev) UCL					814.4						
115												
116	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
117	Recommendations are based upon data size, data distribution, and skewness.											
118	These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).											
119	However, simulations results will not cover all Real World data sets; for additional insight the user may want to consult a statistician.											
120												

APPENDIX G

ESL Model Results Soil Vapor – Residential

2019 (Rev. 2)	Table T2-1: Tier 2 ESLs Site-Specific Input and Output
Click in cell and use pull-down boxes to make selection.	
Tier 2 Scenario Toggles	
Land Use:	Residential
Vegetation Level:	Minimal
Groundwater Use:	Nondrinking Water Resource
MCL Priority over Risk-Based:	No
Discharge to Surface Water:	No Discharge Expected
Soil Contamination Depth: (Shallow ≤ 10ft bgs < Deep)	Shallow & Deep Soil



Select Site Contaminants:	Contaminant 1		Contaminant 2		Contaminant 3		Contaminant 4		Contaminant 5	
	Benzene		Ethylbenzene		Methylene chloride		Methyl tertiary butyl ether (MTBE)		Naphthalene [PAH]	
Tier 2 ESLs:	ESL	Basis	ESL	Basis	ESL	Basis	ESL	Basis	ESL	Basis
Soil (mg/kg):	2.5E-02	Leaching	4.3E-01	Leaching	1.9E-01	Leaching	2.5E+00	Leaching	1.2E+00	Leaching
Groundwater (µg/L):	4.2E-01	VI HHR	3.5E+00	VI HHR	7.8E+00	VI HHR	4.5E+02	VI HHR	4.6E+00	VI HHR
Subslab/ Soil Gas (µg/m³):	3.2E+00	VI HHR	3.7E+01	VI HHR	3.4E+01	VI HHR	3.6E+02	VI HHR	2.8E+00	VI HHR
Indoor Air (µg/m³):	9.7E-02	Dir Exp	1.1E+00	Dir Exp	1.0E+00	Dir Exp	1.1E+01	Dir Exp	8.3E-02	Dir Exp

Note:
Groundwater depth is no longer a toggle for evaluating vapor intrusion. See the notes in Workbook Table GW-3 and the User's Guide Chapter 5 for further information.



2019 (Rev. 2)	Table T2-2: Tier 2 – Site-Specific Cumulative Risk and Hazard Calculator				
Enter Site Data (Leave blank when no data exists)					
	Contaminant 1	Contaminant 2	Contaminant 3	Contaminant 4	Contaminant 5
Contaminant inputs from T2-1:	Benzene	Ethylbenzene	Methylene chloride	Methyl tertiary butyl ether (MTBE)	Naphthalene [PAH]
Soil Concentration (mg/kg) - dry weight:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Groundwater Concentration (µg/L):	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Subslab/ Soil Gas Concentration (µg/m ³):	1,558.00	2,730	10	121,000	5,810
Indoor Air Concentration (µg/m ³):	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Soil Gas VI Attenuation Factor (Use 0.03 for Screening):					0.0300

Selected Site Scenario (from T2-1)
Land Use: Residential
Vegetation Level: Minimal
Groundwater Use: Nondrinking Water Resource
MCL Priority vs Risk-Based: No
Discharge to Surface Water: No Discharge Expected
Soil Contamination Depth: Shallow & Deep Soil

Cancer Risk:	Benzene	Ethylbenzene	Methylene chloride	Methyl tertiary butyl ether (MTBE)	Naphthalene [PAH]	Cumulative Risk
Soil Exposure Risk:	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>
Tapwater Exposure Risk:	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>
Current* Vapor Intrusion Exposure Risk: Basis:	4.8E-04 Subslab/Soil Gas VI	7.3E-05 Subslab/Soil Gas VI	3.0E-07 Subslab/Soil Gas VI	3.4E-04 Subslab/Soil Gas VI	2.1E-03 Subslab/Soil Gas VI	3.0E-03 Subslab/Soil Gas VI
Future** Vapor Intrusion Exposure Risk: Basis:	4.8E-04 Subslab/Soil Gas VI	7.3E-05 Subslab/Soil Gas VI	3.0E-07 Subslab/Soil Gas VI	3.4E-04 Subslab/Soil Gas VI	2.1E-03 Subslab/Soil Gas VI	3.0E-03 Subslab/Soil Gas VI

Noncancer Hazard:	Benzene	Ethylbenzene	Methylene chloride	Methyl tertiary butyl ether (MTBE)	Naphthalene [PAH]	Cumulative Hazard
Soil Exposure Hazard:	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>
Tap Water Exposure Hazard:	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>
Current* Vapor Intrusion Exposure Hazard: Basis:	1.5E+01 Subslab/Soil Gas VI	7.9E-02 Subslab/Soil Gas VI	7.2E-04 Subslab/Soil Gas VI	1.2E+00 Subslab/Soil Gas VI	5.6E+01 Subslab/Soil Gas VI	7.2E+01 Subslab/Soil Gas VI
Future** Vapor Intrusion Exposure Hazard: Basis:	1.5E+01 Subslab/Soil Gas VI	7.9E-02 Subslab/Soil Gas VI	7.2E-04 Subslab/Soil Gas VI	1.2E+00 Subslab/Soil Gas VI	5.6E+01 Subslab/Soil Gas VI	7.2E+01 Subslab/Soil Gas VI

Notes:
Cumulative cancer risk and noncancer hazard are not automatically calculated across pathways because exposure via multiple pathways typically is not simultaneous. This may be performed separately as part of a site-specific evaluation. See the User's Guide Section 3.3 (Addressing Cumulative Risk and Hazard).

* **Current** (VI exposure to current occupants of existing buildings) – Primarily based on indoor air data. See User's Guide Chapter 5 for further information. In the absence of indoor air data, subslab/soil gas or groundwater data is used to predict current indoor air concentrations. Subslab/soil gas data is given priority over groundwater data for current exposure calculations. The cumulative risk calculation follows the same hierarchy.

** **Future** (VI exposure to future occupants of existing or future buildings) – Primarily based on subslab/soil gas data. See User's Guide Chapter 5 for further information. In the absence of subslab/soil gas data, groundwater data is used to predict future indoor air concentrations. The cumulative risk calculation follows the same hierarchy.

2019 (Rev. 2)	Table T2-1: Tier 2 ESLs Site-Specific Input and Output	
Click in cell and use pull-down boxes to make selection.		
Tier 2 Scenario Toggles		
Land Use:	Residential	
Vegetation Level:	Minimal	
Groundwater Use:	Nondrinking Water Resource	
MCL Priority over Risk-Based:	No	
Discharge to Surface Water:	No Discharge Expected	
Soil Contamination Depth: (Shallow ≤ 10ft bgs < Deep)	Shallow & Deep Soil	



Select Site Contaminants:	Contaminant 1		Contaminant 2		Contaminant 3		Contaminant 4		Contaminant 5	
	Petroleum - Gasoline		Tetrachloroethene		Toluene		Xylenes			
Tier 2 ESLs:	ESL	Basis	ESL	Basis	ESL	Basis	ESL	Basis	ESL	Basis
Soil (mg/kg):	1.0E+02	Odor/Nuis	8.0E-02	Leaching	1.0E+01	Leaching	1.0E+01	Leaching	#N/A	#N/A
Groundwater (µg/L):	5.0E+03	Odor/Nuis	6.4E-01	VI HHR	4.0E+02	Odor/Nuis	3.9E+02	VI HHR	#N/A	#N/A
Subslab/ Soil Gas (µg/m³):	3.3E+03	VI Odor/Nuis	1.5E+01	VI HHR	1.0E+04	VI HHR	3.5E+03	VI HHR	#N/A	#N/A
Indoor Air (µg/m³):	1.0E+02	Odor/Nuis	4.6E-01	Dir Exp	3.1E+02	Dir Exp	1.0E+02	Dir Exp	#N/A	#N/A

Note:
Groundwater depth is no longer a toggle for evaluating vapor intrusion. See the notes in Workbook Table GW-3 and the User's Guide Chapter 5 for further information.



2019 (Rev. 2)

Table T2-2: Tier 2 – Site-Specific Cumulative Risk and Hazard Calculator

Enter Site Data (Leave blank when no data exists)

	Contaminant 1	Contaminant 2	Contaminant 3	Contaminant 4	Contaminant 5
Contaminant inputs from T2-1:	Petroleum - Gasoline	Tetrachloroethene	Toluene	Xylenes	0
Soil Concentration (mg/kg) - dry weight:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Groundwater Concentration (µg/L):	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Subslab/ Soil Gas Concentration (µg/m ³):	8,550,284.00	18	814	2,161	<input type="text"/>
Indoor Air Concentration (µg/m ³):	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Soil Gas VI Attenuation Factor (Use 0.03 for Screening):					0.0300

Selected Site Scenario (from T2-1)

Land Use: Residential
Vegetation Level: Minimal
Groundwater Use: Nondrinking Water Resource
MCL Priority vs Risk-Based: No
Discharge to Surface Water: No Discharge Expected
Soil Contamination Depth: Shallow & Deep Soil

Cancer Risk:	Petroleum - Gasoline	Tetrachloroethene	Toluene	Xylenes	0.00	Cumulative Risk
Soil Exposure Risk:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Tapwater Exposure Risk:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Current* Vapor Intrusion Exposure Risk:	<input type="text"/>	1.2E-06	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Basis:	Subslab/Soil Gas VI	Subslab/Soil Gas VI	Subslab/Soil Gas VI	Subslab/Soil Gas VI	--	Subslab/Soil Gas VI
Future** Vapor Intrusion Exposure Risk:	<input type="text"/>	1.2E-06	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Basis:	Subslab/Soil Gas VI	Subslab/Soil Gas VI	Subslab/Soil Gas VI	Subslab/Soil Gas VI	--	Subslab/Soil Gas VI

Noncancer Hazard:	Petroleum - Gasoline	Tetrachloroethene	Toluene	Xylenes	0	Cumulative Hazard
Soil Exposure Hazard:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Tap Water Exposure Hazard:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Current* Vapor Intrusion Exposure Hazard:	4.3E+02	1.3E-02	7.8E-02	6.2E-01	<input type="text"/>	<input type="text"/>
Basis:	Subslab/Soil Gas VI	Subslab/Soil Gas VI	Subslab/Soil Gas VI	Subslab/Soil Gas VI	--	Subslab/Soil Gas VI
Future** Vapor Intrusion Exposure Hazard:	4.3E+02	1.3E-02	7.8E-02	6.2E-01	<input type="text"/>	<input type="text"/>
Basis:	Subslab/Soil Gas VI	Subslab/Soil Gas VI	Subslab/Soil Gas VI	Subslab/Soil Gas VI	--	Subslab/Soil Gas VI

Notes:

Cumulative cancer risk and noncancer hazard are not automatically calculated across pathways because exposure via multiple pathways typically is not simultaneous. This may be performed separately as part of a site-specific evaluation. See the User's Guide Section 3.3 (Addressing Cumulative Risk and Hazard).

* **Current** (VI exposure to current occupants of existing buildings) – Primarily based on indoor air data. See User's Guide Chapter 5 for further information.

In the absence of indoor air data, subslab/soil gas or groundwater data is used to predict current indoor air concentrations.

Subslab/soil gas data is given priority over groundwater data for current exposure calculations. The cumulative risk calculation follows the same hierarchy.

** **Future** (VI exposure to future occupants of existing or future buildings) – Primarily based on subslab/soil gas data. See User's Guide Chapter 5 for further information.

In the absence of subslab/soil gas data, groundwater data is used to predict future indoor air concentrations. The cumulative risk calculation follows the same hierarchy.

APPENDIX H

ESL Model Results Soil Vapor - Commercial

2019 (Rev. 2)	Table T2-1: Tier 2 ESLs Site-Specific Input and Output
Click in cell and use pull-down boxes to make selection.	
Tier 2 Scenario Toggles	
Land Use:	Commercial or Industrial
Vegetation Level:	Minimal
Groundwater Use:	Nondrinking Water Resource
MCL Priority over Risk-Based:	No
Discharge to Surface Water:	No Discharge Expected
Soil Contamination Depth: (Shallow ≤ 10ft bgs < Deep)	Shallow & Deep Soil



Environmental Screening Levels
San Francisco Bay Regional Water Quality Control Board




Select Site Contaminants:	Contaminant 1		Contaminant 2		Contaminant 3		Contaminant 4		Contaminant 5	
	Benzene		Ethylbenzene		Methylene chloride		Methyl tertiary butyl ether (MTBE)		Naphthalene [PAH]	
Tier 2 ESLs:	ESL	Basis	ESL	Basis	ESL	Basis	ESL	Basis	ESL	Basis
Soil (mg/kg):	2.5E-02	Leaching	4.3E-01	Leaching	1.9E-01	Leaching	2.5E+00	Leaching	1.2E+00	Leaching
Groundwater (µg/L):	1.8E+00	VI HHR	1.5E+01	VI HHR	9.4E+01	VI HHR	1.8E+03	Odor/Nuis	2.0E+01	VI HHR
Subslab/ Soil Gas (µg/m³):	1.4E+01	VI HHR	1.6E+02	VI HHR	4.1E+02	VI HHR	1.6E+03	VI HHR	1.2E+01	VI HHR
Indoor Air (µg/m³):	4.2E-01	Dir Exp	4.9E+00	Dir Exp	1.2E+01	Dir Exp	4.7E+01	Dir Exp	3.6E-01	Dir Exp

Note:
Groundwater depth is no longer a toggle for evaluating vapor intrusion. See the notes in Workbook Table GW-3 and the User's Guide Chapter 5 for further information.



2019 (Rev. 2)	Table T2-2: Tier 2 – Site-Specific Cumulative Risk and Hazard Calculator				
Enter Site Data (Leave blank when no data exists)					
	Contaminant 1	Contaminant 2	Contaminant 3	Contaminant 4	Contaminant 5
Contaminant inputs from T2-1:	Benzene	Ethylbenzene	Methylene chloride	Methyl tertiary butyl ether (MTBE)	Naphthalene [PAH]
Soil Concentration (mg/kg) - dry weight:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Groundwater Concentration (µg/L):	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Subslab/ Soil Gas Concentration (µg/m ³):	1,558.00	2,730	10	121,000	5,810
Indoor Air Concentration (µg/m ³):	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Soil Gas VI Attenuation Factor (Use 0.03 for Screening):					0.0300

Selected Site Scenario (from T2-1)
Land Use: Commercial or Industrial
Vegetation Level: Minimal
Groundwater Use: Nondrinking Water Resource
MCL Priority vs Risk-Based: No
Discharge to Surface Water: No Discharge Expected
Soil Contamination Depth: Shallow & Deep Soil

Cancer Risk:	Benzene	Ethylbenzene	Methylene chloride	Methyl tertiary butyl ether (MTBE)	Naphthalene [PAH]	Cumulative Risk
Soil Exposure Risk:	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>
Tapwater Exposure Risk:	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>
Current* Vapor Intrusion Exposure Risk: Basis:	1.1E-04 Subslab/Soil Gas VI	1.7E-05 Subslab/Soil Gas VI	2.5E-08 Subslab/Soil Gas VI	7.7E-05 Subslab/Soil Gas VI	4.8E-04 Subslab/Soil Gas VI	6.9E-04 Subslab/Soil Gas VI
Future** Vapor Intrusion Exposure Risk: Basis:	1.1E-04 Subslab/Soil Gas VI	1.7E-05 Subslab/Soil Gas VI	2.5E-08 Subslab/Soil Gas VI	7.7E-05 Subslab/Soil Gas VI	4.8E-04 Subslab/Soil Gas VI	6.9E-04 Subslab/Soil Gas VI

Noncancer Hazard:	Benzene	Ethylbenzene	Methylene chloride	Methyl tertiary butyl ether (MTBE)	Naphthalene [PAH]	Cumulative Hazard
Soil Exposure Hazard:	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>
Tap Water Exposure Hazard:	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>	<input type="text" value="--"/>
Current* Vapor Intrusion Exposure Hazard: Basis:	3.6E+00 Subslab/Soil Gas VI	1.9E-02 Subslab/Soil Gas VI	1.7E-04 Subslab/Soil Gas VI	2.8E-01 Subslab/Soil Gas VI	1.3E+01 Subslab/Soil Gas VI	1.7E+01 Subslab/Soil Gas VI
Future** Vapor Intrusion Exposure Hazard: Basis:	3.6E+00 Subslab/Soil Gas VI	1.9E-02 Subslab/Soil Gas VI	1.7E-04 Subslab/Soil Gas VI	2.8E-01 Subslab/Soil Gas VI	1.3E+01 Subslab/Soil Gas VI	1.7E+01 Subslab/Soil Gas VI

Notes:
Cumulative cancer risk and noncancer hazard are not automatically calculated across pathways because exposure via multiple pathways typically is not simultaneous. This may be performed separately as part of a site-specific evaluation. See the User's Guide Section 3.3 (Addressing Cumulative Risk and Hazard).

* **Current** (VI exposure to current occupants of existing buildings) – Primarily based on indoor air data. See User's Guide Chapter 5 for further information. In the absence of indoor air data, subslab/soil gas or groundwater data is used to predict current indoor air concentrations. Subslab/soil gas data is given priority over groundwater data for current exposure calculations. The cumulative risk calculation follows the same hierarchy.

** **Future** (VI exposure to future occupants of existing or future buildings) – Primarily based on subslab/soil gas data. See User's Guide Chapter 5 for further information. In the absence of subslab/soil gas data, groundwater data is used to predict future indoor air concentrations. The cumulative risk calculation follows the same hierarchy.

2019 (Rev. 2)	Table T2-1: Tier 2 ESLs Site-Specific Input and Output
Click in cell and use pull-down boxes to make selection.	
Tier 2 Scenario Toggles	
Land Use:	Commercial or Industrial
Vegetation Level:	Minimal
Groundwater Use:	Nondrinking Water Resource
MCL Priority over Risk-Based:	No
Discharge to Surface Water:	No Discharge Expected
Soil Contamination Depth: (Shallow ≤ 10ft bgs < Deep)	Shallow & Deep Soil



Environmental Screening Levels
San Francisco Bay Regional Water Quality Control Board




Select Site Contaminants:	Contaminant 1		Contaminant 2		Contaminant 3		Contaminant 4		Contaminant 5	
	Petroleum - Gasoline		Tetrachloroethene		Toluene		Xylenes			
Tier 2 ESLs:	ESL	Basis	ESL	Basis	ESL	Basis	ESL	Basis	ESL	Basis
Soil (mg/kg):	1.2E+02	Terrestrial Habitat	8.0E-02	Leaching	1.0E+01	Leaching	1.0E+01	Leaching	#N/A	#N/A
Groundwater (µg/L):	5.0E+03	Odor/Nuis	2.8E+00	VI HHR	4.0E+02	Odor/Nuis	1.6E+03	VI HHR	#N/A	#N/A
Subslab/ Soil Gas (µg/m³):	3.3E+03	VI Odor/Nuis	6.7E+01	VI HHR	4.4E+04	VI HHR	1.5E+04	VI HHR	#N/A	#N/A
Indoor Air (µg/m³):	1.0E+02	Odor/Nuis	2.0E+00	Dir Exp	1.3E+03	Dir Exp	4.4E+02	Dir Exp	#N/A	#N/A

Note:
Groundwater depth is no longer a toggle for evaluating vapor intrusion. See the notes in Workbook Table GW-3 and the User's Guide Chapter 5 for further information.



2019 (Rev. 2)

Table T2-2: Tier 2 – Site-Specific Cumulative Risk and Hazard Calculator

Enter Site Data (Leave blank when no data exists)

	Contaminant 1	Contaminant 2	Contaminant 3	Contaminant 4	Contaminant 5
Contaminant inputs from T2-1:	Petroleum - Gasoline	Tetrachloroethene	Toluene	Xylenes	0
Soil Concentration (mg/kg) - dry weight:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Groundwater Concentration (µg/L):	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Subslab/ Soil Gas Concentration (µg/m ³):	8,550,284.00	18	814	2,161	<input type="text"/>
Indoor Air Concentration (µg/m ³):	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Soil Gas VI Attenuation Factor (Use 0.03 for Screening):					0.0300

Selected Site Scenario (from T2-1)

Land Use: Commercial or Industrial
Vegetation Level: Minimal
Groundwater Use: Nondrinking Water Resource
MCL Priority vs Risk-Based: No
Discharge to Surface Water: No Discharge Expected
Soil Contamination Depth: Shallow & Deep Soil

Cancer Risk:	Petroleum - Gasoline	Tetrachloroethene	Toluene	Xylenes	0.00	Cumulative Risk
Soil Exposure Risk:	--	--	--	--	#N/A	#N/A
Tapwater Exposure Risk:	--	--	--	--	#N/A	#N/A
Current* Vapor Intrusion Exposure Risk: Basis:	-- Subslab/Soil Gas VI	2.7E-07 Subslab/Soil Gas VI	-- Subslab/Soil Gas VI	-- Subslab/Soil Gas VI	-- --	2.7E-07 Subslab/Soil Gas VI
Future** Vapor Intrusion Exposure Risk: Basis:	-- Subslab/Soil Gas VI	2.7E-07 Subslab/Soil Gas VI	-- Subslab/Soil Gas VI	-- Subslab/Soil Gas VI	-- --	2.7E-07 Subslab/Soil Gas VI

Noncancer Hazard:	Petroleum - Gasoline	Tetrachloroethene	Toluene	Xylenes	0	Cumulative Hazard
Soil Exposure Hazard:	--	--	--	--	#N/A	#N/A
Tap Water Exposure Hazard:	--	--	--	--	#N/A	#N/A
Current* Vapor Intrusion Exposure Hazard: Basis:	1.0E+02 Subslab/Soil Gas VI	3.1E-03 Subslab/Soil Gas VI	1.9E-02 Subslab/Soil Gas VI	1.5E-01 Subslab/Soil Gas VI	-- --	1.0E+02 Subslab/Soil Gas VI
Future** Vapor Intrusion Exposure Hazard: Basis:	1.0E+02 Subslab/Soil Gas VI	3.1E-03 Subslab/Soil Gas VI	1.9E-02 Subslab/Soil Gas VI	1.5E-01 Subslab/Soil Gas VI	-- --	1.0E+02 Subslab/Soil Gas VI

Notes:
Cumulative cancer risk and noncancer hazard are not automatically calculated across pathways because exposure via multiple pathways typically is not simultaneous. This may be performed separately as part of a site-specific evaluation. See the User's Guide Section 3.3 (Addressing Cumulative Risk and Hazard).
* **Current** (VI exposure to current occupants of existing buildings) – Primarily based on indoor air data. See User's Guide Chapter 5 for further information. In the absence of indoor air data, subslab/soil gas or groundwater data is used to predict current indoor air concentrations. Subslab/soil gas data is given priority over groundwater data for current exposure calculations. The cumulative risk calculation follows the same hierarchy.
** **Future** (VI exposure to future occupants of existing or future buildings) – Primarily based on subslab/soil gas data. See User's Guide Chapter 5 for further information. In the absence of subslab/soil gas data, groundwater data is used to predict future indoor air concentrations. The cumulative risk calculation follows the same hierarchy.

APPENDIX I
VURAM

VURAM

Virginia Unified Risk Assessment Model

VERSION: 2.2

Construction Worker Quantitative Risk Assessment Report

Site Name: Town Center Northwest Signal Hill CA

Program: Voluntary Remediation Program

Total Hazard Index/Risk for All Media

Non-Cancer Adult

Total: 4.04E+00

Exceeds Hazard Index!

Cancer

Total: 9.18E-07

does not exceed cumulative risk

Risk Based Performance Criteria

Default Hazard Index

1

Default Cumulative Risk-All Chemicals

1.00E-04

**All Report Pages are Required for Risk Assessment Submission
DETAILED REPORT FOLLOWS**

Default Hazard Index

1

Default Risk Individual Chemical

1.00E-06

Default Cumulative Risk-All Chemicals

1.00E-04

Air

Analyte: Benzene

CAS: 71-43-2

Concentration ug/m3:	1.56E+03
RfDo:	
RfCi:	8.00E-02
SFO:	
IUR:	7.80E-06
Mutagen:	
VOC:	Y

Calculated Hazard Quotient/Risk

Non-Cancer Adult		Cancer	
Ingestion:		Ingestion:	
Dermal:		Dermal:	
Inhalation:	2.08E-02	Inhalation:	1.78E-07
Total:	2.08E-02	Total:	1.78E-07

% Contribution to Media Risk

0.51%

19.35%

Analyte: Butylbenzene, n-

CAS: 104-51-8

Concentration ug/m3:	6.49E+02
RfDo:	
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	Y

Calculated Hazard Quotient/Risk

Non-Cancer Adult		Cancer	
Ingestion:		Ingestion:	
Dermal:		Dermal:	
Inhalation:		Inhalation:	
Total:	0.00E+00	Total:	0.00E+00

% Contribution to Media Risk

0.00%

0.00%

Analyte: Butylbenzene, sec-

CAS: 135-98-8

Concentration ug/m3:	2.38E+03
RfDo:	
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	Y

Calculated Hazard Quotient/Risk

Non-Cancer Adult		Cancer	
Ingestion:		Ingestion:	
Dermal:		Dermal:	
Inhalation:		Inhalation:	
Total:	0.00E+00	Total:	0.00E+00

% Contribution to Media Risk

0.00%

0.00%

Default Hazard Index

1

Default Risk Individual Chemical

1.00E-06

Default Cumulative Risk-All Chemicals

1.00E-04

Air

Analyte: Cumene

CAS: 98-82-8

Concentration ug/m3:	4.29E+03
RfDo:	
RfCi:	9.00E-02
SFO:	
IUR:	
Mutagen:	
VOC:	Y

Calculated Hazard Quotient/Risk

Non-Cancer Adult		Cancer	
Ingestion:		Ingestion:	
Dermal:		Dermal:	
Inhalation:	3.43E-02	Inhalation:	
Total:	3.43E-02	Total:	0.00E+00

% Contribution to Media Risk

0.85%

0.00%

Analyte: Dichloroethylene, 1,2-cis-

CAS: 156-59-2

Concentration ug/m3:	5.10E+01
RfDo:	
RfCi:	
SFO:	
IUR:	
Mutagen:	
VOC:	Y

Calculated Hazard Quotient/Risk

Non-Cancer Adult		Cancer	
Ingestion:		Ingestion:	
Dermal:		Dermal:	
Inhalation:		Inhalation:	
Total:	0.00E+00	Total:	0.00E+00

% Contribution to Media Risk

0.00%

0.00%

Analyte: Diisopropyl Ether

CAS: 108-20-3

Concentration ug/m3:	4.78E+03
RfDo:	
RfCi:	7.00E-01
SFO:	
IUR:	
Mutagen:	
VOC:	Y

Calculated Hazard Quotient/Risk

Non-Cancer Adult		Cancer	
Ingestion:		Ingestion:	
Dermal:		Dermal:	
Inhalation:	5.33E-03	Inhalation:	
Total:	5.33E-03	Total:	0.00E+00

% Contribution to Media Risk

0.13%

0.00%

Default Hazard Index
1

Default Risk Individual Chemical
1.00E-06

Default Cumulative Risk-All Chemicals
1.00E-04

Air

Analyte: Ethylbenzene

CAS: 100-41-4

Concentration ug/m3:	2.73E+03
RfDo:	
RfCi:	9.00E+00
SFO:	
IUR:	2.50E-06
Mutagen:	
VOC:	Y

Calculated Hazard Quotient/Risk

Non-Cancer Adult		Cancer	
Ingestion:		Ingestion:	
Dermal:		Dermal:	
Inhalation:	2.48E-04	Inhalation:	7.63E-08
Total:	2.48E-04	Total:	7.63E-08

% Contribution to Media Risk

0.01%

8.31%

Analyte: isopropyltoluene

CAS: 99-87-6

Concentration ug/m3:	3.21E+02
RfDo:	
RfCi:	9.00E-02
SFO:	
IUR:	
Mutagen:	
VOC:	Y

Calculated Hazard Quotient/Risk

Non-Cancer Adult		Cancer	
Ingestion:		Ingestion:	
Dermal:		Dermal:	
Inhalation:	2.38E-03	Inhalation:	
Total:	2.38E-03	Total:	0.00E+00

% Contribution to Media Risk

0.06%

0.00%

Analyte: Methyl tert-Butyl Ether (MTBE)

CAS: 1634-04-4

Concentration ug/m3:	1.21E+05
RfDo:	
RfCi:	2.52E+00
SFO:	
IUR:	2.60E-07
Mutagen:	
VOC:	Y

Calculated Hazard Quotient/Risk

Non-Cancer Adult		Cancer	
Ingestion:		Ingestion:	
Dermal:		Dermal:	
Inhalation:	4.30E-02	Inhalation:	3.87E-07
Total:	4.30E-02	Total:	3.87E-07

% Contribution to Media Risk

1.06%

42.11%

Default Hazard Index

1

Default Risk Individual Chemical

1.00E-06

Default Cumulative Risk-All Chemicals

1.00E-04

Air

Analyte: **Methylene Chloride**

CAS: **75-09-2**

Concentration ug/m3:	1.01E+01
RfDo:	
RfCi:	1.04E+00
SFO:	
IUR:	1.00E-08
Mutagen:	Y
VOC:	Y

Calculated Hazard Quotient/Risk

Non-Cancer Adult		Cancer	
Ingestion:		Ingestion:	
Dermal:		Dermal:	
Inhalation:	1.15E-05	Inhalation:	1.64E-12
Total:	1.15E-05	Total:	1.64E-12

% Contribution to Media Risk

0.00%

0.00%

Analyte: **Naphthalene**

CAS: **91-20-3**

Concentration ug/m3:	8.26E+02
RfDo:	
RfCi:	3.00E-03
SFO:	
IUR:	3.40E-05
Mutagen:	
VOC:	Y

Calculated Hazard Quotient/Risk

Non-Cancer Adult		Cancer	
Ingestion:		Ingestion:	
Dermal:		Dermal:	
Inhalation:	1.99E-01	Inhalation:	2.77E-07
Total:	1.99E-01	Total:	2.77E-07

% Contribution to Media Risk

4.92%

30.22%

Analyte: **Propyl benzene**

CAS: **103-65-1**

Concentration ug/m3:	5.81E+03
RfDo:	
RfCi:	1.00E+00
SFO:	
IUR:	
Mutagen:	
VOC:	Y

Calculated Hazard Quotient/Risk

Non-Cancer Adult		Cancer	
Ingestion:		Ingestion:	
Dermal:		Dermal:	
Inhalation:	4.17E-03	Inhalation:	
Total:	4.17E-03	Total:	0.00E+00

% Contribution to Media Risk

0.10%

0.00%

Default Hazard Index

1

Default Risk Individual Chemical

1.00E-06

Default Cumulative Risk-All Chemicals

1.00E-04

Air

Analyte: **Tetrachloroethylene**

CAS: **127-18-4**

Concentration ug/m3:	1.79E+01
RfDo:	
RfCi:	4.00E-02
SFO:	
IUR:	2.60E-07
Mutagen:	
VOC:	Y

Calculated Hazard Quotient/Risk

Non-Cancer Adult		Cancer	
Ingestion:		Ingestion:	
Dermal:		Dermal:	
Inhalation:	2.69E-04	Inhalation:	3.83E-11
Total:	2.69E-04	Total:	3.83E-11

% Contribution to Media Risk

0.01%

0.00%

Analyte: **Toluene**

CAS: **108-88-3**

Concentration ug/m3:	8.14E+02
RfDo:	
RfCi:	5.00E+00
SFO:	
IUR:	
Mutagen:	
VOC:	Y

Calculated Hazard Quotient/Risk

Non-Cancer Adult		Cancer	
Ingestion:		Ingestion:	
Dermal:		Dermal:	
Inhalation:	1.51E-04	Inhalation:	
Total:	1.51E-04	Total:	0.00E+00

% Contribution to Media Risk

0.00%

0.00%

Analyte: **Total Petroleum Hydrocarbons (Aliphatic Low)**

CAS: **E1790666**

Concentration ug/m3:	8.55E+06
RfDo:	
RfCi:	2.00E+00
SFO:	
IUR:	
Mutagen:	
VOC:	Y

Calculated Hazard Quotient/Risk

Non-Cancer Adult		Cancer	
Ingestion:		Ingestion:	
Dermal:		Dermal:	
Inhalation:	3.73E+00	Inhalation:	
Total:	3.73E+00	Total:	0.00E+00

% Contribution to Media Risk

92.24%

0.00%

Exceeds Hazard!

Site Name: Town Center Northwest Signal Hill CA

Construction

Program: Voluntary Remediation Program

Risk Based Performance Criteria

Default Hazard Index

Default Risk Individual Chemical

Default Cumulative Risk-All Chemicals

1

1.00E-06

1.00E-04

Air

Analyte: Xylenes

CAS: 1330-20-7

Concentration ug/m3:	2.16E+03
RfDo:	
RfCi:	4.00E-01
SFO:	
IUR:	
Mutagen:	
VOC:	Y

Calculated Hazard Quotient/Risk

Non-Cancer Adult

Cancer

Ingestion:

Ingestion:

Dermal:

Dermal:

Inhalation: 4.41E-03

Inhalation:

Total: 4.41E-03

Total: 0.00E+00

% Contribution to Media Risk

0.11%

0.00%

Total Calculated Hazard Index/Risk For Media:

Air

Non-Cancer Adult

Ingestion: 0.00E+00

Dermal: 0.00E+00

Inhalation: 4.04E+00

Total: 4.04E+00

Cancer

Ingestion: 0.00E+00

Dermal: 0.00E+00

Inhalation: 9.18E-07

Total: 9.18E-07

Site Name: Town Center Northwest Signal Hill CA

Construction

Program: Voluntary Remediation Program

Risk Based Performance Criteria

Default Hazard Index

Default Risk Individual Chemical

Default Cumulative Risk-All Chemicals

1

1.00E-06

1.00E-04

Total Hazard Index/Risk for All Media

Non-Cancer Adult

Ingestion: 0.00E+00

Dermal: 0.00E+00

Inhalation: 4.04E+00

Total: 4.04E+00

Exceeds Hazard Index!

Cancer

Ingestion: 0.00E+00

Dermal: 0.00E+00

Inhalation: 9.18E-07

Total: 9.18E-07

does not exceed cumulative risk

Construction Exposure Default Values

Symbol	Description	Value	Units
A	Construction Worker Soil Inhalation Dispersion Constant - Virginia DEQ	14.0111	(unitless)
AFcw	Construction Worker Soil Adherence Factor	0.3	(mg/cm ²)
As	Areal extent of the site or contamination	0.5	(acres)
ATcw	Construction Worker Averaging Time: 365 x LT	25550	(days)
ATcw-a	Construction Worker Averaging Time: EWcw x 7 x EDcw	350	(days)
B	Construction Worker Soil Inhalation Dispersion Constant - Virginia DEQ	19.6154	(unitless)
BWcw	Construction Worker Body Weight	80	(kg)
C	Construction Worker Soil Inhalation Dispersion Constant - Virginia DEQ	225.3397	(unitless)
DWcw	Construction Worker Days Worked	5	(days/week)
EDcw	Construction Worker Exposure Duration	1	(yrs)
EFcw	Construction Worker Exposure Frequency	250	(days/yrs)
EFcw-vrp	Construction Worker Soil Exposure Frequency - VRP ONLY - Virginia DEQ	125	(days/yr)
ETcw	Construction Worker Exposure Time	8	(hrs/day)
EWcw	Construction Worker Weeks Worked	50	(weeks/yr)
F(x)	Function Dependent on $0.886 \times (Ut/Um)$	0.194	(unitless)
Fd	Dispersion Correction Factor	0.185	(unitless)
IRcw	Construction Worker Soil Ingestion Rate	330	(mg/day)
n	Total soil porosity: $1-(\rho_b/\rho_s)$	0.433962264150943	(unitless)
PEFsc	Particulate Emission Factor Subchronic - Virginia DEQ calculated	1266503136.97919	(m ³ /kg)
RfCsc	Subchronic Inhalation Reference Concentration		(mg/m ³)
RfDosc	Subchronic Oral Reference Dose		(mg/kg-day)
SACw	Construction Worker Surface Area	3527	(cm ² /day)
Tc	Total time over which construction occurs: EDcw*EWcw*7days/wk*24hrs/day*3600s/hr	30240000	(s)

Default Hazard Index

Default Risk Individual Chemical

Default Cumulative Risk-All Chemicals

1

1.00E-06

1.00E-04

TR-ACH	Trench Air Changes per Hour - Virginia DEQ	2(h)-1
TR-ACvad	Trench Advection Coefficient Groundwater greater than 15ft - Virginia DEQ	0.25(cm3/cm3)
TR-D-dir	Trench Depth - groundwater less Than 15ft - Virginia DEQ	2.44(m)
TR-D-ind	Trench Depth - groundwater greater than 15ft - Virginia DEQ	4.57(m)
TR-Dsg	Trench - Depth to soil gas vapor source - Virginia DEQ	1(cm)
TR-EFcw	Trench Construction Worker Exposure Frequency - Virginia DEQ	125(days/yr)
TR-ETcw	Trench Construction Worker Exposure Time - Virginia DEQ	4(hrs/day)
TR-EVcw	Trench Construction Worker Events - Virginia DEQ	1(events/day)
TR-F	Trench Fraction of floor through which contaminant can enter - Virginia DEQ	1(unitless)
TR-HV	Trench Thickness of Vadose Zone - groundwater greater than 15 ft - Virginia DEQ	30(cm)
TR-IRcw	Trench Construction Worker Groundwater Ingestion Rate - Virginia DEQ	0.02(L/day)
TR-KGH2O	Trench Gas-phase mass transfer coefficient of water vapor at 25deg C - Virginia DEQ	0.833(cm/s)
TR-KLO2	Trench Liquid-phase mass transfer coefficient of oxygen at 25deg C - Virginia DEQ	0.002(cm/s)
TR-L	Trench Length - Virginia DEQ	2.44(m)
TR-Lgw	Trench Depth to groundwater - Virginia DEQ	488(cm)
TR-MWH2O	Trench Molecular Weight of Water - Virginia DEQ	18(unitless)
TR-MWO2	Trench Molecular Weight of Oxygen - Virginia DEQ	32(unitless)
TR-Porvad	Trench Porosity in Vadose Zone - groundwater greater than 15ft - Virginia DEQ	0.44(cm3/cm3)
TR-R	Trench Ideal Gas Constant - Virginia DEQ	0.000082(atm-m3/mol-K)
TR-Temp-F	Trench Temperature Fahrenheit - Virginia DEQ	77(F)
TR-Temp-K	Trench Temperature - Virginia DEQ	298(K)
TR-W	Trench Width - Virginia DEQ	0.91(m)
TR-W/D	Trench Width to Depth Ratio - Virginia DEQ	0.38(unitless)
Um	Mean Annual Wind Speed	4.69(m/s)
Ut	Equivalent Threshold Value of Wind Speed at 7m	11.32(m/s)
V	V Fraction of Vegetative Cover	0.5(unitless)

Site Name: Town Center Northwest Signal Hill CA

Construction

Program: Voluntary Remediation Program

Risk Based Performance Criteria

Default Hazard Index

1

Default Risk Individual Chemical

1.00E-06

Default Cumulative Risk-All Chemicals

1.00E-04

Θ_a	Air filled soil porosity: $n - \Theta_w$	0.133962264150943	(unitless)
Θ_w	Water filled soil porosity	0.3	(unitless)
ρ_b	Dry soil bulk density	1.5	(kg/L)
ρ_s	Soil particle density	2.65	(kg/L)

END OF REPORT

CHANGE

APPENDIX J

LeadSpread Model

CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL

[Click here for ABBREVIATED INSTRUCTIONS FOR LEADSPREAD 8](#)

INPUT	
MEDIUM	LEVEL
Lead in Soil/Dust (ug/g)	61.0
Respirable Dust (ug/m ³)	1.5

OUTPUT						
Percentile Estimate of Blood Pb (ug/dl)						PRG-90
	50th	90th	95th	98th	99th	(ug/g)
BLOOD Pb, CHILD	0.4	0.8	0.9	1.1	1.3	77
BLOOD Pb, PICA CHILD	0.9	1.6	1.9	2.3	2.6	39

EXPOSURE PARAMETERS		
	units	children
Days per week	days/wk	7
Geometric Standard Deviation		1.6
Blood lead level of concern (ug/dl)		1
Skin area, residential	cm ²	2900
Soil adherence	ug/cm ²	200
Dermal uptake constant	(ug/dl)/(ug/day)	0.0001
Soil ingestion	mg/day	100
Soil ingestion, pica	mg/day	200
Ingestion constant	(ug/dl)/(ug/day)	0.16
Bioavailability	unitless	0.44
Breathing rate	m ³ /day	6.8
Inhalation constant	(ug/dl)/(ug/day)	0.192

PATHWAYS						
CHILDREN	typical			with pica		
	Pathway contribution			Pathway contribution		
	Pathway	PEF	ug/dl	percent	PEF	ug/dl
Soil Contact	5.8E-5	0.00	1%		0.00	0%
Soil Ingestion	7.0E-3	0.43	99%	1.4E-2	0.86	100%
Inhalation	2.0E-6	0.00	0%		0.00	0%

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MODIFIED VERSION OF USEPA ADULT LEAD MODEL

CALCULATIONS OF BLOOD LEAD CONCENTRATIONS (PbBs) AND PRELIMINARY REMEDIATION GOAL (PRG)

EDIT RED CELL

Variable	Description of Variable	Units	
PbS	Soil lead concentration	ug/g or ppm	61
$R_{\text{fetal/maternal}}$	Fetal/maternal PbB ratio	--	0.9
BKSF	Biokinetic Slope Factor	ug/dL per ug/day	0.4
GSD_i	Geometric standard deviation PbB	--	1.8
PbB_0	Baseline PbB	ug/dL	0.0
IR_s	Soil ingestion rate (including soil-derived indoor dust)	g/day	0.050
$AF_{s,D}$	Absorption fraction (same for soil and dust)	--	0.12
$EF_{s,D}$	Exposure frequency (same for soil and dust)	days/yr	250
$AT_{s,D}$	Averaging time (same for soil and dust)	days/yr	365
PbB_{adult}	PbB of adult worker, geometric mean	ug/dL	0.1
$PbB_{\text{fetal}, 0.90}$	90th percentile PbB among fetuses of adult workers	ug/dL	0.2
PbB_t	Target PbB level of concern (e.g., 10 ug/dL)	ug/dL	1.0
$P(PbB_{\text{fetal}} > PbB_t)$	Probability that fetal PbB > PbB_t , assuming lognormal distributi	%	0.0%

PRG90

318

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F11c

**Review of Human Health Risk Assessment by OEHHA,
Town Center Northwest**



Gavin Newsom, Governor
Jared Blumenfeld, Secretary for Environmental Protection
Lauren Zeise, Ph.D., Director

MEMORANDUM

TO: Elise McCaleb,
City of Signal Hill
2175 Cherry Avenue
Signal Hill, CA 90755

FROM: Jim Carlisle, DVM
Staff Toxicologist
Air and Site Assessment and Climate Indicators Branch
Office of Environmental Health Hazard Assessment

DATE: August 26, 2021

SUBJECT: HUMAN HEALTH RISK ASSESSMENT, TOWN CENTER NORTHWEST,
SIGNAL HILL, CALIFORNIA **OEHA # 830168-00**

Document Reviewed

Human Health Risk Assessment, Northeast Corner E. Willow St. and Walnut Avenue, Town Center Northwest, Signal Hill, California, prepared by: Mearns Consulting, LLC, dated August 11, 2021

Site Description and Background

The 8.35-acre site has been an oil field since 1928. There are 19 wells and associated infrastructure on-site.

Adjacent properties include oilfields, commercial/industrial businesses, and multifamily residences.

Chemicals of Potential Concern (COPCs)

COPCs included all detected volatile organic compounds (VOCs), petroleum hydrocarbons (TPH), and semi-volatile organic compounds (SVOCs).

All detected metals were deemed to be within local background levels. The maximum detected arsenic concentration (20 mg/kg) exceeded the DTSC (2020) upper tolerance limit (12 mg/kg), but this single elevated value (among 56 samples) may not pose a significant threat to the health of future site occupants.

Conceptual Site Model

Mearns evaluated potential exposure for current commercial workers, future residents, and construction workers (including trench workers).

Soil exposure pathways including ingestion, dermal contact, and inhalation, were evaluated for all three groups.

Inhalation exposure to contaminants in soil gas was evaluated indoors for residents and commercial workers, and outdoors for construction (trench) workers.

Exposure parameters were based on DTSC (2019).

Exposure point concentrations (EPCs)

Soil EPCs were the 95% upper confidence limit (UCL) of the mean when this statistic could be calculated, otherwise the maximum detected concentration was used as the soil EPC.

Soil gas EPCs were the UCL when Pro-UCL was able to calculate a reliable UCL, otherwise the maximum detected concentration was used as the EPC.

OEHHA typically recommends point-by-point results for single-family residences. However, UCLs may be more realistic for multi-family housing.

Risk Assessment

Mearns' estimated risks and hazard indices (HI) are summarized as follows:

Exposure scenario	Risk	Hazard index
Resident	3.0E-3	506
Commercial worker	6.9E-4	117
Construction worker	2.0E-6	6

All risks and hazard indices except the construction worker risk exceeded typical thresholds. OEHHA agrees with these estimates.

The risk drivers for residents were naphthalene, benzene, and methyl tert-butyl ether (MTBE) in soil gas and n-nitroso di-n-propylamine and 2,6-dinitrotoluene in soil. The hazard drivers were gasoline range organics, benzene, and naphthalene in soil gas and C13-C22 hydrocarbons in soil.

The risk drivers for commercial workers were naphthalene, benzene, and methyl tert-butyl ether (MTBE) in soil gas. The hazard drivers were gasoline range organics, benzene, and naphthalene in soil gas.

The hazard drivers for construction workers were C4-C12 and C13-C22 hydrocarbons in soil and gasoline range organics in soil gas.

Risk and Hazard Mitigation

Mearns proposes installing a vapor barrier with a passive subsurface depressurization system to mitigate vapor intrusion. OEHHA recommends that care be used to ensure that preferential pathways connecting soil gas to occupied portions of the building are not created during construction. Indoor air sampling after construction of the new building and prior to being occupied by the tenants would help to determine whether indoor air is clean.

Mearns proposes a soil management plan to deal with discolored or odiferous soils discovered during excavation and grading. OEHHA recommends that soil contamination in excess of risk and hazard thresholds be addressed prior to excavation and grading.

Conclusions

All risks and hazard indices except the construction worker risk exceeded typical thresholds. OEHHA agrees with these estimates.

Given these exceedances, OEHHA agrees that soil and soil vapor remediation and/or mitigation will be needed for all scenarios.

Reviewed by

Amanda Palumbo, PhD
Staff Toxicologist

Carmen Milanes, M.P.H.
Chief, Climate Indicators and Site Assessment Section

References

DTSC (California Department of Toxic Substances Control). 2020. Human Health Risk Assessment (HHRA) Note Number 11. Southern California Ambient Arsenic Screening Level, Human and Ecological Risk Office (HERO). December 28, 2020.

DTSC 2019. Human Health Risk Assessment (HHRA) Note. HERO Note #1. Recommended DTSC Default Exposure Factors for Use in Risk Assessment at California Hazardous Waste Sites and Permitted Facilities. April 9.