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October 18, 2014

Mr. Mark Detterman, P.G., C.E.G. Alameda County Health Care Services Agency Environmental Health Services Environmental Protection 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577

RE: Groundwater Monitoring Report - 2nd Quarter 2014

SITE: Sheaff's Garage 5930 College Avenue, Oakland, California ACHCSA Fuel Leak Case No. RO0000377 GGE Project 2014

Dear Mr. Detterman:

Upon my authorization, Golden Gate Environmental, Inc. has prepared the attached *Groundwater Monitoring Report* for the semi-annual groundwater monitoring and sampling activities conducted during the 2nd Quarter 2014 at the above-referenced property on April 14, 2014. GGTR has uploaded an electronic copy of the document to the State Water Resources Control Board's GeoTracker Database System, as well as the Alameda County Health Care Services Agency FTP Site. Should you have any questions, please contact Mr. Brent Wheeler, Project Engineer of Golden Gate Environmental at (415) 512-1555 at your convenience.

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

Respectfully Submitted,

Dr. Brian R. Sheaff William G. Sheaff & Patricia Warren Restated Living Trust U/D/T 2/14/89

Distribution: (1) Addressee



Phase I & II Site Assessments Vapor Intrusion Assessments Soil & Groundwater Sampling Soil Corrosion Testing Site Remediation UST Removal & Oversight Hazardous Waste Management UST Cleanup Fund Assistance

> October 18, 2014 GGE Project #2014

William G. Sheaff & Patricia Warren Restated Living Trust U/D/T 2/14/89 Dr. Brian Sheaff 1945 Parkside Drive Concord, CA 94519

RE: Groundwater Monitoring Report – 2nd Quarter 2014

SITE: Former Sheaff's Garage 5930 College Avenue, Oakland, California ACHCSA Fuel Leak Case No. RO0000377

Dear Dr. Sheaff:

Golden Gate Environmental, Inc. (GGE) is pleased to submit the enclosed copy of the Groundwater Monitoring Report -2^{nd} Quarter 2014, which discusses the activities and findings of the groundwater monitoring and sampling event conducted on April 14, 2014 at 5930 College Avenue in Oakland, California. GGTR uploaded an electronic copy of the report to the State Water Resources Control Board's GeoTracker Database System. Upon your approval, an electronic copy will be submitted to the attention of Mr. Mark Detterman via the Alameda County Environmental Cleanup Oversight Program's FTP site.

Should you have any questions, please contact us at your convenience. In my absence from the office, I may be reached by cellular service at (415) 686-8846.

Respectfully Submitted,

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Brent A. Wheeler Golden Gate Environmental, Inc.

Enclosures (1)

Cc: Mr. Mark Detterman, ACHCSA – FTP Site Mr. John Accacian - Email



Sheaff's Garage 5930 College Avenue Oakland, CA 94618

Alameda County Fuel Leak Case No. RO0000377

Prepared For:

William G. Sheaff TTE Trust Dr. Brian R. Sheaff, D.D.S. 1945 Parkside Drive

Concord, CA 94519

Prepared By:

Golden Gate Environmental, Inc. 1455 Yosemite Avenue San Francisco, California 94124

Project No. 2014

Sampling Dates: April 14, 2014 Report Date: October 16, 2014

1. luhl

Brent Wheeler Project Manager

aed MARK YOUNGKIN No. 1380 Mark Youngkin CERTIFIED ENGINEERINBegistered Geologist CEG No. 1380 GEOLOGIST

Sheaff's Garage, 5930 College Avenue, Oakland, CA

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- 2. Historical Groundwater VOC Analytical Results in PW-1

ATTACHMENTS

- A Fluid-Level Monitoring Data Sheets Well Purging/Sampling Data Sheets
- B Laboratory Certificates of Analysis
 Chain of Custody Record
 GeoTracker Upload Confirmation Sheets
 EPA On-Line Tools for Site Assessment Calculation Sheet

Sheaff's Garage, 5930 College Avenue, Oakland, California

Introduction

Golden Gate Environmental, Inc. (GGE) presents the results of the 2nd Quarter 2014 groundwater monitoring and sampling event conducted on April 14, 2014, at 5930 College Avenue in Oakland, California (the Site). The Alameda County Environmental Health (ACEH) agency has designated the Site as Fuel Leak Case No. RO000377 and requires semi-annual groundwater monitoring and sampling as part of an ongoing Leaking Underground Storage Tank (LUST) cleanup investigation. Figure 1 presents a Site Location Map. Figure 2 titled Site Vicinity Map and Figure 3 titled Site Plan depict the pertinent features of the Site and adjacent properties along with the associated land use. Figure 4 titled Groundwater Data Diagram - April 2014 shows the groundwater flow direction for the April 14, 2014 event. Table 1 provides a tabulated summary of the laboratory results of historical groundwater sample analyses for Volatile Organic Compounds (VOCs) in piezometer PW-1. Documentation of the monitoring, sampling and laboratory procedures are presented in the attachments.

Site Location

The Site is a commercial property located at 5930 College Avenue along the east side of College Avenue between Harwood Street and Chabot Road in Oakland, California. The Site lies approximately 0.2 mile (1,000 feet) north of Highway 24 and about two miles east of Interstate 80 and the San Francisco Bay. The elevation of the Site is approximately 195 feet above Mean Sea Level. The property is relatively flat lying with the local topographic relief directed toward the west-southwest in the general direction of the San Francisco Bay as shown on Figure 1, Site Location Map. The topographic map of Figure 1 depicts the area of the subject property as dense urban development. Figure 2, Site Vicinity Map, shows the mixed-use commercial-residential character of the surrounding neighborhood. Commercial-retail corridors are located along main thoroughfares such as College Avenue with residential neighborhoods situated between the business corridors.

Site Description

The property is currently 100% occupied by Stauder Automotive Service for the maintenance and repair of automobiles. Figure 3, Site Plan, shows features of the subject property. The subject building is a small single-story industrial-style building constructed in 1952. The subject property is approximately 5,500 square feet in area with about 75% utilized by the garage building and 25% used as an exterior paved storage yard and parking lot. Two underground storage tanks (UST) were formerly located beneath the sidewalk at the southwest corner of the Site on the College Avenue frontage. One 675-gallon gasoline and one 340-gallon waste oil UST were removed in August 1996 from the sidewalk. Product piping was removed from beneath sidewalk and former dispenser location in late 2002. No active USTs, fuel storage, or fuel distribution system currently exist onsite. Most of the building consists of an open work area with a small enclosed office. The property is completely paved with the building constructed on a concrete slab and surrounded by concrete sidewalk and asphalt-paved rear parking area.

A commercial-residential building is adjacent to the Site on the south with address of 5916-20 College Avenue. This building contains a parking garage and a retail store (T-Mobile) on the ground floor and 12 apartments on three upper floors. To the south and east of the Site is an older single-family residential neighborhood with residence backyards adjoining the Site's rear paved parking area. The surface channel of Harwood Branch creek is located within residential backyards about one block east and up-gradient of the Site. On the west, an Alameda County Flood Control District cutoff storm water conduit (90" diameter) associated with Harwood Branch creek is located beneath College Avenue. A church and retail shopping building occur across College Avenue to the west.

The adjacent property to the north was formerly occupied by Chevron Service Station #209339 from 1938 to 1968. Former station facilities consisted of four USTs, one dispenser island, station building and a garage-service building. The station was replaced by a parking lot until redeveloped with a multi-tenant commercial-retail structure in 1978-1979 called College Square. College Square is currently occupied by a restaurant (Barclays Restaurant & Pub) and office space (5940 College Avenue). This commercial development's ground floor retail space and parking garage are approximately 3-4 feet below the grade of the subject property. Conestoga-Rovers & Associates (CRA; Emeryville, CA) and Gettler-Ryan, Inc. (GR; Dublin, CA) conducted a separate groundwater investigation of the former Chevron Station utilizing two groundwater. Figures 2 and 3 show the location of each CRA / Gettler-Ryan well relative to the monitor wells on the subject property.

Since April 8, 2002, CRA / Gettler-Ryan monitored and sampled each well on a biannual basis, performing their most recent monitoring and sampling event of GR-MW1 & GR-MW2 in October 2012. Golden Gate Tank Removal, Inc. and GGE conducted joint monitoring and sampling activities with CRA between October 2000 and October 2011. Chevron performed additional investigation and submitted data gap and case closure request documents in 2013-2014. In a letter dated June 13, 2014, the ACHCSA issued its *Public Participation Notification for Potential Case Closure* for the 5940 College Avenue property. Following completion of the public comment period and submittal of a monitor well decommissioning report, a uniform case closure letter will be issued for the adjoining site. The two existing monitoring wells are proposed for destruction by October 24, 2014.

Groundwater Monitoring & Sampling: April 2014

The scope of work for the 2nd Quarter 2014 groundwater monitoring and sampling event included the following:

- Monitoring, purging and sampling of field points MW-1, MW-2, MW-3 and PW-1
- Laboratory analysis of groundwater samples
- Waste management
- Electronic data upload to GeoTracker Database System
- Data interpretation

On April 14, 2014, GGE in conjunction with Dysert Environmental, Inc. (DEI) monitored and sampled wells MW-1, MW-2, MW-3 and piezometer PW-1.

Groundwater Monitoring and Sampling

Prior to purging and sampling, DEI removed the well cover and locking compression cap and allowed the water in each well column to stabilize for approximately 20 minutes. DEI then measured and recorded the depth to product/groundwater using a Keck electronic oil/water interface meter. Fluid levels were measured relative to the north side of the top of each well casing to the nearest 0.01 foot. No floating petroleum product was detected at the Site. An odor of petroleum or gasoline was noted in wells MW-1, MW-2 and MW-3. Groundwater depths ranged from 10.92 in well MW-1 to 12.34 feet below grade in well MW-2.

DEI subsequently purged groundwater from the monitor wells using a peristaltic pump (average flow rate @ 250 to 300 milliliters per minute), and simultaneously monitored and recorded the pH, temperature, and specific conductivity of the purged well water. DEI terminated well purging after evacuation of approximately 4-6 gallons of water from each well and three successive readings of each parameter varied by less than 0.1, 10%, and 3%, respectively. DEI transferred the purge water directly to a 55-gallon, D.O.T.-approved steel drum.

After the groundwater in each well recharged sufficiently to allow sample collection (at least 80% of initial depth to water), DEI recovered a groundwater sample using a peristaltic pump with dedicated tubing lowered just below the last measured groundwater level. The groundwater sample was collected from the discharge end of the dedicated tubing into pre-cleaned, laboratory-provided sample containers. The sample containers were sealed with Teflon caps and all volatile organic analysis (VOA) vials were inverted and checked to insure that no entrapped air was present. The samples were properly labeled and stored in a cooler chilled to approximately 4°C. Attachment A contains a copy of the Fluid-Level Monitoring Data Form and Well Purging/Sampling Data Sheets for this event.

Waste Management

The well purge and equipment wash and rinse water generated during this event was transferred directly to a D.O.T.-approved, 55-gallon drum, appropriately labeled and sealed, and temporarily stored onsite in a secure area pending final disposal at a licensed facility. As of the date of this report, the drum remains onsite pending future groundwater sampling activities.

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Solid and liquid waste was last removed from the Site on January 15, 2014. The solid and liquid waste streams were profiled for disposal/recycling under uniform waste manifest following receipt of the laboratory analysis results of the last 2013 groundwater sampling. On January 15, 2014, Icon Environmental Services Inc. (ICON) transported the drums under Non-Hazardous Waste Manifest No. 10503 to ICON's disposal/recycling facility in Union City, California. A copy of the waste manifest is included in Appendix D of the previously submitted GGE report titled Additional Soil & Water Investigation Report dated February 6, 2014.

Water Sample Analytical Methods

On April 14, 2014, GGE submitted six groundwater samples under formal chain of custody command to Torrent Laboratory, Inc., a State-certified analytical laboratory (CA ELAP #1991) in Milpitas, California, for laboratory analysis of the following fuel constituents:

- Total Petroleum Hydrocarbons (TPH) as Gasoline by Method 8260TPH
- Total Petroleum Hydrocarbons (TPH) as Diesel/Motor Oil by Method SW8015B(M)
- Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX) by Method SW8260B
- Methyl Tertiary Butyl Ether (MTBE), 1,2-Dibromoethane (EDB), 1,2-Dichlorooethane (EDC) by Method SW8260B
- Poly-Aromatic Hydrocarbons (PAHs) by Method SW8270C
- Volatile Organic Compounds (Full List) by Method SW8260B (PW-1 only)

Tables 1 and 2 attached presents a summary of the analytical results for the sampling event as well as previous monitoring/sampling events at the Site. Attachment B includes a copy of the Laboratory Certificate of Analysis and associated Chain of Custody Record for this event.

Torrent submitted their certified analytical report on April 22, 2014. Torrent completed all volatile organic analyses within the 14-day required time limit for analysis. Torrent reported that no issues were encountered with the receiving, preparation, analysis or reporting of the results associated with the submitted samples. GGE directed Torrent to submit all analytical data in electronic deliverable format (EDF) in accordance with the State Water Resources Control Board's GeoTracker database system.

GeoTracker Electronic Submittal

Torrent submitted all analytical data in electronic deliverable format (EDF) via the Internet. GGE uploaded the analytical data as well as the Fluid-Level Monitoring Data (GEO_WELL) for each event to the State Water Resources Control Board's GeoTracker Database System. GGE also uploaded a copy of this report in Portable Data Format (PDF) to the GeoTracker Database. Attachment B includes a copy of each associated GeoTracker Upload Confirmation Sheet.

Groundwater Monitoring Results

For the April 14, 2014 event, the groundwater elevations calculated relative to the top of well casing in wells MW-1, MW-3 and PW-1 ranged between 184.15 (MW-3) and 185.03 (PW-1)

feet, as referenced to Mean Sea Level (MSL), a range of 0.88 feet. The groundwater elevation and coordinate data for each monitoring event was entered into the EPA On-Line Tools for Site Assessment Calculation, Hydraulic Gradient – Magnitude and Direction. This tool calculates gradient by a least-squares fitting of the data to a plane and used to calculate the approximate groundwater hydraulic gradient and flow direction across the Site. The attached Figure 4, titled Groundwater Data Diagram - April 2014 shows the groundwater data for the subject monitoring event. The EPA On-Line Tools for Site Assessment Calculation sheet is included in Attachment B.

During the April 14, 2014 monitoring event, the groundwater flow direction beneath the Site was estimated at South 18° East (162°) under a hydraulic gradient of approximately 0.025 ft/ft. The groundwater flow direction for the April 14, 2014 event is consistent with historical data for the Site with the flow direction ranging widely from south to west. The large variation in groundwater flow direction is inconsistent with previous studies at nearby former gasoline stations. The wide variation in flow direction data may be attributed to the subject monitor array consisting of few monitor wells arranged in a linear direction within the narrow site boundaries. One site well MW-2 has previously been excluded from flow direction calculations for obvious inconsistencies in groundwater elevation data.

Chevron and Conestoga-Rovers & Associates (CRA) submitted the December 11, 2012, Second Semi-Annual 2012 Groundwater Monitoring and Sampling Report for the Former Chevron Service Station 209339 at the adjoining 5940 College Avenue property. The report contains groundwater flow direction collected during joint monitoring with the subject property for a total of five monitor well field points. The accompanying rose diagram is copied from Figure 2 of the CRA report and shows the results of the joint measurement of flow direction. The resulting flow direction centered about 270° is consistent with previous groundwater investigations at nearby gas stations on College Avenue. GGE believes that this joint data best represents the actual groundwater flow direction for the subject property.



Historical Groundwater Flow Direction based on data acquired from joint monitoring with Former Sheaff's Garage

Results of Groundwater Sampling and Laboratory Analysis

The attached Tables 1 & 2 include the historical groundwater analysis results for the April 2014 event and the associated laboratory report is included in Attachment B. As shown on Table 1, the laboratory reported concentrations of TPH as gasoline ranging from $<50 \ \mu g/l$ in piezometer PW-1 to 25,000 $\mu g/l$ in well MW-1 in groundwater samples collected during the April 2014 event. Benzene concentrations ranged between $<0.5 \ \mu g/l$ in piezometer PW-1 to 3,000 $\mu g/l$ in well MW-1. As compared with the October 2013 event, the gasoline constituent concentrations increased in well MW-1 from 12,000 to 25,000 $\mu g/l$ and Benzene increased from 2,400 to 3,000 $\mu g/l$. The TPH as gasoline measured in MW-2 increased slightly from 4,400 to 6,100 $\mu g/l$ and in MW-3 from 3,400 to 3,600 $\mu g/l$. The laboratory reported Naphthalene at 500 $\mu g/l$ in well MW-1, 86 $\mu g/l$ in well MW-2, and 4 $\mu g/l$ in well MW-3. No PCE was detected in monitor wells MW-1, MW-2 and MW-3.

The following chart plots gasoline concentrations in monitor wells versus time displaying an overall decreasing trend in contaminant concentrations following primary source removal in 1996. The recently measured concentrations appear consistent with the historical trend lines.



Historical TPH Gasoline in Groundwater

TPH as diesel was detected in MW-1 to MW-3 at concentrations of 3000, 2500 and 700 μ g/l, respectively. The laboratory analytical report noted that for each TPH as diesel sample result, the chromatographic pattern does not resemble the typical diesel reference standard, and that unknown organics within the diesel range (lighter than diesel quantified as diesel) are present. TPH as motor oil was not detected in any of the monitoring wells for this event.

PCE was detected in the groundwater sample collected in well PW-1 at a concentration of 110 μ g/l, increasing from the 45 μ g/l concentration measured during the October 2013 event. As shown on Table 2, the recently measured PCE concentration of 110 μ g/l is below the historical high value for PCE of 120 μ g/l reported in April 2009. Since April 2005, PCE concentrations in well PW-1 have seasonally fluctuated between 25 and 120 μ g/l. The PCE breakdown products of TCE and Cis-1,2-DCE were measured in well PW-1 at concentrations of 1.4 and 3.3 μ g/l during this event. Table 2 includes a summary of the historical groundwater VOC analysis results for the April 2014 event and the complete VOC laboratory report for well PW-1 is included in Attachment B.

Conclusions / Recommendations

Due to the elevated concentrations of TPH-G and Benzene remaining in monitor wells MW-1 to MW-3, GGE, recommends continuing the groundwater monitoring and sampling program at the subject property on a semi-annual basis. Sampling should be conducted during the 2nd & 4th Quarters, in which historical groundwater contaminant concentrations in MW-1 to MW-3 have generally been the highest. The next semi-annual monitoring and sampling event is tentatively scheduled at the Site in late October 2014.

Groundwater samples will continue to be analyzed for TPH as gasoline, BTEX, MTBE and Naphthalene by EPA Method SW8260B, TPH as diesel/motor oil by SW8015M, and PAHs by EPA Method SW8270C. Additionally, GGE recommends continuing analysis of the groundwater sample from PW-1 for VOCs (full list) by EPA Method 8260B to further monitor the elevated concentrations of PCE in groundwater in the vicinity of this field point.

Report Distribution

This report and future correspondence associated with GGE Project 2014 will be submitted to:

Mr. Mark Detterman, P.G., C.E.G. Alameda County Health Care Services Agency Environmental Health Services Environmental Protection 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577

(1Electronic Copy via ACHCSA FTP Site)

Dr. Brian R. Sheaff, D.D.S. 1945 Parkside Drive Concord, CA 94519

(1 Copy; Bound)

Limitations

It should be understood that all environmental assessments are inherently limited in that conclusions are drawn and recommendations developed from information obtained from limited research and visual observations. Subsurface conditions change significantly with distance and time and may differ from the conditions implied by subsurface investigation. It must be noted that no investigation can absolutely rule out the existence of any hazardous materials at a given site. Existing hazardous materials and contaminants can escape detection using these methods. The work performed in conjunction with this assessment and the data developed are intended as a description of available information at the dates and location given.

GGE's professional services have been performed, with findings obtained and recommendations prepared in accordance with customary principles and practices in the field of environmental science, at the time of the assessment. This warranty is in lieu of all other warranties either expressed or implied. GGE is not responsible for the accuracy of information reported by others or the independent conclusions, opinions or recommendations made by others based on the field exploration presented in this report. The findings contained in this report are based upon information contained in previous reports of corrective action activities performed at the subject property and based upon site conditions, as they existed at the time of the investigation, and are subject to change. The scope of services conducted in execution of this phase of investigation may not be appropriate to satisfy the needs of other users and any use or reuse of this document and any of its information presented herein is at the sole risk of said user. No other party may rely on this report for any other purpose.

Sheaff's Garage 5930 College Avenue Oakland, CA 94618

ACHCSA Fuel Leak Case No. RO0000377

FIGURES

Figure 1 -	Site Location Map
Figure 2 -	Site Vicinity Man

- Figure 2 -Site Vicinity MapFigure 3 -Site PlanFigure 4 -Groundwater Data Diagram

Golden Gate Environmental, Inc.

1455 Yosemite Avenue, San Francisco, CA 94124

GGE Project No. 2014





Base Map from Google Maps at a scale of about 1"=100 feet with North to top of map.



GOLDEN GATE ENVIRONMENTAL, INC.

1455 Yosemite Avenue, San Francisco, CA 94124 Phone (415) 970-9088 Fax (415) 970-9089



SITE VICINITY MAP Sheaffs Garage 5930 College Avenue, Oakland, California

GGE Project No. 2014

revised October 2014

FIGURE 2





accompanying report text for explanation.



GOLDEN GATE ENVIRONMENTAL, INC. 3730 Mission Street, San Francisco, CA 94110 Phone (415) 970-9088 Fax (415) 970-9089



GROUNDWATER DATA DIAGRAM

Sample Date: April 14, 2014

Sheaffs Service Garage

5930 College Avenue, Oakland, CA 94618

GGE Project No. 2014

October 2014



Sheaff's Garage 5930 College Avenue Oakland, CA 94618

ACHCSA Fuel Leak Case No. RO0000377

TABLES

TABLE 1A- Historical Results of Groundwater Sample Analysis & Fluid-Level DataTABLE 1B- Groundwater Sampling Results for VOCs in PW-1

Golden Gate Environmental, Inc.

1455 Yosemite Avenue, San Francisco, CA 94124

GGE Project No. 2014

 TABLE 1

 Historical Groundwater Levels & Hydrocarbon Analytical Results

 5930 College Avenue, Oakland, CA

	Samula Data	Casing	Depth to	Water	Product	TPH-G	TPH-D	MTBE	BTEX	Naphthalene
6/1/98 50		(ft, MSL)	(ft, TOC)	(ft, MSL)	Odor/ Sheen	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
	6/1/98	50.00 *	4.81	45.19	slight sheen	160000	NA	1900	28000 / 21000 / 3800 / 21000	NA
	9/10/98	50.00 *	* 4.81 45.19 slight sheen 160000 NA 1900 28000 / 21000 / 3800 / 21000 * 7.5 42.5 Odor 290000 NA 440 <50 / 25000 / 7100 / 32000	NA						
	10/7/99	50.00 *	100* 7.5 42.5 Odor 290000 NA 440 <50 / 25000 / 7100 / 32000 100* 10.04 39.96 Odor 85000 NA 1100 20000 / 13000 / 3800 / 17000 100* 8.26 41.74 slight sheen 130000 NA 470 25000 / 18000 / 4500 / 22000 100* 10.1 39.9 Odor 130000 NA 1300 23000 / 12000 / 3900 / 18000 100* 9.61 40.39 Odor 128000 NA 780 19000 / 11000 / 3800 / 18000 7.39 188.51 Odor 120000 NA 900 21000 / 13000 / 390 / 18000			NA				
	1/26/00	50.00 *				NA				
	10/25/00	50.00 * 8.26 41.74 slight sheen 130000 NA 470 25000 / 18000 / 4500 / 22000 50.00 * 10.1 39.9 Odor 130000 NA 1300 23000 / 12000 / 3900 / 18000 50.00 * 9.61 40.39 Odor 128000 NA 780 19000 / 11000 / 3800 / 18000				NA				
	2/2/01	50.00 *	9.61	40.39	Odor	128000	NA	780	19000 / 11000 / 3800 / 18000	NA
	4/25/01		7.39	188.51	Odor	120000	NA	900	21000 / 13000 / 390 / 18000	NA
	7/10/01 10/8/01		9.72	186.18	Odor	79000	NA	660	15000 / 7800 / 3000 / 15000	NA
			10.88	185.02	Odor/sheen	112000	NA	374	25300 / 11800 / 4280 / 20600	NA
	1/7/02		4.34	191.56	Odor	96100	NA	596	21100 / 13500 / 4160 / 21900	NA
	4/8/02		6.84	189.06	slight odor	111000	NA	679	21200 / 13400 / 4230 / 21000	NA
	7/9/02		9.4	186.5	slight odor	110000	NA	570	20300 / 13300 / 4060 / 19800	NA
	10/23/02		11.04	184.86	None	54100	NA	1010 (1080)**	10800 / 3870 / 2320 / 9440	NA
	10/15/03		10.8	185.1	None	90700	NA	724	17800 / 4740 / 3150 / 13900	NA
	2/2/04		7.35	188.55	None	108000	NA	194	14200 / 7420 / 3450 / 19800	NA
	4/23/04		6.83	189.07	slight odor	49200	NA	114	7910 / 1480 / 1810 / 10100	NA
	7/19/04		8.95	186.95	Odor	63900	NA	303	7260 /2270 / 2510 / 10100	NA
	10/22/04		10.15	185.75	None	80700	NA	493 (296)**	13900 / 1670 / 3550 / 15200	NA
	1/21/05		5.45	190.45	Odor	278000	NA	271 (174)**	14700 / 25300 / 10800 / 73500	NA
	4/14/05		5.3	190.6	Odor /sheen	116000	NA	366 (410)**	15100 / 7080 / 4220 / 20700	NA
IVI VV - 1	7/26/05		7.6	188.3	Odor	82000	NA	ND<250	12000 / 4500 / 3300 / 14000	NA
	10/14/05		9.58	186.32	Odor/sheen	64000	NA	ND<250	13000 / 5700 / 3400 / 16000	NA
	1/13/06	105.0	4.6	191.3	Odor/sheen	49000	NA	ND<250	12000 / 5300 / 3500 / 17000	NA
	4/14/06	193.9	3.08	192.82	Odor	51000	NA	270	14000 / 5300 / 3500 / 17000	NA
	10/26/06		9.22	186.68	Odor	34000	NA	ND<250	12000 / 1600 / 3100 / 8600	NA
	1/30/07		9.6	186.3	Odor	39000	NA	ND<200	10000 / 2200 / 2900 / 10000	NA
	4/13/07		9.24	186.66	NM	52000	NA	150	9100 / 2600 / 3100 / 11000	NA
	7/24/07		10.67	185.23	None	46000	NA	240	10000 / 1200 / 3500 / 6200	NA
	4/21/08		7.24	188.66	None	50000	NA	ND<100	7800 / 1500 / 3000 / 12000	NA
	7/22/08		9.71	186.19	Odor	60000	NA	470 ¹	8100 / 1500 / 2700 / 9800	NA
	10/21/08		11.63	184.27	Odor	15000	NA	110	4900 / 430 / 1900 / 2260	NA
	1/19/09		10.91	184.99	Odor/Sheen	33000	NA	143	8830/837/2160/3880	NA
	4/27/09		7.7	188.2	Odor	75000	NA	53	8500/2100/2300/11000	NA
	10/27/09		9.34	186.56	Odor	61000	NA	75	8300/1500/2600/7900	NA
	10/14/10		10.3	185.6	Clear/Odor	24000 ²	NA	220	8100/820/2200/4400	NA
	6/9/11		6.38	189.5	Clear/Odor	53000	NA	NA	14000/3000/3800/16900	NA
	10/7/11		9.08	186.82	None	50000 ²	NA	89	9200/1500/4200/13500	NA
	10/16/13		10.83	185.07	Clear	12000 ²	NA	ND<21	2400/330/1500/2780	NA
	4/4/14	<u> </u>	10.92	184.98	Clear	25000 ⁶	3000 ^{7,8}	ND<21	3000/480/2100/6700	500 ⁹
	SF Bay	RWQCB D	ecember 201	13 ESL		500	640	1800	27 / 130 / 43 / 100	24

Table & Notes Following

	Casing		Denth to	Water		0												
Well ID	Sample Date	Flevation	GW	Flevation	Product	TPH-G	TPH-D	MTBE	BTEX	Naphthalene								
wenin	Sample Date	(ft. MSL)	(ft. TOC)	(ft. MSL)	Odor/ Sheen	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)								
	10/7/99	51.42*	11.49	39.93	slight/odor	18000	NA	490	3000 / 1700 / 1000 / 3900	NA								
	1/26/00	51.42*	7.85	43.57	None	42000	NA	560	9300 / 2200 / 2300 / 7700	NA								
	10/25/00	51.42*	11.57	39.85	slight/odor	31000	NA	500	5500 / 370 / 1700 / 2600	NA								
	2/2/01	51.42*	10.77	40.65	Odor	36000	NA	400	4300 / 530 / 1800 / 4500	NA								
	4/25/01		8.52	188.76	Odor	56000	NA	460	6700 / 1700 / 2600 / 8200	NA								
	7/10/01		11.05	186.23	Odor	39000	NA	180	6200 / 730 / 2300 / 6100	NA								
	10/8/01		12.79	184.49	Odor/sheen	40700	NA	6460	6310 / 399 / 2100 / 5320	NA								
	1/7/02		4.92	192.36	Odor	59600	NA	366**	10300 / 3250 / 4180 / 14400	NA								
	4/8/02		8.4	188.88	slight odor	66700	NA	583**	10200 / 2670 / 3840 / 13200	NA								
	7/9/02	-	10.55	186.73	slight odor	37100	NA	303 (298)**	5340 / 890 / 2110 / 6920	NA								
	10/23/02		13.85	183.43	None	13300	NA	322 (360)**	2420 / 216 / 922 / 1470	NA								
	10/15/03		12.38	184.9	None	11300	NA	264 (322)**	2660 / 51 / 1180 / 1220	NA								
	2/2/04		8.8	188.48	None	21700	NA	168 (200)**	2130 / 51 / 1030 / 2060	NA								
	4/23/04		8.4	188.88	Slight odor	30400	NA	112 (203)**	3570 / 322 / 1620 / 4140	NA								
	7/19/04		10.3	186.98	Odor	28300	NA	283 (373)**	2540 / 239 /1320 / 2300	NA								
	10/22/04		10.25	187.03	Mod odor	13500	NA	273 (229)**	1790 / 54 / 892 / 915	NA								
	1/21/05		6.65	190.63	Mod odor	278000	NA	161 (163)**	5980 / 1030 / 2890 / 9070	NA								
	4/14/05		8.7	188.58	None	46100	NA	155 (150)**	5170 / 787 / 2530 / 6010	NA								
	7/26/05		8.95	188.33	Mod odor	41000	NA	ND (ND)**	5600 / 550 / 2600 / 4600	NA								
NI W-2	10/14/05		10.92	186.36	Odor/sheen	13000	NA	130	2900 / 100 / 1300 / 1200	NA								
	1/13/06	197.28	5.48	191.8	Odor	20000	NA	ND<100	4900 / 490 / 2400 / 4200	NA								
	4/14/06		3.61	193.67	Odor	21000	NA	ND<100	4000 / 740 / 2300 / 5100	NA								
	10/26/06		10.58	186.7	Odor	8200	NA	68	1400 / 51 / 840 / 500	NA								
	1/30/07		10.98	186.3	Odor	17000	NA	62	3200 / 150 / 2200 / 1800	NA								
	4/13/07		10.54	186.74	NM	19000	NA	57	2000 / 85 / 1300 / 1100	NA								
	7/24/07	-	-	12.04	185.24	None	10000	NA	84	1300 / 41 / 710 / 270	NA							
	4/21/08				-	-	-	-	-	-	8.01	189.27	None	17000	NA	48	1800 / 100 / 1400 / 1300	NA
	7/22/08											11.12	186.16	None	16000	NA	100^{-1}	1900 / 98 / 1600 / 741
	10/21/08		13.11	184.17	Odor/sheen	4900	NA	65	700 / 20 / 370 / 52	NA								
	1/19/09		12.31	184.97	Odor	2500	NA	90	167/8.49/114/50.3	NA								
	4/27/09		9.01	188.27	Odor/sheen	21000	NA	ND<0.5	1700/130/1100/1800	NA								
	10/27/09		10.52	186.76	Odor	7000	NA	ND<0.5***	510/19/330/160	NA								
	10/14/2010		11.56	185.72	None	3200 ²	NA	35	460/16/230/110	NA								
	6/9/2011	1	7.67	189.61	Clear/Odor	9900	NA	NA	1900/75/1100/1013	NA								
	10/7/2011		10.42	186.86	Clear/Odor	9200 ⁴	NA	ND<22	810/34/610/100	NA								
	10/16/2013		12.18	185.1	Clear/Odor	4400 ^{2,5}	NA	ND<4.2	780/33/200/39.8	NA								
	4/14/2014		12.34	184.94	Clear/Odor	6100 ²	2500 7,8	ND<2.1	530/270/19/47.6	86 ⁹								
	SE Boy	DWOCP D	agamban 201	2 661		500	640	1900	27 / 120 / 42 / 100	24								

TABLE 1 (Cont.)Historical Groundwater Levels & Hydrocarbon Analytical Results5930 College Avenue, Oakland, CA

Table & Notes Following

		Casing	Donth to	Watan			,	, -																											
Well ID	Sample Date	Casing	CW	Flovetion	Product	TPH-G	TPH-D	MTBE	BTEX	Naphthalene																									
wei iD	Sample Date	(ft MSI)		(ft MSI)	Odor/ Sheen	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)																									
	10/7/99	49 39*	9.67	39.72	None	6600	NA	390	310 / 110 / 430 / 1000	NA																									
	1/26/00	49 39*	5.4	43.99	None	3300	NA	40	110/8/100/32	NA																									
	10/25/00	49 39*	9.24	40.15	Slight odor	4500	NA	ND	100/2/120/130	NA																									
	2/2/01	49.39*	8.73	40.66	Slight odor	2900	NA	35	35/3/160/298	NA																									
	4/25/01		6.61	188.61	Slight odor	8400	NA	56	260/33/290/510	NA																									
	7/10/01	1	8.85	186.37	Slight odor	12000	NA	35	39 / 10 / 690 / 1600	NA																									
	7/10/01 10/8/01 1/7/02	9.75	185.47	Odor/sheen	4913	NA	52	108 / 4 / 99 / 133	NA																										
			4.25	190.97	Odor/sheen	7260	NA	81.7**	723 / 138 / 492 / 887	NA																									
	4/8/02		6.33	188.89	Odor	11700	NA	ND**	540 / 108 / 706 / 1710	NA																									
	7/9/02		8.56	186.66	Odor	2320	NA	28.3 (20)**	37.1 / 4.7 / 98.5 / 187	NA																									
	10/23/02		10.02	185.2	Odor/sheen	2830	NA	ND (ND)**	46.8 / 4.7 / 43.6 / 65.5	NA																									
	10/15/03		9.8	185.42	Odor/sheen	3040	NA	ND (ND)**	91.3 / 8.4 / 69.9 / 148	NA																									
	2/2/04		6.85	188.37	Odor/sheen	5140	NA	ND (ND)**	126 / 8.7 / 134 / 238	NA																									
	4/23/04		6.17	189.05	None	7210	NA	ND (ND)**	227 / 39.5 / 448 / 879	NA																									
	7/19/04		8.25	186.97	Slight odor	9860	NA	ND (ND)**	20.4 / 3.2 / 30.6 / 117	NA																									
	10/22/04		9.25	185.97	None	7420	NA	96 (21)**	152 / 12.8 / 267 / 480	NA																									
	1/21/05		5.22	190	Slight odor	2420	NA	ND (ND)**	111 / 11.4 / 139 / 265	NA																									
	4/14/05		6.64	188.58	Odor/sheen	5130	NA	54 (41.4)**	357 / 19.4 / 287 / 510	NA																									
MW 2	-3 7/26/05		6.9	188.32	None	9800	NA	ND (21)**	200 / 23 / 220 / 360	NA																									
WI W-3	10/14/05		8.83	186.39	Odor/sheen	6100	NA	ND	76 / 19 / 170 / 350	NA																									
	1/13/06	195.22	195.22	195.22	195.22	195.22	195.22	195.22	195.22	195.22	195.22	195.22	4.61	190.61	Odor	3900	NA	24	380 / 17 / 230 / 300	NA															
	4/14/06												195.22	195.22	195.22	195.22	195.22	195.22	195.22	195.22	195.22	195.22	195.22	195.22	195.22	195.22	195.22	195.22	195.22	195.22	195.22	3.41	191.81	Odor	5000
	10/26/06								8.57	186.65	Odor	3100	NA	17	120 /9.8 /55 / 54	NA																			
	1/30/07		8.83	186.39	Odor	4500	NA	ND<10	90 /7.6 / 75 / 44	NA																									
	4/13/07		8.57	186.65	NM	2800	NA	ND<5	55 / 4.9 / 19 / 6.1	NA																									
	7/24/07		9.98	185.24	None	4800	NA	ND<5	140 / 8.3 / 66 / 22	NA																									
	4/21/08		9.3	185.92	None	4300	NA	ND<5	200 / 11 / 30 / 14	NA																									
	7/22/08	F	F		F	9.05	186.17	None	2400	NA	53 ¹	140 / 13 / 26 / 18.5	NA																						
	10/21/08		11.12	184.1	Slight Odor	2900	NA	2.2	170 / 9.2 / 99 / 25.8	NA																									
	1/19/09		10.29	184.93	Odor	3600	NA	ND<0.5	148/6.73/24.5/22.1	NA																									
	4/27/09		7.15	188.07	Odor/sheen	5800	NA	8.8	370/12/82/84	NA																									
	10/27/09		8.96	186.26	Odor	4900^{2}	NA	ND<0.5***	130/8.5/89/130	NA																									
	10/14/2010		9.76	185.46	None	2700^{2}	NA	ND<4.4	270/11/290/399.2	NA																									
	6/9/2011	1	5.92	189.3	Clear/Odor	3200 ²	NA	NA	220/ND<4.4/37/20	NA																									
	10/7/2011	1 -	8.6	186.62	None	5400 ²	NA	ND<4.4	140/7.0/160/67	NA																									
	10/16/2013		10.56	184.66	Lt. Gray/Odor	3400 ²	NA	ND<4.2	990/58/75/71	NA																									
	4/14/2014		11.07	184.15	Clear	3600 ²	700 ^{7,8}	ND<1.1	400/22/24/13.3	4.0 ⁹																									
SF Bay RWQCB December 2013 ESL						500	640	1800	27 / 130 / 43 / 100	24																									

TABLE 1 (Cont.)Historical Groundwater Levels & Hydrocarbon Analytical Results5930 College Avenue, Oakland, CA

Table & Notes Following

Well ID	Sample Date	Casing Elevation (ft, MSL)	Depth to GW (ft, TOC)	Water Elevation (ft, MSL)	Product Odor/ Sheen	TPH-G (ug/L)	TPH-D (ug/L)	MTBE (ug/L)	BTEX (ug/L)	Naphthalene (ug/L)																											
	4/14/05		6.4	190.77	None	3360	NA	ND (ND**)	62.8 / 6.7 / 79.5/ 317	NA																											
7/26 10/14 1/13 4/14 10/20 1/30 4/13 7/24 4/21	7/26/05		8.63	188.54	None	1300	NA	ND (ND**)	22 / ND / 48 / 110	NA																											
	10/14/05		10.71	186.46	None	4300	NA	ND	93 /1.2 / 100 / 140	NA																											
	1/13/06	-	4.87	192.3	None	450	NA	ND<2.0	10 / ND / 37 / 72	NA																											
	4/14/06		2.27	194.9	Odor	120	NA	ND<2.0	2.3 / ND<1.0 / 3.5 /9.3	NA																											
	10/26/06		10.3	186.87	Odor	2800	NA	ND<10	61 / ND<5.0 / 130 / 34	NA																											
	1/30/07		10.8	186.37	Odor	1200	NA	ND<2	22 / ND<1.0 / 100 / 200	NA																											
	4/13/07		10.31	186.86	NM	510	NA	ND<1	6 / ND<0.5 / 30 / 56	NA																											
	7/24/07		11.81	185.36	None	3400	NA	ND<5	63 / ND<2.5 / 180 / 5.6	NA																											
	4/21/08		9.08	188.09	None	300	NA	ND<1	3 / ND<0.5 / 16 / 26	NA																											
DW 1	7/22/08	107 17	9.83	187.34	None	710	NA	3.1 1	9.3 / 1.2 ¹ / 49 / 67.86	NA																											
1 ***-1	10/21/08	197.17	12.9	184.27	None	1500 ²	NA	1	20 / ND<0.5 / 57 / 20	NA																											
	1/19/09		12.11	185.06	Odor/sheen	1100 ²	NA	ND<0.5	12.3/ND<0.5/30.8/9.20	NA																											
	4/27/2009		8.69	188.48	None	360 ³	NA	ND<0.5	2.7/ND<0.5/12/18	NA																											
	10/27/2009	-	-						-	-	-	-	-	-	-					-	-	-					-	-		10.32	186.85	None	1100 ²	NA	ND<0.5	12/ND<0.5/36/34	NA
	10/14/2010																																	11.38	185.79	None	860 ³
	6/9/2011		7.43	189.74	None	96 ³	NA	ND<0.5	ND<0.5/ND<0.5/3.1/2.5	NA																											
	10/7/2011		9.79	187.38	None	260 ⁵	NA	ND<0.5	ND<0.5/ND<0.5/5.9/4.5	NA																											
	10/16/2013		11.91	185.26	Clear	150 2,5	NA	ND<0.5	0.87/ND<0.5/ND<0.5/ND≤1.0	NA																											
	4/14/2014		12.14	185.03	Clear	ND<50	ND<0.1 ⁸	ND<0.5	ND<0.5/ND<0.5/ND<0.5/ND <u><1.0</u>	ND<0.5 ⁹																											
	SF Bay	RWQCB D	ecember 201	13 ESL		500	640	1800	27 / 130 / 43 / 100	24																											

TABLE 1 (Cont.) Historical Groundwater Levels & Hydrocarbon Analytical Results 5930 College Avenue, Oakland, CA

NOTES:

ft, MSL = feet Above Mean Sea Level

TOC = Top of Well Casing

GW = Depth to Groundwater in feet Below TOC

TPH-G = Total Petroleum Hydrocarbons as Gasoline

MTBE = Methyl Tertiary Butyl Ether

BTEX = Benzene / Toluene / Ethylbenzene / Total Xylenes

ug/L = micrograms per liter

ND = Not detected above laboratory reporting limit

¹ = Presence confirmed, but Relative Percentage Difference (RPD) between columns exceeds 40%

 2 = Sample exhibit chromatographic pattern that does not resemble standard; See laboratory report for additional information

 3 = Although TPH-gas compounds are present, value is elevated due to discrete peak (PCE) within C5-C12 range quantified as gasoline

⁴ = Result is elevated due to contribution from heavy end hydrocarbons within C5-C12 range quantified as gasoline

⁵ = Result is elevated due to contribution from heavy end hydrocarbons and discrete peak of non-fuel compound within C5-C12 range quantified as gasoline

⁶ = Reported TPH value includes amount due to discrete peak (See 8260B results - elevated aromatic compounds)

⁷ = Chromatographic pattern does not resemble typical diesel reference standard; unkown organics within diesel range lighter than diesel quantified as diesel.

⁸ = Sample also analyzed for TPH as Motor Oil (EPA Method SW8015B); Result ND (See Lab Report)

⁹ = Sample also analyzed for Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method SW8270C; See Lab Report for Sample Results

* = Arbitrary datum point with assumed elevation of 50 ft used prior to MSL survey on 4/25/01

** = Concentration confirmed by EPA Method 8260

** = Sample also analyzed for other Fuel oxygenates (EPA Method 8260); All results ND (See Lab Report)

SF Bay RWQCB/ESL = San Francisco Bay Regional Water Quality Control Board's Interim Final - December 2013, Environmental Screening Level at a residential or commercial/industrial use permitted sites with groundwater that Is Not a potential source of drinking water.

TABLE 2Historical Groundwater VOC Analytical Results in PW-15930 College Avenue, Oakland, CA

Well ID	Sample Date	IPB	n-PB	1,3,5-TMB	1,2,4-TMB	Sec-BB	n-BB	Naphthalene	TCE	MC	cis-1,2-DCE	Vinyl	PCE
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Chloride	(ug/L)
												(ug/L)	
	4/14/05	11	22	110	100	ND,10	ND<10	43	3.3	ND<25	12	ND<0.5	84.9
	7/26/05	7.3	17	37	100	ND<10	ND<10	43	ND<1	ND<10	7	ND<1	48
	10/14//05	28	72	67	120	12	17	43	4.1	ND<40	29	ND<1	25
	1/13/06	ND<20	ND<10	ND<10	37	ND<10	ND<10	ND<10	1.4	ND<40	5	ND<1	95
	4/14/06	ND<2	ND<10	ND<10	ND<10	ND<10	ND<10	ND<10	1.1	ND<40	2.8	ND<1	68
	10/26/06	ND<10	ND<50	ND<50	ND<50	ND<50	ND<50	ND<50	6.2	ND<200	32	ND<5.0	26
	1/30/07	ND<2	23	31	120	ND<10	ND<10	18	ND<1	ND<40	11	ND<1	29
	4/13/07	2.4	6.1	7	30	ND<5	ND<5	6.8	0.84	ND<20	4.7	ND<0.5	64
	7/24/07	ND<5.0	60	ND<25	ND<25	ND<25	ND<25	ND<25	ND<2.5	ND<100	58	ND<2.5	50
PW-1	4/21/08	1.1	ND<5	ND<5	15	ND<5	ND<5	ND<5	0.88	ND<20	3.7	ND<0.5	91
	7/22/08	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/21/08	17	14	5	15	9.4	14	5.1	6.2	ND<10	56	0.6	44
	4/27/09	1.2	3.3	3.4	16	ND<0.5	ND<0.5	ND<1.0	1.4	ND<5.0	4	ND<0.5	120
	10/27/09	6	4.8	ND<0.5	15	ND<0.5	ND<0.5	ND<1.0	ND<0.5	ND<5.0	35	ND<0.5	78
	10/14/10	9.8	15	12	44	4.4	ND<0.5	4	5	ND<5.0	61	ND<0.5	35
	6/9/11	0.55	1.7	0.98	3.7	ND<0.5	ND<0.5	ND<1.0	0.85	ND<5.0	1.4	ND<0.5	86
	10/7/11	0.79	1.8	0.99	3.8	ND<0.5	0.68	1.2	0.63	ND<5.0	2	ND<0.5	76
	10/16/13	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	2.7	ND<5.0	12	ND<0.5	45
	4/14/14	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0	1.4	ND<5.0	3.3	ND<0.5	110
SF Bay F	RWQCB ESL	NC	NC	NC	NC	NC	NC	24	130	2200	590	1.8	63

NOTES:

VOC = Volatile Organic Compounds IPB = Isopropylbenzene n-PB = n-Propylbenzene 1,3,5-TMB = 1,3,5-Trimethylbenzene 1,2,4-TMB = 1,2,4-Trimethylbenzene sec-BB = sec-Butylbenzene n-BB = n-Butylbenzene TCE = Trichloroethene MC = Methylene Chloride cis-1,2-DCE = cis-1,2-Dichloroethene PCE = Tetrachloroethene ug/l = micrograms per liter ND = Not detected above laboratory reporting limit NC = No Criteria Listed NA = Not Analyzed SF Bay RWQCB/ESL =

San Francisco Bay Regional Water Quality Control Board's Interim Final - December 2013, Environmental Screening Level at a residential or commercial/industrial use permitted sites with groundwater that Is Not a potential source of drinking water.

Sheaff's Garage 5930 College Avenue Oakland, CA 94618

ACHCSA Fuel Leak Case No. RO0000377

ATTACHMENT A

Fluid-Level Monitoring Data Sheet Well Purging/Sampling Data Sheets

FLUID-LEVEL MONITORING DATA

roject Number	: <u>GGE-2014</u>	/ DEI-	7224	<u></u>		Date:	4/14/2014	
roject/Site Loc	ation:	5930 Colleg	ge Ave Oak	land CA				
echnician:	Kian Atkinson	L				Method: Ele	ectronic	
Boring/ Well	Depth to Water (feet)	Depth to Product (feet)	Product Thickness (feet)	Total Well Depth (feet)	Well Diameter (in.)		Comments	
MW-1	10.92	NONE DEFERE)	AL	14.65	2	@ 1028		(9116
MW-2	12.34	DELEAR) WOME	NA	19-60	2	@ 1025		(9)10
MW-3	11.07	NONE DEFUE)	NA	18-95	2	@ 1021		6/16
PW-1	12.14	DEFENS)	ALA	19.75	2	C 1017		(h)
								ь налекти у
							4	
							tana ara na s	

Page _____ of ____

Well Purging/Sampling Data

WELL NUMBER:	PW-1							
DATE: 4/14/2014								
PROJECT / GLOE	BAL ID:	GGE- 2014	/ T0600102	112				
SITE LOCATION:	-	5930 Colleg	ge Ave					
CITY:	Oakland			STATE:	CA	1		
			PURG	E DEVICE				
circle one subr	nersible pur	np peris	taltic pump	bradde	r pump c	lisposable b	ailer	
			SAMPLI	NG DEVIC	E			
circle one sub	mersible pu	mp peri	staltic pump	badde	er pump	disposable	bailer	
ing diameter (inch	es)	circle one	0.75	2	4	6		
ing volumes (gallo	ns)	circle one	0.02	0.2	0.7	1.52		
			WEL	LDATA				
SAMPLER/S: V	ATVINISO	N						
WELL NUMBER	FIELD POI	NT ID: PW-	1					
A. TOTAL WELL	DEPTH: 19	.75					inge al General en verkene de er ber	
B. DEPTH TO WA	TER: 12	14						
C. WATER HEIGH	-IT (A-B):	7.61	11000 - Constantino (111) St				annande ar systemist of Arrowing	
D. WELL CASING	DIAMETEI	R: 2						
E. CASING VOLU	IME:	.2	a de la de la de la de la de					
F. SINGLE CASE	VOLUME (CxE): 1.5	7				1) 1)	
G. CASE VOLUM	E (S) (CxEx	(3):	1.70					
H: 80% RECHAR	GE LEVEL	(F+B): 12	66					
	0		PUR	GE DATA				
START TIME	55				Mitter and a first diff.	a - 17 - 11 - 11 - 11 - 11 - 11 - 11 - 1		
	1							
	1							
	CI							
TOM DEITH. ()		SAM					
DEPTH TO WATE	-R. 17 11		07.11		SURED: M	า		
	RANCE / OI	DOR: CUT	A NO C	100		+		
TOTAL GALLON		M. CAR	me, pul	DUIL				
TOTAL GALLON	OT ONCED.	e error			TERS			
						<u> </u>		
Casing Vol.	0.0	0.5	1.0	1.5	2.0	2.5	3.0	
рН	6.79	6.79	6-75	6.76	6.74	6.72	6.72	
TEMP in °C	16.5	16.5	165	16.6	16-6	16.6	16.6	
COND / SC	874	871	\$107	\$65	Carl	Scal	865	
DO mg/L		01C	1.40/	1.41/	1.27/	1.110/	1.10/	
DO %	159/16.4	1.45/51	14-8	14.9	12.9	12.1	13	
ORP	1	. ~	1.0	. 01	. 0	-0		
	68	68	101	64	67	14	16	
DTW	12.14	12.20	12.39	12.45	12.57	12.62	17.78	
Pump Depth	15' -							
Pump Rate	250mlms						>	
		E	AGE	OF V				
			(

Well Purging/Sampling Data

WELL NUMBER:	MW-1							
DATE: 4/14/2014								
PROJECT / GLOE	BAL ID:	GGE- 2014	/ T0600102	112				
SITE LOCATION:		5930 Colleg	ge Ave					
CITY:	Oakland			STATE:	CA			
			PURG	E DEVICE				
circle one subr	nersible pur	np peris	taltic pump	bladder	rpump c	lisposable b	ailer	
			SAMPLI	NG DEVIC	E			
circle one sub	mersible pu	mp peris	staltic pump	badde	er pump	disposable l	oailer	
sing diameter (inch	es)	circle one	0.75	2	4	6		
ing volumes (gallo	ns)	circle one	0.02	0.2	0.7	1.52		
ang volumoo (guno		0	WEI	I DATA				
SAMPLERIS: W	ALAN.	1600		<u>L Drin</u>				
WELL NUMBER	FIELD POL	NT ID. MW.	.1					
A TOTAL WELL		(.S			<u>a anto anto</u>			
A. TOTAL WELL	TED. 10	20				· · · · · · · · · · · · · · · · · · ·		
B. DEPTH TO WA	IT (A D).	272						
C. WATER HEIGH	11 (A-B):	7· T)						
D. WELL CASING		R: 2					71 	
E. CASING VOLU		-2						
F. SINGLE CASE	VOLUME (
G. CASE VOLUM	E (S) (CxE)	(3):2·	4					
H: 80% RECHAR	GE LEVEL	(F+B): -(67					
			PUR	<u>GE DATA</u>				
START TIME: 17	15							
PUMP DEPTH:	5'							
FINISH TIME:	353							
PUMP DEPTH:	3'							
			SAM	PLE TIME				
DEPTH TO WATE	ER: 11. 7	5		TIME MEA	SURED:	353		
SAMPLE APPEA	RANCE / O	DOR: UT	21 Spran	JG PGA	notes a			
TOTAL GALLON	S PURGED	my GANG	7					
		<u>v</u>	VELL FLUIL	D PARAME	TERS			
Casing Vol								
Casing voi.	0.0	0.5	1.0	1.5	2.0	2.5	3.0	
рН	\$.05	8.04	8.04	803	\$.03	8.02	8.02	
TEMP in °C	17.3	17.3	17.3	17.3	17.3	17.3	17.3	
COND / SC us/cm	777	776	770	770	7.76	774	775	
DO mg/L DO %	·+1/7.3	·70/7.3	2.5	.65 7.2	-67 7.0	-67 7.0	.06 6.9	
ORP	-97	-94	-(0)	700	-99	-99	-99	
DTW	10.01	11.05	11.17	11.25	11.3)	11.35	11.39	
Pump Depth	B' -						>	
Pump Rate	ZSOMUN						>	
		<u>P</u>	AGE L	OF				

Well Purging/Sampling Data

WELL NUMBER:	MW-2							
DATE: 4/14/2014								
PROJECT / GLOB	BAL ID:	GGE- 2014	/ T0600102	112				
SITE LOCATION:		5930 Colleg	ge Ave					
CITY:	Oakland			STATE:	CA			
en e			PURG	E DEVICE				
circle one subi	mersible pu	mp oeris	taltic pump	badder	r pump o	disposable b	ailer	
			SAMPLI	NG DEVIC	E			
circle one sub	mersible pu	imp oeri	staltic pump	bladde	er pump	disposable	bailer	
ing diameter (inch	es)	circle one	0.75	2	4	6		
ing volumes (gallo	ins)	circle one	0.02	0.2	0.7	1.52		
			WEL	L DATA				
SAMPLER/S:	AN ATUR	VIONN	and the second					
WELL NUMBER	FIELD PO	INT ID: MW	-2				and the second	
A. TOTAL WELL	DEPTH: \	9.60	ing second and the second				and the second	
B. DEPTH TO WA	TER: 12	34						
C. WATER HEIGH	-TT (A-B):	7.7.6			alan aku ser gin kesanan di	Kanadari kanalari da shi	a anti-si in the state of the state	
D. WELL CASING	DIAMETE	R:2					and the second states of the	
E. CASING VOLU	JME:	.2			nan an an an ta kara an an an an an	and the second second second		
F. SINGLE CASE	VOLUME (CxE): 1.4	5				and the second second second	
G. CASE VOLUM	E (S) (CxE	x 3): U	1.25					
H: 80% RECHAR	GE LEVEL	(F+B): 2	.79					
		<u>/</u>	PUR	GE DATA				
START TIME: \7	15							
PUMP DEPTH: 1	-1							
FINISH TIME:	202			N	******************************			
PUMP DEPTH:	51		alan ing sa					
	2		SAM	PLE TIME				<u></u>
DEPTH TO WAT	-R: 12 5	D		TIME MEA	SURED: 1	かけ		
SAMPLE APPEA	RANCE / O	DOR: CIT	An I com	ONTO CAR	5 Oboo	70]	e al a la chail a chuir is Ar aibid ann an Ann	
TOTAL GALLON	S PURGED	: nlo GA		VING OF	100010	and defended of the second		
		V	VELL FLUI		TERS			
Casing Vol.	0.0	0.5	1.0	1.5	2.0	2.5	3.0	
На	720	7-1	7-1	7 21	72)	7.20	1 2	
	4.52	7.21	+-2)	4.21	T.U	7.20	7.20	
TEMP in °C	18.0	18.0	18-0	18-0	180	18-0	18.0	
COND / SC	1220	LECI	1222	1222	1222	1770	1223	
	1Lts	1LT J	1277	1L9T	1047	1018	1041	
DO ING/L	11/4.25	14/4.6	1734.5	194.5	. YI W.V	43	4.2	
000	1			1 1 1				
ORP	-74	-74	-74	-76	-76	-70	-76	
DTW	12.22	17.47	17.45	12.50	17.57	17.2	17.61	
	1.	10 10	10 1	10.10		10.37	->	
Pump Depth	IS'							
Pump Rate	250m15/-				and the second se		->	
	/min	-	ACE 1		L	I	-	
		E Contraction	AUE 7	Ur				
				1				

Well Purging/Sampling Data

.

WELL NUMBER	K: MM-3							
DATE: 4/14/201	4	1					and a second	
PROJECT / GLO	OBAL ID:	GGE- 201	4 / T060010	2112		- Weller In constant A. F. S. Constan		
SITE LOCATION	N:	5930 Colle	ege Ave					
CITY:	Oakland			STATE:	CA			
			PUR	GE DEVICE		ali anna anna anna A		
circle one su	bmersible p	ump (per	istaltic pumi	o bladde	er pump	disposable	bailer	
	10		SAMPL	ING DEVIC	E	andpoodatio	ballor	
circle one su	ubmersible p		ristaltic pum	biadd qu	er numn	disnosable	hailer	
ing diameter (inc	ches)	circle one	0.75	2	4	6	ballet	
ing volumes (gal	lons)	circle one	0.02	$\left(\begin{array}{c} -\\ 02 \end{array}\right)$	0.7	1 52		
0 10	,		WE	LI DATA	0.7	1.02		
SAMPLER/S: V	the Ane	162.		LE DAIA				
WELL NUMBER	R/FIFIDPC		1-3	·····				
A. TOTAL WELL		895						
B. DEPTH TO W		10-15						
C WATER HEIC	HT (A-B)	107					and a second	
D WELL CASIN	IG DIAMETE	-1-00 ID- 7				anothe a		
E CASING VOI		17						
	E VOLUME		-/					
G CASE VOLU		(CXE). [.]	5					
U. 90% DECUAL		(ELD): 17	9.74					
H. 00% RECHAI	NGE LEVEL		- WS	OFDATA				
STADT TIME. M	21		PUR	GEDATA				
DUMD DEDTU	151							
FUNEL TIME	10						-	
PUMP DEDTU	W							1)
POWP DEPTH:	1)							
			SAM	PLE TIME				
DEPTH TO WAT		2		TIME MEA	SURED:	いう		
SAMPLE APPE	ARANCE / C	DOR: UP	-1916	AS ODD	-			-
TOTAL GALLON	NS PURGED	in le GAL	5		······································			
		1	VELL FLUI	D PARAME	TERS			
Casing Vol.	0.0	0.5	10	4.5	20			
	0.0	0.5	1.0	1.5	2.0	2.5	3.0	
рН	723	7.22	7.22	7.21	7.21	7.12	7.72	
TEMP in °C	16.9	17.1	12.0	16.9	110.5	160. 7	16.7	
COND / SC	1.00			(w)	10.0			
us/cm	635	635	636	636	1036	636	1036	
DO mg/L	100	59	155	\$.2	148	.471	461	
DO %	16.3	10-1	15.7	15.5	15.0	149	14.7	
ORP	-78	- 83	-85	-87	-88	-89	-93	
DTW	11-11	11.12	11.12	11.12	11.12	11.14	11 IN	
Dump Donth			uic.	·IIC	11.16	(1-1-1	2	
Fully Depth	15'						-	
Pump Rate	300mishin						->	
<u></u>	TAT MILSIMM	P	AGE \I	OF N	l			E C
		-	1					
					1			

Sheaff's Garage 5930 College Avenue Oakland, CA 94618

ACHCSA Fuel Leak Case No. RO0000377

ATTACHMENT B

Laboratory Certificates of Analysis Chain of Custody Record GeoTracker Upload Confirmation Sheets EPA On-Line Tools for Site Assessment Calculation Sheet



Golden Gate Environmental, Inc 1455 Yosemite Avenue San Francisco, California 94124 Tel: (415) 686-8846 cell

RE: 5930 College Avenue, Oakland

Work Order No.: 1404105

Dear Brent Wheeler:

Torrent Laboratory, Inc. received 4 sample(s) on April 15, 2014 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.

gtp 52-

Patti Sandrock QA Officer April 22, 2014 Date



Date: 4/22/2014

Client: Golden Gate Environmental, Inc Project: 5930 College Avenue, Oakland Work Order: 1404105

CASE NARRATIVE

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

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.

Analytical Comment for S_8270PAH, Note:The % recovery for 2,4-Dinitrotoluene in the LCS and/or LCSD is outside of laboratory control limits (high bias). All samples were Non Detect for those compounds associated with the LCS/LCSD. No corrective action is required.



Sample Result Summary

Report prepared for:	Brent Wheeler				Date	Received:	04/15/14
	Golden Gate Environmental, Inc				Date	Reported:	04/22/14
MW-1						• 14	104105-001
Parameters:		<u>Analysis</u> <u>Method</u>	<u>DF</u>	MDL	PQL	<u>Results</u>	<u>Unit</u>
Benzene		SW8260B	42	3.7	21	3000	ug/L
Toluene		SW8260B	42	2.5	21	480	ug/L
Ethyl Benzene		SW8260B	42	3.1	21	2100	ug/L
m,p-Xylene		SW8260B	42	5.6	42	5200	ug/L
o-Xylene		SW8260B	42	3.2	21	1500	ug/L
Naphthalene		SW8260B	42	5.7	42	500	ug/L
TPH as Gasoline		8260TPH	42	1300	2100	25000	ug/L
2-Methylnaphthalene		SW8270C	10	9.3	40	86	ug/L
1-Methylnaphthalene		SW8270C	10	9.3	40	60	ug/L
TPH as Diesel		SW8015B(M)	4	0.160	0.40	3.0	mg/L
Naphthalene		SW8270C	25	26	100	390	ug/L
MW-2						14	404105-002
Parameters:		<u>Analysis</u> Method	<u>DF</u>	MDL	PQL	<u>Results</u>	<u>Unit</u>
Benzene		SW8260B	4.2	0.37	2.1	530	ug/L
Toluene		SW8260B	4.2	0.25	2.1	19	ug/L
Ethyl Benzene		SW8260B	4.2	0.31	2.1	270	ug/L
m,p-Xylene		SW8260B	4.2	0.56	4.2	42	ug/L
o-Xylene		SW8260B	4.2	0.32	2.1	5.6	ug/L
Naphthalene		SW8260B	4.2	0.57	4.2	86	ug/L
TPH as Gasoline		8260TPH	42	1300	2100	6100	ug/L
Naphthalene		SW8270C	10	10	40	55	ug/L
2-Methylnaphthalene		SW8270C	10	9.3	40	110	ug/L
1-Methylnaphthalene		SW8270C	10	9.3	40	74	ug/L
TPH as Diesel		SW8015B(M)	2	0.0800	0.20	2.5	mg/L



Sample Result Summary

Report prepared for:	Brent Wheeler				Date	Received:	04/15/14
	Golden Gate Environmental, Inc				Date	Reported:	04/22/14
MW-3						14	04105-003
Parameters:		<u>Analysis</u> <u>Method</u>	DF	MDL	PQL	<u>Results</u>	<u>Unit</u>
Toluene		SW8260B	2.1	0.12	1.1	22	ug/L
Ethyl Benzene		SW8260B	2.1	0.16	1.1	24	ug/L
m,p-Xylene		SW8260B	2.1	0.28	2.1	12	ug/L
o-Xylene		SW8260B	2.1	0.16	1.1	1.3	ug/L
Naphthalene		SW8260B	2.1	0.28	2.1	4.0	ug/L
TPH as Gasoline		8260TPH	8.4	260	420	3600	ug/L
Benzene		SW8260B	8.4	0.73	4.2	400	ug/L
1-Methylnaphthalene		SW8270C	1	0.93	4.0	13	ug/L
TPH as Diesel		SW8015B(M)	1	0.0400	0.10	0.70	mg/L
PW-1						14	04105-004

Parameters:	<u>Analysis</u> <u>Method</u>	DF	MDL	PQL	<u>Results</u>	<u>Unit</u>
cis-1,2-Dichloroethene	SW8260B	1	0.19	0.50	3.3	ug/L
Trichloroethylene	SW8260B	1	0.13	0.50	1.4	ug/L
Tetrachloroethylene	SW8260B	1	0.14	0.50	110	ug/L



Report prepared for:	Brent Wheeler Golden Gate Envir	onmental,	Inc					Dat Dat	te Rece te Repe	eived: 04/1 orted: 04/2	5/14 2/14
Client Sample ID:	MW-1				Lab Sar	mple ID:	14041	05-001A			
Project Name/Location:	5930 College A	venue, Oa	kland		Sample	Matrix:	Groun	dwater			
Project Number:											
Date/Time Sampled:	04/14/14 / 13:5	3									
Tag Number:	5930 College A	venue									
Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
MTBE	SW8260B	NA	04/15/14	42	7.2	21	ND		ug/L	420158	NA
tert-Butanol	SW8260B	NA	04/15/14	42	65	210	ND		ug/L	420158	NA
Benzene	SW8260B	NA	04/15/14	42	3.7	21	3000		ug/L	420158	NA
1,2-Dichloroethane	SW8260B	NA	04/15/14	42	4.7	21	ND		ug/L	420158	NA
Toluene	SW8260B	NA	04/15/14	42	2.5	21	480		ug/L	420158	NA
1,2-Dibromoethane	SW8260B	NA	04/15/14	42	2.8	21	ND		ug/L	420158	NA
Ethyl Benzene	SW8260B	NA	04/15/14	42	3.1	21	2100		ug/L	420158	NA
m,p-Xylene	SW8260B	NA	04/15/14	42	5.6	42	5200		ug/L	420158	NA
o-Xylene	SW8260B	NA	04/15/14	42	3.2	21	1500		ug/L	420158	NA
Naphthalene	SW8260B	NA	04/15/14	42	5.7	42	500		ug/L	420158	NA
(S) Dibromofluoromethane	SW8260B	NA	04/15/14	42	61.2	131	82.8		%	420158	NA
(S) Toluene-d8	SW8260B	NA	04/15/14	42	75.1	127	86.4		%	420158	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	04/15/14	42	64.1	120	90.1		%	420158	NA
Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Gasoline	8260TPH	4/15/14	04/15/14	42	1300	2100	25000		ug/L	420158	11317
(S) 4-Bromofluorobenzene	8260TPH	4/15/14	04/15/14	42	41.5	125	66.8		%	420158	11317

NOTE: Reported TPH value includes amount due to discrete peak (see 8260B results - elevated aromatic compounds).



Report prepared for:	Brent Wheeler Golden Gate Enviro	onmental,	Inc				Date Received: 04/15/14 Date Reported: 04/22/14						
Client Sample ID:	MW-1				Lab Sar	nple ID:	14041	05-001B					
Project Name/Location:	5930 College A	venue, Oa	akland		Sample	Matrix:	Groun	dwater					
Project Number:													
Date/Time Sampled:	04/14/14 / 13:5	3											
Tag Number:	5930 College A	venue											
Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch		
The results shown below	are reported using t	heir MDL											
2-Methylnaphthalene	SW8270C	4/21/14	04/21/14	10	9.3	40	86		ug/L	420256	11378		
1-Methylnaphthalene	SW8270C	4/21/14	04/21/14	10	9.3	40	60		ug/L	420256	11378		
Acenaphthylene	SW8270C	4/21/14	04/21/14	10	6.1	40	ND		ug/L	420256	11378		
Acenaphthene	SW8270C	4/21/14	04/21/14	10	6.1	40	ND		ug/L	420256	11378		
Fluorene	SW8270C	4/21/14	04/21/14	10	6.0	40	ND		ug/L	420256	11378		
Phenanthrene	SW8270C	4/21/14	04/21/14	10	4.5	40	ND		ug/L	420256	11378		
Anthracene	SW8270C	4/21/14	04/21/14	10	5.0	40	ND		ug/L	420256	11378		
Fluoranthene	SW8270C	4/21/14	04/21/14	10	4.3	40	ND		ug/L	420256	11378		
Pyrene	SW8270C	4/21/14	04/21/14	10	4.6	40	ND		ug/L	420256	11378		
Benz[a]anthracene	SW8270C	4/21/14	04/21/14	10	4.4	40	ND		ug/L	420256	11378		
Chrysene	SW8270C	4/21/14	04/21/14	10	6.4	40	ND		ug/L	420256	11378		
Benzo[b]fluoranthene	SW8270C	4/21/14	04/21/14	10	12	40	ND		ug/L	420256	11378		
Benzo[k]fluoranthene	SW8270C	4/21/14	04/21/14	10	21	40	ND		ug/L	420256	11378		
Benzo[a]pyrene	SW8270C	4/21/14	04/21/14	10	2.8	40	ND		ug/L	420256	11378		
Indeno[1,2,3-cd]pyrene	SW8270C	4/21/14	04/21/14	10	5.5	40	ND		ug/L	420256	11378		
Dibenz[a,h]anthracene	SW8270C	4/21/14	04/21/14	10	14	40	ND		ug/L	420256	11378		
Benzo[g,h,i]perylene	SW8270C	4/21/14	04/21/14	10	5.0	40	ND		ug/L	420256	11378		
2-Fluorobiphenyl (S)	SW8270C	4/21/14	04/21/14	10	41.4	120	70.2		%	420256	11378		
p-Terphenyl-d14 (S)	SW8270C	4/21/14	04/21/14	10	35.3	135	90.5		%	420256	11378		
NOTE: Reporting limits incr	eased due to matrix inter	ference											
The results shown below	are reported using t	heir MDL											
Naphthalene	SW8270C	4/21/14	04/21/14	25	26	100	390		ug/L	420256	11378		
Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch		
TPH as Diesel	SW8015B(M)	4/19/14	04/1J/14	4	0.160	0.40	3.0	х	mg/L	420247	1137		
TPH as Motor Oil	SW8015B(M)	4/19/14	04/1J/14	4	0.360	1.6	ND		mg/L	420247	1137		
Pentacosane (S)	SW8015B(M)	4/19/14	04/1J/14	4	57.9	123	91.0		%	420247	1137		
NOTE: x- Chromatographic as diesel.	pattern does not resemb	le typical o	diesel refere	nce sta	andard; un	known org	anics within di	esel range	lighter t	han diesel qu	antified		



Report prepared for:	Brent Wheeler Golden Gate Envir	onmental,	Inc					Dat Dat	te Rece te Repo	eived: 04/1 orted: 04/2	5/14 2/14
Client Sample ID:	MW-2				Lab Sa	nple ID:	14041	05-002A			
Project Name/Location:	5930 College A	Avenue, Oa	Ikland		Sample	Matrix:	Groun	dwater			
Project Number:											
Date/Time Sampled:	04/14/14 / 13:0)7									
Tag Number:	5930 College A	Avenue									
Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
MTBE	SW8260B	NA	04/16/14	4.2	0.72	2.1	ND		ug/L	420189	NA
tert-Butanol	SW8260B	NA	04/16/14	4.2	6.5	21	ND		ug/L	420189	NA
Benzene	SW8260B	NA	04/16/14	4.2	0.37	2.1	530		ug/L	420189	NA
1,2-Dichloroethane	SW8260B	NA	04/16/14	4.2	0.47	2.1	ND		ug/L	420189	NA
Toluene	SW8260B	NA	04/16/14	4.2	0.25	2.1	19		ug/L	420189	NA
1,2-Dibromoethane	SW8260B	NA	04/16/14	4.2	0.28	2.1	ND		ug/L	420189	NA
Ethyl Benzene	SW8260B	NA	04/16/14	4.2	0.31	2.1	270		ug/L	420189	NA
m,p-Xylene	SW8260B	NA	04/16/14	4.2	0.56	4.2	42		ug/L	420189	NA
o-Xylene	SW8260B	NA	04/16/14	4.2	0.32	2.1	5.6		ug/L	420189	NA
Naphthalene	SW8260B	NA	04/16/14	4.2	0.57	4.2	86		ug/L	420189	NA
(S) Dibromofluoromethane	SW8260B	NA	04/16/14	4.2	61.2	131	83.0		%	420189	NA
(S) Toluene-d8	SW8260B	NA	04/16/14	4.2	75.1	127	85.5		%	420189	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	04/16/14	4.2	64.1	120	92.3		%	420189	NA
Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Gasoline	8260TPH	4/15/14	04/15/14	42	1300	2100	6100	х	ug/L	420158	11317
(S) 4-Bromofluorobenzene	8260TPH	4/15/14	04/15/14	42	41.5	125	70.5		%	420158	11317

NOTE: x - Although TPH as Gasoline constituents are present, sample chromatogram does not resemble pattern of reference Gasoline standard.



Report prepared for:	Brent Wheeler Golden Gate Envir	onmental	, Inc					Da Da	te Rec te Rep	eived: 04/1 orted: 04/2	5/14 2/14
Client Sample ID: Project Name/Location: Project Number:	MW-2 5930 College /	Avenue, Oa	akland		Lab Sa Sample	mple ID: Matrix:	14041 Groun	05-002B dwater			
Date/Time Sampled:	04/14/14 / 13:0)7									
Tag Number:	5930 College	Avenue									
Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
The results shown below	v are reported using t	their MDL									<u>.</u>
Naphthalene	SW8270C	4/21/14	04/21/14	10	10	40	55		ug/L	420256	11378
2-Methylnaphthalene	SW8270C	4/21/14	04/21/14	10	9.3	40	110		ug/L	420256	11378
1-Methylnaphthalene	SW8270C	4/21/14	04/21/14	10	9.3	40	74		ug/L	420256	11378
Acenaphthylene	SW8270C	4/21/14	04/21/14	10	6.1	40	ND		ug/L	420256	11378
Acenaphthene	SW8270C	4/21/14	04/21/14	10	6.1	40	ND		ug/L	420256	11378
Fluorene	SW8270C	4/21/14	04/21/14	10	6.0	40	ND		ug/L	420256	11378
Phenanthrene	SW8270C	4/21/14	04/21/14	10	4.5	40	ND		ug/L	420256	11378
Anthracene	SW8270C	4/21/14	04/21/14	10	5.0	40	ND		ug/L	420256	11378
Fluoranthene	SW8270C	4/21/14	04/21/14	10	4.3	40	ND		ug/L	420256	11378
Pyrene	SW8270C	4/21/14	04/21/14	10	4.6	40	ND		ug/L	420256	11378
Benz[a]anthracene	SW8270C	4/21/14	04/21/14	10	4.4	40	ND		ug/L	420256	11378
Chrysene	SW8270C	4/21/14	04/21/14	10	6.4	40	ND		ug/L	420256	11378
Benzo[b]fluoranthene	SW8270C	4/21/14	04/21/14	10	12	40	ND		ug/L	420256	11378
Benzo[k]fluoranthene	SW8270C	4/21/14	04/21/14	10	21	40	ND		ug/L	420256	11378
Benzo[a]pyrene	SW8270C	4/21/14	04/21/14	10	2.8	40	ND		ug/L	420256	11378
Indeno[1,2,3-cd]pyrene	SW8270C	4/21/14	04/21/14	10	5.5	40	ND		ug/L	420256	11378
Dibenz[a,h]anthracene	SW8270C	4/21/14	04/21/14	10	14	40	ND		ug/L	420256	11378
Benzo[g,h,i]perylene	SW8270C	4/21/14	04/21/14	10	5.0	40	ND		ug/L	420256	11378
2-Fluorobiphenyl (S)	SW8270C	4/21/14	04/21/14	10	41.4	120	73.2		%	420256	11378
p-Terphenyl-d14 (S)	SW8270C	4/21/14	04/21/14	10	35.3	135	92.2		%	420256	11378
NOTE: Reporting limits inc	creased due to matrix inte	rference									
Parameters:	Analysis Method	Prep	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep

Paramet	ers:	Method	Date	Analyzed					Qualifier		Batch	Batch	
TPH as D	Diesel	SW8015B(M)	4/19/14	04/1J/14	2	0.0800	0.20	2.5	х	mg/L	420247	11371	
TPH as M	lotor Oil	SW8015B(M)	4/19/14	04/1J/14	2	0.180	0.80	ND		mg/L	420247	11371	
Pentacos	ane (S)	SW8015B(M)	4/19/14	04/1J/14	2	57.9	123	88.5		%	420247	11371	
NOTE:	x- Chromatographic pattern as diesel.	does not resemb	ole typical c	liesel refere	nce sta	andard; un	known org	anics within die	esel range	lighter th	an diesel qu	antified	

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Report prepared for:	Brent Wheeler Golden Gate Enviro	onmental,	Inc			Date Received: 04/15/14 Date Reported: 04/22/14					
Client Sample ID:	MW-3				Lab Sa	mple ID:	14041	05-003A			
Project Name/Location:	5930 College A	venue, Oa	kland		Sample	Matrix:	Grour	dwater			
Project Number:											
Date/Time Sampled:	04/14/14 / 12:0	3									
Tag Number:	5930 College A	venue									
Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
MTBE	SW8260B	NA	04/16/14	2.1	0.36	1.1	ND		ug/L	420189	NA
tert-Butanol	SW8260B	NA	04/16/14	2.1	3.2	11	ND		ug/L	420189	NA
1,2-Dichloroethane	SW8260B	NA	04/16/14	2.1	0.24	1.1	ND		ug/L	420189	NA
Toluene	SW8260B	NA	04/16/14	2.1	0.12	1.1	22		ug/L	420189	NA
1,2-Dibromoethane	SW8260B	NA	04/16/14	2.1	0.14	1.1	ND		ug/L	420189	NA
Ethyl Benzene	SW8260B	NA	04/16/14	2.1	0.16	1.1	24		ug/L	420189	NA
m,p-Xylene	SW8260B	NA	04/16/14	2.1	0.28	2.1	12		ug/L	420189	NA
o-Xylene	SW8260B	NA	04/16/14	2.1	0.16	1.1	1.3		ug/L	420189	NA
Naphthalene	SW8260B	NA	04/16/14	2.1	0.28	2.1	4.0		ug/L	420189	NA
(S) Dibromofluoromethane	SW8260B	NA	04/16/14	2.1	61.2	131	82.9		%	420189	NA
(S) Toluene-d8	SW8260B	NA	04/16/14	2.1	75.1	127	89.2		%	420189	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	04/16/14	2.1	64.1	120	90.9		%	420189	NA
Benzene	SW8260B	NA	04/15/14	8.4	0.73	4.2	400		ug/L	420158	NA
(S) Dibromofluoromethane	SW8260B	NA	04/15/14	8.4	61.2	131	87.0		%	420158	NA
(S) Toluene-d8	SW8260B	NA	04/15/14	8.4	75.1	127	90.0		%	420158	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	04/15/14	8.4	64.1	120	95.3		%	420158	NA
Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Gasoline	8260TPH	4/15/14	04/15/14	8.4	260	420	3600	х	ug/L	420158	11317
(S) 4-Bromofluorobenzene	8260TPH	4/15/14	04/15/14	8.4	41.5	125	71.1		%	420158	11317
NOTE: x - Although TPH as	Gasoline constituents a	re present,	sample chr	omato	ogram doe	s not resen	nble pattern of	reference (Gasoline	e standard.	



Report prepared for:	Brent Wheeler Golden Gate Enviro	onmental,	Inc					Da Da	te Reco te Repo	eived: 04/1 orted: 04/2	5/14 2/14
Client Sample ID:	MW-3				Lab San	nple ID:	14041	05-003B			
Project Name/Location:	5930 College A	venue, Oa	kland		Sample	Matrix:	Grour	dwater			
Project Number:											
Date/Time Sampled:	04/14/14 / 12:0	3									
Tag Number:	5930 College A	venue									
Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Naphthalene	SW8270C	4/21/14	04/21/14	1	1.0	4.0	ND		ug/L	420256	11378
2-Methylnaphthalene	SW8270C	4/21/14	04/21/14	1	0.93	4.0	ND		ug/L	420256	11378
1-Methylnaphthalene	SW8270C	4/21/14	04/21/14	1	0.93	4.0	13		ug/L	420256	11378
Acenaphthylene	SW8270C	4/21/14	04/21/14	1	0.61	4.0	ND		ug/L	420256	11378
Acenaphthene	SW8270C	4/21/14	04/21/14	1	0.61	4.0	ND		ug/L	420256	11378
Fluorene	SW8270C	4/21/14	04/21/14	1	0.60	4.0	ND		ug/L	420256	11378
Phenanthrene	SW8270C	4/21/14	04/21/14	1	0.45	4.0	ND		ug/L	420256	11378
Anthracene	SW8270C	4/21/14	04/21/14	1	0.50	4.0	ND		ug/L	420256	11378
Fluoranthene	SW8270C	4/21/14	04/21/14	1	0.43	4.0	ND		ug/L	420256	11378
Pyrene	SW8270C	4/21/14	04/21/14	1	0.46	4.0	ND		ug/L	420256	11378
Benz[a]anthracene	SW8270C	4/21/14	04/21/14	1	0.44	4.0	ND		ug/L	420256	11378
Chrysene	SW8270C	4/21/14	04/21/14	1	0.64	4.0	ND		ug/L	420256	11378
Benzo[b]fluoranthene	SW8270C	4/21/14	04/21/14	1	1.2	4.0	ND		ug/L	420256	11378
Benzo[k]fluoranthene	SW8270C	4/21/14	04/21/14	1	2.1	4.0	ND		ug/L	420256	11378
Benzo[a]pyrene	SW8270C	4/21/14	04/21/14	1	0.28	4.0	ND		ug/L	420256	11378
Indeno[1,2,3-cd]pyrene	SW8270C	4/21/14	04/21/14	1	0.55	4.0	ND		ug/L	420256	11378
Dibenz[a,h]anthracene	SW8270C	4/21/14	04/21/14	1	1.4	4.0	ND		ug/L	420256	11378
Benzo[g,h,i]perylene	SW8270C	4/21/14	04/21/14	1	0.50	4.0	ND		ug/L	420256	11378
2-Fluorobiphenyl (S)	SW8270C	4/21/14	04/21/14	1	41.4	120	94.6		%	420256	11378
p-Terphenyl-d14 (S)	SW8270C	4/21/14	04/21/14	1	35.3	135	111		%	420256	11378
Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Diesel	SW8015B(M)	4/19/14	04/1J/14	1	0.0400	0.10	0.70	x	mg/L	420247	11371
TPH as Motor Oil	SW8015B(M)	4/19/14	04/19/14	1	0.0900	0.40	ND		mg/L	420247	11371
Pentacosane (S)	SW8015B(M)	4/19/14	04/1J/14	1	57.9	123	93.5		%	420247	11371
NOTE: x- Chromatographi as diesel.	c pattern does not resemb	ole typical o	diesel refere	nce st	andard; un	known org	anics within d	iesel range	lighter t	han diesel qu	antified



Report prepared for:	Brent Wheeler Golden Gate Envire	onmental	, Inc					Dat Dat	te Rece te Repo	eived: 04/1 orted: 04/2	5/14 2/14
Client Sample ID:	PW-1				Lab Sar	nple ID:	14041	05-004A			
Project Name/Location:	5930 College A	venue, O	akland		Sample	Matrix:	Groun	dwater			
Project Number:											
Date/Time Sampled:	04/14/14 / 11:1	7									
Tag Number:	5930 College A	venue									
Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Dichlorodifluoromethane	SW8260B	NA	04/15/14	1	0.18	0.50	ND		ug/L	420158	NA
Chloromethane	SW8260B	NA	04/15/14	1	0.16	0.50	ND		ug/L	420158	NA
Vinyl Chloride	SW8260B	NA	04/15/14	1	0.16	0.50	ND		ug/L	420158	NA
Bromomethane	SW8260B	NA	04/15/14	1	0.18	0.50	ND		ug/L	420158	NA
Trichlorofluoromethane	SW8260B	NA	04/15/14	1	0.18	0.50	ND		ug/L	420158	NA
1,1-Dichloroethene	SW8260B	NA	04/15/14	1	0.15	0.50	ND		ug/L	420158	NA
Freon 113	SW8260B	NA	04/15/14	1	0.19	0.50	ND		ug/L	420158	NA
Methylene Chloride	SW8260B	NA	04/15/14	1	0.23	5.0	ND		ug/L	420158	NA
trans-1,2-Dichloroethene	SW8260B	NA	04/15/14	1	0.19	0.50	ND		ug/L	420158	NA
MTBE	SW8260B	NA	04/15/14	1	0.17	0.50	ND		ug/L	420158	NA
tert-Butanol	SW8260B	NA	04/15/14	1	1.5	5.0	ND		ug/L	420158	NA
Diisopropyl ether (DIPE)	SW8260B	NA	04/15/14	1	0.13	0.50	ND		ug/L	420158	NA
1,1-Dichloroethane	SW8260B	NA	04/15/14	1	0.13	0.50	ND		ug/L	420158	NA
ETBE	SW8260B	NA	04/15/14	1	0.17	0.50	ND		ug/L	420158	NA
cis-1,2-Dichloroethene	SW8260B	NA	04/15/14	1	0.19	0.50	3.3		ug/L	420158	NA
2,2-Dichloropropane	SW8260B	NA	04/15/14	1	0.15	0.50	ND		ug/L	420158	NA
Bromochloromethane	SW8260B	NA	04/15/14	1	0.20	0.50	ND		ug/L	420158	NA
Chloroform	SW8260B	NA	04/15/14	1	0.13	0.50	ND		ug/L	420158	NA
Carbon Tetrachloride	SW8260B	NA	04/15/14	1	0.15	0.50	ND		ug/L	420158	NA
1,1,1-Trichloroethane	SW8260B	NA	04/15/14	1	0.097	0.50	ND		ug/L	420158	NA
1,1-Dichloropropene	SW8260B	NA	04/15/14	1	0.15	0.50	ND		ug/L	420158	NA
Benzene	SW8260B	NA	04/15/14	1	0.13	0.50	ND		ug/L	420158	NA
TAME	SW8260B	NA	04/15/14	1	0.17	0.50	ND		ug/L	420158	NA
1,2-Dichloroethane	SW8260B	NA	04/15/14	1	0.14	0.50	ND		ug/L	420158	NA
Trichloroethylene	SW8260B	NA	04/15/14	1	0.13	0.50	1.4		ug/L	420158	NA
Dibromomethane	SW8260B	NA	04/15/14	1	0.15	0.50	ND		ug/L	420158	NA
1,2-Dichloropropane	SW8260B	NA	04/15/14	1	0.17	0.50	ND		ug/L	420158	NA
Bromodichloromethane	SW8260B	NA	04/15/14	1	0.13	0.50	ND		ug/L	420158	NA
cis-1,3-Dichloropropene	SW8260B	NA	04/15/14	1	0.096	0.50	ND		ug/L	420158	NA
Toluene	SW8260B	NA	04/15/14	1	0.14	0.50	ND		ug/L	420158	NA
Tetrachloroethylene	SW8260B	NA	04/15/14	1	0.14	0.50	110		ug/L	420158	NA
trans-1,3-Dichloropropene	SW8260B	NA	04/15/14	1	0.23	0.50	ND		ug/L	420158	NA
1,1,2-Trichloroethane	SW8260B	NA	04/15/14	1	0.14	0.50	ND		ug/L	420158	NA
Dibromochloromethane	SW8260B	NA	04/15/14	1	0.096	0.50	ND		ug/L	420158	NA
1,3-Dichloropropane	SW8260B	NA	04/15/14	1	0.10	0.50	ND		ug/L	420158	NA

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Report prepared for:	Brent Wheeler Golden Gate Envire	onmental	, Inc					Dat Dat	te Reco te Repo	eived: 04/1 orted: 04/2	5/14 2/14
Client Sample ID:	PW-1				Lab Sar	mple ID:	1404 <i>°</i>	105-004A			
Project Name/Location:	5930 College A	Avenue, Oa	akland		Sample	Matrix:	Grour	ndwater			
Project Number:											
Date/Time Sampled:	04/14/14 / 11:1	7									
Tag Number:	5930 College A	Venue									
Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
1,2-Dibromoethane	SW8260B	NA	04/15/14	1	0.19	0.50	ND		ug/L	420158	NA
Chlorobenzene	SW8260B	NA	04/15/14	1	0.14	0.50	ND		ug/L	420158	NA
Ethyl Benzene	SW8260B	NA	04/15/14	1	0.15	0.50	ND		ug/L	420158	NA
1,1,1,2-Tetrachloroethane	SW8260B	NA	04/15/14	1	0.096	0.50	ND		ug/L	420158	NA
m,p-Xylene	SW8260B	NA	04/15/14	1	0.13	1.0	ND		ug/L	420158	NA
o-Xylene	SW8260B	NA	04/15/14	1	0.15	0.50	ND		ug/L	420158	NA
Styrene	SW8260B	NA	04/15/14	1	0.21	0.50	ND		ug/L	420158	NA
Bromoform	SW8260B	NA	04/15/14	1	0.21	1.0	ND		ug/L	420158	NA
Isopropyl Benzene	SW8260B	NA	04/15/14	1	0.097	0.50	ND		ug/L	420158	NA
Bromobenzene	SW8260B	NA	04/15/14	1	0.15	0.50	ND		ug/L	420158	NA
1,1,2,2-Tetrachloroethane	SW8260B	NA	04/15/14	1	0.11	0.50	ND		ug/L	420158	NA
n-Propylbenzene	SW8260B	NA	04/15/14	1	0.078	0.50	ND		ug/L	420158	NA
2-Chlorotoluene	SW8260B	NA	04/15/14	1	0.076	0.50	ND		ug/L	420158	NA
1,3,5-Trimethylbenzene	SW8260B	NA	04/15/14	1	0.074	0.50	ND		ug/L	420158	NA
4-Chlorotoluene	SW8260B	NA	04/15/14	1	0.088	0.50	ND		ug/L	420158	NA
tert-Butylbenzene	SW8260B	NA	04/15/14	1	0.081	0.50	ND		ug/L	420158	NA
1,2,3-Trichloropropane	SW8260B	NA	04/15/14	1	0.14	0.50	ND		ug/L	420158	NA
1,2,4-Trimethylbenzene	SW8260B	NA	04/15/14	1	0.083	0.50	ND		ug/L	420158	NA
sec-Butyl Benzene	SW8260B	NA	04/15/14	1	0.092	0.50	ND		ug/L	420158	NA
p-Isopropyltoluene	SW8260B	NA	04/15/14	1	0.093	0.50	ND		ug/L	420158	NA
1,3-Dichlorobenzene	SW8260B	NA	04/15/14	1	0.10	0.50	ND		ug/L	420158	NA
1,4-Dichlorobenzene	SW8260B	NA	04/15/14	1	0.069	0.50	ND		ug/L	420158	NA
n-Butylbenzene	SW8260B	NA	04/15/14	1	0.081	0.50	ND		ug/L	420158	NA
1,2-Dichlorobenzene	SW8260B	NA	04/15/14	1	0.057	0.50	ND		ug/L	420158	NA
1,2-Dibromo-3-Chloropropane	SW8260B	NA	04/15/14	1	0.15	0.50	ND		ug/L	420158	NA
Hexachlorobutadiene	SW8260B	NA	04/15/14	1	0.19	0.50	ND		ug/L	420158	NA
1,2,4-Trichlorobenzene	SW8260B	NA	04/15/14	1	0.12	0.50	ND		ug/L	420158	NA
Naphthalene	SW8260B	NA	04/15/14	1	0.14	1.0	ND		ug/L	420158	NA
1,2,3-Trichlorobenzene	SW8260B	NA	04/15/14	1	0.23	0.50	ND		ug/L	420158	NA
(S) Dibromofluoromethane	SW8260B	NA	04/15/14	1	61.2	131	87.1		%	420158	NA
(S) Toluene-d8	SW8260B	NA	04/15/14	1	75.1	127	91.5		%	420158	NA
(S) 4-Bromofluorobenzene	SW8260B	NA	04/15/14	1	64.1	120	92.1		%	420158	NA



Report prepared for:	Brent Wheeler Golden Gate Envir	onmental,	Inc					Dat Dat	te Rece te Repe	eived: 04/1 orted: 04/2	5/14 2/14
Client Sample ID: Project Name/Location: Project Number: Date/Time Sampled:	PW-1 5930 College A 04/14/14 / 11:1	Avenue, Oa 7	ıkland		Lab Sar Sample	mple ID: Matrix:	140410 Ground	05-004A Iwater			
Tag Number:	5930 College A	Avenue									
Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Gasoline	8260TPH	4/15/14	04/15/14	1	31	50	ND		ug/L	420158	11317
(S) 4-Bromofluorobenzene	8260TPH	4/15/14	04/15/14	1	41.5	125	67.7		%	420158	11317



Report prepared for:	Brent Wheeler Golden Gate Enviro	onmental,	Inc				Date Received: 04/15/14 Date Reported: 04/22/14				
Client Sample ID:	PW-1	_			Lab San	nple ID:	1404	105-004B			
Project Name/Location:	5930 College A	venue, Oa	akland		Sample	Matrix:	Grour	ndwater			
Project Number:	04/14/14 / 11·1	7									
Tag Number	5930 College A	venue									
rag Number.	3930 College P	wenue									
Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
Naphthalene	SW8270C	4/21/14	04/21/14	1	1.0	4.0	ND		ug/L	420256	11378
2-Methylnaphthalene	SW8270C	4/21/14	04/21/14	1	0.93	4.0	ND		ug/L	420256	11378
1-Methylnaphthalene	SW8270C	4/21/14	04/21/14	1	0.93	4.0	ND		ug/L	420256	11378
Acenaphthylene	SW8270C	4/21/14	04/21/14	1	0.61	4.0	ND		ug/L	420256	11378
Acenaphthene	SW8270C	4/21/14	04/21/14	1	0.61	4.0	ND		ug/L	420256	11378
Fluorene	SW8270C	4/21/14	04/21/14	1	0.60	4.0	ND		ug/L	420256	11378
Phenanthrene	SW8270C	4/21/14	04/21/14	1	0.45	4.0	ND		ug/L	420256	11378
Anthracene	SW8270C	4/21/14	04/21/14	1	0.50	4.0	ND		ug/L	420256	11378
Fluoranthene	SW8270C	4/21/14	04/21/14	1	0.43	4.0	ND		ug/L	420256	11378
Pyrene	SW8270C	4/21/14	04/21/14	1	0.46	4.0	ND		ug/L	420256	11378
Benz[a]anthracene	SW8270C	4/21/14	04/21/14	1	0.44	4.0	ND		ug/L	420256	11378
Chrysene	SW8270C	4/21/14	04/21/14	1	0.64	4.0	ND		ug/L	420256	11378
Benzo[b]fluoranthene	SW8270C	4/21/14	04/21/14	1	1.2	4.0	ND		ug/L	420256	11378
Benzo[k]fluoranthene	SW8270C	4/21/14	04/21/14	1	2.1	4.0	ND		ug/L	420256	11378
Benzo[a]pyrene	SW8270C	4/21/14	04/21/14	1	0.28	4.0	ND		ug/L	420256	11378
Indeno[1,2,3-cd]pyrene	SW8270C	4/21/14	04/21/14	1	0.55	4.0	ND		ug/L	420256	11378
Dibenz[a,h]anthracene	SW8270C	4/21/14	04/21/14	1	1.4	4.0	ND		ug/L	420256	11378
Benzo[g,h,i]perylene	SW8270C	4/21/14	04/21/14	1	0.50	4.0	ND		ug/L	420256	11378
2-Fluorobiphenyl (S)	SW8270C	4/21/14	04/21/14	1	41.4	120	76.4		%	420256	11378
p-Terphenyl-d14 (S)	SW8270C	4/21/14	04/21/14	1	35.3	135	117		%	420256	11378
Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Diesel	SW8015B(M)	4/19/14	04/19/14	1	0.0400	0.10	ND		mg/L	420247	11371
TPH as Motor Oil	SW8015B(M)	4/19/14	04/19/14	1	0.0900	0.40	ND		mg/L	420247	11371
Pentacosane (S)	SW8015B(M)	4/19/14	04/19/14	1	57.9	123	62.2		%	420247	11371



Work Order:	1404105	Prep Method:		5030	Prep	Date:	04/15/14	Prep Batch:	11317
Matrix:	Water	Analy	tical	8260TPH	Anal	yzed Date:	04/15/14	Analytical	420158
Units:	ug/L	Metho	ba:					Batch:	
Parameters		MDL	PQL	Method Blank Conc.	Lab Qualifier				
TPH as Gasoline (S) 4-Bromofluorob	enzene	31	50	ND 74.1					
Work Order:	1404105	Prep I	Method:	5030	Prep	Date:	04/16/14	Prep Batch:	11336
Matrix:	Water	Analy	tical	8260TPH	8260TPH Analyzed Date:		04/16/14	Analytical	420189
Units:	ug/L	Metho	od:					Batch:	
Parameters		MDL	PQL	Method Blank Conc.	Lab Qualifier				
TPH as Gasoline (S) 4-Bromofluorob	enzene	31	50	ND 53.5					
Work Order:	1404105	Prep I	Method:	3510_TPH	Prep	Date:	04/19/14	Prep Batch:	11371
Matrix:	Water	Analy	tical	SW8015B(M)	Anal	yzed Date:	04/19/14	Analytical	420247
Units:	mg/L	Metho	od:					Batch:	
Parameters		MDL	PQL	Method Blank Conc.	Lab Qualifier				
TPH as Diesel TPH as Motor Oil Pentacosane (S)		0.0440 0.0920	0.10 0.40	ND ND 97.3					



Work Order:	1404105	Prep I	Method:	3510_BNA	Prep	Date:	04/21/14	Prep Batch:	11378
Matrix:	Water	Analy Metho	tical	SW8270C	Anal	yzed Date:	04/21/14	Analytical Batch:	420256
Units:	ug/L	metrie	metrioa:					Buton	
Parameters		MDL	PQL	Method Blank Conc.	Lab Qualifier				
Pyridine		2.0	4.0	ND					
N-Nitrosdimethylam	ine	0.75	4.0	ND					
Aniline		1.2	4.0	ND					
Phenol		0.96	4.0	ND					
Bis(2-chloroethyl) et	her	1.1	4.0	ND					
2-Chlorophenol		1.3	4.0	ND					
1,3-Dichlorobenzen	е	0.99	4.0	ND					
1,4-Dichlorobenzen	е	1.3	4.0	ND					
Benzyl Alcohol		1.3	8.0	ND					
1,2-Dichlorobenzen	е	1.1	4.0	ND					
2-Methylphenol (o-C	Cresol)	1.4	4.0	ND					
Bis(2-chloroisoprop	/l)ether	1.4	4.0	ND					
3-/4-Methylphenol (o-/m-Cresol)	1.3	4.0	ND					
N-nitroso-di-n-propy	lamine	1.4	4.0	ND					
Hexachloroethane		1.3	4.0	ND					
Nitrobenzene		1.1	4.0	ND					
Isophorone		1.3	4.0	ND					
2-Nitrophenol		0.91	20	ND					
2,4-Dimethylphenol		0.091	4.0	ND					
Benzoic Acid		7.0	20	ND					
Bis(2-Chloroethoxy)	methane	1.2	4.0	ND					
2,4-Dichlorophenol		1.0	4.0	ND					
1,2,4-Trichlorobenze	ene	0.95	4.0	ND					
2,6-Dichlorophenol		1.0	4.0	ND					
Naphthalene		1.0	4.0	ND					
4-Chloroaniline		0.94	8.0	ND					
Hexachloro-1,3-buta	adiene	0.88	4.0	ND					
4-Chloro-3-methylpl	nenol	0.79	4.0	ND					
2-Methylnaphthalen	e	0.93	4.0	ND					
1-Methylnaphthalen	e	0.93	4.0	ND					
Hexachlorocycloper	ntadiene	0.36	20	ND					
2,4,6-Trichlorophen	ol	0.85	4.0	ND					
2,4,5-Trichlorophen	ol	0.85	4.0	ND					
2-Chloronaphthalen	e	1.0	4.0	ND					
2-Nitroaniline		0.43	20	ND					
1,4-Dinitrobenzene		0.50	4.0	ND					
Dimethyl phthalate		0.44	4.0	ND					
1,3-Dinitrobenzene		0.092	4.0	ND					
Acenaphthylene		0.61	4.0	ND					
2,6-Dinitrotoluene		0.44	4.0	ND					
1,2-Dinitrobenzene		0.50	4.0	ND					

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Work Order:	1404105	Prep I	lethod:	3510_BNA	Prep	Date:	04/21/14	Prep Batch:	11378
Matrix:	Water	Analy Metho	tical	SW8270C	Anal	yzed Date:	04/21/14	Analytical Batch:	420256
Units:	ug/L	Methe	·					Baton	
Parameters		MDL	PQL	Method Blank Conc.	Lab Qualifier				
3-Nitroaniline		0.83	20	ND					
Acenaphthene		0.61	4.0	ND					
2,4-Dinitrophenol		0.057	10	ND					
4-Nitrophenol		1.4	4.0	ND					
Dibenzofuran		0.75	4.0	ND					
2,4-Dinitrotoluene		0.49	4.0	ND					
2,3,5,6-Tetrachloro	phenol	0.30	4.0	ND					
2,3,4,6-Tetrachloro	phenol	0.25	4.0	ND					
Diethylphthalate		0.74	4.0	ND					
Fluorene		0.60	4.0	ND					
4-Chlorophenyl phe	enyl ether	0.63	4.0	ND					
4-Nitroaniline		0.21	20	ND					
4,6-Dinitro-2-methy	Iphenol	0.78	20	ND					
Diphenylamine		0.62	4.0	ND					
Azobenzene		0.62	4.0	ND					
4-Bromophenyl phe	enyl ether	0.93	4.0	ND					
Hexachlorobenzene	e	0.65	4.0	ND					
Pentachlorophenol		0.25	4.0	ND					
Phenanthrene		0.45	4.0	ND					
Anthracene		0.50	4.0	ND					
Carbazole		0.50	4.0	ND					
Di-n-butylphthalate		0.42	4.0	0.43					
Fluoranthene		0.43	4.0	ND					
Benzidine		0.12	20	ND					
Pyrene		0.46	4.0	ND					
Benzyl butyl phthala	ate	0.41	4.0	ND					
Benz[a]anthracene		0.44	4.0	ND					
3,3'-Dichlorobenzid	ine	0.30	8.0	ND					
Chrysene		0.64	4.0	ND					
Bis(2-Ethylhexyl)ph	thalate	0.34	4.0	ND					
Di-n-octyl phthalate		0.41	4.0	ND					
Benzo[b]fluoranther	ne	1.2	4.0	ND					
Benzo[k]fluoranther	ne	2.1	4.0	ND					
Benzolajpyrene		0.28	4.0	ND					
Indeno[1,2,3-cd]pyr	ene	0.55	4.0	ND					
Dibenz[a,h]anthrace	ene	1.4	4.0	ND					
Benzo[g,h,i]perylen	e	0.50	4.0	ND					
Phenol-d6 (S)				51.1	0				
2-Fluorophenol (S)				150	5				
2,4,6-Tribromopher	101 (S)			67.0					
INITrobenzene-d5 (S)			94.4					

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Work Order:1404105Matrix:WaterUnits:ug/L		Prep Analy Metho	Method: tical od:	: 3510_BNA Prep Da SW8270C Analyze		Date: yzed Date:	04/21/14 04/21/14	Prep Batch: Analytical Batch:	11378 420256
Parameters		MDL	PQL	Method Blank Conc.	Lab Qualifier				
2-Fluorobiphenyl (S) p-Terphenyl-d14 (S)				100 121					



Work Order:	1404105	Prep I	lethod:	NA	Prep	Date:	NA	Prep Batch:	NA
Matrix:	Water	Analy Metho	tical	SW8260B	Anal	yzed Date:	04/15/14	Analytical Batch:	420158
Units:	ug/L	motrie						Batom	
Parameters		MDL	PQL	Method Blank Conc.	Lab Qualifier				
Dichlorodifluorometh	nane	0.18	0.50	ND					
Chloromethane		0.16	0.50	ND					
Vinyl Chloride		0.16	0.50	ND					
Bromomethane		0.18	0.50	ND					
Trichlorofluorometha	ane	0.18	0.50	ND					
1,1-Dichloroethene		0.15	0.50	ND					
Freon 113		0.19	0.50	ND					
Methylene Chloride		0.23	5.0	ND					
trans-1,2-Dichloroet	hene	0.19	0.50	ND					
MTBE		0.17	0.50	ND					
tert-Butanol		1.5	5.0	ND					
Diisopropyl ether (D	IPE)	0.13	0.50	ND					
1,1-Dichloroethane		0.13	0.50	ND					
ETBE		0.17	0.50	ND					
cis-1,2-Dichloroethe	ne	0.19	0.50	ND					
2,2-Dichloropropane	;	0.15	0.50	ND					
Bromochloromethan	e	0.20	0.50	ND					
Chloroform		0.13	0.50	ND					
Carbon Tetrachlorid	e	0.15	0.50	ND					
1,1,1-Trichloroethan	е	0.097	0.50	ND					
1,1-Dichloropropene	9	0.15	0.50	ND					
Benzene		0.13	0.50	ND					
TAME		0.17	0.50	ND					
1,2-Dichloroethane		0.14	0.50	ND					
Trichloroethylene		0.13	0.50	ND					
Dibromomethane		0.15	0.50	ND					
1,2-Dichloropropane	9	0.17	0.50	ND					
Bromodichlorometha	ane	0.13	0.50	ND					
cis-1,3-Dichloroprop	ene	0.096	0.50	ND					
Toluene		0.14	0.50	ND					
Tetrachloroethylene		0.14	0.50	ND					
trans-1,3-Dichloropr	opene	0.23	0.50	ND					
1,1,2-Trichloroethan	е	0.14	0.50	ND					
Dibromochlorometha	ane	0.096	0.50	ND					
1,3-Dichloropropane	9	0.10	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-Tetrachloroe	thane	0.096	0.50	ND					
m,p-Xylene		0.13	1.0	ND					
o-Xvlene		0.15	0.50	ND					

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Work Order:	1404105	Prep I	Method:	NA	Prep	Date:	NA	Prep Batch:	NA	
Matrix:	Water	Analytical Method:		SW8260B	Anal	yzed Date:	04/15/14	Analytical	420158	
Units:	ug/L	Metho	Method:					Batch:		
Parameters		MDL	PQL	Method Blank Conc.	Lab Qualifier]
Styrene		0.21	0.50	ND						
Bromoform		0.21	1.0	ND						
Isopropyl Benzene		0.097	0.50	ND						
Bromobenzene		0.15	0.50	ND						
1,1,2,2-Tetrachloroe	ethane	0.11	0.50	ND						
n-Propylbenzene		0.078	0.50	ND						
2-Chlorotoluene		0.076	0.50	ND						
1,3,5,-Trimethylbenz	zene	0.074	0.50	ND						
4-Chlorotoluene		0.088	0.50	ND						
tert-Butylbenzene		0.081	0.50	ND						
1,2,3-Trichloropropa	ane	0.14	0.50	ND						
1,2,4-Trimethylbenz	ene	0.083	0.50	ND						
sec-Butyl Benzene		0.092	0.50	ND						
p-Isopropyltoluene		0.093	0.50	ND						
1,3-Dichlorobenzen	e	0.10	0.50	ND						
1,4-Dichlorobenzen	e	0.069	0.50	ND						
n-Butylbenzene		0.081	0.50	ND						
1,2-Dichlorobenzen	e	0.057	0.50	ND						
1,2-Dibromo-3-Chlo	ropropane	0.15	0.50	ND						
Hexachlorobutadien	ie	0.19	0.50	0.26						
1,2,4-Trichlorobenze	ene	0.12	0.50	0.14						
Naphthalene		0.14	1.0	0.29						
1,2,3-Trichlorobenze	ene	0.23	0.50	0.33						
(S) Dibromofluorom	ethane			86.8						
(S) Toluene-d8				92.1						
(S) 4-Bromofluorobe	enzene			96.3						
Ethanol		0.21	0.50	ND	TIC					



Work Order:	1404105	Prep I	Method:	NA	Prep	Date:	NA	Prep Batch:	NA
Matrix:	Water	Analy Metho	tical	SW8260B	Anal	yzed Date:	04/16/14	Analytical Batch:	420189
Units:	ug/L	Methe						Baton	
				Method	Lab				
Parameters		MDL	PQL	Blank Conc.	Qualifier				
Dichlorodifluoromet	hane	0.18	0.50	ND	•	•			
Chloromethane		0.16	0.50	ND					
Vinyl Chloride		0.16	0.50	ND					
Bromomethane		0.18	0.50	ND					
Trichlorofluorometha	ane	0.18	0.50	ND					
1,1-Dichloroethene		0.15	0.50	ND					
Freon 113		0.19	0.50	ND					
Methylene Chloride		0.23	5.0	ND					
trans-1,2-Dichloroet	hene	0.19	0.50	ND					
MTBE		0.17	0.50	ND					
tert-Butanol		1.5	5.0	ND					
Diisopropyl ether (D	IPE)	0.13	0.50	ND					
1,1-Dichloroethane		0.13	0.50	ND					
ETBE		0.17	0.50	ND					
cis-1,2-Dichloroethe	ene	0.19	0.50	ND					
2,2-Dichloropropane	e	0.15	0.50	ND					
Bromochloromethar	ne	0.20	0.50	ND					
Chloroform		0.13	0.50	ND					
Carbon Tetrachlorid	е	0.15	0.50	ND					
1,1,1-Trichloroethar	ne	0.097	0.50	ND					
1,1-Dichloropropene	e	0.15	0.50	ND					
Benzene		0.13	0.50	ND					
TAME		0.17	0.50	ND					
1,2-Dichloroethane		0.14	0.50	ND					
Trichloroethylene		0.13	0.50	ND					
Dibromomethane		0.15	0.50	ND					
1,2-Dichloropropane	e	0.17	0.50	ND					
Bromodichlorometh	ane	0.13	0.50	ND					
cis-1,3-Dichloroprop	bene	0.096	0.50	ND					
Toluene		0.14	0.50	ND					
Tetrachloroethylene	1	0.14	0.50	ND					
trans-1,3-Dichloropr	opene	0.23	0.50	ND					
1,1,2-Trichloroethar	ie	0.14	0.50	ND					
Dibromochlorometh	ane	0.096	0.50	ND					
1,3-Dichloropropane	e	0.10	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-Tetrachloroe	ethane	0.096	0.50	ND					
m,p-Xylene		0.13	1.0	ND					
o-Xylene		0.15	0.50	ND					

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Work Order:	1404105	Prep I	Method:	NA	Prep	Date:	NA	Prep Batch:	NA	
Matrix:	Water	Analytical Method:		SW8260B	Anal	yzed Date:	04/16/14	Analytical	420189	
Units:	ug/L	Metho	Method:					Batch:		
Parameters		MDL	PQL	Method Blank Conc.	Lab Qualifier					
Styrene		0.21	0.50	ND						_
Bromoform		0.21	1.0	ND						
Isopropyl Benzene		0.097	0.50	ND						
Bromobenzene		0.15	0.50	ND						
1,1,2,2-Tetrachloroe	ethane	0.11	0.50	ND						
n-Propylbenzene		0.078	0.50	ND						
2-Chlorotoluene		0.076	0.50	ND						
1,3,5,-Trimethylbenz	zene	0.074	0.50	ND						
4-Chlorotoluene		0.088	0.50	ND						
tert-Butylbenzene		0.081	0.50	ND						
1,2,3-Trichloropropa	ane	0.14	0.50	ND						
1,2,4-Trimethylbenz	ene	0.083	0.50	ND						
sec-Butyl Benzene		0.092	0.50	ND						
p-Isopropyltoluene		0.093	0.50	ND						
1,3-Dichlorobenzen	e	0.10	0.50	ND						
1,4-Dichlorobenzen	e	0.069	0.50	ND						
n-Butylbenzene		0.081	0.50	ND						
1,2-Dichlorobenzen	e	0.057	0.50	ND						
1,2-Dibromo-3-Chlo	ropropane	0.15	0.50	ND						
Hexachlorobutadien	e	0.19	0.50	ND						
1,2,4-Trichlorobenze	ene	0.12	0.50	ND						
Naphthalene		0.14	1.0	ND						
1,2,3-Trichlorobenze	ene	0.23	0.50	ND						
(S) Dibromofluorom	ethane			125						
(S) Toluene-d8				101						
(S) 4-Bromofluorobe	enzene			114						
Ethanol		0.21	0.50	ND	TIC					



LCS/LCSD Summary Report

				200/		ammary	Report	Raw value	es are used in	quality contro	ol assessmen
Work Order:	1404105		Prep Meth	od: 5030)	Prep Da	te:	04/15/14	Prep Ba	tch: 113	17
Matrix:	Water		Analytical	8260	TPH	Analyze	d Date:	04/15/14	Analytic	al 420	158
Units:	ug/L		Method:						Batch:		
Parameters		MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Gasoline		31	50	ND	238.1	113	90.4	22.3	52.4 - 127	30	1
(S) 4-Bromofluoro	benzene			74.1	11.9	79.2	66.5		41.5 - 125		
Work Order:	1404105		Prep Meth	od: 5030)	Prep Da	te:	04/16/14	Prep Ba	tch: 113	36
Matrix:	Water		Analytical	8260	TPH	Analyze	d Date:	04/16/14	Analytic	al 420	189
Units:	ug/L		Method:						Batch:		
Parameters		MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Gasoline		31	50	ND	238.1	94.9	102	7.61	52.4 - 127	30	
(S) 4-Bromofluoro	benzene			53.5	11.9	61.6	75.6		41.5 - 125		
Work Order:	1404105		Prep Meth	od: 3510	_TPH	Prep Da	te:	04/19/14	Prep Ba	tch: 113	71
Matrix:	Water		Analytical	SW8	015B(M)	Analyze	d Date:	04/19/14	Analytic	al 420	247
Units:	mg/L		Method:						Batch:		
Parameters		MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel	I	0.0440	0.10	ND	1	86.4	86.5	0.167	50.3 - 125	30	
Pentacosane (S)				ND	50	91.6	92.6		57.9 - 125		



LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order:	1404105		Prep Metho	od: 3510	_BNA	Prep Da	te:	04/21/14	Prep Bat	tch: 113	78
Matrix:	Water		Analytical Method:	SW8	270C	Analyze	d Date:	04/21/14	Analytic Batch:	al 4202	256
Parameters	Ug/L	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
Phenol		0.96	4.0	ND	40	47.9	53.7	11.3	10.5 - 112	30	
2-Chlorophenol		1.3	4.0	ND	40	77.0	88.0	13.4	23 - 134	30	
1,4-Dichlorobenz	ene	1.3	4.0	ND	20	84.1	95.9	13.1	45 - 135	30	
N-Nitroso-di-n-pro	opylamine	1.4	4.0	ND	40	81.5	94.5	14.7	35.5 - 129	30	
1,2,4-Trichlorobe	nzene	0.95	4.0	ND	20	106	118	10.7	51.8 - 125	30	
4-Chloro-3-methy	/lphenol	0.79	4.0	ND	40	95.7	108	12.1	46.7 - 112	30	
Acenaphthene		0.61	4.0	ND	20	89.5	102	13.1	52.5 - 116	30	
4-Nitrophenol		1.4	4.0	ND	40	17.1	20.2	16.4	11.6 - 74.9	30	
2,4-Dinitrotoluene	e	0.49	4.0	ND	20	105	117	10.5	60.3 - 112	30	,S
Pentachlorophen	ol	0.25	4.0	ND	40	97.0	113	15.3	46.2 - 116	30	
Pyrene		0.46	4.0	ND	20	87.1	105	18.2	45.9 - 127	30	
Phenol-d6 (S)				ND	40	38.2	42.1		10 - 94		
2-Fluorophenol (S	S)			ND	40	55.8	62.5		21 - 100		
2,4,6-Tribromoph	enol (S)			ND	40	73.4	82.1		29.6 - 130		
Nitrobenzene-d5	(S)			ND	20	91.8	106		31.0 - 116		
2-Fluorobiphenyl	(S)			ND	20	94.0	106		21.3 - 123		
p-Terphenyl-d14	(S)			ND	20	105	122		10 - 123		
Work Order:	1404105		Prep Metho	od: NA		Prep Da	te:	NA	Prep Bat	tch: NA	
Matrix:	Water		Analytical Method:	SW8	260B	Analyze	d Date:	04/15/14	Analytic Batch:	al 420 ⁻	158
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-Dichloroether	ne	0.14	0.50	ND	17.86	71.0	78.6	10.1	61.4 - 129	30	
Benzene		0.087	0.50	ND	17.86	81.2	88.5	8.64	66.9 - 140	30	
Trichloroethylene	!	0.057	0.50	ND	17.86	77.9	89.5	14.0	69.3 - 144	30	
Toluene		0.059	0.50	ND	17.86	81.5	95.7	15.7	7 76.6 - 123		
Chlorobenzene		0.068	0.50	ND	17.86	82.5	96.5	15.9	73.9 - 137	30	
(S) Dibromofluoro	omethane			ND	11.9	86.7	82.5		61.2 - 131		
(S) Toluene-d8				ND	11.9	88.7	87.6		75.1 - 127		
(S) 4-Bromofluor	obenzene			ND	11.9	90.0	89.1		64.1 - 120		



LCS/LCSD Summary Report

Raw values are used in quality control assessment.

Work Order: 1404105			Prep Method: NA		Prep Da	te:	NA	Prep Batch: NA			
Matrix:	Water		Analytical	SW82	260B	Analyzed Date:		04/16/14	Analytical 420189		
Units: ug/L			Method:						Batch:		
Parameters		MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
1,1-Dichloroethene	;	0.14	0.50	ND	17.86	115	113	2.33	61.4 - 129	30	
Benzene		0.087	0.50	ND	17.86	103	101	2.22	66.9 - 140	30	
Trichloroethylene		0.057	0.50	ND	17.86	104	102	1.69	69.3 - 144	30	
Toluene		0.059	0.50	ND	17.86	107	106	1.08	76.6 - 123	30	
Chlorobenzene		0.068	0.50	ND	17.86	106	106	0.531	73.9 - 137	30	
(S) Dibromofluoron	nethane			ND	11.9	84.2	77.6		61.2 - 131		
(S) Toluene-d8				ND	11.9	87.6	81.3		75.1 - 127		
(S) 4-Bromofluorob	benzene			ND	11.9	87.0	78.6		64.1 - 120		



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:

B - Indicates when the anlayte is found in the associated method or preparation blank

D - Surrogate is not recoverable due to the necessary dilution of the sample

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.

H- Indicates that the recommended holding time for the analyte or compound has been exceeded

J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative

NA - Not Analyzed

N/A - Not Applicable

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

R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts

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

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.



Sample Receipt Checklist

Client Name: Golden Gate Environmental, Inc	Date and Time Received: 4/15/2014 10:35
Project Name: 5930 College Avenue, Oakland	Received By: <u>RP</u>
Work Order No.: <u>1404105</u>	Physically Logged By: <u>RP</u>
	Checklist Completed By: RP
	Carrier Name: First 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 Recei	ot 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 I	Iold Time (HT) Information
All samples received within holding time?	Yes
Container/Temp Blank temperature in compliance?	Yes Temperature: <u>3</u> °C
Water-VOA vials have zero headspace?	Yes
Water-pH acceptable upon receipt?	<u>N/A</u>
pH Checked by: <u>NA</u>	pH Adjusted by: <u>NA</u>



Login Summary Report

Client ID:	TL5127	Golden Gate Environmental,	Inc		QC Level:		
Project Name:	5930 College	Avenue, Oakland	TAT Requeste	ed: 5+ day:0			
Project # :					Date Received	1: 4/15/2014	
Report Due Date:	4/22/2014				Time Receive	d: 10:35	
Comments:							
Work Order # :	1404105						
WO Sample ID	<u>Client</u> Sample ID	Collection Date/Time	<u>Matrix</u>	<u>Scheduled</u> <u>Sam</u> <u>Disposal</u> <u>On H</u>	<u>ple Test</u> lold On Hold	<u>Requested</u> Tests	<u>Subbed</u>
1404105-001A	MW-1	04/14/14 13:53	Water	05/30/14		EDF W_GCMS-GRO W_8260PetE	
Sample Note:	Test for TPHg,d	I,mo, BTEX,Naphthalene,MTBE	/TBA,ED	B,EDB/EDC,PAH for	sample 001A/B-	003A/B.	
1404105-001B	MW-1	04/14/14 13:53	Water	05/30/14		W_8270CPAH	
Sample Note:	Test for TPHg,d	l,mo, BTEX,Naphthalene,MTBE	/TBA,ED 4A/B	B,EDB/EDC,PAH for	sample 001A/B-	W_TPHDO 003A/B.	
1404105-002A	MW-2	04/14/14 13:07	Water	05/30/14		W_GCMS-GRO	
1404105-002B	MW-2	04/14/14 13:07	Water	05/30/14		W_8270CPAH	
1404105-003A	MW-3	04/14/14 12:03	Water	05/30/14		W_GCMS-GRO	
1404105-003B	MW-3	04/14/14 12:03	Water	05/30/14		W_8260PetE W_8270CPAH	
1404105-004A	PW-1	04/14/14 11:17	Water	05/30/14	,	W_TPHDO W_GCMS-GRO	
1404105-004B	PW-1	04/14/14 11:17	Water	05/30/14		W_8260Full W_8270CPAH W TPHDO	



LABORATORY, INC. FAX, 408,283.8233 Image: Note: Shaded a Reas are for torrental and common wave monotoning. 5930 College Areaue, Oakland 140.410.5 Company Name: Golden Gate Environmental, Inc. Location of Sampling: 5930 College Areaue, Oakland Purpose: 2nd Quarter 2014 Groundwater Monitoring.Sampling Sampling: Sam	/≥ lorrent	Phone: 408.263.52	258 RES	ET	(2H	AIN	UF	Cl	JSI	10[YC		LAB WORK ORDER NO
	LABORATORY, INC.	FAX: 408.263.829 www.torrentlab.com	3 m	• NO	TE: SHA	ADED	AREAS	AREF	ORTO	ORREN	NT LAE	USE	ONLY .	1404105
Address: 1455 Yosemite Avenue Purpose: 2nd Quarter 2014 Groundwater Monitoring/Sampling Chy: San Francisco State: CA Zip Code: 94124 Special instructions / Comments: Global ID: T0600102112. Field Point ID=Sample ID Celephone: 415-970-9088 FAX: 415-970-9089 FAX: 415-970-9089 Po. #: GGE 2014 T0600102112. Field Point ID=Sample ID Celephone: 415-970-9088 FAX: 415-970-9089 Po. #: GGE 2014 T0600102112. Field Point ID=Sample ID URNAROUND TIME: Sample: DEI Po. #: GGE 2014 T0600 0000 0000 Po. #: GGE 2014 T0600 0000 000000 10 Work Days 2 Work Days D After / TIME MATRIX # OP CONT TOP Po. #: GGE 2014 With Bit Diverse Anal. : b.wheeler@ggtr.com 2 Work Days 2 Work Days 2 Work Days 2 Work Days D After / TIME MATRIX # OP CONT TOP Point Point Anal. : b.wheeler@ggtr.com 2 Work Days 1 Work Days After / TIME MATRIX # OP CONT TOP Point Point Anal. : b.wheeler@ggtr.com 2 Bit MW-1 4 14-14/11/20/25 GW MATRIX #	Company Name: Golden Gate Envi	ronmental, Inc.			Locat	tion of S	Sampling	g: 5930) Colle	ge Ave	nue. Or	akland	_	
Chy: San Francisco State: CA Zip Code: 94124 Special Instructions / Comments: Global ID: Tode00102112. Field Point ID=Sample ID Telephone: 415-970-9088 FAX: 415-970-9089 FAX: 415-970-9089 FAX: 415-970-9089 REPORT TO: Brent Wheeler SAMPLER: DEI Po.#: GGE 2014 Det	Address: 1455 Yosemite Avenue				Purpo	ose: 2r	nd Qua	rter 20	14 Gro	undwa	ter Mo	nitori	ng/Samnli	ing
Telephone: 415-970-9088 FAX: 415-970-9089 REPORT TO: Brent Wheeler SAMPLER: DEI P.O.#: GGE 2014 DET TELE MAIL: b.wheeler@ggtr.com 10 Work Days 3 Work Days 1 Work Days 2.8 Hours Som Water One DEF DEF <td>City: San Francisco S</td> <td>tate: CA</td> <td>Zip Code</td> <td>94124</td> <td>Speci</td> <td>ial Instri</td> <td>uctions</td> <td>Comm</td> <td>nents:</td> <td>Global</td> <td>ID: T0</td> <td>60010</td> <td>112 Fiel</td> <td>d Point ID-Sample ID</td>	City: San Francisco S	tate: CA	Zip Code	94124	Speci	ial Instri	uctions	Comm	nents:	Global	ID: T0	60010	112 Fiel	d Point ID-Sample ID
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LAB ID CLIENT'S SAMPLE I.D. DATE / TIME SAMPLED MATRIX # OF CONT CONT E<	10 Work Days 3 Work Days Noon - N 7 Work Days 2 Work Days 2 - 8 Hou 5 Work Days 1 Work Day Other	Ixt Day urs Storm Water Waste Water Ground Water Soil	Air Other	QC Level EDF Excel / E	H IV DD	H-G (8260)	EX (8260)	hthalene (826	BE/TBA (826)	3/EDC (8260)	Cs (Full List)	OM/d-I	Is (8270)	ANALYSIS REQUESTED
MW-1 4-14-14/1357b GW Val Voa I	LAB ID CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE	ITPI	BTI	Nap	IM	EDI	VOO	TPF	PAF	REMARKS
02 A/s MW-2 4-14-14/ 1007 GW u 4/6 Voa Image: Constraint of the state of the st	BIA BMW-1	4-14-14/ 1353	GW	KA KE	Voa	1	1	1	1	1		1	1	
03A B MW-3 4-14-14/1723 GW 44 Voa I I I I 04A B PW-1 4-14-14/1117 GW 44 Voa I <	02 A/B MW-2	4-14-14/ 1307	GW	14.4%	Voa	1	1	1	1	1		1	1	La Calebra
04AB PW-1 4-14-14/11/2 GW 40 Voa I </td <td>03A B MW-3</td> <td>4-14-14/ 1203</td> <td>GW</td> <td>K4 46 A</td> <td>Voa</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td></td> <td>1</td> <td>1</td> <td></td>	03A B MW-3	4-14-14/ 1203	GW	K4 46 A	Voa	1	1	1	1	1		1	1	
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ere Samples Received in Good Condition? X Yes NO Samples on Ice? X Yes NO Method of Shinment	ere Samples Received in Good Condition?	Yes NO Sa	mples on Ice	? 🔀 Yes	[] NO	Method	of Shing	ent	K	1 -		6.	#//)	

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Submittal Type: Report Title: Report Type: Facility Global ID: Facility Name: File Name: Organization Name: Username: IP Address: Submittal Date/Time: Confirmation Number:

Groundwater Monitoring Report - 2nd Quarter 2014 Monitoring Report - Semi-Annually T0600102112 SHEAFFS SERVICE GARAGE GGE 1404105 5930 College Ave.zip Golden Gate Environmental, Inc. GGE 108.81.108.167 6/13/2014 10:14:07 AM 4203142285

VIEW QC REPORT

VIEW DETECTIONS REPORT

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Submittal Type: Report Title: Facility Global ID: Facility Name: File Name: Organization Name: Username: IP Address: Submittal Date/Time: Confirmation Number: GEO_WELL Groundwater Monitoring Report - 2nd Quarter 2014 T0600102112 SHEAFFS SERVICE GARAGE GEO_WELL.zip Golden Gate Environmental, Inc. GGE 108.81.108.167 10/17/2014 1:58:44 PM 9197944402

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http://www.epa.gov/athens/learn2model/part-two/onsite/gradient3ns.html

8EPA

EPA On-line Tools for Site Assessment Calculation

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Hydraulic Gradient

Gradient Calculation from fitting a plane to three points

 $a x_1 + b y_1 + c = h_1$ $a x_2 + b y_2 + c = h_2$ $a x_3 + b y_3 + c = h_3$

where (x_i, y_i) are the coordinates of the well and h_i is the head

i = 1,2,3

The gradient is calculated from the square root of $(a^2 + b^2)$ and the angle from the arctangent of a/b or b/a depending on the quadrant Example Data Set 1 Calculate Clear Save DataRecall Data Go Back Site Name 5930 College, Oak Date 4/14/14 Current Date Calculation basis Head V Coordinates ft 🗸 x-coordinate y-coordinate head ft 🗸 6055822.91 2135878.96 184.98

> 2135914.96 [1 Gradient Magnitude (i)0.02509 Degrees from North (+ y axis)161.6

2135842.80

Previous Top ^ Next

184.15

185.03

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WCMS Last updated on Thursday, January 10, 2013

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