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By Alameda County Environmental Health at 3:24 pm, Sep 10, 2013

August 29, 2013

Mr. Jerry Wickham, PG, CEG, CHG
Hazardous Materials Specialist
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: Evaluation of Sub-Slab Soil Vapor
P&D 23rd Avenue Partners Associates LLC
(Formerly 23rd Avenue Partners)
1125 Miller Avenue, Oakland, CA
Clearwater Project No. CB018H
Fuel Case Leak No. RO0000294

Dear Mr. Wickham,

As the legally authorized representative of the above-referenced project location I have reviewed the attached report prepared by my consultant of record, Clearwater Group. I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document are true and correct to the best of my knowledge.

Sincerely,



John Protopappas



August 29, 2013

Mr. Jerry Wickham, PG, CEG, CHG
Hazardous Materials Specialist
Alameda County Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: **Evaluation of Sub-Slab Soil Vapor**

For: P&D 23rd Avenue Associates LLC
(Formerly 23rd Avenue Partners)
1125 Miller Avenue
Oakland, California
Fuel Leak Case No. RO0000294

Dear Mr. Wickham,

Clearwater Group (Clearwater) is pleased to present this *Evaluation of Sub-Slab Soil Vapor* (Report). This Report responds to the March 26, 2013 request from the Alameda County Department of Environmental Health (ACEH) (**Attachment A**) to discuss the levels of volatile organic compounds (VOCs) in sub-slab soil vapors. It presents a revision to the Clearwater October 9, 2012 *Update of the Soil Vapor Sample Analytical Report Presented in Sub-Slab Soil Vapor Sampling Report* which provided an update of the analytical results of the December 8 and 9, 2011 sampling of sub-slab points SS-1 through SS-10, which were originally reported in Clearwater's February 29, 2012, *Sub-Slab Soil Vapor Sampling Report*.

Background

The lab in the *Update of the Soil Vapor Sample Analytical Report Presented in Sub-Slab Soil Vapor Sampling Report* is a revised version of the December 20, 2011 Eurofins/Air Toxics analytical reports and was reissued as Workorder #1112268AR1 on October 9, 2012 (**Attachment B**). It was updated to include previously presented analyses as well as VOCs, analyzed by method TO-15, which were not target compounds, and were not reported by the laboratory in December 2011. The full suite of VOC data from the method TO-15 scan was available to be reported by the laboratory, and upon request by Clearwater, the lab generated a new report on all the VOCs detected by Method TO-15 on September 10, 2012.

In the revised laboratory analytical report, all of the VOCs that were detected and reported needed to be compared to regulatory thresholds. ACEH staff requested clarification regarding Clearwater's comment in the October 9, 2012 Clearwater report that "...all Volatile Organic Compounds values are well below the residential California Human Health Screening Levels



(CHHSLs).” This report serves to clarify the relationship between the sub-slab contaminant levels and the regulatory thresholds, as requested by the ACEH staff in the March 26, 2013 letter.

Mixed Uses on Site

The Subject Property, 1125 Miller Avenue, Oakland, CA (Site), is a petroleum fuel release Site which, since 2006, has been sampled for contaminants in sub-slab vapor. The Site location map and the sub-slab soil vapor sample locations map are included as **Figure 1** and **Figure 2**, respectively. The Site is a mixed-use, live-work loft property. The soil vapor sample points which are located within the commercial-use area of the Site are as follows: SS-1, SS-2, SS-3, SS-4, SS-5, SS-6, and SS-8. The soil vapor sample points which are located in the residential-use area on the Site are as follows: SS-7, SS-9, and SS-10.

Regulatory Thresholds

After the sub-slab soil vapor was sampled from 2006 to 2011, two compounds remain contaminants of interest: total petroleum hydrocarbons as diesel (TPH-d) and tetrachloroethylene (PCE). For these contaminants, the following regulatory thresholds apply:

- 1) The Low Threat Closure Policy (LTCP) thresholds (commercial and residential) for the TPH-d, since the Site is a fuel release Site;
- 2) Environmental Screening Levels (ESLs) for the PCE;
- 3) CHHSLs for the PCE.

Fuel Release Contaminants

The values of TPH-d in soil vapor do not have a LTCP or a CHHSL threshold. However, the soil vapor sampling in 2006 in the commercial-use area (dispenser closet) of the Site exceeded the ESLs. In 2012, the dispenser closet’s slab was removed, the sub-slab soil was excavated to 2.5’ below ground surface, three drums of soil were removed, and the area was aerated for seven months. A sub-slab soil vapor barrier with bentonite seal and a soil vapor sealing coat of the top surface of the finished concrete were installed in June and July, 2013 (this will be reported separately). Because of subsequent concrete slab floor and soil removal of the dispenser closet in conjunction with the installation of two vapor sealing products, below the slab and in the surface of the replaced concrete slab floor of the dispenser closet, this remediation should be considered to have effectively completely eliminated TPH-d soil vapor intrusion issues in the vicinity of the former dispenser closet.

VOCs Usage

The Site had a history of solvents usage (for which the LTCP has no threshold), and the regulatory thresholds to address those chemicals are provided by the Bay Area Regional Water Control Board ESLs and State of California CHHSLs. Because there is a mixed use at the Site, with both commercial and residential uses in separate and discrete areas on the Site, the



regulatory thresholds for sub-slab vapor need to be applied on the basis of the use of the respective area on the Site.

To better clarify the application of the regulatory thresholds, the laboratory sub-slab vapor data have been presented in two separate tables, one for the commercial-use area, and one for the residential-use area. The attached tables, together, present all of the sub-slab soil vapor sample analytical results (cumulative) to date. **Table 1A** includes the sampling data from the commercial-use area sample points of the Site (SS-1, SS-2, SS-3, SS-4, SS-5, SS-6, and SS-8), and **Table 1B** includes the residential-use area sample points of the Site (SS-7, SS-9, and SS-10). All VOC values detected are below their respective (by location) commercial or residential California Human Health Screening Levels (CHHSLs).

Conclusions

- In regard to the fuel release, mitigation measures have already been performed on the Site in the area of the former fuel dispenser closet to address over-threshold TPH-d sub-slab soil vapor constituents. On the basis of the use of Best Available Technology to remediate the Site, the risk to human health (from the residual sub-slab VOCs via vapor intrusion through the slab to indoor air) is low.
- For those VOC values for which the LTCP applies (benzene, naphthalene, and ethylbenzene), no thresholds are exceeded.
- For those VOC values for which the commercial or residential CHHSLs were applied, as appropriate, no thresholds were exceeded.
- Lack of Established Threshold – Of the 30 compounds for which there was reporting by the lab in this report, 18 compounds have no established regulatory standard. In both the commercial and residential sub-slab, soil-vapor sampling point samples, of the 30 compounds there were 4 compounds which were not detected above the reporting limit. Of the 26 detected compounds, there is no regulatory threshold level for 15 of these compounds.

Recommendations

- The VOCs are below CHHSLs for residential and commercial areas, respectively; therefore, Clearwater does not recommend any further assessment of sub-slab VOCs.
- At this time, Clearwater recommends proper destruction of all sub-slab vapor points.

Please do not hesitate to contact us if you have any questions, or concerns.

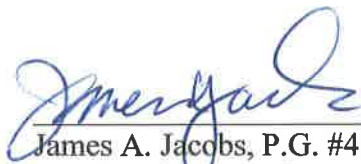
REPORT LIMITATION

All work performed under this contract was directed by a licensed professional. The work was performed in accordance with generally accepted practices at the time the work was performed and completed in accordance with generally acceptable standards. In the course of normal business, recommendations by the in-house professional may include the use of equipment, services, or products in which the Company has an interest. Therefore, the Company is making full disclosure of potential or perceived conflicts of interest to all parties.

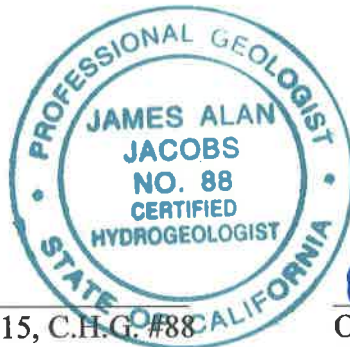
This report was prepared under the supervision of a State of California Professional Geologist, Engineer, or other licensed professional. Statements, conclusions, and recommendations made in this report are based on information provided to Clearwater, observations of existing site conditions, our general knowledge of the site, limited testing of selected soil and groundwater samples, and interpretations of a limited set of data. Clearwater cannot be held responsible for the accuracy of the analytical work performed by others.

Information and interpretation presented herein are for the use of the client. Third parties should rely upon the information and interpretation contained in this document at their own risk. No other warranties, certifications, or representations, either expressed or implied, are made about the information supplied in this report. The service performed by Clearwater has been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the area of the site.

Sincerely,
CLEARWATER GROUP



James A. Jacobs, P.G. #4815, C.H.G. #88
Chief Hydrogeologist



Olivia Jacobs, C.E.M. #1465
Chief Executive Officer



FIGURES

Figure 1 Site Vicinity Map
Figure 2 Site Plan

TABLES

Table 1A Cumulative Soil Vapor Sample Analytical Results – Commercial
Table 1B Cumulative Soil Vapor Sample Analytical Results – Residential

ATTACHMENTS

Attachment A March 26, 2013, Alameda County Department of Environmental Health, “Case File Review for Fuel Leak Case No. RO0000294 and GeoTracker Global ID T0600177455, 23rd Avenue Partners, 1125 Miller Avenue, Oakland, CA 94601”

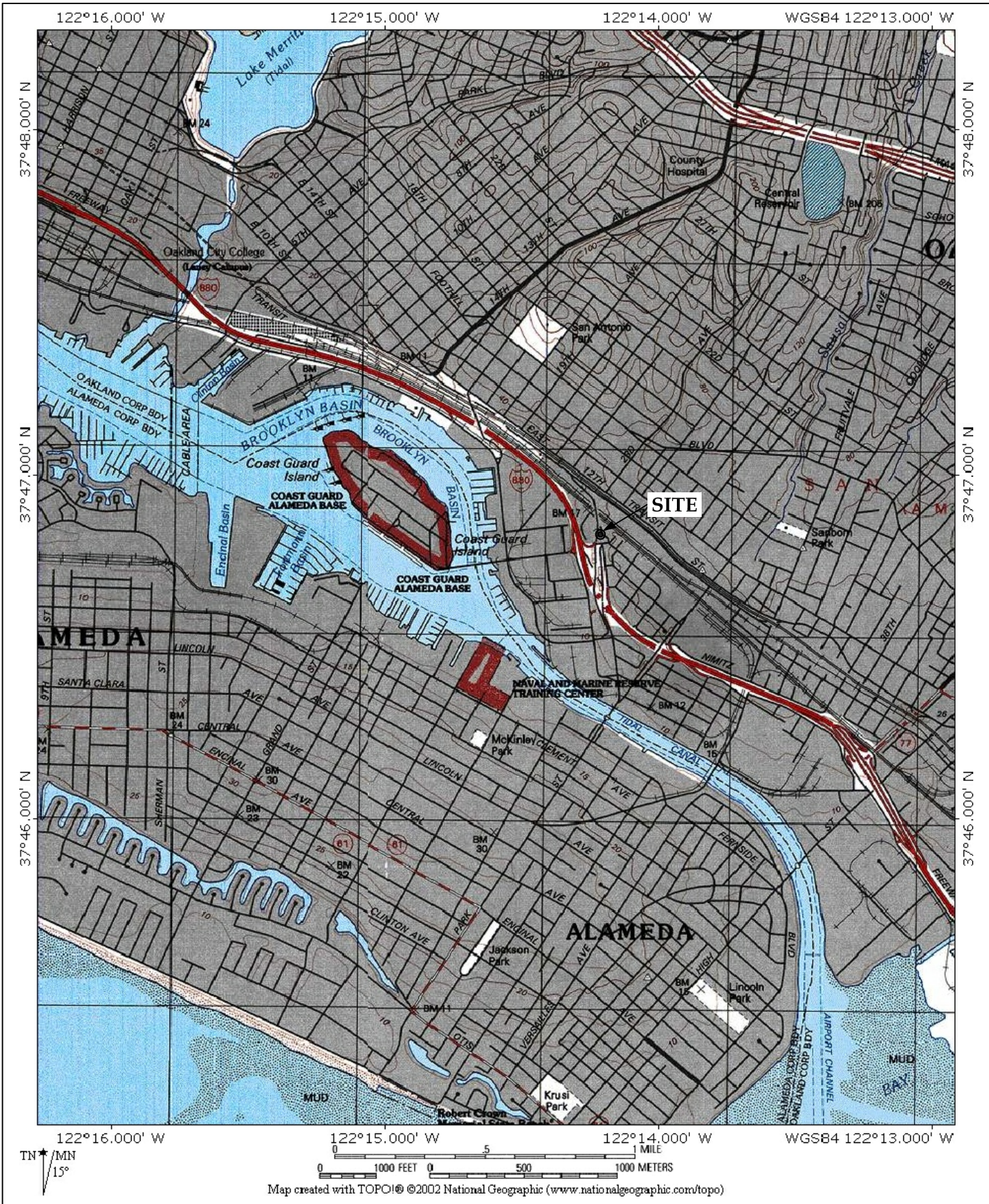
December 5, 2012, Alameda County Department of Environmental Health, “Case File Review for Fuel Leak Case No. RO0000294 and GeoTracker Global ID T0600177455, 23rd Avenue Partners, 1125 Miller Avenue, Oakland, CA 94601”

Attachment B Eurofins/Air Toxics Workorder #1112268AR1

DISTRIBUTION: Mr. John Protopappas
Madison Park Financial Corporation
155 Grand Avenue, Suite 1025
Oakland, CA 94612

Alameda County Environmental Health Services
(Sent via electronic upload to GeoTracker website)

FIGURES



Site Vicinity Map

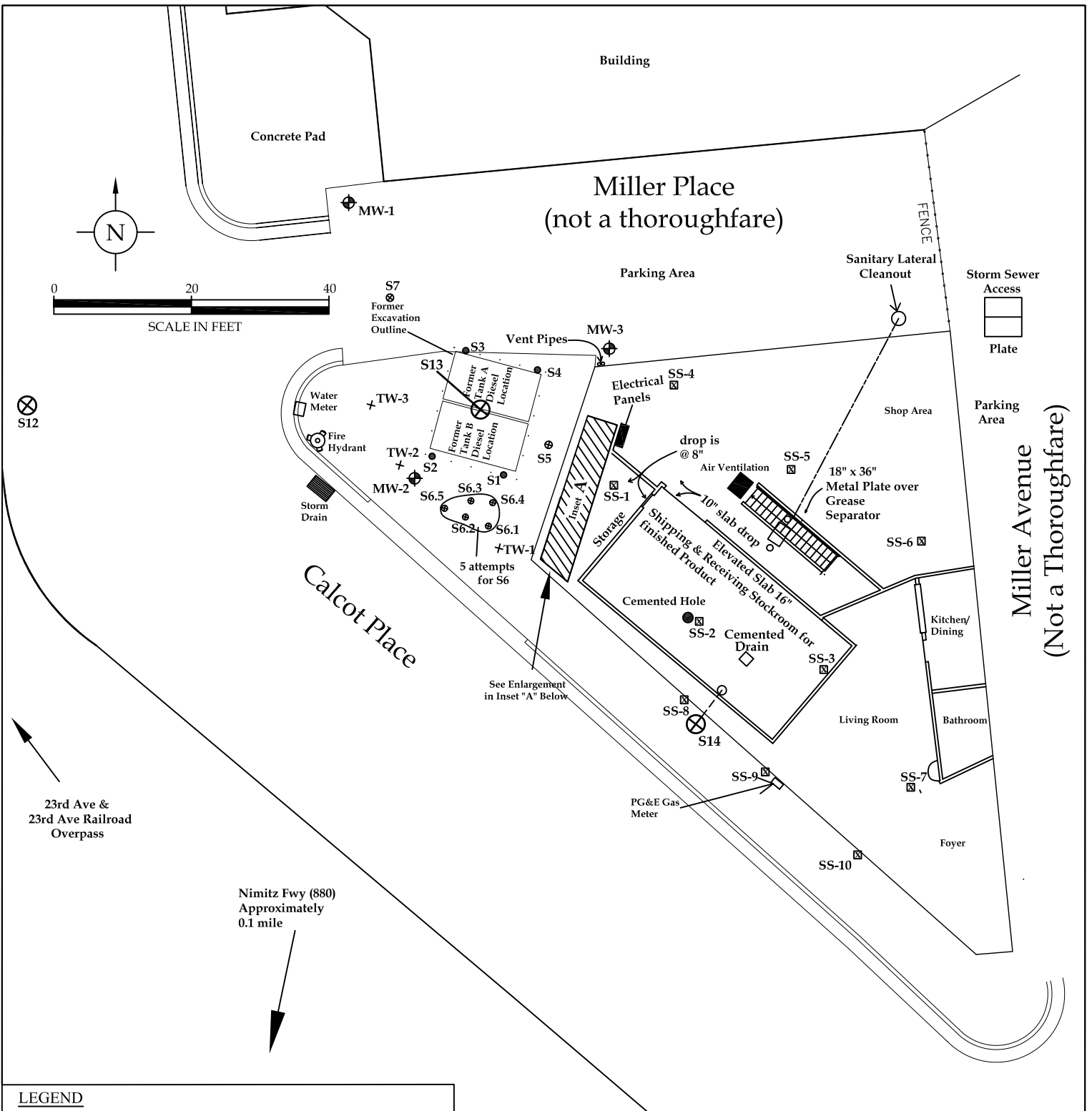
1125 Miller Avenue
Oakland, California

CLEARWATER GROUP

Project No.
CB018

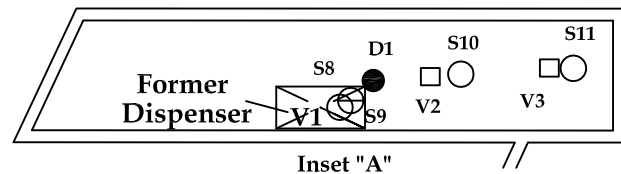
Figure Date
05/13

Figure
1



LEGEND

- ⊕ MW-1 Groundwater Monitoring Well
- ⊗ S12-S13 Soil Boring Locations (11/28/11)
- ⊗-⊕ S14 Slanted Soil Boring Location (11/28/11)
- ⊠ SS-1-SS-10 Sub-slab Vapor Location (06/17/10, 11/04/10) and 11/10/11)
- ⊕ S1-S4 Soil Boring Location (12/2/98)
- ⊕ S5-S8 Soil Boring Location (11/16/05)
- D1 Soil Boring Location (10/24/00)
- + TW-3 Temporary Well (10/24/00)
- S9-S11 Soil Boring Location (11/15/06)
- V1-V3 Soil Vapor Location (11/15/06)
- Excavation Outline



Site Plan

1125 Miller Avenue
Oakland, California

CLEARWATER GROUP

Project No.
CB018

Figure Date
07/13

Figure
2

TABLES

TABLE 1A
Cumulative Soil Vapor Sample Analytical Results - Commercial
P & D 23rd Avenue Associates LLC
1125 Miller Avenue, Oakland, CA
Clearwater Project No. CB018H

Sample ID	Sampling Date	Analytical Method	TPH-d	Naphthalene	1-Methyl naphthalene	2-Methyl naphthalene	TPH-g	B	T	E	X ^E	MTBE	TBA	ETBE TAME DIPE	2-Propanol	Propane	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	Propyl benzene	4-Ethyl toluene	Ethanol	Tetrahydrofuran	Tetrachloroethene	Methylene Chloride	Hexane	Cyclohexane	Cumene	Acetone	Chloroform	Freon 11	Freon 12	Freon 113				
Unit of Measurement			(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)				
Low-Threat Soil Gas Criteria - No Bioattenuation			NE	310	NE	NE	NE	280	NE	3,600	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE			
Zone - Commercial^J			NE	110	NE	NE	NE	120	380,000	1,400	880,000	13,000	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	600	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE		
CHHSLs, Commercial^I			570,000	360	NE	NE	1,200,000	420	1,300,000	4,900	440,000	47,000	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	2100	26,000	NE	NE	NE	140,000,000	2,300	NE	NE	NE	NE		
ESLs, Commercial^A			--	--	--	--	--	41	43	<7.9	28.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
V2.2 Suma Duplicate	11/15/2006	TO-15	--	--	--	--	--	42	46	<7.9	29.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		
V2.4 Suma Duplicate	11/15/2006	TO-15	--	--	--	--	--	<21	<28	<24	<28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
V1.4 1L	11/15/2006	TO-17	>150,000 ^F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
V1.4 4L	11/15/2006	NIOSH 1550	580,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
V1.4 4L Duplicate	11/15/2006	NIOSH 1550	600,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
V2.2 1L	11/15/2006	NIOSH 1550	710,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
V2.2 4L	11/15/2006	NIOSH 1550	180,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
V2.4 1L	11/15/2006	NIOSH 1550	280,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
V2.4 4L	11/15/2006	NIOSH 1550	700,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
V3.4 1L	11/15/2006	NIOSH 1550	7,300,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
V3.4 4L	11/15/2006	NIOSH 1550	570,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SS-1	06/17/2010	8260B/ 8015M ^C	<50,000	<100	--	--	<10,000	<100	<200	<100	<200	<100	<1,000	<100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SS-1	11/04/2010	TO-17/TO-15 ^B	<5,000	<2.5	<2.5	<2.5	<240	<3.8	<4.5	<5.1	<4.3	<14	<20 ^D	<12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
SS-1	04/01/2011	TO-17/TO-15 ^B	<5,000	<2.5	<2.5	<2.5	540	<3.7	<4.4	<5.0	<5.0	<4.2	<14	<19 ^D	<11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS-1	12/09/2011	TO-17/TO-15 ^B	<5,000	<2.5	<2.5	<2.5	<160	<2.5	<2.9	<3.4	<3.4	<2.8	<9.4	<13	<7.6	--	<3.8	<3.8	<3.8	<3.8	<5.8	<2.3	<5.2	<27	<2.7	<2.7	<3.8	<18	<3.8	<4.4	<3.8	<3.8	<5.9	--	--	
SS-2	06/17/2010	8260B/ 8015M ^C	<50,000	<100	--	--	<10,000	<100	<200	<100	<200	<100	<1,000	<100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS-2	11/04/2010	TO-17/TO-15 ^B	<5,000	<2.5	<2.5	<2.5	<240	<3.8	<4.5	<5.2	5.3	<4.3	<14	<20 ^D	<12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS-2	04/01/2011	TO-17/TO-15 ^B	<5,000	<2.5	<2.5	<2.5	530	<3.7	<4.4	<5.0	<5.0	<4.2	<14	<19 ^D	<11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS-2	12/09/2011	TO-17/TO-15 ^B	<5,000	<2.5	<2.5	<2.5	<160	<2.5	<3.0	<3.4	<3.4	<2.8	<9.6	<13	<7.8	--	<3.9	<3.9	<3.9	<3.9	<6.0	<2.3	<5.4	<27	<2.8	<2.7	<3.9	19	5.5	<4.4	<3.9	<6.0	--	--		
SS-3	06/17/2010	8260B/ 8015M ^C	<50,000	<100	--	--	37,000	<100	2,600	2,000	6,050	<100	<1,000	<100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS-3 Duplicate	06/17/2010	8260B/ 8015M ^C	<50,000	<100	--	--	30,000	<100	2,100	1,600	4,990	<100	<1,000	<100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS-3	11/04/2010	TO-17/TO-15 ^B	5,800	8.0	24	36	12,000	<8.2	60	560	2,940	<9.2	<31	<43 ^D	<25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS-3	11/04/2010	Modified ASTM D-1945	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.0051%	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS-3	04/01/2011	TO-17/TO-15 ^B	8,200	4.2	7.0	<2.5	8,600	3.8	16	110	650	<3.8	<13	<18 ^D	<10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS-3	12/08/2011	TO-17/TO-15 ^B	<5,000	3.7	8.0	<2.5	11,000	<2.5	3.8	19	119	<2.8	<9.6	<13	<7.8	--	8.3	13	<3.9	16	10	2.4	<5.4	67	3.1	160	3.9	270	<3.8	<4.4	<3.9	<6.0	--	--		
SS-3	12/08/2011	Modified ASTM D-1945	--	--	--	--	--	--	--	--	--	--	--	--	--	<0.0016%	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS-4	06/17/2010	8260B/ 8015M ^C	<50,000	<100	--	--	<10,000	<100	<200	<100	<200	<100	<1,000	<100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS-4	11/04/2010	TO-17/TO-15 ^B	<5,000	<2.5	<2.5	<2.5	<240	<3.8	<4.5	<5.2	<5.2	<4.3	<14	<20 ^D	<12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS-4	04/01/2011	TO-17/TO-15 ^B	<5,000	<2.5	<2.5	<2.5	520	<3.7	<4.4	<5.0	<5.0	<4.2	<14	<19 ^D	<11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS-4	12/08/2011	TO-17/TO-15 ^B	9,500 ^G	<2.5	<2.5	<2.5	<160	<2.5	<2.9	<3.4	<3.4	<2.8	<9.4	<13	<7.6	--	<3.8	<3.8	<3.8	<3.8	<5.8	2.5	130	<27	<2.7	<2.7	<3.8	<18	<3.8	<4.4	<3.8	<5.9	--	--		
SS-5	06/17/2010	8260B/ 8015M ^C	<50,000	<100	--	--	<10,000	<100	<200	<100	<200	<100	<1,000	<100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS-5	11/04/2010	TO-17/TO-15 ^B	<5,000	<2.5	<2.5	<2.5	<260	<4.0	<4.7	<5.5	<5.5	<4.5	<15	<21 ^D	<12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS-5 (IPA)	11/04/2010	Modified TO-15 GC/MS	--	--	--	--	--	--	--	--	--	--	--	--	81,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS-5	04/01/2011	TO-17/TO-15 ^B	<5,000	<2.5	<2.5	<2.5	880	<3.7	8.2	<5.0	<5.0	<4.2	<14	<19 ^D	<11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS-5	12/08/2011	TO-15	<5,000	<2.5	<2.5	<2.5	<160	<2.5	<2.9	<																										

TABLE 1A
Cumulative Soil Vapor Sample Analytical Results - Commercial
P & D 23rd Avenue Associates LLC
1125 Miller Avenue, Oakland, CA
Clearwater Project No. CB018H

Sample ID	Sampling Date	Analytical Method	TPH-d	Naphthalene	1-Methyl naphthalene	2-Methyl naphthalene	TPH-g	B	T	E	X ^E	MTBE	TBA	ETBE TAME DIPE	2-Propanol	Propane	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	Propyl benzene	4-Ethyl toluene	Ethanol	Tetrahydrofuran	Tetrachloroethene	Methylene Chloride	Hexane	Cyclohexane	Cumene	Acetone	Chloroform	Freon 11	Freon 12	Freon 113
Unit of Measurement			(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	
Low-Threat Soil Gas Criteria - No Bioattenuation																																
Zone - Commercial^J			NE	310	NE	NE	NE	280	NE	3,600	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
CHHSLs, Commercial ^I			NE	110	NE	NE	NE	120	380,000	1,400	880,000	13,000	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	600	NE	NE	NE	NE	NE	NE	NE	NE	NE

Notes:

- ESL Environmental Screening Limit
- (µg/m³) Micrograms per cubic meter
- TO-15 Samples analyzed using modified EPA method TO-15 for soil vapor collected in specially prepared canisters and analyzed by gas chromatography/mass spectrometry (GC/MS).
- TO-17 Samples analyzed using modified EPA method TO-17 for soil vapor samples collected using multi-bed sorbent tubes and analyzed by GC/MS.
- NIOSH 1550 Alternative analytical method used for saturated sorbent tubes using chemical extraction (carbon disulfide) and analyzed using gas chromatography/flame ionization detector (GC/FID).
- ASTM D-1945 Sample analyzed using modified ASTM D-1945
- TPH-d Total petroleum hydrocarbons detected within the diesel range of C10-C28
- TPH-g Total petroleum hydrocarbons detected within the gasoline range of C6-C12
- B Benzene
- T Toluene
- E Ethylbenzene
- X Total Xylenes
- MTBE Methyl-t-butyl ether
- ETBE Ethyl-t-butyl ether
- TAME Tert-amyl methyl ether
- DIPE Diisopropyl ether
- TBA tert-Butanol
- 2-Propanol 2-Propanol is also known as Isopropyl alcohol (IPA)
- Not Analyzed
- <# Contamination in the sample was below method reporting limits.
- bold** Contamination in the sample exceeded Low Threat Soil Gas Criteria or if no Low Threat values were established, it exceeded other environmental screening limits. For contaminants for which a standard has not been established (shown as NE), no bolding was used.
- NE Standard Not Established
- (ID) Identification
- CHHSL California Human Health Screening Level - Shallow Soil Gas Human Health Screening Levels

Footnote A Environmental Screening Levels (ESL), from Summary Table E. Environmental Screening Levels (ESLs) Indoor Air and Soil Gas (Soil Gas values shown), available from http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/ESL/Lookup_Tables_Summary_May_2013.pdf

Footnote B TPH-d, Naphthalene, 1-Methylnaphthalene, 2-Methylnaphthalene by Modified TO-17 VI; TPH-g, B, T, E, X, MTBE, TBA, ETBE, TAME, DIPE by Modified TO-15.

Footnote C BTEX, Naphthalene, Oxygenates and TPH-g by EPA method 8260B; TPH-d by EPA method 8015m

Footnote D Analyte is listed as isopropyl ether, not diisopropyl ether.

Footnote E Xylene is reported as the sum of m,p-Xylene and o-Xylene

Footnote F Laboratory Notes: TPH gasoline was detected at a concentration less than 5 times the reporting limit. Because the preceding sample contained high concentration of TPH-g, the result for TPH-g in this sample may be biased high for possible carry-over. A re-analysis of this sample was not possible due to insufficient sample volume.

Footnote G Laboratory Notes: The TPH pattern did not resemble that of diesel fuel. The hydrocarbons were distributed in the lighter carbon range of diesel.

Footnote H Laboratory Notes: Dilution was performed on this sample due to the presence of high level target species.

Footnote I CHHSLs - *California Human Health Screening Levels, Revised September 2010*. Table 3 Soil Gas Screening Numbers for Volatile Chemicals Below Buildings Constructed Without Engineered Fill Below Sub-Slab Gravel

Footnote J Bio-attenuation zone as defined by the Water Control Policy for the Low-Threat Underground Storage Tank Closure .

V2.2 Summa Vapor sample collected at 2 feet below ground surface using 6-liter Summa canister at a flow rate of 200 mL per minute for 30 minutes.

V2.4 Summa Vapor sample collected at 4 feet below ground surface using 6-liter Summa canister at a flow rate of 200 mL per minute for 30 minutes.

V1.4 1L Vapor sample collected at 4 feet below ground surface using TO-17 Carbotrap 300 tube at a flow rate of 66.7 mL per minute for 15 minutes. Sample was analyzed using modified EPA method TO-17.

V1.4 4L Vapor sample collected at 4 feet below ground surface using TO-17 Carbotrap 300 tube at a flow rate of 133.3 mL per minute for 30 minutes.

> ## (S) Sample results are flagged as greater than saturated peak for analyte.

1L Sample flow rate equal to 66.7 milliliters per minute for 15 minutes.

4L Sample flow rate equal to 133.3 milliliters per minute for 30 minutes.

TABLE 1B
Cumulative Soil Vapor Sample Analytical Results - Residential
P & D 23rd Avenue Associates LLC
1125 Miller Avenue, Oakland, CA
Clearwater Project No. CB018H

Sample ID	Sampling Date	Analytical Method	TPH-d	Naphthalene	1-Methyl naphthalene	2-Methyl naphthalene	TPH-g	B	T	E	X ^E	MTBE	TBA	ETBE TAME DIPE	2-Propanol	Propane	1,3,5-Trimethylbenzene	1,2,4-Trimethylbenzene	Propyl benzene	4-Ethyl toluene	Ethanol	Tetrahydrofuran	Tetrachloroethene	Methylene Chloride	Hexane	Cyclohexane	Cumene	Acetone	Chloroform	Freon 11	Freon 12	Freon 113
Unit of Measurement			(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	(µg/m ³)	
Low-Threat Soil Gas Criteria - No Bioattenuation																																
Zone - Residential^J			NE	93	NE	NE	NE	85	NE	1,100	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE
CHHSLs, Residential ^I			NE	32	NE	NE	NE	36	140,000	420	320,000	4,000	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	180	NE	NE	NE	NE	NE	NE	NE	NE	NE
ESLs, Residential ^A			68,000	36	NE	NE	150,000	42	160,000	490	52,000	4,700	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE	210	2,600	NE	NE	NE	16,000,000	230	NE	NE	NE
SS-7	04/01/2011	TO-17/TO-15 ^B	<5,000	10	9.0	10	690	<3.8	5.9	<5.2	<5.2	<4.3	<14	<20 ^D	85	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS-7 (IPA)	04/01/2011	TO-15	--	--	--	--	--	--	--	--	--	--	--	--	93,000	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS-7	12/09/2011	TO-17/TO-15 ^B	<5,000	<2.5	<2.5	<2.5	530 ^F	<2.5	<2.9	<3.4	<3.4	<2.8	<9.4	<13	<7.6	--	<3.8	8.8	<3.8	9.4	<5.8	<2.3	<5.2	<27	<2.7	5.2	<3.8	20	<3.8	5.4	4.5	12
SS-7 (IPA)	12/09/2011	TO-15	--	--	--	--	--	--	--	--	--	--	--	--	20,000 ^H	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SS-9	12/08/2011	TO-17/TO-15 ^B	<5,000	<2.5	<2.5	<2.5	310	<2.6	<3.0	<3.5	<3.5	<2.9	<9.8	<13	<7.9	--	<4.0	<4.0	<4.0	<4.0	<6.1	2.6	<2.5	<28	<2.8	<2.8	<4.0	<19	<3.9	<4.5	<4.0	<6.2
SS-10	12/08/2011	TO-17/TO-15 ^B	<5,000	<2.5	<2.5	<2.5	1,900	37	160	37	208	<2.7	<9.2	<13	<7.5	--	16	47	12	45	7.1	<2.2	<5.2	<26	<2.7	<2.6	<3.7	<18	<3.7	<4.3	<3.8	<5.8

Notes:
ESL Environmental Screening Limit
(µg/m³) Micrograms per cubic meter
TO-15 Samples analyzed using modified EPA method TO-15 for soil vapor collected in specially prepared canisters and analyzed by gas chromatography/mass spectrometry (GC/MS).
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TPH-g Total petroleum hydrocarbons detected within the gasoline range of C6-C12
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T Toluene
E Ethylbenzene
X Total Xylenes
MTBE Methyl-t-butyl ether
ETBE Ethyl-t-butyl ether
TAME Tert-amyl methyl ether
DIPE Diisopropyl ether
TBA tert-Butanol
2-Propanol 2-Propanol is also known as Isopropyl alcohol (IPA)
-- Not Analyzed
<# Contamination in the sample was below method reporting limits.
bold Contamination in the sample exceeded Low Threat Soil Gas Criteria or if no Low Threat values were established, it exceeded other environmental screening limits. For contaminants for which a standard has not been established (shown as NE), no bolding was used.
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Footnote C BTEX, Naphthalene, Oxygenates and TPH-g by EPA method 8260B; TPH-d by EPA method 8015m
Footnote D Analyte is listed as isopropyl ether, not diisopropyl ether.
Footnote E Xylene is reported as the sum of m,p-Xylene and o-Xylene
Footnote F Laboratory Notes: TPH gasoline was detected at a concentration less than 5 times the reporting limit. Because the preceding sample contained high concentration of TPH-g, the result for TPH-g in this sample may be biased high for possible carry-over. A re-analysis of this sample was not possible due to insufficient sample volume.
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Footnote I CHHSLs - California Human Health Screening Levels, Revised September 2010. Table 3 Soil Gas Screening Numbers for Volatile Chemicals Below Buildings Constructed Without Engineered Fill Below Sub-Slab Gravel
Footnote J Bio-attenuation zone as defined by the Water Control Policy for the Low-Threat Underground Storage Tank Closure .

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> ## (S) Sample results are flagged as greater than saturated peak for analyte.
1L Sample flow rate equal to 66.7 milliliters per minute for 15 minutes.
4L Sample flow rate equal to 133.3 milliliters per minute for 30 minutes.

ATTACHMENTS

ATTACHMENT A



ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

March 26, 2013

Mr. John Protopappas
P&D 23rd Avenue Associates LLC
P.O. Box 687
Oakland, CA 94604
(Sent via E-mail to: John@MPFCorp.com)

Subject: Case File Review for Fuel Leak Case No. RO0000294 and GeoTracker Global ID T0600177455, 23rd Avenue Partners, 1125 Miller Avenue, Oakland, CA 94601

Dear Mr. Protopappas:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above-referenced site including the most recently submitted document entitled, "2000-Foot Radius Well Search Report," dated February 21, 2013. The Well Search Report, which was prepared on your behalf by Clearwater Group, presents results from a well search conducted using Alameda County Public Works Agency and California Department of Water Resources databases. The Well Search Report was submitted in response to the technical comments in ACEH correspondence dated December 5, 2012, which is attached for reference. However, ACEH's correspondence requested a Work Plan to address six technical comments. The Well Search Report addresses only one of the six technical comments in ACEH's December 5, 2012 correspondence.

The Well Search Report recommends that the site be considered for low-risk case closure but does not evaluate site conditions against the general and media-specific criteria in the State Water Resources Control Board Low-Threat Closure Policy (LTCP). Due to the presence of volatile organic compounds (VOCs) in soil vapor, the site does not appear to meet general criteria b of the LTCP, which requires that the unauthorized release consists only of petroleum.

The site may be evaluated for case closure under the LTCP in the future if the extent of VOCs is evaluated and the VOCs do not pose a risk to human health or the environment. In order to complete this evaluation, we request that you submit a Work Plan that addresses the technical comments below, most of which were previously requested in our December 5, 2012 correspondence.

TECHNICAL COMMENTS

1. **Volatile Organic Compounds in Sub-slab Soil Vapor.** Review of the "Update of the Soil Vapor Sample Analytical Report Presented in Sub-Slab Soil Vapor Sampling Report," dated October 9, 2012 indicates that tetrachloroethene (PCE) was detected in 3 of 10 sub-slab vapor samples collected on December 9, 2011 at concentrations ranging from 5.7 to 240 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). The Analytical Report states that all volatile organic compound (VOCs) concentrations are well below the residential CHHLs. This statement is not accurate since the maximum PCE concentration of $240 \mu\text{g}/\text{m}^3$ exceeds the residential CHHSL

of 180 $\mu\text{g}/\text{m}^3$. However, the maximum concentration of PCE does not exceed the San Francisco Bay Regional Water Quality Control Board Environmental Screening Level (ESL) for commercial land use of 2,100 $\mu\text{g}/\text{m}^3$. The detections of PCE were not evaluated or discussed in any recently submitted reports or during a November 14, 2012 meeting. In the Work Plan requested below, we request that you include an evaluation of whether the VOCs in sub-slab vapor represent a human health threat for vapor intrusion or propose additional data collection to complete this evaluation.

2. **Volatile Organic Compounds in Groundwater.** Further review of the case file indicates that groundwater does not appear to have been analyzed for VOCs other than petroleum hydrocarbon constituents. Due to the detections of PCE in sub-slab soil vapor, PCE is a chemical of concern for the site. The absence of VOC data for groundwater may represent a data gap for the site. Vapor intrusion assessments are generally conducted using multiple lines of evidence. VOC data for groundwater would provide an additional line of evidence to evaluate the PCE detected in sub-slab vapor discussed in technical comment 2. Therefore, the collection of a limited number of groundwater samples for VOC analysis is to be included in the Work Plan requested below.
3. **Residual Diesel Contamination.** Hand excavation was conducted inside the western end of the building in the area of a former fuel dispenser. The excavation was stopped at a depth of 2.5 feet below grade. However, soil containing elevated concentrations of total petroleum hydrocarbons as diesel remains in place beneath the western end of the building as indicated by elevated concentrations of TPH as diesel (TPHd) in confirmation soil samples. The TPHd does not appear to pose a human health risk for vapor intrusion to the western end of the building. Naphthalene was not detected at concentrations exceeding the LTCP criteria of 93 $\mu\text{g}/\text{m}^3$ in sub-slab soil vapor samples collected beneath the building. As discussed during the November 14, 2012 meeting, the residual TPHd although not an apparent health risk based on comparison to LTCP criteria, may represent an odor or nuisance condition. A method for sealing the floor in this area of the building to mitigate possible nuisance conditions was proposed by Clearwater Group and was discussed during the meeting. However, you may wish to delay presenting plans for mitigation of possible nuisance vapor conditions in the western portion of the building pending completion of an evaluation of the VOC issue discussed in technical comments 1 and 2.
4. **Delineation of TPHd Plume.** A total of an additional ten soil borings was proposed for soil and groundwater sampling in the document entitled, "*Soil and Groundwater Investigation Results*," dated February 29, 2012. The purpose of the proposed borings was to define the lateral and vertical definition of diesel impacts. As discussed during the November 14, 2012 meeting, the results of a detailed well survey will be reviewed to determine whether additional delineation is necessary for the TPHd plume. However, as requested in technical comment 2, the collection of a limited number of groundwater samples for VOC analysis is to be included in the Work Plan requested below. Depending upon their locations, these additional groundwater samples could also provide further delineation of TPHd in groundwater.
5. **Well Search Report.** Based on the results of the well search, the nearest water supply well appears to be a 345 feet deep well located approximately 450 feet west northwest of the site. The nearest well is described as abandoned but not destroyed through a permitted process. Table 4 of the Well Search, which is entitled, "*Well and Tank Locations Identified in Sanborn*

Mr. John Protopappas
RO000294
March 26, 2013
Page 3

Map Well Search," presents a detailed list of water tank and wind mill locations. Figure 4 provides a detailed map of the water tank locations, which show two water tank locations immediately west of the site. The Well Search Report includes no discussion, conclusions, or recommendations regarding the water tank locations. In the Work Plan requested below, please include some evaluation of these data along with plans to conduct a door to door well survey to verify that no water supply wells are present at these locations.

TECHNICAL REPORT REQUEST

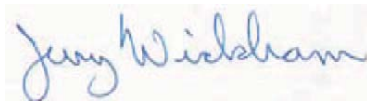
Please upload technical reports to the ACEH ftp site (Attention: Jerry Wickham), and to the State Water Resources Control Board's GeoTracker website according to the following schedule and file-naming convention:

- **May 28, 2013** – Work Plan
File to be named: WP_R_yyyy-mm-dd RO294

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at jerry.wickham@acgov.org.

Sincerely,



Digitally signed by Jerry Wickham
DN: cn=Jerry Wickham, o=Alameda County Environmental
Health, ou, email=jerry.wickham@acgov.org, c=US
Date: 2013.03.26 17:50:42 -07'00'

Jerry Wickham, California PG 3766, CEG 1177, and CHG 297
Senior Hazardous Materials Specialist

Attachment: ACEH Correspondence dated December 5, 2012
Responsible Party(ies) Legal Requirements/Obligations

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Leroy Griffin, Oakland Fire Department, 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland, CA 94612-2032 2032 (*Sent via E-mail to: lgriffin@oaklandnet.com*)

Robert Nelson, Clearwater Group, 229 Tewksbury Avenue, Pt. Richmond, CA 94801 (*Sent via E-mail to: RNelson@clearwatergroup.com*)

Olivia Jacobs, Clearwater Group, 229 Tewksbury Avenue, Pt. Richmond, CA 94801 (*Sent via E-mail to: OJacobs@clearwatergroup.com*)

Mr. John Protopappas
RO000294
March 26, 2013
Page 4

James Jacobs, Clearwater Group, 229 Tewksbury Avenue, Pt. Richmond, CA 94801 (*Sent via E-mail to: augerpro@sbcglobal.net*)

Donna Drogos, ACEH (*Sent via E-mail to: donna.drogos@acgov.org*)

Jerry Wickham, ACEH (*Sent via E-mail to: jerry.wickham@acgov.org*)

GeoTracker, File

Attachment 1

Responsible Party(ies) Legal Requirements/Obligations

REPORT/DATA REQUESTS

These reports/data are being requested pursuant to Division 7 of the California Water Code (Water Quality), Chapter 6.7 of Division 20 of the California Health and Safety Code (Underground Storage of Hazardous Substances), and Chapter 16 of Division 3 of Title 23 of the California Code of Regulations (Underground Storage Tank Regulations).

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (Local Oversight Program [LOP] for unauthorized releases from petroleum Underground Storage Tanks [USTs], and Site Cleanup Program [SCP] for unauthorized releases of non-petroleum hazardous substances) require submission of reports in electronic format pursuant to Chapter 3 of Division 7, Sections 13195 and 13197.5 of the California Water Code, and Chapter 30, Articles 1 and 2, Sections 3890 to 3895 of Division 3 of Title 23 of the California Code of Regulations (23 CCR). Instructions for submission of electronic documents to the ACEH FTP site are provided on the attached "Electronic Report Upload Instructions."

Submission of reports to the ACEH FTP site is in addition to requirements for electronic submittal of information (ESI) to the State Water Resources Control Board's (SWRCB) Geotracker website. In April 2001, the SWRCB adopted 23 CCR, Division 3, Chapter 16, Article 12, Sections 2729 and 2729.1 (Electronic Submission of Laboratory Data for UST Reports). Article 12 required electronic submittal of analytical laboratory data submitted in a report to a regulatory agency (effective September 1, 2001), and surveyed locations (latitude, longitude and elevation) of groundwater monitoring wells (effective January 1, 2002) in Electronic Deliverable Format (EDF) to Geotracker. Article 12 was subsequently repealed in 2004 and replaced with Article 30 (Electronic Submittal of Information) which expanded the ESI requirements to include electronic submittal of any report or data required by a regulatory agency from a cleanup site. The expanded ESI submittal requirements for petroleum UST sites subject to the requirements of 23 CCR, Division, 3, Chapter 16, Article 11, became effective December 16, 2004. All other electronic submittals required pursuant to Chapter 30 became effective January 1, 2005. Please visit the SWRCB website for more information on these requirements. (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/)

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 7835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, late reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)	REVISION DATE: July 25, 2012
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	SUBJECT: Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (petroleum UST and SCP) require submission of all reports in electronic form to the county's FTP site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as a **single Portable Document Format (PDF) with no password protection.**
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document.** Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

- 1) Obtain User Name and Password
 - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
 - i) Send an e-mail to .loptoxic@acgov.org
 - b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for.**
- 2) Upload Files to the ftp Site
 - a) Using Internet Explorer (IE4+), go to <://alcoftp1.acgov.org>
 - (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
 - b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
 - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
 - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
 - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
 - a) Send email to .loptoxic@acgov.org notify us that you have placed a report on our ftp site.
 - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
 - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
 - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.



ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

December 5, 2012

Mr. John Protopappas
P&D 23rd Avenue Associates LLC
P.O. Box 687
Oakland, CA 94604
(Sent via E-mail to: John@MPFCorp.com)

Subject: Case File Review for Fuel Leak Case No. RO0000294 and GeoTracker Global ID T0600177455, 23rd Avenue Partners, 1125 Miller Avenue, Oakland, CA 94601

Dear Mr. Protopappas:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above-referenced site including the most recently submitted documents entitled, "*Update of the Soil Vapor Sample Analytical Report Presented in Sub-Slab Soil Vapor Sampling Report*," dated October 9, 2012 (Analytical Report) and "*Sub-Slab Excavation Report*," dated November 8, 2012 (Excavation Report) and received by ACEH on November 14, 2012. Both reports were prepared on your behalf by Clearwater Group.

The Analytical Report presents laboratory analytical reports for Modified TO-14A/15 analyses performed on sub-slab soil vapor samples. The Excavation Report documents the results of removal of vent and supply lines and limited removal of contaminated soil beneath a former dispenser inside the western corner of the building. This site was also discussed during a meeting conducted on November 14, 2012 between Mr. John Protopappas of Madison Park Financial Corporation, James Jacobs of Clearwater Group, Robert Nelson of Clearwater Group, Olivia Jacobs of Clearwater Group, and Jerry Wickham of ACEH.

Based on our review of the case file, we request that you submit a Work Plan that addresses the technical comments below.

TECHNICAL COMMENTS

1. **Soil Vapor Screening Values.** Table 2 of the October 9, 2012 Analytical Report uses soil vapor screening values that do not appear to be designated properly. The title of Table 2 indicates that soil vapor sample results are compared to screening values from the Low-Threat Closure Policy (LTCP) with no bioattenuation zone. However, the screening values shown are for sites with a bioattenuation zone and are three orders of magnitude higher than screening values with no bioattenuation zone. We note these values were corrected in meeting handouts; please make this correction in future documents. The header of Table 2 describes CHHSLs commercial; however, the screening values shown appear to be CHHSLs for residential land use. Please correct the header and/or screening values in future documents.

2. **Volatile Organic Compounds in Sub-slab Soil Vapor.** Review of the October 9, 2012 Analytical Report indicates that tetrachloroethene (PCE) was detected in 3 of 10 sub-slab vapor samples collected on December 9, 2011 at concentrations ranging from 5.7 to 240 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). The Analytical Report states that all volatile organic compound (VOCs) concentrations are well below the residential CHHLs. This statement is not accurate since the maximum PCE concentration of $240 \mu\text{g}/\text{m}^3$ exceeds the residential CHHSL of $180 \mu\text{g}/\text{m}^3$. However, the maximum concentration of PCE does not exceed the San Francisco Bay Regional Water Quality Control Board Environmental Screening Level (ESL) for residential land use of $410 \mu\text{g}/\text{m}^3$. The detections of PCE were not evaluated or discussed in either of the recently submitted reports or during the November 14, 2012 meeting. In the Work Plan requested below, we request that you include an evaluation of whether the VOCs in sub-slab vapor represent a human health threat for vapor intrusion or propose additional data collection to compete this evaluation.
3. **Volatile Organic Compounds in Groundwater.** Further review of the case file indicates that groundwater does not appear to have been analyzed for VOCs other than petroleum hydrocarbon constituents. Due to the detections of PCE in sub-slab soil vapor, PCE is a chemical of concern for the site. The absence of VOC data for groundwater may represent a data gap for the site. Vapor intrusion assessments are generally conducted using multiple lines of evidence. VOC data for groundwater would provide an additional line of evidence to evaluate the PCE detected in sub-slab vapor discussed in technical comment 2. Therefore, the collection of a limited number of groundwater samples for VOC analysis is to be included in the Work Plan requested below.
4. **Residual Diesel Contamination.** Hand excavation was conducted inside the western end of the building in the area of a former fuel dispenser. The excavation was stopped at a depth of 2.5 feet below grade. However, soil containing elevated concentrations of total petroleum hydrocarbons as diesel remains in place beneath the western end of the building as indicated by elevated concentrations of TPH as diesel (TPHd) in confirmation soil samples. The TPHd does not appear to pose a human health risk for vapor intrusion to the western end of the building. Naphthalene was not detected at concentrations exceeding the LTCP criteria of $93 \mu\text{g}/\text{m}^3$ in sub-slab soil vapor samples collected beneath the building. As discussed during the November 14, 2012 meeting, the residual TPHd although not an apparent health risk based on comparison to LTCP criteria, may represent an odor or nuisance condition. A method for sealing the floor in this area of the building to mitigate possible nuisance conditions was proposed by Clearwater Group and was discussed during the meeting. However, you may wish to delay presenting plans for mitigation of possible nuisance vapor conditions in the western portion of the building pending completion of an evaluation of the VOC issue discussed in technical comment 2.
5. **Delineation of TPHd Plume.** A total of an additional ten soil borings was proposed for soil and groundwater sampling in the document entitled, "*Soil and Groundwater Investigation Results*," dated February 29, 2012. The purpose of the proposed borings was to define the lateral and vertical definition of diesel impacts. As discussed during the November 14, 2012 meeting, the results of a detailed well survey will be reviewed to determine whether additional delineation is necessary for the TPHd plume. However, as requested in technical comment 3, the collection of a limited number of groundwater samples for VOC analysis is to be

included in the Work Plan requested below. Depending upon their locations, these additional groundwater samples could also provide further delineation of TPHd in groundwater.

6. **Well Survey.** As discussed during the November 14, 2012 meeting, we request that you complete a well survey to identify all water supply wells within 2,000 feet of the site. We recommend that you obtain well information from both the Alameda County Public Works Agency and the State of California Department of Water Resources. Submittal of maps showing the location of all wells identified in your study, and the use of tables to report the data collected as part of your survey are required. Please provide a table that includes the well designation, location, total depth, diameter, screen interval, date of well installation, current status, historic use, and owner of the wells. In addition, please provide well logs and completion records for wells downgradient from the site that are potential receptors. Results of the detailed well survey are to be included in the Work Plan requested below. Please also include plans to conduct a door to door well survey.

TECHNICAL REPORT REQUEST

Please upload technical reports to the ACEH ftp site (Attention: Jerry Wickham), and to the State Water Resources Control Board's GeoTracker website according to the following schedule and file-naming convention:

- **February 21, 2013** – Work Plan
File to be named: WP_R_yyyy-mm-dd RO294

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at jerry.wickham@acgov.org.

Sincerely,

Jerry Wickham, California PG 3766, CEG 1177, and CHG 297
Senior Hazardous Materials Specialist

Attachment: Responsible Party(ies) Legal Requirements/Obligations

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

Mr. John Protopappas
RO000294
December 5, 2012
Page 4

cc: Leroy Griffin, Oakland Fire Department, 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland, CA 94612-2032 2032 (*Sent via E-mail to: lgriffin@oaklandnet.com*)

Robert Nelson, Clearwater Group, 229 Tewksbury Avenue, Pt. Richmond, CA 94801 (*Sent via E-mail to: RNelson@clearwatergroup.com*)

Olivia Jacobs, Clearwater Group, 229 Tewksbury Avenue, Pt. Richmond, CA 94801 (*Sent via E-mail to: OJacobs@clearwatergroup.com*)

James Jacobs, Clearwater Group, 229 Tewksbury Avenue, Pt. Richmond, CA 94801 (*Sent via E-mail to: augerpro@sbcglobal.net*)

Donna Drogos, ACEH (*Sent via E-mail to: donna.drogos@acgov.org*)

Jerry Wickham, ACEH (*Sent via E-mail to: jerry.wickham@acgov.org*)

GeoTracker, File

Attachment 1

Responsible Party(ies) Legal Requirements/Obligations

REPORT/DATA REQUESTS

These reports/data are being requested pursuant to Division 7 of the California Water Code (Water Quality), Chapter 6.7 of Division 20 of the California Health and Safety Code (Underground Storage of Hazardous Substances), and Chapter 16 of Division 3 of Title 23 of the California Code of Regulations (Underground Storage Tank Regulations).

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (Local Oversight Program [LOP] for unauthorized releases from petroleum Underground Storage Tanks [USTs], and Site Cleanup Program [SCP] for unauthorized releases of non-petroleum hazardous substances) require submission of reports in electronic format pursuant to Chapter 3 of Division 7, Sections 13195 and 13197.5 of the California Water Code, and Chapter 30, Articles 1 and 2, Sections 3890 to 3895 of Division 3 of Title 23 of the California Code of Regulations (23 CCR). Instructions for submission of electronic documents to the ACEH FTP site are provided on the attached "Electronic Report Upload Instructions."

Submission of reports to the ACEH FTP site is in addition to requirements for electronic submittal of information (ESI) to the State Water Resources Control Board's (SWRCB) Geotracker website. In April 2001, the SWRCB adopted 23 CCR, Division 3, Chapter 16, Article 12, Sections 2729 and 2729.1 (Electronic Submission of Laboratory Data for UST Reports). Article 12 required electronic submittal of analytical laboratory data submitted in a report to a regulatory agency (effective September 1, 2001), and surveyed locations (latitude, longitude and elevation) of groundwater monitoring wells (effective January 1, 2002) in Electronic Deliverable Format (EDF) to Geotracker. Article 12 was subsequently repealed in 2004 and replaced with Article 30 (Electronic Submittal of Information) which expanded the ESI requirements to include electronic submittal of any report or data required by a regulatory agency from a cleanup site. The expanded ESI submittal requirements for petroleum UST sites subject to the requirements of 23 CCR, Division, 3, Chapter 16, Article 11, became effective December 16, 2004. All other electronic submittals required pursuant to Chapter 30 became effective January 1, 2005. Please visit the SWRCB website for more information on these requirements. (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/)

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 7835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, late reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)	REVISION DATE: July 25, 2012
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	SUBJECT: Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (petroleum UST and SCP) require submission of all reports in electronic form to the county's FTP site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as a **single Portable Document Format (PDF) with no password protection.**
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document.** Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

- 1) Obtain User Name and Password
 - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
 - i) Send an e-mail to .loptoxic@acgov.org
 - b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses,** and the **Case Numbers (RO# available in Geotracker) you will be posting for.**
- 2) Upload Files to the ftp Site
 - a) Using Internet Explorer (IE4+), go to <://alcoftp1.acgov.org>
 - (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
 - b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
 - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
 - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
 - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
 - a) Send email to .loptoxic@acgov.org notify us that you have placed a report on our ftp site.
 - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
 - c) The subject line of the e-mail must start with the RO# followed by **Report Upload.** (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
 - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

ATTACHMENT B

9/10/2012
Ms. Olivia Jacobs
Clearwater Group, Inc.
229 Tewksbury Avenue

Point Richmond CA 94801

Project Name: 1125 Miller
Project #:
Workorder #: 1112268AR1

Dear Ms. Olivia Jacobs

The following report includes the data for the above referenced project for sample(s) received on 12/13/2011 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-14A/15 (5&20 ppbv) are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kyle Vagadori
Project Manager

WORK ORDER #: 1112268AR1

Work Order Summary

CLIENT:	Ms. Olivia Jacobs Clearwater Group, Inc. 229 Tewksbury Avenue Point Richmond, CA 94801	BILL TO:	Ms. Olivia Jacobs Clearwater Group, Inc. 229 Tewksbury Avenue Point Richmond, CA 94801
PHONE:	510-307-9943	P.O. #	
FAX:		PROJECT #	1125 Miller
DATE RECEIVED:	12/13/2011	CONTACT:	Kyle Vagadori
DATE COMPLETED:	12/20/2011		
DATE REISSUED:	09/10/2012		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	SS-10	Modified TO-14A/15 (5&20)	3.5 "Hg	5 psi
02A	SS-9	Modified TO-14A/15 (5&20)	5.0 "Hg	5 psi
03A	SS-8	Modified TO-14A/15 (5&20)	5.5 "Hg	5 psi
04A	SS-5	Modified TO-14A/15 (5&20)	4.0 "Hg	5 psi
05A	SS-4	Modified TO-14A/15 (5&20)	4.0 "Hg	5 psi
06A	SS-3	Modified TO-14A/15 (5&20)	4.5 "Hg	5 psi
07A	SS-2	Modified TO-14A/15 (5&20)	4.5 "Hg	5 psi
08A	SS-1	Modified TO-14A/15 (5&20)	4.0 "Hg	5 psi
09A	SS-6	Modified TO-14A/15 (5&20)	4.5 "Hg	5 psi
10A	SS-7	Modified TO-14A/15 (5&20)	4.0 "Hg	5 psi
11A	Lab Blank	Modified TO-14A/15 (5&20)	NA	NA
12A	CCV	Modified TO-14A/15 (5&20)	NA	NA
13A	LCS	Modified TO-14A/15 (5&20)	NA	NA
13AA	LCSD	Modified TO-14A/15 (5&20)	NA	NA

CERTIFIED BY: 

DATE: 09/10/12

Technical Director

Certification numbers: AZ Licensure AZ0775, CA NELAP - 12282CA, NY NELAP - 11291,
TX NELAP - T104704434-12-5, UT NELAP CA009332012-3, WA NELAP - C935

Name of Accrediting Agency: NELAP/ORELAP (Oregon Environmental Laboratory Accreditation Program)

Accreditation number: CA300005, Effective date: 10/18/2011, Expiration date: 10/17/2012.

Eurofins Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

This report shall not be reproduced, except in full, without the written approval of Eurofins Air Toxics, Inc.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 9563
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020



LABORATORY NARRATIVE
EPA Method TO-15
Clearwater Group, Inc.
Workorder# 1112268AR1

Ten 1 Liter Summa Canister and one PAC250 Canister samples were received on December 13, 2011. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

A single point calibration for TPH referenced to Gasoline was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

TPH gasoline was detected at a concentration less than 5 times the reporting limit in sample SS-7. Because the preceding sample contained high concentration of TPH gasoline, the result for TPH gasoline in sample SS-7 may be biased high for possible carry-over. A re-analysis of sample SS-7 was not possible due to insufficient sample volume.

THE WORKORDER WAS REISSUED ON SEPTEMBER 10, 2012 TO REPORT ADDITIONAL COMPOUNDS PER CLIENT'S REQUEST.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV and/or LCS.

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

Summary of Detected Compounds EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SS-10

Lab ID#: 1112268AR1-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	0.76	12	2.4	37
Toluene	0.76	42	2.9	160
Ethyl Benzene	0.76	8.5	3.3	37
m,p-Xylene	0.76	31	3.3	140
o-Xylene	0.76	16	3.3	68
1,3,5-Trimethylbenzene	0.76	3.2	3.7	16
1,2,4-Trimethylbenzene	0.76	9.5	3.7	47
Propylbenzene	0.76	2.5	3.7	12
4-Ethyltoluene	0.76	9.1	3.7	45
Ethanol	3.0	3.8	5.7	7.1
TPH ref. to Gasoline (MW=100)	38	470	160	1900

Client Sample ID: SS-9

Lab ID#: 1112268AR1-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrahydrofuran	0.80	0.87	2.4	2.6
TPH ref. to Gasoline (MW=100)	40	75	160	310

Client Sample ID: SS-8

Lab ID#: 1112268AR1-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrahydrofuran	0.82	0.85	2.4	2.5
TPH ref. to Gasoline (MW=100)	41	82	170	340

Client Sample ID: SS-5

Lab ID#: 1112268AR1-04A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.78	1.0	3.8	5.2
Tetrachloroethene	0.78	36	5.2	240

Summary of Detected Compounds EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SS-4

Lab ID#: 1112268AR1-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.78	19	5.2	130
Tetrahydrofuran	0.78	0.86	2.3	2.5

Client Sample ID: SS-3

Lab ID#: 1112268AR1-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methylene Chloride	7.9	19	27	67
Toluene	0.79	1.0	3.0	3.8
Ethyl Benzene	0.79	4.4	3.4	19
m,p-Xylene	0.79	15	3.4	66
o-Xylene	0.79	12	3.4	53
1,3,5-Trimethylbenzene	0.79	1.7	3.9	8.3
1,2,4-Trimethylbenzene	0.79	2.7	3.9	13
Hexane	0.79	0.89	2.8	3.1
Cyclohexane	0.79	47	2.7	160
Cumene	0.79	0.79	3.9	3.9
Acetone	7.9	110	19	270
Tetrahydrofuran	0.79	0.81	2.3	2.4
4-Ethyltoluene	0.79	3.3	3.9	16
Ethanol	3.2	5.3	6.0	10
TPH ref. to Gasoline (MW=100)	40	2800	160	11000

Client Sample ID: SS-2

Lab ID#: 1112268AR1-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Chloroform	0.79	1.1	3.8	5.5
Acetone	7.9	7.9	19	19

Client Sample ID: SS-1

Lab ID#: 1112268AR1-08A

**Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN**

Client Sample ID: SS-1

Lab ID#: 1112268AR1-08A

No Detections Were Found.

Client Sample ID: SS-6

Lab ID#: 1112268AR1-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.79	0.96	3.9	4.7
Freon 113	0.79	1.2	6.0	9.3
Tetrachloroethene	0.79	0.84	5.4	5.7
Acetone	7.9	9.1	19	22

Client Sample ID: SS-7

Lab ID#: 1112268AR1-10A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.78	0.90	3.8	4.5
Freon 11	0.78	0.96	4.4	5.4
Freon 113	0.78	1.5	5.9	12
1,2,4-Trimethylbenzene	0.78	1.8	3.8	8.8
Cyclohexane	0.78	1.5	2.7	5.2
Acetone	7.8	8.3	18	20
4-Ethyltoluene	0.78	1.9	3.8	9.4
TPH ref. to Gasoline (MW=100)	39	130	160	530



Air Toxics

Client Sample ID: SS-10

Lab ID#: 1112268AR1-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o121514r1	Date of Collection:	12/8/11 11:14:00 AM
Dil. Factor:	1.52	Date of Analysis:	12/15/11 07:29 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.76	Not Detected	3.8	Not Detected
Freon 114	0.76	Not Detected	5.3	Not Detected
Vinyl Chloride	0.76	Not Detected	1.9	Not Detected
Bromomethane	7.6	Not Detected	30	Not Detected
Chloroethane	3.0	Not Detected	8.0	Not Detected
Freon 11	0.76	Not Detected	4.3	Not Detected
1,1-Dichloroethene	0.76	Not Detected	3.0	Not Detected
Freon 113	0.76	Not Detected	5.8	Not Detected
Methylene Chloride	7.6	Not Detected	26	Not Detected
1,1-Dichloroethane	0.76	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected
Chloroform	0.76	Not Detected	3.7	Not Detected
1,1,1-Trichloroethane	0.76	Not Detected	4.1	Not Detected
Carbon Tetrachloride	0.76	Not Detected	4.8	Not Detected
Benzene	0.76	12	2.4	37
1,2-Dichloroethane	0.76	Not Detected	3.1	Not Detected
Trichloroethene	0.76	Not Detected	4.1	Not Detected
1,2-Dichloropropane	0.76	Not Detected	3.5	Not Detected
cis-1,3-Dichloropropene	0.76	Not Detected	3.4	Not Detected
Toluene	0.76	42	2.9	160
trans-1,3-Dichloropropene	0.76	Not Detected	3.4	Not Detected
1,1,2-Trichloroethane	0.76	Not Detected	4.1	Not Detected
Tetrachloroethene	0.76	Not Detected	5.2	Not Detected
1,2-Dibromoethane (EDB)	0.76	Not Detected	5.8	Not Detected
Chlorobenzene	0.76	Not Detected	3.5	Not Detected
Ethyl Benzene	0.76	8.5	3.3	37
m,p-Xylene	0.76	31	3.3	140
o-Xylene	0.76	16	3.3	68
Styrene	0.76	Not Detected	3.2	Not Detected
1,1,2,2-Tetrachloroethane	0.76	Not Detected	5.2	Not Detected
1,3,5-Trimethylbenzene	0.76	3.2	3.7	16
1,2,4-Trimethylbenzene	0.76	9.5	3.7	47
1,3-Dichlorobenzene	0.76	Not Detected	4.6	Not Detected
1,4-Dichlorobenzene	0.76	Not Detected	4.6	Not Detected
alpha-Chlorotoluene	0.76	Not Detected	3.9	Not Detected
1,2-Dichlorobenzene	0.76	Not Detected	4.6	Not Detected
1,3-Butadiene	0.76	Not Detected	1.7	Not Detected
Hexane	0.76	Not Detected	2.7	Not Detected
Cyclohexane	0.76	Not Detected	2.6	Not Detected
Heptane	0.76	Not Detected	3.1	Not Detected
Bromodichloromethane	0.76	Not Detected	5.1	Not Detected
Dibromochloromethane	0.76	Not Detected	6.5	Not Detected



Client Sample ID: SS-10

Lab ID#: 1112268AR1-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o121514r1	Date of Collection:	12/8/11 11:14:00 AM
Dil. Factor:	1.52	Date of Analysis:	12/15/11 07:29 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	0.76	Not Detected	3.7	Not Detected
Propylbenzene	0.76	2.5	3.7	12
Chloromethane	7.6	Not Detected	16	Not Detected
1,2,4-Trichlorobenzene	3.0	Not Detected	22	Not Detected
Hexachlorobutadiene	3.0	Not Detected	32	Not Detected
Acetone	7.6	Not Detected	18	Not Detected
Carbon Disulfide	3.0	Not Detected	9.5	Not Detected
2-Propanol	3.0	Not Detected	7.5	Not Detected
trans-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.0	Not Detected	9.0	Not Detected
Tetrahydrofuran	0.76	Not Detected	2.2	Not Detected
1,4-Dioxane	3.0	Not Detected	11	Not Detected
4-Methyl-2-pentanone	0.76	Not Detected	3.1	Not Detected
2-Hexanone	3.0	Not Detected	12	Not Detected
Bromoform	0.76	Not Detected	7.8	Not Detected
4-Ethyltoluene	0.76	9.1	3.7	45
Ethanol	3.0	3.8	5.7	7.1
Methyl tert-butyl ether	0.76	Not Detected	2.7	Not Detected
tert-Butyl alcohol	3.0	Not Detected	9.2	Not Detected
Ethyl-tert-butyl ether	3.0	Not Detected	13	Not Detected
Isopropyl ether	3.0	Not Detected	13	Not Detected
tert-Amyl methyl ether	3.0	Not Detected	13	Not Detected
3-Chloropropene	3.0	Not Detected	9.5	Not Detected
2,2,4-Trimethylpentane	0.76	Not Detected	3.6	Not Detected
TPH ref. to Gasoline (MW=100)	38	470	160	1900

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	104	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: SS-9

Lab ID#: 1112268AR1-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o121515r1	Date of Collection:	12/8/11 12:23:00 PM
Dil. Factor:	1.61	Date of Analysis:	12/15/11 07:52 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.80	Not Detected	4.0	Not Detected
Freon 114	0.80	Not Detected	5.6	Not Detected
Vinyl Chloride	0.80	Not Detected	2.0	Not Detected
Bromomethane	8.0	Not Detected	31	Not Detected
Chloroethane	3.2	Not Detected	8.5	Not Detected
Freon 11	0.80	Not Detected	4.5	Not Detected
1,1-Dichloroethene	0.80	Not Detected	3.2	Not Detected
Freon 113	0.80	Not Detected	6.2	Not Detected
Methylene Chloride	8.0	Not Detected	28	Not Detected
1,1-Dichloroethane	0.80	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.80	Not Detected	3.2	Not Detected
Chloroform	0.80	Not Detected	3.9	Not Detected
1,1,1-Trichloroethane	0.80	Not Detected	4.4	Not Detected
Carbon Tetrachloride	0.80	Not Detected	5.1	Not Detected
Benzene	0.80	Not Detected	2.6	Not Detected
1,2-Dichloroethane	0.80	Not Detected	3.2	Not Detected
Trichloroethene	0.80	Not Detected	4.3	Not Detected
1,2-Dichloropropane	0.80	Not Detected	3.7	Not Detected
cis-1,3-Dichloropropene	0.80	Not Detected	3.6	Not Detected
Toluene	0.80	Not Detected	3.0	Not Detected
trans-1,3-Dichloropropene	0.80	Not Detected	3.6	Not Detected
1,1,2-Trichloroethane	0.80	Not Detected	4.4	Not Detected
Tetrachloroethene	0.80	Not Detected	5.5	Not Detected
1,2-Dibromoethane (EDB)	0.80	Not Detected	6.2	Not Detected
Chlorobenzene	0.80	Not Detected	3.7	Not Detected
Ethyl Benzene	0.80	Not Detected	3.5	Not Detected
m,p-Xylene	0.80	Not Detected	3.5	Not Detected
o-Xylene	0.80	Not Detected	3.5	Not Detected
Styrene	0.80	Not Detected	3.4	Not Detected
1,1,2,2-Tetrachloroethane	0.80	Not Detected	5.5	Not Detected
1,3,5-Trimethylbenzene	0.80	Not Detected	4.0	Not Detected
1,2,4-Trimethylbenzene	0.80	Not Detected	4.0	Not Detected
1,3-Dichlorobenzene	0.80	Not Detected	4.8	Not Detected
1,4-Dichlorobenzene	0.80	Not Detected	4.8	Not Detected
alpha-Chlorotoluene	0.80	Not Detected	4.2	Not Detected
1,2-Dichlorobenzene	0.80	Not Detected	4.8	Not Detected
1,3-Butadiene	0.80	Not Detected	1.8	Not Detected
Hexane	0.80	Not Detected	2.8	Not Detected
Cyclohexane	0.80	Not Detected	2.8	Not Detected
Heptane	0.80	Not Detected	3.3	Not Detected
Bromodichloromethane	0.80	Not Detected	5.4	Not Detected
Dibromochloromethane	0.80	Not Detected	6.8	Not Detected



Client Sample ID: SS-9

Lab ID#: 1112268AR1-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o121515r1	Date of Collection:	12/8/11 12:23:00 PM
Dil. Factor:	1.61	Date of Analysis:	12/15/11 07:52 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	0.80	Not Detected	4.0	Not Detected
Propylbenzene	0.80	Not Detected	4.0	Not Detected
Chloromethane	8.0	Not Detected	17	Not Detected
1,2,4-Trichlorobenzene	3.2	Not Detected	24	Not Detected
Hexachlorobutadiene	3.2	Not Detected	34	Not Detected
Acetone	8.0	Not Detected	19	Not Detected
Carbon Disulfide	3.2	Not Detected	10	Not Detected
2-Propanol	3.2	Not Detected	7.9	Not Detected
trans-1,2-Dichloroethene	0.80	Not Detected	3.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.2	Not Detected	9.5	Not Detected
Tetrahydrofuran	0.80	0.87	2.4	2.6
1,4-Dioxane	3.2	Not Detected	12	Not Detected
4-Methyl-2-pentanone	0.80	Not Detected	3.3	Not Detected
2-Hexanone	3.2	Not Detected	13	Not Detected
Bromoform	0.80	Not Detected	8.3	Not Detected
4-Ethyltoluene	0.80	Not Detected	4.0	Not Detected
Ethanol	3.2	Not Detected	6.1	Not Detected
Methyl tert-butyl ether	0.80	Not Detected	2.9	Not Detected
tert-Butyl alcohol	3.2	Not Detected	9.8	Not Detected
Ethyl-tert-butyl ether	3.2	Not Detected	13	Not Detected
Isopropyl ether	3.2	Not Detected	13	Not Detected
tert-Amyl methyl ether	3.2	Not Detected	13	Not Detected
3-Chloropropene	3.2	Not Detected	10	Not Detected
2,2,4-Trimethylpentane	0.80	Not Detected	3.8	Not Detected
TPH ref. to Gasoline (MW=100)	40	75	160	310

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	105	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: SS-8

Lab ID#: 1112268AR1-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o121516r1	Date of Collection:	12/8/11 1:17:00 AM
Dil. Factor:	1.64	Date of Analysis:	12/15/11 08:12 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.82	Not Detected	4.0	Not Detected
Freon 114	0.82	Not Detected	5.7	Not Detected
Vinyl Chloride	0.82	Not Detected	2.1	Not Detected
Bromomethane	8.2	Not Detected	32	Not Detected
Chloroethane	3.3	Not Detected	8.6	Not Detected
Freon 11	0.82	Not Detected	4.6	Not Detected
1,1-Dichloroethene	0.82	Not Detected	3.2	Not Detected
Freon 113	0.82	Not Detected	6.3	Not Detected
Methylene Chloride	8.2	Not Detected	28	Not Detected
1,1-Dichloroethane	0.82	Not Detected	3.3	Not Detected
cis-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected
Chloroform	0.82	Not Detected	4.0	Not Detected
1,1,1-Trichloroethane	0.82	Not Detected	4.5	Not Detected
Carbon Tetrachloride	0.82	Not Detected	5.2	Not Detected
Benzene	0.82	Not Detected	2.6	Not Detected
1,2-Dichloroethane	0.82	Not Detected	3.3	Not Detected
Trichloroethene	0.82	Not Detected	4.4	Not Detected
1,2-Dichloropropane	0.82	Not Detected	3.8	Not Detected
cis-1,3-Dichloropropene	0.82	Not Detected	3.7	Not Detected
Toluene	0.82	Not Detected	3.1	Not Detected
trans-1,3-Dichloropropene	0.82	Not Detected	3.7	Not Detected
1,1,2-Trichloroethane	0.82	Not Detected	4.5	Not Detected
Tetrachloroethene	0.82	Not Detected	5.6	Not Detected
1,2-Dibromoethane (EDB)	0.82	Not Detected	6.3	Not Detected
Chlorobenzene	0.82	Not Detected	3.8	Not Detected
Ethyl Benzene	0.82	Not Detected	3.6	Not Detected
m,p-Xylene	0.82	Not Detected	3.6	Not Detected
o-Xylene	0.82	Not Detected	3.6	Not Detected
Styrene	0.82	Not Detected	3.5	Not Detected
1,1,2,2-Tetrachloroethane	0.82	Not Detected	5.6	Not Detected
1,3,5-Trimethylbenzene	0.82	Not Detected	4.0	Not Detected
1,2,4-Trimethylbenzene	0.82	Not Detected	4.0	Not Detected
1,3-Dichlorobenzene	0.82	Not Detected	4.9	Not Detected
1,4-Dichlorobenzene	0.82	Not Detected	4.9	Not Detected
alpha-Chlorotoluene	0.82	Not Detected	4.2	Not Detected
1,2-Dichlorobenzene	0.82	Not Detected	4.9	Not Detected
1,3-Butadiene	0.82	Not Detected	1.8	Not Detected
Hexane	0.82	Not Detected	2.9	Not Detected
Cyclohexane	0.82	Not Detected	2.8	Not Detected
Heptane	0.82	Not Detected	3.4	Not Detected
Bromodichloromethane	0.82	Not Detected	5.5	Not Detected
Dibromochloromethane	0.82	Not Detected	7.0	Not Detected



Client Sample ID: SS-8

Lab ID#: 1112268AR1-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o121516r1	Date of Collection:	12/8/11 1:17:00 AM
Dil. Factor:	1.64	Date of Analysis:	12/15/11 08:12 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	0.82	Not Detected	4.0	Not Detected
Propylbenzene	0.82	Not Detected	4.0	Not Detected
Chloromethane	8.2	Not Detected	17	Not Detected
1,2,4-Trichlorobenzene	3.3	Not Detected	24	Not Detected
Hexachlorobutadiene	3.3	Not Detected	35	Not Detected
Acetone	8.2	Not Detected	19	Not Detected
Carbon Disulfide	3.3	Not Detected	10	Not Detected
2-Propanol	3.3	Not Detected	8.1	Not Detected
trans-1,2-Dichloroethene	0.82	Not Detected	3.2	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.3	Not Detected	9.7	Not Detected
Tetrahydrofuran	0.82	0.85	2.4	2.5
1,4-Dioxane	3.3	Not Detected	12	Not Detected
4-Methyl-2-pentanone	0.82	Not Detected	3.4	Not Detected
2-Hexanone	3.3	Not Detected	13	Not Detected
Bromoform	0.82	Not Detected	8.5	Not Detected
4-Ethyltoluene	0.82	Not Detected	4.0	Not Detected
Ethanol	3.3	Not Detected	6.2	Not Detected
Methyl tert-butyl ether	0.82	Not Detected	3.0	Not Detected
tert-Butyl alcohol	3.3	Not Detected	9.9	Not Detected
Ethyl-tert-butyl ether	3.3	Not Detected	14	Not Detected
Isopropyl ether	3.3	Not Detected	14	Not Detected
tert-Amyl methyl ether	3.3	Not Detected	14	Not Detected
3-Chloropropene	3.3	Not Detected	10	Not Detected
2,2,4-Trimethylpentane	0.82	Not Detected	3.8	Not Detected
TPH ref. to Gasoline (MW=100)	41	82	170	340

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: SS-5

Lab ID#: 1112268AR1-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o121517r1	Date of Collection:	12/8/11 2:34:00 AM
Dil. Factor:	1.55	Date of Analysis:	12/15/11 08:32 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.78	1.0	3.8	5.2
Freon 114	0.78	Not Detected	5.4	Not Detected
Vinyl Chloride	0.78	Not Detected	2.0	Not Detected
Bromomethane	7.8	Not Detected	30	Not Detected
Chloroethane	3.1	Not Detected	8.2	Not Detected
Freon 11	0.78	Not Detected	4.4	Not Detected
1,1-Dichloroethene	0.78	Not Detected	3.1	Not Detected
Freon 113	0.78	Not Detected	5.9	Not Detected
Methylene Chloride	7.8	Not Detected	27	Not Detected
1,1-Dichloroethane	0.78	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected
Chloroform	0.78	Not Detected	3.8	Not Detected
1,1,1-Trichloroethane	0.78	Not Detected	4.2	Not Detected
Carbon Tetrachloride	0.78	Not Detected	4.9	Not Detected
Benzene	0.78	Not Detected	2.5	Not Detected
1,2-Dichloroethane	0.78	Not Detected	3.1	Not Detected
Trichloroethene	0.78	Not Detected	4.2	Not Detected
1,2-Dichloropropane	0.78	Not Detected	3.6	Not Detected
cis-1,3-Dichloropropene	0.78	Not Detected	3.5	Not Detected
Toluene	0.78	Not Detected	2.9	Not Detected
trans-1,3-Dichloropropene	0.78	Not Detected	3.5	Not Detected
1,1,2-Trichloroethane	0.78	Not Detected	4.2	Not Detected
Tetrachloroethene	0.78	36	5.2	240
1,2-Dibromoethane (EDB)	0.78	Not Detected	6.0	Not Detected
Chlorobenzene	0.78	Not Detected	3.6	Not Detected
Ethyl Benzene	0.78	Not Detected	3.4	Not Detected
m,p-Xylene	0.78	Not Detected	3.4	Not Detected
o-Xylene	0.78	Not Detected	3.4	Not Detected
Styrene	0.78	Not Detected	3.3	Not Detected
1,1,2,2-Tetrachloroethane	0.78	Not Detected	5.3	Not Detected
1,3,5-Trimethylbenzene	0.78	Not Detected	3.8	Not Detected
1,2,4-Trimethylbenzene	0.78	Not Detected	3.8	Not Detected
1,3-Dichlorobenzene	0.78	Not Detected	4.6	Not Detected
1,4-Dichlorobenzene	0.78	Not Detected	4.6	Not Detected
alpha-Chlorotoluene	0.78	Not Detected	4.0	Not Detected
1,2-Dichlorobenzene	0.78	Not Detected	4.6	Not Detected
1,3-Butadiene	0.78	Not Detected	1.7	Not Detected
Hexane	0.78	Not Detected	2.7	Not Detected
Cyclohexane	0.78	Not Detected	2.7	Not Detected
Heptane	0.78	Not Detected	3.2	Not Detected
Bromodichloromethane	0.78	Not Detected	5.2	Not Detected
Dibromochloromethane	0.78	Not Detected	6.6	Not Detected

Client Sample ID: SS-5

Lab ID#: 1112268AR1-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o121517r1	Date of Collection:	12/8/11 2:34:00 AM
Dil. Factor:	1.55	Date of Analysis:	12/15/11 08:32 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	0.78	Not Detected	3.8	Not Detected
Propylbenzene	0.78	Not Detected	3.8	Not Detected
Chloromethane	7.8	Not Detected	16	Not Detected
1,2,4-Trichlorobenzene	3.1	Not Detected	23	Not Detected
Hexachlorobutadiene	3.1	Not Detected	33	Not Detected
Acetone	7.8	Not Detected	18	Not Detected
Carbon Disulfide	3.1	Not Detected	9.6	Not Detected
2-Propanol	3.1	Not Detected	7.6	Not Detected
trans-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.1	Not Detected	9.1	Not Detected
Tetrahydrofuran	0.78	Not Detected	2.3	Not Detected
1,4-Dioxane	3.1	Not Detected	11	Not Detected
4-Methyl-2-pentanone	0.78	Not Detected	3.2	Not Detected
2-Hexanone	3.1	Not Detected	13	Not Detected
Bromoform	0.78	Not Detected	8.0	Not Detected
4-Ethyltoluene	0.78	Not Detected	3.8	Not Detected
Ethanol	3.1	Not Detected	5.8	Not Detected
Methyl tert-butyl ether	0.78	Not Detected	2.8	Not Detected
tert-Butyl alcohol	3.1	Not Detected	9.4	Not Detected
Ethyl-tert-butyl ether	3.1	Not Detected	13	Not Detected
Isopropyl ether	3.1	Not Detected	13	Not Detected
tert-Amyl methyl ether	3.1	Not Detected	13	Not Detected
3-Chloropropene	3.1	Not Detected	9.7	Not Detected
2,2,4-Trimethylpentane	0.78	Not Detected	3.6	Not Detected
TPH ref. to Gasoline (MW=100)	39	Not Detected	160	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	97	70-130



Air Toxics

Client Sample ID: SS-4

Lab ID#: 1112268AR1-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o121518r1	Date of Collection:	12/8/11 3:19:00 AM
Dil. Factor:	1.55	Date of Analysis:	12/15/11 08:53 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.78	Not Detected	3.8	Not Detected
Freon 114	0.78	Not Detected	5.4	Not Detected
Vinyl Chloride	0.78	Not Detected	2.0	Not Detected
Bromomethane	7.8	Not Detected	30	Not Detected
Chloroethane	3.1	Not Detected	8.2	Not Detected
Freon 11	0.78	Not Detected	4.4	Not Detected
1,1-Dichloroethene	0.78	Not Detected	3.1	Not Detected
Freon 113	0.78	Not Detected	5.9	Not Detected
Methylene Chloride	7.8	Not Detected	27	Not Detected
1,1-Dichloroethane	0.78	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected
Chloroform	0.78	Not Detected	3.8	Not Detected
1,1,1-Trichloroethane	0.78	Not Detected	4.2	Not Detected
Carbon Tetrachloride	0.78	Not Detected	4.9	Not Detected
Benzene	0.78	Not Detected	2.5	Not Detected
1,2-Dichloroethane	0.78	Not Detected	3.1	Not Detected
Trichloroethene	0.78	Not Detected	4.2	Not Detected
1,2-Dichloropropane	0.78	Not Detected	3.6	Not Detected
cis-1,3-Dichloropropene	0.78	Not Detected	3.5	Not Detected
Toluene	0.78	Not Detected	2.9	Not Detected
trans-1,3-Dichloropropene	0.78	Not Detected	3.5	Not Detected
1,1,2-Trichloroethane	0.78	Not Detected	4.2	Not Detected
Tetrachloroethene	0.78	19	5.2	130
1,2-Dibromoethane (EDB)	0.78	Not Detected	6.0	Not Detected
Chlorobenzene	0.78	Not Detected	3.6	Not Detected
Ethyl Benzene	0.78	Not Detected	3.4	Not Detected
m,p-Xylene	0.78	Not Detected	3.4	Not Detected
o-Xylene	0.78	Not Detected	3.4	Not Detected
Styrene	0.78	Not Detected	3.3	Not Detected
1,1,2,2-Tetrachloroethane	0.78	Not Detected	5.3	Not Detected
1,3,5-Trimethylbenzene	0.78	Not Detected	3.8	Not Detected
1,2,4-Trimethylbenzene	0.78	Not Detected	3.8	Not Detected
1,3-Dichlorobenzene	0.78	Not Detected	4.6	Not Detected
1,4-Dichlorobenzene	0.78	Not Detected	4.6	Not Detected
alpha-Chlorotoluene	0.78	Not Detected	4.0	Not Detected
1,2-Dichlorobenzene	0.78	Not Detected	4.6	Not Detected
1,3-Butadiene	0.78	Not Detected	1.7	Not Detected
Hexane	0.78	Not Detected	2.7	Not Detected
Cyclohexane	0.78	Not Detected	2.7	Not Detected
Heptane	0.78	Not Detected	3.2	Not Detected
Bromodichloromethane	0.78	Not Detected	5.2	Not Detected
Dibromochloromethane	0.78	Not Detected	6.6	Not Detected



Air Toxics

Client Sample ID: SS-4

Lab ID#: 1112268AR1-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o121518r1	Date of Collection:	12/8/11 3:19:00 AM
Dil. Factor:	1.55	Date of Analysis:	12/15/11 08:53 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	0.78	Not Detected	3.8	Not Detected
Propylbenzene	0.78	Not Detected	3.8	Not Detected
Chloromethane	7.8	Not Detected	16	Not Detected
1,2,4-Trichlorobenzene	3.1	Not Detected	23	Not Detected
Hexachlorobutadiene	3.1	Not Detected	33	Not Detected
Acetone	7.8	Not Detected	18	Not Detected
Carbon Disulfide	3.1	Not Detected	9.6	Not Detected
2-Propanol	3.1	Not Detected	7.6	Not Detected
trans-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.1	Not Detected	9.1	Not Detected
Tetrahydrofuran	0.78	0.86	2.3	2.5
1,4-Dioxane	3.1	Not Detected	11	Not Detected
4-Methyl-2-pentanone	0.78	Not Detected	3.2	Not Detected
2-Hexanone	3.1	Not Detected	13	Not Detected
Bromoform	0.78	Not Detected	8.0	Not Detected
4-Ethyltoluene	0.78	Not Detected	3.8	Not Detected
Ethanol	3.1	Not Detected	5.8	Not Detected
Methyl tert-butyl ether	0.78	Not Detected	2.8	Not Detected
tert-Butyl alcohol	3.1	Not Detected	9.4	Not Detected
Ethyl-tert-butyl ether	3.1	Not Detected	13	Not Detected
Isopropyl ether	3.1	Not Detected	13	Not Detected
tert-Amyl methyl ether	3.1	Not Detected	13	Not Detected
3-Chloropropene	3.1	Not Detected	9.7	Not Detected
2,2,4-Trimethylpentane	0.78	Not Detected	3.6	Not Detected
TPH ref. to Gasoline (MW=100)	39	Not Detected	160	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	97	70-130



Air Toxics

Client Sample ID: SS-3

Lab ID#: 1112268AR1-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o121522r1	Date of Collection:	12/8/11 4:05:00 AM
Dil. Factor:	1.58	Date of Analysis:	12/15/11 10:29 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.79	Not Detected	3.9	Not Detected
Freon 114	0.79	Not Detected	5.5	Not Detected
Vinyl Chloride	0.79	Not Detected	2.0	Not Detected
Bromomethane	7.9	Not Detected	31	Not Detected
Chloroethane	3.2	Not Detected	8.3	Not Detected
Freon 11	0.79	Not Detected	4.4	Not Detected
1,1-Dichloroethene	0.79	Not Detected	3.1	Not Detected
Freon 113	0.79	Not Detected	6.0	Not Detected
Methylene Chloride	7.9	19	27	67
1,1-Dichloroethane	0.79	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.79	Not Detected	3.1	Not Detected
Chloroform	0.79	Not Detected	3.8	Not Detected
1,1,1-Trichloroethane	0.79	Not Detected	4.3	Not Detected
Carbon Tetrachloride	0.79	Not Detected	5.0	Not Detected
Benzene	0.79	Not Detected	2.5	Not Detected
1,2-Dichloroethane	0.79	Not Detected	3.2	Not Detected
Trichloroethene	0.79	Not Detected	4.2	Not Detected
1,2-Dichloropropane	0.79	Not Detected	3.6	Not Detected
cis-1,3-Dichloropropene	0.79	Not Detected	3.6	Not Detected
Toluene	0.79	1.0	3.0	3.8
trans-1,3-Dichloropropene	0.79	Not Detected	3.6	Not Detected
1,1,2-Trichloroethane	0.79	Not Detected	4.3	Not Detected
Tetrachloroethene	0.79	Not Detected	5.4	Not Detected
1,2-Dibromoethane (EDB)	0.79	Not Detected	6.1	Not Detected
Chlorobenzene	0.79	Not Detected	3.6	Not Detected
Ethyl Benzene	0.79	4.4	3.4	19
m,p-Xylene	0.79	15	3.4	66
o-Xylene	0.79	12	3.4	53
Styrene	0.79	Not Detected	3.4	Not Detected
1,1,2,2-Tetrachloroethane	0.79	Not Detected	5.4	Not Detected
1,3,5-Trimethylbenzene	0.79	1.7	3.9	8.3
1,2,4-Trimethylbenzene	0.79	2.7	3.9	13
1,3-Dichlorobenzene	0.79	Not Detected	4.8	Not Detected
1,4-Dichlorobenzene	0.79	Not Detected	4.8	Not Detected
alpha-Chlorotoluene	0.79	Not Detected	4.1	Not Detected
1,2-Dichlorobenzene	0.79	Not Detected	4.7	Not Detected
1,3-Butadiene	0.79	Not Detected	1.7	Not Detected
Hexane	0.79	0.89	2.8	3.1
Cyclohexane	0.79	47	2.7	160
Heptane	0.79	Not Detected	3.2	Not Detected
Bromodichloromethane	0.79	Not Detected	5.3	Not Detected
Dibromochloromethane	0.79	Not Detected	6.7	Not Detected



Client Sample ID: SS-3

Lab ID#: 1112268AR1-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o121522r1	Date of Collection:	12/8/11 4:05:00 AM
Dil. Factor:	1.58	Date of Analysis:	12/15/11 10:29 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	0.79	0.79	3.9	3.9
Propylbenzene	0.79	Not Detected	3.9	Not Detected
Chloromethane	7.9	Not Detected	16	Not Detected
1,2,4-Trichlorobenzene	3.2	Not Detected	23	Not Detected
Hexachlorobutadiene	3.2	Not Detected	34	Not Detected
Acetone	7.9	110	19	270
Carbon Disulfide	3.2	Not Detected	9.8	Not Detected
2-Propanol	3.2	Not Detected	7.8	Not Detected
trans-1,2-Dichloroethene	0.79	Not Detected	3.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.2	Not Detected	9.3	Not Detected
Tetrahydrofuran	0.79	0.81	2.3	2.4
1,4-Dioxane	3.2	Not Detected	11	Not Detected
4-Methyl-2-pentanone	0.79	Not Detected	3.2	Not Detected
2-Hexanone	3.2	Not Detected	13	Not Detected
Bromoform	0.79	Not Detected	8.2	Not Detected
4-Ethyltoluene	0.79	3.3	3.9	16
Ethanol	3.2	5.3	6.0	10
Methyl tert-butyl ether	0.79	Not Detected	2.8	Not Detected
tert-Butyl alcohol	3.2	Not Detected	9.6	Not Detected
Ethyl-tert-butyl ether	3.2	Not Detected	13	Not Detected
Isopropyl ether	3.2	Not Detected	13	Not Detected
tert-Amyl methyl ether	3.2	Not Detected	13	Not Detected
3-Chloropropene	3.2	Not Detected	9.9	Not Detected
2,2,4-Trimethylpentane	0.79	Not Detected	3.7	Not Detected
TPH ref. to Gasoline (MW=100)	40	2800	160	11000

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	111	70-130
4-Bromofluorobenzene	99	70-130



Air Toxics

Client Sample ID: SS-2

Lab ID#: 1112268AR1-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o121519r1	Date of Collection:	12/9/11 1:52:00 AM
Dil. Factor:	1.58	Date of Analysis:	12/15/11 09:17 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.79	Not Detected	3.9	Not Detected
Freon 114	0.79	Not Detected	5.5	Not Detected
Vinyl Chloride	0.79	Not Detected	2.0	Not Detected
Bromomethane	7.9	Not Detected	31	Not Detected
Chloroethane	3.2	Not Detected	8.3	Not Detected
Freon 11	0.79	Not Detected	4.4	Not Detected
1,1-Dichloroethene	0.79	Not Detected	3.1	Not Detected
Freon 113	0.79	Not Detected	6.0	Not Detected
Methylene Chloride	7.9	Not Detected	27	Not Detected
1,1-Dichloroethane	0.79	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.79	Not Detected	3.1	Not Detected
Chloroform	0.79	1.1	3.8	5.5
1,1,1-Trichloroethane	0.79	Not Detected	4.3	Not Detected
Carbon Tetrachloride	0.79	Not Detected	5.0	Not Detected
Benzene	0.79	Not Detected	2.5	Not Detected
1,2-Dichloroethane	0.79	Not Detected	3.2	Not Detected
Trichloroethene	0.79	Not Detected	4.2	Not Detected
1,2-Dichloropropane	0.79	Not Detected	3.6	Not Detected
cis-1,3-Dichloropropene	0.79	Not Detected	3.6	Not Detected
Toluene	0.79	Not Detected	3.0	Not Detected
trans-1,3-Dichloropropene	0.79	Not Detected	3.6	Not Detected
1,1,2-Trichloroethane	0.79	Not Detected	4.3	Not Detected
Tetrachloroethene	0.79	Not Detected	5.4	Not Detected
1,2-Dibromoethane (EDB)	0.79	Not Detected	6.1	Not Detected
Chlorobenzene	0.79	Not Detected	3.6	Not Detected
Ethyl Benzene	0.79	Not Detected	3.4	Not Detected
m,p-Xylene	0.79	Not Detected	3.4	Not Detected
o-Xylene	0.79	Not Detected	3.4	Not Detected
Styrene	0.79	Not Detected	3.4	Not Detected
1,1,2,2-Tetrachloroethane	0.79	Not Detected	5.4	Not Detected
1,3,5-Trimethylbenzene	0.79	Not Detected	3.9	Not Detected
1,2,4-Trimethylbenzene	0.79	Not Detected	3.9	Not Detected
1,3-Dichlorobenzene	0.79	Not Detected	4.8	Not Detected
1,4-Dichlorobenzene	0.79	Not Detected	4.8	Not Detected
alpha-Chlorotoluene	0.79	Not Detected	4.1	Not Detected
1,2-Dichlorobenzene	0.79	Not Detected	4.7	Not Detected
1,3-Butadiene	0.79	Not Detected	1.7	Not Detected
Hexane	0.79	Not Detected	2.8	Not Detected
Cyclohexane	0.79	Not Detected	2.7	Not Detected
Heptane	0.79	Not Detected	3.2	Not Detected
Bromodichloromethane	0.79	Not Detected	5.3	Not Detected
Dibromochloromethane	0.79	Not Detected	6.7	Not Detected



Client Sample ID: SS-2

Lab ID#: 1112268AR1-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o121519r1	Date of Collection:	12/9/11 1:52:00 AM
Dil. Factor:	1.58	Date of Analysis:	12/15/11 09:17 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	0.79	Not Detected	3.9	Not Detected
Propylbenzene	0.79	Not Detected	3.9	Not Detected
Chloromethane	7.9	Not Detected	16	Not Detected
1,2,4-Trichlorobenzene	3.2	Not Detected	23	Not Detected
Hexachlorobutadiene	3.2	Not Detected	34	Not Detected
Acetone	7.9	7.9	19	19
Carbon Disulfide	3.2	Not Detected	9.8	Not Detected
2-Propanol	3.2	Not Detected	7.8	Not Detected
trans-1,2-Dichloroethene	0.79	Not Detected	3.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.2	Not Detected	9.3	Not Detected
Tetrahydrofuran	0.79	Not Detected	2.3	Not Detected
1,4-Dioxane	3.2	Not Detected	11	Not Detected
4-Methyl-2-pentanone	0.79	Not Detected	3.2	Not Detected
2-Hexanone	3.2	Not Detected	13	Not Detected
Bromoform	0.79	Not Detected	8.2	Not Detected
4-Ethyltoluene	0.79	Not Detected	3.9	Not Detected
Ethanol	3.2	Not Detected	6.0	Not Detected
Methyl tert-butyl ether	0.79	Not Detected	2.8	Not Detected
tert-Butyl alcohol	3.2	Not Detected	9.6	Not Detected
Ethyl-tert-butyl ether	3.2	Not Detected	13	Not Detected
Isopropyl ether	3.2	Not Detected	13	Not Detected
tert-Amyl methyl ether	3.2	Not Detected	13	Not Detected
3-Chloropropene	3.2	Not Detected	9.9	Not Detected
2,2,4-Trimethylpentane	0.79	Not Detected	3.7	Not Detected
TPH ref. to Gasoline (MW=100)	40	Not Detected	160	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	97	70-130



Air Toxics

Client Sample ID: SS-1

Lab ID#: 1112268AR1-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o121520r1	Date of Collection:	12/9/11 2:37:00 AM
Dil. Factor:	1.55	Date of Analysis:	12/15/11 09:39 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.78	Not Detected	3.8	Not Detected
Freon 114	0.78	Not Detected	5.4	Not Detected
Vinyl Chloride	0.78	Not Detected	2.0	Not Detected
Bromomethane	7.8	Not Detected	30	Not Detected
Chloroethane	3.1	Not Detected	8.2	Not Detected
Freon 11	0.78	Not Detected	4.4	Not Detected
1,1-Dichloroethene	0.78	Not Detected	3.1	Not Detected
Freon 113	0.78	Not Detected	5.9	Not Detected
Methylene Chloride	7.8	Not Detected	27	Not Detected
1,1-Dichloroethane	0.78	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected
Chloroform	0.78	Not Detected	3.8	Not Detected
1,1,1-Trichloroethane	0.78	Not Detected	4.2	Not Detected
Carbon Tetrachloride	0.78	Not Detected	4.9	Not Detected
Benzene	0.78	Not Detected	2.5	Not Detected
1,2-Dichloroethane	0.78	Not Detected	3.1	Not Detected
Trichloroethene	0.78	Not Detected	4.2	Not Detected
1,2-Dichloropropane	0.78	Not Detected	3.6	Not Detected
cis-1,3-Dichloropropene	0.78	Not Detected	3.5	Not Detected
Toluene	0.78	Not Detected	2.9	Not Detected
trans-1,3-Dichloropropene	0.78	Not Detected	3.5	Not Detected
1,1,2-Trichloroethane	0.78	Not Detected	4.2	Not Detected
Tetrachloroethene	0.78	Not Detected	5.2	Not Detected
1,2-Dibromoethane (EDB)	0.78	Not Detected	6.0	Not Detected
Chlorobenzene	0.78	Not Detected	3.6	Not Detected
Ethyl Benzene	0.78	Not Detected	3.4	Not Detected
m,p-Xylene	0.78	Not Detected	3.4	Not Detected
o-Xylene	0.78	Not Detected	3.4	Not Detected
Styrene	0.78	Not Detected	3.3	Not Detected
1,1,2,2-Tetrachloroethane	0.78	Not Detected	5.3	Not Detected
1,3,5-Trimethylbenzene	0.78	Not Detected	3.8	Not Detected
1,2,4-Trimethylbenzene	0.78	Not Detected	3.8	Not Detected
1,3-Dichlorobenzene	0.78	Not Detected	4.6	Not Detected
1,4-Dichlorobenzene	0.78	Not Detected	4.6	Not Detected
alpha-Chlorotoluene	0.78	Not Detected	4.0	Not Detected
1,2-Dichlorobenzene	0.78	Not Detected	4.6	Not Detected
1,3-Butadiene	0.78	Not Detected	1.7	Not Detected
Hexane	0.78	Not Detected	2.7	Not Detected
Cyclohexane	0.78	Not Detected	2.7	Not Detected
Heptane	0.78	Not Detected	3.2	Not Detected
Bromodichloromethane	0.78	Not Detected	5.2	Not Detected
Dibromochloromethane	0.78	Not Detected	6.6	Not Detected



Client Sample ID: SS-1

Lab ID#: 1112268AR1-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o121520r1	Date of Collection:	12/9/11 2:37:00 AM
Dil. Factor:	1.55	Date of Analysis:	12/15/11 09:39 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	0.78	Not Detected	3.8	Not Detected
Propylbenzene	0.78	Not Detected	3.8	Not Detected
Chloromethane	7.8	Not Detected	16	Not Detected
1,2,4-Trichlorobenzene	3.1	Not Detected	23	Not Detected
Hexachlorobutadiene	3.1	Not Detected	33	Not Detected
Acetone	7.8	Not Detected	18	Not Detected
Carbon Disulfide	3.1	Not Detected	9.6	Not Detected
2-Propanol	3.1	Not Detected	7.6	Not Detected
trans-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.1	Not Detected	9.1	Not Detected
Tetrahydrofuran	0.78	Not Detected	2.3	Not Detected
1,4-Dioxane	3.1	Not Detected	11	Not Detected
4-Methyl-2-pentanone	0.78	Not Detected	3.2	Not Detected
2-Hexanone	3.1	Not Detected	13	Not Detected
Bromoform	0.78	Not Detected	8.0	Not Detected
4-Ethyltoluene	0.78	Not Detected	3.8	Not Detected
Ethanol	3.1	Not Detected	5.8	Not Detected
Methyl tert-butyl ether	0.78	Not Detected	2.8	Not Detected
tert-Butyl alcohol	3.1	Not Detected	9.4	Not Detected
Ethyl-tert-butyl ether	3.1	Not Detected	13	Not Detected
Isopropyl ether	3.1	Not Detected	13	Not Detected
tert-Amyl methyl ether	3.1	Not Detected	13	Not Detected
3-Chloropropene	3.1	Not Detected	9.7	Not Detected
2,2,4-Trimethylpentane	0.78	Not Detected	3.6	Not Detected
TPH ref. to Gasoline (MW=100)	39	Not Detected	160	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	111	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: SS-6

Lab ID#: 1112268AR1-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o121521r1	Date of Collection:	12/9/11 3:22:00 AM
Dil. Factor:	1.58	Date of Analysis:	12/15/11 10:06 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.79	0.96	3.9	4.7
Freon 114	0.79	Not Detected	5.5	Not Detected
Vinyl Chloride	0.79	Not Detected	2.0	Not Detected
Bromomethane	7.9	Not Detected	31	Not Detected
Chloroethane	3.2	Not Detected	8.3	Not Detected
Freon 11	0.79	Not Detected	4.4	Not Detected
1,1-Dichloroethene	0.79	Not Detected	3.1	Not Detected
Freon 113	0.79	1.2	6.0	9.3
Methylene Chloride	7.9	Not Detected	27	Not Detected
1,1-Dichloroethane	0.79	Not Detected	3.2	Not Detected
cis-1,2-Dichloroethene	0.79	Not Detected	3.1	Not Detected
Chloroform	0.79	Not Detected	3.8	Not Detected
1,1,1-Trichloroethane	0.79	Not Detected	4.3	Not Detected
Carbon Tetrachloride	0.79	Not Detected	5.0	Not Detected
Benzene	0.79	Not Detected	2.5	Not Detected
1,2-Dichloroethane	0.79	Not Detected	3.2	Not Detected
Trichloroethene	0.79	Not Detected	4.2	Not Detected
1,2-Dichloropropane	0.79	Not Detected	3.6	Not Detected
cis-1,3-Dichloropropene	0.79	Not Detected	3.6	Not Detected
Toluene	0.79	Not Detected	3.0	Not Detected
trans-1,3-Dichloropropene	0.79	Not Detected	3.6	Not Detected
1,1,2-Trichloroethane	0.79	Not Detected	4.3	Not Detected
Tetrachloroethene	0.79	0.84	5.4	5.7
1,2-Dibromoethane (EDB)	0.79	Not Detected	6.1	Not Detected
Chlorobenzene	0.79	Not Detected	3.6	Not Detected
Ethyl Benzene	0.79	Not Detected	3.4	Not Detected
m,p-Xylene	0.79	Not Detected	3.4	Not Detected
o-Xylene	0.79	Not Detected	3.4	Not Detected
Styrene	0.79	Not Detected	3.4	Not Detected
1,1,2,2-Tetrachloroethane	0.79	Not Detected	5.4	Not Detected
1,3,5-Trimethylbenzene	0.79	Not Detected	3.9	Not Detected
1,2,4-Trimethylbenzene	0.79	Not Detected	3.9	Not Detected
1,3-Dichlorobenzene	0.79	Not Detected	4.8	Not Detected
1,4-Dichlorobenzene	0.79	Not Detected	4.8	Not Detected
alpha-Chlorotoluene	0.79	Not Detected	4.1	Not Detected
1,2-Dichlorobenzene	0.79	Not Detected	4.7	Not Detected
1,3-Butadiene	0.79	Not Detected	1.7	Not Detected
Hexane	0.79	Not Detected	2.8	Not Detected
Cyclohexane	0.79	Not Detected	2.7	Not Detected
Heptane	0.79	Not Detected	3.2	Not Detected
Bromodichloromethane	0.79	Not Detected	5.3	Not Detected
Dibromochloromethane	0.79	Not Detected	6.7	Not Detected



Client Sample ID: SS-6

Lab ID#: 1112268AR1-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o121521r1	Date of Collection:	12/9/11 3:22:00 AM
Dil. Factor:	1.58	Date of Analysis:	12/15/11 10:06 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	0.79	Not Detected	3.9	Not Detected
Propylbenzene	0.79	Not Detected	3.9	Not Detected
Chloromethane	7.9	Not Detected	16	Not Detected
1,2,4-Trichlorobenzene	3.2	Not Detected	23	Not Detected
Hexachlorobutadiene	3.2	Not Detected	34	Not Detected
Acetone	7.9	9.1	19	22
Carbon Disulfide	3.2	Not Detected	9.8	Not Detected
2-Propanol	3.2	Not Detected	7.8	Not Detected
trans-1,2-Dichloroethene	0.79	Not Detected	3.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.2	Not Detected	9.3	Not Detected
Tetrahydrofuran	0.79	Not Detected	2.3	Not Detected
1,4-Dioxane	3.2	Not Detected	11	Not Detected
4-Methyl-2-pentanone	0.79	Not Detected	3.2	Not Detected
2-Hexanone	3.2	Not Detected	13	Not Detected
Bromoform	0.79	Not Detected	8.2	Not Detected
4-Ethyltoluene	0.79	Not Detected	3.9	Not Detected
Ethanol	3.2	Not Detected	6.0	Not Detected
Methyl tert-butyl ether	0.79	Not Detected	2.8	Not Detected
tert-Butyl alcohol	3.2	Not Detected	9.6	Not Detected
Ethyl-tert-butyl ether	3.2	Not Detected	13	Not Detected
Isopropyl ether	3.2	Not Detected	13	Not Detected
tert-Amyl methyl ether	3.2	Not Detected	13	Not Detected
3-Chloropropene	3.2	Not Detected	9.9	Not Detected
2,2,4-Trimethylpentane	0.79	Not Detected	3.7	Not Detected
TPH ref. to Gasoline (MW=100)	40	Not Detected	160	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	110	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: SS-7

Lab ID#: 1112268AR1-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o121523r1	Date of Collection:	12/9/11 4:07:00 AM
Dil. Factor:	1.55	Date of Analysis:	12/15/11 10:50 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.78	0.90	3.8	4.5
Freon 114	0.78	Not Detected	5.4	Not Detected
Vinyl Chloride	0.78	Not Detected	2.0	Not Detected
Bromomethane	7.8	Not Detected	30	Not Detected
Chloroethane	3.1	Not Detected	8.2	Not Detected
Freon 11	0.78	0.96	4.4	5.4
1,1-Dichloroethene	0.78	Not Detected	3.1	Not Detected
Freon 113	0.78	1.5	5.9	12
Methylene Chloride	7.8	Not Detected	27	Not Detected
1,1-Dichloroethane	0.78	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected
Chloroform	0.78	Not Detected	3.8	Not Detected
1,1,1-Trichloroethane	0.78	Not Detected	4.2	Not Detected
Carbon Tetrachloride	0.78	Not Detected	4.9	Not Detected
Benzene	0.78	Not Detected	2.5	Not Detected
1,2-Dichloroethane	0.78	Not Detected	3.1	Not Detected
Trichloroethene	0.78	Not Detected	4.2	Not Detected
1,2-Dichloropropane	0.78	Not Detected	3.6	Not Detected
cis-1,3-Dichloropropene	0.78	Not Detected	3.5	Not Detected
Toluene	0.78	Not Detected	2.9	Not Detected
trans-1,3-Dichloropropene	0.78	Not Detected	3.5	Not Detected
1,1,2-Trichloroethane	0.78	Not Detected	4.2	Not Detected
Tetrachloroethene	0.78	Not Detected	5.2	Not Detected
1,2-Dibromoethane (EDB)	0.78	Not Detected	6.0	Not Detected
Chlorobenzene	0.78	Not Detected	3.6	Not Detected
Ethyl Benzene	0.78	Not Detected	3.4	Not Detected
m,p-Xylene	0.78	Not Detected	3.4	Not Detected
o-Xylene	0.78	Not Detected	3.4	Not Detected
Styrene	0.78	Not Detected	3.3	Not Detected
1,1,2,2-Tetrachloroethane	0.78	Not Detected	5.3	Not Detected
1,3,5-Trimethylbenzene	0.78	Not Detected	3.8	Not Detected
1,2,4-Trimethylbenzene	0.78	1.8	3.8	8.8
1,3-Dichlorobenzene	0.78	Not Detected	4.6	Not Detected
1,4-Dichlorobenzene	0.78	Not Detected	4.6	Not Detected
alpha-Chlorotoluene	0.78	Not Detected	4.0	Not Detected
1,2-Dichlorobenzene	0.78	Not Detected	4.6	Not Detected
1,3-Butadiene	0.78	Not Detected	1.7	Not Detected
Hexane	0.78	Not Detected	2.7	Not Detected
Cyclohexane	0.78	1.5	2.7	5.2
Heptane	0.78	Not Detected	3.2	Not Detected
Bromodichloromethane	0.78	Not Detected	5.2	Not Detected
Dibromochloromethane	0.78	Not Detected	6.6	Not Detected



Client Sample ID: SS-7

Lab ID#: 1112268AR1-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o121523r1	Date of Collection:	12/9/11 4:07:00 AM
Dil. Factor:	1.55	Date of Analysis:	12/15/11 10:50 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	0.78	Not Detected	3.8	Not Detected
Propylbenzene	0.78	Not Detected	3.8	Not Detected
Chloromethane	7.8	Not Detected	16	Not Detected
1,2,4-Trichlorobenzene	3.1	Not Detected	23	Not Detected
Hexachlorobutadiene	3.1	Not Detected	33	Not Detected
Acetone	7.8	8.3	18	20
Carbon Disulfide	3.1	Not Detected	9.6	Not Detected
2-Propanol	3.1	Not Detected	7.6	Not Detected
trans-1,2-Dichloroethene	0.78	Not Detected	3.1	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.1	Not Detected	9.1	Not Detected
Tetrahydrofuran	0.78	Not Detected	2.3	Not Detected
1,4-Dioxane	3.1	Not Detected	11	Not Detected
4-Methyl-2-pentanone	0.78	Not Detected	3.2	Not Detected
2-Hexanone	3.1	Not Detected	13	Not Detected
Bromoform	0.78	Not Detected	8.0	Not Detected
4-Ethyltoluene	0.78	1.9	3.8	9.4
Ethanol	3.1	Not Detected	5.8	Not Detected
Methyl tert-butyl ether	0.78	Not Detected	2.8	Not Detected
tert-Butyl alcohol	3.1	Not Detected	9.4	Not Detected
Ethyl-tert-butyl ether	3.1	Not Detected	13	Not Detected
Isopropyl ether	3.1	Not Detected	13	Not Detected
tert-Amyl methyl ether	3.1	Not Detected	13	Not Detected
3-Chloropropene	3.1	Not Detected	9.7	Not Detected
2,2,4-Trimethylpentane	0.78	Not Detected	3.6	Not Detected
TPH ref. to Gasoline (MW=100)	39	130	160	530

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	109	70-130
4-Bromofluorobenzene	98	70-130



Air Toxics

Client Sample ID: Lab Blank

Lab ID#: 1112268AR1-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o121508	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/15/11 04:12 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected



Client Sample ID: Lab Blank

Lab ID#: 1112268AR1-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o121508	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	12/15/11 04:12 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	0.50	Not Detected	2.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
tert-Butyl alcohol	2.0	Not Detected	6.1	Not Detected
Ethyl-tert-butyl ether	2.0	Not Detected	8.4	Not Detected
Isopropyl ether	2.0	Not Detected	8.4	Not Detected
tert-Amyl methyl ether	2.0	Not Detected	8.4	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
TPH ref. to Gasoline (MW=100)	25	Not Detected	100	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	105	70-130
4-Bromofluorobenzene	97	70-130



Air Toxics

Client Sample ID: CCV

Lab ID#: 1112268AR1-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o121502	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/15/11 12:25 PM

Compound	%Recovery
Freon 12	106
Freon 114	106
Vinyl Chloride	110
Bromomethane	117
Chloroethane	104
Freon 11	106
1,1-Dichloroethene	109
Freon 113	104
Methylene Chloride	100
1,1-Dichloroethane	101
cis-1,2-Dichloroethene	100
Chloroform	102
1,1,1-Trichloroethane	103
Carbon Tetrachloride	96
Benzene	99
1,2-Dichloroethane	102
Trichloroethene	100
1,2-Dichloropropane	100
cis-1,3-Dichloropropene	104
Toluene	96
trans-1,3-Dichloropropene	107
1,1,2-Trichloroethane	102
Tetrachloroethene	103
1,2-Dibromoethane (EDB)	102
Chlorobenzene	94
Ethyl Benzene	98
m,p-Xylene	100
o-Xylene	100
Styrene	101
1,1,2,2-Tetrachloroethane	101
1,3,5-Trimethylbenzene	97
1,2,4-Trimethylbenzene	102
1,3-Dichlorobenzene	99
1,4-Dichlorobenzene	99
alpha-Chlorotoluene	109
1,2-Dichlorobenzene	100
1,3-Butadiene	111
Hexane	103
Cyclohexane	98
Heptane	102
Bromodichloromethane	105
Dibromochloromethane	107

Client Sample ID: CCV

Lab ID#: 1112268AR1-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o121502	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/15/11 12:25 PM

Compound	%Recovery
Cumene	103
Propylbenzene	102
Chloromethane	109
1,2,4-Trichlorobenzene	100
Hexachlorobutadiene	98
Acetone	97
Carbon Disulfide	102
2-Propanol	102
trans-1,2-Dichloroethene	100
2-Butanone (Methyl Ethyl Ketone)	99
Tetrahydrofuran	94
1,4-Dioxane	99
4-Methyl-2-pentanone	102
2-Hexanone	103
Bromoform	108
4-Ethyltoluene	100
Ethanol	102
Methyl tert-butyl ether	102
tert-Butyl alcohol	97
Ethyl-tert-butyl ether	99
Isopropyl ether	100
tert-Amyl methyl ether	99
3-Chloropropene	106
2,2,4-Trimethylpentane	95
TPH ref. to Gasoline (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: LCS

Lab ID#: 1112268AR1-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o121503	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/15/11 12:43 PM

Compound	%Recovery
Freon 12	105
Freon 114	105
Vinyl Chloride	111
Bromomethane	115
Chloroethane	103
Freon 11	105
1,1-Dichloroethene	116
Freon 113	104
Methylene Chloride	100
1,1-Dichloroethane	100
cis-1,2-Dichloroethene	98
Chloroform	99
1,1,1-Trichloroethane	103
Carbon Tetrachloride	101
Benzene	100
1,2-Dichloroethane	101
Trichloroethene	100
1,2-Dichloropropane	100
cis-1,3-Dichloropropene	103
Toluene	96
trans-1,3-Dichloropropene	101
1,1,2-Trichloroethane	100
Tetrachloroethene	99
1,2-Dibromoethane (EDB)	102
Chlorobenzene	94
Ethyl Benzene	98
m,p-Xylene	100
o-Xylene	100
Styrene	102
1,1,2,2-Tetrachloroethane	103
1,3,5-Trimethylbenzene	97
1,2,4-Trimethylbenzene	101
1,3-Dichlorobenzene	100
1,4-Dichlorobenzene	97
alpha-Chlorotoluene	106
1,2-Dichlorobenzene	100
1,3-Butadiene	108
Hexane	103
Cyclohexane	98
Heptane	97
Bromodichloromethane	105
Dibromochloromethane	104



Air Toxics

Client Sample ID: LCS

Lab ID#: 1112268AR1-13A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o121503	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/15/11 12:43 PM

Compound	%Recovery
Cumene	103
Propylbenzene	102
Chloromethane	108
1,2,4-Trichlorobenzene	104
Hexachlorobutadiene	104
Acetone	97
Carbon Disulfide	124
2-Propanol	102
trans-1,2-Dichloroethene	114
2-Butanone (Methyl Ethyl Ketone)	100
Tetrahydrofuran	91
1,4-Dioxane	99
4-Methyl-2-pentanone	102
2-Hexanone	104
Bromoform	105
4-Ethyltoluene	98
Ethanol	98
Methyl tert-butyl ether	103
tert-Butyl alcohol	Not Spiked
Ethyl-tert-butyl ether	Not Spiked
Isopropyl ether	Not Spiked
tert-Amyl methyl ether	Not Spiked
3-Chloropropene	119
2,2,4-Trimethylpentane	93
TPH ref. to Gasoline (MW=100)	Not Spiked

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	100	70-130
1,2-Dichloroethane-d4	98	70-130
4-Bromofluorobenzene	101	70-130



Air Toxics

Client Sample ID: LCSD

Lab ID#: 1112268AR1-13AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o121504	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/15/11 01:01 PM

Compound	%Recovery
Freon 12	105
Freon 114	105
Vinyl Chloride	110
Bromomethane	113
Chloroethane	101
Freon 11	104
1,1-Dichloroethene	113
Freon 113	105
Methylene Chloride	98
1,1-Dichloroethane	100
cis-1,2-Dichloroethene	98
Chloroform	98
1,1,1-Trichloroethane	102
Carbon Tetrachloride	101
Benzene	101
1,2-Dichloroethane	101
Trichloroethene	101
1,2-Dichloropropane	100
cis-1,3-Dichloropropene	104
Toluene	97
trans-1,3-Dichloropropene	102
1,1,2-Trichloroethane	98
Tetrachloroethene	98
1,2-Dibromoethane (EDB)	100
Chlorobenzene	95
Ethyl Benzene	98
m,p-Xylene	100
o-Xylene	99
Styrene	106
1,1,2,2-Tetrachloroethane	100
1,3,5-Trimethylbenzene	100
1,2,4-Trimethylbenzene	100
1,3-Dichlorobenzene	100
1,4-Dichlorobenzene	96
alpha-Chlorotoluene	107
1,2-Dichlorobenzene	100
1,3-Butadiene	105
Hexane	101
Cyclohexane	97
Heptane	98
Bromodichloromethane	104
Dibromochloromethane	101

Client Sample ID: LCSD

Lab ID#: 1112268AR1-13AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	o121504	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 12/15/11 01:01 PM

Compound	%Recovery
Cumene	103
Propylbenzene	103
Chloromethane	107
1,2,4-Trichlorobenzene	104
Hexachlorobutadiene	105
Acetone	104
Carbon Disulfide	123
2-Propanol	103
trans-1,2-Dichloroethene	113
2-Butanone (Methyl Ethyl Ketone)	96
Tetrahydrofuran	90
1,4-Dioxane	99
4-Methyl-2-pentanone	103
2-Hexanone	103
Bromoform	102
4-Ethyltoluene	97
Ethanol	99
Methyl tert-butyl ether	103
tert-Butyl alcohol	Not Spiked
Ethyl-tert-butyl ether	Not Spiked
Isopropyl ether	Not Spiked
tert-Amyl methyl ether	Not Spiked
3-Chloropropene	124
2,2,4-Trimethylpentane	91
TPH ref. to Gasoline (MW=100)	Not Spiked

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	99	70-130



CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice

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Page 1 of 1

Project Manager Olivia Jacobs
 Collected by: (Print and Sign) Ross Tinline
 Company Clearwater Gp Email ojacobs@clearwater.com
 Address 229 Teaksbury Rd City Pt. Richmond State CA Zip 94801
 Phone 510 307 9943 Fax 510 232-2823

Project Info:	Turn Around Time:	Lab Use Only
	<input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush <small>specify</small>	Pressurized by: Date: Pressurization Gas: N ₂ He
P.O. # _____		
Project # _____		
Project Name <u>1125 Miller</u>		

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum			
						Initial	Final	Receipt	Final (psi)
01A	SS-10	35652	12-8-11	11:08-11:14	TPHg, BTEX	-29.54	-4.35		413
02A	SS-9	31763	12-8-11	12:18-12:23	fuel oxygenates	-29.38	-4.70		390
03A	SS-8	34116	12-8-11	1:12-1:17	incl. leak check	-29.28	-5.60		409
04A	SS-5	37423	12-8-11	2:28-2:34	compound propane	-29.25	-4.86		497
05A	SS-4	35657	12-8-11	3:12-3:19		-28.98	-4.64		6575
06A	SS-3	37719	12-8-11	3:59-4:05		-29.30	-5.00		6377
07A	SS-2	33718	12-9-11	1:47-1:52		-29.16	-5.24		169
08A	SS-1	36432	12-9-11	2:31-2:37		-29.10	-5.10		483
09A	SS-6	30826	12-9-11	3:16-3:22		-29.07	-5.30		6863
10A	SS-7 SS-7(1PA)	34170 2897	12-9-11 12-9-11	4:01-4:07 4:05-4:07	2 Propane only	-29.35 -29.65	-4.80 -3		6490 100950

Relinquished by: (signature) <u>Ross Tinline</u> Date/Time <u>12-12-11</u>	Received by: (signature) <u>Fedex</u> Date/Time <u>12-12-11</u>
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) <u>W. Wittscher</u> Date/Time <u>12/13/11</u>
Relinquished by: (signature) _____ Date/Time _____	Received by: (signature) _____ Date/Time _____

Notes:
 Provide TPHg chromatograms for SS-3 & SS-4
 * additionally analyze SS-3 for Propane

Lab Use Only	Shipper Name <u>Fedex</u>	Air Bill # _____	Temp (°C) <u>N/A</u>	Condition <u>Good</u>	Custody Seals Intact? Yes No <u>None</u>	Work Order # <u>1112208</u>
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