

# Technical Memorandum

Date: Monday, August 23, 2021

Project: Naomi/Willow Substation Project

To: Burbank Water and Power

From: Andrew Cherene, PG - HDR

Subject: Phase II Soil Survey Results

## Introduction

Burbank Water and Power (BWP) intends to demolish and replace the Naomi Substation and rename it the Willow Substation. HDR conducted a Phase I Environmental Site Assessment (ESA) and determined that one recognized environmental condition (REC) may pose a hazardous waste risk to the project. The site has been used as a substation since the late 1960s, and as such, the transformers located on the site probably used oil containing polychlorinated biphenyls (PCBs) in the past. Soil and concrete impacted with PCBs may need to be disposed of as PCB remediation waste or hazardous waste<sup>1</sup>.

PCB Remediation Waste is defined as waste containing PCBs as a result of a spill, release, or other unauthorized disposal, at the following concentrations:

- Materials disposed of prior to April 18, 1978, that currently contain concentrations of at least 50 parts per million (ppm) PCBs, regardless of the concentration of the original spill
- Materials which are currently at any volume or concentration where the original source was at least 500 ppm PCBs beginning on April 18, 1978, or at least 50 ppm PCBs beginning on July 2, 1979
- Materials which currently exhibit any concentration if the PCBs were spilled or released from a source not authorized for use.

PCB wastes are regulated as non-RCRA hazardous waste when PCB concentrations are at least 5 ppm in liquids and at least 50 ppm in non-liquid wastes. PCB concentrations greater than 5000 ppm are considered an extremely hazardous waste under California regulations.

HDR recommended soil characterization prior to the project's design being finalized in order to assess whether contaminated material would need special handling and disposal. This technical memorandum describes the approach, methods, sampling, and analytical results of the soil survey.

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<sup>1</sup> *Classification and Handling of PCB Waste*. Lawrence Berkeley National Laboratory Environment, Waste & Radiation Protection Department, August 7, 2015.

## Limitations

As with any sampling and analysis program, conclusions are based upon data collected from discrete points in the field and cannot be interpreted as an exhaustive survey of all material to be disturbed during project construction.

## Methodology

Three transformers are located on the Naomi Substation (Figure 1). Historical leaks of dielectric oil would have most likely impacted the concrete pads they are mounted on or the shallow soil located directly adjacent to the concrete pads. Sampling the concrete and shallow soil in this area would indicate whether or not PCB impacts were present and assist with waste characterization for construction earthwork and demolition activities.

Prior to mobilizing to the site to conduct sampling, HDR coordinated with the geotechnical consultant, Geocon West, Inc., to consolidate the field work into a single mobilization. HDR mobilized to the site on April 30, 2021. One shallow soil sample was collected from below the gravel base (approximately 6 inches deep) at each of eight locations, adjacent to the three large transformers. Reusable soil sampling equipment was decontaminated between samples by washing in a non-phosphate (Alconox) soap solution and rinsing with potable water. Concrete wipe samples, which were non-destructive, were collected from the concrete pads below each of the three transformers (Figure 2). During sampling, indications of contamination – staining, discoloration, or odors – were noted. Samples were contained in laboratory-provided jars and submitted under chain-of-custody to Orange Coast Analytical, in Tustin, California.

Soil samples were analyzed for:

- Total petroleum hydrocarbons (TPH) by Environmental Protection Agency (EPA) Method 8015
- Volatile organic compounds (VOCs) by EPA Method 8260
- California Title 22 metals by EPA Methods 6010 and 7471
- PCBs by EPA Method 8082

Concrete wipe samples were analyzed for:

- PCBs by EPA Method 8082

FIGURE 1 – PROJECT LOCATION MAP



LEGEND

● Willow Substation






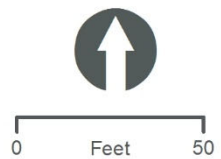
0 Miles 10

FIGURE 2 – SAMPLING LOCATIONS



LEGEND

-  Project Limits
-  Shallow Soil Samples
-  Concrete Wipe Samples





# Findings

## Field Observations

The gravel base surrounding the transformer pads was composed of crushed granitic rock, approximately 1 to 1.5 inches in size, and was approximately 6 inches deep. The soil below the gravel base was a dark brown fine sand and silt, which was slightly moist and loose. The soil at locations 1 and 2, the northernmost soil sampling locations, was lighter in color, composed primarily of fine sand, and had less silt.

The concrete pads below the transformers exhibited discoloration, particularly below the cooling vanes of the transformers. Concrete wipe sample location B had aluminum drip pans placed below the cooling vanes on the western side of the transformer, and location C had a relatively recent oily stain that had been contained with oil-absorbent pads and granular spill control absorbent below the cooling vanes on the eastern side of the transformer.

Site photographs taken during the sampling are provided in Attachment A.

## Analytical Results

Laboratory analytical reports are provided in Attachment B.

### Total Petroleum Hydrocarbons

All eight soil samples were analyzed for TPH in the gasoline, diesel, and motor oil ranges. Gasoline-range organics were not detected above the laboratory reporting limit of 0.20 milligrams per kilogram (mg/kg). Diesel-range organics were detected in one sample, SS4, at a concentration of 11 mg/kg. Oil-range organics were detected in two samples, SS3 and SS4, at concentrations of 63 and 65 mg/kg, respectively.

### Volatile Organic Compounds

All eight soil samples were analyzed for VOCs. VOCs were not detected in soil samples.

### Title 22 Metals

All eight soil samples were analyzed for metals. Six samples contained concentrations of metals consistent with background concentrations for Southern California soil. Soil sample SS5 contained elevated concentrations of copper (1300 mg/kg), lead (72 mg/kg), and zinc (1800 mg/kg). Soil sample SS6 contained elevated concentrations of cadmium (11 mg/kg) and zinc (1800 mg/kg). Elevated zinc concentrations did not exceed thresholds requiring additional analysis. However, copper and lead in sample SS5 and cadmium in sample SS6 were analyzed for their soluble fractions by the California Soluble Threshold Limit Concentration (STLC) test. These results are provided in Table 1:

TABLE 1 – SOLUBLE METALS RESULTS

Sample Location	Parameter	Concentration	Hazardous Waste Threshold
SS5	Copper, STLC	34 mg/L	25 mg/L
	Lead, STLC	0.75 mg/L	5.0 mg/L
SS6	Cadmium, STLC	0.26 mg/L	1.0 mg/L

Notes: mg/L = milligrams per liter

The copper content of sample SS5 exceeded the threshold for hazardous waste under California's Title 22.

### **Polychlorinated Biphenyls**

All eight soil samples and all three concrete wipe samples were analyzed for PCBs. PCBs were not detected in soil samples above the laboratory reporting limit of 130 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ). PCBs were not detected in concrete wipe samples above the laboratory reporting limit of 4.0 micrograms per wipe ( $\mu\text{g}/\text{wipe}$ ).

## **Conclusions**

Based upon the findings detailed above, HDR developed the following conclusions:

- TPH, VOCs, and PCBs in soil do not present a hazardous waste risk to the proposed substation redesign project.
- PCBs in the concrete pads below the transformers do not present a hazardous waste risk to the project.
- Title 22 metals, particularly copper in the vicinity of SS5, may present a hazardous waste risk to the proposed project.

## **Recommendations**

HDR recommends the following:

- The soil from within a 5-foot radius around sample location SS5 should be managed as potentially hazardous waste during construction. This area is located near the southwestern corner of the center transformer. If construction activities remove soil from this area, it should be segregated from other site soil and analyzed separately prior to disposal.
- Other than the soil in the immediate vicinity of location SS5, the soil from the site will likely be suitable for reuse in onsite grading activities during project construction. The RECs described in the Phase I ESA<sup>2</sup> are unlikely to have an impact on the project.
- Construction contractors should be instructed to stop work and notify the engineer or owner if obvious signs of contamination are encountered (visibly stained soil, discoloration, strong odors, sludge). The nature and extent of contamination should be assessed, health and safety precautions should be addressed, and soil handling procedures should be put into place prior to resuming work.

## **Contractor Procedures**

HDR recommend the following soil handling requirements and procedures:

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<sup>2</sup> *Phase I Environmental Site Assessment, Willow Substation, Burbank, California*. Prepared by HDR for Burbank Water and Power. April 12, 2021.


1. OBVIOUS SIGNS OF CONTAMINATION – In all cases when conducting earthwork activities, soil that exhibits obvious signs of contamination shall be segregated and stockpiled separately from other presumed-clean soil, and the resident engineer notified. Obvious signs of contamination include the following:
  - a. Visible staining or discoloration
  - b. Strong odors
  - c. Oily residue
  - d. Free-flowing liquids other than waterThe segregated soil shall be sampled and analyzed by an environmental laboratory for TPH (EPA Method 8015), VOCs (EPA Method 8260), and Title 22 metals (EPA Methods 6010 and 7471). Offsite disposal shall be approved by the resident engineer.
2. KNOWN OR SUSPECTED CONTAMINATION – As a result of the site soil site investigation, it is suspected that near-surface soil in the vicinity of sampling location SS5 may meet the definition of hazardous waste under California Title 22. Soil that is to be disturbed by earthwork activities, excluding crushed rock and gravel base, within a 5-foot radius of this location shall be segregated and stockpiled separately from other soil, even if it does not exhibit obvious signs of contamination. The segregated soil shall be sampled and analyzed by an environmental laboratory for TPH (EPA Method 8015), VOCs (EPA Method 8260), and Title 22 metals (EPA Methods 6010 and 7471). Offsite disposal shall be approved by the resident engineer.
3. STOCKPILES - Segregated soil shall be placed upon polyethylene sheeting with a minimum thickness of 8 mil. Piles shall be covered with polyethylene sheeting with a minimum thickness of 8 mil at the end of each day and whenever the stockpiles are not in active use. Stockpiles shall also conform to all the requirements of the Stormwater Pollution Prevention Plan (SWPPP).
4. ONSITE SOIL REUSE – Soil that is disturbed during earthwork activities may be reused onsite if it does not fall under the categories of Section 1 or Section 2 above. The resident engineer reserves the right to approve or reject any soil for onsite reuse at their discretion.

# Closing


HDR's services have been performed with thoroughness and competence of the engineering profession. No other warranty or representation, either expressed or implied, is included or intended. Thank you for the opportunity to provide our consulting services to BWP. If you have any questions, contact Andrew Cherene at (562) 264-1114 or [andrew.cherene@hdrinc.com](mailto:andrew.cherene@hdrinc.com).

Sincerely,

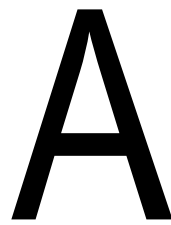
HDR



Andrew Cherene, PG, CHg  
Senior Geologist







A

Site Photographs



Photo 1: Soil Sample Location 1



Photo 2: Soil Sample Location 2





Photo 3: Soil Sample Location 3



Photo 4: Soil Sample Location 4



Photo 5: Soil Sample Location 5



Photo 6: Soil Sample Location 6





Photo 7: Soil Sample Location 7



Photo 8: Soil Sample Location 8





Photo 9: Concrete Wipe Sample Location A




Photo 10: Concrete Wipe Sample Location B





Photo 11: Concrete Wipe Sample Location C



# B

Laboratory Analytical Reports



**Orange Coast Analytical, Inc.**

3002 Dow, Suite 532, Tustin, CA 92780 (714) 832-0064 Fax (714) 832-0067  
4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970

**LABORATORY REPORT FORM**

ORANGE COAST ANALYTICAL, INC.

3002 Dow Suite 532 Tustin, CA 92780

(714) 832-0064

Laboratory Certification (ELAP) No.:2576

Expiration Date: 2023

Los Angeles County Sanitation District Lab ID# 10206

Laboratory Director's Name:

Mark Noorani

Client: HDR Engineering, Inc.

Laboratory Reference: HDR 26116

Project Name: Naomi Substation

Project Number: 10257467

Date Received: 4/30/2021

Date Reported: 5/18/2021

Chain of Custody Received:

Analytical Method: 8015B, 8082, 8260B, 6010B, 7471A,

Mark Noorani, Laboratory Director

Mr. Andrew Cherene  
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Long Beach, CA, 90802

Lab Reference #: HDR 26116  
Project Name: Naomi Substation  
Project #: 10257467

### ***Case Narrative***

#### **Sample Receipt:**

All samples on the Chain of Custody were received by OCA at 14°C, on ice.

#### **Holding Times:**

All samples were analyzed within required holding times unless otherwise noted in the data qualifier section of the report.

#### **Analytical Methods:**

Sample analysis was performed following the analytical methods listed on the cover page.

#### **Data Qualifiers:**

Within this report, data qualifiers may have been assigned to clarify deviations in common laboratory procedures or any divergence from laboratory QA/QC criteria. If a data qualifier has been used, it will appear in the back of the report along with its description. All method QA/QC criteria have been met unless otherwise noted in the data qualifier section.

#### **Definition of Terms:**

The definitions of common terms and acronyms used in the report have been placed at the back of the report to assist data users.

#### **Comments:**

None

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Long Beach, CA, 90802

Lab Reference #: HDR 26116  
Project Name: Naomi Substation  
Project #: 10257467

**Client Sample Summary**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS8-0.5-043021	26116-001	4/30/2021	4/30/2021	Soil
SS7-0.5-043021	26116-002	4/30/2021	4/30/2021	Soil
SS6-0.5-043021	26116-003	4/30/2021	4/30/2021	Soil
SS5-0.5-043021	26116-004	4/30/2021	4/30/2021	Soil
SS4-0.5-043021	26116-005	4/30/2021	4/30/2021	Soil
SS3-0.5-043021	26116-006	4/30/2021	4/30/2021	Soil
SS2-0.5-043021	26116-007	4/30/2021	4/30/2021	Soil
SS1-0.5-043021	26116-008	4/30/2021	4/30/2021	Soil
CW C-043021	26116-009	4/30/2021	4/30/2021	Wipe
CW B-043021	26116-010	4/30/2021	4/30/2021	Wipe
CW A-043021	26116-011	4/30/2021	4/30/2021	Wipe

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 Project #: 10257467

**Extractable Fuel Hydrocarbons (EPA 8015B)**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS8-0.5-043021	26116-001	4/30/2021 13:32	4/30/2021 10:00	5/4/2021 10:30	5/11/2021 21:17	Soil
<u>ANALYTE</u>	<u>mg/kg</u>			<u>Surrogate:</u>	<u>% RC*</u>	
DROs	<10			Octacosane	99	
<u>Dilution Factor:</u>	1			* Acc Recovery: 20-181 %		
<u>Data Qualifiers:</u>	None					
SS8-0.5-043021	26116-001	4/30/2021 13:32	4/30/2021 10:00	5/4/2021 10:30	5/11/2021 21:17	Soil
<u>ANALYTE</u>	<u>mg/kg</u>			<u>Surrogate:</u>	<u>% RC*</u>	
MROs	<50			Octacosane	99	
<u>Dilution Factor:</u>	1			* Acc Recovery: 20-181 %		
<u>Data Qualifiers:</u>	None					
SS7-0.5-043021	26116-002	4/30/2021 13:32	4/30/2021 10:05	5/4/2021 10:30	5/4/2021 21:19	Soil
<u>ANALYTE</u>	<u>mg/kg</u>			<u>Surrogate:</u>	<u>% RC*</u>	
DROs	<10			Octacosane	69	
<u>Dilution Factor:</u>	1			* Acc Recovery: 20-181 %		
<u>Data Qualifiers:</u>	None					
SS7-0.5-043021	26116-002	4/30/2021 13:32	4/30/2021 10:05	5/4/2021 10:30	5/4/2021 21:19	Soil
<u>ANALYTE</u>	<u>mg/kg</u>			<u>Surrogate:</u>	<u>% RC*</u>	
MROs	<50			Octacosane	69	
<u>Dilution Factor:</u>	1			* Acc Recovery: 20-181 %		
<u>Data Qualifiers:</u>	None					
SS6-0.5-043021	26116-003	4/30/2021 13:32	4/30/2021 10:10	5/4/2021 10:30	5/7/2021 13:21	Soil
<u>ANALYTE</u>	<u>mg/kg</u>			<u>Surrogate:</u>	<u>% RC*</u>	
DROs	<10			Octacosane	68	
<u>Dilution Factor:</u>	1			* Acc Recovery: 20-181 %		
<u>Data Qualifiers:</u>	None					



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Lab Reference #: HDR 26116  
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 Project #: 10257467

**Extractable Fuel Hydrocarbons (EPA 8015B)**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS6-0.5-043021	26116-003	4/30/2021 13:32	4/30/2021 10:10	5/4/2021 10:30	5/7/2021 13:21	Soil

ANALYTE                      mg/kg    Surrogate:                      % RC\*  
 MROs                                      <50    Octacosane                      68  
Dilution Factor: 1    \* Acc Recovery: 20-181 %  
Data Qualifiers: None

SS5-0.5-043021	26116-004	4/30/2021 13:32	4/30/2021 10:14	5/4/2021 10:30	5/5/2021 10:30	Soil
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ANALYTE                      mg/kg    Surrogate:                      % RC\*  
 DROs                                      <10    Octacosane                      77  
Dilution Factor: 1    \* Acc Recovery: 20-181 %  
Data Qualifiers: None

SS5-0.5-043021	26116-004	4/30/2021 13:32	4/30/2021 10:14	5/4/2021 10:30	5/5/2021 10:30	Soil
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ANALYTE                      mg/kg    Surrogate:                      % RC\*  
 MROs                                      <50    Octacosane                      77  
Dilution Factor: 1    \* Acc Recovery: 20-181 %  
Data Qualifiers: None

SS4-0.5-043021	26116-005	4/30/2021 13:32	4/30/2021 10:18	5/4/2021 10:30	5/5/2021 11:14	Soil
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ANALYTE                      mg/kg    Surrogate:                      % RC\*  
 DROs                                      11    Octacosane                      69  
Dilution Factor: 1    \* Acc Recovery: 20-181 %  
Data Qualifiers: None

SS4-0.5-043021	26116-005	4/30/2021 13:32	4/30/2021 10:18	5/4/2021 10:30	5/5/2021 11:14	Soil
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ANALYTE                      mg/kg    Surrogate:                      % RC\*  
 MROs                                      65    Octacosane                      69  
Dilution Factor: 1    \* Acc Recovery: 20-181 %  
Data Qualifiers: None

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Lab Reference #: HDR 26116  
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 Project #: 10257467

**Extractable Fuel Hydrocarbons (EPA 8015B)**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS3-0.5-043021	26116-006	4/30/2021 13:32	4/30/2021 10:22	5/4/2021 10:30	5/5/2021 12:37	Soil

ANALYTE                      mg/kg    Surrogate:                      % RC\*  
 DROs                                      <10    Octacosane                      87  
Dilution Factor: 1    \* Acc Recovery: 20-181 %  
Data Qualifiers: None

SS3-0.5-043021	26116-006	4/30/2021 13:32	4/30/2021 10:22	5/4/2021 10:30	5/5/2021 12:37	Soil
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ANALYTE                      mg/kg    Surrogate:                      % RC\*  
 MROs                                      63    Octacosane                      87  
Dilution Factor: 1    \* Acc Recovery: 20-181 %  
Data Qualifiers: None

SS2-0.5-043021	26116-007	4/30/2021 13:32	4/30/2021 10:25	5/4/2021 10:30	5/5/2021 13:19	Soil
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ANALYTE                      mg/kg    Surrogate:                      % RC\*  
 DROs                                      <10    Octacosane                      92  
Dilution Factor: 1    \* Acc Recovery: 20-181 %  
Data Qualifiers: None

SS2-0.5-043021	26116-007	4/30/2021 13:32	4/30/2021 10:25	5/4/2021 10:30	5/5/2021 13:19	Soil
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ANALYTE                      mg/kg    Surrogate:                      % RC\*  
 MROs                                      <50    Octacosane                      92  
Dilution Factor: 1    \* Acc Recovery: 20-181 %  
Data Qualifiers: None

SS1-0.5-043021	26116-008	4/30/2021 13:32	4/30/2021 10:30	5/4/2021 10:30	5/5/2021 14:00	Soil
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ANALYTE                      mg/kg    Surrogate:                      % RC\*  
 DROs                                      <10    Octacosane                      76  
Dilution Factor: 1    \* Acc Recovery: 20-181 %  
Data Qualifiers: None

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**Extractable Fuel Hydrocarbons (EPA 8015B)**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS1-0.5-043021	26116-008	4/30/2021 13:32	4/30/2021 10:30	5/4/2021 10:30	5/5/2021 14:00	Soil

ANALYTE                      mg/kg    Surrogate:                      % RC\*  
 MROs                                      55    Octacosane                      76  
Dilution Factor: 1    \* Acc Recovery: 20-181 %  
Data Qualifiers: None

Method Blank	MBAV0503212			5/3/2021 11:00	5/11/2021 18:29	Soil
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ANALYTE                      mg/kg    Surrogate:                      % RC\*  
 DROs                                      <10    Octacosane                      91  
Dilution Factor: 1    \* Acc Recovery: 20-181 %  
Data Qualifiers: None

Method Blank	MBAV0503212			5/3/2021 11:00	5/11/2021 18:29	Soil
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ANALYTE                      mg/kg    Surrogate:                      % RC\*  
 MROs                                      <50    Octacosane                      91  
Dilution Factor: 1    \* Acc Recovery: 20-181 %  
Data Qualifiers: None

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**Gasoline Range Organics - GROs (EPA 8015B)**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS8-0.5-043021	26116-001	4/30/2021 13:32	4/30/2021 10:00	4/30/2021 10:00	5/11/2021 14:40	Soil
<u>ANALYTE</u>	<u>mg/kg</u>			<u>Surrogate:</u>	<u>% RC*</u>	
GROs <sup>1</sup>	<0.20			$\alpha$ - $\alpha$ - $\alpha$ -Trifluorotoluene	100	
<u>Dilution Factor:</u> 1				* Acceptable Recovery: 66-130 %		
<u>Data Qualifiers:</u> None						
SS7-0.5-043021	26116-002	4/30/2021 13:32	4/30/2021 10:05	4/30/2021 10:05	5/11/2021 14:58	Soil
<u>ANALYTE</u>	<u>mg/kg</u>			<u>Surrogate:</u>	<u>% RC*</u>	
GROs <sup>1</sup>	<0.20			$\alpha$ - $\alpha$ - $\alpha$ -Trifluorotoluene	94	
<u>Dilution Factor:</u> 1				* Acceptable Recovery: 66-130 %		
<u>Data Qualifiers:</u> None						
SS6-0.5-043021	26116-003	4/30/2021 13:32	4/30/2021 10:10	5/11/2021 10:25	5/11/2021 15:16	Soil
<u>ANALYTE</u>	<u>mg/kg</u>			<u>Surrogate:</u>	<u>% RC*</u>	
GROs <sup>1</sup>	<0.20			$\alpha$ - $\alpha$ - $\alpha$ -Trifluorotoluene	99	
<u>Dilution Factor:</u> 1				* Acceptable Recovery: 66-130 %		
<u>Data Qualifiers:</u> None						
SS5-0.5-043021	26116-004	4/30/2021 13:32	4/30/2021 10:14	4/30/2021 10:14	5/11/2021 15:34	Soil
<u>ANALYTE</u>	<u>mg/kg</u>			<u>Surrogate:</u>	<u>% RC*</u>	
GROs <sup>1</sup>	<0.20			$\alpha$ - $\alpha$ - $\alpha$ -Trifluorotoluene	93	
<u>Dilution Factor:</u> 1				* Acceptable Recovery: 66-130 %		
<u>Data Qualifiers:</u> None						
SS4-0.5-043021	26116-005	4/30/2021 13:32	4/30/2021 10:18	4/30/2021 10:18	5/11/2021 16:36	Soil
<u>ANALYTE</u>	<u>mg/kg</u>			<u>Surrogate:</u>	<u>% RC*</u>	
GROs <sup>1</sup>	<0.20			$\alpha$ - $\alpha$ - $\alpha$ -Trifluorotoluene	99	
<u>Dilution Factor:</u> 1				* Acceptable Recovery: 66-130 %		
<u>Data Qualifiers:</u> None						

Gasoline Range Organics (GROs) are quantitated against a gasoline standard.

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Lab Reference #: HDR 26116  
 Project Name: Naomi Substation  
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**Gasoline Range Organics - GROs (EPA 8015B)**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS3-0.5-043021	26116-006	4/30/2021 13:32	4/30/2021 10:22	4/30/2021 10:22	5/11/2021 16:55	Soil
<u>ANALYTE</u>	<u>mg/kg</u>		<u>Surrogate:</u>		<u>% RC*</u>	
GROs <sup>1</sup>	<0.20		$\alpha$ - $\alpha$ - $\alpha$ -Trifluorotoluene		99	
<u>Dilution Factor:</u> 1					* Acceptable Recovery: 66-130 %	
<u>Data Qualifiers:</u> None						
SS2-0.5-043021	26116-007	4/30/2021 13:32	4/30/2021 10:25	4/30/2021 10:25	5/11/2021 17:13	Soil
<u>ANALYTE</u>	<u>mg/kg</u>		<u>Surrogate:</u>		<u>% RC*</u>	
GROs <sup>1</sup>	<0.20		$\alpha$ - $\alpha$ - $\alpha$ -Trifluorotoluene		96	
<u>Dilution Factor:</u> 1					* Acceptable Recovery: 66-130 %	
<u>Data Qualifiers:</u> None						
SS1-0.5-043021	26116-008	4/30/2021 13:32	4/30/2021 10:30	4/30/2021 10:30	5/11/2021 17:31	Soil
<u>ANALYTE</u>	<u>mg/kg</u>		<u>Surrogate:</u>		<u>% RC*</u>	
GROs <sup>1</sup>	<0.20		$\alpha$ - $\alpha$ - $\alpha$ -Trifluorotoluene		91	
<u>Dilution Factor:</u> 1					* Acceptable Recovery: 66-130 %	
<u>Data Qualifiers:</u> None						
Method Blank	MBTS0511211			5/11/2021 10:25	5/11/2021 11:12	Soil
<u>ANALYTE</u>	<u>mg/kg</u>		<u>Surrogate:</u>		<u>% RC*</u>	
GROs <sup>1</sup>	<0.20		$\alpha$ - $\alpha$ - $\alpha$ -Trifluorotoluene		81	
<u>Dilution Factor:</u> 1					* Acceptable Recovery: 66-130 %	
<u>Data Qualifiers:</u> None						

Gasoline Range Organics (GROs) are quantitated against a gasoline standard.

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Lab Reference #: HDR 26116  
 Project Name: Naomi Substation  
 Project #: 10257467

**Polychlorinated Biphenyl's (EPA 8082)**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS8-0.5-043021	26116-001	4/30/2021 13:32	4/30/2021 10:00	5/10/2021 10:30	5/14/2021 18:24	Soil

<u>ANALYTE</u>	<u>CAS #</u>	<u>µg/kg</u>	<u>Surrogate:</u>	<u>% RC*</u>
PCB-1016	12674-11-2	<130	Decachlorobiphenyl	75
PCB-1221	11104-28-2	<130		
PCB-1232	11141-16-5	<130	* Acceptable Recovery: 42-142 %	
PCB-1242	53469-21-9	<130	<u>Dilution Factor:</u> 5	
PCB-1248	12672-29-6	<130	<u>Data Qualifiers:</u> D1,	
PCB-1254	11097-69-1	<130		
PCB-1260	11096-82-5	<130		

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS7-0.5-043021	26116-002	4/30/2021 13:32	4/30/2021 10:05	5/10/2021 10:30	5/14/2021 18:39	Soil

<u>ANALYTE</u>	<u>CAS #</u>	<u>µg/kg</u>	<u>Surrogate:</u>	<u>% RC*</u>
PCB-1016	12674-11-2	<130	Decachlorobiphenyl	70
PCB-1221	11104-28-2	<130		
PCB-1232	11141-16-5	<130	* Acceptable Recovery: 42-142 %	
PCB-1242	53469-21-9	<130	<u>Dilution Factor:</u> 5	
PCB-1248	12672-29-6	<130	<u>Data Qualifiers:</u> D1,	
PCB-1254	11097-69-1	<130		
PCB-1260	11096-82-5	<130		

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS6-0.5-043021	26116-003	4/30/2021 13:32	4/30/2021 10:10	5/10/2021 10:30	5/14/2021 18:54	Soil

<u>ANALYTE</u>	<u>CAS #</u>	<u>µg/kg</u>	<u>Surrogate:</u>	<u>% RC*</u>
PCB-1016	12674-11-2	<130	Decachlorobiphenyl	78
PCB-1221	11104-28-2	<130		
PCB-1232	11141-16-5	<130	* Acceptable Recovery: 42-142 %	
PCB-1242	53469-21-9	<130	<u>Dilution Factor:</u> 5	
PCB-1248	12672-29-6	<130	<u>Data Qualifiers:</u> D1,	
PCB-1254	11097-69-1	<130		
PCB-1260	11096-82-5	<130		



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**Polychlorinated Biphenyl's (EPA 8082)**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS5-0.5-043021	26116-004	4/30/2021 13:32	4/30/2021 10:14	5/10/2021 10:30	5/14/2021 19:10	Soil

<u>ANALYTE</u>	<u>CAS #</u>	<u>µg/kg</u>	<u>Surrogate:</u>	<u>% RC*</u>
PCB-1016	12674-11-2	<130	Decachlorobiphenyl	85
PCB-1221	11104-28-2	<130		
PCB-1232	11141-16-5	<130	* Acceptable Recovery: 42-142 %	
PCB-1242	53469-21-9	<130	<u>Dilution Factor:</u> 5	
PCB-1248	12672-29-6	<130	<u>Data Qualifiers:</u> D1,	
PCB-1254	11097-69-1	<130		
PCB-1260	11096-82-5	<130		

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS4-0.5-043021	26116-005	4/30/2021 13:32	4/30/2021 10:18	5/10/2021 10:30	5/14/2021 19:25	Soil

<u>ANALYTE</u>	<u>CAS #</u>	<u>µg/kg</u>	<u>Surrogate:</u>	<u>% RC*</u>
PCB-1016	12674-11-2	<130	Decachlorobiphenyl	79
PCB-1221	11104-28-2	<130		
PCB-1232	11141-16-5	<130	* Acceptable Recovery: 42-142 %	
PCB-1242	53469-21-9	<130	<u>Dilution Factor:</u> 5	
PCB-1248	12672-29-6	<130	<u>Data Qualifiers:</u> D1,	
PCB-1254	11097-69-1	<130		
PCB-1260	11096-82-5	<130		

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS3-0.5-043021	26116-006	4/30/2021 13:32	4/30/2021 10:22	5/10/2021 10:30	5/14/2021 19:40	Soil

<u>ANALYTE</u>	<u>CAS #</u>	<u>µg/kg</u>	<u>Surrogate:</u>	<u>% RC*</u>
PCB-1016	12674-11-2	<130	Decachlorobiphenyl	83
PCB-1221	11104-28-2	<130		
PCB-1232	11141-16-5	<130	* Acceptable Recovery: 42-142 %	
PCB-1242	53469-21-9	<130	<u>Dilution Factor:</u> 5	
PCB-1248	12672-29-6	<130	<u>Data Qualifiers:</u> D1,	
PCB-1254	11097-69-1	<130		
PCB-1260	11096-82-5	<130		

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**Polychlorinated Biphenyl's (EPA 8082)**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS2-0.5-043021	26116-007	4/30/2021 13:32	4/30/2021 10:25	5/10/2021 10:30	5/14/2021 19:55	Soil

<u>ANALYTE</u>	<u>CAS #</u>	<u>µg/kg</u>	<u>Surrogate:</u>	<u>% RC*</u>
PCB-1016	12674-11-2	<130	Decachlorobiphenyl	88
PCB-1221	11104-28-2	<130		
PCB-1232	11141-16-5	<130	* Acceptable Recovery: 42-142 %	
PCB-1242	53469-21-9	<130	<u>Dilution Factor:</u> 5	
PCB-1248	12672-29-6	<130	<u>Data Qualifiers:</u> D1,	
PCB-1254	11097-69-1	<130		
PCB-1260	11096-82-5	<130		

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS1-0.5-043021	26116-008	4/30/2021 13:32	4/30/2021 10:30	5/10/2021 10:30	5/14/2021 20:11	Soil

<u>ANALYTE</u>	<u>CAS #</u>	<u>µg/kg</u>	<u>Surrogate:</u>	<u>% RC*</u>
PCB-1016	12674-11-2	<130	Decachlorobiphenyl	82
PCB-1221	11104-28-2	<130		
PCB-1232	11141-16-5	<130	* Acceptable Recovery: 42-142 %	
PCB-1242	53469-21-9	<130	<u>Dilution Factor:</u> 5	
PCB-1248	12672-29-6	<130	<u>Data Qualifiers:</u> D1,	
PCB-1254	11097-69-1	<130		
PCB-1260	11096-82-5	<130		

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBAT0510211			5/10/2021 10:30	5/10/2021 13:06	Soil

<u>ANALYTE</u>	<u>CAS #</u>	<u>µg/kg</u>	<u>Surrogate:</u>	<u>% RC*</u>
PCB-1016	12674-11-2	<25	Decachlorobiphenyl	86
PCB-1221	11104-28-2	<25		
PCB-1232	11141-16-5	<25	* Acceptable Recovery: 42-142 %	
PCB-1242	53469-21-9	<25	<u>Dilution Factor:</u> 1	
PCB-1248	12672-29-6	<25	<u>Data Qualifiers:</u> None	
PCB-1254	11097-69-1	<25		
PCB-1260	11096-82-5	<25		

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 Project #: 10257467

**Volatile Organics by GC/MS (EPA 8260B)**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS8-0.5-043021	26116-001	4/30/2021 13:32	4/30/2021 10:00	4/30/2021 10:00	5/6/2021 15:00	Soil

<u>ANALYTE</u>	<u>CAS #</u>	<u>µg/kg</u>	<u>ANALYTE</u>	<u>CAS #</u>	<u>µg/kg</u>
t-Amyl methyl ether (TAME)	994-05-8	<10	trans-1,3-Dichloropropene	10061-02-6	<2.5
Benzene	71-43-2	<2.0	Diisopropyl ether (DIPE)	108-20-3	<10
Bromobenzene	108-86-1	<2.5	Ethyl t-butyl ether (ETBE)	637-92-3	<10
Bromochloromethane	74-97-5	<2.5	Ethylbenzene	100-41-4	<2.5
Bromodichloromethane	75-27-4	<2.5	Hexachlorobutadiene	87-68-3	<5.0
Bromoform	75-25-2	<2.5	Isopropylbenzene	98-82-8	<2.5
Bromomethane	74-83-9	<10	4-Isopropyltoluene	99-87-6	<2.5
tert-Butyl alcohol (TBA)	75-65-0	<50	Methyl t-butyl ether (MTBE)	1634-04-4	<5.0
n-Butylbenzene	104-51-8	<2.5	Methylene chloride	75-09-2	<10
sec-Butylbenzene	135-98-8	<2.5	Naphthalene	91-20-3	<2.5
tert-Butylbenzene	98-06-6	<2.5	n-Propylbenzene	103-65-1	<2.5
Carbon tetrachloride	56-23-5	<2.5	Styrene	100-42-5	<2.5
Chlorobenzene	108-90-7	<2.5	1,1,1,2-Tetrachloroethane	630-20-6	<2.5
Chloroethane	75-00-3	<5.0	1,1,2,2-Tetrachloroethane	79-34-5	<2.5
Chloroform	67-66-3	<2.5	Tetrachloroethene	127-18-4	<2.5
Chloromethane	74-87-3	<5.0	Toluene	108-88-3	<2.5
2-Chlorotoluene	95-49-8	<2.5	1,2,3-Trichlorobenzene	87-61-6	<2.5
4-Chlorotoluene	106-43-4	<2.5	1,2,4-Trichlorobenzene	120-82-1	<2.5
Dibromochloromethane	124-48-1	<2.5	1,1,1-Trichloroethane	71-55-6	<2.5
1,2-Dibromo-3-chloropropane	96-12-8	<5.0	1,1,2-Trichloroethane	79-00-5	<2.5
1,2-Dibromoethane	106-93-4	<2.5	Trichloroethene	79-01-6	<2.5
Dibromomethane	74-95-3	<2.5	Trichlorofluoromethane	75-69-4	<5.0
1,2-Dichlorobenzene	95-50-1	<2.5	1,2,3-Trichloropropane	96-18-4	<2.5
1,3-Dichlorobenzene	541-73-1	<2.5	1,2,4-Trimethylbenzene	95-63-6	<2.5
1,4-Dichlorobenzene	106-46-7	<2.5	1,3,5-Trimethylbenzene	108-67-8	<2.5
Dichlorodifluoromethane	75-71-8	<2.5	Vinyl Chloride	75-01-4	<2.5
1,1-Dichloroethane	75-34-3	<2.5	m- & p-Xylenes	179601-23-1	<5.0
1,2-Dichloroethane	107-06-2	<2.5	o-Xylene	95-47-6	<2.5
1,1-Dichloroethene	75-35-4	<2.5			
cis-1,2-Dichloroethene	156-59-2	<2.5			
trans-1,2-Dichloroethene	156-60-5	<2.5			
1,2-Dichloropropane	78-87-5	<2.5			
1,3-Dichloropropane	142-28-9	<2.5			
2,2-Dichloropropane	594-20-7	<2.5			
1,1-Dichloropropene	563-58-6	<2.5			
cis-1,3-Dichloropropene	10061-01-5	<2.5			

<u>Surrogate:</u>	<u>% RC</u>	<u>Acceptable % RC</u>	<u>Dilution Factor:</u> 1
Dibromofluoromethane:	85	33-132 %	<u>Data Qualifiers:</u> None
Toluene-d8:	68	52-130 %	
4-Bromofluorobenzene:	65	30-130 %	

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Project Name: Naomi Substation  
Project #: 10257467

**Volatile Organics by GC/MS (EPA 8260B)**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS7-0.5-043021	26116-002	4/30/2021 13:32	4/30/2021 10:05	4/30/2021 10:05	5/6/2021 15:20	Soil

<u>ANALYTE</u>	<u>CAS #</u>	<u>µg/kg</u>	<u>ANALYTE</u>	<u>CAS #</u>	<u>µg/kg</u>
t-Amyl methyl ether (TAME)	994-05-8	<10	trans-1,3-Dichloropropene	10061-02-6	<2.5
Benzene	71-43-2	<2.0	Diisopropyl ether (DIPE)	108-20-3	<10
Bromobenzene	108-86-1	<2.5	Ethyl t-butyl ether (ETBE)	637-92-3	<10
Bromochloromethane	74-97-5	<2.5	Ethylbenzene	100-41-4	<2.5
Bromodichloromethane	75-27-4	<2.5	Hexachlorobutadiene	87-68-3	<5.0
Bromoform	75-25-2	<2.5	Isopropylbenzene	98-82-8	<2.5
Bromomethane	74-83-9	<10	4-Isopropyltoluene	99-87-6	<2.5
tert-Butyl alcohol (TBA)	75-65-0	<50	Methyl t-butyl ether (MTBE)	1634-04-4	<5.0
n-Butylbenzene	104-51-8	<2.5	Methylene chloride	75-09-2	<10
sec-Butylbenzene	135-98-8	<2.5	Naphthalene	91-20-3	<2.5
tert-Butylbenzene	98-06-6	<2.5	n-Propylbenzene	103-65-1	<2.5
Carbon tetrachloride	56-23-5	<2.5	Styrene	100-42-5	<2.5
Chlorobenzene	108-90-7	<2.5	1,1,1,2-Tetrachloroethane	630-20-6	<2.5
Chloroethane	75-00-3	<5.0	1,1,2,2-Tetrachloroethane	79-34-5	<2.5
Chloroform	67-66-3	<2.5	Tetrachloroethene	127-18-4	<2.5
Chloromethane	74-87-3	<5.0	Toluene	108-88-3	<2.5
2-Chlorotoluene	95-49-8	<2.5	1,2,3-Trichlorobenzene	87-61-6	<2.5
4-Chlorotoluene	106-43-4	<2.5	1,2,4-Trichlorobenzene	120-82-1	<2.5
Dibromochloromethane	124-48-1	<2.5	1,1,1-Trichloroethane	71-55-6	<2.5
1,2-Dibromo-3-chloropropane	96-12-8	<5.0	1,1,2-Trichloroethane	79-00-5	<2.5
1,2-Dibromoethane	106-93-4	<2.5	Trichloroethene	79-01-6	<2.5
Dibromomethane	74-95-3	<2.5	Trichlorofluoromethane	75-69-4	<5.0
1,2-Dichlorobenzene	95-50-1	<2.5	1,2,3-Trichloropropane	96-18-4	<2.5
1,3-Dichlorobenzene	541-73-1	<2.5	1,2,4-Trimethylbenzene	95-63-6	<2.5
1,4-Dichlorobenzene	106-46-7	<2.5	1,3,5-Trimethylbenzene	108-67-8	<2.5
Dichlorodifluoromethane	75-71-8	<2.5	Vinyl Chloride	75-01-4	<2.5
1,1-Dichloroethane	75-34-3	<2.5	m- & p-Xylenes	179601-23-1	<5.0
1,2-Dichloroethane	107-06-2	<2.5	o-Xylene	95-47-6	<2.5
1,1-Dichloroethene	75-35-4	<2.5			
cis-1,2-Dichloroethene	156-59-2	<2.5			
trans-1,2-Dichloroethene	156-60-5	<2.5			
1,2-Dichloropropane	78-87-5	<2.5			
1,3-Dichloropropane	142-28-9	<2.5			
2,2-Dichloropropane	594-20-7	<2.5			
1,1-Dichloropropene	563-58-6	<2.5			
cis-1,3-Dichloropropene	10061-01-5	<2.5			

<u>Surrogate:</u>	<u>% RC</u>	<u>Acceptable % RC</u>	<u>Dilution Factor:</u> 1
Dibromofluoromethane:	84	33-132 %	<u>Data Qualifiers:</u> None
Toluene-d8:	68	52-130 %	
4-Bromofluorobenzene:	63	30-130 %	

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**Volatile Organics by GC/MS (EPA 8260B)**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS6-0.5-043021	26116-003	4/30/2021 13:32	4/30/2021 10:10	5/3/2021 11:45	5/6/2021 15:40	Soil

<u>ANALYTE</u>	<u>CAS #</u>	<u>µg/kg</u>	<u>ANALYTE</u>	<u>CAS #</u>	<u>µg/kg</u>
t-Amyl methyl ether (TAME)	994-05-8	<10	trans-1,3-Dichloropropene	10061-02-6	<2.5
Benzene	71-43-2	<2.0	Diisopropyl ether (DIPE)	108-20-3	<10
Bromobenzene	108-86-1	<2.5	Ethyl t-butyl ether (ETBE)	637-92-3	<10
Bromochloromethane	74-97-5	<2.5	Ethylbenzene	100-41-4	<2.5
Bromodichloromethane	75-27-4	<2.5	Hexachlorobutadiene	87-68-3	<5.0
Bromoform	75-25-2	<2.5	Isopropylbenzene	98-82-8	<2.5
Bromomethane	74-83-9	<10	4-Isopropyltoluene	99-87-6	<2.5
tert-Butyl alcohol (TBA)	75-65-0	<50	Methyl t-butyl ether (MTBE)	1634-04-4	<5.0
n-Butylbenzene	104-51-8	<2.5	Methylene chloride	75-09-2	<10
sec-Butylbenzene	135-98-8	<2.5	Naphthalene	91-20-3	<2.5
tert-Butylbenzene	98-06-6	<2.5	n-Propylbenzene	103-65-1	<2.5
Carbon tetrachloride	56-23-5	<2.5	Styrene	100-42-5	<2.5
Chlorobenzene	108-90-7	<2.5	1,1,1,2-Tetrachloroethane	630-20-6	<2.5
Chloroethane	75-00-3	<5.0	1,1,2,2-Tetrachloroethane	79-34-5	<2.5
Chloroform	67-66-3	<2.5	Tetrachloroethene	127-18-4	<2.5
Chloromethane	74-87-3	<5.0	Toluene	108-88-3	<2.5
2-Chlorotoluene	95-49-8	<2.5	1,2,3-Trichlorobenzene	87-61-6	<2.5
4-Chlorotoluene	106-43-4	<2.5	1,2,4-Trichlorobenzene	120-82-1	<2.5
Dibromochloromethane	124-48-1	<2.5	1,1,1-Trichloroethane	71-55-6	<2.5
1,2-Dibromo-3-chloropropane	96-12-8	<5.0	1,1,2-Trichloroethane	79-00-5	<2.5
1,2-Dibromoethane	106-93-4	<2.5	Trichloroethene	79-01-6	<2.5
Dibromomethane	74-95-3	<2.5	Trichlorofluoromethane	75-69-4	<5.0
1,2-Dichlorobenzene	95-50-1	<2.5	1,2,3-Trichloropropane	96-18-4	<2.5
1,3-Dichlorobenzene	541-73-1	<2.5	1,2,4-Trimethylbenzene	95-63-6	<2.5
1,4-Dichlorobenzene	106-46-7	<2.5	1,3,5-Trimethylbenzene	108-67-8	<2.5
Dichlorodifluoromethane	75-71-8	<2.5	Vinyl Chloride	75-01-4	<2.5
1,1-Dichloroethane	75-34-3	<2.5	m- & p-Xylenes	179601-23-1	<5.0
1,2-Dichloroethane	107-06-2	<2.5	o-Xylene	95-47-6	<2.5
1,1-Dichloroethene	75-35-4	<2.5			
cis-1,2-Dichloroethene	156-59-2	<2.5			
trans-1,2-Dichloroethene	156-60-5	<2.5			
1,2-Dichloropropane	78-87-5	<2.5			
1,3-Dichloropropane	142-28-9	<2.5			
2,2-Dichloropropane	594-20-7	<2.5			
1,1-Dichloropropene	563-58-6	<2.5			
cis-1,3-Dichloropropene	10061-01-5	<2.5			

<u>Surrogate:</u>	<u>% RC</u>	<u>Acceptable % RC</u>	<u>Dilution Factor:</u> 1
Dibromofluoromethane:	84	33-132 %	<u>Data Qualifiers:</u> None
Toluene-d8:	66	52-130 %	
4-Bromofluorobenzene:	61	30-130 %	

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Lab Reference #: HDR 26116  
 Project Name: Naomi Substation  
 Project #: 10257467

**Volatile Organics by GC/MS (EPA 8260B)**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS5-0.5-043021	26116-004	4/30/2021 13:32	4/30/2021 10:14	4/30/2021 10:14	5/6/2021 16:01	Soil

<u>ANALYTE</u>	<u>CAS #</u>	<u>µg/kg</u>	<u>ANALYTE</u>	<u>CAS #</u>	<u>µg/kg</u>
t-Amyl methyl ether (TAME)	994-05-8	<10	trans-1,3-Dichloropropene	10061-02-6	<2.5
Benzene	71-43-2	<2.0	Diisopropyl ether (DIPE)	108-20-3	<10
Bromobenzene	108-86-1	<2.5	Ethyl t-butyl ether (ETBE)	637-92-3	<10
Bromochloromethane	74-97-5	<2.5	Ethylbenzene	100-41-4	<2.5
Bromodichloromethane	75-27-4	<2.5	Hexachlorobutadiene	87-68-3	<5.0
Bromoform	75-25-2	<2.5	Isopropylbenzene	98-82-8	<2.5
Bromomethane	74-83-9	<10	4-Isopropyltoluene	99-87-6	<2.5
tert-Butyl alcohol (TBA)	75-65-0	<50	Methyl t-butyl ether (MTBE)	1634-04-4	<5.0
n-Butylbenzene	104-51-8	<2.5	Methylene chloride	75-09-2	<10
sec-Butylbenzene	135-98-8	<2.5	Naphthalene	91-20-3	<2.5
tert-Butylbenzene	98-06-6	<2.5	n-Propylbenzene	103-65-1	<2.5
Carbon tetrachloride	56-23-5	<2.5	Styrene	100-42-5	<2.5
Chlorobenzene	108-90-7	<2.5	1,1,1,2-Tetrachloroethane	630-20-6	<2.5
Chloroethane	75-00-3	<5.0	1,1,2,2-Tetrachloroethane	79-34-5	<2.5
Chloroform	67-66-3	<2.5	Tetrachloroethene	127-18-4	<2.5
Chloromethane	74-87-3	<5.0	Toluene	108-88-3	<2.5
2-Chlorotoluene	95-49-8	<2.5	1,2,3-Trichlorobenzene	87-61-6	<2.5
4-Chlorotoluene	106-43-4	<2.5	1,2,4-Trichlorobenzene	120-82-1	<2.5
Dibromochloromethane	124-48-1	<2.5	1,1,1-Trichloroethane	71-55-6	<2.5
1,2-Dibromo-3-chloropropane	96-12-8	<5.0	1,1,2-Trichloroethane	79-00-5	<2.5
1,2-Dibromoethane	106-93-4	<2.5	Trichloroethene	79-01-6	<2.5
Dibromomethane	74-95-3	<2.5	Trichlorofluoromethane	75-69-4	<5.0
1,2-Dichlorobenzene	95-50-1	<2.5	1,2,3-Trichloropropane	96-18-4	<2.5
1,3-Dichlorobenzene	541-73-1	<2.5	1,2,4-Trimethylbenzene	95-63-6	<2.5
1,4-Dichlorobenzene	106-46-7	<2.5	1,3,5-Trimethylbenzene	108-67-8	<2.5
Dichlorodifluoromethane	75-71-8	<2.5	Vinyl Chloride	75-01-4	<2.5
1,1-Dichloroethane	75-34-3	<2.5	m- & p-Xylenes	179601-23-1	<5.0
1,2-Dichloroethane	107-06-2	<2.5	o-Xylene	95-47-6	<2.5
1,1-Dichloroethene	75-35-4	<2.5			
cis-1,2-Dichloroethene	156-59-2	<2.5			
trans-1,2-Dichloroethene	156-60-5	<2.5			
1,2-Dichloropropane	78-87-5	<2.5			
1,3-Dichloropropane	142-28-9	<2.5			
2,2-Dichloropropane	594-20-7	<2.5			
1,1-Dichloropropene	563-58-6	<2.5			
cis-1,3-Dichloropropene	10061-01-5	<2.5			

<u>Surrogate:</u>	<u>% RC</u>	<u>Acceptable % RC</u>	<u>Dilution Factor:</u> 1
Dibromofluoromethane:	83	33-132 %	<u>Data Qualifiers:</u> None
Toluene-d8:	65	52-130 %	
4-Bromofluorobenzene:	57	30-130 %	



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Lab Reference #: HDR 26116  
 Project Name: Naomi Substation  
 Project #: 10257467

**Volatile Organics by GC/MS (EPA 8260B)**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS4-0.5-043021	26116-005	4/30/2021 13:32	4/30/2021 10:18	4/30/2021 10:18	5/6/2021 16:22	Soil

<u>ANALYTE</u>	<u>CAS #</u>	<u>µg/kg</u>	<u>ANALYTE</u>	<u>CAS #</u>	<u>µg/kg</u>
t-Amyl methyl ether (TAME)	994-05-8	<10	trans-1,3-Dichloropropene	10061-02-6	<2.5
Benzene	71-43-2	<2.0	Diisopropyl ether (DIPE)	108-20-3	<10
Bromobenzene	108-86-1	<2.5	Ethyl t-butyl ether (ETBE)	637-92-3	<10
Bromochloromethane	74-97-5	<2.5	Ethylbenzene	100-41-4	<2.5
Bromodichloromethane	75-27-4	<2.5	Hexachlorobutadiene	87-68-3	<5.0
Bromoform	75-25-2	<2.5	Isopropylbenzene	98-82-8	<2.5
Bromomethane	74-83-9	<10	4-Isopropyltoluene	99-87-6	<2.5
tert-Butyl alcohol (TBA)	75-65-0	<50	Methyl t-butyl ether (MTBE)	1634-04-4	<5.0
n-Butylbenzene	104-51-8	<2.5	Methylene chloride	75-09-2	<10
sec-Butylbenzene	135-98-8	<2.5	Naphthalene	91-20-3	<2.5
tert-Butylbenzene	98-06-6	<2.5	n-Propylbenzene	103-65-1	<2.5
Carbon tetrachloride	56-23-5	<2.5	Styrene	100-42-5	<2.5
Chlorobenzene	108-90-7	<2.5	1,1,1,2-Tetrachloroethane	630-20-6	<2.5
Chloroethane	75-00-3	<5.0	1,1,2,2-Tetrachloroethane	79-34-5	<2.5
Chloroform	67-66-3	<2.5	Tetrachloroethene	127-18-4	<2.5
Chloromethane	74-87-3	<5.0	Toluene	108-88-3	<2.5
2-Chlorotoluene	95-49-8	<2.5	1,2,3-Trichlorobenzene	87-61-6	<2.5
4-Chlorotoluene	106-43-4	<2.5	1,2,4-Trichlorobenzene	120-82-1	<2.5
Dibromochloromethane	124-48-1	<2.5	1,1,1-Trichloroethane	71-55-6	<2.5
1,2-Dibromo-3-chloropropane	96-12-8	<5.0	1,1,2-Trichloroethane	79-00-5	<2.5
1,2-Dibromoethane	106-93-4	<2.5	Trichloroethene	79-01-6	<2.5
Dibromomethane	74-95-3	<2.5	Trichlorofluoromethane	75-69-4	<5.0
1,2-Dichlorobenzene	95-50-1	<2.5	1,2,3-Trichloropropane	96-18-4	<2.5
1,3-Dichlorobenzene	541-73-1	<2.5	1,2,4-Trimethylbenzene	95-63-6	<2.5
1,4-Dichlorobenzene	106-46-7	<2.5	1,3,5-Trimethylbenzene	108-67-8	<2.5
Dichlorodifluoromethane	75-71-8	<2.5	Vinyl Chloride	75-01-4	<2.5
1,1-Dichloroethane	75-34-3	<2.5	m- & p-Xylenes	179601-23-1	<5.0
1,2-Dichloroethane	107-06-2	<2.5	o-Xylene	95-47-6	<2.5
1,1-Dichloroethene	75-35-4	<2.5			
cis-1,2-Dichloroethene	156-59-2	<2.5			
trans-1,2-Dichloroethene	156-60-5	<2.5			
1,2-Dichloropropane	78-87-5	<2.5			
1,3-Dichloropropane	142-28-9	<2.5			
2,2-Dichloropropane	594-20-7	<2.5			
1,1-Dichloropropene	563-58-6	<2.5			
cis-1,3-Dichloropropene	10061-01-5	<2.5			

<u>Surrogate:</u>	<u>% RC</u>	<u>Acceptable % RC</u>	<u>Dilution Factor:</u> 1
Dibromofluoromethane:	83	33-132 %	<u>Data Qualifiers:</u> None
Toluene-d8:	67	52-130 %	
4-Bromofluorobenzene:	65	30-130 %	

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Lab Reference #: HDR 26116  
 Project Name: Naomi Substation  
 Project #: 10257467

**Volatile Organics by GC/MS (EPA 8260B)**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS3-0.5-043021	26116-006	4/30/2021 13:32	4/30/2021 10:22	4/30/2021 10:22	5/6/2021 16:42	Soil

<u>ANALYTE</u>	<u>CAS #</u>	<u>µg/kg</u>	<u>ANALYTE</u>	<u>CAS #</u>	<u>µg/kg</u>
t-Amyl methyl ether (TAME)	994-05-8	<10	trans-1,3-Dichloropropene	10061-02-6	<2.5
Benzene	71-43-2	<2.0	Diisopropyl ether (DIPE)	108-20-3	<10
Bromobenzene	108-86-1	<2.5	Ethyl t-butyl ether (ETBE)	637-92-3	<10
Bromochloromethane	74-97-5	<2.5	Ethylbenzene	100-41-4	<2.5
Bromodichloromethane	75-27-4	<2.5	Hexachlorobutadiene	87-68-3	<5.0
Bromoform	75-25-2	<2.5	Isopropylbenzene	98-82-8	<2.5
Bromomethane	74-83-9	<10	4-Isopropyltoluene	99-87-6	<2.5
tert-Butyl alcohol (TBA)	75-65-0	<50	Methyl t-butyl ether (MTBE)	1634-04-4	<5.0
n-Butylbenzene	104-51-8	<2.5	Methylene chloride	75-09-2	<10
sec-Butylbenzene	135-98-8	<2.5	Naphthalene	91-20-3	<2.5
tert-Butylbenzene	98-06-6	<2.5	n-Propylbenzene	103-65-1	<2.5
Carbon tetrachloride	56-23-5	<2.5	Styrene	100-42-5	<2.5
Chlorobenzene	108-90-7	<2.5	1,1,1,2-Tetrachloroethane	630-20-6	<2.5
Chloroethane	75-00-3	<5.0	1,1,2,2-Tetrachloroethane	79-34-5	<2.5
Chloroform	67-66-3	<2.5	Tetrachloroethene	127-18-4	<2.5
Chloromethane	74-87-3	<5.0	Toluene	108-88-3	<2.5
2-Chlorotoluene	95-49-8	<2.5	1,2,3-Trichlorobenzene	87-61-6	<2.5
4-Chlorotoluene	106-43-4	<2.5	1,2,4-Trichlorobenzene	120-82-1	<2.5
Dibromochloromethane	124-48-1	<2.5	1,1,1-Trichloroethane	71-55-6	<2.5
1,2-Dibromo-3-chloropropane	96-12-8	<5.0	1,1,2-Trichloroethane	79-00-5	<2.5
1,2-Dibromoethane	106-93-4	<2.5	Trichloroethene	79-01-6	<2.5
Dibromomethane	74-95-3	<2.5	Trichlorofluoromethane	75-69-4	<5.0
1,2-Dichlorobenzene	95-50-1	<2.5	1,2,3-Trichloropropane	96-18-4	<2.5
1,3-Dichlorobenzene	541-73-1	<2.5	1,2,4-Trimethylbenzene	95-63-6	<2.5
1,4-Dichlorobenzene	106-46-7	<2.5	1,3,5-Trimethylbenzene	108-67-8	<2.5
Dichlorodifluoromethane	75-71-8	<2.5	Vinyl Chloride	75-01-4	<2.5
1,1-Dichloroethane	75-34-3	<2.5	m- & p-Xylenes	179601-23-1	<5.0
1,2-Dichloroethane	107-06-2	<2.5	o-Xylene	95-47-6	<2.5
1,1-Dichloroethene	75-35-4	<2.5			
cis-1,2-Dichloroethene	156-59-2	<2.5			
trans-1,2-Dichloroethene	156-60-5	<2.5			
1,2-Dichloropropane	78-87-5	<2.5			
1,3-Dichloropropane	142-28-9	<2.5			
2,2-Dichloropropane	594-20-7	<2.5			
1,1-Dichloropropene	563-58-6	<2.5			
cis-1,3-Dichloropropene	10061-01-5	<2.5			

<u>Surrogate:</u>	<u>% RC</u>	<u>Acceptable % RC</u>	<u>Dilution Factor:</u> 1
Dibromofluoromethane:	83	33-132 %	<u>Data Qualifiers:</u> None
Toluene-d8:	67	52-130 %	
4-Bromofluorobenzene:	63	30-130 %	

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Lab Reference #: HDR 26116  
Project Name: Naomi Substation  
Project #: 10257467

**Volatile Organics by GC/MS (EPA 8260B)**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS2-0.5-043021	26116-007	4/30/2021 13:32	4/30/2021 10:25	4/30/2021 10:25	5/6/2021 17:03	Soil

<u>ANALYTE</u>	<u>CAS #</u>	<u>µg/kg</u>	<u>ANALYTE</u>	<u>CAS #</u>	<u>µg/kg</u>
t-Amyl methyl ether (TAME)	994-05-8	<10	trans-1,3-Dichloropropene	10061-02-6	<2.5
Benzene	71-43-2	<2.0	Diisopropyl ether (DIPE)	108-20-3	<10
Bromobenzene	108-86-1	<2.5	Ethyl t-butyl ether (ETBE)	637-92-3	<10
Bromochloromethane	74-97-5	<2.5	Ethylbenzene	100-41-4	<2.5
Bromodichloromethane	75-27-4	<2.5	Hexachlorobutadiene	87-68-3	<5.0
Bromoform	75-25-2	<2.5	Isopropylbenzene	98-82-8	<2.5
Bromomethane	74-83-9	<10	4-Isopropyltoluene	99-87-6	<2.5
tert-Butyl alcohol (TBA)	75-65-0	<50	Methyl t-butyl ether (MTBE)	1634-04-4	<5.0
n-Butylbenzene	104-51-8	<2.5	Methylene chloride	75-09-2	<10
sec-Butylbenzene	135-98-8	<2.5	Naphthalene	91-20-3	<2.5
tert-Butylbenzene	98-06-6	<2.5	n-Propylbenzene	103-65-1	<2.5
Carbon tetrachloride	56-23-5	<2.5	Styrene	100-42-5	<2.5
Chlorobenzene	108-90-7	<2.5	1,1,1,2-Tetrachloroethane	630-20-6	<2.5
Chloroethane	75-00-3	<5.0	1,1,2,2-Tetrachloroethane	79-34-5	<2.5
Chloroform	67-66-3	<2.5	Tetrachloroethene	127-18-4	<2.5
Chloromethane	74-87-3	<5.0	Toluene	108-88-3	<2.5
2-Chlorotoluene	95-49-8	<2.5	1,2,3-Trichlorobenzene	87-61-6	<2.5
4-Chlorotoluene	106-43-4	<2.5	1,2,4-Trichlorobenzene	120-82-1	<2.5
Dibromochloromethane	124-48-1	<2.5	1,1,1-Trichloroethane	71-55-6	<2.5
1,2-Dibromo-3-chloropropane	96-12-8	<5.0	1,1,2-Trichloroethane	79-00-5	<2.5
1,2-Dibromoethane	106-93-4	<2.5	Trichloroethene	79-01-6	<2.5
Dibromomethane	74-95-3	<2.5	Trichlorofluoromethane	75-69-4	<5.0
1,2-Dichlorobenzene	95-50-1	<2.5	1,2,3-Trichloropropane	96-18-4	<2.5
1,3-Dichlorobenzene	541-73-1	<2.5	1,2,4-Trimethylbenzene	95-63-6	<2.5
1,4-Dichlorobenzene	106-46-7	<2.5	1,3,5-Trimethylbenzene	108-67-8	<2.5
Dichlorodifluoromethane	75-71-8	<2.5	Vinyl Chloride	75-01-4	<2.5
1,1-Dichloroethane	75-34-3	<2.5	m- & p-Xylenes	179601-23-1	<5.0
1,2-Dichloroethane	107-06-2	<2.5	o-Xylene	95-47-6	<2.5
1,1-Dichloroethene	75-35-4	<2.5			
cis-1,2-Dichloroethene	156-59-2	<2.5			
trans-1,2-Dichloroethene	156-60-5	<2.5			
1,2-Dichloropropane	78-87-5	<2.5			
1,3-Dichloropropane	142-28-9	<2.5			
2,2-Dichloropropane	594-20-7	<2.5			
1,1-Dichloropropene	563-58-6	<2.5			
cis-1,3-Dichloropropene	10061-01-5	<2.5			

<u>Surrogate:</u>	<u>% RC</u>	<u>Acceptable % RC</u>	<u>Dilution Factor:</u> 1
Dibromofluoromethane:	82	33-132 %	<u>Data Qualifiers:</u> None
Toluene-d8:	64	52-130 %	
4-Bromofluorobenzene:	57	30-130 %	

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Lab Reference #: HDR 26116  
 Project Name: Naomi Substation  
 Project #: 10257467

**Volatile Organics by GC/MS (EPA 8260B)**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
SS1-0.5-043021	26116-008	4/30/2021 13:32	4/30/2021 10:30	4/30/2021 10:30	5/6/2021 17:23	Soil

<u>ANALYTE</u>	<u>CAS #</u>	<u>µg/kg</u>	<u>ANALYTE</u>	<u>CAS #</u>	<u>µg/kg</u>
t-Amyl methyl ether (TAME)	994-05-8	<10	trans-1,3-Dichloropropene	10061-02-6	<2.5
Benzene	71-43-2	<2.0	Diisopropyl ether (DIPE)	108-20-3	<10
Bromobenzene	108-86-1	<2.5	Ethyl t-butyl ether (ETBE)	637-92-3	<10
Bromochloromethane	74-97-5	<2.5	Ethylbenzene	100-41-4	<2.5
Bromodichloromethane	75-27-4	<2.5	Hexachlorobutadiene	87-68-3	<5.0
Bromoform	75-25-2	<2.5	Isopropylbenzene	98-82-8	<2.5
Bromomethane	74-83-9	<10	4-Isopropyltoluene	99-87-6	<2.5
tert-Butyl alcohol (TBA)	75-65-0	<50	Methyl t-butyl ether (MTBE)	1634-04-4	<5.0
n-Butylbenzene	104-51-8	<2.5	Methylene chloride	75-09-2	<10
sec-Butylbenzene	135-98-8	<2.5	Naphthalene	91-20-3	<2.5
tert-Butylbenzene	98-06-6	<2.5	n-Propylbenzene	103-65-1	<2.5
Carbon tetrachloride	56-23-5	<2.5	Styrene	100-42-5	<2.5
Chlorobenzene	108-90-7	<2.5	1,1,1,2-Tetrachloroethane	630-20-6	<2.5
Chloroethane	75-00-3	<5.0	1,1,2,2-Tetrachloroethane	79-34-5	<2.5
Chloroform	67-66-3	<2.5	Tetrachloroethene	127-18-4	<2.5
Chloromethane	74-87-3	<5.0	Toluene	108-88-3	<2.5
2-Chlorotoluene	95-49-8	<2.5	1,2,3-Trichlorobenzene	87-61-6	<2.5
4-Chlorotoluene	106-43-4	<2.5	1,2,4-Trichlorobenzene	120-82-1	<2.5
Dibromochloromethane	124-48-1	<2.5	1,1,1-Trichloroethane	71-55-6	<2.5
1,2-Dibromo-3-chloropropane	96-12-8	<5.0	1,1,2-Trichloroethane	79-00-5	<2.5
1,2-Dibromoethane	106-93-4	<2.5	Trichloroethene	79-01-6	<2.5
Dibromomethane	74-95-3	<2.5	Trichlorofluoromethane	75-69-4	<5.0
1,2-Dichlorobenzene	95-50-1	<2.5	1,2,3-Trichloropropane	96-18-4	<2.5
1,3-Dichlorobenzene	541-73-1	<2.5	1,2,4-Trimethylbenzene	95-63-6	<2.5
1,4-Dichlorobenzene	106-46-7	<2.5	1,3,5-Trimethylbenzene	108-67-8	<2.5
Dichlorodifluoromethane	75-71-8	<2.5	Vinyl Chloride	75-01-4	<2.5
1,1-Dichloroethane	75-34-3	<2.5	m- & p-Xylenes	179601-23-1	<5.0
1,2-Dichloroethane	107-06-2	<2.5	o-Xylene	95-47-6	<2.5
1,1-Dichloroethene	75-35-4	<2.5			
cis-1,2-Dichloroethene	156-59-2	<2.5			
trans-1,2-Dichloroethene	156-60-5	<2.5			
1,2-Dichloropropane	78-87-5	<2.5			
1,3-Dichloropropane	142-28-9	<2.5			
2,2-Dichloropropane	594-20-7	<2.5			
1,1-Dichloropropene	563-58-6	<2.5			
cis-1,3-Dichloropropene	10061-01-5	<2.5			

<u>Surrogate:</u>	<u>% RC</u>	<u>Acceptable % RC</u>	<u>Dilution Factor:</u> 1
Dibromofluoromethane:	86	33-132 %	<u>Data Qualifiers:</u> None
Toluene-d8:	69	52-130 %	
4-Bromofluorobenzene:	64	30-130 %	

Mr. Andrew Cherene  
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Long Beach, CA, 90802

Lab Reference #: HDR 26116  
Project Name: Naomi Substation  
Project #: 10257467

**Volatile Organics by GC/MS (EPA 8260B)**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Date Extracted	Date Analyzed	Matrix
Method Blank	MBHT0503211			5/3/2021 11:45	5/6/2021 10:51	Soil

<u>ANALYTE</u>	<u>CAS #</u>	<u>µg/kg</u>	<u>ANALYTE</u>	<u>CAS #</u>	<u>µg/kg</u>
t-Amyl methyl ether (TAME)	994-05-8	<10	trans-1,3-Dichloropropene	10061-02-6	<2.5
Benzene	71-43-2	<2.0	Diisopropyl ether (DIPE)	108-20-3	<10
Bromobenzene	108-86-1	<2.5	Ethyl t-butyl ether (ETBE)	637-92-3	<10
Bromochloromethane	74-97-5	<2.5	Ethylbenzene	100-41-4	<2.5
Bromodichloromethane	75-27-4	<2.5	Hexachlorobutadiene	87-68-3	<5.0
Bromoform	75-25-2	<2.5	Isopropylbenzene	98-82-8	<2.5
Bromomethane	74-83-9	<10	4-Isopropyltoluene	99-87-6	<2.5
tert-Butyl alcohol (TBA)	75-65-0	<50	Methyl t-butyl ether (MTBE)	1634-04-4	<5.0
n-Butylbenzene	104-51-8	<2.5	Methylene chloride	75-09-2	<10
sec-Butylbenzene	135-98-8	<2.5	Naphthalene	91-20-3	<2.5
tert-Butylbenzene	98-06-6	<2.5	n-Propylbenzene	103-65-1	<2.5
Carbon tetrachloride	56-23-5	<2.5	Styrene	100-42-5	<2.5
Chlorobenzene	108-90-7	<2.5	1,1,1,2-Tetrachloroethane	630-20-6	<2.5
Chloroethane	75-00-3	<5.0	1,1,2,2-Tetrachloroethane	79-34-5	<2.5
Chloroform	67-66-3	<2.5	Tetrachloroethene	127-18-4	<2.5
Chloromethane	74-87-3	<5.0	Toluene	108-88-3	<2.5
2-Chlorotoluene	95-49-8	<2.5	1,2,3-Trichlorobenzene	87-61-6	<2.5
4-Chlorotoluene	106-43-4	<2.5	1,2,4-Trichlorobenzene	120-82-1	<2.5
Dibromochloromethane	124-48-1	<2.5	1,1,1-Trichloroethane	71-55-6	<2.5
1,2-Dibromo-3-chloropropane	96-12-8	<5.0	1,1,2-Trichloroethane	79-00-5	<2.5
1,2-Dibromoethane	106-93-4	<2.5	Trichloroethene	79-01-6	<2.5
Dibromomethane	74-95-3	<2.5	Trichlorofluoromethane	75-69-4	<5.0
1,2-Dichlorobenzene	95-50-1	<2.5	1,2,3-Trichloropropane	96-18-4	<2.5
1,3-Dichlorobenzene	541-73-1	<2.5	1,2,4-Trimethylbenzene	95-63-6	<2.5
1,4-Dichlorobenzene	106-46-7	<2.5	1,3,5-Trimethylbenzene	108-67-8	<2.5
Dichlorodifluoromethane	75-71-8	<2.5	Vinyl Chloride	75-01-4	<2.5
1,1-Dichloroethane	75-34-3	<2.5	m- & p-Xylenes	179601-23-1	<5.0
1,2-Dichloroethane	107-06-2	<2.5	o-Xylene	95-47-6	<2.5
1,1-Dichloroethene	75-35-4	<2.5			
cis-1,2-Dichloroethene	156-59-2	<2.5			
trans-1,2-Dichloroethene	156-60-5	<2.5			
1,2-Dichloropropane	78-87-5	<2.5			
1,3-Dichloropropane	142-28-9	<2.5			
2,2-Dichloropropane	594-20-7	<2.5			
1,1-Dichloropropene	563-58-6	<2.5			
cis-1,3-Dichloropropene	10061-01-5	<2.5			

<u>Surrogate:</u>	<u>% RC</u>	<u>Acceptable % RC</u>	<u>Dilution Factor:</u> 1
Dibromofluoromethane:	81	33-132 %	<u>Data Qualifiers:</u> None
Toluene-d8:	70	52-130 %	
4-Bromofluorobenzene:	66	30-130 %	

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Lab Reference #: HDR 26116  
Project Name: Naomi Substation  
Project #: 10257467

**Organics**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
CW C-043021	26116-009	4/30/2021 13:32	4/30/2021 11:20	Wipe

<u>ANALYTE</u>	<u>EPA Method</u>	<u>Result</u>	<u>Units</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Qual</u>	<u>DF</u>
PCB-1016	8082	<4.0	ug/wipe	05/10/21 10:30	05/18/21 12:18	D1,	5
PCB-1221	8082	<4.0	ug/wipe	05/10/21 10:30	05/18/21 12:18	D1,	5
PCB-1232	8082	<4.0	ug/wipe	05/10/21 10:30	05/18/21 12:18	D1,	5
PCB-1242	8082	<4.0	ug/wipe	05/10/21 10:30	05/18/21 12:18	D1,	5
PCB-1248	8082	<4.0	ug/wipe	05/10/21 10:30	05/18/21 12:18	D1,	5
PCB-1254	8082	<4.0	ug/wipe	05/10/21 10:30	05/18/21 12:18	D1,	5
PCB-1260	8082	<4.0	ug/wipe	05/10/21 10:30	05/18/21 12:18	D1,	5

<u>Surrogate</u>	<u>Result (%)</u>	<u>Limits</u>	<u>Qual</u>
Decachlorobiphenyl	100	42 - 142%	D1,

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
CW B-043021	26116-010	4/30/2021 13:32	4/30/2021 11:15	Wipe

<u>ANALYTE</u>	<u>EPA Method</u>	<u>Result</u>	<u>Units</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Qual</u>	<u>DF</u>
PCB-1016	8082	<4.0	ug/wipe	05/10/21 10:30	05/18/21 12:34	D1,	5
PCB-1221	8082	<4.0	ug/wipe	05/10/21 10:30	05/18/21 12:34	D1,	5
PCB-1232	8082	<4.0	ug/wipe	05/10/21 10:30	05/18/21 12:34	D1,	5
PCB-1242	8082	<4.0	ug/wipe	05/10/21 10:30	05/18/21 12:34	D1,	5
PCB-1248	8082	<4.0	ug/wipe	05/10/21 10:30	05/18/21 12:34	D1,	5
PCB-1254	8082	<4.0	ug/wipe	05/10/21 10:30	05/18/21 12:34	D1,	5
PCB-1260	8082	<4.0	ug/wipe	05/10/21 10:30	05/18/21 12:34	D1,	5

<u>Surrogate</u>	<u>Result (%)</u>	<u>Limits</u>	<u>Qual</u>
Decachlorobiphenyl	98	42 - 142%	D1,

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Lab Reference #: HDR 26116  
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Project #: 10257467

**Organics**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
CW A-043021	26116-011	4/30/2021 13:32	4/30/2021 11:10	Wipe

ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
PCB-1016	8082	<4.0	ug/wipe	05/10/21 10:30	05/18/21 12:49	D1,	5
PCB-1221	8082	<4.0	ug/wipe	05/10/21 10:30	05/18/21 12:49	D1,	5
PCB-1232	8082	<4.0	ug/wipe	05/10/21 10:30	05/18/21 12:49	D1,	5
PCB-1242	8082	<4.0	ug/wipe	05/10/21 10:30	05/18/21 12:49	D1,	5
PCB-1248	8082	<4.0	ug/wipe	05/10/21 10:30	05/18/21 12:49	D1,	5
PCB-1254	8082	<4.0	ug/wipe	05/10/21 10:30	05/18/21 12:49	D1,	5
PCB-1260	8082	<4.0	ug/wipe	05/10/21 10:30	05/18/21 12:49	D1,	5

Surrogate	Result (%)	Limits	Qual
Decachlorobiphenyl	105	42 - 142%	D1,

Method Blank	Soil
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MB ID	ANALYTE	EPA Method	Result	Units	Date Extracted	Date Analyzed	Qual	DF
MBAT0510211	PCB-1016	8082	<0.80	ug/wipe	05/10/21 10:30	05/14/21 16:53	--	1
MBAT0510211	PCB-1221	8082	<0.80	ug/wipe	05/10/21 10:30	05/14/21 16:53	--	1
MBAT0510211	PCB-1232	8082	<0.80	ug/wipe	05/10/21 10:30	05/14/21 16:53	--	1
MBAT0510211	PCB-1242	8082	<0.80	ug/wipe	05/10/21 10:30	05/14/21 16:53	--	1
MBAT0510211	PCB-1248	8082	<0.80	ug/wipe	05/10/21 10:30	05/14/21 16:53	--	1
MBAT0510211	PCB-1254	8082	<0.80	ug/wipe	05/10/21 10:30	05/14/21 16:53	--	1
MBAT0510211	PCB-1260	8082	<0.80	ug/wipe	05/10/21 10:30	05/14/21 16:53	--	1

Surrogate	Result (%)	Limits	Qual
Decachlorobiphenyl	90	42 - 142%	--

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Lab Reference #: HDR 26116  
 Project Name: Naomi Substation  
 Project #: 10257467

**Metals**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS8-0.5-043021	26116-001	4/30/2021 13:32	4/30/2021 10:00	Soil

<u>ANALYTE</u>	<u>EPA Method</u>	<u>Result</u>	<u>Units</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Qual</u>	<u>DF</u>
Antimony	6010B	<2.0	mg/kg	05/02/21 10:00	05/04/21 15:47	--	1
Arsenic	6010B	3.8	mg/kg	05/02/21 10:00	05/04/21 15:47	--	1
Barium	6010B	140	mg/kg	05/02/21 10:00	05/04/21 15:47	--	1
Beryllium	6010B	<0.50	mg/kg	05/02/21 10:00	05/04/21 15:47	--	1
Cadmium	6010B	0.62	mg/kg	05/02/21 10:00	05/04/21 15:47	--	1
Chromium	6010B	18	mg/kg	05/02/21 10:00	05/04/21 15:47	--	1
Cobalt	6010B	12	mg/kg	05/02/21 10:00	05/04/21 15:47	--	1
Copper	6010B	28	mg/kg	05/02/21 10:00	05/04/21 15:47	--	1
Lead	6010B	7.6	mg/kg	05/02/21 10:00	05/04/21 15:47	--	1
Mercury	7471A	<0.10	mg/kg	05/07/21 11:12	05/07/21 15:12	--	1
Molybdenum	6010B	<1.0	mg/kg	05/02/21 10:00	05/04/21 15:47	--	1
Nickel	6010B	13	mg/kg	05/02/21 10:00	05/04/21 15:47	--	1
Selenium	6010B	<4.8	mg/kg	05/02/21 10:00	05/04/21 15:47	--	1
Silver	6010B	<0.50	mg/kg	05/02/21 10:00	05/04/21 15:47	--	1
Thallium	6010B	<2.0	mg/kg	05/02/21 10:00	05/04/21 15:47	--	1
Vanadium	6010B	44	mg/kg	05/02/21 10:00	05/04/21 15:47	--	1
Zinc	6010B	120	mg/kg	05/02/21 10:00	05/04/21 15:47	--	1



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Lab Reference #: HDR 26116  
Project Name: Naomi Substation  
Project #: 10257467

**Metals**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS7-0.5-043021	26116-002	4/30/2021 13:32	4/30/2021 10:05	Soil

<u>ANALYTE</u>	<u>EPA Method</u>	<u>Result</u>	<u>Units</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Qual</u>	<u>DF</u>
Antimony	6010B	<2.0	mg/kg	05/02/21 10:00	05/04/21 15:50	--	1
Arsenic	6010B	4.1	mg/kg	05/02/21 10:00	05/04/21 15:50	--	1
Barium	6010B	130	mg/kg	05/02/21 10:00	05/04/21 15:50	--	1
Beryllium	6010B	<0.50	mg/kg	05/02/21 10:00	05/04/21 15:50	--	1
Cadmium	6010B	0.67	mg/kg	05/02/21 10:00	05/04/21 15:50	--	1
Chromium	6010B	18	mg/kg	05/02/21 10:00	05/04/21 15:50	--	1
Cobalt	6010B	12	mg/kg	05/02/21 10:00	05/04/21 15:50	--	1
Copper	6010B	36	mg/kg	05/02/21 10:00	05/04/21 15:50	--	1
Lead	6010B	16	mg/kg	05/02/21 10:00	05/04/21 15:50	--	1
Mercury	7471A	<0.10	mg/kg	05/07/21 11:12	05/07/21 15:14	--	1
Molybdenum	6010B	<1.0	mg/kg	05/02/21 10:00	05/04/21 15:50	--	1
Nickel	6010B	38	mg/kg	05/02/21 10:00	05/04/21 15:50	--	1
Selenium	6010B	<4.8	mg/kg	05/02/21 10:00	05/04/21 15:50	--	1
Silver	6010B	<0.50	mg/kg	05/02/21 10:00	05/04/21 15:50	--	1
Thallium	6010B	<2.0	mg/kg	05/02/21 10:00	05/04/21 15:50	--	1
Vanadium	6010B	43	mg/kg	05/02/21 10:00	05/04/21 15:50	--	1
Zinc	6010B	160	mg/kg	05/02/21 10:00	05/04/21 15:50	--	1

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Lab Reference #: HDR 26116  
Project Name: Naomi Substation  
Project #: 10257467

**Metals**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS6-0.5-043021	26116-003	4/30/2021 13:32	4/30/2021 10:10	Soil

<u>ANALYTE</u>	<u>EPA Method</u>	<u>Result</u>	<u>Units</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Qual</u>	<u>DF</u>
Antimony	6010B	<2.0	mg/kg	05/02/21 10:00	05/04/21 15:54	--	1
Arsenic	6010B	3.9	mg/kg	05/02/21 10:00	05/04/21 15:54	--	1
Barium	6010B	100	mg/kg	05/02/21 10:00	05/04/21 15:54	--	1
Beryllium	6010B	<0.50	mg/kg	05/02/21 10:00	05/04/21 15:54	--	1
Cadmium	6010B	11	mg/kg	05/02/21 10:00	05/04/21 15:54	--	1
Chromium	6010B	17	mg/kg	05/02/21 10:00	05/04/21 15:54	--	1
Cobalt	6010B	10	mg/kg	05/02/21 10:00	05/04/21 15:54	--	1
Copper	6010B	120	mg/kg	05/02/21 10:00	05/04/21 15:54	--	1
Lead	6010B	21	mg/kg	05/02/21 10:00	05/04/21 15:54	--	1
Mercury	7471A	<0.10	mg/kg	05/07/21 11:12	05/07/21 15:16	--	1
Molybdenum	6010B	<1.0	mg/kg	05/02/21 10:00	05/04/21 15:54	--	1
Nickel	6010B	12	mg/kg	05/02/21 10:00	05/04/21 15:54	--	1
Selenium	6010B	<4.8	mg/kg	05/02/21 10:00	05/04/21 15:54	--	1
Silver	6010B	<0.50	mg/kg	05/02/21 10:00	05/04/21 15:54	--	1
Thallium	6010B	<2.0	mg/kg	05/02/21 10:00	05/04/21 15:54	--	1
Vanadium	6010B	38	mg/kg	05/02/21 10:00	05/04/21 15:54	--	1
Zinc	6010B	1800	mg/kg	05/02/21 10:00	05/04/21 15:54	--	1

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Lab Reference #: HDR 26116  
 Project Name: Naomi Substation  
 Project #: 10257467

**Metals**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS5-0.5-043021	26116-004	4/30/2021 13:32	4/30/2021 10:14	Soil

<u>ANALYTE</u>	<u>EPA Method</u>	<u>Result</u>	<u>Units</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Qual</u>	<u>DF</u>
Antimony	6010B	<2.0	mg/kg	05/02/21 10:00	05/04/21 16:00	--	1
Arsenic	6010B	12	mg/kg	05/02/21 10:00	05/04/21 16:00	--	1
Barium	6010B	120	mg/kg	05/02/21 10:00	05/04/21 16:00	--	1
Beryllium	6010B	<0.50	mg/kg	05/02/21 10:00	05/04/21 16:00	--	1
Cadmium	6010B	3.8	mg/kg	05/02/21 10:00	05/04/21 16:00	--	1
Chromium	6010B	17	mg/kg	05/02/21 10:00	05/04/21 16:00	--	1
Cobalt	6010B	11	mg/kg	05/02/21 10:00	05/04/21 16:00	--	1
Copper	6010B	1300	mg/kg	05/02/21 10:00	05/04/21 16:00	--	1
Lead	6010B	72	mg/kg	05/02/21 10:00	05/04/21 16:00	--	1
Mercury	7471A	<0.10	mg/kg	05/07/21 11:12	05/07/21 15:17	--	1
Molybdenum	6010B	<1.0	mg/kg	05/02/21 10:00	05/04/21 16:00	--	1
Nickel	6010B	16	mg/kg	05/02/21 10:00	05/04/21 16:00	--	1
Selenium	6010B	<4.8	mg/kg	05/02/21 10:00	05/04/21 16:00	--	1
Silver	6010B	<0.50	mg/kg	05/02/21 10:00	05/04/21 16:00	--	1
Thallium	6010B	<2.0	mg/kg	05/02/21 10:00	05/04/21 16:00	--	1
Vanadium	6010B	40	mg/kg	05/02/21 10:00	05/04/21 16:00	--	1
Zinc	6010B	1800	mg/kg	05/02/21 10:00	05/04/21 16:00	--	1

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Lab Reference #: HDR 26116  
 Project Name: Naomi Substation  
 Project #: 10257467

**Metals**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS4-0.5-043021	26116-005	4/30/2021 13:32	4/30/2021 10:18	Soil

<u>ANALYTE</u>	<u>EPA Method</u>	<u>Result</u>	<u>Units</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Qual</u>	<u>DF</u>
Antimony	6010B	<2.0	mg/kg	05/02/21 10:00	05/04/21 16:13	--	1
Arsenic	6010B	4.5	mg/kg	05/02/21 10:00	05/04/21 16:13	--	1
Barium	6010B	130	mg/kg	05/02/21 10:00	05/04/21 16:13	--	1
Beryllium	6010B	<0.50	mg/kg	05/02/21 10:00	05/04/21 16:13	--	1
Cadmium	6010B	1.4	mg/kg	05/02/21 10:00	05/04/21 16:13	--	1
Chromium	6010B	16	mg/kg	05/02/21 10:00	05/04/21 16:13	--	1
Cobalt	6010B	11	mg/kg	05/02/21 10:00	05/04/21 16:13	--	1
Copper	6010B	59	mg/kg	05/02/21 10:00	05/04/21 16:13	--	1
Lead	6010B	12	mg/kg	05/02/21 10:00	05/04/21 16:13	--	1
Mercury	7471A	<0.10	mg/kg	05/07/21 11:12	05/07/21 15:19	--	1
Molybdenum	6010B	<1.0	mg/kg	05/02/21 10:00	05/04/21 16:13	--	1
Nickel	6010B	12	mg/kg	05/02/21 10:00	05/04/21 16:13	--	1
Selenium	6010B	<4.8	mg/kg	05/02/21 10:00	05/04/21 16:13	--	1
Silver	6010B	<0.50	mg/kg	05/02/21 10:00	05/04/21 16:13	--	1
Thallium	6010B	<2.0	mg/kg	05/02/21 10:00	05/04/21 16:13	--	1
Vanadium	6010B	42	mg/kg	05/02/21 10:00	05/04/21 16:13	--	1
Zinc	6010B	580	mg/kg	05/02/21 10:00	05/04/21 16:13	--	1

Mr. Andrew Cherene  
HDR Engineering, Inc.  
100 Oceangate 1120  
Long Beach, CA, 90802

Lab Reference #: HDR 26116  
Project Name: Naomi Substation  
Project #: 10257467

**Metals**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS3-0.5-043021	26116-006	4/30/2021 13:32	4/30/2021 10:22	Soil

<u>ANALYTE</u>	<u>EPA Method</u>	<u>Result</u>	<u>Units</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Qual</u>	<u>DF</u>
Antimony	6010B	<2.0	mg/kg	05/02/21 10:00	05/04/21 16:17	--	1
Arsenic	6010B	5.6	mg/kg	05/02/21 10:00	05/04/21 16:17	--	1
Barium	6010B	130	mg/kg	05/02/21 10:00	05/04/21 16:17	--	1
Beryllium	6010B	<0.50	mg/kg	05/02/21 10:00	05/04/21 16:17	--	1
Cadmium	6010B	1.0	mg/kg	05/02/21 10:00	05/04/21 16:17	--	1
Chromium	6010B	18	mg/kg	05/02/21 10:00	05/04/21 16:17	--	1
Cobalt	6010B	12	mg/kg	05/02/21 10:00	05/04/21 16:17	--	1
Copper	6010B	35	mg/kg	05/02/21 10:00	05/04/21 16:17	--	1
Lead	6010B	13	mg/kg	05/02/21 10:00	05/04/21 16:17	--	1
Mercury	7471A	<0.10	mg/kg	05/07/21 11:12	05/07/21 15:21	--	1
Molybdenum	6010B	<1.0	mg/kg	05/02/21 10:00	05/04/21 16:17	--	1
Nickel	6010B	12	mg/kg	05/02/21 10:00	05/04/21 16:17	--	1
Selenium	6010B	<4.8	mg/kg	05/02/21 10:00	05/04/21 16:17	--	1
Silver	6010B	<0.50	mg/kg	05/02/21 10:00	05/04/21 16:17	--	1
Thallium	6010B	<2.0	mg/kg	05/02/21 10:00	05/04/21 16:17	--	1
Vanadium	6010B	43	mg/kg	05/02/21 10:00	05/04/21 16:17	--	1
Zinc	6010B	160	mg/kg	05/02/21 10:00	05/04/21 16:17	--	1

Mr. Andrew Cherene  
 HDR Engineering, Inc.  
 100 Oceangate 1120  
 Long Beach, CA, 90802

Lab Reference #: HDR 26116  
 Project Name: Naomi Substation  
 Project #: 10257467

**Metals**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS2-0.5-043021	26116-007	4/30/2021 13:32	4/30/2021 10:25	Soil

<u>ANALYTE</u>	<u>EPA Method</u>	<u>Result</u>	<u>Units</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Qual</u>	<u>DF</u>
Antimony	6010B	<2.0	mg/kg	05/02/21 10:00	05/04/21 16:20	--	1
Arsenic	6010B	<2.0	mg/kg	05/02/21 10:00	05/04/21 16:20	--	1
Barium	6010B	93	mg/kg	05/02/21 10:00	05/04/21 16:20	--	1
Beryllium	6010B	<0.50	mg/kg	05/02/21 10:00	05/04/21 16:20	--	1
Cadmium	6010B	<0.50	mg/kg	05/02/21 10:00	05/04/21 16:20	--	1
Chromium	6010B	11	mg/kg	05/02/21 10:00	05/04/21 16:20	--	1
Cobalt	6010B	8.2	mg/kg	05/02/21 10:00	05/04/21 16:20	--	1
Copper	6010B	17	mg/kg	05/02/21 10:00	05/04/21 16:20	--	1
Lead	6010B	8.6	mg/kg	05/02/21 10:00	05/04/21 16:20	--	1
Mercury	7471A	0.15	mg/kg	05/07/21 11:12	05/07/21 15:23	--	1
Molybdenum	6010B	<1.0	mg/kg	05/02/21 10:00	05/04/21 16:20	--	1
Nickel	6010B	7.4	mg/kg	05/02/21 10:00	05/04/21 16:20	--	1
Selenium	6010B	<4.8	mg/kg	05/02/21 10:00	05/04/21 16:20	--	1
Silver	6010B	<0.50	mg/kg	05/02/21 10:00	05/04/21 16:20	--	1
Thallium	6010B	<2.0	mg/kg	05/02/21 10:00	05/04/21 16:20	--	1
Vanadium	6010B	31	mg/kg	05/02/21 10:00	05/04/21 16:20	--	1
Zinc	6010B	88	mg/kg	05/02/21 10:00	05/04/21 16:20	--	1

Mr. Andrew Cherene  
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 100 Oceangate 1120  
 Long Beach, CA, 90802

Lab Reference #: HDR 26116  
 Project Name: Naomi Substation  
 Project #: 10257467

**Metals**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS1-0.5-043021	26116-008	4/30/2021 13:32	4/30/2021 10:30	Soil

<u>ANALYTE</u>	<u>EPA Method</u>	<u>Result</u>	<u>Units</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Qual</u>	<u>DF</u>
Antimony	6010B	<2.0	mg/kg	05/02/21 10:00	05/04/21 16:23	--	1
Arsenic	6010B	<2.0	mg/kg	05/02/21 10:00	05/04/21 16:23	--	1
Barium	6010B	98	mg/kg	05/02/21 10:00	05/04/21 16:23	--	1
Beryllium	6010B	<0.50	mg/kg	05/02/21 10:00	05/04/21 16:23	--	1
Cadmium	6010B	1.3	mg/kg	05/02/21 10:00	05/04/21 16:23	--	1
Chromium	6010B	12	mg/kg	05/02/21 10:00	05/04/21 16:23	--	1
Cobalt	6010B	8.3	mg/kg	05/02/21 10:00	05/04/21 16:23	--	1
Copper	6010B	96	mg/kg	05/02/21 10:00	05/04/21 16:23	--	1
Lead	6010B	14	mg/kg	05/02/21 10:00	05/04/21 16:23	--	1
Mercury	7471A	<0.10	mg/kg	05/07/21 11:12	05/07/21 15:28	--	1
Molybdenum	6010B	<1.0	mg/kg	05/02/21 10:00	05/04/21 16:23	--	1
Nickel	6010B	8.2	mg/kg	05/02/21 10:00	05/04/21 16:23	--	1
Selenium	6010B	<4.8	mg/kg	05/02/21 10:00	05/04/21 16:23	--	1
Silver	6010B	<0.50	mg/kg	05/02/21 10:00	05/04/21 16:23	--	1
Thallium	6010B	<2.0	mg/kg	05/02/21 10:00	05/04/21 16:23	--	1
Vanadium	6010B	32	mg/kg	05/02/21 10:00	05/04/21 16:23	--	1
Zinc	6010B	320	mg/kg	05/02/21 10:00	05/04/21 16:23	--	1

Mr. Andrew Cherene  
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Long Beach, CA, 90802

Lab Reference #: HDR 26116  
Project Name: Naomi Substation  
Project #: 10257467

**Metals**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix				
Method Blank				Soil				
<u>MB ID</u>	<u>ANALYTE</u>	<u>EPA Method</u>	<u>Result</u>	<u>Units</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Qual</u>	<u>DF</u>
MBIR0502211	Antimony	6010B	<2.0	mg/kg	05/02/21 10:00	05/04/21 15:10	--	1
MBIR0502211	Arsenic	6010B	<2.0	mg/kg	05/02/21 10:00	05/04/21 15:10	--	1
MBIR0502211	Barium	6010B	<1.0	mg/kg	05/02/21 10:00	05/04/21 15:10	--	1
MBIR0502211	Beryllium	6010B	<0.50	mg/kg	05/02/21 10:00	05/04/21 15:10	--	1
MBIR0502211	Cadmium	6010B	<0.50	mg/kg	05/02/21 10:00	05/04/21 15:10	--	1
MBIR0502211	Chromium	6010B	<0.50	mg/kg	05/02/21 10:00	05/04/21 15:10	--	1
MBIR0502211	Cobalt	6010B	<0.50	mg/kg	05/02/21 10:00	05/04/21 15:10	--	1
MBIR0502211	Copper	6010B	<5.0	mg/kg	05/02/21 10:00	05/04/21 15:10	--	1
MBIR0502211	Lead	6010B	<0.80	mg/kg	05/02/21 10:00	05/04/21 15:10	--	1
MBSR0507211	Mercury	7471A	<0.10	mg/kg	05/07/21 11:12	05/07/21 11:12	--	1
MBIR0502211	Molybdenum	6010B	<1.0	mg/kg	05/02/21 10:00	05/04/21 15:10	--	1
MBIR0502211	Nickel	6010B	<1.0	mg/kg	05/02/21 10:00	05/04/21 15:10	--	1
MBIR0502211	Selenium	6010B	<4.8	mg/kg	05/02/21 10:00	05/04/21 15:10	--	1
MBIR0502211	Silver	6010B	<0.50	mg/kg	05/02/21 10:00	05/04/21 15:10	--	1
MBIR0502211	Thallium	6010B	<2.0	mg/kg	05/02/21 10:00	05/04/21 15:10	--	1
MBIR0502211	Vanadium	6010B	<0.50	mg/kg	05/02/21 10:00	05/04/21 15:10	--	1
MBIR0502211	Zinc	6010B	<5.0	mg/kg	05/02/21 10:00	05/04/21 15:10	--	1



**QA/QC Report**  
**for**  
**Extractable Fuel Hydrocarbons (EPA 8015B/8015M)**  
Reporting units: ppm

**Matrix Spike (MS) / Matrix Spike Duplicate (MSD)**

Date of Extraction: 5/4/2021 10:30

Date of Analysis: 5/11/2021 19:52

Dup Date of Analysis: 5/11/2021 20:13

Laboratory Sample #: 26116-007

MS/MSD Qualifiers: M1,

Reference #: HDR 26116

Analyte	R1	SPC CONC	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
EFH as Diesel	0.00	1000	1390	1380	139	138	1	49-130	24	<input checked="" type="checkbox"/>

**Surrogate Recoveries for Spike Samples**

Surrogate (%RC)	MS	MSD	Qual
Octacosane	103	109	<input type="checkbox"/>

LCS	LCSD	Qual
92	95	<input type="checkbox"/>

ACP % RC
20-181

**Laboratory Control Sample**

Date of Extraction: 5/3/2021 11:00

Date of Analysis: 5/11/2021 19:12

Dup Date of Analysis: 5/11/2021 19:32

Laboratory Sample #: AV0503212

LCS Qualifiers: None

Analyte	SPC CONC	LCS	LCSD	%LCS	%LCSD	RPD	ACP %LCS	ACP RPD	Qual
EFH as Diesel	1000	1160	1220	116	122	5	56-130	20	<input type="checkbox"/>

**QA/QC Report**  
**for**  
**Volatile Fuel Hydrocarbons (EPA 8015B)**  
Reporting units: ppm

**Matrix Spike (MS) / Matrix Spike Duplicate (MSD)**

Date of Extraction: 5/11/2021 10:25

Date of Analysis: 5/11/2021 12:08

Dup Date of Analysis: 5/11/2021 12:26

Laboratory Sample #: 26117-001

MS/MSD Qualifiers: None

Reference #: HDR 26116

Analyte	R1	SPC CONC	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
VFH as Gasoline	0.00	0.250	0.274	0.277	110	111	1	60-136	20	<input type="checkbox"/>

**Surrogate Recoveries for Spike Samples**

Surrogate (%RC)	MS	MSD	Qual
$\alpha$ - $\alpha$ - $\alpha$ -Trifluorotoluene	85	89	<input type="checkbox"/>

LCS	LCSD	Qual
90	87	<input type="checkbox"/>

ACP % RC
66-130

**Laboratory Control Sample**

Date of Extraction: 5/11/2021 10:25

Date of Analysis: 5/11/2021 11:30

Dup Date of Analysis: 5/11/2021 11:48

Laboratory Sample #: TS0511211

LCS Qualifiers: None

Analyte	SPC CONC	LCS	LCSD	%LCS	%LCSD	RPD	ACP %LCS	ACP RPD	Qual
VFH as Gasoline	0.250	0.279	0.262	112	105	6	60-132	20	<input type="checkbox"/>

**QA/QC Report**  
**for**  
**Polychlorinated Biphenyl's (EPA 8082)**  
Reporting units: ppb

**Matrix Spike (MS) / Matrix Spike Duplicate (MSD)**

Date of Extraction: 5/10/2021 10:30  
Date of Analysis: 5/10/2021 15:24  
Dup Date of Analysis: 5/10/2021 15:39  
Laboratory Sample #: 26128-003  
MS/MSD Qualifiers: None  
Reference #: HDR 26116

Analyte	R1	SPC CONC	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
PCB-1016	0.00	150	130	104	87	69	22	34-130	34	<input type="checkbox"/>
PCB-1260	0.00	150	131	128	87	85	2	40-148	22	<input type="checkbox"/>

**Surrogate Recoveries for Spike Samples**

Surrogate (%RC)	MS	MSD	Qual	LCS	LCSD	Qual	ACP % RC
Decachlorobiphenyl	84	85	<input type="checkbox"/>	89	86	<input type="checkbox"/>	42-142

**Laboratory Control Sample**

Date of Extraction: 5/10/2021 10:30  
Date of Analysis: 5/10/2021 13:22  
Dup Date of Analysis: 5/10/2021 13:37  
Laboratory Sample #: AT0510211  
LCS Qualifiers: None

Analyte	SPC CONC	LCS	LCSD	%LCS	%LCSD	RPD	ACP %LCS	ACP RPD	Qual
PCB-1016	150	140	147	93	98	5	36-130	34	<input type="checkbox"/>
PCB-1260	150	140	133	93	89	5	57-131	20	<input type="checkbox"/>

**QA/QC Report**  
**for**  
**Volatile Organic Compounds (8260B)**  
Reporting Units: ppb

**Matrix Spike (MS) / Matrix Spike Duplicate (MSD)**

Date of Extraction: 5/6/2021 10:30  
Date of Analysis: 5/6/2021 12:35  
Dup Date of Analysis: 5/6/2021 12:55  
Laboratory Sample #: 26114-004  
MS/MSD Qualifiers: None  
Reference #: HDR 26116

Analyte	R1	Spike Conc.	MS	MSD	%MS	%MSD	RPD	ACP %MS	ACP RPD	Qual
Benzene	0.00	10.0	8.90	8.75	89	88	2	70-133	20	--
Chlorobenzene	0.00	10.0	9.71	9.22	97	92	5	70-138	20	--
1,1-Dichloroethene	0.00	10.0	7.29	7.33	73	73	1	41-134	20	--
Toluene	0.00	10.0	8.32	7.97	83	80	4	63-134	20	--
Trichloroethene	0.00	10.0	9.55	9.24	96	92	3	70-134	20	--

**Surrogate Recoveries for Spike Samples**

Surrogate (%RC)	MS	MSD	Qual	LCS	LCSD	Qual	ACP % RC
Dibromofluoromethane	79	84	<input type="checkbox"/>	80	83	<input type="checkbox"/>	33-132
Toluene-d8	65	69	<input type="checkbox"/>	66	70	<input type="checkbox"/>	52-130
4-Bromofluorobenzene	58	65	<input type="checkbox"/>	63	69	<input type="checkbox"/>	30-130

**Laboratory Control Sample (LCS) / Laboratory Control Sample Duplicate (LCSD)**

Date of Extraction: 5/6/2021 9:26  
Date of Analysis: 5/6/2021 11:54  
Dup Date of Analysis: 5/6/2021 12:14  
Laboratory Sample #: HT0506211  
LCS/LCSD Qualifiers: None

Analyte	Spike Conc.	LCS	LCSD	%LCS	%LCSD	RPD	ACP %LCS	ACP RPD	Qual
Benzene	10.0	9.78	9.30	98	93	5	70-130	20	--
Chlorobenzene	10.0	10.6	10.2	106	102	4	70-135	20	--
1,1-Dichloroethene	10.0	7.83	7.51	78	75	4	44-133	20	--
Toluene	10.0	9.13	9.13	91	91	0	64-130	20	--
Trichloroethene	10.0	10.3	9.79	103	98	5	70-135	20	--

**QA/QC Report  
for  
Metals**

Reference #: HDR 26116

Reporting units: ppm

**Matrix Spike (MS) / Matrix Spike Duplicate (MSD)**

6010B/7471A

Laboratory Sample #: 26113-001

Date of Extraction: 05/02/21 10:00

Analyte	MS Date of Analysis	MSD Date of Analysis	R1	SPC CONC	MS	MSD	% MS	% MSD	RPD	ACP %MS	ACP RPD	Qualifiers
Antimony	05/04/21 15:28	05/04/21 15:31	0.00	20.0	7.32	6.55	37	33	11	75-125	20	M2,
Arsenic	05/04/21 15:28	05/04/21 15:31	0.00	20.0	25.7	24.8	129	124	4	75-125	20	M1,
Barium	05/04/21 15:28	05/04/21 15:31	60.0	20.0	90.5	108	153	240	18	75-125	20	M3,
Beryllium	05/04/21 15:28	05/04/21 15:31	0.00	20.0	27.2	26.4	136	132	3	75-125	20	M1,
Cadmium	05/04/21 15:28	05/04/21 15:31	0.00	20.0	21.4	20.9	107	104	2	75-125	20	--
Chromium	05/04/21 15:28	05/04/21 15:31	12.0	20.0	34.5	32.7	113	104	5	75-125	20	--
Cobalt	05/04/21 15:28	05/04/21 15:31	6.00	20.0	28.8	30.2	114	121	5	75-125	20	--
Copper	05/04/21 15:28	05/04/21 15:31	23.0	20.0	50.2	48.5	136	127	3	75-125	20	M3,
Lead	05/04/21 15:28	05/04/21 15:31	19.0	20.0	40.9	39.0	110	100	5	75-125	20	--
Molybdenum	05/04/21 15:28	05/04/21 15:31	0.00	20.0	22.6	21.7	113	109	4	75-125	20	--
Nickel	05/04/21 15:28	05/04/21 15:31	10.0	20.0	31.3	29.3	106	96	7	75-125	20	--
Selenium	05/04/21 15:28	05/04/21 15:31	0.00	20.0	19.8	19.3	99	96	3	75-125	20	--
Silver	05/04/21 15:28	05/04/21 15:31	0.00	20.0	25.9	26.9	129	134	4	75-125	20	M1,
Thallium	05/04/21 15:28	05/04/21 15:31	0.00	20.0	20.3	19.2	101	96	6	75-125	20	--
Vanadium	05/04/21 15:28	05/04/21 15:31	29.0	20.0	56.2	58.4	136	147	4	75-125	20	M3,
Zinc	05/04/21 15:28	05/04/21 15:31	72.0	20.0	91.8	79.0	99	35	15	75-125	20	M3,

**Laboratory Control Spike (LCS) / Laboratory Control Spike Duplicate (LCSD)**

6010B/7471A

Laboratory Sample #: IR0502211

Date of Extraction: 05/02/21 10:00

Analyte	LCS Date of Analysis	LCSD Date of Analysis		SPC CONC	LCS	LCSD	% LCS	% LCSD	RPD	ACP %LCS	ACP RPD	Qualifiers
Antimony	05/04/21 15:13	05/04/21 15:16	--	20.0	19.6	19.5	98	98	1	80-120	20	--
Arsenic	05/04/21 15:13	05/04/21 15:16	--	20.0	22.1	21.5	111	108	3	80-120	20	--
Barium	05/04/21 15:13	05/04/21 15:16	--	20.0	21.3	21.5	106	108	1	80-120	20	--
Beryllium	05/04/21 15:13	05/04/21 15:16	--	20.0	22.8	22.7	114	114	0	80-120	20	--
Cadmium	05/04/21 15:13	05/04/21 15:16	--	20.0	19.5	19.2	98	96	2	80-120	20	--
Chromium	05/04/21 15:13	05/04/21 15:16	--	20.0	19.1	19.3	96	96	1	80-120	20	--
Cobalt	05/04/21 15:13	05/04/21 15:16	--	20.0	22.9	22.5	114	113	2	80-120	20	--
Copper	05/04/21 15:13	05/04/21 15:16	--	20.0	23.4	23.7	117	119	1	80-120	20	--
Lead	05/04/21 15:13	05/04/21 15:16	--	20.0	21.8	21.9	109	109	0	80-120	20	--
Molybdenum	05/04/21 15:13	05/04/21 15:16	--	20.0	22.7	22.2	114	111	2	80-120	20	--
Nickel	05/04/21 15:13	05/04/21 15:16	--	20.0	20.2	20.0	101	100	1	80-120	20	--
Selenium	05/04/21 15:13	05/04/21 15:16	--	20.0	21.2	19.2	106	96	10	80-120	20	--
Silver	05/04/21 15:13	05/04/21 15:16	--	20.0	21.9	22.1	109	111	1	80-120	20	--
Thallium	05/04/21 15:13	05/04/21 15:16	--	20.0	18.4	18.4	92	92	0	80-120	20	--
Vanadium	05/04/21 15:13	05/04/21 15:16	--	20.0	21.4	21.7	107	109	1	80-120	20	--
Zinc	05/04/21 15:13	05/04/21 15:16	--	20.0	23.1	22.6	116	113	2	80-120	20	--

**Matrix Spike (MS) / Matrix Spike Duplicate (MSD)**

6010B/7471A

Laboratory Sample #: 26114-001

Date of Extraction: 05/07/21 11:12

Analyte	MS Date of Analysis	MSD Date of Analysis	R1	SPC CONC	MS	MSD	% MS	% MSD	RPD	ACP %MS	ACP RPD	Qualifiers
Mercury	05/07/21 14:53	05/07/21 14:55	0.00	1.00	1.17	1.14	117	114	3	80-120	20	--

**QA/QC Report  
for  
Metals**

Reference #: HDR 26116

Reporting units: ppm

**Laboratory Control Spike (LCS) / Laboratory Control Spike Duplicate (LCSD)**

**6010B/7471A**

Laboratory Sample #: SR0507211

Date of Extraction: 05/07/21 11:12

Analyte	LCS Date of Analysis	LCSD Date of Analysis		SPC CONC	LCS	LCSD	% LCS	% LCSD	RPD	ACP %LCS	ACP RPD	Qualifiers
Mercury	05/07/21 14:46	05/07/21 14:49	--	1.00	1.14	0.944	114	94	19	80-120	20	--

# Data Qualifier Definitions

## Qualifier

D1 = Sample required dilution due to matrix.

M1 = Matrix spike recovery was high, the associated blank spike recovery was acceptable.

26113-001	6010B	Arsenic	MS/MSD
26113-001	6010B	Beryllium	MS/MSD
26113-001	6010B	Silver	MS/MSD
26116-007	8015B	EFH	MS/MSD

M2 = Matrix spike recovery was low, the associated blank spike recovery was acceptable.

26113-001	6010B	Antimony	MS/MSD
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M3 = The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to spike level. The associated blank spike recovery was acceptable.

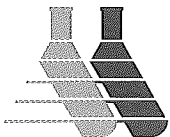
26113-001	6010B	Barium	MS/MSD
26113-001	6010B	Copper	MS/MSD
26113-001	6010B	Vanadium	MS/MSD
26113-001	6010B	Zinc	MSD

## Definition of terms:

R1	Result of unspiked laboratory sample used for matrix spike determination.
SP CONC (or Spike Conc.)	Spike concentration added to sample or blank
MS	Matrix Spike sample result
MSD	Matrix Spike Duplicate sample result
%MS	Percent recovery of MS: $\{(MS-R1) / SP\ CONC\} \times 100$
%MSD	Percent recovery of MSD: $\{(MSD-R1) / SP\ CONC\} \times 100$
RPD (for MS/MSD)	Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
LCS	Laboratory Control Sample result
LCSD	Laboratory Control Sample Duplicate result
%LCS	Percent recovery of LCS: $\{(LCS) / SP\ CONC\} \times 100$
%LCSD	Percent recovery of LCSD: $\{(LCSD) / SP\ CONC\} \times 100$
RPD (for LCS/LCSD)	Relative Percent Difference: $\{(LCS-LCSD) / (LCS+LCSD)\} \times 100 \times 2$
ACP %LCS	Acceptable percent recovery range for Laboratory Control Samples.
ACP %MS	Acceptable percent recovery range for Matrix Spike samples
ACP RPD	Acceptable Relative Percent Difference
D	Detectable, result must be greater than zero
Qual	A checked box indicates a data qualifier was utilized and/or required for this analyte see attached explanation.
ND	Analyte Not Detected



# Analysis Request and Chain of Custody Record



**ORANGE COAST ANALYTICAL, INC.** [www.ocalab.com](http://www.ocalab.com)

3002 Dow, Suite 532  
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(714) 832-0064 Fax (714) 832-0067

4620 E. Elwood, Suite 4  
Phoenix, AZ 85040  
(480) 736-0960 Fax (480) 736-0970

Lab Job No: 26116  
Page 1 of 1

**REQUIRED TURN AROUND TIME:** Standard: X  
72 Hours: \_\_\_\_\_ 48 Hours: \_\_\_\_\_ 24 Hours: \_\_\_\_\_

CUSTOMER INFORMATION			PROJECT INFORMATION				ANALYSIS REQUEST / PRESERVATIVE PCBs 8082 TPH 914/10 8015 VOCs 8260 Metals 6010/7471										REMARKS/PRECAUTIONS						
COMPANY:	SEND REPORT TO:	EMAIL:	PROJECT NAME:	NUMBER:	ADDRESS:	P.O. #:												SAMPLED BY:					
HDR Andrew Cherene andrew.cherene@hdrinc.com 100 Ocean Gate #1120 Long Beach CA 90814 PHONE: 562-264-1104 FAX:			Naomi Substation 0257967 A. Cherene																				
SAMPLE ID	NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER TYPE																		
1 SS8 - 0.5 - 043021	5	4/30	1000	SS	5035	X	X	X	X														
2 SS7 - 0.5 - 043021	5		1005			X	X	X	X														
3 SS6 - 0.5 - 043021	5		1010			X	X	X	X														
4 SS5 - 0.5 - 043021	5		1014			X	X	X	X														
5 SS4 - 0.5 - 043021	5		1018			X	X	X	X														
6 SS3 - 0.5 - 043021	5		1022			X	X	X	X														
7 SS2 - 0.5 - 043021	5		1025			X	X	X	X														
8 SS1 - 0.5 - 043021	5		1030			X	X	X	X														
9 CW C - 043021	1		1120	Wgr	G6Jr	X																	
10 CW B - 043021	1		1115			X																	
11 CW A - 043021	1		1110			X																	

Total No. of Samples: 11 Method of Shipment: \_\_\_\_\_ Preservative: 1 = Ice 2 = HCl 3 = HNO<sub>3</sub> 4 = H<sub>2</sub>SO<sub>4</sub> 5 = NaOH 6 = Other

Relinquished By: <u>[Signature]</u> Date/Time: <u>4/30/21 1332</u>	Received By: _____ Date/Time: _____	Sample Matrix: GW - Groundwater      DW - Drinking Water WW - Wastewater        W - Water SW - Stormwater        SS - Soil/Solid OT - Other
Relinquished By: _____ Date/Time: _____	Received By: _____ Date/Time: _____	
Relinquished By: _____ Date/Time: _____	Received For Lab By: <u>[Signature]</u> Date/Time: <u>4-30-21 1332</u>	Sample Integrity: Intact: _____ On Ice: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No @ <u>14 ± 0 = 14, 20</u> <u>24 3</u> °C

By signing above, client acknowledges responsibility for payment of all services requested on this chain of custody form and any additional services provided in support of this project. Payment is due within 30 days of invoice date unless otherwise agreed upon in writing with Orange Coast Analytical, Inc. All samples remain the property of the client. A disposal fee may be imposed if client fails to follow disposal instructions.

# Sample Receipt Report

Laboratory Reference HDR 26116

Logged in by MM

Received: 04/30/21 13:32 Company Name: HDR Engineering, Inc.  
Method of Shipment: Hand Delivered Project Manager: Mr. Andrew Cherene  
Shipping Container: Cooler Project Name: Naomi Substation  
# Shipping Containers: 1 Project #: 10257467

Sample Quantity  
8 Soil                      3 Wipe

Chain of Custody	Complete <input checked="" type="checkbox"/>	Incomplete <input type="checkbox"/>	None <input type="checkbox"/>
Samples On Ice	Yes, Wet <input checked="" type="checkbox"/>	Yes, Blue <input type="checkbox"/>	No <input type="checkbox"/>
Observed Temp. (°C): <u>14</u>	Thermometer ID: <u>IR#3</u>	Adjusted Temp.: <u>14+0=14</u>	
Shipping Intact	Yes <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>	No <input type="checkbox"/>
Shipping Custody Seals Intact	Yes <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Samples Intact	Yes <input checked="" type="checkbox"/>		No <input type="checkbox"/>
Sample Custody Seals Intact	Yes <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Custody Seals Signed & Dated	Yes <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Proper Test Containers	Yes <input checked="" type="checkbox"/>		No <input type="checkbox"/>
Proper Test Preservations	Yes <input checked="" type="checkbox"/>		No <input type="checkbox"/>
Samples Within Hold Times	Yes <input checked="" type="checkbox"/>		No <input type="checkbox"/>
VOAs Have Zero Headspace	Yes <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sample Labels	Complete <input checked="" type="checkbox"/>	Incomplete <input type="checkbox"/>	None <input type="checkbox"/>
Sample Information Matches COC	Yes <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>	No <input type="checkbox"/>

Notes

Client Notified \_\_\_\_\_ By \_\_\_\_\_ On \_\_\_\_\_



**Orange Coast Analytical, Inc.**

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4620 E. Elwood, Suite 4, Phoenix, AZ 85040 (480) 736-0960 Fax (480) 736-0970

**LABORATORY REPORT FORM**

ORANGE COAST ANALYTICAL, INC.

3002 Dow Suite 532 Tustin, CA 92780

(714) 832-0064

Laboratory Certification (ELAP) No.:2576

Expiration Date: 2023

Los Angeles County Sanitation District Lab ID# 10206

Laboratory Director's Name:

Mark Noorani

Client: HDR Engineering, Inc.

Laboratory Reference: HDR 26116A

Project Name: Naomi Substation

Project Number: 10257467

Date Received: 5/20/2021

Date Reported: 6/7/2021

Chain of Custody Received:

Analytical Method: 6010B,

Mark Noorani, Laboratory Director

Mr. Andrew Cherene  
HDR Engineering, Inc.  
100 Oceangate 1120  
Long Beach, CA, 90802

Lab Reference #: HDR 26116A  
Project Name: Naomi Substation  
Project #: 10257467

### ***Case Narrative***

#### **Sample Receipt:**

All samples on the Chain of Custody were received by OCA at 14°C, on ice.

#### **Holding Times:**

All samples were analyzed within required holding times unless otherwise noted in the data qualifier section of the report.

#### **Analytical Methods:**

Sample analysis was performed following the analytical methods listed on the cover page.

#### **Data Qualifiers:**

Within this report, data qualifiers may have been assigned to clarify deviations in common laboratory procedures or any divergence from laboratory QA/QC criteria. If a data qualifier has been used, it will appear in the back of the report along with its description. All method QA/QC criteria have been met unless otherwise noted in the data qualifier section.

#### **Definition of Terms:**

The definitions of common terms and acronyms used in the report have been placed at the back of the report to assist data users.

#### **Comments:**

None

Mr. Andrew Cherene  
HDR Engineering, Inc.  
100 Oceangate 1120  
Long Beach, CA, 90802

Lab Reference #: HDR 26116A  
Project Name: Naomi Substation  
Project #: 10257467

***Client Sample Summary***

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix
SS6-0.5-043021	26116-003	5/20/2021	4/30/2021	Soil
SS5-0.5-043021	26116-004	5/20/2021	4/30/2021	Soil

Mr. Andrew Cherene  
HDR Engineering, Inc.  
100 Oceangate 1120  
Long Beach, CA, 90802

Lab Reference #: HDR 26116A  
Project Name: Naomi Substation  
Project #: 10257467

**Metals**

Client Sample ID	Lab Sample Number	Date Received	Date Sampled	Matrix				
SS6-0.5-043021	26116-003	5/20/2021 13:32	4/30/2021 10:10	Soil				
<u>ANALYTE</u>	<u>EPA Method</u>	<u>Result</u>	<u>Units</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Qual</u>	<u>DF</u>	
STLC Cadmium	6010B	0.26	mg/L	06/03/21 17:00	06/04/21 12:56	--	1	
SS5-0.5-043021	26116-004	5/20/2021 13:32	4/30/2021 10:14	Soil				
<u>ANALYTE</u>	<u>EPA Method</u>	<u>Result</u>	<u>Units</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Qual</u>	<u>DF</u>	
STLC Copper	6010B	34	mg/L	06/03/21 17:00	06/04/21 12:58	--	1	
STLC Lead	6010B	0.75	mg/L	06/03/21 17:00	06/04/21 12:58	--	1	
Method Blank				Soil				
<u>MB ID</u>	<u>ANALYTE</u>	<u>EPA Method</u>	<u>Result</u>	<u>Units</u>	<u>Date Extracted</u>	<u>Date Analyzed</u>	<u>Qual</u>	<u>DF</u>
MBIR0603214	STLC Cadmium	6010B	<0.050	mg/L	06/03/21 17:00	06/04/21 12:14	--	1
MBIR0603214	STLC Copper	6010B	<0.50	mg/L	06/03/21 17:00	06/04/21 12:14	--	1
MBIR0603214	STLC Lead	6010B	<0.20	mg/L	06/03/21 17:00	06/04/21 12:14	--	1

**QA/QC Report  
for  
Metals**

Reference #: HDR 26116A

Reporting units: ppm

**Matrix Spike (MS) / Matrix Spike Duplicate (MSD)**

**STLC CCR**

Laboratory Sample #: 26099-001

Date of Extraction: 06/03/21 17:00

Analyte	MS Date of Analysis	MSD Date of Analysis	R1	SPC CONC	MS	MSD	% MS	% MSD	RPD	ACP %MS	ACP RPD	Qualifiers
STLC Cadmium	06/04/21 12:22	06/04/21 12:25	0.00	1.00	0.967	0.961	97	96	1	75-125	20	--
STLC Copper	06/04/21 12:22	06/04/21 12:25	0.00	1.00	1.29	1.29	129	129	0	75-125	20	M1,
STLC Lead	06/04/21 12:22	06/04/21 12:25	0.340	1.00	1.23	1.24	89	90	1	75-125	20	--

**Laboratory Control Spike (LCS) / Laboratory Control Spike Duplicate (LCSD)**

**STLC CCR**

Laboratory Sample #: IR0603214

Date of Extraction: 06/03/21 17:00

Analyte	LCS Date of Analysis	LCSD Date of Analysis		SPC CONC	LCS	LCSD	% LCS	% LCSD	RPD	ACP %LCS	ACP RPD	Qualifiers
STLC Cadmium	06/04/21 12:14	06/04/21 12:17	--	1.00	0.961	0.936	96	94	3	80-120	20	--
STLC Copper	06/04/21 12:14	06/04/21 12:17	--	1.00	1.08	1.07	108	107	1	80-120	20	--
STLC Lead	06/04/21 12:14	06/04/21 12:17	--	1.00	0.947	0.935	95	94	1	80-120	20	--

# Data Qualifier Definitions

## Qualifier

M1 = Matrix spike recovery was high, the associated blank spike recovery was acceptable.

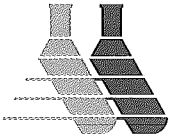
26099-001      STLC CCR      STLC Copper      MS/MSD



## Definition of terms:

R1	Result of unspiked laboratory sample used for matrix spike determination.
SP CONC (or Spike Conc.)	Spike concentration added to sample or blank
MS	Matrix Spike sample result
MSD	Matrix Spike Duplicate sample result
%MS	Percent recovery of MS: $\{(MS-R1) / SP\ CONC\} \times 100$
%MSD	Percent recovery of MSD: $\{(MSD-R1) / SP\ CONC\} \times 100$
RPD (for MS/MSD)	Relative Percent Difference: $\{(MS-MSD) / (MS+MSD)\} \times 100 \times 2$
LCS	Laboratory Control Sample result
LCSD	Laboratory Control Sample Duplicate result
%LCS	Percent recovery of LCS: $\{(LCS) / SP\ CONC\} \times 100$
%LCSD	Percent recovery of LCSD: $\{(LCSD) / SP\ CONC\} \times 100$
RPD (for LCS/LCSD)	Relative Percent Difference: $\{(LCS-LCSD) / (LCS+LCSD)\} \times 100 \times 2$
ACP %LCS	Acceptable percent recovery range for Laboratory Control Samples.
ACP %MS	Acceptable percent recovery range for Matrix Spike samples
ACP RPD	Acceptable Relative Percent Difference
D	Detectable, result must be greater than zero
Qual	A checked box indicates a data qualifier was utilized and/or required for this analyte see attached explanation.
ND	Analyte Not Detected

# Analysis Request and Chain of Custody Record



**ORANGE COAST ANALYTICAL, INC.** [www.ocalab.com](http://www.ocalab.com)

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Phoenix, AZ 85040

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Lab Job No: 26116  
Page 1 of 1

REQUIRED TURN AROUND TIME: Standard: X  
72 Hours: \_\_\_\_\_ 48 Hours: \_\_\_\_\_ 24 Hours: \_\_\_\_\_

CUSTOMER INFORMATION	PROJECT INFORMATION	
COMPANY: <u>HDR</u>	PROJECT NAME: <u>Naomi Substation</u>	ANALYSIS REQUEST / PRESERVATIVE PCBs 8082 TPH 9/10/8015 VOCs 8260 Metals 6010/7471
SEND REPORT TO: <u>Andrew Cherene</u>	NUMBER: <u>10257467</u>	
EMAIL: <u>andrew.cherene@hdrinc.com</u>	ADDRESS:	
ADDRESS: <u>100 Oregate #1120</u>	P.O. #:	
<u>Long Beach CA 90814</u>	SAMPLED BY: <u>A. Cherene</u>	
PHONE: <u>562-264-1104</u> FAX:		

	SAMPLE ID	NO. OF CONTAINERS	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	CONTAINER TYPE											REMARKS/PRECAUTIONS				
							1	2	3	4	5	6	7	8	9	10		11			
1	SS8 - 0.5 - 043021	5	4/30	1000	CS	5035	X	X	X	X											STLC & TCLP
2	SS7 - 0.5 - 043021	5		1005			X	X	X	X											on Metals as needed
3	SS6 - 0.5 - 043021	5		1010			X	X	X	X											
4	SS5 - 0.5 - 043021	5		1014			X	X	X	X											
5	SS4 - 0.5 - 043021	5		1018			X	X	X	X											
6	SS3 - 0.5 - 043021	5		1022			X	X	X	X											
7	SS2 - 0.5 - 043021	5		1025			X	X	X	X											
8	SS1 - 0.5 - 043021	5		1030			X	X	X	X											
9	CWC - 043021	1		1120	Wipe	CoTc	X														
10	CWB - 043021	1		1115			X														
11	CWA - 043021	1		1110			X														

Total No. of Samples: 11 Method of Shipment: \_\_\_\_\_ Preservative: 1 = Ice 2 = HCl 3 = HNO<sub>3</sub> 4 = H<sub>2</sub>SO<sub>4</sub> 5 = NaOH 6 = Other

Relinquished By: <u>[Signature]</u>	Date/Time: <u>4/30/21 1332</u>	Received By: _____	Date/Time: _____	Sample Matrix: _____	DW - Drinking Water
Relinquished By: _____	Date/Time: _____	Received By: _____	Date/Time: _____	WW - Wastewater	W - Water
Relinquished By: _____	Date/Time: _____	Received For Lab By: <u>[Signature]</u>	Date/Time: <u>4-30-21 1332</u>	SW - Stormwater	SS - Soil/Solid
				OT - Other	
				Sample Integrity: _____	Intact: _____ On Ice: <input checked="" type="radio"/> Yes <input type="radio"/> No @ <u>14.0 = 4.0</u> <u>14.3</u> °C

By signing above, client acknowledges responsibility for payment of all services requested on this chain of custody form and any additional services provided in support of this project. Payment is due within \_\_\_\_\_

# Sample Receipt Report

Laboratory Reference: HDR 26116

Logged in by MM

Received: 04/30/21 13:32 Company Name: HDR Engineering, Inc.  
 Method of Shipment: Hand Delivered Project Manager: Mr. Andrew Cherene  
 Shipping Container: Cooler Project Name: Naomi Substation  
 # Shipping Containers: 1 Project #: 10257467

Sample Quantity  
 8 Soil                      3 Wipe

Chain of Custody	Complete <input checked="" type="checkbox"/>	Incomplete <input type="checkbox"/>	None <input type="checkbox"/>
Samples On Ice	Yes, Wet <input checked="" type="checkbox"/>	Yes, Blue <input type="checkbox"/>	No <input type="checkbox"/>
Observed Temp. (°C): <u>14</u>	Thermometer ID: <u>IR#3</u>	Adjusted Temp.: <u>14+0=14</u>	
Shipping Intact	Yes <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>	No <input type="checkbox"/>
Shipping Custody Seals Intact	Yes <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Samples Intact	Yes <input checked="" type="checkbox"/>		No <input type="checkbox"/>
Sample Custody Seals Intact	Yes <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Custody Seals Signed & Dated	Yes <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Proper Test Containers	Yes <input checked="" type="checkbox"/>		No <input type="checkbox"/>
Proper Test Preservations	Yes <input checked="" type="checkbox"/>		No <input type="checkbox"/>
Samples Within Hold Times	Yes <input checked="" type="checkbox"/>		No <input type="checkbox"/>
VOAs Have Zero Headspace	Yes <input type="checkbox"/>	N/A <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Sample Labels	Complete <input checked="" type="checkbox"/>	Incomplete <input type="checkbox"/>	None <input type="checkbox"/>
Sample Information Matches COC	Yes <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>	No <input type="checkbox"/>

**Notes**

Client Notified \_\_\_\_\_ By \_\_\_\_\_ On \_\_\_\_\_