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Alameda County
Environmental Health

ECM group

July 20, 2010

Bob Legallet
Telegraph Business Properties
1401 Griffith Street
San Francisco, CA 94124

Re: Subsurface Investigation/
Sub-slab Vapor Sampling Report
Telegraph Business Park
5427 Telegraph Avenue, Oakland, CA
ECM Group Project #07-181-10

Dear Mr. Legallet:

ECM has prepared this report documenting the subsurface investigation recently completed at the above referenced site (Figures 1 and 2, Appendix A). Two monitoring wells (MW-4 and MW-5) and one boring (B-31) were installed at the site on April , 2010. Two sub-slab vapor samples were collected from the onsite building on April 14, 2010. The monitoring wells were sampled, in accordance with the established monitoring program for the site, on June 9 and June 14, 2010. Locations of the monitoring wells, boring, and vapor sampling points are shown on Figure 2, Appendix A. Installation of the wells and the temporary sampling points were proposed in the February 12, 2009 Workplan for Subsurface Investigation.¹

The purpose of the additional monitoring wells is to assess current conditions downgradient of the site. The purpose of the temporary soil boring is to assess the vertical extent of impacts in the source area of the site. The purpose of the sub-slab vapor sampling is to evaluate potential exposure from soil vapor in the onsite building.

SCOPE OF WORK

The following describes the scope of work completed for this investigation:

1. A site-specific safety plan was prepared for the work.
2. MW-4 and MW-5 are located in the parking lane of 54th Street. Prior to installation, an encroachment permit was obtained from the City of Oakland.

¹ 2009, Workplan for Subsurface Investigation, 5427 Telegraph Avenue, Oakland, CA, February 12, 2009, 6 pages, 3 appendices.

3. One boring (B-31) and two monitoring wells (MW-4 and MW-5) were installed in the locations shown on Figure 3 (Appendix A).
4. Soil samples were collected and field screened with an Organic Vapor Meter (OVM).
5. Selected soil samples were forwarded to the analytical laboratory and analyzed for Total Petroleum Hydrocarbons as Gasoline (TPH(G)), Total Petroleum Hydrocarbons as Diesel (TPH(D)), Total Petroleum Hydrocarbons as Mineral Spirits (TPH (MS)), Stoddard solvent, benzene, toluene, ethylbenzene, and xylenes (BTEX), and fuel oxygenates.
6. The newly installed monitoring wells were developed and surveyed.
7. The newly installed monitoring wells were sampled, and the samples were analyzed in accordance with the existing monitoring program for site wells.
8. Two sub-slab vapor samples were collected beneath the slab of the onsite building. The vapor samples were analyzed for TPH(G), Stoddard solvent, BTEX, and oxygenates.
9. This summary report was prepared describing the investigation.

SITE HISTORY AND CURRENT USE

The following site history was taken from the 1997 Sierra Environmental Services (SES) Risk Screening Analysis.²

The site was formerly a large-scale dry-cleaning establishment. The on-site underground storage tanks (USTs) were used by previous occupants to store Stoddard solvent, Stoddard solvent waste, and gasoline.

Seventeen USTs were removed from the site in May 1992. Petroleum hydrocarbons as gasoline, Stoddard solvent, and BTEX compounds were detected in soil sidewall samples collected from the UST excavations.

² SES, 1997, Risk Screening Analysis, Telegraph Business Park, 5427 Telegraph Avenue, Oakland CA, March 6, 1997, 24 pages and 3 appendices.

In several investigations between 1993 and 1996, 30 soil borings and 3 monitoring wells were installed at the site. Boring and well locations are shown on Figure 3, Appendix A. Well construction details and groundwater elevation measurements are tabulated in Table 1, Appendix B. Historical laboratory analytical results for groundwater samples from wells and borings are tabulated in Tables 2 and 3, Appendix B. Analytical laboratory results for soil are tabulated in Table 4, Appendix B.

A well survey was conducted by SES in January 1997 at the Department of Water Resources in Sacramento for all wells located within 1,500 ft of the business park. The survey indicated that no drinking water wells were present within the study area. The well survey was confirmed by inspecting all properties within the search radius for the possible presence of wells. One irrigation well was located at Children's Hospital, approximately 1,500 ft south of the site. Other monitoring, industrial, and cathodic protection wells were noted in the study area.

RISK SCREENING ANALYSIS - 1996/1997

In 1996/1997, an investigation into the potential public health risks due to subsurface conditions at the site was conducted. The risk screening analysis evaluated potential exposure pathways for constituents of concern at the site. Three exposure pathways were identified as potentially 'complete': 1.) Direct exposure to contaminated groundwater which might be used as a drinking water source; 2.) Inhalation of contaminated soil vapor that has migrated into indoor air in buildings; and 3.) Direct contact with contaminated soil during future excavation.

Potential exposure pathway 1 was considered incomplete because the well survey indicated that no drinking water wells were present in the area. Potential exposure pathway 3 was not considered in the risk analysis because institutional controls can easily be put into place during any potential future excavation to effectively eliminate the exposure pathway.

In order to evaluate exposure pathway 2, two 8-hour indoor air samples were collected in the on-site commercial building. Analytical results are shown in Table 5, Appendix A. Benzene was detected in each of the air samples at 2.1 ppb, or 6.71 $\mu\text{g}/\text{m}^3$.

CHARACTERISTICS OF STODDARD SOLVENT

Stoddard solvent, a mixture of various hydrocarbon compounds in the C7 to C12 range, is often referred to as mineral spirits or white spirits. Several variations of Stoddard solvent, mineral spirits, or white spirits have been manufactured for use as solvents and dry cleaning solvents. For this investigation, results were reported as both mineral spirits and Stoddard solvent. The

standards used for Stoddard solvent and mineral spirits are similar but have slightly different chemical properties.³ Details regarding laboratory standards are available upon request.

WELL AND SUB-SLAB VAPOR SAMPLING POINT INSTALLATION

Two monitoring wells and one soil boring were installed on April 12, 2010 by Gregg Drilling and Testing Company of Martinez, CA. Two sub-slab vapor sampling points were installed on April 14, 2010. Well, boring, and sub-slab sampling point locations are shown on Figure 3, Appendix A. Prior to drilling, utilities were located by USA and a private underground utility detection company. All drilling equipment was steam-cleaned prior to use, and all sampling equipment was washed between samples using EPA-approved detergent (Liquinox) and rinsed with potable water.

Refusal was encountered in B-31 at 35 ft bgs. The two monitoring wells (MW-4 and MW-5) were each installed at a depth of 20 ft below ground surface (bgs) using an 8 inch rotary auger. The wells were installed in accordance with ECM Standard Operating Procedure - Monitoring Well Design and Construction (Appendix F). Well construction details are tabulated in Table 1, Appendix B, and are also shown on boring logs (Appendix D).

The two sub-slab sampling points (VS-1 and VS-2) were installed in accordance with ECM Standard Operating Procedures - Sub-Slab Vapor Sampling (Appendix F).

Borings were logged in accordance with ECM Standard Operating Procedure - Logging Method (Appendix F). Soil samples were collected in accordance with ECM Standard Operating Procedure - Soil Sampling, (Appendix F). Soil samples were field screened with an OVM in accordance with ECM Standard Operating Procedure - OVM Readings (Appendix F).

WELL DEVELOPMENT AND SAMPLING

The newly installed monitoring wells were developed on April 19, 2010, in accordance with ECM Standard Operating Procedure - Well Development (Appendix F). Well development notes are included in Appendix E. The top of casing elevations of the wells were surveyed by Barry Kolstad, P.L.S. 5677, on May 2, 2010. Top of casing elevation data, well completion details, and groundwater elevation data are tabulated in Table 1, Appendix B.

³ Verbal communication, Patti Sandrock, Torrent Laboratory, April 21, 2010.

The newly installed monitoring wells and existing monitoring wells were sampled on June 9 and June 14, 2010 in accordance with the existing site monitoring plan, and in accordance with ECM Standard Operating Procedure - Ground Water Sampling (Appendix F). The samples were forwarded under chain of custody to Torrent Laboratory, Inc. of Milpitas, California and analyzed for TPH(G), Stoddard solvent, BTEX, oxygenates, and the lead scavengers 1,2-dibromoethane (EDB) and 1,2-Dichloroethane (EDC or 1,2-DCA). Analytical results are tabulated in Tables 2 and 3, Appendix B.

Groundwater elevation contours calculated using measurements made during the June 9, 2010 monitoring event are shown on Figure 2, Appendix A. Groundwater flow was to the south and southwest at a gradient ranging from 0.015 to 0.04 ft/ft.

Samples were collected from sub-slab vapor sampling points VS-1 and VS-2 on April 14, 2010.

ANALYTIC RESULTS

Analytic Results for Soil

Soil samples were forwarded under chain of custody record to Torrent Laboratory, Inc., of Milpitas, California for analysis. The samples were analyzed for TPH(G), (TPH(D), TPH(MS), Stoddard solvent, BTEX, and fuel oxygenates. Analytical results are included in Table 4, Appendix B. The chain of custody document and laboratory analytical report are included in Appendix C.

Soil samples were collected from B-31 at 5-ft intervals from 5 ft to 35 ft bgs. Stoddard solvent/Mineral Spirits were detected in all of the soil samples collected. The most heavily impacted sample was from 10 ft bgs, in which TPH(MS) and Stoddard solvent were detected at 960 and 480 ppm respectively. The least impacted sample was from 20 ft bgs, in which TPH(MS) was detected at 0.4 ppm and Stoddard solvent was not detected. In the deepest sample collected (at 35 ft bgs) TPH(MS) and Stoddard solvent were detected at 95 and 99 ppm respectively. TPH(G), BTEX constituents, and oxygenates were not detected in any of the samples collected.

No analytes were detected in soil samples collected from MW-4 or MW-5.

Analytic Results for Groundwater

Groundwater samples from new and existing wells were analyzed for TPH(G), Stoddard solvent, BTEX, oxygenates, and lead scavengers. Results are tabulated in Tables 2 and 3, Appendix B.

No analytes were detected in either of the newly installed monitoring wells. Analytes were detected in the existing monitoring wells (MW-1 through MW-3) at concentrations consistent with previous monitoring results. Well MW-2, located near the former USTs, was the most heavily impacted well. Well MW-1, the upgradient well, was the least impacted well. Stoddard solvent was detected in each of the three existing wells. TPH(G) was also detected, but footnotes included in the analytic laboratory report indicated the detections were due to hydrocarbon mixtures which were atypical of gasoline. Detections from MW-1 and MW-2 best match Stoddard solvent/mineral spirits. The gasoline detection in MW-3 was due to non-target heavy-end hydrocarbon compounds within the range of C5-C12. Benzene was detected in MW-2 and MW-3 but was not detected in MW-1. No other BTEX compounds were detected in any of the groundwater samples. Oxygenates and lead scavengers were not detected in any of the groundwater samples.

Analytic Results for Sub-Slab Vapor Samples

Sub-slab vapor samples were analyzed for TPH(G), Stoddard solvent, BTEX, and oxygenates. Results are tabulated in Table 6, Appendix B. Benzene and TBA were detected in each of the samples. Stoddard solvent and toluene were detected in VS-2 but not in VS-1. Low concentrations of several other volatile organic compounds (VOCs) were detected in one or both of the samples. The VOCs detected were tetrachloroethylene (PCE) methylene chloride, acetone, 1,1,1-trichloroethane, and 2-butanone. Table 6 also lists Region 2 preliminary screening concentrations (residential and commercial) for soil gas.⁴ ESLs for shallow soil gas were not exceeded for any compound.

EVALUATION OF VAPOR MIGRATION PATHWAY IN B-15 AREA

The October 27, 2008 guidance letter from Alameda County directed that an evaluation be made of the vapor migration pathway in the area adjacent to B-15 (south and southwest of the site). An elevated concentration of Stoddard solvent, as well as benzene, was detected in a groundwater sample from B-15 in 1995.

The apartment building located adjacent to B-15 is constructed with an open-air parking garage occupying the entire ground level. The apartment building located approximately 120 ft east of

⁴ Preliminary screening concentrations are from Table E, Environmental Screening Levels (ESLs) Indoor Air and Soil Gas (Vapor Intrusion Concerns) Region 2 ESLs, Interim Final - November 2007 (Revised May 2008), Screening for Environmental Concerns at Sites With Contaminated Soil and Groundwater, California Regional Water Quality Control Board, San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California 94612.

B-15 is constructed in the same manner. Potential for migration of impacted soil vapor to indoor air in these buildings is therefore extremely low or nonexistent. Another residential building is located approximately 150 ft southwest of B-15 on 54th Street.

No analytes were detected in soil or groundwater samples from either of the wells constructed in 54th Street, downgradient of the site. Due to the lack of analytes in soil or groundwater downgradient of the site, it is concluded that soil vapor migration does not pose a potential risk to indoor air in buildings downgradient of the site.

CONCLUSIONS AND RECOMMENDATIONS

The purpose of this subsurface investigation, as directed in the October 27, 2008 guidance letter from Alameda County, was:

- 1.) To assess current conditions downgradient of the site, and to include an evaluation of the potential for a vapor migration pathway in that area;
- 2.) to assess the vertical extent of soil contamination at the site; and
- 3.) to collect sub-slab samples to evaluate potential risk from soil vapor in the site building.

Results from newly installed monitoring wells MW-4 and MW-5 indicate that there are no impacts to soil or groundwater downgradient of the site, and therefore no potential for risk from vapor migration in that area.

Results from B-31 indicate that residual impacts to soil near the release extend at least to 35 ft bgs. The only compound detected in soil during the recent investigation (and the only compound detected in soil in significant quantities in previous investigations) is Stoddard solvent/mineral spirits.

The 1996/1997 risk screening analysis concluded that exposure from indoor air was the only potentially complete exposure pathway at the site. Sub-slab vapor samples were collected to assess the potential for risk from soil vapor migration to indoor air in the site building.

Sample results show that Region 2 ESLs for shallow soil gas were not exceeded for any compound. An ESL has not been promulgated for Stoddard solvent. Stoddard solvent is similar in molecular weight to gasoline but has different toxicity characteristics because of its differing hydrocarbon composition. However, the Region 2 ESL for gasoline was not exceeded by Stoddard solvent. Stoddard solvent was detected in one of two soil gas samples. The residential

ESL for gasoline exceeds the Stoddard solvent concentration by a factor of four. It is therefore inferred that there is no potential for risk from migration of Stoddard solvent to indoor air.

Case closure is recommended at this site for the following reasons:

- 1.) Results of this investigation and previous investigations demonstrate that all potential exposure pathways at this site are incomplete.
- 2.) Due to the lack of analytes in soil or groundwater downgradient of the site, there is no potential risk to indoor air in buildings downgradient of the site.
- 3.) Sub-slab samples demonstrate that ESLs for soil gas have not been exceeded in the onsite building, so there is no potential risk to indoor air in on-site buildings.
- 4.) The 1997 sensitive receptor survey indicated that groundwater in the area is not being used as a source of drinking water. Due to the heavily urban character of the surrounding area, the proximity of San Francisco Bay, and the availability of municipal water, the potential for future development of groundwater as a drinking water source is virtually nonexistent.
- 5.) Site conditions do not present a potential threat to human health or safety, or to the environment.
- 6.) Residual hydrocarbons in soil and groundwater will continue to degrade.

It is recommended that site monitoring wells be sampled one more time to verify the conclusions of this report. If results are consistent with previous results, this site should be closed. Accordingly, site monitoring wells are scheduled for sampling in December, 2010.

Subsurface Investigation/
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Telegraph Business Park
5427 Telegraph Avenue, Oakland, CA

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Thank you for allowing ECM to provide environmental consulting services. Please call if you have questions or require additional information.

Sincerely,
ECM Group



Zach Barbane
Staff Scientist



Jim Green
Professional Engineer #C58482



Attachments:

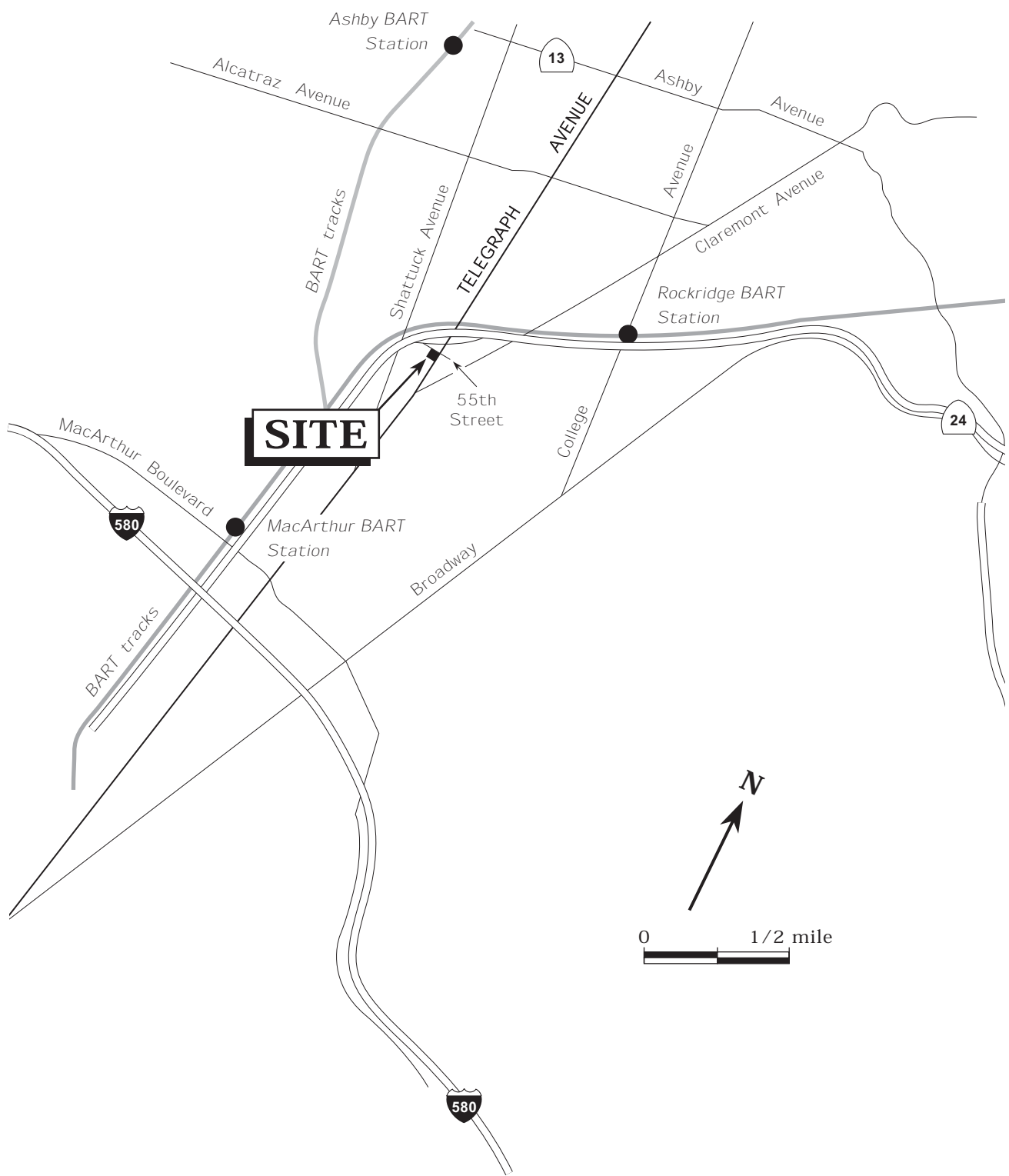
- Appendix A - Figures
- Appendix B - Tables
- Appendix C - Chain of Custody Documents and Analytical Laboratory Results
- Appendix D - Boring Logs
- Appendix E - Field Notes
- Appendix F - Standard Operating Procedures
- Appendix G - Responsible Party Certification Form

cc: Barbara J. Jakub, Alameda County Health Care Services Agency
Leroy Griffin, Oakland Fire Department

p.o. box 802, benicia, ca. 94510-0802 > 707-751-0655 > 707-751-0653 (fax)

APPENDIX A

FIGURES



Base map ref: California State Automobile Association (AAA)

Figure 1. Site Location Map – Telegraph Business Park, 5427 Telegraph Avenue, Oakland, California

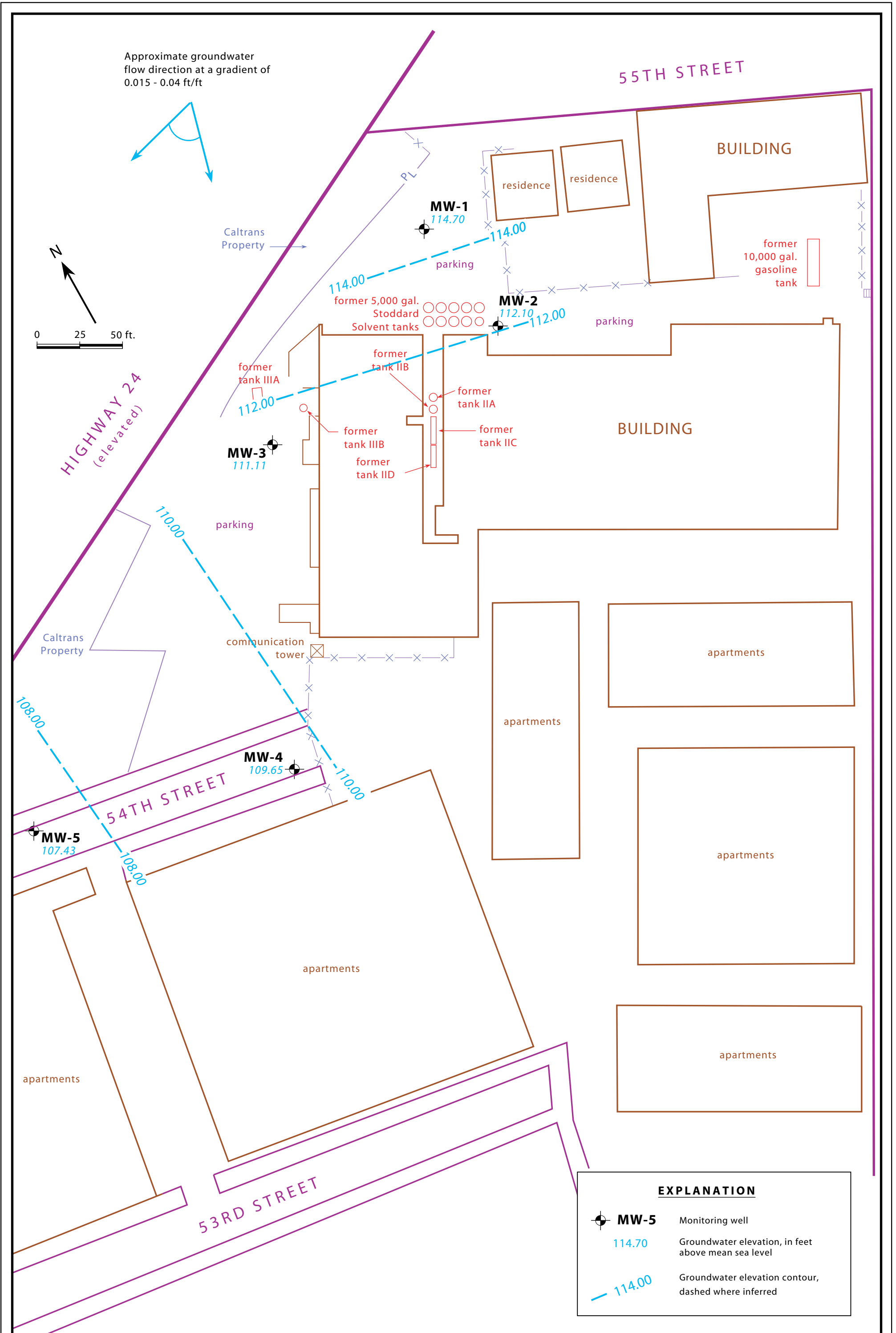


Figure 2. Monitoring Well Location and Groundwater Elevation Contour Map - June 9, 2010 - Telegraph Business Park, 5427 Telegraph Avenue, Oakland, California

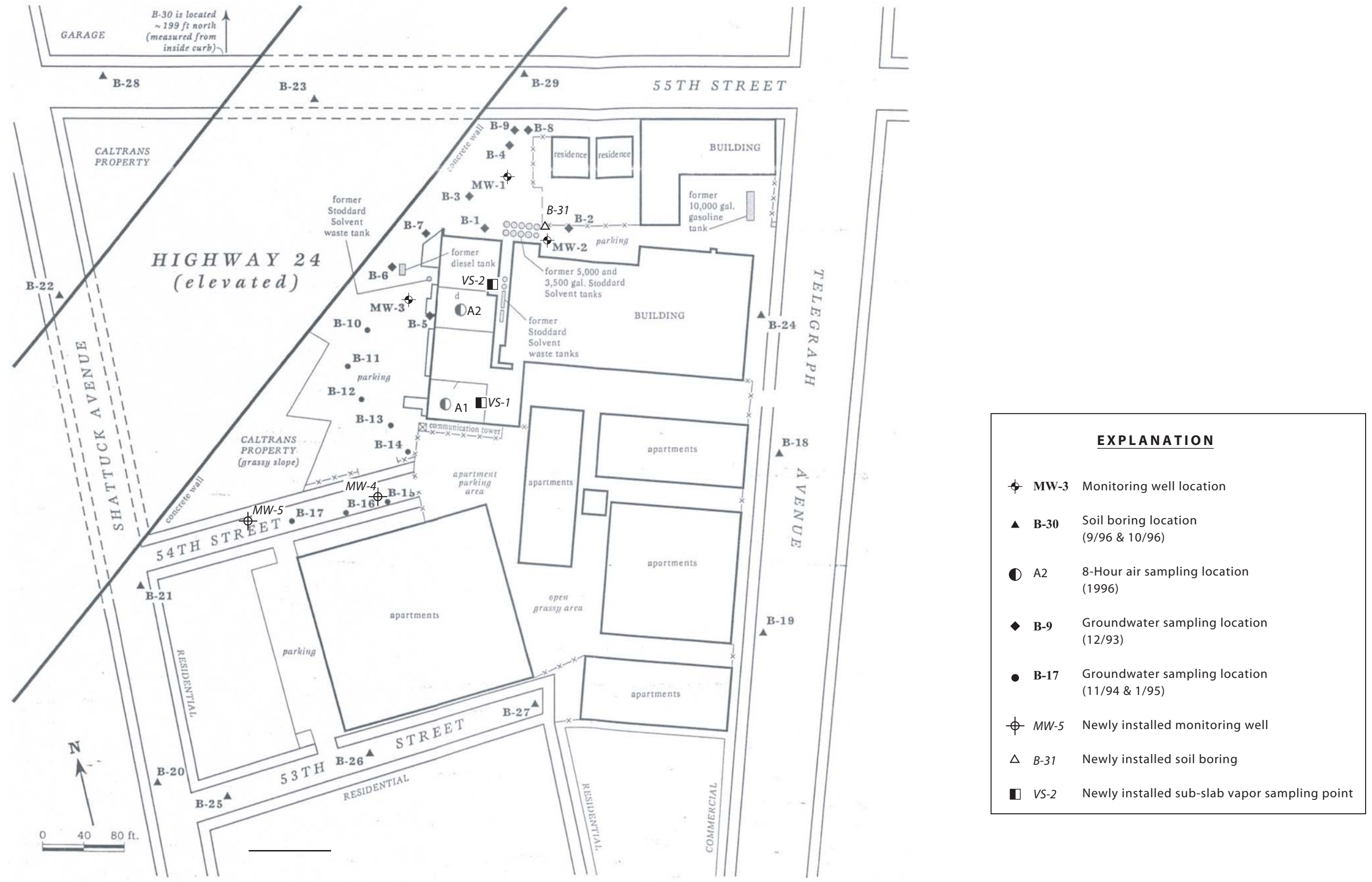


Figure 3. Monitoring Well, Soil Sampling, Air Sampling and Grab Groundwater Sampling Locations - Telegraph Business Park, 5427 Telegraph Avenue, Oakland, California

APPENDIX B

TABLES

Table 1. Monitoring Well Survey Data, Well Construction Details, and Depth to Groundwater - 5427 Telegraph Avenue, Oakland, California.

Well ID	Date	DTW (Ft)	TOC (Ft, msl)	GWE (Ft, msl)	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval	Notes
MW-1	1/5/1994	6.40	115.05	108.65	5 - 20	4 - 20	0 - 4	
	2/1/1994	5.93		109.12				
	3/2/1994	5.09		109.96				
	4/6/1994	5.85		109.20				
	5/4/1994	6.37		108.68				
	6/3/1994	6.95		108.10				
	7/7/1994	7.00		108.05				
	8/3/1994	7.30		107.75				
	9/7/1994	7.70		107.35				
	10/11/1994	7.62		107.43				
	1/20/1995	4.78		110.27				
	4/7/1995	5.96		109.09				
	7/26/1995	7.19		107.86				
	10/25/1995	7.74		107.31				
	1/29/1996	4.67		110.38				
	4/26/1996	5.92		109.13				
	7/25/1996	7.10		107.95				
	10/28/1996	7.41	107.64					
	12/4/2008	7.10	120.65	113.55				
	8/28/2009	7.65		113.00				See Note 1
12/1/2009	7.15	113.50						
6/9/2010	5.95	114.70						
MW-2	1/5/1994	9.42	117.60	108.18	7 - 27	6 - 27	0 - 6	
	2/1/1994	9.15		108.45				
	3/2/1994	9.55		108.05				
	4/6/1994	9.09		108.51				
	5/4/1994	9.18		108.42				
	6/3/1994	9.44		108.16				
	7/7/1994	10.21		107.39				
	8/3/1994	10.96		106.64				
	9/7/1994	10.20		107.40				
	10/11/1994	10.18		107.42				
	1/20/1995	8.64		108.96				
	4/7/1995	9.84		107.76				

Table 1. Monitoring Well Survey Data, Well Construction Details, and Depth to Groundwater - 5427 Telegraph Avenue, Oakland, California.

Well ID	Date	DTW (Ft)	TOC (Ft, msl)	GWE (Ft, msl)	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval	Notes
MW-2 cont.	7/26/1995	10.55	117.60	107.05	7 - 27	6 - 27	0 - 6	
	10/25/1995	10.15		107.45				
	1/29/1996	9.35		108.25				
	4/26/1996	8.57		109.03				
	7/25/1996	10.73		106.87				
	10/28/1996	10.16		107.44				
	12/4/2008	10.84	123.36	112.52				See Note 1
	8/28/2009	11.58		111.78				
	12/1/2009	11.06		112.30				
	6/9/2010	11.26		112.10				
MW-3	1/5/1994	10.14	115.33	105.19	5 - 20	4 - 20	0 - 4	
	2/1/1994	8.92		106.41				
	3/2/1994	7.56	115.14	107.58				Note 2: Wells resurveyed on 3/4/94 by Ronald C. Miller, pls 15816
	4/6/1994	10.24		104.90				
	5/4/1994	9.67		105.47				
	6/3/1994	10.38		104.76				
	7/7/1994	11.55		103.59				
	8/3/1994	11.76		103.38				
	9/7/1994	12.20		102.94				
	10/11/1994	12.02		103.12				
	1/20/1995	6.47		108.67				
	4/7/1995	7.98		107.16				
	7/26/1995	11.33		103.81				
	10/25/1995	12.29		102.85				
	1/29/1996	6.28		108.86				
	4/26/1996	9.09		106.05				
	7/25/1996	12.06		103.08				
	10/28/1996	12.32		102.82				
	12/4/2008	11.82		120.91				109.09
	8/28/2009	13.16	107.75					
	12/1/2009	11.43	109.48					
	6/9/2010	9.80	111.11					

Table 1. Monitoring Well Survey Data, Well Construction Details, and Depth to Groundwater - 5427 Telegraph Avenue, Oakland, California.

Well ID	Date	DTW (Ft)	TOC (Ft, msl)	GWE (Ft, msl)	Screen Interval	Sand Pack Interval	Bentonite/ Grout Interval	Notes
MW-4	6/9/2010	6.79	116.44	109.65	5 - 20	4 - 20	0 - 4	well surveyed on 5/2/10 by Barry Kolstad, pls 5677
MW-5	6/9/2010	5.60	113.03	107.43	5 - 20	4 - 20	0 - 4	well surveyed on 5/2/10 by Barry Kolstad, pls 5677

Explanation:

DTW = Depth to Water

ft = feet

msl = Mean Sea Level

TOC = Top of Casing

GWE = Ground Water Elevation

Notes:

- 1 Well boxes were replaced, TOC elevations changed, and wells were resurveyed on 11/23/08 and 12/7/08 by Barry Kolstad, pls 5677. MW-4 and MW-5 were surveyed by Barry Kolstad, pls 5677, on May 2, 2010.

Table 2. Analytic Results for Groundwater - Hydrocarbons - 5427 Telegraph Avenue, Oakland, California

Sample ID	Sample Date	TPH-G	Stoddard Solvent	Benzene	Toluene	Ethyl-benzene	Xylenes	Notes
		<----- parts per billion ----->						
MW-1	1/5/1994	---	1,000	3.3	1.6	<0.3	6	
	4/6/1994	---	1,400	5.6	4.5	<0.3	11	
	7/7/1994	---	1,200	1.5	0.80	<0.3	1.9	
	10/11/1994	---	700	<0.3	<0.3	<0.3	<0.3	
	1/20/1995	---	1,500	3.9	2	<0.3	3.9	
	4/7/1995	---	500	3.2	1.1	<0.3	1.7	
	7/26/1995	---	1,500	3.1	3.2	12	16	
	10/25/1995	---	660	0.6	1.4	20	14	
	1/29/1996	---	2,500	1.8	0.7	8.0	13	
	4/26/1996	---	4,600	<2.5	<2.5	9.5	21	
	7/25/1996	---	2,200	1.6	1.6	11	51	
	10/28/1996	---	1,300	1.5	1.3	3.6	11	
	12/4/2008	540	841	<0.50	6.55	<0.50	<1.50	1
	8/28/2009	510	169	<0.50	6.55	<0.50	<1.50	2
12/1/2009	<220	480	<2.2	<2.2	<2.2	<6.6	3	
6/9/2010	610	410	<2.2	<2.2	<2.2	<6.6	5	
MW-2	1/5/1994	---	35,000	12	38	<3.0	150	
	4/6/1994	---	94,000	21	22	<6.0	110	
	7/7/1994	---	---	16	16	<1.5	1,510	
	7/11/1994	---	43,000	---	---	---	---	
	10/11/1994	---	31,000	17	13	14	0.3	
	1/20/1995	---	26,000	18	13	12	50	
	4/7/1995	---	70,000	17.5	11	<0.6	74.6	
	7/26/1995	---	21,000	17	<0.5	26	94	
	10/25/1995	---	38,000	63	70	440	1,100	
	1/29/1996	---	74,000	7.4	8.6	66	330	
	4/26/1996	---	81,000	<250	<250	3,100	15,000	
	7/25/1996	---	48,000	17	9.4	59	200	
	10/28/1996	---	6,200	19	30	58	310	
	12/4/2008	6,300	120,000	<22.0	<22.0	<22.0	<66.0	1
8/28/2009	3,600	19,500	16	0.69	<0.50	<1.50	2	
12/1/2009	440	4,000	12	<4.4	<4.4	13	3	
6/9/2010	5,000	69,000	17	<4.4	<4.4	<13.2	5	

Table 2. Analytic Results for Groundwater - Hydrocarbons - 5427 Telegraph Avenue, Oakland, California

Sample ID	Sample Date	TPH-G	Stoddard Solvent	Benzene	Toluene	Ethyl-benzene	Xylenes	Notes
		<----- parts per billion ----->						
MW-3	1/5/1994	---	1,100	180	20	85	10	
	4/6/1994	---	1,000	140	13	60	<12	
	7/7/1994	---	---	120	7.5	8.0	<3.0	
	7/11/1994	---	1,000	---	---	---	---	
	10/11/1994	---	1,100	200	11	23	<0.3	
	1/20/1995	---	2,100	36	3.5	4.8	<0.3	
	4/7/1995	---	600	32.7	1.7	4.7	1.9	
	7/26/1995	---	1,200	98	3.2	12	16	
	10/25/1995	---	2,300	32	3.4	4.7	9.6	
	1/29/1996	---	1,100	22	1.2	6.4	12	
	4/26/1996	---	1,300	5.6	0.6	4.6	14	
	7/25/1996	---	2,900	120	6.4	23	36	
	10/28/1996	---	2,000	170	6.6	16	26	
	12/4/2008	1,600	708	1.15	<0.50	0.720	<1.50	1
	8/28/2009	2,200	434	2.8	0.66	1.6	<1.50	2
12/1/2009	3,900	<220	2.2	<2.2	<2.2	<6.6	2,4	
	6/9/2010	3,100	990	5.5	<2.2	<2.2	<6.6	2
MW-4	6/14/2010	<50	<100	<0.50	<0.50	<0.50	<1.50	
MW-5	6/9/2010	<50	<100	<0.50	<0.50	<0.50	<1.50	
B-1	12/13/1993	---	93,000	---	---	---	---	
B-2	12/13/1993	---	1,400,000	---	---	---	---	
B-3	12/13/1993	---	780,000	---	---	---	---	
B-4	12/13/1993	---	15,000	---	---	---	---	
B-5	12/14/1993	---	1,600	---	---	---	---	
B-6	12/14/1993	---	9,000	---	---	---	---	

Table 2. Analytic Results for Groundwater - Hydrocarbons - 5427 Telegraph Avenue, Oakland, California

Sample ID	Sample Date	TPH-G	Stoddard Solvent	Benzene	Toluene	Ethyl-benzene	Xylenes	Notes
		<----- parts per billion ----->						
B-7	12/14/1993	---	18,000	---	---	---	---	
B-8	12/14/1993	---	<50	---	---	---	---	
B-9	12/14/1993	---	60	---	---	---	---	
B-10	11/30/1994	---	120,000	<0.3	<0.3	<0.3	<0.3	
B-11	11/30/1994	---	210	<0.3	<0.3	<0.3	<0.3	
B-12	11/30/1994	---	150	<0.3	<0.3	<0.3	<0.3	
B-13	11/30/1994	---	220	2.3	0.80	<0.3	4	
B-14	11/30/1994	---	150	<0.3	<0.3	<0.3	0.80	
B-15	1/23/1995	---	9,100	40	<3.0	60	<3.0	
B-16	1/23/1995	---	52	<0.3	<0.3	<0.3	1.3	
B-17	1/23/1995	---	<50	<0.3	<0.3	<0.3	<0.3	
B-18	9/24/1996	---	<50	<0.5	0.5	<0.5	<0.5	
B-19	9/24/1996	---	<50	<0.5	0.7	<0.5	0.7	
B-20	9/24/1996	---	<50	<0.5	<0.5	<0.5	<0.5	
B-21	9/24/1996	---	---	---	---	---	---	
B-22	9/24/1996	---	---	---	---	---	---	
B-23	9/25/1996	---	4,600	<0.5	0.7	100	540	
B-24	9/25/1996	---	---	---	---	---	---	

Table 2. Analytic Results for Groundwater - Hydrocarbons - 5427 Telegraph Avenue, Oakland, California

Sample ID	Sample Date	TPH-G	Stoddard Solvent	Benzene	Toluene	Ethyl-benzene	Xylenes	Notes
<----- parts per billion ----->								
B-25	9/25/1996	---	---	---	---	---	---	
B-26	9/25/1996	---	<50	<0.5	<0.5	<0.5	<0.5	
B-27	9/25/1996	---	<50	<0.5	0.5	<0.5	<0.5	
W-B28	10/31/1996	---	<50	<0.5	<0.5	<0.5	<0.5	
W-B29	10/31/1996	---	<50	<0.5	<0.5	<0.5	<0.5	
W-B30	10/31/1996	---	<50	1.4	0.6	3.0	5.1	

Explanation:

TPH-G = Gasoline

--- = not analyzed

Notes:

- 1 TPH(G) was not reported prior to 2008. Samples were analyzed for TPH(D) and Oil&Grease prior to 2008. See report: Sierra Environmental Services, 1996, Quarterly Monitoring Report, Telegraph Business Park, 5427 Telegraph Avenue, Oakland, California, December 26, 1996.
- 2 Sample chromatogram does not resemble gasoline standard pattern. Reported TPH value due to the presence of non-target heavy end hydrocarbons within range of C5-C12 quantified as gasoline.
- 3 The reporting limits were raised due to a high concentration of heavy end hydrocarbons within range quantified as Mineral Spirits.
- 4 The reporting limits were raised due to contribution of unidentified hydrocarbons within the C5-C12 range quantified as gasoline.
- 5 Results not typical of Gasoline standard pattern. Result reported as Gasoline but pattern best matches Mineral Spirits/Stoddard Solvent.

Table 3. Analytic Results for Groundwater - Oxygenates - 5427 Telegraph Avenue, Oakland, California

Sample ID	Sample Date	MTBE	DIPE	ETBE	TAME	TBA	EDB	EDC (1,2 DCA)	Notes	
		<----- parts per billion ----->								
MW-1	1/5/1994	---	---	---	---	---	---	<0.2		
	4/6/1994	---	---	---	---	---	---	<0.2		
	7/7/1994	---	---	---	---	---	---	<0.5		
	10/11/1994	---	---	---	---	---	---	<2		
	1/20/1995	---	---	---	---	---	---	<2		
	4/7/1995	---	---	---	---	---	---	0.5		
	7/26/1995	---	---	---	---	---	---	<0.5		
	10/25/1995	---	---	---	---	---	---	<0.5		
	1/29/1996	---	---	---	---	---	---	<0.5		
	4/26/1996	---	---	---	---	---	---	<0.5		
	7/25/1996	---	---	---	---	---	---	<0.5		
	10/28/1996	---	---	---	---	---	---	<0.5		
	12/4/2008	<0.50	<0.50	<0.50	<0.50	<10.0	<0.50	<0.50	<0.50	1
	8/28/2009	<0.50	<0.50	<0.50	<0.50	<10.0	<0.50	<0.50	<0.50	
12/1/2009	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2		
6/9/2010	<2.2	<2.2	<2.2	<2.2	<22	<2.2	<2.2	<2.2		
MW-2	1/5/1994	---	---	---	---	---	---	2.7		
	4/6/1994	---	---	---	---	---	---	<0.2		
	7/7/1994	---	---	---	---	---	---	0.60		
	10/11/1994	---	---	---	---	---	---	<2		
	1/20/1995	---	---	---	---	---	---	<2		
	4/7/1995	---	---	---	---	---	---	1.4		
	7/26/1995	---	---	---	---	---	---	<0.5		
	10/25/1995	---	---	---	---	---	---	<0.5		
	1/29/1996	---	---	---	---	---	---	<0.5		
	4/26/1996	---	---	---	---	---	---	<0.5		
	7/25/1996	---	---	---	---	---	---	<0.5		
	10/28/1996	---	---	---	---	---	---	<2.5		
	12/4/2008	<22.0	<22.0	<22.0	<22.0	<440	<22.0	<22.0	<22.0	1
	8/28/2009	<0.50	<0.50	<0.50	<0.50	<10.0	<0.50	<0.50	<0.50	
12/1/2009	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4	<4.4		
6/9/2010	<4.4	<4.4	<4.4	<4.4	<44	<4.4	<4.4	<4.4		

Table 3. Analytic Results for Groundwater - Oxygenates - 5427 Telegraph Avenue, Oakland, California

Sample ID	Sample Date	MTBE	DIPE	ETBE	TAME	TBA	EDB	EDC (1,2 DCA)	Notes
<----- parts per billion ----->									
MW-3	1/5/1994	---	---	---	---	---	---	0.20	
	4/6/1994	---	---	---	---	---	---	<0.2	
	7/7/1994	---	---	---	---	---	---	<0.5	
	10/11/1994	---	---	---	---	---	---	<2	
	1/20/1995	---	---	---	---	---	---	<2	
	4/7/1995	---	---	---	---	---	---	0.7	
	7/26/1995	---	---	---	---	---	---	<0.5	
	10/25/1995	---	---	---	---	---	---	<0.5	
	1/29/1996	---	---	---	---	---	---	<0.5	
	4/26/1996	---	---	---	---	---	---	<0.5	
	7/25/1996	---	---	---	---	---	---	<0.5	
	10/28/1996	---	---	---	---	---	---	<0.5	
	12/4/2008	<0.50	<0.50	<0.50	<0.50	<10.0	<0.50	<0.50	1
	8/28/2009	<0.50	<0.50	<0.50	<0.50	<10.0	<0.50	<0.50	
12/1/2009	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2	<2.2		
6/9/2010	<2.2	<2.2	<2.2	<2.2	<22	<2.2	<2.2		
MW-4	6/14/2010	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	
MW-5	6/9/2010	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	
B-10	11/30/1994	---	---	---	---	---	---	<2	
B-11	11/30/1994	---	---	---	---	---	---	<2	
B-12	11/30/1994	---	---	---	---	---	---	<2	
B-13	11/30/1994	---	---	---	---	---	---	<2	
B-14	11/30/1994	---	---	---	---	---	---	<2	
B-15	1/23/1995	---	---	---	---	---	---	<2	
B-16	1/23/1995	---	---	---	---	---	---	<2	

Table 3. Analytic Results for Groundwater - Oxygenates - 5427 Telegraph Avenue, Oakland, California

Sample ID	Sample Date	MTBE	DIPE	ETBE	TAME	TBA	EDB	EDC (1,2 DCA)	Notes	
		<----- parts per billion ----->								
B-17	1/23/1995	---	---	---	---	---	---	<2		
B-18	9/24/1996	---	---	---	---	---	---	<1		
B-19	9/24/1996	---	---	---	---	---	---	<1		
B-20	9/24/1996	---	---	---	---	---	---	<1		
B-21	9/24/1996	---	---	---	---	---	---	---		
B-22	9/24/1996	---	---	---	---	---	---	---		
B-23	9/25/1996	---	---	---	---	---	---	<1		
B-24	9/25/1996	---	---	---	---	---	---	---		
B-25	9/25/1996	---	---	---	---	---	---	---		
B-26	9/25/1996	---	---	---	---	---	---	<1		
B-27	9/25/1996	---	---	---	---	---	---	<1		
W-B28	10/31/1996	---	---	---	---	---	---	<1		
W-B29	10/31/1996	---	---	---	---	---	---	<1		
W-B30	10/31/1996	---	---	---	---	---	---	<1		

Explanation:

- MTBE = Methyl tertiary butyl ether
- DIPE = Di-isopropyl ether
- ETBE = Ethyl tertiary butyl ether
- TAME = Tertiary amyl methyl ether
- TBA = Tertiary butyl alcohol
- EDB = 1,2-Dibromoethane
- EDC = 1,2-Dichloroethane

Notes:

1 MTBE, DIPE, ETBE, TAME, TBA and EDB were not reported prior to 2008. Samples were analyzed for Halogenated Volatile Organic Compounds (HVOCs) and Volatile Organic Compounds (VOCs) prior to 2008. See report: Sierra Environmental Services, 1996, Quarterly Monitoring Report, Telegraph Business Park, 5427 Telegraph Avenue, Oakland, California, December 26, 1996.

Table 4. Analytic Results for Soil - Hydrocarbons - 5427 Telegraph Avenue, Oakland, California

Sample ID	Sample Date	Depth feet, bgs	TPH (G)	TPH (D)	TPH (MS)	Stoddard Solvent	Benzene	Toluene	Ethyl-benzene	Xylenes	Oxygenates/Lead scavengers	Notes
<----- parts per million ----->												
B-1	12/13/1993	2.5	---	<10	---	980	---	---	---	---	---	
		8.5	---	<10	---	2,000	---	---	---	---	---	
B-2	12/13/1993	5.5	---	<10	---	1,640	---	---	---	---	---	
		10.5	---	<10	---	3,060	---	---	---	---	---	
B-3	12/13/1993	5.5	---	13	---	1,900	---	---	---	---	---	
B-4	12/13/1993	5.5	---	<10	---	100	---	---	---	---	---	
B-5	12/14/1993	5.5	---	<1.0	---	<1.0	---	---	---	---	---	
B-6	12/14/1993	5.5	---	190	---	110	---	---	---	---	---	
		10.5	---	11	---	150	---	---	---	---	---	
B-7	12/14/1993	5.5	---	11	---	1,380	---	---	---	---	---	
		10.5	---	14	---	920	---	---	---	---	---	
B-8	12/14/1993	5.5	---	<1.0	---	<1.0	---	---	---	---	---	
		10.5	---	<1.0	---	<1.0	---	---	---	---	---	
		15.5	---	<1.0	---	<1.0	---	---	---	---	---	
		20.5	---	<1.0	---	<1.0	---	---	---	---	---	
B-9	12/14/1993	5.5	---	<1.0	---	<1.0	---	---	---	---	---	
		10.5	---	<1.0	---	<1.0	---	---	---	---	---	
MW-1	12/14/1993	5.5	---		---	2,320	---	---	---	---	---	
		9.5	---	<1.0	---	1.2	---	---	---	---	---	
		15.5	---	<1.0	---	7.5	---	---	---	---	---	
		20.5	---	<1.0	---	<1.0	---	---	---	---	---	---
MW-2	12/14/1993	5.5	---	<10	---	2,780	---	---	---	---	---	
		10.5	---	<10	---	6,500	---	---	---	---	---	
		15.5	---	<1.0	---	18	---	---	---	---	---	

Table 4. Analytic Results for Soil - Hydrocarbons - 5427 Telegraph Avenue, Oakland, California

Sample ID	Sample Date	Depth feet, bgs	TPH (G)	TPH (D)	TPH (MS)	Stoddard Solvent	Benzene	Toluene	Ethyl-benzene	Xylenes	Oxygenates/Lead scavengers	Notes
<----- parts per million ----->												
MW-2 cont.	12/14/1993	20.5	---	<1.0	---	<1.0	---	---	---	---	---	
		25.5	---	<10	---	200	---	---	---	---	---	
MW-3	12/14/1993	5.5	---	2.9	---	2.6	---	---	---	---	---	
		10.5	---	<10	---	260	---	---	---	---	---	
		15.5	---	2.5	---	34	---	---	---	---	---	
B-21	9/24/1996	16.0	---	---	---	<10	<0.005	<0.005	<0.005	<0.005	---	1
B-22	9/24/1996	15.5	---	---	---	<10	<0.005	<0.005	<0.005	<0.005	---	1
B-23	9/25/1996	10.5	---	---	---	<10	<0.005	<0.005	<0.005	0.044	---	1
B-24	9/25/1996	16.0	---	---	---	<10	<0.005	<0.005	<0.005	<0.005	---	1
B-25	9/25/1996	16.0	---	---	---	<10	<0.005	<0.005	<0.005	<0.005	---	2
B-31	4/12/2010	5.0	<13.0	---	190	22	<0.015	<0.015	<0.015	<0.015	ND	
		10.0	<94.0	---	960	480	<0.94	<0.94	<0.94	<0.94	ND	
		15.0	<10.0	---	74	11	<1.0	<1.0	<1.0	<1.0	ND	
		20.0	<0.11	---	0.4	<3.3	<0.011	<0.011	<0.011	<0.011	ND	
		25.0	<13.0	---	20	<3.3	<0.0099	<0.0099	<0.0099	<0.0099	ND	
		30.0	<10.0	---	27	7.4	<0.015	<0.015	<0.015	<0.015	ND	
		35.0	<26.0	---	95	99	<1.1	<1.1	<1.1	<1.1	ND	
MW-4	4/12/2010	6.0	<0.098	---	---	<3.3	<0.0098	<0.0098	<0.0098	<0.0098	ND	
		11.0	<0.13	---	---	<3.3	<0.013	<0.013	<0.013	<0.013	ND	
		16.0	<0.12	---	---	<3.3	<0.012	<0.012	<0.012	<0.012	ND	
		20.0	<0.13	---	---	<3.3	<0.013	<0.013	<0.013	<0.013	ND	
MW-5	4/12/2010	11.0	<0.1	---	---	<3.3	<0.01	<0.01	<0.01	<0.01	ND	

Explanation:

- TPH (G) = Gasoline
- TPH (D) = Diesel
- PH (MS) = Mineral Spirits
- = not analyzed
- ND = not detected

Notes:

- 1 Volatile Organic Compounds (VOCs) not detected at detection limits ranging from 0.005 to 0.2 ppm.
- 2 Sample contains 0.0052 ppm benzene. All other VOCs not detected at detection limits ranging from 0.005 to 0.2 ppm.

All values in Table 4 are taken from Sierra Environmental Services *Risk Screening Analysis*, Telegraph Business Park, 5427 Telegraph Avenue, Oakland, CA,

Table 5. Analytic Results for Air - Organic Compounds - 5427 Telegraph Avenue, Oakland, California

Sample ID	Sample Date	Stoddard Solvent	Benzene	Toluene	Ethyl-benzene	Xylenes	1,2,4-TMB	Notes
		<-----µg/m3----->						
A-1	11/19/1996	<4.6	6.8	26.8	9.3	12.3	6.0	1
A-2	11/19/1996	<5.2	6.8	16.0	<4.0	5.7	<4.5	2
Preliminary Screening Concentration								
	Residential	---	0.0842 ⁴	313 ⁴	210 ³	730 ⁴	---	
	Commercial	---	0.141 ⁴	438 ⁴	290 ³	1,020 ⁴	---	

Explanation:

- 1,2,4-TMB = 1,2,4-Trimethylbenzene
- ppbv = parts per billion by volume
- TICs = tentatively identified compounds

Notes:

- 1 Other Volatile Organic Compounds (VOCs) were not detected at a laboratory reporting limit of 0.88 ppbv. Sample A-1 is reported to contain six TICs: acetaldehyde, 2-propanone, dichloromethane, butanal, hexanal and octanal at concentrations of 6.7, 10, 6.3, 20, 6.0 and 4.6 ppbv, respectively.
- 2 Other Volatile Organic Compounds (VOCs) were not detected at a laboratory reporting limit of 0.90 ppbv. Sample A-2 is reported to contain two TICs: 2-hydroxybenzaldehyde and (E)-4-dodecene at concentrations of 7.3 and 5.3 ppbv, respectively.
- 3 Preliminary screening concentration numbers are based on Region 2 ESLs (Interim Final - May 2008) Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, California Regional Water Quality Control Board - San Francisco Bay Region.
- 4 Preliminary screening concentration numbers are based on California Environmental Protection Agency, 2005, Use of California Human Health Screening Levels (CHHSLs) in Evaluation of Contaminated Properties, January, 2005.

Results for A-1 and A-2 are taken from Sierra Environmental Services *Risk Screening Analysis*, Telegraph Business Park, 5427 Telegraph Avenue, Oakland, CA, March 6, 1997. Concentrations have been converted from ppbv into µg/m3.

Table 6. Sub-Slab Vapor Sample Results - 5427 Telegraph Avenue, Oakland, California

Sample ID	Sample Date	TPH(G)	Stoddard Solvent	Benzene	Toluene	Ethyl-benzene	Xylene	MTBE	TBA	DIPE	ETBE	TAME	PCE	IPA ⁴	Notes
		←-----µg/m ³ ----->													
VS-1	4/14/2010	<120	<120	1.264	<0.95	<1.1	<2.2	<0.9	114.744	<1.05	<1.05	<1.05	189.414	<5.0	2
VS-2	4/14/2010	<130	2,410	1.17	1.20	<1.1	<2.2	<0.90	303	<1.1	<1.1	<1.1	191	12.5	3
Preliminary Screening Concentration ¹															
	Residential	10,000	---	84	63,000	980	21,000	9,400	---	---	---	---	410	---	
	Commercial	29,000	---	280	180,000	3,300	58,000	31,000	---	---	---	---	1,400	---	

TBA = t-Butyl alcohol
 DIPE = Diisopropyl ether
 ETBE = Ethyl t-butyl ether
 TAME = t-Amyl methyl ether
 PCE = Tetrachloroethylene
 IPA = isopropyl alcohol
 µg/m³ = micrograms per cubic meter
 --- = Not available

Notes:

- 1.) Preliminary screening concentration numbers are from Table E, Environmental Screening Levels (ESLs) Indoor Air and Soil Gas (Vapor Intrusion Concerns), Region 2 ESLs, Interim Final - November 2007 (Revised May, 2008), Screening For Environmental Concerns at Sites With Contaminated Soil and Groundwater, California Regional Water Quality Control Board, San Francisco Bay Region, 1515 Clay Street, Suite 1400, Oakland, California 94612.
- 2.) Sample VS-1 was analyzed for VOCs by ETO15. Other VOCs detected were: methylene chloride (8.82µg/m³); acetone (9.312 µg/m³); and 1,1,1-trichloroethane (1.43 µg/m³).
- 3.) VS-2 was analyzed for VOCs by ETO15. Other VOCs detected were: methylene chloride (1.35µg/m³); acetone (13.2 µg/m³); 1,1,1-trichloroethane (1.93 µg/m³); and 2-Butanone (2.10 µg/m³).
- 4.) IPA was introduced as tracer compound.

APPENDIX C

CHAIN OF CUSTODY
AND
LABORATORY ANALYTICAL REPORTS



ECM Group
P.O. Box
Benicia, California 94510
Tel: 707-751-0655
Fax: 707-751-0653
Email: rguptel@ecmgrp.com
RE: 5427 Telegraph Ave

Work Order No.: 1004051

Dear Jim Green:

Torrent Laboratory, Inc. received 4 sample(s) on April 13, 2010 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

Patti Sandrock

April 20, 2010

Date



Date: 4/20/2010

Client: ECM Group

Project: 5427 Telegraph Ave

Work Order: 1004051

CASE NARRATIVE

No issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Revision:

Report revised to correct reported units for TPH as Stoddard from mg/L to the correct units of mg/Kg.

No QC affected by this revision.

4/21/10



Sample Result Summary

Report prepared for: Jim Green
ECM Group

Date Received: 04/13/10
Date Reported: 04/20/10
1004051-001

MW-4-d 6'

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
--------------------	------------------------	-----------	------------	------------	----------------	-------------

All compounds were non-detectable for this sample.

MW-4-d 11' 1004051-002

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
--------------------	------------------------	-----------	------------	------------	----------------	-------------

All compounds were non-detectable for this sample.

MW-4-d 16' 1004051-003

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
--------------------	------------------------	-----------	------------	------------	----------------	-------------

All compounds were non-detectable for this sample.

MW-4-d 20' 1004051-004

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
--------------------	------------------------	-----------	------------	------------	----------------	-------------

All compounds were non-detectable for this sample.



SAMPLE RESULTS

Report prepared for: Jim Green
ECM Group

Date Received: 04/13/10
Date Reported: 04/20/10

Client Sample ID:	MW-4-d 6'	Lab Sample ID:	1004051-001A
Project Name/Location:	5427 Telegraph Ave	Sample Matrix:	Soil
Project Number:	02-181-10		
Date/Time Sampled:	04/12/10 / 13:45		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
MTBE	SW8260B	NA	04/14/10	1	2.5	9.8	ND		ug/Kg	400591	NA
tert-Butanol	SW8260B	NA	04/14/10	1	20	49	ND		ug/Kg	400591	NA
Diisopropyl ether (DIPE)	SW8260B	NA	04/14/10	1	2.1	9.8	ND		ug/Kg	400591	NA
ETBE	SW8260B	NA	04/14/10	1	2.4	9.8	ND		ug/Kg	400591	NA
Benzene	SW8260B	NA	04/14/10	1	1.5	9.8	ND		ug/Kg	400591	NA
TAME	SW8260B	NA	04/14/10	1	2.0	9.8	ND		ug/Kg	400591	NA
1,2-Dichloroethane	SW8260B	NA	04/14/10	1	1.9	9.8	ND		ug/Kg	400591	NA
Toluene	SW8260B	NA	04/14/10	1	0.96	9.8	ND		ug/Kg	400591	NA
1,2-Dibromoethane	SW8260B	NA	04/14/10	1	1.7	9.8	ND		ug/Kg	400591	NA
Ethyl Benzene	SW8260B	NA	04/14/10	1	0.84	9.8	ND		ug/Kg	400591	NA
m,p-Xylene	SW8260B	NA	04/14/10	1	1.8	9.8	ND		ug/Kg	400591	NA
o-Xylene	SW8260B	NA	04/14/10	1	0.65	4.9	ND		ug/Kg	400591	NA
(S) Dibromofluoromethane	SW8260B	NA	04/14/10	1	59.8	148	132		%	400591	NA
(S) Toluene-d8	SW8260B	NA	04/14/10	1	55.2	133	91.1		%	400591	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	04/14/10	1	55.8	141	98.8		%	400591	NA

NOTE: Final result and PQL (Reporting Limit) has been corrected for actual mass removed from Encore containers.

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH(Gasoline)	8260TPH	NA	04/14/10	1	17	98	ND		ug/Kg	400588	NA
(S) 4-Bromofluorobenzene	8260TPH	NA	04/14/10	1	57	127	74.8		%	400588	NA

NOTE: Final results and PQL (Reporting Limits) have been corrected for actual mass removed from Encore containers.

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Stoddard	SW8015B	4/15/10	04/15/10	1	0.758	3.3	ND		mg/Kg	400590	0285
Pentacosane (S)	SW8015B	4/15/10	04/15/10	1	53.3	124	79.9		%	400590	0285



SAMPLE RESULTS

Report prepared for: Jim Green
ECM Group

Date Received: 04/13/10
Date Reported: 04/20/10

Client Sample ID:	MW-4-d 11'	Lab Sample ID:	1004051-002A
Project Name/Location:	5427 Telegraph Ave	Sample Matrix:	Soil
Project Number:	02-181-10		
Date/Time Sampled:	04/12/10 / 13:50		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
MTBE	SW8260B	NA	04/14/10	1	3.4	13	ND		ug/Kg	400591	NA
tert-Butanol	SW8260B	NA	04/14/10	1	27	66	ND		ug/Kg	400591	NA
Diisopropyl ether (DIPE)	SW8260B	NA	04/14/10	1	2.9	13	ND		ug/Kg	400591	NA
ETBE	SW8260B	NA	04/14/10	1	3.2	13	ND		ug/Kg	400591	NA
Benzene	SW8260B	NA	04/14/10	1	2.0	13	ND		ug/Kg	400591	NA
TAME	SW8260B	NA	04/14/10	1	2.7	13	ND		ug/Kg	400591	NA
1,2-Dichloroethane	SW8260B	NA	04/14/10	1	2.5	13	ND		ug/Kg	400591	NA
Toluene	SW8260B	NA	04/14/10	1	1.3	13	ND		ug/Kg	400591	NA
1,2-Dibromoethane	SW8260B	NA	04/14/10	1	2.3	13	ND		ug/Kg	400591	NA
Ethyl Benzene	SW8260B	NA	04/14/10	1	1.1	13	ND		ug/Kg	400591	NA
m,p-Xylene	SW8260B	NA	04/14/10	1	2.4	13	ND		ug/Kg	400591	NA
o-Xylene	SW8260B	NA	04/14/10	1	0.87	6.6	ND		ug/Kg	400591	NA
(S) Dibromofluoromethane	SW8260B	NA	04/14/10	1	59.8	148	166	S	%	400591	NA
(S) Toluene-d8	SW8260B	NA	04/14/10	1	55.2	133	121		%	400591	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	04/14/10	1	55.8	141	147	S	%	400591	NA

NOTE: Final result and PQL (Reporting Limit) has been corrected for actual mass removed from Encore containers.

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH(Gasoline)	8260TPH	NA	04/14/10	1	22	130	ND		ug/Kg	400588	NA
(S) 4-Bromofluorobenzene	8260TPH	NA	04/14/10	1	57	127	104		%	400588	NA

NOTE: Final results and PQL (Reporting Limits) have been corrected for actual mass removed from Encore containers. x-TPH result due to contribution from heavier hydrocarbons to range of C5-C12 quantified as gasoline (closest pattern match-mineral spirit).

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Stoddard	SW8015B	4/15/10	04/15/10	1	0.758	3.3	ND		mg/Kg	400590	0285
Pentacosane (S)	SW8015B	4/15/10	04/15/10	1	53.3	124	85.8		%	400590	0285



SAMPLE RESULTS

Report prepared for: Jim Green
ECM Group

Date Received: 04/13/10
Date Reported: 04/20/10

Client Sample ID:	MW-4-d 16'	Lab Sample ID:	1004051-003A
Project Name/Location:	5427 Telegraph Ave	Sample Matrix:	Soil
Project Number:	02-181-10		
Date/Time Sampled:	04/12/10 / 13:55		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
MTBE	SW8260B	NA	04/14/10	1	3.1	12	ND		ug/Kg	400591	NA
tert-Butanol	SW8260B	NA	04/14/10	1	24	59	ND		ug/Kg	400591	NA
Diisopropyl ether (DIPE)	SW8260B	NA	04/14/10	1	2.6	12	ND		ug/Kg	400591	NA
ETBE	SW8260B	NA	04/14/10	1	2.8	12	ND		ug/Kg	400591	NA
Benzene	SW8260B	NA	04/14/10	1	1.8	12	ND		ug/Kg	400591	NA
TAME	SW8260B	NA	04/14/10	1	2.4	12	ND		ug/Kg	400591	NA
1,2-Dichloroethane	SW8260B	NA	04/14/10	1	2.2	12	ND		ug/Kg	400591	NA
Toluene	SW8260B	NA	04/14/10	1	1.2	12	ND		ug/Kg	400591	NA
1,2-Dibromoethane	SW8260B	NA	04/14/10	1	2.1	12	ND		ug/Kg	400591	NA
Ethyl Benzene	SW8260B	NA	04/14/10	1	1.0	12	ND		ug/Kg	400591	NA
m,p-Xylene	SW8260B	NA	04/14/10	1	2.2	12	ND		ug/Kg	400591	NA
o-Xylene	SW8260B	NA	04/14/10	1	0.78	5.9	ND		ug/Kg	400591	NA
(S) Dibromofluoromethane	SW8260B	NA	04/14/10	1	59.8	148	145		%	400591	NA
(S) Toluene-d8	SW8260B	NA	04/14/10	1	55.2	133	114		%	400591	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	04/14/10	1	55.8	141	128		%	400591	NA

NOTE: Final result and PQL (Reporting Limit) has been corrected for actual mass removed from Encore containers.

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH(Gasoline)	8260TPH	NA	04/14/10	1	20	120	ND		ug/Kg	400588	NA
(S) 4-Bromofluorobenzene	8260TPH	NA	04/14/10	1	57	127	99.3		%	400588	NA

NOTE: Final results and PQL (Reporting Limits) have been corrected for actual mass removed from Encore containers. x-TPH result due to contribution from heavier hydrocarbons to range of C5-C12 quantified as gasoline (closest pattern match-mineral spirit).

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Stoddard	SW8015B	4/15/10	04/15/10	1	0.758	3.3	ND		mg/Kg	400590	0285
Pentacosane (S)	SW8015B	4/15/10	04/15/10	1	53.3	124	80.6		%	400590	0285



SAMPLE RESULTS

Report prepared for: Jim Green
ECM Group

Date Received: 04/13/10
Date Reported: 04/20/10

Client Sample ID:	MW-4-d 20'	Lab Sample ID:	1004051-004A
Project Name/Location:	5427 Telegraph Ave	Sample Matrix:	Soil
Project Number:	02-181-10		
Date/Time Sampled:	04/12/10 / 14:00		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
MTBE	SW8260B	NA	04/14/10	1	3.3	13	ND		ug/Kg	400591	NA
tert-Butanol	SW8260B	NA	04/14/10	1	26	63	ND		ug/Kg	400591	NA
Diisopropyl ether (DIPE)	SW8260B	NA	04/14/10	1	2.8	13	ND		ug/Kg	400591	NA
ETBE	SW8260B	NA	04/14/10	1	3.0	13	ND		ug/Kg	400591	NA
Benzene	SW8260B	NA	04/14/10	1	1.9	13	ND		ug/Kg	400591	NA
TAME	SW8260B	NA	04/14/10	1	2.6	13	ND		ug/Kg	400591	NA
1,2-Dichloroethane	SW8260B	NA	04/14/10	1	2.4	13	ND		ug/Kg	400591	NA
Toluene	SW8260B	NA	04/14/10	1	1.2	13	ND		ug/Kg	400591	NA
1,2-Dibromoethane	SW8260B	NA	04/14/10	1	2.2	13	ND		ug/Kg	400591	NA
Ethyl Benzene	SW8260B	NA	04/14/10	1	1.1	13	ND		ug/Kg	400591	NA
m,p-Xylene	SW8260B	NA	04/14/10	1	2.3	13	ND		ug/Kg	400591	NA
o-Xylene	SW8260B	NA	04/14/10	1	0.83	6.3	ND		ug/Kg	400591	NA
(S) Dibromofluoromethane	SW8260B	NA	04/14/10	1	59.8	148	157	S	%	400591	NA
(S) Toluene-d8	SW8260B	NA	04/14/10	1	55.2	133	128		%	400591	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	04/14/10	1	55.8	141	142	S	%	400591	NA

NOTE: Final result and PQL (Reporting Limit) has been corrected for actual mass removed from Encore containers.

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH(Gasoline)	8260TPH	NA	04/14/10	1	21	130	ND		ug/Kg	400588	NA
(S) 4-Bromofluorobenzene	8260TPH	NA	04/14/10	1	57	127	111		%	400588	NA

NOTE: Final results and PQL (Reporting Limits) have been corrected for actual mass removed from Encore containers. x-TPH result due to contribution from heavier hydrocarbons to range of C5-C12 quantified as gasoline (closest pattern match-mineral spirit).

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Stoddard	SW8015B	4/15/10	04/15/10	1	0.758	3.3	ND		mg/Kg	400590	0285
Pentacosane (S)	SW8015B	4/15/10	04/15/10	1	53.3	124	83.1		%	400590	0285



MB Summary Report

Work Order:	1004051	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Soil	Analytical Method:	8260TPH	Analyzed Date:	04/14/10	Analytical Batch:	400588
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.
------------	-----	-----	--------------------

TPH(Gasoline)	17	100	ND
(S) 4-Bromofluorobenzene			94.5

Work Order:	1004051	Prep Method:	3545_TPH	Prep Date:	04/15/10	Prep Batch:	0285
Matrix:	Soil	Analytical Method:	SW8015B	Analyzed Date:	04/15/10	Analytical Batch:	400590
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.
------------	-----	-----	--------------------

TPH as Diesel	0.758	2.0	ND
TPH as Motor Oil	1.8	4.0	ND
TPH as Stoddard	0.758	3.3	ND
Pentacosane (S)			86.4

Work Order:	1004051	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Soil	Analytical Method:	SW8260B	Analyzed Date:	04/14/10	Analytical Batch:	400591
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.
------------	-----	-----	--------------------

Dichlorodifluoromethane	4.4	10	ND
Chloromethane	4.6	10	ND
Vinyl Chloride	2.6	10	ND
Bromomethane	4.7	10	ND
Trichlorofluoromethane	2.9	10	ND
1,1-Dichloroethene	1.5	10	ND
Freon 113	3.7	10	ND
Methylene Chloride	2.0	10	ND
trans-1,2-Dichloroethene	1.1	10	ND
MTBE	2.6	10	ND
tert-Butanol	21	50	ND
Diisopropyl ether (DIPE)	2.2	10	ND
1,1-Dichloroethane	1.3	10	ND
ETBE	2.4	10	ND
cis-1,2-Dichloroethene	1.8	10	ND
2,2-Dichloropropane	1.2	10	ND
Bromochloromethane	2.3	10	ND



MB Summary Report

Work Order:	1004051	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Soil	Analytical Method:	SW8260B	Analyzed Date:	04/14/10	Analytical Batch:	400591
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.
Chloroform	1.2	10	ND
Carbon Tetrachloride	1.6	10	ND
1,1,1-Trichloroethane	1.2	10	ND
1,1-Dichloropropene	1.4	10	ND
Benzene	1.5	10	ND
TAME	2.1	10	ND
1,2-Dichloroethane	1.9	10	ND
Trichloroethylene	3.9	10	ND
Dibromomethane	2.2	10	ND
1,2-Dichloropropane	1.3	10	ND
Bromodichloromethane	1.1	10	ND
2-Chloroethyl vinyl ether	4.5	10	ND
cis-1,3-Dichloropropene	1.4	10	ND
Toluene	0.98	10	ND
Tetrachloroethylene	1.8	10	ND
trans-1,3-Dichloropropene	1.2	10	ND
1,1,2-Trichloroethane	1.8	10	ND
Dibromochloromethane	1.1	10	ND
1,3-Dichloropropane	2.1	10	ND
1,2-Dibromoethane	1.7	10	ND
Ethyl Benzene	0.86	10	ND
Chlorobenzene	4.2	10	ND
1,1,1,2-Tetrachloroethane	0.86	10	ND
m,p-Xylene	1.9	10	ND
o-Xylene	0.66	5.0	ND
Styrene	0.77	10	ND
Bromoform	1.9	10	ND
Isopropyl Benzene	1.2	10	ND
n-Propylbenzene	1.4	10	ND
Bromobenzene	1.2	10	ND
1,1,2,2-Tetrachloroethane	3.0	10	ND
1,3,5-Trimethylbenzene	1.1	10	ND
1,2,3-Trichloropropane	3.3	10	ND
4-Chlorotoluene	1.6	10	ND
2-Chlorotoluene	1.6	10	ND
tert-Butylbenzene	1.4	10	ND
1,2,4-Trimethylbenzene	1.1	10	ND
sec-Butyl Benzene	1.6	10	ND
p-Isopropyltoluene	1.5	10	ND
1,3-Dichlorobenzene	1.8	10	ND
1,4-Dichlorobenzene	1.5	10	ND



MB Summary Report

Work Order:	1004051	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Soil	Analytical Method:	SW8260B	Analyzed Date:	04/14/10	Analytical Batch:	400591
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.
n-Butylbenzene	2.2	10	ND
1,2-Dichlorobenzene	1.3	10	ND
1,2-Dibromo-3-Chloropropane	4.2	10	ND
Hexachlorobutadiene	2.6	10	ND
1,2,4-Trichlorobenzene	2.1	10	ND
Naphthalene	2.8	10	ND
1,2,3-Trichlorobenzene	2.9	10	ND
(S) Dibromofluoromethane			130
(S) Toluene-d8			92.4
(S) 4-Bromofluorobenzene			105



LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1004051	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Soil	Analytical Method:	8260TPH	Analyzed Date:	04/14/10	Analytical Batch:	400588
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH(Gasoline)	17	100		1000	90.5	108	17.5	48.2 - 132	30	
(S) 4-Bromofluorobenzene				50	100			57 - 127		

Work Order:	1004051	Prep Method:	3545_TPH	Prep Date:	04/15/10	Prep Batch:	0285
Matrix:	Soil	Analytical Method:	SW8015B	Analyzed Date:	04/15/10	Analytical Batch:	400590
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel	0.76	2.0		33.33	76.1	74.9	1.62	50.8 - 111	30	
Pentacosane (S)				100	90.2			61.5 - 133		

Work Order:	1004051	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Soil	Analytical Method:	SW8260B	Analyzed Date:	04/14/10	Analytical Batch:	400591
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	1.5	10		50	95.9	102	6.04	53.7 - 139	30	
Benzene	1.5	10		50	95.4	105	9.24	66.5 - 135	30	
Trichloroethylene	3.9	10		50	100	110	8.94	57.5 - 150	30	
Toluene	0.98	10		50	86.2	89.3	3.49	56.8 - 134	30	
Chlorobenzene	4.2	10		50	89.2	91.8	2.89	57.4 - 134	30	
(S) Dibromofluoromethane				50	119			59.8 - 148		
(S) Toluene-d8				50	90.4			55.2 - 133		
(S) 4-Bromofluorobenzene				50	81.1			55.8 - 141		



MS/MSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1004051	Prep Method:	3545_TPH	Prep Date:	04/15/10	Prep Batch:	0285
Matrix:	Soil	Analytical Method:	SW8015B	Analyzed Date:	04/15/10	Analytical Batch:	400590
Spiked Sample:	1004051-001A						
Units:	mg/Kg						

Parameters	MDL	PQL	Sample Conc.	Spike Conc.	MS % Recovery	MSD % Recovery	MS/MSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel	0.76	2.0	5.9259	33.33	70.9	67.9	4.24	50.8 - 111	30	
Pentacosane (S)				100	85.8	82.0		61.5 - 133		



Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit (PQL) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - mg/L and mg/Kg (equivalent to PPM - parts per million in liquid and solid), ug/L and ug/Kg (equivalent to PPB - parts per billion in liquid and solid), ug/m³ , mg.m³ , ppbv and ppmv (all units of measure for reporting concentrations in air), % (equivalent to 10000 ppm or 1,000,000 ppb), ug/Wipe (concentration found on the surface of a single Wipe usually taken over a 100cm ² surface)

LABORATORY QUALIFIERS:

<p>B - Indicates when the analyte is found in the associated method or preparation blank</p> <p>D - Surrogate is not recoverable due to the necessary dilution of the sample</p> <p>E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.</p> <p>H- Indicates that the recommended holding time for the analyte or compound has been exceeded</p> <p>J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative</p> <p>NA - Not Analyzed</p> <p>N/A - Not Applicable</p> <p>NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added</p> <p>R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts</p> <p>S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative</p> <p>X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.</p>



Sample Receipt Checklist

Client Name: ECM Group

Project Name: 5427 Telegraph Ave

Work Order No.: 1004051

Date and Time Received: 4/13/2010 15:30

Received By: navin

Physically Logged By:

Checklist Completed By: lorna

Carrier Name: Gold Bullet Courier

Chain of Custody (COC) Information

Chain of custody present? Yes
Chain of custody signed when relinquished and received? Yes
Chain of custody agrees with sample labels? Yes
Custody seals intact on sample bottles? Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler? Not Present
Shipping Container/Cooler In Good Condition? Yes
Samples in proper container/bottle? Yes
Samples containers intact? Yes
Sufficient sample volume for indicated test? Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes
Container/Temp Blank temperature in compliance? Yes Temperature: °C
Water-VOA vials have zero headspace?
Water-pH acceptable upon receipt?

pH Checked by: pH Adjusted by:



Login Summary Report

Client ID:	TL5158	ECM Group	QC Level:
Project Name:	5427 Telegraph Ave		TAT Requested: 5+ day:0
Project # :	02-181-10		Date Received: 4/13/2010
Report Due Date:	4/20/2010		Time Received: 15:30
Comments:	5 day TAT!!! Recv'd 4 samples (sleeve and encores) for TPHg; BTEX ; Fuel Oxygenates and Stoddard Solvent.Pls. email to jgreen@ecmgrp.com.		
Work Order # :	1004051		

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
1004051-001A	MW-4-d 6'	04/12/10 13:45	Soil	10/10/10			EDF En_8260Pet S_TEPH S_GCMS-GRO	
Sample Note: Received 1 sleeve and 3 encores.Analyze for gas,btex and oxys from encores.								
1004051-002A	MW-4-d 11'	04/12/10 13:50	Soil	10/10/10			En_8260Pet S_GCMS-GRO S_TEPH	
Sample Note: Received 1 sleeve and 3 encores.								
1004051-003A	MW-4-d 16'	04/12/10 13:55	Soil	10/10/10			En_8260Pet S_TEPH S_GCMS-GRO	
Sample Note: Received 1 sleeve and 3 encores.								
1004051-004A	MW-4-d 20'	04/12/10 14:00	Soil	10/10/10			S_GCMS-GRO S_TEPH En_8260Pet	
Sample Note: Received 1 sleeve and 3 encores.								



ECM Group
P.O. Box
Benicia, California 94510
Tel: 707-751-0655
Fax: 707-751-0653
Email: rguptel@ecmgrp.com
RE: 5427 Telegraph, Oakland

Work Order No.: 1004055

Dear Jim Green:

Torrent Laboratory, Inc. received 1 sample(s) on April 14, 2010 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

Patti Sandrock

April 21, 2010

Date



Date: 4/21/2010

Client: ECM Group

Project: 5427 Telegraph, Oakland

Work Order: 1004055

CASE NARRATIVE

No issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.



Sample Result Summary

Report prepared for: Jim Green
ECM Group

Date Received: 04/14/10

Date Reported: 04/21/10

MW-5 d 11' 1004055-001A

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
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All compounds were non-detectable for this sample.



SAMPLE RESULTS

Report prepared for: Jim Green
ECM Group

Date Received: 04/14/10
Date Reported: 04/21/10

Client Sample ID:	MW-5 d 11'	Lab Sample ID:	1004055-001A
Project Name/Location:	5427 Telegraph, Oakland	Sample Matrix:	Soil
Project Number:	02-181-10		
Date/Time Sampled:	04/13/10 / 12:20		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
MTBE	SW8260B	NA	04/14/10	1	2.7	10	ND		ug/Kg	400591	NA
tert-Butanol	SW8260B	NA	04/14/10	1	22	52	ND		ug/Kg	400591	NA
Diisopropyl ether (DIPE)	SW8260B	NA	04/14/10	1	2.3	10	ND		ug/Kg	400591	NA
ETBE	SW8260B	NA	04/14/10	1	2.5	10	ND		ug/Kg	400591	NA
Benzene	SW8260B	NA	04/14/10	1	1.6	10	ND		ug/Kg	400591	NA
TAME	SW8260B	NA	04/14/10	1	2.1	10	ND		ug/Kg	400591	NA
1,2-Dichloroethane	SW8260B	NA	04/14/10	1	2.0	10	ND		ug/Kg	400591	NA
Toluene	SW8260B	NA	04/14/10	1	1.0	10	ND		ug/Kg	400591	NA
1,2-Dibromoethane	SW8260B	NA	04/14/10	1	1.8	10	ND		ug/Kg	400591	NA
Ethyl Benzene	SW8260B	NA	04/14/10	1	0.90	10	ND		ug/Kg	400591	NA
m,p-Xylene	SW8260B	NA	04/14/10	1	1.9	10	ND		ug/Kg	400591	NA
o-Xylene	SW8260B	NA	04/14/10	1	0.69	5.2	ND		ug/Kg	400591	NA
(S) Dibromofluoromethane	SW8260B	NA	04/14/10	1	59.8	148	136		%	400591	NA
(S) Toluene-d8	SW8260B	NA	04/14/10	1	55.2	133	100		%	400591	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	04/14/10	1	55.8	141	94.8		%	400591	NA

NOTE: Final result and PQL (Reporting Limit) has been corrected for actual mass removed from Encore containers.

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH(Gasoline)	8260TPH	NA	04/14/10	1	18	100	ND		ug/Kg	400588	NA
(S) 4-Bromofluorobenzene	8260TPH	NA	04/14/10	1	57	127	84.6		%	400588	NA

NOTE: Final results and PQL (Reporting Limits) have been corrected for actual mass removed from Encore containers. x-TPH result due to contribution from heavier hydrocarbons to range of C5-C12 quantified as gasoline (closest pattern match-mineral spirit).

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Stoddard	SW8015B	4/15/10	04/15/10	1	0.758	3.3	ND		mg/Kg	400590	0285
Pentacosane (S)	SW8015B	4/15/10	04/15/10	1	53.3	124	93.7		%	400590	0285



MB Summary Report

Work Order:	1004055	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Soil	Analytical Method:	8260TPH	Analyzed Date:	04/14/10	Analytical Batch:	400588
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.
TPH(Gasoline)	17	100	ND
(S) 4-Bromofluorobenzene			94.5 %

Work Order:	1004055	Prep Method:	3545_TPH	Prep Date:	04/15/10	Prep Batch:	0285
Matrix:	Soil	Analytical Method:	SW8015B	Analyzed Date:	04/15/10	Analytical Batch:	400590
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.
TPH as Diesel	0.758	2.0	ND
TPH as Motor Oil	1.8	4.0	ND
TPH as Stoddard	0.758	3.3	ND
Pentacosane (S)			86.4 %

Work Order:	1004055	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Soil	Analytical Method:	SW8260B	Analyzed Date:	04/14/10	Analytical Batch:	400591
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.
Dichlorodifluoromethane	4.4	10	ND
Chloromethane	4.6	10	ND
Vinyl Chloride	2.6	10	ND
Bromomethane	4.7	10	ND
Trichlorofluoromethane	2.9	10	ND
1,1-Dichloroethene	1.5	10	ND
Freon 113	3.7	10	ND
Methylene Chloride	2.0	10	ND
trans-1,2-Dichloroethene	1.1	10	ND
MTBE	2.6	10	ND
tert-Butanol	21	50	ND
Diisopropyl ether (DIPE)	2.2	10	ND
1,1-Dichloroethane	1.3	10	ND
ETBE	2.4	10	ND
cis-1,2-Dichloroethene	1.8	10	ND
2,2-Dichloropropane	1.2	10	ND
Bromochloromethane	2.3	10	ND



MB Summary Report

Work Order:	1004055	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Soil	Analytical Method:	SW8260B	Analyzed Date:	04/14/10	Analytical Batch:	400591
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.
Chloroform	1.2	10	ND
Carbon Tetrachloride	1.6	10	ND
1,1,1-Trichloroethane	1.2	10	ND
1,1-Dichloropropene	1.4	10	ND
Benzene	1.5	10	ND
TAME	2.1	10	ND
1,2-Dichloroethane	1.9	10	ND
Trichloroethylene	3.9	10	ND
Dibromomethane	2.2	10	ND
1,2-Dichloropropane	1.3	10	ND
Bromodichloromethane	1.1	10	ND
2-Chloroethyl vinyl ether	4.5	10	ND
cis-1,3-Dichloropropene	1.4	10	ND
Toluene	0.98	10	ND
Tetrachloroethylene	1.8	10	ND
trans-1,3-Dichloropropene	1.2	10	ND
1,1,2-Trichloroethane	1.8	10	ND
Dibromochloromethane	1.1	10	ND
1,3-Dichloropropane	2.1	10	ND
1,2-Dibromoethane	1.7	10	ND
Ethyl Benzene	0.86	10	ND
Chlorobenzene	4.2	10	ND
1,1,1,2-Tetrachloroethane	0.86	10	ND
m,p-Xylene	1.9	10	ND
o-Xylene	0.66	5.0	ND
Styrene	0.77	10	ND
Bromoform	1.9	10	ND
Isopropyl Benzene	1.2	10	ND
n-Propylbenzene	1.4	10	ND
Bromobenzene	1.2	10	ND
1,1,2,2-Tetrachloroethane	3.0	10	ND
1,3,5-Trimethylbenzene	1.1	10	ND
1,2,3-Trichloropropane	3.3	10	ND
4-Chlorotoluene	1.6	10	ND
2-Chlorotoluene	1.6	10	ND
tert-Butylbenzene	1.4	10	ND
1,2,4-Trimethylbenzene	1.1	10	ND
sec-Butyl Benzene	1.6	10	ND
p-Isopropyltoluene	1.5	10	ND
1,3-Dichlorobenzene	1.8	10	ND



MB Summary Report

Work Order:	1004055	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Soil	Analytical Method:	SW8260B	Analyzed Date:	04/14/10	Analytical Batch:	400591
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.
1,4-Dichlorobenzene	1.5	10	ND
n-Butylbenzene	2.2	10	ND
1,2-Dichlorobenzene	1.3	10	ND
1,2-Dibromo-3-Chloropropane	4.2	10	ND
Hexachlorobutadiene	2.6	10	ND
1,2,4-Trichlorobenzene	2.1	10	ND
Naphthalene	2.8	10	ND
1,2,3-Trichlorobenzene	2.9	10	ND
(S) Dibromofluoromethane			130 %
(S) Toluene-d8			92.4 %
(S) 4-Bromofluorobenzene			105 %



LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1004055	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Soil	Analytical Method:	8260TPH	Analyzed Date:	04/14/10	Analytical Batch:	400588
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH(Gasoline)	17	100		1000	90.5	108	17.5	48.2 - 132	30	
(S) 4-Bromofluorobenzene				50	100			57 - 127		

Work Order:	1004055	Prep Method:	3545_TPH	Prep Date:	04/15/10	Prep Batch:	0285
Matrix:	Soil	Analytical Method:	SW8015B	Analyzed Date:	04/15/10	Analytical Batch:	400590
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel	0.76	2.0		33.33	76.1	74.9	1.62	50.8 - 111	30	
Pentacosane (S)				100	90.2			61.5 - 133		

Work Order:	1004055	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Soil	Analytical Method:	SW8260B	Analyzed Date:	04/14/10	Analytical Batch:	400591
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	1.5	10		50	95.9	102	6.04	53.7 - 139	30	
Benzene	1.5	10		50	95.4	105	9.24	66.5 - 135	30	
Trichloroethylene	3.9	10		50	100	110	8.94	57.5 - 150	30	
Toluene	0.98	10		50	86.2	89.3	3.49	56.8 - 134	30	
Chlorobenzene	4.2	10		50	89.2	91.8	2.89	57.4 - 134	30	
(S) Dibromofluoromethane				50	119			59.8 - 148		
(S) Toluene-d8				50	90.4			55.2 - 133		
(S) 4-Bromofluorobenzene				50	81.1			55.8 - 141		



Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit (PQL) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - mg/L and mg/Kg (equivalent to PPM - parts per million in liquid and solid), ug/L and ug/Kg (equivalent to PPB - parts per billion in liquid and solid), ug/m³ , mg.m³ , ppbv and ppmv (all units of measure for reporting concentrations in air), % (equivalent to 10000 ppm or 1,000,000 ppb), ug/Wipe (concentration found on the surface of a single Wipe usually taken over a 100cm ² surface)

LABORATORY QUALIFIERS:

<p>B - Indicates when the analyte is found in the associated method or preparation blank</p> <p>D - Surrogate is not recoverable due to the necessary dilution of the sample</p> <p>E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.</p> <p>H- Indicates that the recommended holding time for the analyte or compound has been exceeded</p> <p>J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative</p> <p>NA - Not Analyzed</p> <p>N/A - Not Applicable</p> <p>NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added</p> <p>R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts</p> <p>S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative</p> <p>X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.</p>



Sample Receipt Checklist

Client Name: ECM Group

Date and Time Received: 4/14/2010 10:05

Project Name: 5427 Telegraph, Oakland

Received By: NG

Work Order No.: 1004055

Physically Logged By: NG

Checklist Completed By: NG

Carrier Name: Torrent Courier

Chain of Custody (COC) Information

Chain of custody present? Yes
Chain of custody signed when relinquished and received? Yes
Chain of custody agrees with sample labels? Yes
Custody seals intact on sample bottles? Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler? Not Present
Shipping Container/Cooler In Good Condition? Yes
Samples in proper container/bottle? Yes
Samples containers intact? Yes
Sufficient sample volume for indicated test? Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes
Container/Temp Blank temperature in compliance? Yes Temperature: 3 °C
Water-VOA vials have zero headspace? No VOA vials submitted
Water-pH acceptable upon receipt?

pH Checked by:

pH Adjusted by:



Login Summary Report

Client ID: TL5158 ECM Group
Project Name: 5427 Telegraph, Oakland
Project # : 02-181-10
Report Due Date: 4/21/2010

QC Level:
TAT Requested: 5+ day:0
Date Received: 4/14/2010
Time Received: 10:05

Comments: 5 day TAT!!! Recv'd 1 brass sleeve and 3 encores for TPHg ; BTEX ; Fuel Oxygenates and Stoddard Solvent. Pls. email to jgreen@ecmgrp.com.

Work Order # : 1004055

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
1004055-001A	MW-5 d 11'	04/13/10 12:20	Soil	10/11/10			S_TEPH En_8260Pet S_GCMS-GRO	

Sample Note: Received 1 Brass sleeve and 3 Encores (TPHg,8260Pet analyze from encores.)



ECM Group
P.O. Box
Benicia, California 94510
Tel: 707-751-0655
Fax: 707-751-0653
Email: rguptel@ecmgrp.com
RE: 5427 Telegraph Ave

Work Order No.: 1004050 Rev: 2

Dear Jim Green:

Torrent Laboratory, Inc. received 7 sample(s) on April 13, 2010 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

Patti Sandrock

April 21, 2010

Date



Date: 4/21/2010

Client: ECM Group

Project: 5427 Telegraph Ave

Work Order: 1004050

CASE NARRATIVE

No issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

REVISIONS:

Per client request, TPH as Mineral Spirits are reported where appropriate rather than "not typical" Gasoline. Because TPH as Mineral Spirits was not originally requested, the standard used for quantification was analyzed post sample analysis.

5/3/10



Sample Result Summary

Report prepared for: Jim Green
ECM Group

Date Received: 04/13/10

Date Reported: 04/21/10

B-31d 5'

1004050-001A

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
TPH as Stoddard	SW8015B	1	0.758	3.3	22	mg/Kg
TPH(Mineral Spirits)	TPH-GCMS	100	2200	13000	190000	ug/Kg

B-31d 10'

1004050-002A

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
TPH as Stoddard	SW8015B	10	7.58	33	480	mg/Kg
TPH(Mineral Spirits)	TPH-GCMS	1000	16000	94000	960000	ug/Kg

B-31d 10'

1004050-002A100x

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
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All compounds were non-detectable for this sample.

B-31d 15'

1004050-003A

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
TPH as Stoddard	SW8015B	1	0.758	3.3	11	mg/Kg
TPH(Mineral Spirits)	TPH-GCMS	100	1700	10000	74000	ug/Kg

B-31d 15'

1004050-003A100x

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
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All compounds were non-detectable for this sample.

B-31d 20'

1004050-004A

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
TPH(Mineral Spirits)	TPH-GCMS	1	18	110	400	ug/Kg



Sample Result Summary

Report prepared for: Jim Green
ECM Group

Date Received: 04/13/10
Date Reported: 04/21/10
1004050-005A

B-31d 25'

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
TPH(Mineral Spirits)	TPH-GCMS	100	2200	13000	20000	ug/Kg

B-31d 30'

1004050-006A

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
TPH as Stoddard	SW8015B	1	0.758	3.3	7.4	mg/Kg
TPH(Mineral Spirits)	TPH-GCMS	100	1700	10000	27000	ug/Kg

B-31d 35'

1004050-007A

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
TPH as Stoddard	SW8015B	5	3.79	16.5	99	mg/Kg
TPH(Mineral Spirits)	TPH-GCMS	250	4500	26000	95000	ug/Kg

B-31d 35'

1004050-007A100x

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
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All compounds were non-detectable for this sample.



SAMPLE RESULTS

Report prepared for: Jim Green
ECM Group

Date Received: 04/13/10
Date Reported: 04/21/10

Client Sample ID:	B-31d 5'	Lab Sample ID:	1004050-001A
Project Name/Location:	5427 Telegraph Ave	Sample Matrix:	Soil
Project Number:	07-181-10		
Date/Time Sampled:	04/12/10 / 10:30		
Tag Number:	5427 Telegraph Ave		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
MTBE	SW8260B	NA	04/14/10	1	3.9	15	ND		ug/Kg	400591	NA
tert-Butanol	SW8260B	NA	04/14/10	1	31	76	ND		ug/Kg	400591	NA
Diisopropyl ether (DIPE)	SW8260B	NA	04/14/10	1	3.3	15	ND		ug/Kg	400591	NA
ETBE	SW8260B	NA	04/14/10	1	3.6	15	ND		ug/Kg	400591	NA
Benzene	SW8260B	NA	04/14/10	1	2.3	15	ND		ug/Kg	400591	NA
TAME	SW8260B	NA	04/14/10	1	3.1	15	ND		ug/Kg	400591	NA
1,2-Dichloroethane	SW8260B	NA	04/14/10	1	2.9	15	ND		ug/Kg	400591	NA
Toluene	SW8260B	NA	04/14/10	1	1.5	15	ND		ug/Kg	400591	NA
1,2-Dibromoethane	SW8260B	NA	04/14/10	1	2.6	15	ND		ug/Kg	400591	NA
Ethyl Benzene	SW8260B	NA	04/14/10	1	1.3	15	ND		ug/Kg	400591	NA
m,p-Xylene	SW8260B	NA	04/14/10	1	2.8	15	ND		ug/Kg	400591	NA
o-Xylene	SW8260B	NA	04/14/10	1	1.0	7.6	ND		ug/Kg	400591	NA
(S) Dibromofluoromethane	SW8260B	NA	04/14/10	1	59.8	148	194	S	%	400591	NA
(S) Toluene-d8	SW8260B	NA	04/14/10	1	55.2	133	138	S	%	400591	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	04/14/10	1	55.8	141	0.000	S	%	400591	NA

NOTE: Final result and PQL (Reporting Limit) has been corrected for actual mass removed from Encore containers. S - Low surrogate (BFB) recovery attributed to TPH interference (heavy hydrocarbons).

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Stoddard	SW8015B	4/15/10	04/15/10	1	0.758	3.3	22		mg/Kg	400590	0285
Pentacosane (S)	SW8015B	4/15/10	04/15/10	1	53.3	124	88.6		%	400590	0285

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH(Gasoline)	TPH-GCMS	NA	04/14/10	100	2200	13000	ND		ug/Kg	400588	NA
TPH(Mineral Spirits)	TPH-GCMS	NA	04/14/10	100	2200	13000	190000		ug/Kg	400588	NA
(S) 4-Bromofluorobenzene	TPH-GCMS	NA	04/14/10	100	57	127	110		%	400588	NA



SAMPLE RESULTS

Report prepared for: Jim Green
ECM Group

Date Received: 04/13/10
Date Reported: 04/21/10

Client Sample ID:	B-31d 10'	Lab Sample ID:	1004050-002A
Project Name/Location:	5427 Telegraph Ave	Sample Matrix:	Soil
Project Number:	07-181-10		
Date/Time Sampled:	04/12/10 / 10:40		
Tag Number:	5427 Telegraph Ave		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
MTBE	SW8260B	NA	04/14/10	100	240	940	ND		ug/Kg	400591	NA
tert-Butanol	SW8260B	NA	04/14/10	100	2000	4700	ND		ug/Kg	400591	NA
Diisopropyl ether (DIPE)	SW8260B	NA	04/14/10	100	210	940	ND		ug/Kg	400591	NA
ETBE	SW8260B	NA	04/14/10	100	230	940	ND		ug/Kg	400591	NA
Benzene	SW8260B	NA	04/14/10	100	140	940	ND		ug/Kg	400591	NA
TAME	SW8260B	NA	04/14/10	100	190	940	ND		ug/Kg	400591	NA
1,2-Dichloroethane	SW8260B	NA	04/14/10	100	180	940	ND		ug/Kg	400591	NA
Toluene	SW8260B	NA	04/14/10	100	92	940	ND		ug/Kg	400591	NA
1,2-Dibromoethane	SW8260B	NA	04/14/10	100	160	940	ND		ug/Kg	400591	NA
Ethyl Benzene	SW8260B	NA	04/14/10	100	81	940	ND		ug/Kg	400591	NA
m,p-Xylene	SW8260B	NA	04/14/10	100	170	940	ND		ug/Kg	400591	NA
o-Xylene	SW8260B	NA	04/14/10	100	62	470	ND		ug/Kg	400591	NA
(S) Dibromofluoromethane	SW8260B	NA	04/14/10	100	59.8	148	114		%	400591	NA
(S) Toluene-d8	SW8260B	NA	04/14/10	100	55.2	133	84.5		%	400591	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	04/14/10	100	55.8	141	104		%	400591	NA

NOTE: Final result and PQL (Reporting Limit) has been corrected for actual mass removed from Encore containers. Reporting limit raised due to significant amount of heavy hydrocarbons.

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Stoddard	SW8015B	4/15/10	04/15/10	10	7.58	33	480		mg/Kg	400590	0285
Pentacosane (S)	SW8015B	4/15/10	04/15/10	10	53.3	124	82.7		%	400590	0285

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH(Gasoline)	TPH-GCMS	NA	04/14/10	1000	16000	94000	ND		ug/Kg	400588	NA
TPH(Mineral Spirits)	TPH-GCMS	NA	04/14/10	1000	16000	94000	960000		ug/Kg	400588	NA
(S) 4-Bromofluorobenzene	TPH-GCMS	NA	04/14/10	1000	57	127	84		%	400588	NA



SAMPLE RESULTS

Report prepared for: Jim Green
ECM Group

Date Received: 04/13/10
Date Reported: 04/21/10

Client Sample ID:	B-31d 15'	Lab Sample ID:	1004050-003A
Project Name/Location:	5427 Telegraph Ave	Sample Matrix:	Soil
Project Number:	07-181-10		
Date/Time Sampled:	04/12/10 / 11:00		
Tag Number:	5427 Telegraph Ave		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
MTBE	SW8260B	NA	04/14/10	100	260	1000	ND		ug/Kg	400591	NA
tert-Butanol	SW8260B	NA	04/14/10	100	2100	5100	ND		ug/Kg	400591	NA
Diisopropyl ether (DIPE)	SW8260B	NA	04/14/10	100	220	1000	ND		ug/Kg	400591	NA
ETBE	SW8260B	NA	04/14/10	100	240	1000	ND		ug/Kg	400591	NA
Benzene	SW8260B	NA	04/14/10	100	150	1000	ND		ug/Kg	400591	NA
TAME	SW8260B	NA	04/14/10	100	210	1000	ND		ug/Kg	400591	NA
1,2-Dichloroethane	SW8260B	NA	04/14/10	100	190	1000	ND		ug/Kg	400591	NA
Toluene	SW8260B	NA	04/14/10	100	99	1000	ND		ug/Kg	400591	NA
1,2-Dibromoethane	SW8260B	NA	04/14/10	100	180	1000	ND		ug/Kg	400591	NA
Ethyl Benzene	SW8260B	NA	04/14/10	100	87	1000	ND		ug/Kg	400591	NA
m,p-Xylene	SW8260B	NA	04/14/10	100	190	1000	ND		ug/Kg	400591	NA
o-Xylene	SW8260B	NA	04/14/10	100	67	510	ND		ug/Kg	400591	NA
(S) Dibromofluoromethane	SW8260B	NA	04/14/10	100	59.8	148	127		%	400591	NA
(S) Toluene-d8	SW8260B	NA	04/14/10	100	55.2	133	91.6		%	400591	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	04/14/10	100	55.8	141	96.0		%	400591	NA

NOTE: Final result and PQL (Reporting Limit) has been corrected for actual mass removed from Encore containers. Reporting limit raised due to significant amount of heavy hydrocarbons.

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Stoddard	SW8015B	4/15/10	04/15/10	1	0.758	3.3	11		mg/Kg	400590	0285
Pentacosane (S)	SW8015B	4/15/10	04/15/10	1	53.3	124	85.4		%	400590	0285

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH(Gasoline)	TPH-GCMS	NA	04/14/10	100	1700	10000	ND		ug/Kg	400601	NA
TPH(Mineral Spirits)	TPH-GCMS	NA	04/14/10	100	1700	10000	74000		ug/Kg	400601	NA
(S) 4-Bromofluorobenzene	TPH-GCMS	NA	04/14/10	100	57	127	100		%	400601	NA



SAMPLE RESULTS

Report prepared for: Jim Green
ECM Group

Date Received: 04/13/10
Date Reported: 04/21/10

Client Sample ID:	B-31d 20'	Lab Sample ID:	1004050-004A
Project Name/Location:	5427 Telegraph Ave	Sample Matrix:	Soil
Project Number:	07-181-10		
Date/Time Sampled:	04/12/10 / 11:20		
Tag Number:	5427 Telegraph Ave		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
MTBE	SW8260B	NA	04/14/10	1	2.7	11	ND		ug/Kg	400591	NA
tert-Butanol	SW8260B	NA	04/14/10	1	22	53	ND		ug/Kg	400591	NA
Diisopropyl ether (DIPE)	SW8260B	NA	04/14/10	1	2.3	11	ND		ug/Kg	400591	NA
ETBE	SW8260B	NA	04/14/10	1	2.5	11	ND		ug/Kg	400591	NA
Benzene	SW8260B	NA	04/14/10	1	1.6	11	ND		ug/Kg	400591	NA
TAME	SW8260B	NA	04/14/10	1	2.2	11	ND		ug/Kg	400591	NA
1,2-Dichloroethane	SW8260B	NA	04/14/10	1	2.0	11	ND		ug/Kg	400591	NA
Toluene	SW8260B	NA	04/14/10	1	1.0	11	ND		ug/Kg	400591	NA
1,2-Dibromoethane	SW8260B	NA	04/14/10	1	1.8	11	ND		ug/Kg	400591	NA
Ethyl Benzene	SW8260B	NA	04/14/10	1	0.91	11	ND		ug/Kg	400591	NA
m,p-Xylene	SW8260B	NA	04/14/10	1	1.9	11	ND		ug/Kg	400591	NA
o-Xylene	SW8260B	NA	04/14/10	1	0.69	5.3	ND		ug/Kg	400591	NA
(S) Dibromofluoromethane	SW8260B	NA	04/14/10	1	59.8	148	139		%	400591	NA
(S) Toluene-d8	SW8260B	NA	04/14/10	1	55.2	133	95.5		%	400591	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	04/14/10	1	55.8	141	88.4		%	400591	NA

NOTE: Final result and PQL (Reporting Limit) has been corrected for actual mass removed from Encore containers.

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Stoddard	SW8015B	4/15/10	04/15/10	1	0.758	3.3	ND		mg/Kg	400590	0285
Pentacosane (S)	SW8015B	4/15/10	04/15/10	1	53.3	124	79.8		%	400590	0285

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH(Gasoline)	TPH-GCMS	NA	04/14/10	1	18	110	ND		ug/Kg	400588	NA
TPH(Mineral Spirits)	TPH-GCMS	NA	04/14/10	1	18	110	400		ug/Kg	400588	NA
(S) 4-Bromofluorobenzene	TPH-GCMS	NA	04/14/10	1	57	127	92		%	400588	NA



SAMPLE RESULTS

Report prepared for: Jim Green
ECM Group

Date Received: 04/13/10
Date Reported: 04/21/10

Client Sample ID:	B-31d 25'	Lab Sample ID:	1004050-005A
Project Name/Location:	5427 Telegraph Ave	Sample Matrix:	Soil
Project Number:	07-181-10		
Date/Time Sampled:	04/12/10 / 11:40		
Tag Number:	5427 Telegraph Ave.,Oakland		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
MTBE	SW8260B	NA	04/14/10	1	2.6	9.9	ND		ug/Kg	400591	NA
tert-Butanol	SW8260B	NA	04/14/10	1	21	50	ND		ug/Kg	400591	NA
Diisopropyl ether (DIPE)	SW8260B	NA	04/14/10	1	2.2	9.9	ND		ug/Kg	400591	NA
ETBE	SW8260B	NA	04/14/10	1	2.4	9.9	ND		ug/Kg	400591	NA
Benzene	SW8260B	NA	04/14/10	1	1.5	9.9	ND		ug/Kg	400591	NA
TAME	SW8260B	NA	04/14/10	1	2.0	9.9	ND		ug/Kg	400591	NA
1,2-Dichloroethane	SW8260B	NA	04/14/10	1	1.9	9.9	ND		ug/Kg	400591	NA
Toluene	SW8260B	NA	04/14/10	1	0.97	9.9	ND		ug/Kg	400591	NA
1,2-Dibromoethane	SW8260B	NA	04/14/10	1	1.7	9.9	ND		ug/Kg	400591	NA
Ethyl Benzene	SW8260B	NA	04/14/10	1	0.85	9.9	ND		ug/Kg	400591	NA
m,p-Xylene	SW8260B	NA	04/14/10	1	1.8	9.9	ND		ug/Kg	400591	NA
o-Xylene	SW8260B	NA	04/14/10	1	0.65	5.0	ND		ug/Kg	400591	NA
(S) Dibromofluoromethane	SW8260B	NA	04/14/10	1	59.8	148	126		%	400591	NA
(S) Toluene-d8	SW8260B	NA	04/14/10	1	55.2	133	88.6		%	400591	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	04/14/10	1	55.8	141	112		%	400591	NA

NOTE: Final result and PQL (Reporting Limit) has been corrected for actual mass removed from Encore containers. Reporting limit raised due to significant amount of heavy hydrocarbons.

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Stoddard	SW8015B	4/15/10	04/15/10	1	0.758	3.3	ND		mg/Kg	400590	0285
Pentacosane (S)	SW8015B	4/15/10	04/15/10	1	53.3	124	86.0		%	400590	0285

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH(Gasoline)	TPH-GCMS	NA	04/14/10	100	2200	13000	ND		ug/Kg	400588	NA
TPH(Mineral Spirits)	TPH-GCMS	NA	04/14/10	100	2200	13000	20000		ug/Kg	400588	NA
(S) 4-Bromofluorobenzene	TPH-GCMS	NA	04/14/10	100	57	127	130	S	%	400588	NA



SAMPLE RESULTS

Report prepared for: Jim Green
ECM Group

Date Received: 04/13/10
Date Reported: 04/21/10

Client Sample ID:	B-31d 30'	Lab Sample ID:	1004050-006A
Project Name/Location:	5427 Telegraph Ave	Sample Matrix:	Soil
Project Number:	07-181-10		
Date/Time Sampled:	04/12/10 / 12:00		
Tag Number:	5427 Telegraph Ave.,Oakland		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
MTBE	SW8260B	NA	04/14/10	1	3.7	15	ND		ug/Kg	400591	NA
tert-Butanol	SW8260B	NA	04/14/10	1	30	73	ND		ug/Kg	400591	NA
Diisopropyl ether (DIPE)	SW8260B	NA	04/14/10	1	3.2	15	ND		ug/Kg	400591	NA
ETBE	SW8260B	NA	04/14/10	1	3.5	15	ND		ug/Kg	400591	NA
Benzene	SW8260B	NA	04/14/10	1	2.2	15	ND		ug/Kg	400591	NA
TAME	SW8260B	NA	04/14/10	1	3.0	15	ND		ug/Kg	400591	NA
1,2-Dichloroethane	SW8260B	NA	04/14/10	1	2.8	15	ND		ug/Kg	400591	NA
Toluene	SW8260B	NA	04/14/10	1	1.4	15	ND		ug/Kg	400591	NA
1,2-Dibromoethane	SW8260B	NA	04/14/10	1	2.5	15	ND		ug/Kg	400591	NA
Ethyl Benzene	SW8260B	NA	04/14/10	1	1.2	15	ND		ug/Kg	400591	NA
m,p-Xylene	SW8260B	NA	04/14/10	1	2.7	15	ND		ug/Kg	400591	NA
o-Xylene	SW8260B	NA	04/14/10	1	0.96	7.3	ND		ug/Kg	400591	NA
(S) Dibromofluoromethane	SW8260B	NA	04/14/10	1	59.8	148	184	S	%	400591	NA
(S) Toluene-d8	SW8260B	NA	04/14/10	1	55.2	133	131		%	400591	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	04/14/10	1	55.8	141	206	S	%	400591	NA

NOTE: Final result and PQL (Reporting Limit) has been corrected for actual mass removed from Encore containers.

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Stoddard	SW8015B	4/15/10	04/15/10	1	0.758	3.3	7.4		mg/Kg	400590	0285
Pentacosane (S)	SW8015B	4/15/10	04/15/10	1	53.3	124	87.0		%	400590	0285

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH(Gasoline)	TPH-GCMS	NA	04/14/10	100	1700	10000	ND		ug/Kg	400588	NA
TPH(Mineral Spirits)	TPH-GCMS	NA	04/14/10	100	1700	10000	27000		ug/Kg	400588	NA
(S) 4-Bromofluorobenzene	TPH-GCMS	NA	04/14/10	100	57	127	100		%	400588	NA



SAMPLE RESULTS

Report prepared for: Jim Green
ECM Group

Date Received: 04/13/10
Date Reported: 04/21/10

Client Sample ID:	B-31d 35'	Lab Sample ID:	1004050-007A
Project Name/Location:	5427 Telegraph Ave	Sample Matrix:	Soil
Project Number:	07-181-10		
Date/Time Sampled:	04/12/10 / 12:30		
Tag Number:	5427 Telegraph Ave.,Oakland		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
MTBE	SW8260B	NA	04/14/10	100	270	1100	ND		ug/Kg	400591	NA
tert-Butanol	SW8260B	NA	04/14/10	100	2200	5300	ND		ug/Kg	400591	NA
Diisopropyl ether (DIPE)	SW8260B	NA	04/14/10	100	230	1100	ND		ug/Kg	400591	NA
ETBE	SW8260B	NA	04/14/10	100	250	1100	ND		ug/Kg	400591	NA
Benzene	SW8260B	NA	04/14/10	100	160	1100	ND		ug/Kg	400591	NA
TAME	SW8260B	NA	04/14/10	100	220	1100	ND		ug/Kg	400591	NA
1,2-Dichloroethane	SW8260B	NA	04/14/10	100	200	1100	ND		ug/Kg	400591	NA
Toluene	SW8260B	NA	04/14/10	100	100	1100	ND		ug/Kg	400591	NA
1,2-Dibromoethane	SW8260B	NA	04/14/10	100	180	1100	ND		ug/Kg	400591	NA
Ethyl Benzene	SW8260B	NA	04/14/10	100	91	1100	ND		ug/Kg	400591	NA
m,p-Xylene	SW8260B	NA	04/14/10	100	190	1100	ND		ug/Kg	400591	NA
o-Xylene	SW8260B	NA	04/14/10	100	69	530	ND		ug/Kg	400591	NA
(S) Dibromofluoromethane	SW8260B	NA	04/14/10	100	59.8	148	124		%	400591	NA
(S) Toluene-d8	SW8260B	NA	04/14/10	100	55.2	133	93.3		%	400591	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	04/14/10	100	55.8	141	112		%	400591	NA

NOTE: Final result and PQL (Reporting Limit) has been corrected for actual mass removed from Encore containers. Reporting limit raised due to significant amount of heavy hydrocarbons.

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Stoddard	SW8015B	4/15/10	04/19/10	5	3.79	16.5	99		mg/Kg	400607	0285
Pentacosane (S)	SW8015B	4/15/10	04/19/10	5	53.3	124	69.0		%	400607	0285

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH(Gasoline)	TPH-GCMS	NA	04/14/10	250	4500	26000	ND		ug/Kg	400588	NA
TPH(Mineral Spirits)	TPH-GCMS	NA	04/14/10	250	4500	26000	95000		ug/Kg	400588	NA
(S) 4-Bromofluorobenzene	TPH-GCMS	NA	04/14/10	250	57	127	90		%	400588	NA



MB Summary Report

Work Order:	1004050	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Soil	Analytical Method:	8260TPH	Analyzed Date:	04/14/10	Analytical Batch:	400588
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.
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TPH(Gasoline)	17	100	ND
(S) 4-Bromofluorobenzene			94.5

Work Order:	1004050	Prep Method:	3545_TPH	Prep Date:	04/15/10	Prep Batch:	0285
Matrix:	Soil	Analytical Method:	SW8015B	Analyzed Date:	04/15/10	Analytical Batch:	400590
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.
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TPH as Diesel	0.758	2.0	ND
TPH as Motor Oil	1.8	4.0	ND
TPH as Stoddard	0.758	3.3	ND
Pentacosane (S)			86.4

Work Order:	1004050	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Soil	Analytical Method:	SW8260B	Analyzed Date:	04/14/10	Analytical Batch:	400591
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.
------------	-----	-----	--------------------

Dichlorodifluoromethane	4.4	10	ND
Chloromethane	4.6	10	ND
Vinyl Chloride	2.6	10	ND
Bromomethane	4.7	10	ND
Trichlorofluoromethane	2.9	10	ND
1,1-Dichloroethene	1.5	10	ND
Freon 113	3.7	10	ND
Methylene Chloride	2.0	10	ND
trans-1,2-Dichloroethene	1.1	10	ND
MTBE	2.6	10	ND
tert-Butanol	21	50	ND
Diisopropyl ether (DIPE)	2.2	10	ND
1,1-Dichloroethane	1.3	10	ND
ETBE	2.4	10	ND
cis-1,2-Dichloroethene	1.8	10	ND
2,2-Dichloropropane	1.2	10	ND
Bromochloromethane	2.3	10	ND



MB Summary Report

Work Order:	1004050	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Soil	Analytical Method:	SW8260B	Analyzed Date:	04/14/10	Analytical Batch:	400591
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.
Chloroform	1.2	10	ND
Carbon Tetrachloride	1.6	10	ND
1,1,1-Trichloroethane	1.2	10	ND
1,1-Dichloropropene	1.4	10	ND
Benzene	1.5	10	ND
TAME	2.1	10	ND
1,2-Dichloroethane	1.9	10	ND
Trichloroethylene	3.9	10	ND
Dibromomethane	2.2	10	ND
1,2-Dichloropropane	1.3	10	ND
Bromodichloromethane	1.1	10	ND
2-Chloroethyl vinyl ether	4.5	10	ND
cis-1,3-Dichloropropene	1.4	10	ND
Toluene	0.98	10	ND
Tetrachloroethylene	1.8	10	ND
trans-1,3-Dichloropropene	1.2	10	ND
1,1,2-Trichloroethane	1.8	10	ND
Dibromochloromethane	1.1	10	ND
1,3-Dichloropropane	2.1	10	ND
1,2-Dibromoethane	1.7	10	ND
Ethyl Benzene	0.86	10	ND
Chlorobenzene	4.2	10	ND
1,1,1,2-Tetrachloroethane	0.86	10	ND
m,p-Xylene	1.9	10	ND
o-Xylene	0.66	5.0	ND
Styrene	0.77	10	ND
Bromoform	1.9	10	ND
Isopropyl Benzene	1.2	10	ND
n-Propylbenzene	1.4	10	ND
Bromobenzene	1.2	10	ND
1,1,2,2-Tetrachloroethane	3.0	10	ND
1,3,5-Trimethylbenzene	1.1	10	ND
1,2,3-Trichloropropane	3.3	10	ND
4-Chlorotoluene	1.6	10	ND
2-Chlorotoluene	1.6	10	ND
tert-Butylbenzene	1.4	10	ND
1,2,4-Trimethylbenzene	1.1	10	ND
sec-Butyl Benzene	1.6	10	ND
p-Isopropyltoluene	1.5	10	ND
1,3-Dichlorobenzene	1.8	10	ND
1,4-Dichlorobenzene	1.5	10	ND



MB Summary Report

Work Order:	1004050	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Soil	Analytical Method:	SW8260B	Analyzed Date:	04/14/10	Analytical Batch:	400591
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.
n-Butylbenzene	2.2	10	ND
1,2-Dichlorobenzene	1.3	10	ND
1,2-Dibromo-3-Chloropropane	4.2	10	ND
Hexachlorobutadiene	2.6	10	ND
1,2,4-Trichlorobenzene	2.1	10	ND
Naphthalene	2.8	10	ND
1,2,3-Trichlorobenzene	2.9	10	ND
(S) Dibromofluoromethane			130
(S) Toluene-d8			92.4
(S) 4-Bromofluorobenzene			105

Work Order:	1004050	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Soil	Analytical Method:	8260TPH	Analyzed Date:	04/14/10	Analytical Batch:	400601
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.
TPH(Gasoline)	17	100	ND
(S) 4-Bromofluorobenzene			75.8



LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1004050	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Soil	Analytical Method:	8260TPH	Analyzed Date:	04/14/10	Analytical Batch:	400588
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH(Gasoline)	17	100		1000	90.5	108	17.5	48.2 - 132	30	
(S) 4-Bromofluorobenzene				50	100	89.1		57 - 127		

Work Order:	1004050	Prep Method:	3545_TPH	Prep Date:	04/15/10	Prep Batch:	0285
Matrix:	Soil	Analytical Method:	SW8015B	Analyzed Date:	04/15/10	Analytical Batch:	400590
Units:	mg/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel	0.76	2.0		33.33	76.1	74.9	1.62	50.8 - 111	30	
Pentacosane (S)				100	90.2	87.2		61.5 - 133		

Work Order:	1004050	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Soil	Analytical Method:	SW8260B	Analyzed Date:	04/14/10	Analytical Batch:	400591
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	1.5	10		50	95.9	102	6.04	53.7 - 139	30	
Benzene	1.5	10		50	95.4	105	9.24	66.5 - 135	30	
Trichloroethylene	3.9	10		50	100	110	8.94	57.5 - 150	30	
Toluene	0.98	10		50	86.2	89.3	3.49	56.8 - 134	30	
Chlorobenzene	4.2	10		50	89.2	91.8	2.89	57.4 - 134	30	
(S) Dibromofluoromethane				50	119	128		59.8 - 148		
(S) Toluene-d8				50	90.4	91.9		55.2 - 133		
(S) 4-Bromofluorobenzene				50	81.1	107		55.8 - 141		

Work Order:	1004050	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Soil	Analytical Method:	8260TPH	Analyzed Date:	04/14/10	Analytical Batch:	400601
Units:	ug/Kg						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH(Gasoline)	17	100		1000	119	93.8	24.0	48.2 - 132	30	
(S) 4-Bromofluorobenzene				50	92.1	85.1		57 - 127		



Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit (PQL) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - mg/L and mg/Kg (equivalent to PPM - parts per million in liquid and solid), ug/L and ug/Kg (equivalent to PPB - parts per billion in liquid and solid), ug/m3 , mg.m3 , ppbv and ppmv (all units of measure for reporting concentrations in air), % (equivalent to 10000 ppm or 1,000,000 ppb), ug/Wipe (concentration found on the surface of a single Wipe usually taken over a 100cm2 surface)

LABORATORY QUALIFIERS:

<p>B - Indicates when the analyte is found in the associated method or preparation blank</p> <p>D - Surrogate is not recoverable due to the necessary dilution of the sample</p> <p>E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.</p> <p>H- Indicates that the recommended holding time for the analyte or compound has been exceeded</p> <p>J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative</p> <p>NA - Not Analyzed</p> <p>N/A - Not Applicable</p> <p>NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added</p> <p>R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts</p> <p>S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative</p> <p>X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.</p>



Sample Receipt Checklist

Client Name: ECM Group

Project Name: 5427 Telegraph Ave

Work Order No.: 1004050

Date and Time Received: 4/13/2010 15:30

Received By: navin

Physically Logged By:

Checklist Completed By: Iorna

Carrier Name: Gold Bullet Courier

Chain of Custody (COC) Information

Chain of custody present? Yes
Chain of custody signed when relinquished and received? Yes
Chain of custody agrees with sample labels? Yes
Custody seals intact on sample bottles? Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler? Not Present
Shipping Container/Cooler In Good Condition? Yes
Samples in proper container/bottle? Yes
Samples containers intact? Yes
Sufficient sample volume for indicated test? Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes
Container/Temp Blank temperature in compliance? Temperature: 2 °C
Water-VOA vials have zero headspace? No VOA vials submitted
Water-pH acceptable upon receipt?

pH Checked by: pH Adjusted by:



Login Summary Report

Client ID:	TL5158 ECM Group	QC Level:	II
Project Name:	5427 Telegraph Ave	TAT Requested:	5+ day:0
Project # :	07-181-10	Date Received:	4/13/2010
Report Due Date:	4/20/2010	Time Received:	15:30
Comments:	5 day TAT!! Recv'd 7 soil samples (sleeve and encores) for TPHg; BTEX ; Fuel Oxygenates and Stoddard Solvent.Pls. email an EDF result to jgreen@ecmgrp.com.		
Work Order # :	1004050		

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
1004050-001A	B-31d 5'	04/12/10 10:30	Soil	10/10/10			EDF S_YBGCMS-TPPH En_8260Pet CO S_TEPH	
Sample Note:		Added TPH as Min Spirit - re-integrate and report fro original run. Use flags if necessary						
1004050-002A	B-31d 10'	04/12/10 10:40	Soil	10/10/10			En_8260Pet S_YBGCMS-TPPH S_TEPH	
Sample Note:		Received 1 sleeve and 3 encores.						
1004050-003A	B-31d 15'	04/12/10 11:00	Soil	10/10/10			S_YBGCMS-TPPH S_TEPH En_8260Pet	
Sample Note:		Received 1 sleeve and 3 encores.						
1004050-004A	B-31d 20'	04/12/10 11:20	Soil	10/10/10			S_YBGCMS-TPPH S_TEPH En_8260Pet	
Sample Note:		Received 1 sleeve and 3 encores.						
1004050-005A	B-31d 25'	04/12/10 11:40	Soil	10/10/10			S_YBGCMS-TPPH S_TEPH En_8260Pet	
Sample Note:		Received 1 sleeve and 3 encores.						
1004050-006A	B-31d 30'	04/12/10 12:00	Soil	10/10/10			S_YBGCMS-TPPH S_TEPH En_8260Pet	
Sample Note:		Received 1 sleeve and 3 encores.						
1004050-007A	B-31d 35'	04/12/10 12:30	Soil	10/10/10			S_YBGCMS-TPPH S_TEPH En_8260Pet	



Login Summary Report

Client ID: TL5158 ECM Group **QC Level:** II
Project Name: 5427 Telegraph Ave **TAT Requested:** 5+ day:0
Project # : 07-181-10 **Date Received:** 4/13/2010
Report Due Date: 4/20/2010 **Time Received:** 15:30
Comments: 5 day TAT!! Recv'd 7 soil samples (sleeve and encores) for TPHg; BTEX ; Fuel Oxygenates and Stoddard Solvent.Pls. email an EDF result to jgreen@ecmgrp.com.
Work Order # : **1004050**

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
							S_YBGCMS-TPPH S_TEPH En_8260Pet	

Sample Note: Received 1 sleeve and 3 encores.



483 Sinclair Frontage Road
 Milpitas, CA 95035
 Phone: 408.263.5258
 FAX: 408.263.8293
 www.torrentlab.com

CHAIN OF CUSTODY

LAB WORK ORDER NO
 1004050

NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY

Company Name: **ECM** Location of Sampling: **5427 Telegraph Ave, Oakland**
 Address: **P.O.Box 802** Purpose: **07-181-10**
 City: **Benicia** State: **CA** Zip Code: **94510** Special Instructions / Comments:
 Telephone: **707 751 0655** FAX: **707 751 0653**

REPORT TO: **Jim GREEN** SAMPLER: **Douglas West** **JM GREEN** P.O. #: **07-181-10** EMAIL: **ecmgrp@aol.com** **jgr2en@ecmgrp.com**

TURNAROUND TIME: **Standard**

SAMPLE TYPE: Storm Water Air QC Level IV
 Waste Water Other EDF
 Ground Water Excel / EDD
 Soil

REPORT FORMAT: TPH(G) BTEX organics / Lead scavengers Standard Solvent

ANALYSIS REQUESTED

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	TPH(G)	BTEX	organics / Lead scavengers	Standard Solvent	REMARKS
-001A	B-31 d 5'	10:30 ^{4/13/10}	S	1/3		✓	✓	✓	✓	
-002A	B-31 d 10'	10:40 ^{4/13/10}	S			✓	✓	✓	✓	
-003A	B-31 d 15'	11:00	S			✓	✓	✓	✓	
-004A	B-31 d 20'	11:20	S			✓	✓	✓	✓	
-005A	B-31 d 25'	11:40	S			✓	✓	✓	✓	
-006A	B-31 d 30'	12:00	S			✓	✓	✓	✓	
-007A	B-31 d 35'	12:30	S			✓	✓	✓	✓	

Temp 2°C

Relinquished By: **1** **[Signature]** Print: **[Signature]** Date: **4/13/10** Time: **12:19** Received By: **M. Vasquez** Print: **[Signature]** Date: **4/13/10** Time: **12:19**

Relinquished By: **2** **[Signature]** Print: **[Signature]** Date: **4/13/10** Time: **3:30** Received By: **[Signature]** Print: **[Signature]** Date: **[Signature]** Time: **[Signature]**

Were Samples Received in Good Condition? Yes NO Samples on Ice? Yes NO Method of Shipment: **Field Bullet** Sample seals intact? Yes NO N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made. Page **1** of **1**

Log In By: **[Signature]** Date: **4/13/10** Log In Reviewed By: **[Signature]** Date: **[Signature]**



ECM Group
P.O. Box
Benicia, California 94510
Tel: 707-751-0655
Fax: 707-751-0653
Email: rguptel@ecmgrp.com
RE: 5427 Telegraph

Work Order No.: 1004059 Rev: 2

Dear Jim Green:

Torrent Laboratory, Inc. received 2 sample(s) on April 15, 2010 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

A handwritten signature in blue ink, appearing to read "Patti Sandrock", is written over a horizontal line.

Patti Sandrock

May 05, 2010

Date



Date: 5/5/2010

Client: ECM Group

Project: 5427 Telegraph

Work Order: 1004059

CASE NARRATIVE

No issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Final results and PQL (Reporting Limit) reflect concentration factor applied when analyzing for Indoor Air.

Analytical Comments for A_TO3, 1004059-002A, Note: Per client request, TO-3 result is corrected for contribution from HVOC compounds not typically present in gasoline but are within the gasoline quantitation range. Where no TPH as Gasoline compounds (BTEX) are present TPH as Gasoline results are reports as "ND".

REVISIONS:

Report revised to include full list TO-15 results for both samples per client request.

5/3/10



Sample Result Summary

Report prepared for: Jim Green
ECM Group

Date Received: 04/15/10
Date Reported: 05/05/10
1004059-001A

VS-2

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results ug/m3</u>
2-Propanol (Isopropyl Alcohol)	ETO15	1	0.49	5.0	12.5
Methylene Chloride	ETO15	1	0.29	0.88	1.35
Acetone	ETO15	1	0.44	4.8	13.2
1,1,1-trichloroethane	ETO15	1	0.42	1.4	1.93
2-Butanone (MEK)	ETO15	1	0.31	0.75	2.10
Benzene	ETO15	1	0.34	0.80	1.17
Toluene	ETO15	1	0.48	0.95	1.20
Tetrachloroethylene	ETO15	1	0.79	1.7	191
Stoddard Sol.	ETO3	1.28	64	128	2410

VS-2

1004059-001A10.0x

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results ug/m3</u>
tert-Butanol	ETO15	10.0	9.1	21	303

VS-1

1004059-002A

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results ug/m3</u>
Methylene Chloride	ETO15	1	0.29225	0.875	8.82
Acetone	ETO15	1	0.4404	4.8	9.312
tert-Butanol	ETO15	1	0.45591	1.05	114.744
1,1,1-trichloroethane	ETO15	1	0.424325	1.375	1.43
Benzene	ETO15	1	0.34272	0.8	1.264
Tetrachloroethylene	ETO15	1	0.79254	1.7	189.414



SAMPLE RESULTS

Report prepared for: Jim Green
ECM Group

Date Received: 04/15/10
Date Reported: 05/05/10

Client Sample ID: VS-2	Lab Sample ID: 1004059-001A
Project Name/Location: 5427 Telegraph	Sample Matrix: Soil Vapor
Project Number: 07-181-10	
Date/Time Sampled: 04/14/10 / 14:44	Certified Clean WO # :
Canister/Tube ID: 864	Received PSI : 13.0
Collection Volume (L):	Corrected PSI :
Tag Number: 5427 Telegraph	

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
tert-Butanol	ETO15	NA	04/16/10	10.0	9.1	21	303	72.14		400604	NA
Dichlorodifluoromethane	ETO15	NA	04/16/10	1	0.76	2.5	ND	ND		400604	NA
1,1-Difluoroethane	ETO15	NA	04/16/10	1	0.25	0.68	ND	ND		400604	NA
1,2-Dichlorotetrafluoroethane	ETO15	NA	04/16/10	1	2.5	7.0	ND	ND		400604	NA
Chloromethane	ETO15	NA	04/16/10	1	0.16	0.53	ND	ND		400604	NA
Vinyl Chloride	ETO15	NA	04/16/10	1	0.33	1.3	ND	ND		400604	NA
1,3-Butadiene	ETO15	NA	04/16/10	1	0.22	0.55	ND	ND		400604	NA
Bromomethane	ETO15	NA	04/16/10	1	0.36	0.98	ND	ND		400604	NA
Chloroethane	ETO15	NA	04/16/10	1	0.25	0.65	ND	ND		400604	NA
Trichlorofluoromethane	ETO15	NA	04/16/10	1	0.90	2.8	ND	ND		400604	NA
1,1-Dichloroethene	ETO15	NA	04/16/10	1	0.31	1.0	ND	ND		400604	NA
Freon 113	ETO15	NA	04/16/10	1	0.42	1.9	ND	ND		400604	NA
Carbon Disulfide	ETO15	NA	04/16/10	1	0.41	1.6	ND	ND		400604	NA
2-Propanol (Isopropyl Alcohol)	ETO15	NA	04/16/10	1	0.49	5.0	12.5	5.00		400604	NA
Methylene Chloride	ETO15	NA	04/16/10	1	0.29	0.88	1.35	0.39		400604	NA
Acetone	ETO15	NA	04/16/10	1	0.44	4.8	13.2	5.50		400604	NA
trans-1,2-Dichloroethene	ETO15	NA	04/16/10	1	0.32	1.0	ND	ND		400604	NA
Hexane	ETO15	NA	04/16/10	1	0.26	0.88	ND	ND		400604	NA
MTBE	ETO15	NA	04/16/10	1	0.43	0.90	ND	ND		400604	NA
Diisopropyl ether (DIPE)	ETO15	NA	04/16/10	1	0.44	1.1	ND	ND		400604	NA
1,1-Dichloroethane	ETO15	NA	04/16/10	1	0.38	1.0	ND	ND		400604	NA
ETBE	ETO15	NA	04/16/10	1	0.34	1.1	ND	ND		400604	NA
cis-1,2-Dichloroethene	ETO15	NA	04/16/10	1	0.27	1.0	ND	ND		400604	NA
Chloroform	ETO15	NA	04/16/10	1	0.62	2.5	ND	ND		400604	NA
Vinyl Acetate	ETO15	NA	04/16/10	1	0.28	0.88	ND	ND		400604	NA
Carbon Tetrachloride	ETO15	NA	04/16/10	1	0.43	1.6	ND	ND		400604	NA
1,1,1-trichloroethane	ETO15	NA	04/16/10	1	0.42	1.4	1.93	0.35		400604	NA
2-Butanone (MEK)	ETO15	NA	04/16/10	1	0.31	0.75	2.10	0.70		400604	NA
Ethyl Acetate	ETO15	NA	04/16/10	1	0.37	0.90	ND	ND		400604	NA
Tetrahydrofuran	ETO15	NA	04/16/10	1	0.15	0.75	ND	ND		400604	NA
Benzene	ETO15	NA	04/16/10	1	0.34	0.80	1.17	0.37		400604	NA
TAME	ETO15	NA	04/16/10	1	0.18	1.1	ND	ND		400604	NA
1,2-Dichloroethane (EDC)	ETO15	NA	04/16/10	1	0.49	1.0	ND	ND		400604	NA
Trichloroethylene	ETO15	NA	04/16/10	1	0.69	2.7	ND	ND		400604	NA
1,2-Dichloropropane	ETO15	NA	04/16/10	1	0.66	2.3	ND	ND		400604	NA
Bromodichloromethane	ETO15	NA	04/16/10	1	0.44	1.7	ND	ND		400604	NA



SAMPLE RESULTS

Report prepared for: Jim Green
ECM Group

Date Received: 04/15/10
Date Reported: 05/05/10

Client Sample ID: VS-2	Lab Sample ID: 1004059-001A
Project Name/Location: 5427 Telegraph	Sample Matrix: Soil Vapor
Project Number: 07-181-10	
Date/Time Sampled: 04/14/10 / 14:44	Certified Clean WO # :
Canister/Tube ID: 864	Received PSI : 13.0
Collection Volume (L):	Corrected PSI :
Tag Number: 5427 Telegraph	

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
1,4-Dioxane	ETO15	NA	04/16/10	1	0.62	1.8	ND	ND		400604	NA
trans-1,3-Dichloropropene	ETO15	NA	04/16/10	1	0.43	1.1	ND	ND		400604	NA
Toluene	ETO15	NA	04/16/10	1	0.48	0.95	1.20	0.32		400604	NA
4-Methyl-2-Pentanone (MIBK)	ETO15	NA	04/16/10	1	0.42	1.0	ND	ND		400604	NA
cis-1,3-Dichloropropene	ETO15	NA	04/16/10	1	0.56	1.1	ND	ND		400604	NA
Tetrachloroethylene	ETO15	NA	04/16/10	1	0.79	1.7	191	28.09		400604	NA
1,1,2-Trichloroethane	ETO15	NA	04/16/10	1	0.46	1.4	ND	ND		400604	NA
Dibromochloromethane	ETO15	NA	04/16/10	1	0.87	2.1	ND	ND		400604	NA
1,2-Dibromoethane (EDB)	ETO15	NA	04/16/10	1	1.0	3.9	ND	ND		400604	NA
<hr/>											
2-Hexanone	ETO15	NA	04/16/10	1	0.56	2.1	ND	ND		400604	NA
Ethyl Benzene	ETO15	NA	04/16/10	1	0.50	1.1	ND	ND		400604	NA
Chlorobenzene	ETO15	NA	04/16/10	1	0.36	1.2	ND	ND		400604	NA
1,1,1,2-Tetrachloroethane	ETO15	NA	04/16/10	1	0.52	1.7	ND	ND		400604	NA
m,p-Xylene	ETO15	NA	04/16/10	1	0.81	2.2	ND	ND		400604	NA
o-Xylene	ETO15	NA	04/16/10	1	0.40	1.1	ND	ND		400604	NA
Styrene	ETO15	NA	04/16/10	1	0.34	1.1	ND	ND		400604	NA
Bromoform	ETO15	NA	04/16/10	1	0.55	2.5	ND	ND		400604	NA
1,1,2,2-Tetrachloroethane	ETO15	NA	04/16/10	1	0.35	1.7	ND	ND		400604	NA
4-Ethyl Toluene	ETO15	NA	04/16/10	1	0.41	1.2	ND	ND		400604	NA
1,3,5-Trimethylbenzene	ETO15	NA	04/16/10	1	0.38	1.2	ND	ND		400604	NA
1,2,4-Trimethylbenzene	ETO15	NA	04/16/10	1	0.34	1.2	ND	ND		400604	NA
1,4-Dichlorobenzene	ETO15	NA	04/16/10	1	0.32	1.5	ND	ND		400604	NA
1,3-Dichlorobenzene	ETO15	NA	04/16/10	1	0.42	1.5	ND	ND		400604	NA
Benzyl Chloride	ETO15	NA	04/16/10	1	0.31	1.3	ND	ND		400604	NA
1,2-Dichlorobenzene	ETO15	NA	04/16/10	1	0.45	1.5	ND	ND		400604	NA
Hexachlorobutadiene	ETO15	NA	04/16/10	1	1.2	2.8	ND	ND		400604	NA
1,2,4-Trichlorobenzene	ETO15	NA	04/16/10	1	1.7	3.7	ND	ND		400604	NA
Naphthalene	ETO15	NA	04/16/10	1	0.73	2.6	ND	ND		400604	NA
(S) 4-Bromofluorobenzene	ETO15	NA	04/16/10	1	65	135	131 %			400604	NA

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
TPH-Gasoline	ETO3	NA	04/16/10	1.28	64	130	ND	ND		400612	NA
Stoddard Sol.	ETO3	NA	04/16/10	1.28	64	128	2410	684.66		400612	NA



SAMPLE RESULTS

Report prepared for: Jim Green
ECM Group

Date Received: 04/15/10
Date Reported: 05/05/10



SAMPLE RESULTS

Report prepared for: Jim Green
ECM Group

Date Received: 04/15/10
Date Reported: 05/05/10

Client Sample ID: VS-1	Lab Sample ID: 1004059-002A
Project Name/Location: 5427 Telegraph	Sample Matrix: Soil Vapor
Project Number: 07-181-10	
Date/Time Sampled: 04/14/10 / 16:20	Certified Clean WO # :
Canister/Tube ID: 903	Received PSI : 13.7
Collection Volume (L):	Corrected PSI :
Tag Number: 5427 Telegraph	

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
Dichlorodifluoromethane	ETO15	NA	04/16/10	1	0.757	2.5	ND	ND		400604	NA
1,1-Difluoroethane	ETO15	NA	04/16/10	1	0.24921	0.675	ND	ND		400604	NA
1,2-Dichlorotetrafluoroethane	ETO15	NA	04/16/10	1	2.4668	7	ND	ND		400604	NA
Chloromethane	ETO15	NA	04/16/10	1	0.159075	0.525	ND	ND		400604	NA
Vinyl Chloride	ETO15	NA	04/16/10	1	0.33436	1.3	ND	ND		400604	NA
1,3-Butadiene	ETO15	NA	04/16/10	1	0.22286	0.55	ND	ND		400604	NA
Bromomethane	ETO15	NA	04/16/10	1	0.36036	0.975	ND	ND		400604	NA
Chloroethane	ETO15	NA	04/16/10	1	0.25077	0.65	ND	ND		400604	NA
Trichlorofluoromethane	ETO15	NA	04/16/10	1	0.90356	2.8	ND	ND		400604	NA
1,1-Dichloroethene	ETO15	NA	04/16/10	1	0.306	1	ND	ND		400604	NA
Freon 113	ETO15	NA	04/16/10	1	0.42427	1.925	ND	ND		400604	NA
Carbon Disulfide	ETO15	NA	04/16/10	1	0.405635	1.55	ND	ND		400604	NA
2-Propanol (Isopropyl Alcohol)	ETO15	NA	04/16/10	1	0.485	5	ND	ND		400604	NA
Methylene Chloride	ETO15	NA	04/16/10	1	0.29225	0.875	8.82	2.52		400604	NA
Acetone	ETO15	NA	04/16/10	1	0.4404	4.8	9.312	3.88		400604	NA
trans-1,2-Dichloroethene	ETO15	NA	04/16/10	1	0.3204	1	ND	ND		400604	NA
Hexane	ETO15	NA	04/16/10	1	0.263725	0.875	ND	ND		400604	NA
MTBE	ETO15	NA	04/16/10	1	0.43398	0.9	ND	ND		400604	NA
tert-Butanol	ETO15	NA	04/16/10	1	0.45591	1.05	114.744	27.32		400604	NA
Diisopropyl ether (DIPE)	ETO15	NA	04/16/10	1	0.43806	1.05	ND	ND		400604	NA
1,1-Dichloroethane	ETO15	NA	04/16/10	1	0.376585	1.025	ND	ND		400604	NA
ETBE	ETO15	NA	04/16/10	1	0.33894	1.05	ND	ND		400604	NA
cis-1,2-Dichloroethene	ETO15	NA	04/16/10	1	0.2684	1	ND	ND		400604	NA
Chloroform	ETO15	NA	04/16/10	1	0.61642	2.45	ND	ND		400604	NA
Vinyl Acetate	ETO15	NA	04/16/10	1	0.2828	0.875	ND	ND		400604	NA
Carbon Tetrachloride	ETO15	NA	04/16/10	1	0.43155	1.575	ND	ND		400604	NA
1,1,1-trichloroethane	ETO15	NA	04/16/10	1	0.424325	1.375	1.43	0.26		400604	NA
2-Butanone (MEK)	ETO15	NA	04/16/10	1	0.31425	0.75	ND	ND		400604	NA
Ethyl Acetate	ETO15	NA	04/16/10	1	0.37062	0.9	ND	ND		400604	NA
Tetrahydrofuran	ETO15	NA	04/16/10	1	0.1509	0.75	ND	ND		400604	NA
Benzene	ETO15	NA	04/16/10	1	0.34272	0.8	1.264	0.40		400604	NA
TAME	ETO15	NA	04/16/10	1	0.18102	1.05	ND	ND		400604	NA
1,2-Dichloroethane (EDC)	ETO15	NA	04/16/10	1	0.493025	1.025	ND	ND		400604	NA
Trichloroethylene	ETO15	NA	04/16/10	1	0.6939	2.7	ND	ND		400604	NA
1,2-Dichloropropane	ETO15	NA	04/16/10	1	0.65642	2.3	ND	ND		400604	NA
Bromodichloromethane	ETO15	NA	04/16/10	1	0.44488	1.675	ND	ND		400604	NA



SAMPLE RESULTS

Report prepared for: Jim Green
ECM Group

Date Received: 04/15/10
Date Reported: 05/05/10

Client Sample ID: VS-1	Lab Sample ID: 1004059-002A
Project Name/Location: 5427 Telegraph	Sample Matrix: Soil Vapor
Project Number: 07-181-10	
Date/Time Sampled: 04/14/10 / 16:20	Certified Clean WO # :
Canister/Tube ID: 903	Received PSI : 13.7
Collection Volume (L):	Corrected PSI :
Tag Number: 5427 Telegraph	

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
1,4-Dioxane	ETO15	NA	04/16/10	1	0.62334	1.8	ND	ND		400604	NA
trans-1,3-Dichloropropene	ETO15	NA	04/16/10	1	0.4347	1.125	ND	ND		400604	NA
Toluene	ETO15	NA	04/16/10	1	0.47671	0.95	ND	ND		400604	NA
4-Methyl-2-Pentanone (MIBK)	ETO15	NA	04/16/10	1	0.424965	1.025	ND	ND		400604	NA
cis-1,3-Dichloropropene	ETO15	NA	04/16/10	1	0.563625	1.125	ND	ND		400604	NA
Tetrachloroethylene	ETO15	NA	04/16/10	1	0.79254	1.7	189.414	27.86		400604	NA
1,1,2-Trichloroethane	ETO15	NA	04/16/10	1	0.464475	1.375	ND	ND		400604	NA
Dibromochloromethane	ETO15	NA	04/16/10	1	0.868275	2.125	ND	ND		400604	NA
1,2-Dibromoethane (EDB)	ETO15	NA	04/16/10	1	1.022945	3.85	ND	ND		400604	NA
NOTE: MRL and PQL (Reporting Limit) reflects concentration factor applied when analyzing to Indoor Air reporting limits.											
2-Hexanone	ETO15	NA	04/16/10	1	0.56	2.1	ND	ND		400604	NA
Ethyl Benzene	ETO15	NA	04/16/10	1	0.50	1.1	ND	ND		400604	NA
Chlorobenzene	ETO15	NA	04/16/10	1	0.36	1.2	ND	ND		400604	NA
1,1,1,2-Tetrachloroethane	ETO15	NA	04/16/10	1	0.52	1.7	ND	ND		400604	NA
m,p-Xylene	ETO15	NA	04/16/10	1	0.81	2.2	ND	ND		400604	NA
o-Xylene	ETO15	NA	04/16/10	1	0.40	1.1	ND	ND		400604	NA
Styrene	ETO15	NA	04/16/10	1	0.34	1.1	ND	ND		400604	NA
Bromoform	ETO15	NA	04/16/10	1	0.55	2.5	ND	ND		400604	NA
1,1,2,2-Tetrachloroethane	ETO15	NA	04/16/10	1	0.35	1.7	ND	ND		400604	NA
4-Ethyl Toluene	ETO15	NA	04/16/10	1	0.41	1.2	ND	ND		400604	NA
1,3,5-Trimethylbenzene	ETO15	NA	04/16/10	1	0.38	1.2	ND	ND		400604	NA
1,2,4-Trimethylbenzene	ETO15	NA	04/16/10	1	0.34	1.2	ND	ND		400604	NA
1,4-Dichlorobenzene	ETO15	NA	04/16/10	1	0.32	1.5	ND	ND		400604	NA
1,3-Dichlorobenzene	ETO15	NA	04/16/10	1	0.42	1.5	ND	ND		400604	NA
Benzyl Chloride	ETO15	NA	04/16/10	1	0.31	1.3	ND	ND		400604	NA
1,2-Dichlorobenzene	ETO15	NA	04/16/10	1	0.45	1.5	ND	ND		400604	NA
Hexachlorobutadiene	ETO15	NA	04/16/10	1	1.2	2.8	ND	ND		400604	NA
1,2,4-Trichlorobenzene	ETO15	NA	04/16/10	1	1.7	3.7	ND	ND		400604	NA
Naphthalene	ETO15	NA	04/16/10	1	0.73	2.6	ND	ND		400604	NA
(S) 4-Bromofluorobenzene	ETO15	NA	04/16/10	1	65	135	110 %			400604	NA



SAMPLE RESULTS

Report prepared for: Jim Green
ECM Group

Date Received: 04/15/10
Date Reported: 05/05/10

Client Sample ID:	VS-1	Lab Sample ID:	1004059-002A
Project Name/Location:	5427 Telegraph	Sample Matrix:	Soil Vapor
Project Number:	07-181-10	Certified Clean WO # :	
Date/Time Sampled:	04/14/10 / 16:20	Received PSI :	13.7
Canister/Tube ID:	903	Corrected PSI :	
Collection Volume (L):			
Tag Number:	5427 Telegraph		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL ug/m3	PQL ug/m3	Results ug/m3	Results ppbv	Lab Qualifier	Analytical Batch	Prep Batch
TPH-Gasoline	ETO3	NA	04/16/10	1.2	60	120	ND	ND		400612	NA
Stoddard Sol.	ETO3	NA	04/16/10	1.2	60	120	ND	ND	0.00	400612	NA

NOTE: Results corrected for HVOC compounds not typically present in gasoline but that are within the gasoline C5-C12 range (see TO15 results). Where less than 3 TPH Gasoline compounds (BTEX) are present TPH as Gas results are reports as "ND".



MB Summary Report

Work Order:	1004059	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Air	Analytical Method:	ETO15	Analyzed Date:	04/16/10	Analytical Batch:	400604
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.
2-Propanol (Isopropyl Alcohol)	0.19	2.00	ND
MTBE	0.12	0.250	ND
tert-Butanol	0.11	0.250	ND
Diisopropyl ether (DIPE)	0.10	0.250	ND
ETBE	0.081	0.250	ND
Benzene	0.11	0.250	ND
TAME	0.043	0.250	ND
Toluene	0.13	0.250	ND
Ethyl Benzene	0.12	0.250	ND
m,p-Xylene	0.19	0.500	ND
o-Xylene	0.094	0.250	ND
(S) 4-Bromofluorobenzene			103 %

Work Order:	1004059	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Air	Analytical Method:	ETO3	Analyzed Date:	04/16/10	Analytical Batch:	400612
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.
TPH-Gasoline	50	100	ND
Stoddard Sol.	50	100	ND



LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1004059	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Air	Analytical Method:	ETO15	Analyzed Date:	04/16/10	Analytical Batch:	400604
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.15	0.500		20	110	119	8.38	65 - 135	30	
Benzene	0.21	0.500		20	129	115	11.7	65 - 135	30	
Trichloroethylene	0.26	1.00		20	116	118	1.41	65 - 135	30	
Toluene	0.25	0.500		20	123	120	2.60	65 - 135	30	
Chlorobenzene	0.15	0.500		20	113	107	5.65	65 - 135	30	
(S) 4-Bromofluorobenzene				20	125	120		65 - 135		

Work Order:	1004059	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Air	Analytical Method:	ETO3	Analyzed Date:	04/16/10	Analytical Batch:	400612
Units:	ppbv						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH-Gasoline	50	100		500	117	106	9.88	50 - 150	30	



Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit (PQL) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - mg/L and mg/Kg (equivalent to PPM - parts per million in liquid and solid), ug/L and ug/Kg (equivalent to PPB - parts per billion in liquid and solid), ug/m³ , mg.m³ , ppbv and ppmv (all units of measure for reporting concentrations in air), % (equivalent to 10000 ppm or 1,000,000 ppb), ug/Wipe (concentration found on the surface of a single Wipe usually taken over a 100cm ² surface)

LABORATORY QUALIFIERS:

<p>B - Indicates when the analyte is found in the associated method or preparation blank</p> <p>D - Surrogate is not recoverable due to the necessary dilution of the sample</p> <p>E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.</p> <p>H- Indicates that the recommended holding time for the analyte or compound has been exceeded</p> <p>J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative</p> <p>NA - Not Analyzed</p> <p>N/A - Not Applicable</p> <p>NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added</p> <p>R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts</p> <p>S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative</p> <p>X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.</p>



Sample Receipt Checklist

Client Name: ECM Group

Date and Time Received: 4/15/2010 11:50

Project Name: 5427 Telegraph

Received By: NG

Work Order No.: 1004059

Physically Logged By: NG

Checklist Completed By: NG

Carrier Name: Gold Bullet Courier

Chain of Custody (COC) Information

Chain of custody present? Yes
Chain of custody signed when relinquished and received? Yes
Chain of custody agrees with sample labels? Yes
Custody seals intact on sample bottles? Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler? Not Present
Shipping Container/Cooler In Good Condition? Yes
Samples in proper container/bottle? Yes
Samples containers intact? Yes
Sufficient sample volume for indicated test? Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes
Container/Temp Blank temperature in compliance? Temperature: °C
Water-VOA vials have zero headspace? No VOA vials submitted
Water-pH acceptable upon receipt?

pH Checked by: pH Adjusted by:

TO-15 for lowest detection limits.



Login Summary Report

Client ID:	TL5158	ECM Group	QC Level:	II
Project Name:	5427 Telegraph		TAT Requested:	5+ day:0
Project # :	07-181-10		Date Received:	4/15/2010
Report Due Date:	4/22/2010		Time Received:	11:50
Comments:	5 day TAT!!! Recv'd 2 air samples for TPHg; Stoddard solvent;BTEX; Oxygenates;IPA Tracer.Pls. email to jgreen@ecmgrp.com and info@ecmgrp.com.			
Work Order # :	1004059			

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
1004059-001A	VS-2	04/14/10 14:44	Air				A_TO-3TPPH A_TO-15Full-B CO A_TO-15Full-A	
Sample Note: TPHg,Stoddard,BTEX,Oxy,IPA.Lowest possible detection limit.								
1004059-002A	VS-1	04/14/10 16:20	Air				A_TO-3TPPH A_TO-15Full-A CO A_TO-15Full-B	
Sample Note: TPHg,Stoddard,BTEX,Oxy,IPA.Lowest possible detection limit.								



ECM Group
290 West Channel
Benicia, California 94510
Tel: 707-751-0655
Fax: 707-751-0653
Email: rguptel@ecmgrp.com
RE: 5427 Telegraph, Oakland, CA

Work Order No.: 1006103

Dear Rachel Guptel:

Torrent Laboratory, Inc. received 4 sample(s) on June 14, 2010 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

A handwritten signature in blue ink, appearing to read "Patti Sandrock", is written over a horizontal line.

Patti Sandrock

June 21, 2010

Date



Date: 6/21/2010

Client: ECM Group

Project: 5427 Telegraph, Oakland, CA

Work Order: 1006103

CASE NARRATIVE

No issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.



Sample Result Summary

Report prepared for: Rachel Guptel
ECM Group

Date Received: 06/14/10

Date Reported: 06/21/10

MW-1

1006103-001A

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
TPH as Stoddard	SW8015B	1	0.0287	0.10	0.41	mg/L
TPH(Gasoline)	8260TPH	4.4	95	220	610	ug/L

MW-2

1006103-002A

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
TPH as Stoddard	SW8015B	50	1.44	5.0	69	mg/L
Benzene	SW8260B	8.8	2.9	4.4	17	ug/L
TPH(Gasoline)	8260TPH	8.8	190	440	5000	ug/L

MW-3

1006103-003A

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
TPH as Stoddard	SW8015B	1	0.0287	0.10	0.99	mg/L
Benzene	SW8260B	4.4	1.5	2.2	5.5	ug/L
TPH(Gasoline)	8260TPH	4.4	95	220	3100	ug/L

MW-5

1006103-004A

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
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All compounds were non-detectable for this sample.



SAMPLE RESULTS

Report prepared for: Rachel Guptel
ECM Group

Date Received: 06/14/10
Date Reported: 06/21/10

Client Sample ID:	MW-1	Lab Sample ID:	1006103-001A
Project Name/Location:	5427 Telegraph, Oakland, CA	Sample Matrix:	Groundwater
Project Number:	07-181-04		
Date/Time Sampled:	06/09/10 / 12:04		
Tag Number:	5427 Telegraph		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Stoddard	SW8015B	6/15/10	06/17/10	1	0.0287	0.10	0.41		mg/L	401287	0581
Pentacosane (S)	SW8015B	6/15/10	06/17/10	1	53.3	124	88.4		%	401287	0581

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Benzene	SW8260B	NA	06/17/10	4.4	1.5	2.2	ND		ug/L	401289	NA
Toluene	SW8260B	NA	06/17/10	4.4	0.84	2.2	ND		ug/L	401289	NA
Ethyl Benzene	SW8260B	NA	06/17/10	4.4	0.68	2.2	ND		ug/L	401289	NA
m,p-Xylene	SW8260B	NA	06/17/10	4.4	0.88	4.4	ND		ug/L	401289	NA
o-Xylene	SW8260B	NA	06/17/10	4.4	0.56	2.2	ND		ug/L	401289	NA
MTBE	SW8260B	NA	06/17/10	4.4	1.7	2.2	ND		ug/L	401289	NA
Diisopropyl ether (DIPE)	SW8260B	NA	06/17/10	4.4	1.6	2.2	ND		ug/L	401289	NA
ETBE	SW8260B	NA	06/17/10	4.4	1.7	2.2	ND		ug/L	401289	NA
TAME	SW8260B	NA	06/17/10	4.4	1.4	2.2	ND		ug/L	401289	NA
tert-Butanol	SW8260B	NA	06/17/10	4.4	6.6	22	ND		ug/L	401289	NA
1,2-Dichloroethane	SW8260B	NA	06/17/10	4.4	1.2	2.2	ND		ug/L	401289	NA
1,2-Dibromoethane	SW8260B	NA	06/17/10	4.4	0.86	2.2	ND		ug/L	401289	NA
(S) Dibromofluoromethane	SW8260B	NA	06/17/10	4.4	61.2	131	92.9		%	401289	NA
(S) Toluene-d8	SW8260B	NA	06/17/10	4.4	75.1	127	81.2		%	401289	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	06/17/10	4.4	64.1	120	81.5		%	401289	NA

NOTE: Reporting limit raised due to high level of heavy hydrocarbons.

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH(Gasoline)	8260TPH	NA	06/17/10	4.4	95	220	610	x	ug/L	401293	NA
(S) 4-Bromofluorobenzene	8260TPH	NA	06/17/10	4.4	58.4	133	86.9		%	401293	NA

NOTE: x-Not typical of Gasoline standard pattern. Result reported as Gasoline but pattern best matches Mineral Spirits/Stoddard Solvent.



SAMPLE RESULTS

Report prepared for: Rachel Guptel
ECM Group

Date Received: 06/14/10
Date Reported: 06/21/10

Client Sample ID:	MW-2	Lab Sample ID:	1006103-002A
Project Name/Location:	5427 Telegraph, Oakland, CA	Sample Matrix:	Groundwater
Project Number:	07-181-04		
Date/Time Sampled:	06/09/10 / 14:26		
Tag Number:	5427 Telegraph		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Stoddard	SW8015B	6/15/10	06/17/10	50	1.44	5.0	69		mg/L	401287	0581
Pentacosane (S)	SW8015B	6/15/10	06/17/10	50	53.3	124	0.000	D	%	401287	0581

NOTE: D - Surrogates not recoverable due to dilution of the sample.

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Benzene	SW8260B	NA	06/17/10	8.8	2.9	4.4	17		ug/L	401289	NA
Toluene	SW8260B	NA	06/17/10	8.8	1.7	4.4	ND		ug/L	401289	NA
Ethyl Benzene	SW8260B	NA	06/17/10	8.8	1.4	4.4	ND		ug/L	401289	NA
m,p-Xylene	SW8260B	NA	06/17/10	8.8	1.8	8.8	ND		ug/L	401289	NA
o-Xylene	SW8260B	NA	06/17/10	8.8	1.1	4.4	ND		ug/L	401289	NA
MTBE	SW8260B	NA	06/17/10	8.8	3.3	4.4	ND		ug/L	401289	NA
Diisopropyl ether (DIPE)	SW8260B	NA	06/17/10	8.8	3.2	4.4	ND		ug/L	401289	NA
ETBE	SW8260B	NA	06/17/10	8.8	3.5	4.4	ND		ug/L	401289	NA
TAME	SW8260B	NA	06/17/10	8.8	2.8	4.4	ND		ug/L	401289	NA
tert-Butanol	SW8260B	NA	06/17/10	8.8	13	44	ND		ug/L	401289	NA
1,2-Dichloroethane	SW8260B	NA	06/17/10	8.8	2.4	4.4	ND		ug/L	401289	NA
1,2-Dibromoethane	SW8260B	NA	06/17/10	8.8	1.7	4.4	ND		ug/L	401289	NA
(S) Dibromofluoromethane	SW8260B	NA	06/17/10	8.8	61.2	131	92.8		%	401289	NA
(S) Toluene-d8	SW8260B	NA	06/17/10	8.8	75.1	127	88.3		%	401289	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	06/17/10	8.8	64.1	120	0.000	S	%	401289	NA

NOTE: Reporting limit raised due to high level of heavy hydrocarbons. S - Low surrogate (BFB) recovery attributed to TPH interference (heavy hydrocarbons).

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH(Gasoline)	8260TPH	NA	06/17/10	8.8	190	440	5000		ug/L	401293	NA
(S) 4-Bromofluorobenzene	8260TPH	NA	06/17/10	8.8	58.4	133	0.000	S	%	401293	NA

NOTE: x-Not typical of Gasoline standard pattern. Result reported as Gasoline but pattern best matches Mineral Spirits/Stoddard Solvent. S - Low surrogate recovery attributed to matrix interference.



SAMPLE RESULTS

Report prepared for: Rachel Guptel
ECM Group

Date Received: 06/14/10
Date Reported: 06/21/10

Client Sample ID:	MW-3	Lab Sample ID:	1006103-003A
Project Name/Location:	5427 Telegraph, Oakland, CA	Sample Matrix:	Groundwater
Project Number:	07-181-04		
Date/Time Sampled:	06/09/10 / 13:48		
Tag Number:	5427 Telegraph		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Stoddard	SW8015B	6/15/10	06/17/10	1	0.0287	0.10	0.99	x	mg/L	401287	0581
Pentacosane (S)	SW8015B	6/15/10	06/17/10	1	53.3	124	111		%	401287	0581

NOTE: x - Not typical of Stoddard standard pattern (possibly aged stoddard or other fuel within the stoddard range).

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Benzene	SW8260B	NA	06/17/10	4.4	1.5	2.2	5.5		ug/L	401289	NA
Toluene	SW8260B	NA	06/17/10	4.4	0.84	2.2	ND		ug/L	401289	NA
Ethyl Benzene	SW8260B	NA	06/17/10	4.4	0.68	2.2	ND		ug/L	401289	NA
m,p-Xylene	SW8260B	NA	06/17/10	4.4	0.88	4.4	ND		ug/L	401289	NA
o-Xylene	SW8260B	NA	06/17/10	4.4	0.56	2.2	ND		ug/L	401289	NA
MTBE	SW8260B	NA	06/17/10	4.4	1.7	2.2	ND		ug/L	401289	NA
Diisopropyl ether (DIPE)	SW8260B	NA	06/17/10	4.4	1.6	2.2	ND		ug/L	401289	NA
ETBE	SW8260B	NA	06/17/10	4.4	1.7	2.2	ND		ug/L	401289	NA
TAME	SW8260B	NA	06/17/10	4.4	1.4	2.2	ND		ug/L	401289	NA
tert-Butanol	SW8260B	NA	06/17/10	4.4	6.6	22	ND		ug/L	401289	NA
1,2-Dichloroethane	SW8260B	NA	06/17/10	4.4	1.2	2.2	ND		ug/L	401289	NA
1,2-Dibromoethane	SW8260B	NA	06/17/10	4.4	0.86	2.2	ND		ug/L	401289	NA
(S) Dibromofluoromethane	SW8260B	NA	06/17/10	4.4	61.2	131	82.6		%	401289	NA
(S) Toluene-d8	SW8260B	NA	06/17/10	4.4	75.1	127	88.1		%	401289	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	06/17/10	4.4	64.1	120	87.8		%	401289	NA

NOTE: Reporting limit raised due to high level of heavy hydrocarbons.

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH(Gasoline)	8260TPH	NA	06/17/10	4.4	95	220	3100	x	ug/L	401293	NA
(S) 4-Bromofluorobenzene	8260TPH	NA	06/17/10	4.4	58.4	133	95.4		%	401293	NA

NOTE: x - Not typical of Gasoline standard pattern. Hydrocarbons in the range of C5-C12 quantified as Gasoline (heavy end hydrocarbons possibly aged gasoline or aged fuel heavier than gasoline)



SAMPLE RESULTS

Report prepared for: Rachel Gupta
ECM Group

Date Received: 06/14/10
Date Reported: 06/21/10

Client Sample ID:	MW-5	Lab Sample ID:	1006103-004A
Project Name/Location:	5427 Telegraph, Oakland, CA	Sample Matrix:	Groundwater
Project Number:	07-181-04		
Date/Time Sampled:	06/09/10 / 10:47		
Tag Number:	5427 Telegraph		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Stoddard	SW8015B	6/15/10	06/17/10	1	0.0287	0.10	ND		mg/L	401287	0581
Pentacosane (S)	SW8015B	6/15/10	06/17/10	1	53.3	124	107		%	401287	0581

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Benzene	SW8260B	NA	06/18/10	1	0.33	0.50	ND		ug/L	401296	NA
Toluene	SW8260B	NA	06/18/10	1	0.19	0.50	ND		ug/L	401296	NA
Ethyl Benzene	SW8260B	NA	06/18/10	1	0.15	0.50	ND		ug/L	401296	NA
m,p-Xylene	SW8260B	NA	06/18/10	1	0.20	1.0	ND		ug/L	401296	NA
o-Xylene	SW8260B	NA	06/18/10	1	0.13	0.50	ND		ug/L	401296	NA
MTBE	SW8260B	NA	06/18/10	1	0.38	0.50	ND		ug/L	401296	NA
Diisopropyl ether (DIPE)	SW8260B	NA	06/18/10	1	0.36	0.50	ND		ug/L	401296	NA
ETBE	SW8260B	NA	06/18/10	1	0.40	0.50	ND		ug/L	401296	NA
TAME	SW8260B	NA	06/18/10	1	0.32	0.50	ND		ug/L	401296	NA
tert-Butanol	SW8260B	NA	06/18/10	1	1.5	5.0	ND		ug/L	401296	NA
1,2-Dichloroethane	SW8260B	NA	06/18/10	1	0.28	0.50	ND		ug/L	401296	NA
1,2-Dibromoethane	SW8260B	NA	06/18/10	1	0.19	0.50	ND		ug/L	401296	NA
(S) Dibromofluoromethane	SW8260B	NA	06/18/10	1	61.2	131	90.1		%	401296	NA
(S) Toluene-d8	SW8260B	NA	06/18/10	1	75.1	127	90.9		%	401296	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	06/18/10	1	64.1	120	86.1		%	401296	NA

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH(Gasoline)	8260TPH	NA	06/18/10	1	22	50	ND		ug/L	401297	NA
(S) 4-Bromofluorobenzene	8260TPH	NA	06/18/10	1	58.4	133	97.2		%	401297	NA



MB Summary Report

Work Order:	1006103	Prep Method:	3510_TPH	Prep Date:	06/15/10	Prep Batch:	0581
Matrix:	Water	Analytical Method:	SW8015B	Analyzed Date:	06/15/10	Analytical Batch:	401241
Units:	mg/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
DRO	0.0287	0.10	ND		
TPH as Bunker Oil	0.0920	0.20	ND		
TPH as Cutting Oil	0.0920	0.20	ND		
TPH as Diesel	0.0287	0.10	ND		
TPH as Heating Oil	0.0920	0.20	ND		
TPH as Hydraulic Oil	0.0920	0.20	ND		
TPH as Jet A	0.0287	0.10	ND		
TPH as Jet Fuel	0.0287	0.10	ND		
TPH as JP-4	0.0287	0.10	ND		
TPH as JP-5	0.0287	0.10	ND		
TPH as JP-7	0.0287	0.10	ND		
TPH as JP-8	0.0287	0.10	ND		
TPH as Kerosene	0.0287	0.10	ND		
TPH as Mineral Oil	0.0287	0.10	ND		
TPH as Motor Oil	0.0920	0.20	0.14		
TPH as Naphtha	0.0287	0.10	ND		
TPH as Oil	0.0920	0.20	ND		
TPH as Stoddard	0.0287	0.10	ND		
TPH as Transformer Oil	0.0920	0.20	ND		
Pentacosane (S)			100 %		



MB Summary Report

Work Order:	1006103	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Water	Analytical Method:	SW8260B	Analyzed Date:	06/17/10	Analytical Batch:	401289
Units:	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Dichlorodifluoromethane	0.41	0.50	ND		
Chloromethane	0.41	0.50	ND		
Vinyl Chloride	0.37	0.50	ND		
Bromomethane	0.37	0.50	ND		
Trichlorofluoromethane	0.34	0.50	ND		
1,1-Dichloroethene	0.29	0.50	ND		
Freon 113	0.38	0.50	ND		
Methylene Chloride	0.18	5.0	ND		
trans-1,2-Dichloroethene	0.31	0.50	ND		
MTBE	0.38	0.50	ND		
tert-Butanol	1.5	5.0	ND		
Diisopropyl ether (DIPE)	0.36	0.50	ND		
1,1-Dichloroethane	0.28	0.50	ND		
ETBE	0.40	0.50	ND		
cis-1,2-Dichloroethene	0.33	0.50	ND		
2,2-Dichloropropane	0.37	0.50	ND		
Bromochloromethane	0.34	0.50	ND		
Chloroform	0.29	0.50	ND		
Carbon Tetrachloride	0.26	0.50	ND		
1,1,1-Trichloroethane	0.32	0.50	ND		
1,1-Dichloropropene	0.40	0.50	ND		
Benzene	0.33	0.50	ND		
TAME	0.32	0.50	ND		
1,2-Dichloroethane	0.28	0.50	ND		
Trichloroethylene	0.38	0.50	ND		
Dibromomethane	0.21	0.50	ND		
1,2-Dichloropropane	0.37	0.50	ND		
Bromodichloromethane	0.23	0.50	ND		
2-Chloroethyl vinyl ether	0.91	2.0	ND		
cis-1,3-Dichloropropene	0.30	0.50	ND		
Toluene	0.19	0.50	ND		
Tetrachloroethylene	0.15	0.50	0.34		
trans-1,3-Dichloropropene	0.20	0.50	ND		
1,1,2-Trichloroethane	0.20	0.50	ND		
Dibromochloromethane	0.21	0.50	ND		
1,3-Dichloropropane	0.18	0.50	ND		
1,2-Dibromoethane	0.19	0.50	ND		



MB Summary Report

Work Order:	1006103	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Water	Analytical Method:	SW8260B	Analyzed Date:	06/17/10	Analytical Batch:	401289
Units:	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Chlorobenzene	0.14	0.50	ND		
Ethyl Benzene	0.15	0.50	ND		
1,1,1,2-Tetrachloroethane	0.10	0.50	ND		
m,p-Xylene	0.20	1.0	ND		
o-Xylene	0.13	0.50	ND		
Styrene	0.20	0.50	ND		
Bromoform	0.45	1.0	ND		
Isopropyl Benzene	0.28	0.50	ND		
Bromobenzene	0.39	0.50	ND		
1,1,2,2-Tetrachloroethane	0.26	0.50	ND		
n-Propylbenzene	0.30	0.50	ND		
2-Chlorotoluene	0.33	0.50	ND		
1,3,5-Trimethylbenzene	0.20	0.50	ND		
4-Chlorotoluene	0.32	0.50	ND		
tert-Butylbenzene	0.29	0.50	ND		
1,2,3-Trichloropropane	0.59	1.0	ND		
1,2,4-Trimethylbenzene	0.33	0.50	ND		
sec-Butyl Benzene	0.24	0.50	ND		
p-Isopropyltoluene	0.25	0.50	ND		
1,3-Dichlorobenzene	0.31	0.50	ND		
1,4-Dichlorobenzene	0.37	0.50	ND		
n-Butylbenzene	0.32	0.50	ND		
1,2-Dichlorobenzene	0.39	0.50	ND		
1,2-Dibromo-3-Chloropropane	0.45	1.0	ND		
Hexachlorobutadiene	0.22	0.50	ND		
1,2,4-Trichlorobenzene	0.48	1.0	ND		
Naphthalene	0.57	1.0	0.78		
1,2,3-Trichlorobenzene	0.52	1.0	ND		
(S) Dibromofluoromethane			95.1 %		
(S) Toluene-d8			93.6 %		
(S) 4-Bromofluorobenzene			90.1 %		



MB Summary Report

Work Order:	1006103	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Water	Analytical Method:	8260TPH	Analyzed Date:	06/17/10	Analytical Batch:	401293
Units:	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH(Gasoline)	22	50	ND	
(S) 4-Bromofluorobenzene			69.9 %	



MB Summary Report

Work Order:	1006103	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Water	Analytical Method:	SW8260B	Analyzed Date:	06/18/10	Analytical Batch:	401296
Units:	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Dichlorodifluoromethane	0.41	0.50	ND		
Chloromethane	0.41	0.50	ND		
Vinyl Chloride	0.37	0.50	ND		
Bromomethane	0.37	0.50	ND		
Trichlorofluoromethane	0.34	0.50	ND		
1,1-Dichloroethene	0.29	0.50	ND		
Freon 113	0.38	0.50	ND		
Methylene Chloride	0.18	5.0	ND		
trans-1,2-Dichloroethene	0.31	0.50	ND		
MTBE	0.38	0.50	ND		
tert-Butanol	1.5	5.0	ND		
Diisopropyl ether (DIPE)	0.36	0.50	ND		
1,1-Dichloroethane	0.28	0.50	ND		
ETBE	0.40	0.50	ND		
cis-1,2-Dichloroethene	0.33	0.50	ND		
2,2-Dichloropropane	0.37	0.50	ND		
Bromochloromethane	0.34	0.50	ND		
Chloroform	0.29	0.50	ND		
Carbon Tetrachloride	0.26	0.50	ND		
1,1,1-Trichloroethane	0.32	0.50	ND		
1,1-Dichloropropene	0.40	0.50	ND		
Benzene	0.33	0.50	ND		
TAME	0.32	0.50	ND		
1,2-Dichloroethane	0.28	0.50	ND		
Trichloroethylene	0.38	0.50	ND		
Dibromomethane	0.21	0.50	ND		
1,2-Dichloropropane	0.37	0.50	ND		
Bromodichloromethane	0.23	0.50	ND		
2-Chloroethyl vinyl ether	0.91	2.0	ND		
cis-1,3-Dichloropropene	0.30	0.50	ND		
Toluene	0.19	0.50	ND		
Tetrachloroethylene	0.15	0.50	ND		
trans-1,3-Dichloropropene	0.20	0.50	ND		
1,1,2-Trichloroethane	0.20	0.50	ND		
Dibromochloromethane	0.21	0.50	ND		
1,3-Dichloropropane	0.18	0.50	ND		
1,2-Dibromoethane	0.19	0.50	ND		



MB Summary Report

Work Order:	1006103	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Water	Analytical Method:	SW8260B	Analyzed Date:	06/18/10	Analytical Batch:	401296
Units:	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Chlorobenzene	0.14	0.50	ND		
Ethyl Benzene	0.15	0.50	ND		
1,1,1,2-Tetrachloroethane	0.10	0.50	ND		
m,p-Xylene	0.20	1.0	ND		
o-Xylene	0.13	0.50	ND		
Styrene	0.20	0.50	ND		
Bromoform	0.45	1.0	ND		
Isopropyl Benzene	0.28	0.50	ND		
Bromobenzene	0.39	0.50	ND		
1,1,2,2-Tetrachloroethane	0.26	0.50	ND		
n-Propylbenzene	0.30	0.50	ND		
2-Chlorotoluene	0.33	0.50	ND		
1,3,5-Trimethylbenzene	0.20	0.50	ND		
4-Chlorotoluene	0.32	0.50	ND		
tert-Butylbenzene	0.29	0.50	ND		
1,2,3-Trichloropropane	0.59	1.0	ND		
1,2,4-Trimethylbenzene	0.33	0.50	ND		
sec-Butyl Benzene	0.24	0.50	ND		
p-Isopropyltoluene	0.25	0.50	ND		
1,3-Dichlorobenzene	0.31	0.50	ND		
1,4-Dichlorobenzene	0.37	0.50	ND		
n-Butylbenzene	0.32	0.50	ND		
1,2-Dichlorobenzene	0.39	0.50	ND		
1,2-Dibromo-3-Chloropropane	0.45	1.0	ND		
Hexachlorobutadiene	0.22	0.50	ND		
1,2,4-Trichlorobenzene	0.48	1.0	ND		
Naphthalene	0.57	1.0	ND		
1,2,3-Trichlorobenzene	0.52	1.0	ND		
(S) Dibromofluoromethane			89.9 %		
(S) Toluene-d8			86.5 %		
(S) 4-Bromofluorobenzene			95.2 %		



MB Summary Report

Work Order:	1006103	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Water	Analytical Method:	8260TPH	Analyzed Date:	06/18/10	Analytical Batch:	401297
Units:	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
TPH(Gasoline)	22	50	ND	
(S) 4-Bromofluorobenzene			59.1 %	



LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1006103	Prep Method:	3510_TPH	Prep Date:	06/15/10	Prep Batch:	0581
Matrix:	Water	Analytical Method:	SW8015B	Analyzed Date:	06/15/10	Analytical Batch:	401241
Units:	mg/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel	0.029	0.10	0.00	1	86.2	90.7	5.07	46.2 - 109	30	
Pentacosane (S)			0.00	100	98.1	103		53.3 - 124		

Work Order:	1006103	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Water	Analytical Method:	SW8260B	Analyzed Date:	06/17/10	Analytical Batch:	401289
Units:	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.29	0.50	0.00	17.04	114	101	12.2	61.4 - 129	30	
Benzene	0.33	0.50	0.00	17.04	116	114	1.73	66.9 - 140	30	
Trichloroethylene	0.38	0.50	0.00	17.04	101	99.9	0.469	69.3 - 144	30	
Toluene	0.19	0.50	0.00	17.04	117	106	9.92	76.6 - 123	30	
Chlorobenzene	0.14	0.50	0.00	17.04	119	110	8.37	73.9 - 137	30	
(S) Dibromofluoromethane			0.00	11.36	91.5	111		61.2 - 131		
(S) Toluene-d8			0.00	11.36	83.4	98.2		75.1 - 127		
(S) 4-Bromofluorobenzene			0.00	11.36	93.7	81.7		64.1 - 120		

Work Order:	1006103	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Water	Analytical Method:	8260TPH	Analyzed Date:	06/17/10	Analytical Batch:	401293
Units:	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH(Gasoline)	22	50	0.00	227.27	111	112	0.212	52.4 - 127	30	
(S) 4-Bromofluorobenzene			69.9	11.36	83.0	91.5		58.4 - 133		



LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1006103	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Water	Analytical Method:	SW8260B	Analyzed Date:	06/18/10	Analytical Batch:	401296
Units:	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.29	0.50	0.00	17.04	85.4	78.9	8.20	61.4 - 129	30	
Benzene	0.33	0.50	0.00	17.04	99.1	90.0	9.68	66.9 - 140	30	
Trichloroethylene	0.38	0.50	0.00	17.04	95.2	93.1	2.12	69.3 - 144	30	
Toluene	0.19	0.50	0.24	17.04	104	93.7	10.8	76.6 - 123	30	
Chlorobenzene	0.14	0.50	0.00	17.04	108	94.0	13.8	73.9 - 137	30	
(S) Dibromofluoromethane			0.00	11.36	91.5	79.8		61.2 - 131		
(S) Toluene-d8			0.00	11.36	89.8	83.5		75.1 - 127		
(S) 4-Bromofluorobenzene			0.00	11.36	85.1	81.7		64.1 - 120		

Work Order:	1006103	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Water	Analytical Method:	8260TPH	Analyzed Date:	06/18/10	Analytical Batch:	401297
Units:	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH(Gasoline)	22	50	0.00	227.27	112	113	0.191	52.4 - 127	30	
(S) 4-Bromofluorobenzene			59.1	11.36	101	68.7		58.4 - 133		



Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit (PQL) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - mg/L and mg/Kg (equivalent to PPM - parts per million in liquid and solid), ug/L and ug/Kg (equivalent to PPB - parts per billion in liquid and solid), ug/m³ , mg.m³ , ppbv and ppmv (all units of measure for reporting concentrations in air), % (equivalent to 10000 ppm or 1,000,000 ppb), ug/Wipe (concentration found on the surface of a single Wipe usually taken over a 100cm ² surface)

LABORATORY QUALIFIERS:

<p>B - Indicates when the analyte is found in the associated method or preparation blank</p> <p>D - Surrogate is not recoverable due to the necessary dilution of the sample</p> <p>E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.</p> <p>H- Indicates that the recommended holding time for the analyte or compound has been exceeded</p> <p>J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative</p> <p>NA - Not Analyzed</p> <p>N/A - Not Applicable</p> <p>NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added</p> <p>R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts</p> <p>S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative</p> <p>X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.</p>



Sample Receipt Checklist

Client Name: ECM Group

Date and Time Received: 6/14/2010 16:15

Project Name: 5427 Telegraph, Oakland, CA

Received By: NG

Work Order No.: 1006103

Physically Logged By: NG

Checklist Completed By: NG

Carrier Name: Gold Bullet Courier

Chain of Custody (COC) Information

Chain of custody present? Yes

Chain of custody signed when relinquished and received? Yes

Chain of custody agrees with sample labels? Yes

Custody seals intact on sample bottles? Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler? Not Present

Shipping Container/Cooler In Good Condition? Yes

Samples in proper container/bottle? Yes

Samples containers intact? Yes

Sufficient sample volume for indicated test? Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes

Container/Temp Blank temperature in compliance? Yes Temperature: 6 °C

Water-VOA vials have zero headspace? Yes

Water-pH acceptable upon receipt?

pH Checked by: pH Adjusted by:



Login Summary Report

Client ID: TL5158 ECM Group
Project Name: 5427 Telegraph, Oakland, CA
Project # : 07-181-04
Report Due Date: 6/21/2010

QC Level:
TAT Requested: 5+ day:0
Date Received: 6/14/2010
Time Received: 16:15

Comments: 5 day TAT!!! Recv'd 4 groundwaters for TPHg ; BTEX :Fuel Oxygenates; Lead Scavengers and Stoddard Solvent.Pls. email an EDF result to rguptel@ecmgrp.com.

Work Order # : **1006103**

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
1006103-001A	MW-1	06/09/10 12:04	Water	07/29/10			EDF W_8260PetWHA TEPHMaster_W W_GCMS-GRO	
Sample Note: TPHg,BTEX,5oxys,lead scavengers, Stoddard solvent for all samples.								
1006103-001A4.4 x	MW-1	06/09/10 12:04	Water	07/29/10				
1006103-002A	MW-2	06/09/10 14:26	Water	07/29/10			W_8260PetWHA W_8260PetWHA W_GCMS-GRO TEPHMaster_W	
1006103-002A8.8 x	MW-2	06/09/10 14:26	Water	07/29/10				
1006103-003A	MW-3	06/09/10 13:48	Water	07/29/10			W_8260PetWHA W_GCMS-GRO TEPHMaster_W	
1006103-003A4.4 x	MW-3	06/09/10 13:48	Water	07/29/10				
1006103-004A	MW-5	06/09/10 10:47	Water	07/29/10			W_8260PetWHA W_GCMS-GRO W_8260PetWHA TEPHMaster_W	
1006103-004A4.4 x	MW-5	06/09/10 10:47	Water	07/29/10				
							W_8260PetWHA	



483 Sinclair Frontage Road
 Milpitas, CA 95035
 Phone: 408.263.5258
 FAX: 408.263.8293
 www.torrentlab.com

CHAIN OF CUSTODY

LAB WORK ORDER NO

1006103

NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY

Company Name: **ECM** Location of Sampling: **5427 Telegraph, Oakland, CA**
 Address: **PO Box 802** Purpose:
 City: **Benicia** State: **CA** Zip Code: **94610** Special Instructions / Comments: **Bill direct to client**
 Telephone: **707 751 0655** FAX: **707 751 0653**
 REPORT TO: **Rachel Gupta** SAMPLER: **Zach Barbane** P.O. #: **07-181-04** EMAIL: **rguptel@ecmgrp.com**

TURNAROUND TIME:

- 10 Work Days
- 7 Work Days
- 5 Work Days
- 3 Work Days
- 2 Work Days
- 1 Work Day
- Noon - Nxt Day
- 2-8 Hours
- Other

SAMPLE TYPE:

- Storm Water
- Waste Water
- Ground Water
- Soil
- Air
- Other

REPORT FORMAT:

- QC Level IV
- EDF
- Excel / EDD

ANALYSIS REQUESTED

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	TPH (G)	BTEX	6 OXY	Standard solvent	Lead scavengers	REMARKS
001A	MW-1	6/9/10 1204		5	4x40ml Vial 1x20ml vial	X	X	X	X	X	
002A	MW-2	1426									
003A	MW-3	1348									
004A	MW-5	1647									

1	Relinquished By: Zach Barbane Print: Zach Barbane	Date: 6/14/10	Time: 11:39	Received By: M. Vasquez Print: M. Vasquez	Date: 6/14/10	Time: 11:39
2	Relinquished By: M. Vasquez Print: M. Vasquez	Date: 6/14/10	Time: 16:15	Received By: M. Ghadassara Print: MAYIN G	Date: 6-14-10	Time: 16:15

Were Samples Received in Good Condition? Yes NO Samples on Ice? Yes NO Method of Shipment **Gold Bullet** Sample seals intact? Yes NO N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made.

Log In By: _____ Date: _____ Log In Reviewed By: _____ Date: _____ Page _____ of _____



ECM Group
290 West Channel
Benicia, California 94510
Tel: 707-751-0655
Fax: 707-751-0653
Email: rguptel@ecmgrp.com
RE: 5427 Telegraph, Oakland

Work Order No.: 1006110

Dear Rachel Guptel:

Torrent Laboratory, Inc. received 1 sample(s) on June 15, 2010 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

Patti Sandrock

June 22, 2010

Date



Date: 6/22/2010

Client: ECM Group

Project: 5427 Telegraph, Oakland

Work Order: 1006110

CASE NARRATIVE

No issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.



Sample Result Summary

Report prepared for: Rachel Guptel
ECM Group

Date Received: 06/15/10

Date Reported: 06/22/10

MW-4

1006110-001A

<u>Parameters:</u>	<u>Analysis Method</u>	<u>DF</u>	<u>MDL</u>	<u>PQL</u>	<u>Results</u>	<u>Unit</u>
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All compounds were non-detectable for this sample.



SAMPLE RESULTS

Report prepared for: Rachel Gupta
ECM Group

Date Received: 06/15/10
Date Reported: 06/22/10

Client Sample ID:	MW-4	Lab Sample ID:	1006110-001A
Project Name/Location:	5427 Telegraph, Oakland	Sample Matrix:	Groundwater
Project Number:			
Date/Time Sampled:	06/13/10 / 13:10		
Tag Number:	5427		

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Stoddard	SW8015B	6/18/10	06/18/10	1	0.0287	0.10	ND		mg/L	401291	0603
Pentacosane (S)	SW8015B	6/18/10	06/18/10	1	53.3	124	93.3		%	401291	0603

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Benzene	SW8260B	NA	06/18/10	1	0.33	0.50	ND		ug/L	401296	NA
Toluene	SW8260B	NA	06/18/10	1	0.19	0.50	ND		ug/L	401296	NA
Ethyl Benzene	SW8260B	NA	06/18/10	1	0.15	0.50	ND		ug/L	401296	NA
m,p-Xylene	SW8260B	NA	06/18/10	1	0.20	1.0	ND		ug/L	401296	NA
o-Xylene	SW8260B	NA	06/18/10	1	0.13	0.50	ND		ug/L	401296	NA
MTBE	SW8260B	NA	06/18/10	1	0.38	0.50	ND		ug/L	401296	NA
Diisopropyl ether (DIPE)	SW8260B	NA	06/18/10	1	0.36	0.50	ND		ug/L	401296	NA
ETBE	SW8260B	NA	06/18/10	1	0.40	0.50	ND		ug/L	401296	NA
TAME	SW8260B	NA	06/18/10	1	0.32	0.50	ND		ug/L	401296	NA
tert-Butanol	SW8260B	NA	06/18/10	1	1.5	5.0	ND		ug/L	401296	NA
1,2-Dichloroethane	SW8260B	NA	06/18/10	1	0.28	0.50	ND		ug/L	401296	NA
1,2-Dibromoethane	SW8260B	NA	06/18/10	1	0.19	0.50	ND		ug/L	401296	NA
(S) Dibromofluoromethane	SW8260B	NA	06/18/10	1	61.2	131	70.8		%	401296	NA
(S) Toluene-d8	SW8260B	NA	06/18/10	1	75.1	127	104		%	401296	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	06/18/10	1	64.1	120	92.8		%	401296	NA

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH(Gasoline)	8260TPH	NA	06/18/10	1	22	50	ND		ug/L	401297	NA
(S) 4-Bromofluorobenzene	8260TPH	NA	06/18/10	1	58.4	133	63.9		%	401297	NA



MB Summary Report

Work Order:	1006110	Prep Method:	3510_TPH	Prep Date:	06/18/10	Prep Batch:	0603
Matrix:	Water	Analytical Method:	SW8015B	Analyzed Date:	06/18/10	Analytical Batch:	401291
Units:	mg/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier
DRO	0.0287	0.10	ND	
TPH as Bunker Oil	0.0920	0.20	ND	
TPH as Cutting Oil	0.0920	0.20	ND	
TPH as Diesel	0.0287	0.10	ND	
TPH as Heating Oil	0.0920	0.20	ND	
TPH as Hydraulic Oil	0.0920	0.20	ND	
TPH as Jet A	0.0287	0.10	ND	
TPH as Jet Fuel	0.0287	0.10	ND	
TPH as JP-4	0.0287	0.10	ND	
TPH as JP-5	0.0287	0.10	ND	
TPH as JP-7	0.0287	0.10	ND	
TPH as JP-8	0.0287	0.10	ND	
TPH as Kerosene	0.0287	0.10	ND	
TPH as Mineral Oil	0.0287	0.10	ND	
TPH as Motor Oil	0.0920	0.20	ND	
TPH as Naphtha	0.0287	0.10	ND	
TPH as Oil	0.0920	0.20	ND	
TPH as Stoddard	0.0287	0.10	ND	
TPH as Transformer Oil	0.0920	0.20	ND	
Pentacosane (S)			89.2	



MB Summary Report

Work Order:	1006110	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Water	Analytical Method:	SW8260B	Analyzed Date:	06/18/10	Analytical Batch:	401296
Units:	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
Dichlorodifluoromethane	0.41	0.50	ND		
Chloromethane	0.41	0.50	ND		
Vinyl Chloride	0.37	0.50	ND		
Bromomethane	0.37	0.50	ND		
Trichlorofluoromethane	0.34	0.50	ND		
1,1-Dichloroethene	0.29	0.50	ND		
Freon 113	0.38	0.50	ND		
Methylene Chloride	0.18	5.0	ND		
trans-1,2-Dichloroethene	0.31	0.50	ND		
MTBE	0.38	0.50	ND		
tert-Butanol	1.5	5.0	ND		
Diisopropyl ether (DIPE)	0.36	0.50	ND		
1,1-Dichloroethane	0.28	0.50	ND		
ETBE	0.40	0.50	ND		
cis-1,2-Dichloroethene	0.33	0.50	ND		
2,2-Dichloropropane	0.37	0.50	ND		
Bromochloromethane	0.34	0.50	ND		
Chloroform	0.29	0.50	ND		
Carbon Tetrachloride	0.26	0.50	ND		
1,1,1-Trichloroethane	0.32	0.50	ND		
1,1-Dichloropropene	0.40	0.50	ND		
Benzene	0.33	0.50	ND		
TAME	0.32	0.50	ND		
1,2-Dichloroethane	0.28	0.50	ND		
Trichloroethylene	0.38	0.50	ND		
Dibromomethane	0.21	0.50	ND		
1,2-Dichloropropane	0.37	0.50	ND		
Bromodichloromethane	0.23	0.50	ND		
2-Chloroethyl vinyl ether	0.91	2.0	ND		
cis-1,3-Dichloropropene	0.30	0.50	ND		
Toluene	0.19	0.50	ND		
Tetrachloroethylene	0.15	0.50	ND		
trans-1,3-Dichloropropene	0.20	0.50	ND		
1,1,2-Trichloroethane	0.20	0.50	ND		
Dibromochloromethane	0.21	0.50	ND		
1,3-Dichloropropane	0.18	0.50	ND		
1,2-Dibromoethane	0.19	0.50	ND		
Chlorobenzene	0.14	0.50	ND		
Ethyl Benzene	0.15	0.50	ND		
1,1,1,2-Tetrachloroethane	0.10	0.50	ND		
m,p-Xylene	0.20	1.0	ND		



MB Summary Report

Work Order:	1006110	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Water	Analytical Method:	SW8260B	Analyzed Date:	06/18/10	Analytical Batch:	401296
Units:	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
o-Xylene	0.13	0.50	ND		
Styrene	0.20	0.50	ND		
Bromoform	0.45	1.0	ND		
Isopropyl Benzene	0.28	0.50	ND		
Bromobenzene	0.39	0.50	ND		
1,1,2,2-Tetrachloroethane	0.26	0.50	ND		
n-Propylbenzene	0.30	0.50	ND		
2-Chlorotoluene	0.33	0.50	ND		
1,3,5-Trimethylbenzene	0.20	0.50	ND		
4-Chlorotoluene	0.32	0.50	ND		
tert-Butylbenzene	0.29	0.50	ND		
1,2,3-Trichloropropane	0.59	1.0	ND		
1,2,4-Trimethylbenzene	0.33	0.50	ND		
sec-Butyl Benzene	0.24	0.50	ND		
p-Isopropyltoluene	0.25	0.50	ND		
1,3-Dichlorobenzene	0.31	0.50	ND		
1,4-Dichlorobenzene	0.37	0.50	ND		
n-Butylbenzene	0.32	0.50	ND		
1,2-Dichlorobenzene	0.39	0.50	ND		
1,2-Dibromo-3-Chloropropane	0.45	1.0	ND		
Hexachlorobutadiene	0.22	0.50	ND		
1,2,4-Trichlorobenzene	0.48	1.0	ND		
Naphthalene	0.57	1.0	ND		
1,2,3-Trichlorobenzene	0.52	1.0	ND		
(S) Dibromofluoromethane			89.9		
(S) Toluene-d8			86.5		
(S) 4-Bromofluorobenzene			95.2		

Work Order:	1006110	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Water	Analytical Method:	8260TPH	Analyzed Date:	06/18/10	Analytical Batch:	401297
Units:	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
TPH(Gasoline)	22	50	ND		
(S) 4-Bromofluorobenzene			59.1		



LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1006110	Prep Method:	3510_TPH	Prep Date:	06/18/10	Prep Batch:	0603
Matrix:	Water	Analytical Method:	SW8015B	Analyzed Date:	06/18/10	Analytical Batch:	401291
Units:	mg/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel	0.029	0.10		1	88.1	86.3	2.02	46.2 - 109	30	
Pentacosane (S)				100	118	111		53.3 - 124		

Work Order:	1006110	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Water	Analytical Method:	SW8260B	Analyzed Date:	06/18/10	Analytical Batch:	401296
Units:	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	0.29	0.50		17.04	85.4	78.9	8.20	61.4 - 129	30	
Benzene	0.33	0.50		17.04	99.1	90.0	9.68	66.9 - 140	30	
Trichloroethylene	0.38	0.50		17.04	95.2	93.1	2.12	69.3 - 144	30	
Toluene	0.19	0.50		17.04	104	93.7	10.8	76.6 - 123	30	
Chlorobenzene	0.14	0.50		17.04	108	94.0	13.8	73.9 - 137	30	
(S) Dibromofluoromethane				11.36	91.5	79.8		61.2 - 131		
(S) Toluene-d8				11.36	89.8	83.5		75.1 - 127		
(S) 4-Bromofluorobenzene				11.36	85.1	81.7		64.1 - 120		

Work Order:	1006110	Prep Method:	NA	Prep Date:	NA	Prep Batch:	NA
Matrix:	Water	Analytical Method:	8260TPH	Analyzed Date:	06/18/10	Analytical Batch:	401297
Units:	ug/L						

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH(Gasoline)	22	50		227.27	112	113	0.191	52.4 - 127	30	
(S) 4-Bromofluorobenzene				11.36	101	68.7		58.4 - 133		



Laboratory Qualifiers and Definitions

DEFINITIONS:

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.
Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.
Duplicate - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)
Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.
Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)
Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.
Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero
Practical Quantitation Limit (PQL) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.
Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates
Surrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis
Tentatively Identified Compound (TIC) - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TICs are reported as estimates and are candidates for further investigation.
Units: the unit of measure used to express the reported result - mg/L and mg/Kg (equivalent to PPM - parts per million in liquid and solid), ug/L and ug/Kg (equivalent to PPB - parts per billion in liquid and solid), ug/m3 , mg.m3 , ppbv and ppmv (all units of measure for reporting concentrations in air), % (equivalent to 10000 ppm or 1,000,000 ppb), ug/Wipe (concentration found on the surface of a single Wipe usually taken over a 100cm2 surface)

LABORATORY QUALIFIERS:

<p>B - Indicates when the analyte is found in the associated method or preparation blank</p> <p>D - Surrogate is not recoverable due to the necessary dilution of the sample</p> <p>E - Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.</p> <p>H- Indicates that the recommended holding time for the analyte or compound has been exceeded</p> <p>J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative</p> <p>NA - Not Analyzed</p> <p>N/A - Not Applicable</p> <p>NR - Not recoverable - a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added</p> <p>R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts</p> <p>S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case narrative</p> <p>X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.</p>



Sample Receipt Checklist

Client Name: ECM Group

Date and Time Received: 6/15/2010 13:17

Project Name: 5427 Telegraph, Oakland

Received By: NG

Work Order No.: 1006110

Physically Logged By: NG

Checklist Completed By: NG

Carrier Name: Gold Bullet Courier

Chain of Custody (COC) Information

Chain of custody present? Yes
Chain of custody signed when relinquished and received? Yes
Chain of custody agrees with sample labels? Yes
Custody seals intact on sample bottles? Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler? Not Present
Shipping Container/Cooler In Good Condition? Yes
Samples in proper container/bottle? Yes
Samples containers intact? Yes
Sufficient sample volume for indicated test? Yes

Sample Preservation and Hold Time (HT) Information

All samples received within holding time? Yes
Container/Temp Blank temperature in compliance? Yes Temperature: 4 °C
Water-VOA vials have zero headspace? Yes
Water-pH acceptable upon receipt?

pH Checked by:

pH Adjusted by:



Login Summary Report

Client ID:	TL5158	ECM Group	QC Level:
Project Name:	5427 Telegraph, Oakland		TAT Requested: 5+ day:0
Project # :			Date Received: 6/15/2010
Report Due Date:	6/22/2010		Time Received: 13:17
Comments:	5 day TAT!!! Recv'd 1 groundwater for TPHg; BTEX ;Fuel Oxygenates Lead Scavenger and Stoddard Solvent.Pls. email to rguptel@ecmgrp.com.		
Work Order # :	1006110		

<u>WO Sample ID</u>	<u>Client Sample ID</u>	<u>Collection Date/Time</u>	<u>Matrix</u>	<u>Scheduled Disposal</u>	<u>Sample On Hold</u>	<u>Test On Hold</u>	<u>Requested Tests</u>	<u>Subbed</u>
1006110-001A	MW-4	06/13/10 13:10	Water	07/30/10			TEPHMaster_W W_GCMS-GRO W_8260PetWHA	

Sample Note: TPHg,BTEX,Oxys,Lead scav, Stoddard solvent.

483 Sinclair Frontage Road
Milpitas, CA 95035
Phone: 408.263.5258
FAX: 408.263.8293
www.torrentlab.com

RESET

CHAIN OF CUSTODY

LAB WORK ORDER NO
1006110

NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONLY



Company Name: ECM Group Location of Sampling: 5427 Telegraph, Oakland
Address: P.O. Box 802 Purpose:
City: Benicia State: CA Zip Code: 94510 Special Instructions / Comments: Bill direct to client
Telephone: (707) 751-0655 FAX: (707) 751-0653
REPORT TO: Rachel Guptael SAMPLER: Zach Barbare P.O. #: 07-181-04 EMAIL: rguptel@ecmgrp.com

TURNAROUND TIME: 10 Work Days 3 Work Days Noon - Nxt Day
 7 Work Days 2 Work Days 2 - 8 Hours
 5 Work Days 1 Work Day Other

SAMPLE TYPE: Storm Water Air QC Level IV
 Waste Water Other EDF
 Ground Water Excel / EDD
 Soil

REPORT FORMAT:
TPH (G) BTEX 5 OXY Lead scavengers Standard solvent

ANALYSIS REQUESTED

LAB ID	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	TPH (G)	BTEX	5 OXY	Lead scavengers	Standard solvent	REMARKS
001A	MW-4	6/13/10 1310	Ground water	5	4x 40ml 1x 1L Amber	X	X	X	X	X	

1 Relinquished By: Zach Barbare Print: Zach Barbare Date: 6/15/10 Time: 10:10 Received By: M. Casquez Print: M. Casquez Date: 6/15/10 Time: 10:10

2 Relinquished By: M. Casquez Print: M. Casquez Date: 6/15/10 Time: 13:17 Received By: M. G. Shodasara Print: M. G. Shodasara Date: 6-15-10 Time: 13:17

Were Samples Received in Good Condition? Yes NO Samples on Ice? Yes NO Method of Shipment: Gold Bullet Sample seals intact? Yes NO N/A

NOTE: Samples are discarded by the laboratory 30 days from date of receipt unless other arrangements are made. Page 1 of 1

Log In By: _____ Date: _____ Log In Reviewed By: _____ Date: _____

APPENDIX D

SOIL CLASSIFICATION SYSTEM CHART and BORING LOGS

50% or More Fines

50% or More Fines	Low-Plasticity Clay	CL	<30% sand & gravel	<15% sand & gravel		Lean CLAY
				15-25% sand & gravel	% sand \$ % gravel	Lean CLAY with Sand
			\$ 30% sand & gravel	% sand \$ % gravel	<15% gravel	Sandy lean CLAY
					\$15% gravel	Sandy lean CLAY with Gravel
				% sand < % gravel	<15% sand	Gravelly lean CLAY
					\$15% sand	Gravelly lean CLAY with Sand
	Low-Permeability Silt	ML	<30% sand & gravel	>15% sand & gravel		SILT
				15-25% sand & gravel	% sand \$ % gravel	SILT with Sand
			\$ 30% sand & gravel	% sand \$ % gravel	<15% gravel	Sandy SILT
					\$15% gravel	Sandy SILT with Gravel
				% sand < % gravel	<15% sand	Gravelly SILT
					\$15% sand	Gravelly SILT with Sand
	Plastic Clay	CH	<30% sand & gravel	<15% sand & gravel		Fat CLAY
				15-25% sand & gravel	% sand \$ % gravel	Fat CLAY with Sand
			\$ 30% sand & gravel	% sand \$ % gravel	% sand < % gravel	Fat CLAY with Gravel
					<15% gravel	Sandy fat CLAY
				% sand < % gravel	\$15% gravel	Sandy fat CLAY with Gravel
					<15% sand	Gravelly fat CLAY
	\$15% sand	Gravelly fat CLAY with Sand				
	Plastic Silt	MH	<30% sand & gravel	<15% sand & gravel		Elastic SILT
				15-25% sand & gravel	% sand \$ % gravel	Elastic SILT with Sand
			\$ 30% sand & gravel	% sand \$ % gravel	% sand < % gravel	Elastic SILT with Gravel
					<15% gravel	Sandy elastic SILT
				% sand < % gravel	\$15% gravel	Sandy elastic SILT with Gravel
<15% sand					Gravelly elastic SILT	
\$15% sand	Gravelly elastic SILT with Sand					
Organics (Peat or Bay Mud)	OL/OH	<30% sand & gravel	<15% sand & gravel		Organic SOIL	
			15-25% sand & gravel	% sand \$ % gravel	Organic SOIL with Sand	
		\$ 30% sand & gravel	% sand \$ % gravel	% sand < % gravel	Organic SOIL with Gravel	
				<15% gravel	Sandy Organic SOIL	
			% sand < % gravel	\$15% gravel	Sandy Organic SOIL with Gravel	
				<15% sand	Gravelly Organic SOIL	
\$15% sand	Gravelly Organic SOIL with Sand					

>50% Sand & Gravel	GRAVEL % gravel > % sand	#5% fines	Well-graded		GW	<15% sand	Well-graded GRAVEL
						\$15% sand	Well-graded GRAVEL with Sand
			Poorly graded		GP	<15% sand	Poorly graded GRAVEL
						\$15% sand	Poorly graded GRAVEL with Sand
		10% fines	Well -graded	fines=ML or MH	GW-GM	<15% sand	Well-graded GRAVEL with Silt
						\$15% sand	Well-graded GRAVEL with Silt and Sand
				fines=CL or CH	GW-GC	<15% sand	Well-graded GRAVEL with Clay
						\$15% sand	Well-graded GRAVEL with Clay and Sand
			Poorly graded	fines=ML or MH	GP-GM	<15% sand	Poorly graded GRAVEL with Silt
						\$15% sand	Poorly graded GRAVEL with Silt and Sand
				fines=CL or CH	GP-GC	<15% sand	Poorly graded GRAVEL with Clay
						\$15% sand	Poorly graded GRAVEL with Clay and Sand
		\$15% fines		fines=ML or MH	GM	<15% sand	Silty GRAVEL
						\$15% sand	Silty GRAVEL with Sand
				fines=CL or CH	GC	<15% sand	Clayey GRAVEL
						\$15% sand	Clayey GRAVEL with Sand
>50% Sand & Gravel	SAND % sand \$ % gravel	#5% fines	Well-graded		SW	<15% gravel	Well-graded SAND
						\$15% gravel	Well-graded SAND with Gravel
			Poorly graded		SP	<15% gravel	Poorly graded SAND
						\$15% gravel	Poorly graded SAND with Gravel
		10% fines	Well-graded	fines=ML or MH	SW-SM	<15% gravel	Well-graded SAND with Silt
						\$15% gravel	Well-graded SAND with Silt and Gravel
				fines = CL or CH	SW-SC	<15% gravel	Well-graded SAND with Clay
						\$15% gravel	Well-graded SAND with Clay and Gravel
			Poorly graded	fines = ML or MH	SP-SM	<15% gravel	Poorly graded SAND with Silt
						\$15% gravel	Poorly graded SAND with Silt and Gravel
				fines=CL or CH	SP-SC	<15% gravel	Poorly graded SAND with Clay
						\$15% gravel	Poorly graded SAND with Clay and Gravel
		\$15% fines		fines = ML or MH	SM	<15% gravel	Silty SAND
						\$15% gravel	Silty SAND with Gravel
				fines=CL or CH	SC	<15% gravel	Clayey SAND
						\$15% gravel	Clayey SAND with Gravel

Project No.: 07-181-10

Boring No.: B-31

Depth (feet)	OVM data (ppm)	Sample interval	Recovery	Initial water level	ASTM symbol	Description
0						Asphalt surface. Hand auger to 5'.
1						
2						
3						
4						
5						
6	155				CL	Lean CLAY: gray; moist; 75% clay, 15% silt, 10% sand; very low estimated permeability.
7						
8						
9						
10	176				CL	Lean CLAY: gray; saturated; 75% clay, 15% silt, 10% sand; very low estimated permeability.
11						
12						
13						
14						
15	146				CL	Lean CLAY: gray mottled with tan; saturated; 75% clay, 15% silt, 10% sand; very low estimated permeability; slight odor.
16						
17						
18						
19						
20						

Logged by: Jim Green
 Drilling company: Gregg
 Drill date: 4/12/10
 Installation method: hydraulic push
 Sampler type: continuous

Project No.: 07-181-10

Boring No.: B-31

Depth (feet)	OVM data (ppm)	Sample interval	Recovery	Initial water level	ASTM symbol	Description
20	0	X			CL	Lean CLAY: tan; 75% clay, 15% silt, 10% sand; very low estimated permeability.
21						
22						
23						
24						Grades to:
25					SM	Silty SAND: tan; 85% fine sand, 15% silt; moderate to high estimated permeability.
26	16	X				
27					CL	Lean CLAY with Sand: brown; 60% clay, 20% silt, 20% fine sand; low estimated permeability.
28						
29					ML	Sandy SILT with Gravel: brown; 10% clay, 50% silt, 20% sand, 20% subangular gravel to 3/4", low estimated permeability. Sandy SILT: reddish-brown; 30% clay, 35% silt, 35% fine to very coarse sand; low estimated permeability.
30					ML	
31	78	X				
32						
33						
34					CL	Lean CLAY with Sand: reddish-brown; hard; 60% clay, 20% silt, 20% fine sand; very low estimated permeability.
35						
36	35	X				Refusal at 36'.
37						
38						
39						
40						

Project No.: 07-181-10
Well / Boring No.: MW-4

Depth (feet)	OVM data (ppm)	Sample interval	Recovery	Depth to water	Casing type	Annular material	ASTM symbol	Description
0								Asphalt surface. Hand auger to 5'.
1						GROUT		
2								
3								
4						BENTONITE		
5				▽				
6	0	X	X				CL	Lean CLAY with Sand: dark brown; moist; 60% clay, 20% silt, 20% sand; very low estimated permeability.
7								
8								
9								
10								
11	0	X	X				CL	Lean CLAY with Sand: tan; saturated; hard; 70% clay, 15% silt, 15% sand; very low estimated permeability.
12								
13								
14								
15								
16	0	X	X				CL	Lean CLAY with Sand: tan; hard; 70% clay, 15% silt, 15% sand; very low estimated permeability.
17								
18								
19	0	X	X				CL	Sandy Lean CLAY: 35% clay, 20% silt, 45% fine to very coarse sand
20								

Logged by: Jim Green
 Drilling company: Gregg
 Drill date: 4/12/10
 Installation method: hollow-stem
 Sampler type: split-stem
 Auger size: 8"
 Casing: 2" schedule 40 pvc

Grout interval: 0'-3'
 Bentonite seal interval: 3'-4'
 Sand interval: 4'-20'
 Screened interval: 5'-20'
 Depth to water: 5.12'

Project No.: 07-181-10
Well / Boring No.: MW-5

Depth (feet)	OVM data (ppm)	Sample interval	Recovery	Depth to water	Casing type	Annular material	ASTM symbol	Description
0								Asphalt surface. Hand auger to 5'.
1						GROUT		
2								
3								
4						BENTONITE		
5	0		X				CL	Lean CLAY with Sand: dark brown; moist; 60% clay, 20% silt, 20% sand; very low estimated permeability.
6								
7								
8								
9								
10								
11	0	X	X				CL	Lean CLAY with Sand: tan; saturated; 60% clay, 20% silt, 20% sand; very low estimated permeability.
12								
13								
14								
15	0		X					
16								
17								
18								
19								
20								

Logged by: Jim Green
 Drilling company: Gregg
 Drill date: 4/13/10
 Installation method: hollow-stem
 Sampler type: split-stem
 Auger size: 8"
 Casing: 2" schedule 40 pvc

Grout interval: 0'-3'
 Bentonite seal interval: 3'-4'
 Sand interval: 4'-20'
 Screened interval: 5'-20'
 Depth to water: 4.58'

APPENDIX E
FIELD NOTES

WELL DEVELOPMENT / WATER MONITORING DATA

PROJECT NAME & NUMBER: 07-181-¹⁰~~05~~ Telegraph
 By: Telegraph ZB

Well ID: MW-5
 Date: 4/19/10

Time	Depth to Water (ft)	Depth to Product (ft)	Surged	Balled	Pumped	Gallons removed	Temp. (F)	pH	EC (umhos)	Comments: (color, odor, product, est flow rate)
Start: 0905	0905 ^{4.58}		X							
Stop: 0920	0920									
Start: 0920	0920			X			63.6	7.01	1650	
Stop: 0925	0925					5	63.5	6.96	1667	
Start: 0925	0925 ^{4.43}		X							
Stop: 0940	0940									
Start: 0940	0940			X			64.7	7.03	1632	
Stop: 0945	0945						64.2	7.01	1758	
Start: 0945	0945 ^{5.28}		X							
Stop: 1000	1000									
Start: 1000	1000			X			63.0	6.83	1321	
Stop: 1010	1010						62.9	6.79	1345	

WELL DEVELOPMENT SUMMARY

Depth to Water Before Development: 4.58
 Depth to Water After Development: 6.33
 Sounded Depth Before Development: 19.46
 Sounded Depth After Development: 19.38

Development Method: _____
 Total Pumping Time (min): _____
 Total Amount Excavated (gals): _____

Average Pumping Rate (gpm): _____
 Pumping Rate Range (gpm): _____
 Total H2O Injected (gals): _____

WELL DEVELOPMENT/ WATER MONITORING DATA

PROJECT NAME & NUMBER: 07-181-10 Telegraph
 By: ZB

Well ID: MW-5
 Date: 4-19-10

Time	Depth to Water (ft)	Depth to Product (ft)	Surged	Bailed	Pumped	Gallons removed	Temp. (F)	pH	EC (umhos)	Comments: (color, odor, product, est flow rate)
Start: 1015	5.63		X							
Stop: 1030										
Start: 1030				X			64.2	6.97	1173	
Stop: 1040						5	63.2	6.84	1227	
Start: 1040	5.98		X							
Stop: 1055										
Start: 1055				X			65.0	7.01	1061	
Stop: 1105							64.4	6.89	1122	
Start:										
Stop:										
Start:										
Stop:										

WELL DEVELOPMENT SUMMARY

Depth to Water Before Development: _____ Development Method: _____ Average Pumping Rate (gpm): _____
 Depth to Water After Development: _____ Total Pumping Time (min): _____ Pumping Rate Range (gpm): _____
 Sounded Depth Before Development: _____ Total Amount Excavated (gals): _____ Total H2O Injected (gals): _____
 Sounded Depth After Development: _____

WELL DEVELOPMENT / WATER MONITORING DATA

PROJECT NAME & NUMBER: 07-181-10 Telegraph

Well ID: 112-4

By: DW

Date: 4-19-10

Time	Depth to Water (ft)	Depth to Product (ft)	Surged	Bailed	Pumped	Gallons removed	Temp. °C	pH	EC (umhos)	Comments: (color, odor, product, est flow rate)
Start: <u>1015</u>	<u>5.12</u>		X							
Stop: <u>1030</u>										
Start: <u>1030</u>				X			<u>17.3</u>	<u>7.15</u>	<u>1194</u>	
Stop: <u>1038</u>							<u>15.6</u>	<u>7.23</u>	<u>1200</u>	
Start: <u>1040</u>	<u>7.53</u>		X							
Stop: <u>1055</u>										
Start: <u>1055</u>				X			<u>17.2</u>	<u>7.14</u>	<u>1319</u>	
Stop: <u>1105</u>							<u>17.0</u>	<u>7.16</u>	<u>1414</u>	
Start: <u>1105</u>	<u>10.40</u>		X							<u>injected 1.25 gal DI water</u>
Stop: <u>1120</u>										
Start: <u>1120</u>				X			<u>17.6</u>	<u>6.97</u>	<u>1139</u>	
Stop: <u>1125</u>							<u>17.4</u>	<u>6.99</u>	<u>1280</u>	

WELL DEVELOPMENT SUMMARY

Depth to Water Before Development: 5.12
 Depth to Water After Development: 14.80
 Sounded Depth Before Development: 20.15
 Sounded Depth After Development: 19.71

Development Method: _____
 Total Pumping Time (min): _____
 Total Amount Excavated (gals): _____

Average Pumping Rate (gpm): _____
 Pumping Rate Range (gpm): _____
 Total H2O Injected (gals): _____

WELL DEVELOPMENT/ WATER MONITORING DATA

PROJECT NAME & NUMBER: 07-181-10 Telegraph
 By: DW

Well ID: MW-4
 Date: 4-19-10

Time	Depth to Water (ft)	Depth to Product (ft)	Surged	Bailed	Pumped	Gallons removed	Temp. °C	pH	EC (umhos)	Comments: (color, odor, product, est flow rate)
Start: 1130	13.27		X							Injected 2 gal DI water
Stop: 1145										
Start: 1145				X			17.8	7.07	858	
Stop: 1150							17.3	6.94	1166	
Start: 1155	14.38		X							Injected 2 gal DI water
Stop: 1210										
Start: 1210				X			18.6	7.33	797	
Stop: 1215							17.9	7.14	1005	
Start:										
Stop:										
Start:										
Stop:										

WELL DEVELOPMENT SUMMARY

Depth to Water Before Development: _____ Development Method: _____ Average Pumping Rate (gpm): _____
 Depth to Water After Development: _____ Total Pumping Time (min): _____ Pumping Rate Range (gpm): _____
 Sounded Depth Before Development: _____ Total Amount Excavated (gals): _____ Total H2O Injected (gals): _____
 Sounded Depth After Development: _____

APPENDIX F

ECM STANDARD OPERATING PROCEDURE

ECM STANDARD OPERATING PROCEDURE

MONITORING WELL DESIGN AND CONSTRUCTION

Where possible, information from published and unpublished reports is reviewed prior to installation of monitoring wells. Relevant data includes highest and lowest anticipated ground water elevations, aquifer materials, aquifer yield and contaminants expected. This information is used to aid the field geologist rather than to predetermine how the wells will be constructed. Well construction is based on *site specific conditions* and is determined in the field after discussion with the senior geologist.

Monitoring wells are constructed with flush-threaded, 2-inch or 4-inch diameter, slotted PVC, stainless steel or teflon well screen and PVC, stainless steel or teflon blank casing. Number 3 or #212 sand is used in the annular space around the well screen. The sand is placed into the annular space around the well screen to approximately 2 feet above the top of the well screen. If high ground water conditions exist, the sand may be placed 0 to 1 foot above the top of the well screen. Two feet of bentonite pellets are used to separate the sand from the sanitary surface seal (grout). If high ground water conditions exist 1/2 foot of bentonite may be used to separate the sand from the sanitary surface seal.

The grout (Portland cement with approximately 3-5% bentonite powder) is poured into the annular space above the bentonite pellets. If the surface seal is greater than 5 feet thick, grout consisting of cement mixed with 3-5% bentonite powder will be tremied or pumped into the annular space above the bentonite pellets to prevent the infiltration of surface water into the well. If the surface seal is less than 5 feet thick, the grout will be poured from the surface. The resulting seal will be checked for shrinkage within 24 hours and additional grout will be added, if necessary. The surface seal is used to prevent infiltration of surface water into the well.

The monitoring well(s) is locked with a stovepipe or cap and covered with a traffic-rated vault if it is located in a developed area. The well ID is clearly marked on the cap or casing.

ECM STANDARD OPERATING PROCEDURE
INSTALLATION, CONSTRUCTION, AND DESTRUCTION
OF TEMPORARY SAMPLING POINTS

The following describes the procedures used by ECM field personnel to install and construct temporary sampling points (TSPs). Temporary sampling point locations are selected based on regulatory requirements and objectives of the sampling program. Prior to drilling or installation of hydraulic-pushed borings, appropriate permits are obtained and utilities are located by USA, the client, and/or an underground utility location company. All drilling/hydraulic push equipment is steam-cleaned prior to use and all sampling equipment is washed between samples using an EPA-approved detergent such as Liquinox and rinsed with potable water. The TSPs are installed by a licensed drilling contractor using hollow-stem or solid flight augers, or by using hydraulic direct-push equipment. Borings are logged under the supervision of a California-certified professional engineer or California-registered geologist.

Soil samples are collected from the borings at intervals no greater than 5 feet in steam-cleaned or new brass/stainless steel or polyvinyl tubes in accordance with ECM Standard Operating Procedure - Soil Sampling. If possible, a soil sample is collected from immediately above the saturated zone. The soil samples are logged in accordance with ECM Standard Operating Procedure - Logging Method. The soil samples are field-screened with an organic vapor meter (OVM) in accordance with ECM Standard Operating - OVM Readings.

If augers are used, the field geologist will select either solid flight or hollow-stem augers for drilling, based on field observations. Borings with walls consisting primarily of fine-grained soils that remain stable following auger retrieval may be drilled using either auger type. Loose soils observed to cave in the boring are drilled using a hollow-stem auger.

Upon reaching the targeted boring depth, typically 3 to 5 ft below the first encountered ground water,

the auger is backed out and the appropriate length of 1- inch or 2-inch diameter 0.010-inch slotted and blank PVC casing is advanced into the ground water. When using a hollow-stem auger, the casing is placed in the center of the auger and the auger is backed out. If direct push equipment is used, the direct-push equipment is retracted sufficiently to expose casing which has been advanced with the direct-push equipment.

An MMC flexi-dip interface probe is used to measure depth to water from ground surface and to check for the presence of free-phase hydrocarbons in the boring. Product thickness (if present) and depth to water are measured to the nearest 0.010 ft. A disposable or steam-cleaned teflon bailer is lowered into the casing to collect a ground water sample. The water samples are poured into the appropriate container for the analysis to be performed. Pre-preserved sample containers may be used or the analytic laboratory may add preservative to the sample upon arrival. The samples are labeled to include the project number, sample ID, date, and preservative. The samples are placed in polyethylene bags and in an ice chest (maintained at 4 degrees C with blue ice or ice) for transport under chain of custody to the laboratory.

Upon completion of ground water sample collection, the temporary casing is lifted from the borehole and the boring is filled with bentonite hole plug chips and the appropriate amount of distilled water for hydration or grouted with Portland Cement and 3 to 5 % bentonite.

ECM STANDARD OPERATING PROCEDURE
SOIL SAMPLING - HOLLOW STEM AUGER DRILLING METHOD
OR HYDRAULIC DIRECT-PUSH METHOD

The following describes sampling procedures used by ECM field personnel to collect, handle, and transport soil samples. Before samples are collected, careful consideration is given to the type of analysis to be performed so that precautions are taken to prevent loss of volatile components or contamination of the sample, and to preserve the sample for subsequent analysis.

All drilling and sampling equipment is steam-cleaned between boreholes to prevent cross-contamination. The sampler is washed with an EPA approved detergent (such as liquinox or trisodium phosphate) between sample collection. Collection methods specific to soil sampling are presented below.

Soil samples are collected at pre-specified depth intervals or at a sediment/lithologic change for hydrogeologic description and possible chemical analysis. If hydraulic direct-push methods are used, the soil sample is collected using appropriate direct-push equipment. If hollow-stem augers are used, samples are collected using a modified California split-barrel sampler lined with 2- or 2.5-inch I.D. x 4- or 6-inch long steam-cleaned or new stainless steel or brass tubes or poly-vinyl liners. The sampler is lowered into the borehole and driven 18 inches, using a 140-pound hammer falling 30 inches. The drilling contractor provides the ECM field personnel with the number of blows required to drive the sampler for each 6 inches of penetration.

The sampler is then extracted from the borehole and the middle or bottom brass tube is carefully removed for possible analysis. The soil material is immediately trimmed flush with the tube ends, and sealed with Teflon tape beneath polyethylene end caps. If the sample is to be analyzed for volatile constituents using EPA Method 8260, the soil sample is collected in accordance with EPA Method 5035. In this case, soil is immediately removed from the middle or bottom brass tube, using a syringe-type sampling device such as the Encore™ device, as described in section 6.2 of EPA

Method 5035. The sample is then labeled to include the date, boring number, depth of sample, project number, ECM, and the ECM field personnel's initials. The samples are put into a resealable plastic bag and placed into an ice chest maintained below 4°C with blue ice or dry ice, for transport under chain of custody to the laboratory. The chain-of-custody form includes the project number, analysis requested, sample ID, date analysis and the ECM field personnel's name. The form is signed, dated and timed by each person who yields or receives the samples beginning with the field personnel and ending with the laboratory personnel.

ECM STANDARD OPERATING PROCEDURE

OVM READINGS

ECM uses an organic vapor meter (OVM) to determine the presence or absence of volatile organic compounds (VOCs), including benzene, toluene, ethylbenzene, and xylenes in soil samples chosen for field screening. The OVM uses a photoionization detector (PID) and is calibrated daily to 100 parts per million of 1-liter of isobutylene. The OVM, which measures in parts per million by volume (ppmv), is used for qualitative, not quantitative, assessment because the correlation between the volume measurements of the OVM and the weight measurements of the laboratory instruments is not well defined.

A field screen sample is obtained from the brass tube immediately above or below the brass tube containing the sample selected for possible analysis. The soil to be screened is removed from the brass tube, and is placed in a pre-cleaned brass tube with aluminum foil and a polyethylene cap on one end. The brass tube is loosely filled to approximately 1/2 full. Another square of aluminum foil is placed on the open end and a polyethylene cap with crossed slits is placed over it.

The field screen sample is allowed to temperature equilibrate for approximately 15 to 30 minutes in the sun, allowing any VOCs which might be present in the soil to volatilize out into the brass tube's headspace. The OVM nozzle is then placed inside the sealed brass tube, through the slits in the cap, in order to measure the VOCs present, if any, in the headspace. The nozzle should remain inside the brass tube for approximately 15 to 30 seconds or until the maximum reading has been recorded on the OVM readout panel.

The depth from which the sample came and the corresponding OVM reading is recorded on the original field log sheet. Field observations, OVM and (odor and staining) readings are used in determining which soil samples are to be analyzed in the laboratory.

ECM STANDARD OPERATING PROCEDURE

LOGGING METHOD

Unconsolidated soil is classified and described by trained ECM field personnel. All available information is used, including the following: soil recovered in the sampler, including the soil visible on both ends of the sample retained for possible analysis; soil cuttings generated during drilling; and the drilling contractor's observations of the drill rig's behavior.

Classification and description of unconsolidated soil is accomplished using the American Society of Testing and Materials (ASTM) Methods D2487-85 (Unified Soil Classification System (USCS)) and/or D2488-69 (Description and Identification of Soils (Visual-Manual Procedure)).

The soil classification and description is recorded on the field log sheet by ECM field personnel and includes the following information:

- 1) Soil type;
- 2) Soil classification;
- 3) Soil color, including mottling;
- 4) Moisture content;
- 5) Plasticity and consistency (fine-grained material) or density (coarse-grained material);
- 6) Percentages of clay, silt, sand and gravel;
- 7) Grain size range of sands and gravels;
- 8) Angularity and largest diameter of gravel component;
- 9) Estimated permeability;
- 10) Odor; and

11) Any other observations which would assist in the interpretation of the depositional environment and/or differentiation between the various geologic units expected to be encountered.

In addition to the above, the ground water levels encountered during drilling and measured after the water stabilized is also recorded on the field log.

ECM STANDARD OPERATING PROCEDURE

MONITORING WELL DESIGN AND CONSTRUCTION

Where possible, information from published and unpublished reports is reviewed prior to installation of monitoring wells. Relevant data includes highest and lowest anticipated ground water elevations, aquifer materials, aquifer yield and contaminants expected. This information is used to aid the field geologist rather than to predetermine how the wells will be constructed. Well construction is based on *site specific conditions* and is determined in the field after discussion with the senior geologist.

Monitoring wells are constructed with flush-threaded, 2-inch or 4-inch diameter, slotted PVC, stainless steel or teflon well screen and PVC, stainless steel or teflon blank casing. Number 3 or #212 sand is used in the annular space around the well screen. The sand is placed into the annular space around the well screen to approximately 2 feet above the top of the well screen. If high ground water conditions exist, the sand may be placed 0 to 1 foot above the top of the well screen. Two feet of bentonite pellets are used to separate the sand from the sanitary surface seal (grout). If high ground water conditions exist 1/2 foot of bentonite may be used to separate the sand from the sanitary surface seal.

The grout (Portland cement with approximately 3-5% bentonite powder) is poured into the annular space above the bentonite pellets. If the surface seal is greater than 5 feet thick, grout consisting of cement mixed with 3-5% bentonite powder will be tremied or pumped into the annular space above the bentonite pellets to prevent the infiltration of surface water into the well. If the surface seal is less than 5 feet thick, the grout will be poured from the surface. The resulting seal will be checked for shrinkage within 24 hours and additional grout will be added, if necessary. The surface seal is used to prevent infiltration of surface water into the well.

The monitoring well(s) is locked with a stovepipe or cap and covered with a traffic-rated vault if it is located in a developed area. The well ID is clearly marked on the cap or casing.

ECM STANDARD OPERATING PROCEDURE

WELL DEVELOPMENT

ECM develops ground water monitoring wells not less than 48 hours after the placement of the surface seal (grouting) to allow sufficient time for the cement grout to set. The wells are developed to restore the natural hydraulic conductivity of the formation(s) to be monitored and to remove all sand and as much fine-grained material as possible.

Prior to development, ECM field personnel measure the depth to water and the total depth of the well. The total depth measurement is compared to the well completion diagram shown on the field log and any discrepancies are noted.

Well development consists of several cycles of surging and evacuation of water in the well, each ending with measurements of temperature, pH, conductivity, and observation of turbidity. Surging takes place for several minutes to loosen fines from the screened interval. The vented surge block is placed block several feet below the water surface and pulled upward.

Development shall continue for a period of at least four hours or when ten well volumes have been removed, whichever occurs first, and until ground water removed from the well is clear and visibly free of suspended materials. Note the time and the approximate volume of water removed prior to each determination of the following parameters (and whether well is bailed or pumped dry): pH, temperature, and specific conductivity. These measurements should be made a minimum of five times during well development.

If micro wells (well diameter 3/4" or less) are installed, the well may not be surged. In this case, a minimum of twenty casing volumes will be removed.

If the water is still cloudy after the four hour period but these three parameters have stabilized, then the well will be considered developed regardless of the volume of water purged from the well. Stabilization of pH, temperature, and specific conductivity will be considered to have occurred when these parameters undergo changes not exceeding ± 0.1 , 0.5 degrees F, and 5 percent, respectively.

After development is completed, the depth to water and the total depth of the well are remeasured. The total depth of the well and the total depth noted on the field log should be approximately the same. All data measured during the procedures described herein are recorded on the ECM Well Development Form, which is part of the project file.

The ground water removed from the wells during development remains onsite in 55-gallon Department of Transportation-approved drums. The water is removed by a licensed hauler and taken to an approved disposal facility.

ECM STANDARD OPERATING PROCEDURE MONITORING WELL SAMPLING

The following describes sampling procedures used by ECM field personnel to collect and handle ground water samples from monitoring wells. Before samples are collected, careful consideration is given to the type of analysis to be performed so that precautions are taken to prevent loss of volatile components or contamination of the sample, and to preserve the sample for subsequent analysis. Wells will be sampled no less than 24 hours after well development. Collection methods specific to ground water sampling are presented below.

Prior to sampling, each well is purged of a minimum of three well casing volumes of water using a steam-cleaned PVC bailer, or a pre-cleaned pump. Temperature, pH and electrical conductivity are measured at least three times during purging. Purging is continued until these parameters have stabilized (i.e., changes in temperature, and conductivity do not exceed 10% and changes in pH do not exceed 1.0).

Ground water samples are collected from the wells with steam-cleaned or disposable Teflon bailers. The water samples are decanted into the appropriate container for the analysis to be performed. Pre-preserved sample containers may be used or the analytic laboratory may add preservative to the sample upon arrival. Duplicate samples are collected from each well as a back-up sample and/or to provide quality control. The samples are labeled to include the project number, sample ID, date, preservative, and the field person's initials. The samples are placed in polyethylene bags and in an ice chest (maintained at 4°C with blue ice or ice) for transport under chain-of-custody to the laboratory.

The chain-of-custody form includes the project number, analysis requested, sample ID, date of sampling, and the ECM field person's name. The form is signed and dated (with the transfer time) by each person who yields or receives the samples beginning with the field personnel and ending with the laboratory personnel.

ECM STANDARD OPERATING PROCEDURE SUB-SLAB VAPOR SAMPLING

This document describes standard operating procedures (SOPs) used by ECM field personnel to collect and handle sub-slab soil vapor samples. This SOP has been prepared in accordance with the following guidance documents:

Advisory - Active Soil Gas Investigations, Department of Toxic Substances Control and California Regional Water Quality Control Board, Los Angeles Region, January 28, 2003

Guidance For the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air, Department of Toxic Substances Control and California Environmental Protection Agency, December 15, 2004, Revised February 7, 2005

Chevron Soil Vapor Sampling Technical Toolkit, Version 1.6, Chevron Energy Technology Company, February 8, 2007

Many different conditions and circumstances may be encountered during sub-slab vapor sample collection. The above documents should be consulted if situations arise that are not covered in this SOP.

Probe Installation

Prior to sampling, it must be determined if the slab has a vapor barrier. If so, the vapor barrier must be repaired afterward. Do not drill through tension slabs, which contain embedded steel cables under tension. Probes should not be installed above utility trenching or near where a utility penetrates the slab. Prior to installation, remove carpet, if present, by cutting a small ½ inch flap which can be glued down afterwards, or by using other methods previously agreed upon with the building owner.

A rotary hammer drill is used to create a shallow (1-inch diameter) ‘outer’ hole that partially penetrates the slab. Next, the rotary hammer is used to drill an approximate 5/16-inch diameter ‘inner’ hole through the remainder of the slab and approximately 3 inches into sub-slab material.

Stainless steel or brass 1/4-inch outer diameter (approximately 0.18 inch inner diameter) tubing and stainless steel or brass compression to thread fittings are used to construct the probe. To avoid obstruction of the probe with sub-slab material, the tubing is cut to ensure it does not reach the bottom of the hole.

The probe is placed into the hole. The top of the probe is completed flush with the slab, such that it can be fitted with a plug so as not to interfere with day-to-day use of the building. Quick-drying Portland cement is mixed with water and used to seal the annular space between the probe and the outside of the ‘outer’ hole. Allow cement to cure for at least 24 hours prior to sampling.

Purging

Prior to collecting a soil vapor sample, the stagnant air in the sampling tubes must be removed. This ensures that the soil vapor sample that is collected is representative of actual soil vapor concentrations. Field notes containing information about the above-ground sampling equipment and below-ground tubing length and inner diameter should be used to calculate the “dead volume” to be purged. Three volumes will be purged unless a greater number of volumes are specified by the regulatory agency or other applicable guidance. A Summa canister evacuated by the lab to a pressure of -29.9 in Hg. is used to induce the flow for purging. A pressure gauge and flow control regulator with a flow gauge is used to control the flow. The flow rate and pressure for purging should be the same as the flow rate used for subsequent sampling (<200 ml/min at < 10 in Hg).

Leak Testing

Leakage during soil gas sampling may dilute samples with ambient air and produce results that underestimate actual site concentrations or contaminate the sample with external contaminants. Leak tests should be conducted at every soil gas probe. Various tracer compounds (i.e. pentane, isopropanol, isobutene, propane, or 1,1 Difluoroethane), may be used as leak check compounds. ECM uses 1,1 Difluoroethane in aerosol form (available in ‘Dust-off’ and other commonly available commercial products) unless another compound is specified for a site by the regulatory agency. During purging and sample collection, a containment shroud is assembled around the sampling equipment. The tracer compound is sprayed within the containment shroud to create an atmosphere containing the tracer compound. The soil vapor sample is then collected as specified below. Tracer compound detections are included on the analytic laboratory report.

Sample Collection

The soil vapor sample is collected in a Summa canister. The Summa cannister is supplied by the analytical lab and is evacuated by the lab to a pressure of -29.9 in Hg. A vacuum gauge and flow controller/flow gauge are used to monitor pressure and flow of formation air into the Summa canister. A low vacuum and low flow rate are used to aid in obtaining a representative soil vapor sample and to reduce the possibility of leakage of ambient air into the sampling equipment. The flow regulator is set by the lab to allow a flow volume of no greater than 200 ml/min.

Sample collection from a purged soil vapor probe should begin within 10 minutes of purging. Sample collection commences when all connections between the Summa canister, flow controller, and all other portions of the sampling equipment are tight. Leak testing should be performed concurrently with sampling as described above. To begin sampling, open the valve on the Summa Canister. As the canister fills, observe the pressure gauge on the flow controller to ensure that the vacuum in the canister is decreasing over time. Close the valve on the Summa canister when the pressure in the Summa canister has decreased to 5 in Hg.

All samples must be correctly and clearly labeled. The chain-of-custody form includes the final canister vacuums, canister serial number, analysis requested, project number, sample ID, date of sampling, and the ECM field person's name. The form is signed and dated (with the transfer time) by each person who yields or receives the samples beginning with the field personnel and ending with the laboratory personnel.

APPENDIX G
RESPONSIBLE PARTY CERTIFICATION

July 20, 2010

Bob Legallet
Telegraph Business Properties
1401 Griffith Street
San Francisco, CA 94214

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document is true and correct to the best of my knowledge.

Sincerely

A handwritten signature in black ink, appearing to read "Bob Legallet", with a stylized flourish at the end.

Bob Legallet
Telegraph Business Properties