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2:27 pm, Oct 26, 2007

Alameda County  
Environmental Health



**Denis L. Brown**

Jerry Wickham  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

**Shell Oil Products US**  
HSE – Environmental Services  
20945 S. Wilmington Ave.  
Carson, CA 90810-1039  
Tel (707) 865 0251  
Fax (707) 865 2542  
Email [denis.l.brown@shell.com](mailto:denis.l.brown@shell.com)

Re: Shell-branded Service Station  
2120 Montana Street  
Oakland, California  
SAP Code 135675  
Incident No. 98995740  
ACHCSA Case No. 0173

Dear Mr. Wickham:

The attached document is provided for your review and comment. Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached document is true and correct.

If you have any questions or concerns, please call me at (707) 865-0251.

Sincerely,

A handwritten signature in black ink, appearing to read "Denis L. Brown", is written over a horizontal line.

Denis L. Brown  
Project Manager



**CONESTOGA-ROVERS  
& ASSOCIATES**

19449 Riverside Drive, Suite 230, Sonoma, California 95476  
Telephone: 707-935-4850 Facsimile: 707-935-6649  
www.CRAworld.com

October 26, 2007

Mr. Jerry Wickham  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Re: **Soil Vapor Sampling Report**  
Shell-branded Service Station  
2120 Montana Street  
Oakland, California  
SAP Code 135675  
Incident No. 98995740  
ACHCSA Case No. 0173

Dear Mr. Wickham:

Conestoga-Rovers & Associates (CRA) prepared this report on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell) to document the recent soil vapor sampling activities at the above referenced site.

## **SITE DESCRIPTION**

This operating Shell-branded service station is located at the intersection of Montana Street and Fruitvale Avenue in Oakland, California (Figures 1 and 2). Commercial properties lie to the north and east of the site, and residential properties lie to the west. Montana Street, a freeway on-ramp, and Highway 580 are located south of the site.

## **SOIL VAPOR SAMPLING ACTIVITIES**

**Personnel Present:** Lauren Goldfinch, CRA

**Sampling Activities:** Soil vapor samples were collected from SV-D and SV-E, each containing two sampling intervals, on July 30, 2007. The tubing from each vapor point was connected to a vacuum pump, which was connected to a control valve, and then to a flow regulator attached to a laboratory-

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supplied 1-liter summa canister with a pressure gauge. Using a vacuum pump, at least three tubing volumes of air were purged into a Tedlar bag prior to sampling. Immediately after purging, the vacuum was turned off and soil-vapor sampling took place by closing the purge valve and opening the sampling valve to the de-pressurized summa canister. During sampling activities, shaving cream in baggies was attached around each tube fitting/connection to provide tracer compounds for leak detection. A duplicate sample was collected from the shallow interval of SV-E along with the original sample using a laboratory supplied duplicate sampling manifold. Additionally, a trip blank was submitted with the soil vapor samples. The vapor samples were labeled and stored in a non-cooled ice chest until delivery to the analytical laboratory.

**Vapor Sample Analysis:** The vapor samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by EPA Method TO-3, benzene, toluene, ethylbenzene, and xylenes (BTEX), methyl tertiary butyl ether (MTBE), tertiary butyl alcohol (TBA), and naphthalene by EPA Method TO-15, and propane and butane by Method ASTM D-2820. Additionally, the laboratory used GC/MS Method TO-15 to tentatively identify isobutane in the samples. The certified analytical laboratory report is included in Attachment A.

## **ANALYTICAL RESULTS**

Table 1 summarizes soil vapor analytical results, and the laboratory reports are included in Attachment A. The previous results for these sample points are also presented on Table 1, for reference. Tracer gas compound, isobutane, was tentatively identified in SV-D-5 and SV-E-5 DUP, but at extremely low concentrations in relation to the compounds available in the shaving cream (Table 1). CRA previously sampled the shaving cream for the tracer compounds and the results are presented on Table 1 for comparison. Propane and butane were not reported as being present in the samples at the reporting limits shown on Table 1. Based on this data, the soil gas samples are believed to be representative of soil gas concentrations and not ambient air.

## **DISCUSSION**

Previous sampling of SV-D and SV-E reported significantly elevated soil gas concentrations at the 10 foot interval and much lower concentrations at the 5 foot interval. The January 23, 2006 *Remedial Action and Additional Site Investigation Work Plan* for the site recommended additional offsite soil vapor sampling on the residential property immediately west of the site due to the elevated soil vapor concentrations detected onsite. Since this recommendation, Shell has been negotiating access to conduct the offsite soil vapor sampling with the adjacent property owners, and as of this date, continue negotiations. As reported in our August 10, 2007 *Groundwater Monitoring Report – Second Quarter*



**CONESTOGA-ROVERS  
& ASSOCIATES**

Mr. Jerry Wickham  
October 26, 2007

2007, gasoline constituent concentrations in groundwater have decreased significantly as a result of active and passive remediation processes at the site. Based on the September 21, 2007 agency approval of CRA's recommendation to discontinue active remediation and initiate post-remediation monitoring, the system was shut down in late September 2007. The results from re-sampling the soil vapor probes shows that, over the past two years, gasoline constituent concentrations in soil vapor from SV-D and SV-E are significantly reduced from previous concentrations detected during August 2005.

## CLOSING

If you have any questions regarding the contents of this document, please call Ana Friel at (707) 268-3812.

Sincerely,  
**Conestoga-Rovers & Associates**



Ana Friel, PG

Figures: 1 - Vicinity Map  
2 - Site Plan

Tables: 1 - Soil Vapor Sample Analytical Results

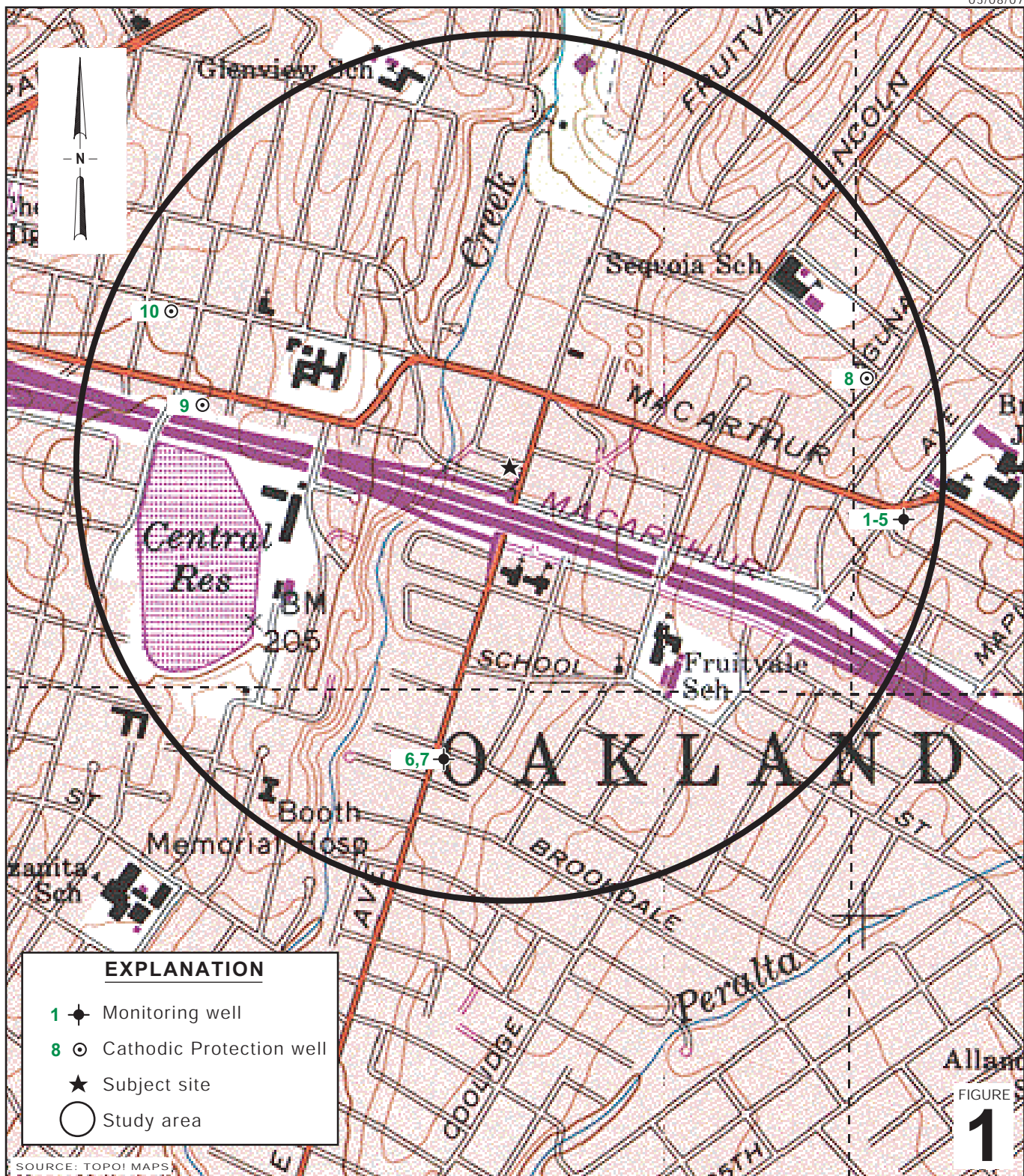
Attachments: A - Certified Analytical Report

cc: Denis Brown, Shell Oil Products US

Conestoga-Rovers & Associates (CRA) prepared this document for use by our client and appropriate regulatory agencies. It is based partially on information available to CRA from outside sources and/or in the public domain, and partially on information supplied by CRA and its subcontractors. CRA makes no warranty or guarantee, expressed or implied, included or intended in this document, with respect to the accuracy of information obtained from these outside sources or the public domain, or any conclusions or recommendations based on information that was not independently verified by CRA. This document represents the best professional judgment of CRA. None of the work performed hereunder constitutes or shall be represented as a legal opinion of any kind or nature.

I:\Sonoma.Shell\Oakland 2120 Montana\2007 Soil Vapor Sampling\7-2007 Soil Vapor Sampling 2120Oakland.doc

\\SON-S1\SHARED\SONOMA\_SHELL\OAKLAND\_2120\_MONTANA\FIGURES\VICINITY\_MAP



Alland  
FIGURE  
**1**






















**Shell-branded Service Station**  
2120 Montana Street  
Oakland, California

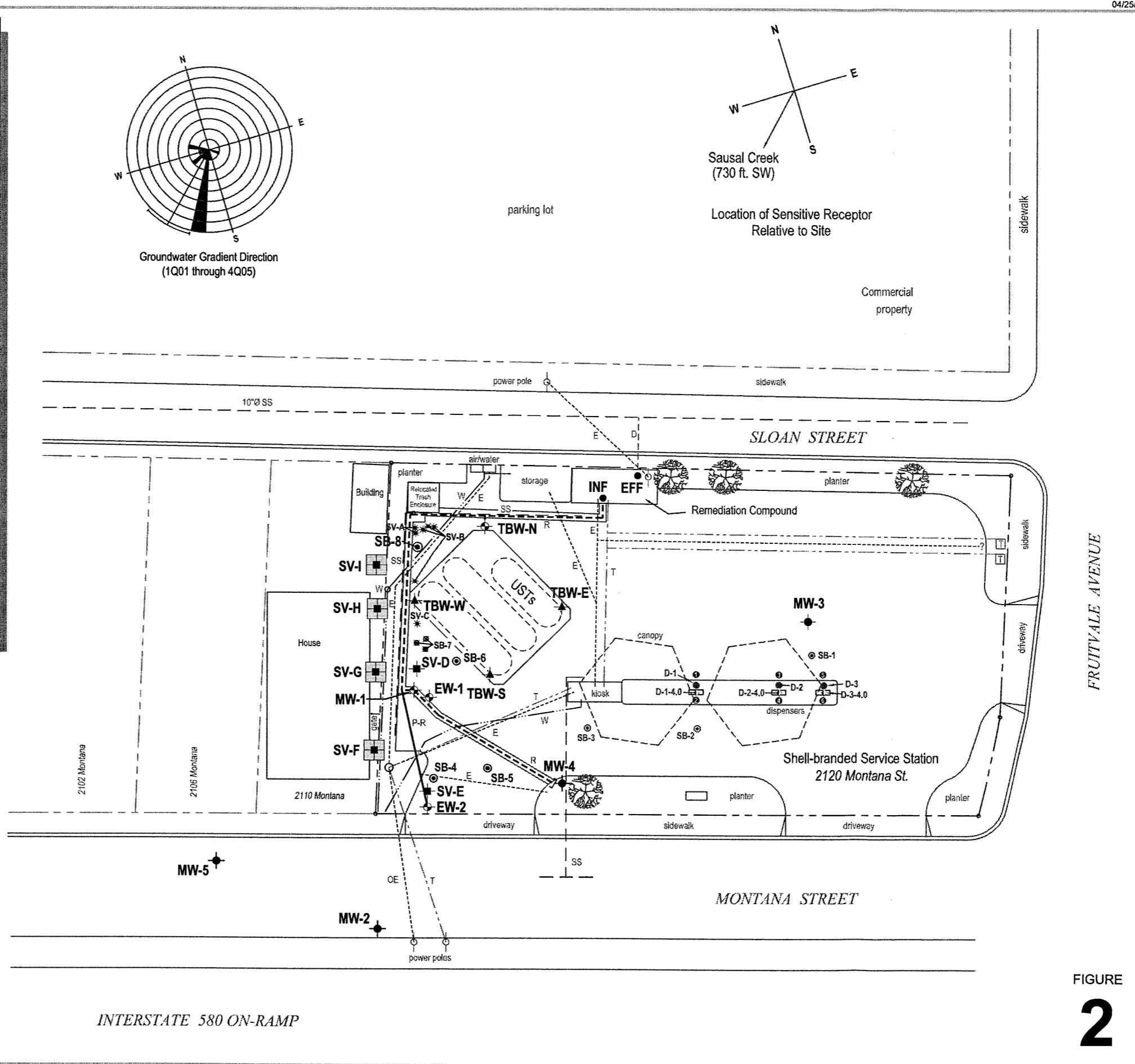
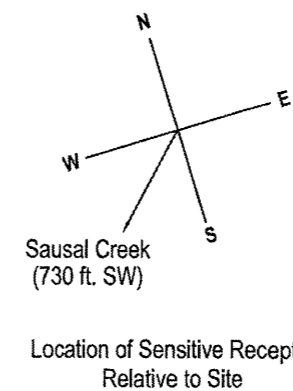
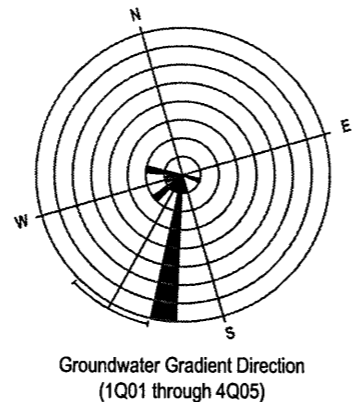


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& ASSOCIATES**

**Vicinity Map**

### EXPLANATION

- SV-F  Proposed soil vapor probe location
- EW-1  Extraction well location
- SB-4  Soil boring location (06/14-16/05)
- SV-D  Soil vapor sampling location (06/14-16/05)
- SB-7  Attempted soil boring location (6/15/05)
- SV-A  Attempted soil vapor sampling location (6/14/05)
- D-1-4.0  Soil sample location (Cambria, 5/04)
- MW-1  Well used for groundwater extraction
- MW-2  Monitoring well location
- TBW-N  Tank backfill well location
- SB-1  Cambria soil boring location (10/99)
- D-1  Cambria soil sampling location (11/97)
- INF  GWE system sampling location
-  Electrical and overhead electric line (E, OE)
-  Sanitary sewer (SS)
-  Water line (W)
-  Telecommunications line (T)
-  Remediation piping (R)
-  Proposed remediation piping (P-R)
-  Discharge line (D)
-  Product dispenser number



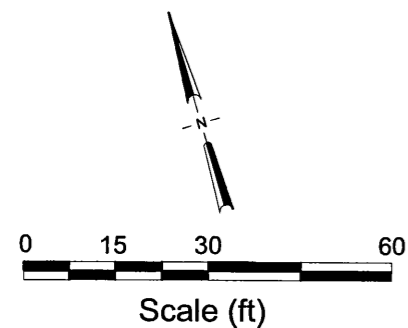
Site Plan



Shell-branded Service Station

2120 Montana Street  
Oakland, California  
Incident No. 98995740

FIGURE  
**2**



G:\OAKLAND 2120 MONTANA\FIGURES\SITE PLAN.DWG

INTERSTATE 580 ON-RAMP

**Table 1. Soil Vapor Sample Analytical Results, Shell-branded Service Station, 2120 Montana Street, California**

Sample ID	Depth	Date Sampled	Constituent Units	TPHg µg/m <sup>3</sup>	Benzene µg/m <sup>3</sup>	Toluene µg/m <sup>3</sup>	Ethylbenzene µg/m <sup>3</sup>	Total Xylenes µg/m <sup>3</sup>	MTBE µg/m <sup>3</sup>	TBA µg/m <sup>3</sup>	Naphthalene µg/m <sup>3</sup>	Isobutane (TIC) µg/m <sup>3</sup>	Propane µg/m <sup>3</sup>	Butane µg/m <sup>3</sup>
SV-D-5.0	5	8/24/05		22,000	<130	<150	<170	<170	<140	<600	NT	NT	NT	NT
SV-D-5.0	5	7/30/07		<21,000	<2.4	310	25	106	<11	<9.3	<20	6.5	<2,800	<3,600
SV-D-10.0	10	8/24/05		<b>16,000,000</b>	<b>480</b>	<510	<590	<590	<490	<2,000	NT	NT	NT	NT
SV-D-10.0	10	7/30/07		<b>27,000</b>	7.5	1,900	33	109	<12	<9.7	<21	ND	<2,900	<3,800
SV-E-5.0	5	8/24/05		25,000	<6.4	25	<8.7	<8.7	<7.2	<30	NT	NT	NT	NT
SV-E-5.0 DUP	5	8/24/05		10,000	<6.4	<7.5	<8.7	<8.7	<7.2	<30	NT	NT	NT	NT
SV-E-5.0	5	7/30/07		<20,000	4.4	1,100	32	115	<11	<9	<19	ND	<2,700	<3,500
SV-E-5.0 DUP	5	7/30/07		<23,000	4.4	1,200	37	137	<12	<10	<22	26	<3,000	<4,000
SV-E-10.0	10	8/24/05		<b>78,000,000</b>	<b>46,000</b>	<7,800	<9,000	<9,000	<7,500	<31,000	NT	NT	NT	NT
SV-E-10.0	10	7/30/07		<b>8,700,000</b>	<b>1,200</b>	2,500	<1,100	3,600	<3,700	<3,100	<6,800	ND	<3,100	<4,100
Trip Blank	na	8/24/05		<4.1	<6.4	<7.5	<8.7	<8.7	<7.2	<30	NT	NT	NT	NT
Trip Blank	na	7/30/07		<14,000	<1.6	<1.9	<2.2	<6.5	<7.2	<6.1	<13	ND	<1,800	<2,400

Soil Vapor ESLs for Residential Use (µg/m <sup>3</sup> )	26,000	85	63,000	420,000	150,000	9,400	2,600	71	Concentration in the tracer gas*					
Soil Vapor ESLs for Commercial Use (µg/m <sup>3</sup> )	72,000	290	180,000	1,200,000	410,000	31,000	8,700	240	356,000	72,130	11,410			

**Abbreviations and Notes:**

TPHg = Total petroleum hydrocarbons as gasoline by EPA Method TO-3 (M) GC-13

Benzene, toluene, ethylbenzene, and total xylenes by EPA Method TO-15 GC/MS K

MTBE, TBA, and naphthalene = Methyl tertiary butyl ether, tert butyl alcohol, and naphthalene by EPA Method TO-15 GC/MS K

Isobutane (TIC) = Tentatively identified compound via EPA Method TO-15 GC/MS

Propane and Butane = by ASTM Method D-2820.

NA = not applicable

NT = this analyte was not tested for in this sample.

ND = Not detected during GC/MS library search for tentatively identified compound.

µg/m<sup>3</sup> = units in micrograms per cubic meter

<x = Not detected at or above detection limit x

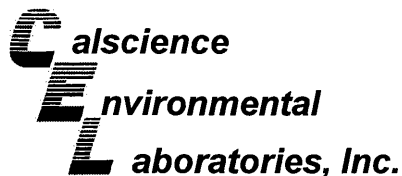
ESL = Environmental Screening Level as presented by the San Francisco Bay Regional Water Quality Control Board (Feb 2005 Edition, Appendix A, Table E)

**bold** result represents an exceedance of one or both ESL(s)

\* Tracer gas compound (shaving cream) previously sampled for trace compounds.

**Attachment A**  
**Certified Analytical Reports**





August 06, 2007

Ana Friel  
Conestoga-Rovers & Associates  
19449 Riverside Drive, Suite 230  
Sonoma, CA 95476-6955

Subject: **Calscience Work Order No.: 07-07-2024**  
Client Reference: **2120 Montana Street, Oakland, CA**

Dear Client:

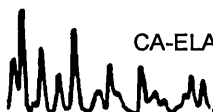
Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 7/31/2007 and analyzed in accordance with the attached chain-of-custody.

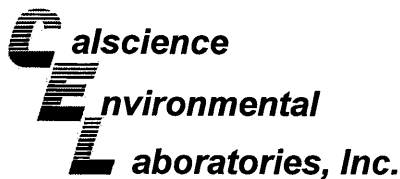
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Calscience Environmental  
Laboratories, Inc.  
Danielle Gonsman  
Project Manager





Analytical Report



Conestoga-Rovers & Associates  
 19449 Riverside Drive, Suite 230  
 Sonoma, CA 95476-6955

Date Received: 07/31/07  
 Work Order No: 07-07-2024  
 Preparation: N/A  
 Method: EPA TO-3 (M)

Project: 2120 Montana Street, Oakland, CA

Page 1 of 2

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Instrument	Date Prepared	Date Analyzed	QC Batch ID
SV-D-5	07-07-2024-1	07/30/07	Air	GC 13	N/A	07/31/07	070731L01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	21000	1.53		ug/m3

SV-D-10	07-07-2024-2	07/30/07	Air	GC 13	N/A	07/31/07	070731L01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	27000	22000	1.6		ug/m3

SV-E-5	07-07-2024-3	07/30/07	Air	GC 13	N/A	07/31/07	070731L01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	20000	1.48		ug/m3

SV-E-5 DUP	07-07-2024-4	07/30/07	Air	GC 13	N/A	07/31/07	070731L01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	23000	1.69		ug/m3

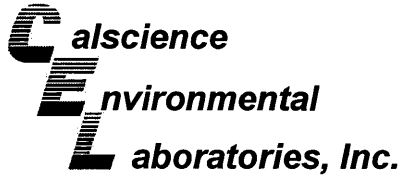
SV-E-10	07-07-2024-5	07/30/07	Air	GC 13	N/A	07/31/07	070731L01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	8700000	47000	3.44		ug/m3

Trip Blank	07-07-2024-6	07/30/07	Air	GC 13	N/A	07/31/07	070731L01
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Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	14000	1		ug/m3

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



Conestoga-Rovers & Associates  
 19449 Riverside Drive, Suite 230  
 Sonoma, CA 95476-6955

Date Received: 07/31/07  
 Work Order No: 07-07-2024  
 Preparation: N/A  
 Method: EPA TO-3 (M)

Project: 2120 Montana Street, Oakland, CA

Page 2 of 2

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Instrument	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	098-01-005-961	N/A	Air	GC 13	N/A	07/31/07	070731L01

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	14000	1		ug/m3

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

## Analytical Report



Conestoga-Rovers & Associates  
 19449 Riverside Drive, Suite 230  
 Sonoma, CA 95476-6955

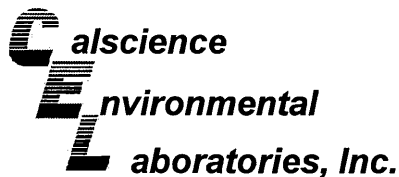
Date Received: 07/31/07  
 Work Order No: 07-07-2024  
 Preparation: N/A  
 Method: ASTM D-2820  
 Units: ug/m3

Project: 2120 Montana Street, Oakland, CA

Page 1 of 1

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Instrument	Date Prepared	Date Analyzed	QC Batch ID		
SV-D-5	07-07-2024-1	07/30/07	Air	GC 33	N/A	08/01/07	070801L01		
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>
Propane	ND		1.53		Butane	ND		1.53	
SV-D-10	07-07-2024-2	07/30/07	Air	GC 33	N/A	08/01/07	070801L01		
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>
Propane	ND		1.6		Butane	ND		1.6	
SV-E-5	07-07-2024-3	07/30/07	Air	GC 33	N/A	08/01/07	070801L01		
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>
Propane	ND		1.48		Butane	ND		1.48	
SV-E-5 DUP	07-07-2024-4	07/30/07	Air	GC 33	N/A	08/01/07	070801L01		
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>
Propane	ND		1.69		Butane	ND		1.69	
SV-E-10	07-07-2024-5	07/30/07	Air	GC 33	N/A	08/01/07	070801L01		
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>
Propane	ND		1.72		Butane	ND		1.72	
Trip Blank	07-07-2024-6	07/30/07	Air	GC 33	N/A	08/01/07	070801L01		
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>
Propane	ND		1		Butane	ND		1	
Method Blank	099-12-478-7	N/A	Air	GC 33	N/A	08/01/07	070801L01		
<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>	<u>Parameter</u>	<u>Result</u>	<u>RL</u>	<u>DF</u>	<u>Qual</u>
Propane	ND		1		Butane	ND		1	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



Conestoga-Rovers & Associates  
19449 Riverside Drive, Suite 230  
Sonoma, CA 95476-6955

Date Received: 07/31/07  
Work Order No: 07-07-2024  
Preparation: N/A  
Method: EPA TO-15  
Units: ug/m3

Project: 2120 Montana Street, Oakland, CA

Page 1 of 3

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Instrument	Date Prepared	Date Analyzed	QC Batch ID
SV-D-5	07-07-2024-1	07/30/07	Air	GC/MS II	N/A	08/02/07	070802L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	2.4	1.53		o-Xylene	34	3.3	1.53	
Toluene	310	12	6.12		Methyl-t-Butyl Ether (MTBE)	ND	11	1.53	
Ethylbenzene	25	3.3	1.53		Tert-Butyl Alcohol (TBA)	ND	9.3	1.53	
p/m-Xylene	72	6.6	1.53						
<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>	<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>
1,4-Bromofluorobenzene	96	57-129			1,2-Dichloroethane-d4	99	47-137		
Toluene-d8	105	78-156							

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Instrument	Date Prepared	Date Analyzed	QC Batch ID
SV-D-10	07-07-2024-2	07/30/07	Air	GC/MS II	N/A	08/03/07	070802L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	7.5	2.6	1.6		o-Xylene	33	3.5	1.6	
Toluene	1900	30	16		Methyl-t-Butyl Ether (MTBE)	ND	12	1.6	
Ethylbenzene	33	3.5	1.6		Tert-Butyl Alcohol (TBA)	ND	9.7	1.6	
p/m-Xylene	76	6.9	1.6						
<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>	<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>
1,4-Bromofluorobenzene	96	57-129			1,2-Dichloroethane-d4	97	47-137		
Toluene-d8	96	78-156							

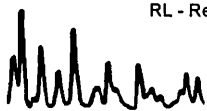
Client Sample Number	Lab Sample Number	Date Collected	Matrix	Instrument	Date Prepared	Date Analyzed	QC Batch ID
SV-E-5	07-07-2024-3	07/30/07	Air	GC/MS II	N/A	08/03/07	070802L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	4.4	2.4	1.48		o-Xylene	37	3.2	1.48	
Toluene	1100	28	14.8		Methyl-t-Butyl Ether (MTBE)	ND	11	1.48	
Ethylbenzene	32	3.2	1.48		Tert-Butyl Alcohol (TBA)	ND	9.0	1.48	
p/m-Xylene	78	6.4	1.48						
<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>	<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>
1,4-Bromofluorobenzene	96	57-129			1,2-Dichloroethane-d4	100	47-137		
Toluene-d8	98	78-156							

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Instrument	Date Prepared	Date Analyzed	QC Batch ID
SV-E-5 DUP	07-07-2024-4	07/30/07	Air	GC/MS II	N/A	08/03/07	070802L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	4.4	2.7	1.69		o-Xylene	44	3.7	1.69	
Toluene	1200	32	16.9		Methyl-t-Butyl Ether (MTBE)	ND	12	1.69	
Ethylbenzene	37	3.7	1.69		Tert-Butyl Alcohol (TBA)	ND	10	1.69	
p/m-Xylene	93	7.3	1.69						
<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>	<b>Surrogates:</b>	<b>REC (%)</b>	<b>Control Limits</b>		<b>Qual</b>
1,4-Bromofluorobenzene	97	57-129			1,2-Dichloroethane-d4	100	47-137		
Toluene-d8	90	78-156							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report



Conestoga-Rovers & Associates  
 19449 Riverside Drive, Suite 230  
 Sonoma, CA 95476-6955

Date Received: 07/31/07  
 Work Order No: 07-07-2024  
 Preparation: N/A  
 Method: EPA TO-15  
 Units: ug/m3

Project: 2120 Montana Street, Oakland, CA

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Client Sample Number	Lab Sample Number	Date Collected	Matrix	Instrument	Date Prepared	Date Analyzed	QC Batch ID
SV-E-10	07-07-2024-5	07/30/07	Air	GC/MS II	N/A	08/03/07	070803L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	1200	820	516		o-Xylene	ND	1100	516	
Toluene	2500	970	516		Methyl-t-Butyl Ether (MTBE)	ND	3700	516	
Ethylbenzene	ND	1100	516		Tert-Butyl Alcohol (TBA)	ND	3100	516	
p/m-Xylene	3600	2200	516						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
1,4-Bromofluorobenzene	103	57-129			1,2-Dichloroethane-d4	95	47-137		
Toluene-d8	55	78-156	2						

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Instrument	Date Prepared	Date Analyzed	QC Batch ID
Trip Blank	07-07-2024-6	07/30/07	Air	GC/MS II	N/A	08/02/07	070802L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	1.6	1		o-Xylene	ND	2.2	1	
Toluene	ND	1.9	1		Methyl-t-Butyl Ether (MTBE)	ND	7.2	1	
Ethylbenzene	ND	2.2	1		Tert-Butyl Alcohol (TBA)	ND	6.1	1	
p/m-Xylene	ND	4.3	1						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
1,4-Bromofluorobenzene	98	57-129			1,2-Dichloroethane-d4	104	47-137		
Toluene-d8	105	78-156							

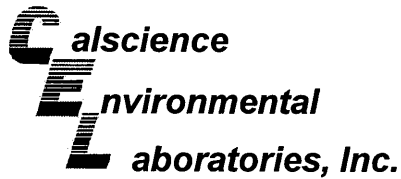
Client Sample Number	Lab Sample Number	Date Collected	Matrix	Instrument	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	097-09-002-6,177	N/A	Air	GC/MS II	N/A	08/02/07	070802L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	1.6	1		o-Xylene	ND	2.2	1	
Toluene	ND	1.9	1		Methyl-t-Butyl Ether (MTBE)	ND	7.2	1	
Ethylbenzene	ND	2.2	1		Tert-Butyl Alcohol (TBA)	ND	6.1	1	
p/m-Xylene	ND	4.3	1						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
1,4-Bromofluorobenzene	101	57-129			1,2-Dichloroethane-d4	109	47-137		
Toluene-d8	96	78-156							

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Instrument	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	097-09-002-6,178	N/A	Air	GC/MS II	N/A	08/03/07	070803L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	1.6	1		o-Xylene	ND	2.2	1	
Toluene	ND	1.9	1		Methyl-t-Butyl Ether (MTBE)	ND	7.2	1	
Ethylbenzene	ND	2.2	1		Tert-Butyl Alcohol (TBA)	ND	6.1	1	
p/m-Xylene	ND	4.3	1						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
1,4-Bromofluorobenzene	94	57-129			1,2-Dichloroethane-d4	100	47-137		
Toluene-d8	90	78-156							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



Conestoga-Rovers & Associates  
 19449 Riverside Drive, Suite 230  
 Sonoma, CA 95476-6955

Date Received: 07/31/07  
 Work Order No: 07-07-2024  
 Preparation: N/A  
 Method: EPA TO-15  
 Units: ug/m3

Project: 2120 Montana Street, Oakland, CA

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Client Sample Number	Lab Sample Number	Date Collected	Matrix	Instrument	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	097-09-002-6,183	N/A	Air	GC/MS II	N/A	08/06/07	070806L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	1.6	1		o-Xylene	ND	2.2	1	
Toluene	ND	1.9	1		Methyl-t-Butyl Ether (MTBE)	ND	7.2	1	
Ethylbenzene	ND	2.2	1		Tert-Butyl Alcohol (TBA)	ND	6.1	1	
p/m-Xylene	ND	4.3	1						
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>
1,4-Bromofluorobenzene	100	57-129			1,2-Dichloroethane-d4	109	47-137		
Toluene-d8	98	78-156							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

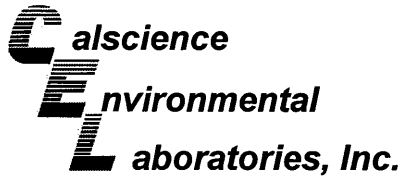


EPA TO-15 Tentatively Identified Compound (TIC)

<u>Client Sample Number</u>	<u>Compound</u>	<u>CAS Number</u>	<u>Retention Time</u>	<u>Estimated Concentration ug/m3</u>
SV-D-5	Isobutane	75-28-5	3.88	6.5
SV-E-5 DUP	Isobutane	75-28-5	3.88	26

A handwritten signature in black ink, appearing to be "M. M. M." or similar, located at the bottom left of the page.





Analytical Report



Conestoga-Rovers & Associates  
 19449 Riverside Drive, Suite 230  
 Sonoma, CA 95476-6955

Date Received: 07/31/07  
 Work Order No: 07-07-2024  
 Preparation: N/A  
 Method: EPA TO-15

Project: 2120 Montana Street, Oakland, CA

Page 1 of 3

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Instrument	Date Prepared	Date Analyzed	QC Batch ID
SV-D-5	07-07-2024-1	07/30/07	Air	GC/MS II	N/A	08/02/07	070802L02

Parameter	Result	RL	DF	Qual	Units
Naphthalene	ND	20	1.53		ug/m3
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	93	57-129			
1,2-Dichloroethane-d4	97	47-137			
Toluene-d8	104	78-156			

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Instrument	Date Prepared	Date Analyzed	QC Batch ID
SV-D-10	07-07-2024-2	07/30/07	Air	GC/MS II	N/A	08/03/07	070802L02

Parameter	Result	RL	DF	Qual	Units
Naphthalene	ND	21	1.6		ug/m3
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	93	57-129			
1,2-Dichloroethane-d4	94	47-137			
Toluene-d8	95	78-156			

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Instrument	Date Prepared	Date Analyzed	QC Batch ID
SV-E-5	07-07-2024-3	07/30/07	Air	GC/MS II	N/A	08/03/07	070802L02

Parameter	Result	RL	DF	Qual	Units
Naphthalene	ND	19	1.48		ug/m3
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	93	57-129			
1,2-Dichloroethane-d4	98	47-137			
Toluene-d8	97	78-156			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

## Analytical Report



Conestoga-Rovers & Associates  
19449 Riverside Drive, Suite 230  
Sonoma, CA 95476-6955

Date Received: 07/31/07  
Work Order No: 07-07-2024  
Preparation: N/A  
Method: EPA TO-15

Project: 2120 Montana Street, Oakland, CA

Page 2 of 3

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Instrument	Date Prepared	Date Analyzed	QC Batch ID
SV-E-5 DUP	07-07-2024-4	07/30/07	Air	GC/MS II	N/A	08/03/07	070802L02

Parameter	Result	RL	DF	Qual	Units
Naphthalene	ND	22	1.69		ug/m3
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	95	57-129			
1,2-Dichloroethane-d4	97	47-137			
Toluene-d8	89	78-156			

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Instrument	Date Prepared	Date Analyzed	QC Batch ID
SV-E-10	07-07-2024-5	07/30/07	Air	GC/MS II	N/A	08/03/07	070803L02

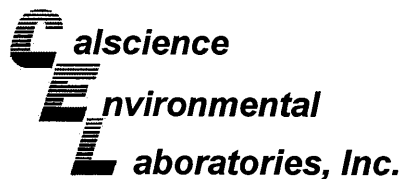
Parameter	Result	RL	DF	Qual	Units
Naphthalene	ND	6800	516		ug/m3
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	101	57-129			
1,2-Dichloroethane-d4	97	47-137			
Toluene-d8	54	78-156		2	

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Instrument	Date Prepared	Date Analyzed	QC Batch ID
Trip Blank	07-07-2024-6	07/30/07	Air	GC/MS II	N/A	08/02/07	070802L02

Parameter	Result	RL	DF	Qual	Units
Naphthalene	ND	13	1		ug/m3
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	96	57-129			
1,2-Dichloroethane-d4	100	47-137			
Toluene-d8	104	78-156			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





Analytical Report



Conestoga-Rovers & Associates  
 19449 Riverside Drive, Suite 230  
 Sonoma, CA 95476-6955

Date Received: 07/31/07  
 Work Order No: 07-07-2024  
 Preparation: N/A  
 Method: EPA TO-15

Project: 2120 Montana Street, Oakland, CA

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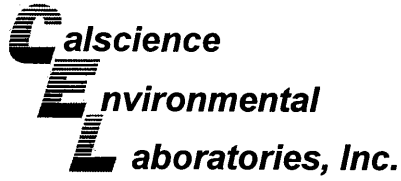
Client Sample Number	Lab Sample Number	Date Collected	Matrix	Instrument	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	095-01-021-5,086	N/A	Air	GC/MS II	N/A	08/03/07	070803L02

Parameter	Result	RL	DF	Qual	Units
Naphthalene	ND	13	1		ug/m3
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	92	57-129			
1,2-Dichloroethane-d4	102	47-137			
Toluene-d8	89	78-156			

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Instrument	Date Prepared	Date Analyzed	QC Batch ID
Method Blank	095-01-021-5,087	N/A	Air	GC/MS II	N/A	08/02/07	070802L02

Parameter	Result	RL	DF	Qual	Units
Naphthalene	ND	13	1		ug/m3
<u>Surrogates:</u>	<u>REC (%)</u>	<u>Control Limits</u>		<u>Qual</u>	
1,4-Bromofluorobenzene	98	57-129			
1,2-Dichloroethane-d4	103	47-137			
Toluene-d8	95	78-156			

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Quality Control - Duplicate



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 Sonoma, CA 95476-6955

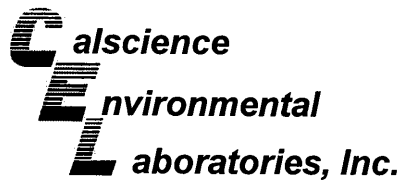
Date Received: 07/31/07  
 Work Order No: 07-07-2024  
 Preparation: N/A  
 Method: EPA TO-3 (M)

Project: 2120 Montana Street, Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
07-07-2011-1	Air	GC 13	N/A	07/31/07	070731D01

Parameter	Sample Conc.	DUP Conc.	RPD	RPD CL	Qualifiers
TPH as Gasoline	860000	880000	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - LCS/LCS Duplicate



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Sonoma, CA 95476-6955

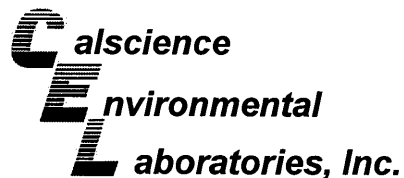
Date Received: N/A  
Work Order No: 07-07-2024  
Preparation: N/A  
Method: ASTM D-2820

Project: 2120 Montana Street, Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-478-7	Air	GC 33	N/A	08/01/07	070801L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Methane	98	98	80-120	0	0-20	
Ethane	98	97	80-120	1	0-20	
Propane	99	98	80-120	1	0-20	
Butane	98	97	80-120	1	0-20	
Pentane	98	97	80-120	1	0-20	
Hexane	106	107	80-120	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - LCS/LCS Duplicate



Conestoga-Rovers & Associates  
19449 Riverside Drive, Suite 230  
Sonoma, CA 95476-6955

Date Received: N/A  
Work Order No: 07-07-2024  
Preparation: N/A  
Method: EPA TO-15

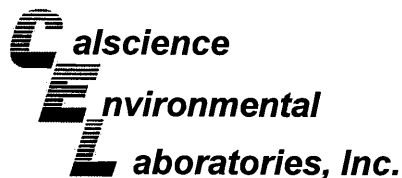
Project: 2120 Montana Street, Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
097-09-002-6,177	Air	GC/MS II	N/A	08/02/07	070802L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	105	104	60-156	1	0-40	
Toluene	103	104	56-146	1	0-43	
Ethylbenzene	103	106	52-154	3	0-38	
p/m-Xylene	104	107	42-156	3	0-41	
o-Xylene	102	107	52-148	5	0-38	

RPD - Relative Percent Difference , CL - Control Limit

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Quality Control - LCS/LCS Duplicate



Conestoga-Rovers & Associates  
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 Sonoma, CA 95476-6955

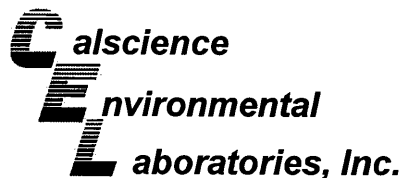
Date Received: N/A  
 Work Order No: 07-07-2024  
 Preparation: N/A  
 Method: EPA TO-15

Project: 2120 Montana Street, Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
097-09-002-6,178	Air	GC/MS II	N/A	08/03/07	070803L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	103	100	60-156	2	0-40	
Toluene	114	106	56-146	7	0-43	
Ethylbenzene	114	102	52-154	11	0-38	
p/m-Xylene	112	101	42-156	10	0-41	
o-Xylene	111	101	52-148	10	0-38	

RPD - Relative Percent Difference , CL - Control Limit



Quality Control - LCS/LCS Duplicate



Conestoga-Rovers & Associates  
 19449 Riverside Drive, Suite 230  
 Sonoma, CA 95476-6955

Date Received: N/A  
 Work Order No: 07-07-2024  
 Preparation: N/A  
 Method: EPA TO-15

Project: 2120 Montana Street, Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
097-09-002-6,183	Air	GC/MS II	N/A	08/06/07	070806L01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	105	107	60-156	1	0-40	
Toluene	104	104	56-146	0	0-43	
Ethylbenzene	109	108	52-154	1	0-38	
p/m-Xylene	107	106	42-156	1	0-41	
o-Xylene	106	104	52-148	2	0-38	

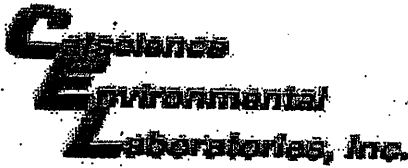
RPD - Relative Percent Difference , CL - Control Limit



Work Order Number: 07-07-2024

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike or Matrix Spike Duplicate compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.





WORK ORDER #: 07 - 07 - 2024

Cooler    of   

### SAMPLE RECEIPT FORM

CLIENT: CRA

DATE: 7/31/07

#### TEMPERATURE - SAMPLES RECEIVED BY:

##### CALSCIENCE COURIER:

- Chilled, cooler with temperature blank provided.
- Chilled, cooler without temperature blank.
- Chilled and placed in cooler with wet ice.
- Ambient and placed in cooler with wet ice.
- Ambient temperature.
- °C Temperature blank.

##### LABORATORY (Other than Calscience Courier):

- °C Temperature blank.
- °C IR thermometer.
- Ambient temperature.

Initial: HT

#### CUSTODY SEAL INTACT:

Sample(s): \_\_\_\_\_ Cooler: \_\_\_\_\_ No (Not Intact) : \_\_\_\_\_ Not Present: \_\_\_\_\_

Initial: HT

#### SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sampler's name indicated on COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with custody papers.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Correct containers and volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on sample label(s).....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VOA vial(s) free of headspace. ....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Initial: HT

#### COMMENTS:

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