**Appendices** 

Appendix F2: Limited Subsurface Assessment Results, (Phase II ESA) Solana Torrance Development, Torrance, California

# **Appendices**

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# **Kennedy/Jenks Consultants**

#### **Engineers & Scientists**

3210 El Camino Real, Suite 150 Irvine, California 92602 949-261-1577 949-261-2134 (Fax)

17 February 2016

Mr. Derek Empey MKS Residential LLC. 444 S. Cedros Avenue, Suite 180 Solana Beach, CA 92075

Subject: Limited Subsurface Assessment Results

Solana Torrance Development

Torrance, California

K/J Project Number 1583018\*01

Dear Mr. Empey:

Kennedy/Jenks Consultants (Kennedy/Jenks) is pleased to submit this letter report describing the field work, findings, and recommendations regarding a limited subsurface soil vapor assessment conducted at the property located south of the intersection between Hawthorne Boulevard and Via Valmonte in the City of Torrance, California (Site) [Figure 1]. The work was conducted in accordance with Budget Augmentation Request #1, submitted by Kennedy/Jenks to MKS Residential LLC (MKS) on 14 August 2015 (the Proposal).

Kennedy/Jenks understands that MKS intends to purchase the Site and develop the northern third into a master planned multifamily residential complex with at-grade units. The southern two-thirds of the Site is severely sloped and essentially undevelopable. We understand that MKS plans to offer this portion of the Site as permanent open space dedication to the City of Torrance. The Site is a 23.1-acre property in which a former diatomaceous-earth pit mine operated in the northern third from as early as the 1930s to as late as the 1950s. By 2010 the mine had been backfilled with fill imported from the hillside adjoining the Site to the south and other local construction sites. The Site is currently unimproved.

Kennedy/Jenks conducted a Phase I Environmental Site Assessment for the Site and identified evidence of groundwater contamination in the area from the following contributors:

• The former Palos Verdes Landfill site (PVLF) has known groundwater impacts that have migrated north along Hawthorne Boulevard and along the south-southeast boundary of the Site. Groundwater monitoring data from the Fourth Quarter 2014 Operation and Maintenance Summary Report (the most current available) identifies some wells in close proximity to the southern portion of the Site that show Volatile Organic Compound (VOC) and Semi-Volatile Organic Compound (SVOC) constituents in groundwater above their respective Maximum Contaminant Levels (MCLs).

Mr. Derek Empey MKS Residential LLC. 17 February 2016 Page 2

> A former Shell Service Station adjoining the Site to the south had reported petroleumrelated impacts to soil and groundwater. The case received closure from the oversight agency in 2010.

The scope of work presented in the Proposal was intended to provide MKS with a screening-level assessment of shallow soil vapor conditions in the northern portion of the Site to see if off-gassing from groundwater or imported fill presented a potential vapor intrusion risk to the proposed development.

#### **PRE-FIELD ACTIVITIES**

Prior to mobilization, Kennedy/Jenks conducted the following:

- Prepared a Site-specific Health and Safety complying with OSHA standards for potentially hazardous field investigations (29 CFR 1910.120) and CalOSHA standards (8 CCR 5192).
- Visited the Site on 19 August 2015 to mark the work area in white paint and provided notification to the Underground Service Alert (USA) network.
- Subcontracted H&P Mobile Geochemistry Inc. (H&P) to conduct the drilling and provide an onsite mobile laboratory to analyze the soil vapor samples for VOCs.

#### **FIELDWORK**

#### **Soil Vapor Survey**

The soil vapor survey was conducted in accordance with the July 2015 Advisory Active Soil Gas Investigations issued by the Regional Water Quality Control Board (RWQCB) and Department of Toxic Substances Control (DTSC) (the 2015 Advisory).

On 25 August 2015 H&P advanced eight temporary soil vapor wells at the Site to an approximate depth of five feet below the ground surface (bgs) [Figure 2]. The temporary wells consisted of a small vapor implant placed at ~5 feet bgs with 1/8-inch Nylaflow tubing extending to the ground surface. The annulus around the implant was fine (#30) sand extending up to 12 inches above the implant, and bentonite granules to the ground surface. The samples were collected a minimum of two hours after the temporary well was emplaced.

In accordance with the 2015 Advisory, a total of three well volumes were purged from each temporary well prior to sample collection. Samples were collected in gas-tight glass syringes that were immediately transferred to the onsite lab for analysis. Soil vapor samples were analyzed by H&P's onsite mobile laboratory for VOCs by H&P 8260SV. The laboratory conducted the standard internal QA/QC procedures to ensure the data was acceptable.

Upon completion of the sampling activities, the temporary soil vapor wells were destroyed by removing the tubing and implant and pouring a neat cement grout into the borehole.

#### **FINDINGS**

The soil vapor report is included in Attachment A and detected compounds are summarized in Table 1. The following two compounds were detected:

Mr. Derek Empey MKS Residential LLC. 17 February 2016 Page 3

- Benzene was detected in SV-8 at a concentration of 0.15 micrograms per liter (μg/l).
   This detection is slightly above the San Francisco Bay Regional Water Quality Control Board Environmental Screening Level (ESL) for a residential setting (0.042 μg/l). The ESLs are commonly used as for screening-level assessments in California, but may not be strictly accepted by regulatory agencies outside of the San Francisco Bay area.
- Toluene was detected in SV-2 at a concentration of 2.2 μg/l. This detection is well below the ESL for a residential setting (160 μg/l).

The detections of these constituents were not co-located, as these two temporary wells are on opposite ends of the Site, and neither constituent was detected in any of the other soil vapor samples collected from the Site. It is therefore our opinion that the benzene detected at the Site is likely representative of de minimis surface staining from recreational vehicle traffic in the area or equipment used to backfill the former pit mine, as opposed to off-gassing from a regional groundwater plume or impacted fill materials. Based on these findings, there does not appear to a VOC vapor intrusion risk for the proposed residential development.

Very truly yours,

Kennedy/Jenks Consultants, Inc.

Robert E. Logan, III, P.G.

**Principal Geologist** 

# Tables

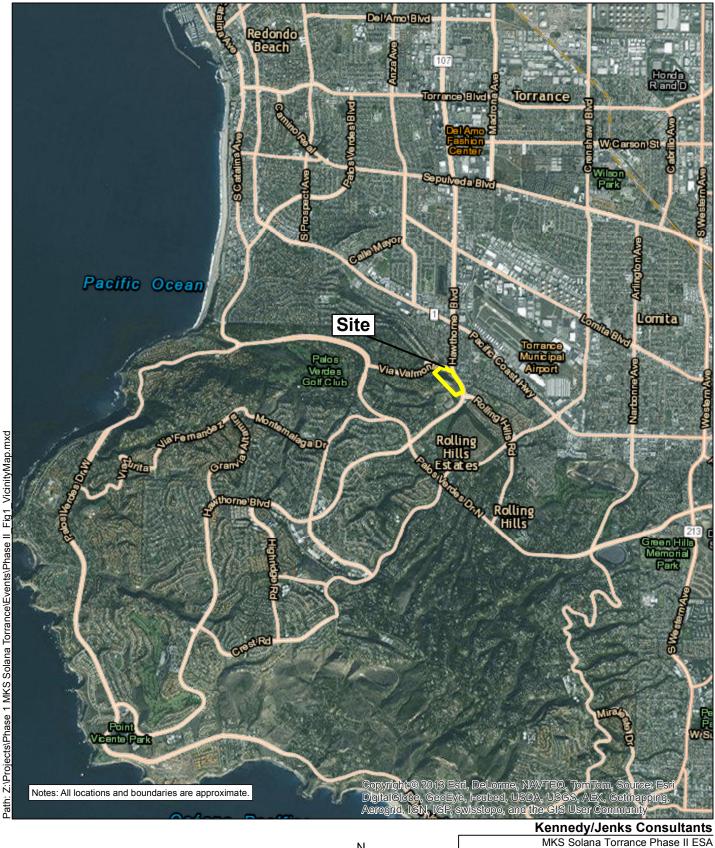
Table 1 - Soil Vapor Results

			Detected A	Analytes <sup>(a)</sup>
		-	Benzene	Toluene
ESLs - Soil Gas Res	sidential Land Use <sup>(b)</sup>		0.042	160
Sample ID	Date Sample	Depth (ft. bgs) <sup>(c)</sup>	μg/L <sup>(d)</sup>	μg/L
SV-1	8/25/2015	5	<0.10 <sup>(e)</sup>	<1.0
SV-2	8/25/2015	5	< 0.10	2.2
SV-3	8/25/2015	5	< 0.10	<1.0
SV-4	8/25/2015	5	< 0.10	<1.0
SV-4 REP	8/25/2015	5	< 0.10	<1.0
SV-5	8/25/2015	5	<0.10	<1.0
SV-6	8/25/2015	5	< 0.10	<1.0
SV-7	8/25/2015	5	< 0.10	<1.0
SV-8	8/25/2015	5	0.15	<1.0

#### Notes:

- (a) Only analytes detected in at least one soil vapor or groundwater sample are shown.
- (b) San Francisco Bay Regional Water Quality Control Board, Summary Table E. Environmental Screening Levels (ESLs) Indoor Air and Soil Gas December 2013 (Vapor Intrusion Concerns).
- (c) ft. bgs = feet below ground surface.
- (d)  $\mu$ g/L = micrograms per liter.
- (e) "<" = Not detected at the laboratory reporting limit.

# Figures





Torrance, California

#### **Vicinity Map**

K/J 1583018\*01 August 2015

Figure 1



100 200

Scale: Feet

#### **Soil Vapor Sample Locations**

K/J 1583018\*01 August 2015

Figure 2

# Attachment A

Analytical Laboratory Report



Mr. Ezaria Nona Kennedy / Jenks Consultants, Inc. 2355 Main Street, Suite 140 Irvine, CA 92614

H&P Project: KJ082515-L6

Client Project: 1583018\*01 / Via Valmonte

Dear Mr. Ezaria Nona:

Enclosed is the analytical report for the above referenced project. The data herein applies to samples as received by H&P Mobile Geochemistry, Inc. on 25-Aug-15 which were analyzed in accordance with the attached Chain of Custody record(s).

The results for all sample analyses and required QA/QC analyses are presented in the following sections and summarized in the documents:

- Sample Summary
- Case Narrative (if applicable)
- Sample Results
- Quality Control Summary
- Notes and Definitions / Appendix
- Chain of Custody
- Sampling Logs (if applicable)

Unless otherwise noted, I certify that all analyses were performed and reviewed in compliance with our Quality Systems Manual and Standard Operating Procedures. This report shall not be reproduced, except in full, without the written approval of H&P Mobile Geochemistry, Inc.

We at H&P Mobile Geochemistry, Inc. sincerely appreciate the opportunity to provide analytical services to you on this project. If you have any questions or concerns regarding this analytical report, please contact me at your convenience at 760-804-9678.

Sincerely,

Janis Villarreal Laboratory Director

Janis Villarreal

H&P Mobile Geochemistry, Inc. is certified under the California ELAP, the National Environmental Laboratory Accreditation Conference (NELAC) and the Department of Defense Accreditation Programs.



2470 Impala Drive Carlsbad, CA 92010 760-804-9678 Phone 760-804-9159 Fax

Kennedy / Jenks Consultants, Inc. Project: KJ082515-L6

2355 Main Street, Suite 140 Project Number: 1583018\*01 / Via Valmonte Reported:
Irvine, CA 92614 Project Manager: Mr. Ezaria Nona 31-Aug-15 14:13

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SV-6	E508116-01	Vapor	25-Aug-15	25-Aug-15
SV-7	E508116-02	Vapor	25-Aug-15	25-Aug-15
SV-8	E508116-03	Vapor	25-Aug-15	25-Aug-15
SV-4	E508116-04	Vapor	25-Aug-15	25-Aug-15
SV-4 REP	E508116-05	Vapor	25-Aug-15	25-Aug-15
SV-3	E508116-06	Vapor	25-Aug-15	25-Aug-15
SV-1	E508116-07	Vapor	25-Aug-15	25-Aug-15
SV-2	E508116-08	Vapor	25-Aug-15	25-Aug-15
SV-5	E508116-09	Vapor	25-Aug-15	25-Aug-15

The percent recoveries for 1,1-Difluoroethane, Dichlorodifluoromethane, Vinyl Chloride, Bromomethane and Chloromethane fell below the method criteria in the continuing calibration verification; any results for these analytes may be biased low.

2470 Impala Drive Carlsbad, CA 92010 760-804-9678 Phone 760-804-9159 Fax

Kennedy / Jenks Consultants, Inc. Project: KJ082515-L6 2355 Main Street, Suite 140 Project Number: 1583018\*01 / Via Valmonte Reported: Irvine, CA 92614 Project Manager: Mr. Ezaria Nona 31-Aug-15 14:13 **DETECTIONS SUMMARY** Sample ID: SV-6 Laboratory ID: E508116-01 Reporting Analyte Method Notes Result Limit Units No Detections Reported Sample ID: SV-7 Laboratory ID: E508116-02 Reporting Analyte Limit Method Notes Result Units No Detections Reported Laboratory ID: Sample ID: **SV-8** E508116-03 Reporting Analyte Limit Method Notes Result Units H&P 8260SV 0.10 Benzene 0.15 ug/l Laboratory ID: Sample ID: SV-4 E508116-04 Reporting Analyte Result Limit Units Method Notes No Detections Reported Sample ID: SV-4 REP Laboratory ID: E508116-05 Reporting Analyte Notes Result Limit Units Method No Detections Reported Sample ID: SV-3 Laboratory ID: E508116-06 Reporting Notes Analyte Limit Units Method Result No Detections Reported Sample ID: SV-1 Laboratory ID: E508116-07 Reporting Analyte Limit Units Method Notes Result No Detections Reported Sample ID: SV-2 Laboratory ID: E508116-08 Reporting Analyte Notes Result Limit Units Method Toluene H&P 8260SV 2.2 1.0 ug/l

2470 Impala Drive Carlsbad, CA 92010 760-804-9678 Phone 760-804-9159 Fax

Kennedy / Jenks Consultants, Inc. Project: KJ082515-L6

2355 Main Street, Suite 140 Project Number: 1583018\*01 / Via Valmonte Reported:

Irvine, CA 92614 Project Manager: Mr. Ezaria Nona 31-Aug-15 14:13

Sample ID: SV-5 Laboratory ID: E508116-09

Reporting

Analyte Result Limit Units Method Notes

No Detections Reported

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Kennedy / Jenks Consultants, Inc.

Project: KJ082515-L6

2355 Main Street, Suite 140 Irvine, CA 92614 Project Number: 1583018\*01 / Via Valmonte

Project Manager: Mr. Ezaria Nona

Reported: 31-Aug-15 14:13

#### **Volatile Organic Compounds by H&P 8260SV**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-6 (E508116-01) Vapor Sampled: 25-Aug-15	Received: 25					*	<i>y</i>		
1,1-Difluoroethane (LCC)	ND	0.50	ug/l	0.05	EH52504	25-Aug-15	25-Aug-15	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.50	"	"	"	"	"	"	
Chloromethane	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	ND	0.05	"	"	"	"	"	"	
Bromomethane	ND	0.50	"	"	"	"	"	"	
Chloroethane	ND	0.50	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.50	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.50	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.50	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.50	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
Bromochloromethane	ND	0.50	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.10	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.10	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.10	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
Bromodichloromethane	ND	0.50	"	"	"	"	"	"	
Dibromomethane	ND	0.50	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	0.10	"	"	"	"	"	"	

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Kennedy / Jenks Consultants, Inc.

Project: KJ082515-L6

2355 Main Street, Suite 140

Project Number: 1583018\*01 / Via Valmonte

Irvine, CA 92614 Project Manager: Mr. Ezaria Nona

Reported: 31-Aug-15 14:13

#### **Volatile Organic Compounds by H&P 8260SV**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-6 (E508116-01) Vapor Sampled: 25-Aug-15	Received: 25-	Aug-15							
Ethylbenzene	ND	0.50	ug/l	0.05	EH52504	25-Aug-15	25-Aug-15	H&P 8260SV	
1,1,1,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	0.50	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Styrene	ND	0.50	"	"	"	"	"	"	
Bromoform	ND	0.50	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.50	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.50	"	"	"	"	"	"	
n-Propylbenzene	ND	0.50	"	"	"	"	"	"	
Bromobenzene	ND	0.50	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.50	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.50	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
n-Butylbenzene	ND	0.50	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.50	"	"	"	"	"	"	
Naphthalene	ND	0.10	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		104 %	75-1	125	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		110 %	75-1		"	"	"	"	
Surrogate: Toluene-d8		106 %	75-1		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.8 %	75-1		"	"	"	"	

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2355 Main Street, Suite 140

Project Number: 1583018\*01 / Via Valmonte

Irvine, CA 92614 Project Manager: Mr. Ezaria Nona

Reported: 31-Aug-15 14:13

#### **Volatile Organic Compounds by H&P 8260SV**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-7 (E508116-02) Vapor Sampled: 25-Aug-15	Received: 25-	-Aug-15							
1,1-Difluoroethane (LCC)	ND	0.50	ug/l	0.05	EH52504	25-Aug-15	25-Aug-15	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.50	"	"	"	"	"	"	
Chloromethane	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	ND	0.05	"	"	"	"	"	"	
Bromomethane	ND	0.50	"	"	"	"	"	"	
Chloroethane	ND	0.50	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.50	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.50	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.50	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.50	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
Bromochloromethane	ND	0.50	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.10	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.10	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.10	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.10	"	"	"	"	"	"	
Bromodichloromethane	ND	0.50	"	"	"	"	"	"	
Dibromomethane	ND	0.50	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND ND	0.50		"	"	"	"	"	
1,1,2-Trichloroethane	ND ND	0.50		"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND ND	0.50	"	"	"	"	"	"	
1,3-Dichloropropane	ND ND	0.50	"	"	"	"	"	"	
Tetrachloroethene	ND ND	0.30	,,	"	"	"	"	"	
Dibromochloromethane	ND ND	0.10	,,	"	"	"	"	"	
Chlorobenzene		0.50	,,	"	"	"	"	"	
Chioropenzene	ND	0.10							

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Kennedy / Jenks Consultants, Inc.

Project: KJ082515-L6

2355 Main Street, Suite 140

Project Number: 1583018\*01 / Via Valmonte

Irvine, CA 92614 Project Manager: Mr. Ezaria Nona

Reported: 31-Aug-15 14:13

### **Volatile Organic Compounds by H&P 8260SV**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-7 (E508116-02) Vapor Sampled: 25-Aug-15	Received: 25-	Aug-15							
Ethylbenzene	ND	0.50	ug/l	0.05	EH52504	25-Aug-15	25-Aug-15	H&P 8260SV	
1,1,1,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	0.50	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Styrene	ND	0.50	"	"	"	"	"	"	
Bromoform	ND	0.50	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.50	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.50	"	"	"	"	"	"	
n-Propylbenzene	ND	0.50	"	"	"	"	"	"	
Bromobenzene	ND	0.50	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.50	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.50	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
n-Butylbenzene	ND	0.50	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.50	"	"	"	"	"	"	
Naphthalene	ND	0.10	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		101 %	75-	125	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		109 %	75-		"	"	"	"	
Surrogate: Toluene-d8		105 %	75-		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.3 %	75-		"	"	"	"	

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Kennedy / Jenks Consultants, Inc.

Project: KJ082515-L6

2355 Main Street, Suite 140

Project Number: 1583018\*01 / Via Valmonte

Irvine, CA 92614 Project Manager: Mr. Ezaria Nona

Reported: 31-Aug-15 14:13

#### **Volatile Organic Compounds by H&P 8260SV**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-8 (E508116-03) Vapor Sampled: 25-Aug-15	Received: 25	-Aug-15				*			
1,1-Difluoroethane (LCC)	ND	0.50	ug/l	0.05	EH52504	25-Aug-15	25-Aug-15	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.50	"	"	"	"	"	"	
Chloromethane	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	ND	0.05	"	"	"	"	"	"	
Bromomethane	ND	0.50	"	"	"	"	"	"	
Chloroethane	ND	0.50	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.50	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.50	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.50	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.50	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
Bromochloromethane	ND	0.50	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.10	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.10	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	0.15	0.10	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
Bromodichloromethane	ND	0.50	"	"	"	"	"	"	
Dibromomethane	ND	0.50	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	0.10	"	"	"	"	"	"	

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Kennedy / Jenks Consultants, Inc.

Project: KJ082515-L6

2355 Main Street, Suite 140

Project Number: 1583018\*01 / Via Valmonte

Irvine, CA 92614 Project Manager: Mr. Ezaria Nona

Reported: 31-Aug-15 14:13

#### **Volatile Organic Compounds by H&P 8260SV**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-8 (E508116-03) Vapor Sampled: 25-Aug-15	Received: 25-A	Aug-15							
Ethylbenzene	ND	0.50	ug/l	0.05	EH52504	25-Aug-15	25-Aug-15	H&P 8260SV	
1,1,1,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	0.50	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Styrene	ND	0.50	"	"	"	"	"	"	
Bromoform	ND	0.50	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.50	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.50	"	"	"	"	"	"	
n-Propylbenzene	ND	0.50	"	"	"	"	"	"	
Bromobenzene	ND	0.50	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.50	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.50	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
n-Butylbenzene	ND	0.50	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.50	"	"	"	"	"	"	
Naphthalene	ND	0.10	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
				·					
Surrogate: Dibromofluoromethane		103 %	75-12		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		108 %	75-12		"	"	"	"	
Surrogate: Toluene-d8		107 %	75-12		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.7 %	75-12	?5	"	"	"	"	

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Kennedy / Jenks Consultants, Inc.

Project: KJ082515-L6

2355 Main Street, Suite 140

Project Number: 1583018\*01 / Via Valmonte

Irvine, CA 92614 Project Manager: Mr. Ezaria Nona

Reported: 31-Aug-15 14:13

#### **Volatile Organic Compounds by H&P 8260SV**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-4 (E508116-04) Vapor Sampled: 25-Aug-15	Received: 25-	-				*	,		
1,1-Difluoroethane (LCC)	ND	0.50	ug/l	0.05	EH52504	25-Aug-15	25-Aug-15	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.50	"	"	"	"	"	"	
Chloromethane	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	ND	0.05	"	"	"	"	"	"	
Bromomethane	ND	0.50	"	"	"	"	"	"	
Chloroethane	ND	0.50	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.50	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.50	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.50	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.50	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
Bromochloromethane	ND	0.50	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.10	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.10	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.10	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
Bromodichloromethane	ND	0.50	"	"	"	"	"	"	
Dibromomethane	ND	0.50	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	0.10	"	"	"	"	"	"	
		2							

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Kennedy / Jenks Consultants, Inc.

Project: KJ082515-L6

2355 Main Street, Suite 140

Project Number: 1583018\*01 / Via Valmonte

Irvine, CA 92614 Project Manager: Mr. Ezaria Nona

Reported: 31-Aug-15 14:13

#### **Volatile Organic Compounds by H&P 8260SV**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-4 (E508116-04) Vapor Sampled: 25-Aug-15	Received: 25-	Aug-15							
Ethylbenzene	ND	0.50	ug/l	0.05	EH52504	25-Aug-15	25-Aug-15	H&P 8260SV	
1,1,1,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	0.50	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Styrene	ND	0.50	"	"	"	"	"	"	
Bromoform	ND	0.50	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.50	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.50	"	"	"	"	"	"	
n-Propylbenzene	ND	0.50	"	"	"	"	"	"	
Bromobenzene	ND	0.50	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.50	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.50	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
n-Butylbenzene	ND	0.50	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.50	"	"	"	"	"	"	
Naphthalene	ND	0.10	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		103 %	75-	125	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		109 %	75-		"	"	"	"	
Surrogate: Toluene-d8		106 %		125	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.6%		125	"	"	"	"	

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Project: KJ082515-L6

2355 Main Street, Suite 140

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Irvine, CA 92614 Project Manager: Mr. Ezaria Nona

Reported: 31-Aug-15 14:13

#### **Volatile Organic Compounds by H&P 8260SV**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-4 REP (E508116-05) Vapor Sampled: 25-Au	g-15 Received	l: 25-Aug-15							
1,1-Difluoroethane (LCC)	ND	0.50	ug/l	0.05	EH52504	25-Aug-15	25-Aug-15	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.50	"	"	"	"	"	"	
Chloromethane	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	ND	0.05	"	"	"	"	"	"	
Bromomethane	ND	0.50	"	"	"	"	"	"	
Chloroethane	ND	0.50	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.50	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.50	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.50	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.50	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
Bromochloromethane	ND	0.50	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.30	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.10	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.10	"	"	"	"	"	"	
Trichloroethene	ND ND	0.10	"	"	"	"	"	"	
1,2-Dichloropropane	ND ND	0.10	"	"	"	"	"	"	
Bromodichloromethane	ND ND	0.50	"	"	"	"	"	"	
Dibromomethane	ND ND	0.50		"	"	"	,,	"	
cis-1,3-Dichloropropene	ND ND	0.50		"	"	"	,,	"	
Toluene	ND ND	1.0		"	"	"	,,	"	
trans-1,3-Dichloropropene	ND ND	0.50	,,	"	"	"	"	"	
1,1,2-Trichloroethane	ND ND	0.50	,,	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND ND	0.50	,,	"	"	"	"	"	
1,3-Dichloropropane		0.50	,,	"	"	"	"	"	
	ND		,,	"	,,	"	"	"	
Tetrachloroethene Dibromochloromethane	ND	0.10		,,	"	"	"	"	
	ND	0.50			"	.,	"	"	
Chlorobenzene	ND	0.10		"	.,	.,	"		

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Kennedy / Jenks Consultants, Inc.

Project: KJ082515-L6

2355 Main Street, Suite 140

Project Number: 1583018\*01 / Via Valmonte

Irvine, CA 92614 Project Manager: Mr. Ezaria Nona

Reported: 31-Aug-15 14:13

#### **Volatile Organic Compounds by H&P 8260SV**

Analyte	R	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-4 REP (E508116-05) Vapor	Sampled: 25-Aug-15	Received	: 25-Aug-15							
Ethylbenzene		ND	0.50	ug/l	0.05	EH52504	25-Aug-15	25-Aug-15	H&P 8260SV	
1,1,1,2-Tetrachloroethane		ND	0.50	"	"	"	"	"	"	
m,p-Xylene		ND	0.50	"	"	"	"	"	"	
o-Xylene		ND	0.50	"	"	"	"	"	"	
Styrene		ND	0.50	"	"	"	"	"	"	
Bromoform		ND	0.50	"	"	"	"	"	"	
Isopropylbenzene (Cumene)		ND	0.50	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane		ND	0.50	"	"	"	"	"	"	
1,2,3-Trichloropropane		ND	0.50	"	"	"	"	"	"	
n-Propylbenzene		ND	0.50	"	"	"	"	"	"	
Bromobenzene		ND	0.50	"	"	"	"	"	"	
1,3,5-Trimethylbenzene		ND	0.50	"	"	"	"	"	"	
2-Chlorotoluene		ND	0.50	"	"	"	"	"	"	
4-Chlorotoluene		ND	0.50	"	"	"	"	"	"	
tert-Butylbenzene		ND	0.50	"	"	"	"	"	"	
1,2,4-Trimethylbenzene		ND	0.50	"	"	"	"	"	"	
sec-Butylbenzene		ND	0.50	"	"	"	"	"	"	
p-Isopropyltoluene		ND	0.50	"	"	"	"	"	"	
1,3-Dichlorobenzene		ND	0.50	"	"	"	"	"	"	
1,4-Dichlorobenzene		ND	0.50	"	"	"	"	"	"	
n-Butylbenzene		ND	0.50	"	"	"	"	"	"	
1,2-Dichlorobenzene		ND	0.50	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane		ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene		ND	0.50	"	"	"	"	"	"	
Hexachlorobutadiene		ND	0.50	"	"	"	"	"	"	
Naphthalene		ND	0.10	"	"	"	"	"	"	
1,2,3-Trichlorobenzene		ND	0.50	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)		ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethan	e		102 %	7	5-125	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d-			102 %		5-125	"	"	"	"	
Surrogate: Toluene-d8	•		106 %		5-125	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	?		98.7 %		5-125	"	"	"	"	

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Kennedy / Jenks Consultants, Inc.

Project: KJ082515-L6

2355 Main Street, Suite 140

Project Number: 1583018\*01 / Via Valmonte

Irvine, CA 92614 Project Manager: Mr. Ezaria Nona

Reported: 31-Aug-15 14:13

#### **Volatile Organic Compounds by H&P 8260SV**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-3 (E508116-06) Vapor Sampled: 25-Aug-15	Received: 25-	Aug-15							
1,1-Difluoroethane (LCC)	ND	0.50	ug/l	0.05	EH52504	25-Aug-15	25-Aug-15	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.50	"	"	"	"	"	"	
Chloromethane	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	ND	0.05	"	"	"	"	"	"	
Bromomethane	ND	0.50	"	"	"	"	"	"	
Chloroethane	ND	0.50	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.50	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.50	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.50	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.50	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
Bromochloromethane	ND	0.50	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.10	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.10	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.10	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
Bromodichloromethane	ND	0.50	"	"	"	"	"	"	
Dibromomethane	ND	0.50	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
Dibromochloromethane	ND	0.10	"	"	"	"	"	"	
Chlorobenzene	ND	0.10	"	"	"	"	"	"	
	140	0.10							

2470 Impala Drive Carlsbad, CA 92010 760-804-9678 Phone 760-804-9159 Fax

Kennedy / Jenks Consultants, Inc.

Project: KJ082515-L6

2355 Main Street, Suite 140 Irvine, CA 92614 Project Number: 1583018\*01 / Via Valmonte

Project Manager: Mr. Ezaria Nona

Reported: 31-Aug-15 14:13

#### **Volatile Organic Compounds by H&P 8260SV**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-3 (E508116-06) Vapor Sampled: 25-Aug-15	Received: 25-	Aug-15							
Ethylbenzene	ND	0.50	ug/l	0.05	EH52504	25-Aug-15	25-Aug-15	H&P 8260SV	
1,1,1,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	0.50	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Styrene	ND	0.50	"	"	"	"	"	"	
Bromoform	ND	0.50	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.50	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.50	"	"	"	"	"	"	
n-Propylbenzene	ND	0.50	"	"	"	"	"	"	
Bromobenzene	ND	0.50	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.50	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.50	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
n-Butylbenzene	ND	0.50	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.50	"	"	"	"	"	"	
Naphthalene	ND	0.10	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		102 %	75-	125	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		109 %	75-		"	"	"	"	
Surrogate: Toluene-d8		106 %		125	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.7 %		125	"	"	"	"	

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Kennedy / Jenks Consultants, Inc.

Project: KJ082515-L6

2355 Main Street, Suite 140

Project Number: 1583018\*01 / Via Valmonte

Irvine, CA 92614 Project Manager: Mr. Ezaria Nona

Reported: 31-Aug-15 14:13

#### **Volatile Organic Compounds by H&P 8260SV**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-1 (E508116-07) Vapor Sampled: 25-Aug-15	Received: 25	-				*	<i>y</i>		
1,1-Difluoroethane (LCC)	ND	0.50	ug/l	0.05	EH52504	25-Aug-15	25-Aug-15	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.50	"	"	"	"	"	"	
Chloromethane	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	ND	0.05	"	"	"	"	"	"	
Bromomethane	ND	0.50	"	"	"	"	"	"	
Chloroethane	ND	0.50	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.50	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.50	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.50	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.50	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
Bromochloromethane	ND	0.50	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.10	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.10	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.10	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
Bromodichloromethane	ND	0.50	"	"	"	"	"	"	
Dibromomethane	ND	0.50	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	0.10	"	"	"	"	"	"	

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Kennedy / Jenks Consultants, Inc.

Project: KJ082515-L6

2355 Main Street, Suite 140

Project Number: 1583018\*01 / Via Valmonte

Irvine, CA 92614 Project Manager: Mr. Ezaria Nona

Reported: 31-Aug-15 14:13

#### **Volatile Organic Compounds by H&P 8260SV**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-1 (E508116-07) Vapor Sampled: 25-Aug-15	Received: 25-	Aug-15							
Ethylbenzene	ND	0.50	ug/l	0.05	EH52504	25-Aug-15	25-Aug-15	H&P 8260SV	
1,1,1,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	0.50	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Styrene	ND	0.50	"	"	"	"	"	"	
Bromoform	ND	0.50	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.50	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.50	"	"	"	"	"	"	
n-Propylbenzene	ND	0.50	"	"	"	"	"	"	
Bromobenzene	ND	0.50	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.50	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.50	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
n-Butylbenzene	ND	0.50	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.50	"	"	"	"	"	"	
Naphthalene	ND	0.10	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		102 %	75-	125	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		109 %	75-		"	"	"	"	
Surrogate: Toluene-d8		105 %	75-		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.3 %	75-		"	"	"	"	

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Kennedy / Jenks Consultants, Inc.

Project: KJ082515-L6

2355 Main Street, Suite 140

Project Number: 1583018\*01 / Via Valmonte

Irvine, CA 92614 Project Manager: Mr. Ezaria Nona

Reported: 31-Aug-15 14:13

#### **Volatile Organic Compounds by H&P 8260SV**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-2 (E508116-08) Vapor Sampled: 25-Aug-15	Received: 25			- 30001		- F T.	,		
1,1-Difluoroethane (LCC)	ND	0.50	ug/l	0.05	EH52504	25-Aug-15	25-Aug-15	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.50	"	"	"	"	"	"	
Chloromethane	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	ND	0.05	"	"	"	"	"	"	
Bromomethane	ND	0.50	"	"	"	"	"	"	
Chloroethane	ND	0.50	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.50	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.50	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.50	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.50	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
Bromochloromethane	ND	0.50	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.10	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.10	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.10	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
Bromodichloromethane	ND	0.50	"	"	"	"	"	"	
Dibromomethane	ND	0.50	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Toluene	2.2	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene	ND	0.10	"	"	"	"	"	"	
Dibromochloromethane	ND	0.50	"	"	"	"	"	"	
Chlorobenzene	ND	0.10	"	"	"	"	"	"	

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Kennedy / Jenks Consultants, Inc.

Project: KJ082515-L6

2355 Main Street, Suite 140 Irvine, CA 92614 Project Number: 1583018\*01 / Via Valmonte Project Manager: Mr. Ezaria Nona

Reported: 31-Aug-15 14:13

#### **Volatile Organic Compounds by H&P 8260SV**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-2 (E508116-08) Vapor Sampled: 25-Aug-15	5 Received: 25-	Aug-15							
Ethylbenzene	ND	0.50	ug/l	0.05	EH52504	25-Aug-15	25-Aug-15	H&P 8260SV	
1,1,1,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	0.50	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Styrene	ND	0.50	"	"	"	"	"	"	
Bromoform	ND	0.50	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.50	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.50	"	"	"	"	"	"	
n-Propylbenzene	ND	0.50	"	"	"	"	"	"	
Bromobenzene	ND	0.50	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.50	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.50	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
n-Butylbenzene	ND	0.50	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.50	"	"	"	"	"	"	
Naphthalene	ND	0.10	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		102 %	75	125	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		111 %	75	125	"	"	"	"	
Surrogate: Toluene-d8		106 %	75-		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.5 %	75-		"	"	"	"	

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Kennedy / Jenks Consultants, Inc.

Project: KJ082515-L6

2355 Main Street, Suite 140

Project Number: 1583018\*01 / Via Valmonte

Irvine, CA 92614 Project Manager: Mr. Ezaria Nona

Reported: 31-Aug-15 14:13

#### **Volatile Organic Compounds by H&P 8260SV**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-5 (E508116-09) Vapor Sampled: 25-Aug-15	Received: 25-	-Aug-15							
1,1-Difluoroethane (LCC)	ND	0.50	ug/l	0.05	EH52504	25-Aug-15	25-Aug-15	H&P 8260SV	
Dichlorodifluoromethane (F12)	ND	0.50	"	"	"	"	"	"	
Chloromethane	ND	0.50	"	"	"	"	"	"	
Vinyl chloride	ND	0.05	"	"	"	"	"	"	
Bromomethane	ND	0.50	"	"	"	"	"	"	
Chloroethane	ND	0.50	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	0.50	"	"	"	"	"	"	
1,1-Dichloroethene	ND	0.50	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	0.50	"	"	"	"	"	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.50	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.50	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	1.0	"	"	"	"	"	"	
1,1-Dichloroethane	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	"	"	"	"	"	
2,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	0.50	"	"	"	"	"	"	
Chloroform	ND	0.10	"	"	"	"	"	"	
Bromochloromethane	ND	0.50	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,1-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Carbon tetrachloride	ND	0.10	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	0.10	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	"	"	"	"	"	
Benzene	ND	0.10	"	"	"	"	"	"	
Trichloroethene	ND	0.10	"	"	"	"	"	"	
1,2-Dichloropropane	ND	0.50	"	"	"	"	"	"	
Bromodichloromethane	ND	0.50	"	"	"	"	"	"	
Dibromomethane	ND	0.50	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
Toluene	ND	1.0	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	0.50	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
1,3-Dichloropropane	ND	0.50	"	"	"	"	"	"	
Tetrachloroethene	ND ND	0.30	"	"	"	"	"	"	
Dibromochloromethane	ND ND	0.10		"	"	"	"	"	
Chlorobenzene	ND ND	0.50	,,	"	"	"	"	"	
Chiorobenzene	טוו	0.10							

2470 Impala Drive Carlsbad, CA 92010 760-804-9678 Phone 760-804-9159 Fax

Kennedy / Jenks Consultants, Inc.

Project: KJ082515-L6

2355 Main Street, Suite 140 Irvine, CA 92614 Project Number: 1583018\*01 / Via Valmonte

Project Manager: Mr. Ezaria Nona

Reported: 31-Aug-15 14:13

#### **Volatile Organic Compounds by H&P 8260SV**

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
SV-5 (E508116-09) Vapor Sampled: 25-Aug	;-15 Received: 25-	Aug-15							
Ethylbenzene	ND	0.50	ug/l	0.05	EH52504	25-Aug-15	25-Aug-15	H&P 8260SV	
1,1,1,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
m,p-Xylene	ND	0.50	"	"	"	"	"	"	
o-Xylene	ND	0.50	"	"	"	"	"	"	
Styrene	ND	0.50	"	"	"	"	"	"	
Bromoform	ND	0.50	"	"	"	"	"	"	
Isopropylbenzene (Cumene)	ND	0.50	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	0.50	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	0.50	"	"	"	"	"	"	
n-Propylbenzene	ND	0.50	"	"	"	"	"	"	
Bromobenzene	ND	0.50	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
2-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
4-Chlorotoluene	ND	0.50	"	"	"	"	"	"	
tert-Butylbenzene	ND	0.50	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	0.50	"	"	"	"	"	"	
sec-Butylbenzene	ND	0.50	"	"	"	"	"	"	
p-Isopropyltoluene	ND	0.50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
n-Butylbenzene	ND	0.50	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	0.50	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.0	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
Hexachlorobutadiene	ND	0.50	"	"	"	"	"	"	
Naphthalene	ND	0.10	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	0.50	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	5.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		105 %	75-	125	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		113 %	75-		"	"	"	"	
Surrogate: Toluene-d8		107 %	75-		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	75-		"	"	"	"	

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Kennedy / Jenks Consultants, Inc.

Project: KJ082515-L6

2355 Main Street, Suite 140 Irvine, CA 92614 Project Number: 1583018\*01 / Via Valmonte

Project Manager: Mr. Ezaria Nona

Reported: 31-Aug-15 14:13

# Volatile Organic Compounds by H&P 8260SV - Quality Control H&P Mobile Geochemistry, Inc.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Blank (EH52504-BLK1)				Prepared & Analyzed: 25-A
1,1-Difluoroethane (LCC)	ND	0.50	ug/l	
Dichlorodifluoromethane (F12)	ND	0.50	"	
Chloromethane	ND	0.50	"	
Vinyl chloride	ND	0.05	"	
Bromomethane	ND	0.50	"	
Chloroethane	ND	0.50	"	
Trichlorofluoromethane (F11)	ND	0.50	"	
1,1-Dichloroethene	ND	0.50	"	
Methylene chloride (Dichloromethane)	ND	0.50	"	
1,1,2 Trichlorotrifluoroethane (F113)	ND	0.50	"	
Methyl tertiary-butyl ether (MTBE)	ND	0.50	"	
trans-1,2-Dichloroethene	ND	0.50	"	
Diisopropyl ether (DIPE)	ND	1.0	"	
1,1-Dichloroethane	ND	0.50	"	
Ethyl tert-butyl ether (ETBE)	ND	1.0	"	
2,2-Dichloropropane	ND	0.50	"	
cis-1,2-Dichloroethene	ND	0.50	"	
Chloroform	ND	0.10	"	
Bromochloromethane	ND	0.50	"	
1,1,1-Trichloroethane	ND	0.50	"	
1,1-Dichloropropene	ND	0.50	"	
Carbon tetrachloride	ND	0.10	"	
1,2-Dichloroethane (EDC)	ND	0.10	"	
Tertiary-amyl methyl ether (TAME)	ND	1.0	"	
Benzene	ND	0.10	"	
Trichloroethene	ND	0.10	"	
1,2-Dichloropropane	ND	0.50	"	
Bromodichloromethane	ND	0.50	"	
Dibromomethane	ND	0.50	"	
cis-1,3-Dichloropropene	ND	0.50	"	
Toluene	ND	1.0	"	
trans-1,3-Dichloropropene	ND	0.50	"	
1,1,2-Trichloroethane	ND	0.50	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	

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Kennedy / Jenks Consultants, Inc.

Project: KJ082515-L6

2355 Main Street, Suite 140 Irvine, CA 92614

Analyte

Project Number: 1583018\*01 / Via Valmonte

Spike

Level

Source

Result

%REC

Project Manager: Mr. Ezaria Nona

Reported: 31-Aug-15 14:13

RPD

Limit

Notes

%REC

Limits

RPD

# Volatile Organic Compounds by H&P 8260SV - Quality Control H&P Mobile Geochemistry, Inc.

Units

Reporting

Limit

Result

Blank (EH52504-BLK1)				Prepared & Ana	llyzed: 25-Aug-1	.5	
1,3-Dichloropropane	ND	0.50	ug/l				
Tetrachloroethene	ND	0.10	"				
Dibromochloromethane	ND	0.50	"				
Chlorobenzene	ND	0.10	"				
Ethylbenzene	ND	0.50	"				
1,1,1,2-Tetrachloroethane	ND	0.50	"				
m,p-Xylene	ND	0.50	"				
o-Xylene	ND	0.50	"				
Styrene	ND	0.50	"				
Bromoform	ND	0.50	"				
Isopropylbenzene (Cumene)	ND	0.50	"				
1,1,2,2-Tetrachloroethane	ND	0.50	"				
1,2,3-Trichloropropane	ND	0.50	"				
n-Propylbenzene	ND	0.50	"				
Bromobenzene	ND	0.50	"				
1,3,5-Trimethylbenzene	ND	0.50	"				
2-Chlorotoluene	ND	0.50	"				
4-Chlorotoluene	ND	0.50	"				
tert-Butylbenzene	ND	0.50	"				
1,2,4-Trimethylbenzene	ND	0.50	"				
sec-Butylbenzene	ND	0.50	"				
p-Isopropyltoluene	ND	0.50	"				
1,3-Dichlorobenzene	ND	0.50	"				
1,4-Dichlorobenzene	ND	0.50	"				
n-Butylbenzene	ND	0.50	"				
1,2-Dichlorobenzene	ND	0.50	"				
1,2-Dibromo-3-chloropropane	ND	5.0	"				
1,2,4-Trichlorobenzene	ND	0.50	"				
Hexachlorobutadiene	ND	0.50	"				
Naphthalene	ND	0.10	"				
1,2,3-Trichlorobenzene	ND	0.50	"				
Tertiary-butyl alcohol (TBA)	ND	5.0	"				

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Kennedy / Jenks Consultants, Inc.

Project: KJ082515-L6

2355 Main Street, Suite 140 Irvine, CA 92614 Project Number: 1583018\*01 / Via Valmonte

Spike

Source

Project Manager: Mr. Ezaria Nona

Reported: 31-Aug-15 14:13

RPD

%REC

# Volatile Organic Compounds by H&P 8260SV - Quality Control H&P Mobile Geochemistry, Inc.

Reporting

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch EH52504 - EPA 5030										
Blank (EH52504-BLK1)				Prepared &	Analyzed:	25-Aug-15				
Surrogate: 1,2-Dichloroethane-d4	2.70		ug/l	2.50		108	75-125			
Surrogate: Toluene-d8	2.64		"	2.50		106	75-125			
Surrogate: 4-Bromofluorobenzene	2.50		"	2.50		99.9	75-125			
LCS (EH52504-BS1)				Prepared &	z Analyzed:	25-Aug-15				
Dichlorodifluoromethane (F12)	1.31	0.50	ug/l	5.00		26.3	70-130			QL-1I
Vinyl chloride	3.91	0.05	"	5.00		78.2	70-130			
Chloroethane	4.59	0.50	"	5.00		91.8	70-130			
Trichlorofluoromethane (F11)	5.65	0.50	"	5.00		113	70-130			
1,1-Dichloroethene	5.03	0.50	"	5.00		101	70-130			
Methylene chloride (Dichloromethane)	5.06	0.50	"	5.00		101	70-130			
1,1,2 Trichlorotrifluoroethane (F113)	5.93	0.50	"	5.00		119	70-130			
trans-1,2-Dichloroethene	5.51	0.50	"	5.00		110	70-130			
1,1-Dichloroethane	5.35	0.50	"	5.00		107	70-130			
cis-1,2-Dichloroethene	5.53	0.50	"	5.00		111	70-130			
Chloroform	5.48	0.10	"	5.00		110	70-130			
1,1,1-Trichloroethane	5.44	0.50	"	5.00		109	70-130			
Carbon tetrachloride	5.80	0.10	"	5.00		116	70-130			
1,2-Dichloroethane (EDC)	5.82	0.10	"	5.00		116	70-130			
Benzene	4.94	0.10	"	5.00		98.9	70-130			
Trichloroethene	5.22	0.10	"	5.00		104	70-130			
Toluene	5.30	1.0	"	5.00		106	70-130			
1,1,2-Trichloroethane	5.78	0.50	"	5.00		116	70-130			
Tetrachloroethene	4.96	0.10	"	5.00		99.2	70-130			
Ethylbenzene	5.27	0.50	"	5.00		105	70-130			
1,1,1,2-Tetrachloroethane	5.48	0.50	"	5.00		110	70-130			
m,p-Xylene	10.1	0.50	"	10.0		101	70-130			
o-Xylene	4.97	0.50	"	5.00		99.4	70-130			
1,1,2,2-Tetrachloroethane	5.51	0.50	"	5.00		110	70-130			
Surrogate: Dibromofluoromethane	2.62		"	2.50		105	75-125			
Surrogate: 1,2-Dichloroethane-d4	2.81		"	2.50		112	75-125			
Surrogate: Toluene-d8	2.72		"	2.50		109	75-125			

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Kennedy / Jenks Consultants, Inc.

Project: KJ082515-L6

2355 Main Street, Suite 140 Irvine, CA 92614 Project Number: 1583018\*01 / Via Valmonte

Project Manager: Mr. Ezaria Nona

Reported: 31-Aug-15 14:13

# Volatile Organic Compounds by H&P 8260SV - Quality Control H&P Mobile Geochemistry, Inc.

	• •			
Penorting	Snike	Source	%REC	

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch EH52504 - EPA 5030

 LCS (EH52504-BS1)
 Prepared & Analyzed: 25-Aug-15

 Surrogate: 4-Bromofluorobenzene
 2.53
 ug/l
 2.50
 101
 75-125

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Kennedy / Jenks Consultants, Inc. Project: KJ082515-L6

2355 Main Street, Suite 140 Project Number: 1583018\*01 / Via Valmonte Reported:

Irvine, CA 92614 Project Manager: Mr. Ezaria Nona 31-Aug-15 14:13

#### **Notes and Definitions**

QL-1L The LCS and/or LCSD recoveries fell below the established control specifications for this analyte. Any result for this compound is

qualified and should be considered biased low.

LCC Leak Check Compound

ND Analyte NOT DETECTED at or above the reporting limit

MDL Method Detection Limit

%REC Percent Recovery

RPD Relative Percent Difference

#### **Appendix**

H&P Mobile Geochemistry, Inc. is approved as an Environmental Testing Laboratory and Mobile Laboratory in accordance with the DoD-ELAP and the ISO 17025 programs, certification number L11-175.

H&P is approved by the State of Arizona as an Environmental Testing Laboratory and Mobile Laboratory, certification numbers AZM758 and AZ0779.

H&P is approved by the State of California as an Environmental Laboratory and Mobile Laboratory in conformance with the Environmental Laboratory Accreditation Program (ELAP) for the category of Volatile and Semi-Volatile Organic Chemistry of Hazardous Waste, certification numbers 2740, 2741, 2743, 2744, 2745, 2754 & 2930.

H&P is approved by the State of Florida Department of Health under the National Environmental Laboratory Accreditation Conference (NELAC) certification number E871100.

The complete list of stationary and mobile laboratory certifications along with the fields of testing (FOTs) and analyte lists are available at <a href="https://www.handpmg.com/about/certifications">www.handpmg.com/about/certifications</a>.



2470 Impala Drive, Carlsbad, CA 92010 & Field Office - Signal Hill, CA W handpmg.com E info@handpmg.com P 760.804.9678 F 760.804.9159

# VAPOR / AIR Chain of Custody

DATE:  $8/2 \le 1/2 \le 1$ 

	Lak	Client an	d Project	Inform	ation											Sampl	e Rece	ipt (L	ab Us	e Only	) (	
Lab Client/Consultant: Kennelly	South Com	Hunta	In.	Project N	ame / #:	15830	15 40	(F10=17)		No figure	ierera.			Date F	Rec'd:	5/25/	15	Contro	1#i5	071-	7.00%	0
Lab Client Project Wanager.	- Main			Project Lo	ocation: V	in Val	ma to		TOVO	To Coll	5,538			H&P I	Project	# K	508	251	5-	16		
Lab Client Address: 3210 El Camino Peul, Suite 50  Lab Client City, State, Zip: Flyind, CA 92492  Phone Number: 951-676-6740					-Mail(s):	Television		,						Lab W	Vork Or		€5	Service of the Service of	and the second second			
Lab Client City, State, Zip:	(1 90	1-90-	ra haji	ezan	ignon	on Oke	nneu	y, enh	2.C	om				Samp	le Intac	t: 💽 Y				lotes Be	low	
Phone Number: 951-676-67	140	010		ryans	strano	oberg (	e vce	ennea	Men	VLS.C	OVV			Recei	ot Gaug	je ID:				Temp:		
Reporting Requirem		Т	urnaroun	d Time			Sam	pler Info	rmatio	n				Outsid	de Lab:							
➤ Standard Report  Level III	Level IV	☐ 5-7 da	y Stnd	☐ 24-H	r Rush	Sampler(s)	): 1	am	Ch.					Receip	ot Note:	s/Trackir	ng #:					
Excel EDD Other EDD:		☐ 3-day		Mobi		Signature:		hat	/				7-14									
CA Geotracker Global ID:		☐ 48-Hr		☐ Othe		Date:	\$/	25/15	/										Lah	PM Initia	als <sup>.</sup>	
Additional Instructions to Labor	s Attached	EHS	2504		er folge di sylvale distribut					ard Full List	VOCs Short List / Project List	☐ TO-15	e □TO-15□TO-17m	<b>PHv as Gas</b> ☐ 8260SVm ☐ TO-15m	TPHv as Diesel (sorbent tube) ☐ TO-17m	Aromatic/Aliphatic Fractions ☐ 8260SVm ☐ TO-15m	Compound IPA	EPA 8015m	Fixed Gases by ASTM D1945			
SAMPLE NAME	FIELD POINT NAME (if applicable)	DATE mm/dd/yy	TIME 24hr clock	Indoor Air (I Air (AA), Su	E TYPE  IA), Ambient  ubslab (SS),  por (SV)	SIZE & 400mL/1L/6L or Tedlar of	TYPE Summa	CONTAINER ID (###)	Lab use only: Receipt Vac	VOCs Standa ▼ 8260SV	VOCs Short	Oxygenates  8 8260SV TO-15	Naphthalene ☐ 8260SV ☐	TPHv as Gas ☐ 8260SVm	TPHv as Diee	Aromatic/Ali	Leak Check Compound	Methane by EPA 8015m	Fixed Gases			
5V-b		8/25/5	10:25	SV		Gloss	Wine	109		×		×					×		, W		·	
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5v-5		1	n:30		1	`	L	150		k		k					K					
Approved/Relinquished by:  Approved/Relinquished by:	Dur	Company:	KJ	Date: Date:	lis	Time:		Received by:	U	ml	r			Company Company			Date:	5/1	5	Time:	:00	
Approved/Relinquished by:		Company:		Date:		Time:		Received by:			1			Company			Date:			Time:		

# H=P

H&P Mobile Geochemistry, Inc. 2470 Impala Drive, Carlsbad, CA 92010 Field Office in Signal Hill, CA (Los Angeles) Ph: 800-834-9888 www.handpmg.com

#### H&P Method 8260SV (Modified EPA 8260B) Soil Vapor Compounds - Standard Full List + Oxy

		Standard RL
Compound	CAS#	Vapor (µg/L)
Dichlorodifluoromethane (F12)	75-71-8	0.5
Chloromethane	74-87-3	0.5
Vinyl chloride	75-01-4	0.05
Bromomethane	74-83-9	0.5
Chloroethane	75-00-3	0.5
Trichlorofluoromethane (F11)	75-69-4	0.5
1,1-Dichloroethene	75-35-4	0.5
1,1,2-Trichlorotrifluoroethane (F113)	76-13-1	0.5
Methylene chloride (Dichloromethane)	75-09-2	0.5
Methyl tertiary-butyl ether (MTBE)	1634-04-4	0.5
rans-1,2-Dichloroethene	156-60-5	0.5
1,1-Dichloroethane	75-34-3	0.5
2,2-Dichloropropane	594-20-7	0.5
cis-1,2-Dichloroethene	156-59-2	0.5
Bromochloromethane	74-97-5	0.5
Chloroform	67-66-3	0.1
1,1,1-Trichloroethane	71-55-6	0.5
1,1-Dichloropropene	563-58-6	0.5
Carbon tetrachloride	56-23-5	0.1
1,2-Dichloroethane (EDC)	107-06-2	0.1
Benzene	71-43-2	0.1
Trichloroethene	79-01-6	0.1
1,2-Dichloropropane	78-87-5	0.5
Dibromomethane	74-95-3	0.5
Bromodichloromethane	75-27-4	0.5
cis-1,3-Dichloropropene	10061-01-5	0.5
Toluene	108-88-3	1
rans-1,3-Dichloropropene	10061-02-6	0.5
1,1,2-Trichloroethane	79-00-5	0.5
1,3-Dichloropropane	142-28-9	0.5
Tetrachloroethene	127-18-4	0.1
Dibromochloromethane	124-48-1	0.5
1,2-Dibromoethane (EDB)	106-93-4	0.5
Chlorobenzene	108-90-7	0.1
1,1,1,2-Tetrachloroethane	630-20-6	0.5
Ethylbenzene	100-41-4	0.5
n,p-Xylene	179601-23-1	0.5
-Xylene	95-47-6	0.5
Styrene	100-42-5	0.5
Bromoform	75-25-2	0.5
sopropylbenzene (Cumene)	98-82-8	0.5
,1,2,2-Tetrachloroethane	79-34-5	0.5
n-Propylbenzene	103-65-1	0.5

# H=P

# **H&P Mobile Geochemistry, Inc.** 2470 Impala Drive, Carlsbad, CA 92010

Field Office in Signal Hill, CA (Los Angeles)
Ph: 800-834-9888 www.handpmg.com

#### H&P Method 8260SV (Modified EPA 8260B) Soil Vapor Compounds - Standard Full List + Oxy

	3-Trichloropropane       96-18-4         mobenzene       108-86-1         hlorotoluene       95-49-8         5-Trimethylbenzene       108-67-8         hlorotoluene       106-43-4         Butylbenzene       98-06-6         4-Trimethylbenzene       95-63-6         Butylbenzene       135-98-8         opropyltoluene       99-87-6         Dichlorobenzene       541-73-1         Dichlorobenzene       106-46-7         utylbenzene       104-51-8         Dichlorobenzene       95-50-1         Dibromo-3-chloropropane       96-12-8         4-Trichlorobenzene       120-82-1         achlorobutadiene       87-68-3         ihthalene       91-20-3	
		Standard RL
Compound	CAS#	Vapor (µg/L)
1,2,3-Trichloropropane	96-18-4	0.5
Bromobenzene	108-86-1	0.5
2-Chlorotoluene	95-49-8	0.5
1,3,5-Trimethylbenzene	108-67-8	0.5
4-Chlorotoluene	106-43-4	0.5
tert-Butylbenzene	98-06-6	0.5
1,2,4-Trimethylbenzene	95-63-6	0.5
sec-Butylbenzene	135-98-8	0.5
p-Isopropyltoluene	99-87-6	0.5
1,3-Dichlorobenzene	541-73-1	0.5
1,4-Dichlorobenzene	106-46-7	0.5
n-Butylbenzene	104-51-8	0.5
1,2-Dichlorobenzene	95-50-1	0.5
1,2-Dibromo-3-chloropropane	96-12-8	5
1,2,4-Trichlorobenzene	120-82-1	0.5
Hexachlorobutadiene	87-68-3	0.5
Naphthalene	91-20-3	0.1
1,2,3-Trichlorobenzene	87-61-6	0.5
Owwenestee		
	1024.04.4	0.5
		1
		1
		11.5
Tertiary-amyl methyl ether (TAME)	994-05-8	1
Tertiary-butyl alcohol (TBA)	75-65-0	5
Leak Check Compound		
1,1-Difluoroethane (LCC)	75-37-6	0.5

T.		
LIV	Mobile	
4	Mobile Geochemistry	Inc.

H&P Project #:

Site Address:

Consultant Rep(s):

Consultant: Kenney

# Log Sheet: Soil Vapor Sampling with Syringe

FMS004 Revision: 2

Revised: 12/4/14 Effective: 1/1/15

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8/4	3/45			
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H&P Rep(s):

Date:

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Pur	ge Volume	Calculation		
PVT Probe ID, if applicable:	The Table			
Tubing:	Length:	Diameter:	1 Volume:	
Sand Pack:	Height:	Diameter:	1 Volume:	
Dry Bentonite:	Height:	Diameter:	1 Volume:	
PVT Increments:	PV =	PV=	PV =	
PV Amount Selected:	ne	Selected by:	Job sheet	

K5082515-16

Valmante

Torrance

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otherwise noted in the field notes below.

	Sample Info	Probe Specs								Collection Information						
	Point ID	Syringe ID	Date	Sample Time	Probe Depth (ft)		Tubing Dia (in.)	Sand Pack Ht (in.)	Sand Pack Dia (in.)	Dry Bent. Ht (in.)	Dry Bent. Dia (in.)	Purge Vol (mL)	Shut-in Test (✓=Pass)	Flow Rate (mL/min)	Probe Vacuum ("Hg)	Field Notes
1	SV-6	169	8/25/45	10:25	5	6	1/8	6	.75	6	.76	BY	1	1204	0	
2	51-7	197		11:50		6	48	6	.78	6	.76	134	1	1200	0	
3	SV-8	450		10:57	5	6	1/8	6	.76	6	.75	134	1	4200	0	
4	5V-8	154		11-05	5	6	1/8	6	.75	6	.75	134	-	4214	9	
5	5V-4 MEP	178		11-06	5	6	1/4	6	.75	6	75	184	1	2200	0	
-6	50-3	178		11:50	5	6	1/9	6	75	6	75	134	1	4200	0	
-7	51-1	109		いから	5	6	118	6	76	6	35	134	1	420	9	
-8	5V1	197		12:22	5	6	48	6	.75	6	76	134	1	400	0	
9	51-5	50	1	wind	5	6	1/8	6	.75	6	75	134	1	4200	0	
10									11-7-7		185	T- "	E			
11	16									1					1	
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Site Notes (e.g. weather, visitors, scope deviations, health & safety issues, etc.): rairied a little bit