

Ms. Barbara Jakub  
Alameda County Department of Environmental Health  
1131 Harbor Bay Parkway  
Alameda, California 94502

**RECEIVED**

**9:14 am, May 22, 2012**

Alameda County  
Environmental Health

Subject:  
Groundwater Monitoring Report  
UPS Oakland Hub  
8400 Pardee Drive, Oakland, CA 94621  
Global ID T0600100939  
State ID # 583  
EPA ID # CAD 09707509

Dear Ms. Jakub:

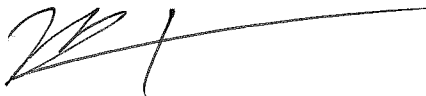
Attached please find the Groundwater Monitoring Report for the above-referenced site. The report, which was prepared for United Parcel Service (UPS) by ARCADIS U.S., Inc. (ARCADIS), the first semi-annual groundwater monitoring event that was performed at the subject site on February 29, 2012.

I declare under penalty of perjury, that the information and/or recommendations contained in the attached Groundwater Monitoring and Injection Report are true and correct.

Please feel free to contact me directly at 404.828.8991 should you have any questions or comments.

Sincerely,

United Parcel Service



Paul Harper  
Remediation and Assessment Manager



Ms. Barbara Jakub  
Alameda County Department of Environmental Health  
1131 Harbor Bay Parkway  
Alameda, California 94502

Subject:

Groundwater Monitoring Report  
UPS Oakland Hub  
8400 Pardee Drive, Oakland, CA 94621  
Global ID # T0600100939  
State ID # 583  
EPA ID # CAD 09707509

Dear Ms. Jakub:

On behalf of United Parcel Service (UPS), ARCADIS U.S., Inc. (ARCADIS) is pleased to submit this Groundwater Monitoring Report, which documents the first semi-annual 2012 groundwater monitoring event at the UPS Oakland Hub, located at 8400 Pardee Drive, Oakland, Alameda County, California (**Figures 1, 2, and 3**).

## BACKGROUND

A review of historical aerial photographs from 1937 to present indicated the property that UPS leases from the Port of Oakland was originally a tidal marsh until 1968. The site was backfilled and graded in 1968; however, no structures were observed on the property until 1975, when the current UPS facility was constructed. The southern fueling area (current release area), was visible in the photographs in 1985.

The site includes an office building and a parking lot. As indicated above, the property is owned by the Port of Oakland and is leased by UPS. The area around the site is characterized by medium to heavy industrial use and includes the nearby Oakland International Airport.

The site was a tidal marsh prior to 1968 when it was raised above sea level with suspect imported fill material. Artificial historic fill has been documented on both the northern and southern fueling areas, at depths ranging from 2 to 10 feet in thickness. Currently it is approximately 10 feet above sea level and is located on a narrow peninsula south of San Leandro Bay.

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Northwest, Suite 500 A  
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ENVIRONMENT

Date:  
May 15, 2012

Contact:  
Hugh Devery

Phone:  
404.952.1604

Email:  
[Hugh.Devery@arcadis-us.com](mailto:Hugh.Devery@arcadis-us.com)

Our ref:  
B0038398.0005

Imagine the result

During an upgrade to the product dispensing systems at the UPS-Oakland Hub in September 1989, hydrocarbon odors were detected at the gasoline (northern fuel area) and diesel (southern fuel area) fuel dispensing systems to the north of the facility and six soil samples and two water samples were collected from that area. The release at the northern fuel dispensing system has since been closed.

In January 1990, Alameda County Health Care Services Agency (ADCEH) requested a work plan for initial soil and groundwater assessment for the southern fuel area which was submitted to the agency in March 1990.

In June 1990, a limited Site Assessment was performed on the southern fuel dispensing facility. Five monitoring wells and three soil borings were installed on the site in August 1990. Phase separated hydrocarbons (PSH) removal continued monthly, along with semi-annual groundwater sampling from the mid-1990's into 2009, until the southern fueling area USTs were removed.

Enhanced fluid recovery, preferential pathway study, well search, and a soil and groundwater sampling event occurred in 2010. The *Summary of Soil and Groundwater Investigation Activities* report dated February 15, 2011 was submitted to ADCEH and is currently under review.

ARCADIS submitted a CAP in January 2012 to reduce residual soil and groundwater impacts from the operation, in this immediate area of the former diesel USTs, to concentrations that would be deemed protective to both humans and the environment, as specified in the draft petroleum low threat-closure policy. As such, a risk assessment report will also be submitted to ACEH once State Regional Water Quality Board's Draft Petroleum Low - Threat Closure Policy concentrations have been met in order to verify protection to humans and the environment. ARCADIS is currently addressing the comments listed in the March 28, 2012 letter from the ACDEH.

## GROUNDWATER MONITORING

Groundwater samples were collected from groundwater monitoring wells MW-2, MW-3, MW-4, MW-8, MW-9, MW-10, MW-11, and OW-1 on February 29, 2012. Water levels were measured prior to purging and sampling the wells. Purge water was monitored to document stabilization of pH, temperature, turbidity, and conductivity parameters (**Appendix A**). Purge water was contained in DOT-approved drums for later disposal. Disposal manifests are included in **Appendix B**.

## Water Levels

The depth to water (DTW) in each well was gauged on February 29, 2012, prior to purging and the collection of the groundwater samples. The groundwater elevations during the February 2012 monitoring event ranged from 1.36 feet above mean sea level (ft-amsl) in monitoring well MW-10 to 8.65 ft-amsl in monitoring well MW-9.

Historical groundwater gauging and elevation data is presented in **Table 1**. A groundwater elevation map was prepared using the February 29, 2012 groundwater elevation data, and is presented as **Figure 4**. The apparent direction of groundwater flow was generally to the south-southeast on February 29, 2012 which is consistent with historical groundwater flow.

The SOS® Passive Skimmers were installed in observation well OW-1, and monitoring wells MW-2 and MW-3 in April 2011. The monthly skimmer PSH recovery data collected from June 2011 to February 2012 is presented in **Table 2** which also includes the historical records of PSH thickness and volume recovered since 1990. The specifications for the SOS® Passive Skimmers are presented in **Appendix C**. During the February 15, 2012 monthly skimmer PSH recovery event, 20 ounces were removed from OW-1, 20 ounces were removed from monitoring well MW-2, and 20 ounces were removed from monitoring well MW-3. Eighteen to 20 ounces have been removed since December 2011 in monitoring wells MW-2 and MW-3 and 1 to 20 ounces have been removed from monitoring well OW-1. The skimmers are working well and PSH recovery has been conducted on a consistent basis. As of February 29, 2012, approximately 723.67 ounces or 5.5 gallons of PSH have been removed from the site. Approximately 2.3 total gallons were removed prior to installation of the skimmers and 3.2 total gallons have been removed since the skimmers have been installed.

## GROUNDWATER QUALITY

Groundwater samples collected from monitoring wells MW-2, MW-3, MW-4, MW-8, MW-9, MW-10, MW-11, and OW-1 on February 29, 2012 were analyzed for total petroleum hydrocarbons-diesel range organics (TPH-DRO) by United States Environmental Protection Agency (EPA) Method 8015B. The samples were also analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX), methyl tertiary butyl ether (MTBE), and TPH-gasoline range organics (TPH-GRO) by EPA Method 8260B/CA LUFT. Analyses were conducted by TestAmerica Laboratories, Inc. (TestAmerica) in Pleasanton, California which is certified by the California Department of Health Services (CADHS) for environmental analyses. Historical groundwater analytical data is presented in **Table 3**. A groundwater quality map is

presented as **Figure 5**. Laboratory analytical results and chain of custody documentation for the February 2012 sampling event are attached in **Appendix D**. ACEH issued a letter dated March 10, 2009, that stated UPS could discontinue analysis for BTEX and MTBE in their next semi-annual monitoring event but perform a one-time sample event for the lead scavengers ethylene dibromide (EDB) and ethylene dichloride (EDC). They also requested that naphthalene analysis be performed in areas of concern that formerly utilized diesel. They also requested the analysis of total dissolved solids on a one-time basis. ARCADIS completed the sampling per the 2009 letter. Results are presented in **Table 3**.

BTEX and MTBE were not detected at or above their respective San Francisco Bay Region environmental screening levels (ESLs) in monitoring wells MW-2, MW-3, MW-4, MW-8, MW-9, MW-10, MW-11, or OW-1 during this groundwater monitoring event.

TPH-GRO was detected above the ESL (100 µg/L) for drinking water in monitoring well MW-2 (510 µg/L), MW-3 (520 µg/L), MW-4 (150 µg/L) and OW-1 (1,200 µg/L). The ESL for non-drinking water (210 µg/L) was exceeded only in monitoring wells MW-2, MW-3 and OW-1.

TPH-DRO was detected above the odor and taste threshold per the California Regional Water Quality Control Board regulations (100 micrograms per liter (µg/L)) and ESLs (100 µg/L for drinking water and 210 µg/L for non-drinking water) in monitoring wells MW-2 (13,000 µg/L), MW-3 (13,000 µg/L), MW-4 (12,000 µg/L), MW-11 (1,200 µg/L), and OW-1 (27,000 µg/L). In MW-8 (120 µg/L), MW-9 (160 µg/L), MW-10 (170 µg/L), only the drinking water ESL (100 µg/L) was exceeded at a concentration; however, they were below the non-drinking water ESL.

## PURGE WATER HANDLING

The purge water generated during the February 2012 groundwater sampling activities is currently drummed on site and is awaiting disposal. The manifests are presented in **Appendix D**. The groundwater from this event was passed through the Granulated Activated Carbon (GAC) bucket prior to being placed in a 55-gallon drum.

## SUMMARY

- The groundwater elevations during the February 2012 monitoring event ranged from 1.36 feet above mean sea level (ft-amsl) in monitoring well MW-10 to 8.65 ft-amsl in monitoring well MW-9.

- Groundwater elevations indicated that the apparent groundwater flow direction was generally to the south-southeast on February 29, 2012.
- BTEX and MTBE were not detected above their respective ESLs in the sampled monitoring wells during this monitoring event.
- TPH-GRO was detected above the drinking water ESL in monitoring wells MW-2, MW-3, MW-4, and OW-1.
- TPH-DRO was detected above the drinking water ESL in monitoring wells MW-2, MW-3, MW-4, MW-8, MW-9, MW-10, MW-11, and OW-1.

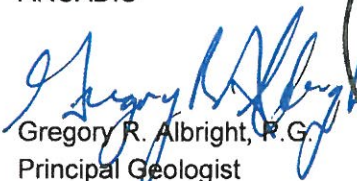
**RECOMMENDATIONS**

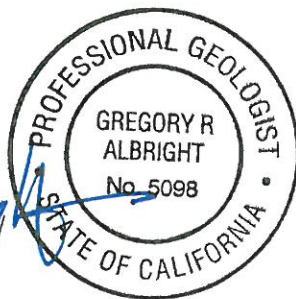
ARCADIS recommends continued recovery of PSH and semi-annual groundwater sampling at this time. However, we recommend continuing to only analyze the following parameters: TPH-DRO and TPH-GRO as these are the only parameters that currently and historically have exceeded past cleanup criteria and existing ESLs. This request is aligned with the State Water Resources Control Board's (State Water Board) cost reduction efforts and the ACEH 2009 correspondence.


If you have any questions regarding this report, please do not hesitate to contact me at 404.952.1604. Please send correspondence regarding this report to Mr. Paul Harper of UPS at the address provided below. Please copy ARCADIS on any such correspondence.

Sincerely,

ARCADIS

  
Gregory R. Albright, P.G.  
Principal Geologist  
California P.G. No. 5098



  
Hugh Devery  
Senior Geologist

Copies:

Paul Harper – UPS Corporate Plant Engineering; 55 Glenlake Parkway NE, Atlanta, GA 30328

Douglas Herman, Port of Oakland; 530 Water Street, Oakland, CA 94607

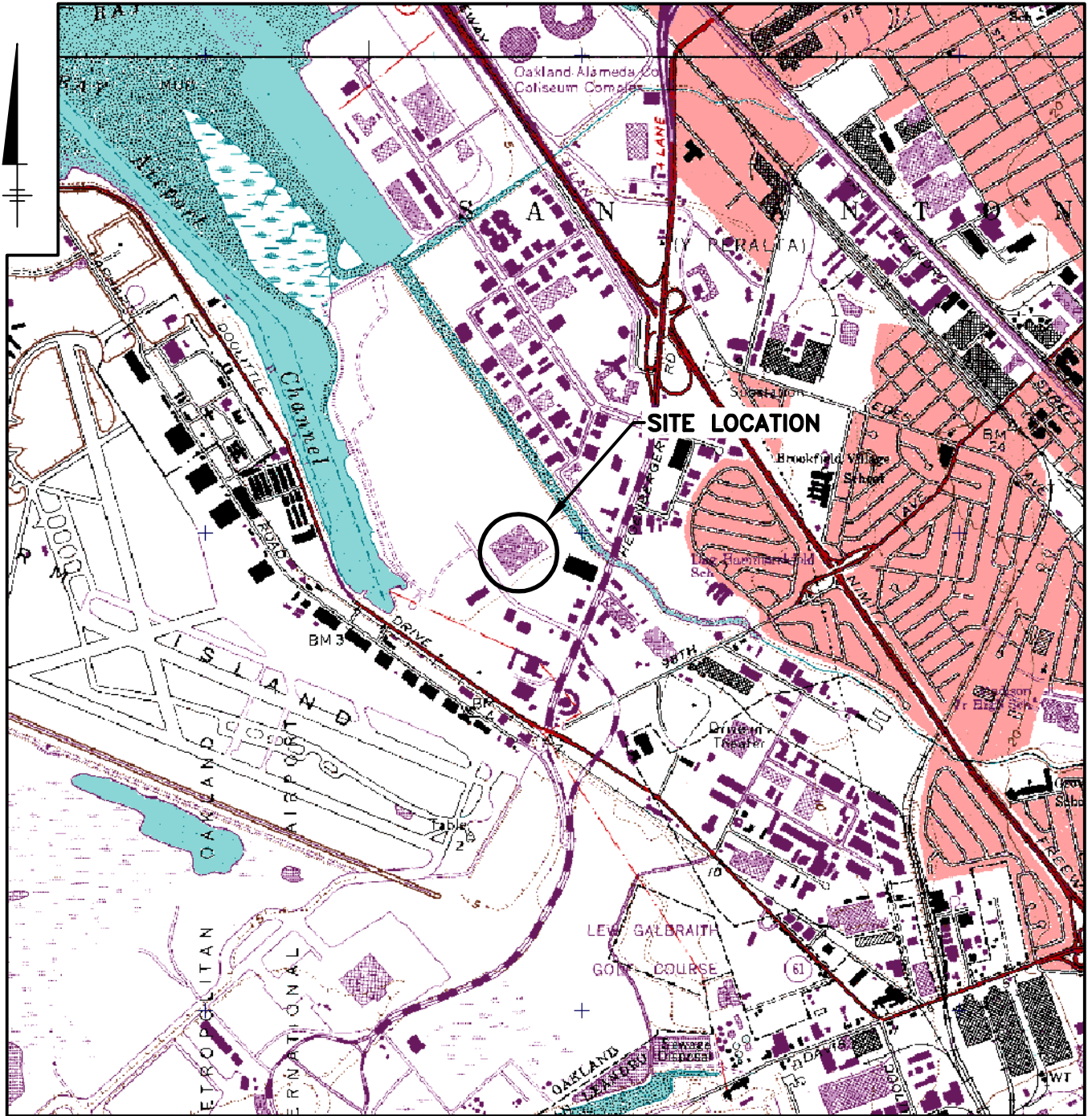
File

**Figures**

UPS – Oakland Hub

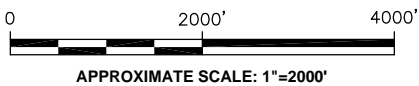


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**NOTES:**

1. Base Map Source: USGS 7.5 Min. Topo. Quad., San Leandro, Calif.(1993)
2. Property Location is Approximate Only.



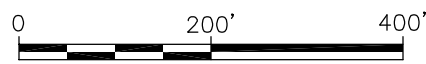
UPS-OAKLAND HUB 8400 PARDEE DRIVE, OAKLAND, CALIFORNIA	
<h2 style="margin: 0;">SITE LOCATION MAP</h2>	
	FIGURE <h1 style="font-size: 2em; margin: 0;">1</h1>



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 AREA MAP.jpg  
 UPSOakland.jpg



[---] AREA OF CONCERN



GRAPHIC SCALE

SOURCE: AERIAL PHOTOGRAPH PROVIDED BY GOOGLE EARTH PRO.

UPS-OAKLAND HUB  
 8400 PARDEE DRIVE, OAKLAND, CALIFORNIA

**FACILITY LAYOUT MAP**

 **ARCADIS**












FIGURE  
**2**

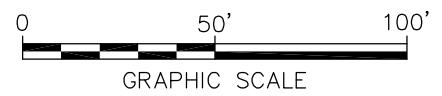



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**LEGEND:**

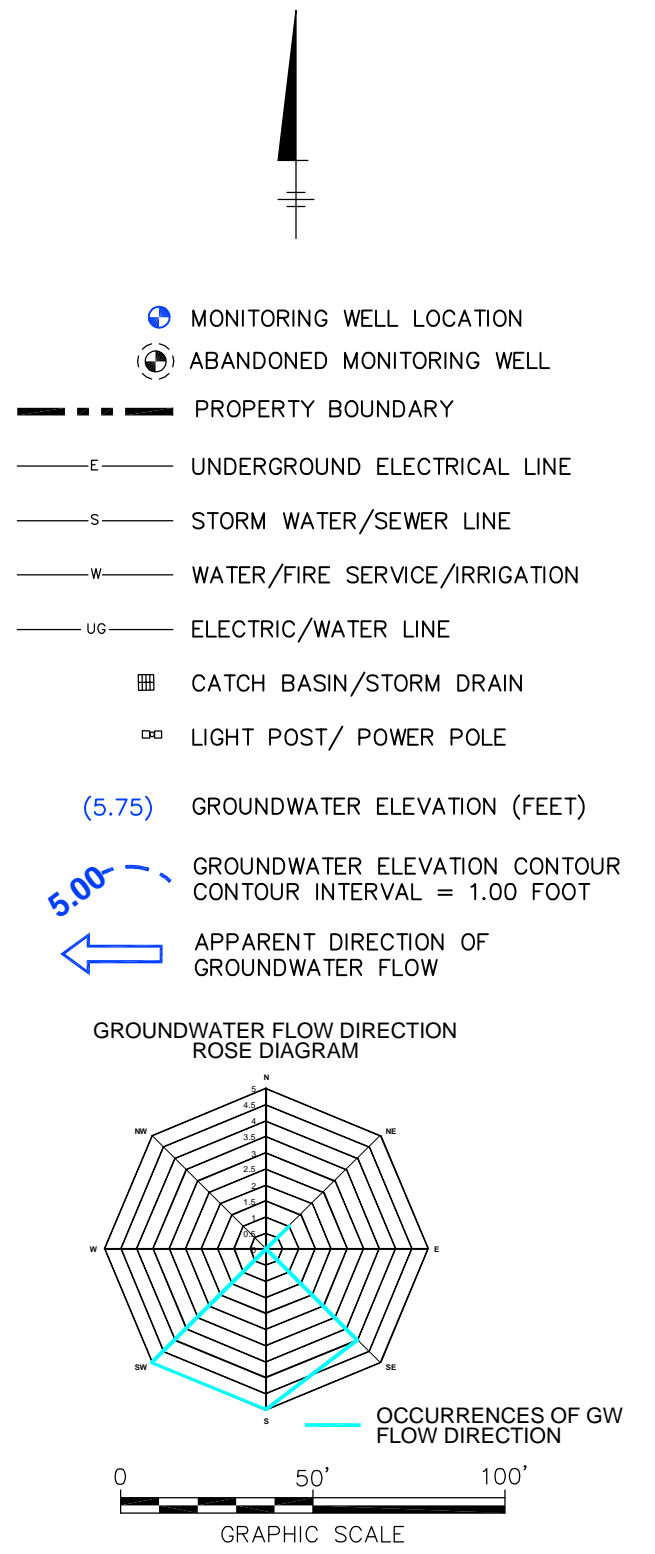
-  MONITORING WELL
-  TEMPORARY VACUUM TEST WELL
-  ABANDONED MONITORING WELL
-  SOIL BORING LOCATION (2010)
-  PROPERTY BOUNDARY
-  UNDERGROUND ELECTRICAL LINE
-  STORM WATER/SEWER LINE
-  WATER/FIRE SERVICE/IRRIGATION
-  ELECTRIC/WATER LINE
-  CATCH BASIN/STORM DRAIN
-  LIGHT POST/ POWER POLE



UPS-OAKLAND HUB 8400 PARDEE DRIVE, OAKLAND, CALIFORNIA	
<b>SITE MAP</b>	
	FIGURE <b>3</b>



CITY: TAMPA DIV/GROUP: 85 DB: JAR LD: (Opt) PIC: (Opt) PM: (Recd) TM: (Opt) LVR: (Opt) ON: "OFF" = REF\*  
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UPS-OAKLAND HUB  
 8400 PARDEE DRIVE, OAKLAND, CALIFORNIA

**GROUNDWATER CONTOUR MAP  
 FEBRUARY 29, 2012**

**ARCADIS**

FIGURE  
**4**



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MW-4	
DATE	2/29/2012
B	<0.50
T	<0.50
E	<0.50
X	<1.0
M	<0.50
TPHG	150
TPHD	12,000

MW-9	
DATE	2/29/2012
B	<0.50
T	<0.50
E	<0.50
X	<1.0
M	<0.50
TPHG	<50
TPHD	160

MW-2	
DATE	2/29/2012
B	<0.50
T	0.52
E	<0.50
X	1.7
M	<0.50
TPHG	510
TPHD	13,000

MW-10	
DATE	2/29/2012
B	<0.50
T	<0.50
E	<0.50
X	<1.0
M	<0.50
TPHG	<50
TPHD	170

MW-11	
DATE	2/29/2012
B	0.53
T	<0.50
E	<0.50
X	<1.0
M	<0.50
TPHG	<50
TPHD	1,200

MW-8	
DATE	2/29/2012
B	<0.50
T	<0.50
E	<0.50
X	<1.0
M	<0.50
TPHG	<50
TPHD	120

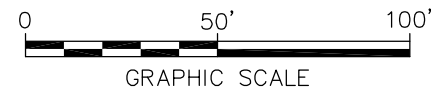
MW-3	
DATE	2/29/2012
B	<0.50
T	<0.50
E	<0.50
X	1.3
M	<0.50
TPHG	520
TPHD	13,000

OW-1	
DATE	2/29/2012
B	<5.0
T	<5.0
E	<5.0
X	<10.0
M	<5.0
TPHG	1,200
TPHD	27,000

- LEGEND:**
- MONITORING WELL LOCATION
  - ABANDONED MONITORING WELL
  - SOIL BORING LOCATION (2010)
  - PROPERTY BOUNDARY
  - UNDERGROUND ELECTRICAL LINE
  - STORM WATER/SEWER LINE
  - WATER/FIRE SERVICE/IRRIGATION
  - ELECTRIC/WATER LINE
  - CATCH BASIN/STORM DRAIN
  - LIGHT POST/ POWER POLE

SAMPLE LOCATION	
DATE	SAMPLE DATE
B	BENZENE
T	TOLUENE
E	ETHYLBENZENE
X	TOTAL XYLENES
M	METHYL TERT-BUTYL ETHER
TPHG	TPH GASOLINE
TPHD	TPH DIESEL

RESULTS REPORTED IN MICROGRAMS PER LITER (µg/L).



UPS-OAKLAND HUB  
 8400 PARDEE DRIVE, OAKLAND, CALIFORNIA

GROUNDWATER QUALITY MAP  
 FEBRUARY 29, 2012

FIGURE  
**5**



**Tables**

UPS – Oakland Hub



**TABLE 1  
HISTORICAL GROUNDWATER ELEVATION SUMMARY**

UPS-OAKLAND HUB  
8400 PARDEE DRIVE  
OAKLAND, CALIFORNIA  
STATE ID # 583

Monitoring Well	Reference Elevation	Date	Depth to	Groundwater	Change in	Product	Volume
			Groundwater	Elevation	Measurement	Thickness	Product Recovered
			(ft)	(ft)	(ft)	(ft)	(mL)
MW-1	7.43	8/28/1990	3.80	3.63	--	0.00	NR
		9/20/1990	3.99	3.44	-0.19	0.00	NR
		6/19/1991	3.47	3.96	0.52	NM	NR
		7/23/1991	3.70	3.73	-0.23	NM	NR
		8/26/1991	3.92	3.51	-0.22	NM	NR
		11/18/1991	4.21	3.22	-0.29	NM	NR
		2/3/1992	3.99	3.44	0.22	NM	NR
		6/29/1992	3.38	4.05	0.61	NM	NR
		6/23/1993	2.72	4.71	0.66	NM	NR
		10/11/1993	3.87	3.56	-1.15	NM	NR
		1/4/1994	3.34	4.09	0.53	NM	NR
		5/10/1994	2.14	5.29	1.20	NM	NR
		2/1/1995	1.84	5.59	0.30	NM	NR
		8/2/1995	3.10	4.33	-1.26	NM	NR
		10/16/1995	3.75	3.68	-0.65	NM	NR
		12/28/1995	3.56	3.87	0.19	NM	NR
		6/4/1997	3.16	4.27	0.40	0.00	NR
		9/30/1999	3.75	3.68	-0.59	0.00	NR
		10/11/2000	3.88	3.55	-0.13	0.00	NR
		9/3/2002	3.73	3.70	0.15	0.00	NR
		10/22/2002	5.11	2.32	-1.38	0.05	NR
		12/23/2002	3.51	3.92	1.60	0.00	NR
		3/28/2003	3.52	3.91	-0.01	0.00	NR
		5/30/2003	3.37	4.06	0.15	0.00	NR
		6/20/2003	3.50	3.93	-0.13	0.00	NR
		7/14/2003	3.65	3.78	-0.15	0.00	NR
		8/25/2003	3.87	3.56	-0.22	0.00	NR
		9/9/2003	4.02	3.41	-0.15	0.00	NR
		9/25/2003	4.10	3.33	-0.08	0.00	NR
		10/28/2003	4.29	3.14	-0.19	0.00	NR
		11/18/2003	4.32	3.11	-0.03	0.00	NR
		12/2/2003	4.34	3.09	-0.02	0.00	NR
		1/27/2004	3.88	3.55	0.46	0.00	NR
		2/24/2004	2.75	4.68	1.13	0.00	NR
		3/29/2004	3.45	3.98	-0.70	0.00	NR
		4/19/2004	3.55	3.88	-0.10	0.00	NR
		5/20/2004	3.69	3.74	-0.14	0.00	NR
		6/22/2004	3.81	3.62	-0.12	0.00	NR
		7/27/2004	3.99	3.44	-0.18	0.00	NR
		8/24/2004	4.14	3.29	-0.15	0.00	NR
		9/29/2004	4.32	3.11	-0.18	0.00	NR
		10/25/2004	3.89	3.54	0.43	0.00	NR
		12/15/2004	3.18	4.25	0.71	0.00	NR
		1/24/2005	2.69	4.74	0.49	0.00	NR
		2/23/2005	2.48	4.95	0.21	0.00	NR
		3/23/2005	2.21	5.22	0.27	0.00	NR
		4/29/2005	2.57	4.86	-0.36	0.00	NR
		5/27/2005	2.68	4.75	-0.11	0.00	NR
		6/29/2005	2.97	4.46	-0.29	0.00	NR
		7/20/2005	3.13	4.30	-0.16	0.00	NR
8/24/2005	3.48	3.95	-0.35	0.00	NR		
9/27/2005	3.69	3.74	-0.21	0.00	NR		
10/19/2005	3.87	3.56	-0.18	0.00	NR		
11/29/2005	3.79	3.64	0.08	0.00	NR		
12/29/2005	3.08	4.35	0.71	0.00	NR		
1/31/2006	2.91	4.52	0.17	0.00	NR		
2/28/2006	2.84	4.59	0.07	0.00	NR		
3/27/2006	2.26	5.17	0.58	0.00	NR		
4/28/2006	2.40	5.03	-0.14	0.00	NR		
6/27/2006	3.09	4.34	-0.69	0.00	NR		
7/31/2006	3.35	4.08	-0.26	0.00	NR		
8/29/2006	3.60	3.83	-0.25	0.00	NR		
9/28/2006	3.90	3.53	-0.30	0.00	NR		
10/27/2006	3.97	3.46	-0.07	0.00	NR		
11/22/2006	3.64	3.79	0.33	0.00	NR		
12/26/2006	3.04	4.39	0.60	0.00	NR		
1/25/2007	3.26	4.17	-0.22	0.00	NR		

**TABLE 1  
HISTORICAL GROUNDWATER ELEVATION SUMMARY**

UPS-OAKLAND HUB  
8400 PARDEE DRIVE  
OAKLAND, CALIFORNIA  
STATE ID # 583

Monitoring Well	Reference Elevation	Date	Depth to	Groundwater	Change in	Product	Volume
			Groundwater	Elevation	Measurement	Thickness	Product Recovered
			(ft)	(ft)	(ft)	(ft)	(mL)
MW-1	7.43	2/16/2007	3.12	4.31	0.14	0.00	NR
		3/19/2007	2.91	4.52	0.21	0.00	NR
		4/26/2007	2.93	4.50	-0.02	0.00	NR
		5/29/2007	3.15	4.28	-0.22	0.00	NR
		6/28/2007	3.42	4.01	-0.27	0.00	NR
		7/30/2007	3.60	3.83	-0.18	0.00	NR
		8/30/2007	3.85	3.58	-0.25	0.00	NR
		9/25/2007	4.00	3.43	-0.15	0.00	NR
		10/29/2007	4.05	3.38	-0.05	0.00	NR
		11/29/2007	4.10	3.33	-0.05	0.00	NR
		12/28/2007	3.80	3.63	0.30	0.00	NR
		1/24/2008	3.14	4.29	0.66	0.00	NR
		2/21/2008	2.44	4.99	0.70	0.00	NR
		3/28/2008	2.84	4.59	-0.40	0.00	NR
		4/30/2008	3.00	4.43	-0.16	0.00	NR
		5/29/2008	3.24	4.19	-0.24	0.00	NR
		6/25/2008	3.39	4.04	-0.15	0.00	NR
		7/29/2008	3.64	3.79	-0.25	0.00	NR
		8/27/2008	3.85	3.58	-0.21	0.00	NR
		9/30/2008	4.08	3.35	-0.23	0.00	NR
		10/31/2008	4.20	3.23	-0.12	0.00	NR
11/26/2008	4.14	3.29	0.06	0.00	NR		
12/30/2008	3.94	3.49	0.20	0.00	NR		
1/22/2009	3.93	3.50	0.01	0.00	NR		
4/3/2009			ABANDONED				
MW-2	7.15	8/28/1990	4.98	2.17	--	0.00	NR
		9/20/1990	4.94	2.21	0.04	N/A	NR
		6/19/1991	4.66	2.49	0.28	N/A	NR
		7/23/1991	4.81	2.34	-0.15	N/A	NR
		8/26/1991	4.89	2.26	-0.08	N/A	NR
		11/18/1991	4.93	2.22	-0.04	N/A	NR
		2/3/1992	4.44	2.71	0.49	N/A	NR
		6/29/1992	4.80	2.35	-0.36	N/A	NR
		6/23/1993	4.38	2.77	0.42	N/A	NR
		10/11/1993	5.20	1.95	-0.82	N/A	NR
		1/4/1994	4.56	2.59	0.64	N/A	NR
		5/10/1994	4.20	2.95	0.36	N/A	NR
		2/1/1995	4.00	3.15	0.20	N/A	NR
		8/2/1995	4.71	2.44	-0.71	N/A	NR
		10/16/1995	5.02	2.13	-0.31	N/A	NR
		12/28/1995	4.56	2.59	0.46	N/A	NR
		6/12/1996	NM	--	--	0.25	NR
		6/4/1997	6.02	1.13	-1.46	Small globules	NR
		9/30/1999	4.95	2.20	1.07	0.00	NR
		10/11/2000	4.97	2.18	-0.02	0.08	NR
		2/12/2002	4.26	2.89	0.71	0.01	24.00
		9/3/2002	5.02	2.13	-0.76	0.07	NR
		9/27/2002	4.89	2.26	0.13	0.09	222.30
		10/22/2002	5.11	2.04	-0.22	0.05	125.00
		12/23/2002	4.25	2.90	0.86	0.04	99.00
		1/16/2003	4.28	2.87	-0.03	0.02	49.00
		2/12/2003	4.26	2.89	0.02	0.01	24.00
		3/28/2003	4.35	2.80	-0.09	0.01	25.00
		5/30/2003	3.60	3.55	0.75	0.02	49.00
		6/20/2003	4.55	2.60	-0.95	0.01	NR
		7/14/2003	4.56	2.59	-0.01	0.00	NR
		8/25/2003	4.79	2.36	-0.23	0.01	25.00
		9/9/2003	4.90	2.25	-0.11	0.01	NR
9/25/2003	4.97	2.18	-0.07	0.01	25.00		
10/28/2003	4.98	2.17	-0.01	0.04	104.00		
11/18/2003	4.83	2.32	0.15	0.00	NR		
12/3/2003	4.87	2.28	-0.04	0.00	NR		
1/27/2004	7.39	-0.24	-2.52	0.00	NR		
2/24/2004	4.56	2.59	2.83	0.01	25.00		
3/29/2004	4.24	2.91	0.32	0.01	NR		
4/19/2004	4.50	2.65	-0.26	0.01	25.00		
5/20/2004	4.53	2.62	-0.03	0.00	NR		

**TABLE 1  
HISTORICAL GROUNDWATER ELEVATION SUMMARY**

UPS-OAKLAND HUB  
8400 PARDEE DRIVE  
OAKLAND, CALIFORNIA  
STATE ID # 583

Monitoring Well	Reference Elevation	Date	Depth to	Groundwater	Change in	Product	Volume
			Groundwater	Elevation	Measurement	Thickness	Product Recovered
			(ft)	(ft)	(ft)	(ft)	(mL)
MW-2	7.15	6/22/2004	4.65	2.50	-0.12	0.00	NR
		7/27/2004	4.80	2.35	-0.15	0.00	NR
		8/24/2004	5.93	1.22	-1.13	0.00	NR
		9/29/2004	5.00	2.15	0.93	0.02	50.00
		10/25/2004	4.68	2.47	0.32	0.00	NR
		12/15/2004	4.34	2.81	0.34	0.02	50.00
		1/24/2005	4.15	3.00	0.19	0.00	NR
		2/23/2005	4.95	2.20	-0.80	0.03	74.00
		3/23/2005	4.96	2.19	-0.01	0.02	49.00
		4/29/2005	4.23	2.92	0.73	0.10	246.00
		5/27/2005	4.20	2.95	0.03	0.02	50.00
		6/29/2005	4.29	2.86	-0.09	0.00	NR
		7/20/2005	4.48	2.67	-0.19	0.04	98.00
		8/24/2005	4.71	2.44	-0.23	0.00	NR
		9/27/2005	4.98	2.17	-0.27	0.03	70.00
		10/19/2005	5.08	2.07	-0.10	0.00	NR
		11/29/2005	4.68	2.47	0.40	0.01	25.00
		12/29/2005	4.19	2.96	0.49	0.01	NR
		1/31/2006	4.05	3.10	0.14	0.00	NR
		2/28/2006	4.16	2.99	-0.11	0.00	25.00
		3/27/2006	4.11	3.04	0.05	0.01	NR
		4/28/2006	4.03	3.12	0.08	0.00	NR
		6/27/2006	4.45	2.70	-0.42	0.01	NR
		7/31/2006	4.60	2.55	-0.15	0.02	49.00
		8/29/2006	4.84	2.31	-0.24	0.01	0.25
		9/28/2006	4.96	2.19	-0.12	0.03	NR
		10/27/2006	4.98	2.17	-0.02	0.00	NR
		11/22/2006	4.58	2.57	0.40	0.00	NR
		12/26/2006	4.22	2.93	0.36	0.02	NR
		1/25/2007	4.44	2.71	-0.22	0.00	NR
		2/16/2007	4.13	3.02	0.31	0.00	NR
		3/19/2007	4.30	2.85	-0.17	0.01	NR
		4/26/2007	4.17	2.98	0.13	0.03	NR
		5/29/2007	4.42	2.73	-0.25	0.01	25.00
		6/28/2007	5.16	1.99	-0.74	0.01	25.00
		7/30/2007	4.71	2.44	0.45	0.00	NR
		8/30/2007	4.94	2.21	-0.23	0.03	NR
		9/25/2007	5.06	2.09	-0.12	0.01	25.00
		10/29/2007	4.75	2.40	0.31	0.01	25.00
		11/29/2007	4.69	2.46	0.06	0.00	NR
		12/28/2007	4.35	2.80	0.34	0.00	NR
		1/24/2008	4.08	3.07	0.27	0.00	NR
		2/21/2008	3.97	3.18	0.11	0.01	25.00
		3/28/2008	4.18	2.97	-0.21	0.00	NR
		4/30/2008	4.40	2.75	-0.22	0.00	NR
		5/29/2008	4.58	2.57	-0.18	0.01	20.00
		6/25/2008	4.58	2.57	0.00	0.00	NR
		7/29/2008	4.85	2.30	-0.27	0.00	NR
		8/27/2008	4.89	2.26	-0.04	0.01	25.00
		9/30/2008	5.14	2.01	-0.25	0.04	98.00
10/31/2008	5.23	1.92	-0.09	0.03	NR		
11/26/2008	4.74	2.41	0.49	0.04	NR		
12/30/2008	4.33	2.82	0.41	0.01	25.00		
1/22/2009	4.45	2.70	-0.12	0.01	25.00		
5/5/2010	4.03	5.60	2.90	0.13	NR		
10/29/2010	4.98	4.65	-0.95	0.08	NR		
2/25/2011	3.73	5.90	0.30	0.00	NR		
6/14/2011	4.23	5.40	-0.10	0.00	0.00		
7/19/2011	4.72	4.91	0.49	0.01	59.15		
8/18/2011	4.80	4.83	0.08	sheen	0.00		
9/1/2011	4.96	4.67	-0.16	sheen	0.00		
9/20/2011	5.08	4.56	-0.11	0.01	591.47		
10/19/2011	4.77	4.86	0.30	0.01	591.47		
11/22/2011	4.92	4.71	-0.15	0.01	532.32		
12/26/2011	4.92	4.71	0.00	0.01	532.32		
1/23/2012	5.20	4.43	-0.28	0.28	561.83		
2/15/2012	5.16	4.47	0.04	0.03	591.40		
2/29/2012	4.75	4.88	0.17	0.02	NR		
MW-2 Product recovered prior to skimmer installation (Pre 6/14/2012):							1925.55
MW-2 Product recovered post skimmer installation (Post 6/14/2012):							3459.96
MW-2 Total product recovered:							5385.51

**TABLE 1  
HISTORICAL GROUNDWATER ELEVATION SUMMARY**

UPS-OAKLAND HUB  
8400 PARDEE DRIVE  
OAKLAND, CALIFORNIA  
STATE ID # 583

Monitoring Well	Reference Elevation	Date	Depth to	Groundwater	Change in	Product	Volume
			Groundwater	Elevation	Measurement	Thickness	Product Recovered
			(ft)	(ft)	(ft)	(ft)	(mL)
		8/28/1990	3.88	3.54	--	0.00	NR
		9/20/1990	3.99	3.43	-0.11	0.00	NR
		6/19/1991	3.49	3.93	0.50	0.00	NR
		7/23/1991	3.71	3.71	-0.22	0.00	NR
		8/26/1991	3.94	3.48	-0.23	0.00	NR
		11/18/1991	4.23	3.19	-0.29	0.00	NR
		2/3/1992	4.01	3.41	0.22	0.00	NR
		6/29/1992	3.40	4.02	0.61	0.00	NR
		6/23/1993	2.75	4.67	0.65	0.00	NR
		10/11/1993	3.84	3.58	-1.09	0.00	NR
		1/4/1994	3.40	4.02	0.44	0.00	NR
		5/10/1994	2.25	5.17	1.15	0.00	NR
		2/1/1995	2.43	4.99	-0.18	0.00	NR
		8/2/1995	3.20	4.22	-0.77	0.00	NR
		10/16/1995	3.72	3.70	-0.52	0.00	NR
		12/28/1995	3.56	3.86	0.16	0.00	NR
		6/4/1997	3.20	4.22	0.36	0.00	NR
		6/3/1998	NM	--	--	0.00	NR
		9/30/1999	3.72	3.70	-0.52	0.00	NR
		10/11/2000	3.88	3.54	-0.16	0.00	NR
		9/3/2002	3.75	3.67	0.13	0.00	NR
		12/23/2002	3.50	3.92	0.25	0.00	NR
		3/28/2003	3.56	3.86	-0.06	0.00	NR
		5/30/2003	3.38	4.04	0.18	0.00	NR
		6/20/2003	3.52	3.90	-0.14	0.00	NR
		7/14/2003	3.65	3.77	-0.13	0.00	NR
		8/25/2003	3.99	3.43	-0.34	0.00	NR
		9/9/2003	3.99	3.43	0.00	0.00	NR
		9/25/2003	4.06	3.36	-0.07	0.00	NR
		10/28/2003	4.15	3.27	-0.09	0.00	NR
		11/18/2003	4.28	3.14	-0.13	0.00	NR
		12/2/2003	4.31	3.11	-0.03	0.00	NR
		1/27/2004	3.85	3.57	0.46	0.00	NR
		2/24/2004	3.70	3.72	0.15	0.00	NR
		3/29/2004	3.47	3.95	0.23	0.00	NR
		4/19/2004	3.55	3.87	-0.08	0.00	NR
		5/20/2004	3.65	3.77	-0.10	0.00	NR
		6/22/2004	3.83	3.59	-0.18	0.00	NR
		7/27/2004	3.98	3.44	-0.15	0.00	NR
		8/24/2004	4.14	3.28	-0.16	0.00	NR
		9/29/2004	4.30	3.12	-0.16	0.00	NR
		10/25/2004	3.85	3.57	0.45	0.00	NR
		12/15/2004	3.16	4.26	0.69	0.00	NR
		1/24/2005	2.65	4.77	0.51	0.00	NR
		2/23/2005	2.50	4.92	0.15	0.00	NR
		3/23/2005	2.48	4.94	0.02	0.00	NR
		4/29/2005	2.59	4.83	-0.11	0.00	NR
		5/27/2005	2.75	4.67	-0.16	0.00	NR
		6/29/2005	3.05	4.37	-0.30	0.00	NR
		7/20/2005	3.10	4.32	-0.05	0.00	NR
		8/24/2005	3.45	3.97	-0.35	0.00	NR
		9/27/2005	3.71	3.71	-0.26	0.00	NR
		10/19/2005	3.73	3.69	-0.02	0.00	NR
		11/29/2005	3.75	3.67	-0.02	0.00	NR
		12/29/2005	3.08	4.34	0.67	0.00	NR
		1/31/2006	2.99	4.43	0.09	0.00	NR
		2/28/2006	2.95	4.47	0.04	0.00	NR
		3/27/2006	2.60	4.82	0.35	0.00	NR
		4/28/2006	2.90	4.52	-0.30	0.00	NR
		6/27/2006	3.01	4.41	-0.11	0.00	NR
		7/31/2006	4.33	3.09	-1.32	0.00	NR
		8/29/2006	3.62	3.80	0.71	0.00	NR
		9/28/2006	3.80	3.62	-0.18	0.00	NR
		10/27/2006	3.90	3.52	-0.10	0.00	NR
		11/22/2006	3.60	3.82	0.30	0.00	NR
		12/26/2006	3.07	4.35	0.53	0.00	NR
		1/25/2007	3.25	4.17	-0.18	0.00	NR

MW-3

7.42

**TABLE 1  
HISTORICAL GROUNDWATER ELEVATION SUMMARY**

UPS-OAKLAND HUB  
8400 PARDEE DRIVE  
OAKLAND, CALIFORNIA  
STATE ID # 583

Monitoring Well	Reference Elevation	Date	Depth to	Groundwater	Change in	Product	Volume
			Groundwater	Elevation	Measurement	Thickness	Product Recovered
			(ft)	(ft)	(ft)	(ft)	(mL)
MW-3	7.42	2/16/2007	3.09	4.33	0.16	0.00	NR
		3/19/2007	2.83	4.59	0.26	0.00	NR
		4/26/2007	2.94	4.48	-0.11	0.00	NR
		5/29/2007	3.18	4.24	-0.24	0.00	NR
		6/28/2007	3.41	4.01	-0.23	0.00	NR
		7/30/2007	3.62	3.80	-0.21	0.00	NR
		8/30/2007	3.84	3.58	-0.22	0.00	NR
		9/25/2007	4.03	3.39	-0.19	0.00	NR
		10/29/2007	4.06	3.36	-0.03	0.00	NR
		11/29/2007	4.10	3.32	-0.04	0.00	NR
		12/28/2007	3.78	3.64	0.32	0.00	NR
		1/24/2008	3.16	4.27	0.63	0.00	NR
		2/21/2008	2.41	5.02	0.75	0.00	NR
		3/28/2008	2.94	4.48	-0.54	0.00	NR
		4/30/2008	3.08	4.34	-0.14	0.00	NR
		5/29/2008	3.24	4.18	-0.16	0.00	NR
		6/25/2008	3.30	4.12	-0.06	0.00	NR
		7/29/2008	3.50	3.92	-0.20	0.00	NR
		8/27/2008	3.84	3.58	-0.34	0.00	NR
	9/30/2008	4.03	3.39	-0.19	0.00	NR	
	10/31/2008	4.20	3.22	-0.17	0.00	NR	
	11/26/2008	4.23	3.19	-0.03	0.00	NR	
	12/30/2008	3.96	3.46	0.27	0.00	NR	
	1/22/2009	3.96	3.46	0.00	0.00	NR	
	5/5/2010	3.13	6.76	3.30	0.02	NR	
	10/29/2010	4.70	5.19	-1.57	0.00	NR	
	2/25/2011	1.54	8.35	3.16	0.02	NR	
	6/14/2011	3.25	6.64	-1.71	0.05	0.00	
	7/19/2011	3.53	6.36	-0.28	0.02	532.32	
	8/18/2011	3.98	5.91	-0.45	sheen	591.47	
	9/1/2011	4.12	5.77	-0.14	sheen	591.47	
	9/20/2011	4.41	5.48	-0.29	sheen	591.47	
	10/19/2011	4.34	5.55	0.07	sheen	561.90	
11/22/2011	4.75	5.14	-0.41	sheen	532.32		
12/20/2011	NR	--	--	--	532.32		
12/26/2011	4.70	5.19	-0.29	sheen	532.32		
1/23/2012	4.11	5.78	0.64	0.01	532.26		
2/15/2012	4.90	4.99	-0.79	0.02	591.40		
2/29/2012	4.14	5.75	0.56	0.03	NR		
MW-3 Product recovered prior to skimmer installation (Pre 6/14/2012):							NR
MW-3 Product recovered post skimmer installation (Post 6/14/2012):							5589.25
MW-3 Total product recovered:							5589.25
MW-4	9.77	5/5/2010	2.96	6.81	--	0.00	
		10/29/2010	4.53	5.24	-1.57	0.00	NR
		2/25/2011	1.34	8.43	3.19	0.00	NR
		9/1/2011	3.99	5.78	0.54	0.00	NR
		2/29/2012	3.91	5.86	-2.57	0.00	NR
MW-8	8.22	5/5/2010	2.56	5.66	--	0.00	
		10/29/2010	4.39	3.83	-1.83	0.00	NR
		2/25/2011	2.69	5.53	1.70	0.00	NR
		9/1/2011	3.67	4.55	0.72	0.00	NR
		2/29/2012	3.63	4.59	-0.94	0.00	NR
MW-9	14.63	5/5/2010	6.28	8.35	--	0.00	
		10/29/2010	6.28	8.35	0.00	0.00	NR
		2/25/2011	5.55	9.08	0.73	0.00	NR
		9/1/2011	6.05	8.58	0.23	0.00	NR
		2/29/2012	5.98	8.65	-0.43	0.00	NR
MW-10	9.68	5/5/2010	8.28	1.40	--	0.00	
		10/29/2010	8.27	1.41	0.01	0.00	NR
		2/25/2011	4.45	5.23	3.82	0.00	NR
		9/1/2011	8.35	1.33	-0.08	0.00	NR
MW-11	9.49	2/29/2012	8.32	1.36	-0.05	0.00	NR
		5/5/2010	7.21	2.28	--	0.00	
		10/29/2010	6.83	2.66	0.38	0.00	NR
		2/25/2011	2.83	6.66	4.00	0.00	NR
OW-1	N/A	9/1/2011	6.05	3.44	0.78	0.00	NR
		2/29/2012	5.89	3.60	0.94	0.00	NR
		6/4/1997	7.22	NC	--	0.01	NR
		9/30/1999	8.35	NC	1.13	0.01	NR
		10/11/2000	6.90	NC	-1.45	0.09	NR
		2/12/2002	5.23	NC	-1.67	0.01	38.00
		9/3/2002	NR	NC	NR	0.08	NR
		9/27/2002	7.02	NC	1.79	0.14	345.78
		10/22/2002	7.34	NC	0.32	0.01	40.00
		12/23/2002	5.17	NC	-2.17	0.03	167.00
		1/16/2003	4.97	NC	-0.20	0.01	40.00
		2/12/2003	5.23	NC	0.26	0.01	38.00
		3/28/2003	5.16	NC	-0.07	0.01	25.00
5/30/2003	4.41	NC	-0.75	0.02	77.00		
6/20/2003	4.93	NC	0.52	0.01	NR		



**TABLE 1  
HISTORICAL GROUNDWATER ELEVATION SUMMARY**

UPS-OAKLAND HUB  
8400 PARDEE DRIVE  
OAKLAND, CALIFORNIA  
STATE ID # 583

Monitoring Well	Reference Elevation	Date	Depth to	Groundwater	Change in	Product	Volume
			Groundwater	Elevation	Measurement	Thickness	Product Recovered
			(ft)	(ft)	(ft)	(ft)	(mL)
		7/14/2003	5.33	NC	0.40	0.00	NR
		8/25/2003	5.85	NC	0.52	0.00	NR
		9/9/2003	6.33	NC	0.48	0.00	NR
		9/25/2003	6.52	NC	0.19	0.01	25.00
		10/28/2003	7.26	NC	0.74	0.03	176.00
		11/18/2003	7.29	NC	0.03	0.00	NR
		12/2/2003	7.23	NC	-0.06	0.03	115.00
		1/27/2004	7.96	NC	0.73	0.01	NR
		2/24/2004	6.26	NC	-1.70	0.02	112.00
		3/29/2004	6.08	NC	-0.18	0.02	NR
		4/19/2004	6.29	NC	0.21	0.03	116.00
		5/20/2004	6.16	NC	-0.13	0.00	NR
		6/22/2004	6.37	NC	0.21	0.00	NR
		7/27/2004	5.67	NC	-0.70	0.04	225.00
		8/24/2004	6.81	NC	1.14	0.00	NR
		9/29/2004	7.08	NC	0.27	0.04	153.00
		10/25/2004	6.74	NC	-0.34	0.04	NR
		12/15/2004	5.33	NC	-1.41	0.04	155.00
		1/24/2005	3.98	NC	-1.35	0.00	NR
		2/23/2005	3.44	NC	-0.54	0.01	NR
		3/23/2005	3.34	NC	-0.10	0.02	77.00
		4/29/2005	6.89	NC	3.55	0.13	501.00
		5/27/2005	7.18	NC	0.29	0.11	425.00
		6/29/2005	7.12	NC	-0.06	0.10	450.00
		7/20/2005	7.20	NC	0.08	0.10	556.00
		8/24/2005	7.15	NC	-0.05	0.06	249.00
		9/27/2005	7.43	NC	0.28	0.12	450.00
		10/19/2005	7.48	NC	0.05	0.11	425.00
		11/29/2005	7.00	NC	-0.48	0.04	153.00
		12/29/2005	5.22	NC	-1.78	0.00	NR
		1/31/2006	5.64	NC	0.42	0.00	NR
		2/28/2006	6.53	NC	0.89	0.01	39.00
		3/27/2006	5.80	NC	-0.73	0.01	NR
		4/28/2006	6.39	NC	0.59	0.00	NR
		6/27/2006	7.82	NC	1.43	0.06	NR
		7/31/2006	5.82	NC	-2.00	0.05	278.00
		8/29/2006	7.05	NC	1.23	0.07	268.00
		9/28/2006	7.10	NC	0.05	0.02	NR
		10/27/2006	7.27	NC	0.17	0.02	NR
		11/22/2006	7.05	NC	-0.22	0.02	NR
		12/26/2006	6.73	NC	-0.32	0.03	NR
		1/25/2007	7.15	NC	0.42	0.00	NR
		2/16/2007	7.71	NC	0.56	0.01	NR
		3/19/2007	6.77	NC	-0.94	0.02	NR
		4/26/2007	6.66	NC	-0.11	0.01	NR
		5/29/2007	6.86	NC	0.20	0.02	76.00
		6/28/2007	6.97	NC	0.11	0.20	75.00
		7/30/2007	7.06	NC	0.09	0.01	NR
		8/30/2007	7.25	NC	0.19	0.03	NR
		9/25/2007	7.25	NC	0.00	0.03	115.00
		10/29/2007	7.43	NC	0.18	0.02	78.00
		11/29/2007	7.37	NC	-0.06	0.00	NR
		12/28/2007	7.28	NC	-0.09	0.01	40.00
		1/24/2008	6.61	NC	-0.67	0.01	38.00
		2/21/2008	6.33	NC	-0.28	0.01	37.00
		3/28/2008	6.80	NC	0.47	0.01	NR
		4/30/2008	7.44	NC	0.64	0.03	166.90
		5/29/2008	7.09	NC	-0.35	0.01	38.00
		6/25/2008	7.07	NC	-0.02	0.02	112.00
		7/29/2008	7.34	NC	0.27	0.00	NR
		8/27/2008	7.28	NC	-0.06	0.02	78.00
		9/30/2008	7.82	NC	0.54	0.03	167.00
		10/31/2008	7.31	NC	-0.51	0.01	NR
		11/26/2008	6.93	NC	-0.38	0.01	NR
		12/30/2008	7.25	NC	0.32	0.02	112.00
		1/22/2009	7.05	NC	-0.20	0.01	56.00

OW-1

N/A

**TABLE 1  
HISTORICAL GROUNDWATER ELEVATION SUMMARY**

UPS-OAKLAND HUB  
8400 PARDEE DRIVE  
OAKLAND, CALIFORNIA  
STATE ID # 583

Monitoring Well	Reference Elevation	Date	Depth to	Groundwater	Change in	Product	Volume
			Groundwater	Elevation	Measurement	Thickness	Product Recovered
			(ft)	(ft)	(ft)	(ft)	(mL)
OW-1	9.55	5/5/2010	7.08	2.47	--	0.06	NR
		10/29/2010	7.37	2.18	-0.29	0.08	NR
		2/25/2011	6.17	3.38	1.20	0.05	NR
		6/14/2011	6.78	2.77	-0.61	0.08	0.00
		7/19/2011	7.30	2.25	-0.52	0.20	118.29
		8/18/2011	7.35	2.20	-0.05	0.03	147.87
		9/1/2011	7.35	2.20	0.00	0.03	147.87
		9/20/2011	7.41	2.14	-0.06	0.04	591.47
		10/19/2011	7.42	2.13	-0.01	0.03	532.32
		11/22/2011	7.09	2.46	0.33	0.03	29.57
		12/20/2011	NR	--	--	0.02	147.90
		12/26/2011	7.32	2.23	0.09	0.02	147.87
		1/23/2012	6.90	2.65	0.19	0.30	532.26
		2/15/2012	7.32	2.23	-0.42	0.02	591.40
		2/29/2012	7.54	2.01	-0.22	0.08	NR
OW-1 Product recovered prior to skimmer installation (Pre 6/14/2012):							6907.68
OW-1 Product recovered post skimmer installation (Post 6/14/2012):							2986.82
OW-1 Total product Recovered:							9894.50
Total product recovered from skimmers (MW-2, MW-3 and OW-1):							
Total product recovered prior to skimmer installation (mL):							8833.2
Total product recovered prior to skimmer installation (oz):							298.0
Total product recovered prior to skimmer installation (gal):							2.3
Total product recovered post skimmer installation (mL):							12036.0
Total product recovered post skimmer installation (oz):							406.0
Total product recovered post skimmer installation (gal):							3.2
Total product recovered (mL):							20869.3
Total product recovered (oz):							705.0
Total product recovered (gal):							5.5

Notes:

- Reference elevation surveyed relative to mean sea level by Geraghty and Miller (Geraghty and Miller, Inc., 1990)
- Depth to groundwater measured from notch/mark on north edge of well casing
- Sources: Geraghty and Miller, 1996; BBL
- mL: milliliters
- oz: ounces
- gal: gallons
- NM = Not measured; NC = Not calculated; N/A= Not Available; NR = No Recovery
- SPH detected but amount insufficient to bail
- Volume of product recovered on 9/27/02 and 3/23/05 calculated based on measurements from field data sheets

**TABLE 2**  
**Monthly Skimmer PSH Recovery Events**

UPS-OAKLAND HUB  
8400 PARDEE DRIVE  
OAKLAND, CALIFORNIA  
STATE ID # 583

Monitoring Well	Date Collected	Time	Well Size	Depth to Product (foot)	Product Thickness (inches)	Amount of product recovered from the Skimmer (Ounces)	Amount of water from the Skimmer	Notes
OW-1	2/29/2012	9:42	6"	7.46	0.08	20	-	strong odor
	2/15/2012	12:00		7.3	0.02	20	-	Yellow, strong odor, brown/black particles
	1/23/2012	2:00		6.9	0.3	18	-	Yellow translucent, brown skim, strong odor
	12/20/2011	12:20		7.30	0.02	5	-	0.75 yellow and 4.25 black
	11/22/2011	1:00		7.06	0.03	1	-	Black liquid
	10/19/2011	12:20		7.45	0.03	6 OZ Black 12 OZ Yellow	-	Black with strong odor, rainbow bubbles, yellow slightly translucent
	9/20/2011	12:20		7.37	0.04	20	-	Yellow, strong odor, semi-translucent with layer of black liquid
	9/1/2011	9:06		7.32	0.03	0	-	
	8/18/2011	2:20		7.38	0.03	5	0	Black liquid with a strong odor
	7/19/2011	2:45		7.1	0.2	4	16 OZ	16 OZ Yellow brown black substance on top 4 OZ Brownish-black both with strong odor
	6/14/2011	3:25		6.7	0.08	-	20 OZ	No separation, strong odor, yellowish
MW-2	2/29/2012	9:51	4"	4.73	0.02	20	-	strong odor
	2/15/2012	12:15		5.13	0.03	20	-	Yellow, strong odor, rainbow sheen, brown particles
	1/23/2012	2:10		4.92	0.28	19	-	Yellow translucent, strong odor, black/brown sheen
	12/20/2011	12:30		4.91	0.01	18	-	Pretty Clear-Slightly Yellowish
	11/22/2011	1:20		-	-	18	-	Yellowish liquid-odor
	10/19/2011	12:30		4.78	0.01	20	-	Yellow translucent, strong odor. Clack sediments
	9/20/2011	12:30		5.07	-	20	-	Yellow, strong odor with layer of black liquid translucent but more transparent, black sheen on top and black particulates floating
	9/1/2011	9:00		-	-	0	-	
	8/18/2011	2:50		-	-	0	0	Little black liquid strong odor
	7/19/2011	3:15		4.71	0.1	2	0	Black yellowish liquid
	6/14/2011	3:15		4.2	0.03	0	0	Nothing inside well, black sludge

MW-3	2/29/2012	9:39	4"	4.11	0.03	20	-	strong odor
	2/15/2012	12:30		4.88	0.02	20	-	Yellow, strong odor
	1/23/2012	2:20		4.1	0.01	18	-	Slightly yellow, strong odor, rainbow sheen
	12/20/2011	12:45		-	-	18	-	Translucent & yellow with black particles, odor.
	11/22/2011	1:30		-	-	18	-	Yellowish, odor
	10/19/2011	12:45		-	-	19	-	Translucent & strong odor, Clearer than other wells
	9/20/2011	12:45		4.41	0.05	20	-	Yellow, strong odor, with layer of black liquid translucent but more transparent
	9/1/2011	9:11		-	-	0	-	
	8/18/2011	2:35		-	-	20	-	Slightly translucent yellow strong odor
	7/19/2011	3:30		3.51	0.2	18	0	Yellowish with little black liquid
	6/14/2011	3:00		3.2	0.05	sheen	18 OZ	Top of the skimmers have buildups

Note: PSH = Phase Separated Hydrocarbons

**TABLE 3  
HISTORICAL GROUNDWATER MONITORING RESULTS SUMMARY**

UPS-OAKLAND HUB  
8400 PARDEE DRIVE, OAKLAND, CALIFORNIA  
STATE ID # 583

Monitoring Well	Date	Benzene µg/L	Toluene µg/L	Ethyl- benzene µg/L	Total Xylenes µg/L	MTBE µg/L	TPH as gasoline µg/L	TPH as diesel µg/L	D.O. (mg/L)	EDB µg/L	1,2-DCA µg/L	Naphthalene µg/L	TDS (mg/L)	
ESL - Drinking Water	--	1	40	30	20	5	100	100	--	0.05	6	17	NA	
ESL - Non-Drinking Water	--	46	100	43	100	1800	210	210	--	150	200	24	NA	
MW-1	8/28/1990	3.00	1.40	4.00	2.40	NA	NA	21,000	NA	NA	NA	NA	NA	
	6/19/1991	1.70	0.70	0.50	0.90	NA	NA	7,100	NA	NA	NA	NA	NA	
	7/23/1991	1.60	1.10	0.50	1.50	NA	220	8,700	NA	NA	NA	NA	NA	
	8/26/1991	180.00	120.00	31.00	160.00	NA	NA	2,800	NA	NA	NA	NA	NA	
	11/18/1991	1.10	0.40	0.50	< 0.3	NA	NA	6,600	NA	NA	NA	NA	NA	
	2/3/1992	0.90	< 0.3	0.80	0.70	NA	NA	2,200	NA	NA	NA	NA	NA	
	6/29/1992	0.80	0.40	0.40	0.90	NA	NA	2,100	NA	NA	NA	NA	NA	
	6/23/1993	0.66	< 0.5	0.50	< 0.5	NA	NA	3,200	NA	NA	NA	NA	NA	
	10/11/1993	1.30	< 0.5	< 0.5	< 0.5	NA	NA	9,600	NA	NA	NA	NA	NA	
	1/4/1994	2.10	0.65	1.30	2.10	NA	NA	12,000	NA	NA	NA	NA	NA	
	5/10/1994	0.54	0.53	< 0.5	1.10	NA	NA	6,400	NA	NA	NA	NA	NA	
	2/1/1995	< 1.0	< 1.0	1.00	< 1.0	NA	510	10,000	NA	NA	NA	NA	NA	
	8/2/1995	< 0.5	< 0.5	< 0.5	< 0.5	NA	510	8,700	NA	NA	NA	NA	NA	
	10/16/1995	2.80	< 0.5	< 0.5	< 0.5	NA	830	15,000	NA	NA	NA	NA	NA	
	12/28/1995	2.10	< 0.5	< 0.5	< 0.5	NA	560	15,000	NA	NA	NA	NA	NA	
	6/4/1997	NA	NA	NA	NA	NA	NA	28,000	0.76	NA	NA	NA	NA	
	9/30/1999	< 0.5	0.60	< 0.5	1.80	< 3.0	1,600	28,000	9.90	NA	NA	NA	NA	
	10/11/2000	< 0.5	< 0.5	< 0.5	< 1.0	< 5	260	21,000	0.39	NA	NA	NA	NA	
	9/3/2002	< 0.5	< 0.5	< 0.5	0.50	< 0.5	1.00	38,000	NA	NA	NA	NA	NA	
	3/28/2003	< 5	< 5	< 5	< 10	< 5.0	250	35,000	NA	NA	NA	NA	NA	
	9/9/2003	< 0.5	< 0.5	< 0.5	< 1.0	0.60	440	11,000	NA	NA	NA	NA	NA	
	4/19/2004	3.20	< 2.5	< 2.5	< 5.0	< 2.5	280	24,000ndp	NA	NA	NA	NA	NA	
	9/29/2004	< 1.0	< 1.0	< 1.0	< 2.0	2.10	1,400 g	150,000 ndp	NA	NA	NA	NA	NA	
	3/23/2005	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	550 Q1	15,000 Q2	NA	NA	NA	NA	NA	
	11/29/2005	< 0.50	< 0.50	< 0.50	< 1.0	0.94	310	7800	NA	NA	NA	NA	NA	
	3/27/2006	< 0.50	< 0.50	< 0.50	< 1.0	0.62	420	11,000	NA	NA	NA	NA	NA	
	9/28/2006	< 0.50	< 0.50	< 0.50	< 1.0	0.87	220	28,000	NA	NA	NA	NA	NA	
	3/19/2007	< 0.50	< 0.50	< 0.50	< 1.0	< 1.0	940	11,000	NA	NA	NA	NA	NA	
	9/25/2007	< 0.50	< 0.50	< 0.50	1.1	< 0.50	240	9,700	NA	NA	NA	NA	NA	
	3/28/2008	< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	55	13,000	NA	NA	NA	NA	NA	
	9/30/2008	< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	280	9,800	NA	NA	NA	NA	NA	
	4/3/2009							ABANDONED						
	MW-2	8/28/1990	0.60	0.40	0.60	0.70	NA	NA	3,500	NA	NA	NA	NA	NA
6/19/1991		0.50	< 0.3	< 0.3	< 0.3	NA	NA	< 500	NA	NA	NA	NA	NA	
7/23/1991		0.70	< 0.3	< 0.3	< 0.3	NA	< 500	660	NA	NA	NA	NA	NA	
8/26/1991		0.70	< 0.3	< 0.3	< 0.3	NA	NA	< 500	NA	NA	NA	NA	NA	
11/18/1991		0.80	< 0.3	< 0.3	< 0.3	NA	NA	3,200	NA	NA	NA	NA	NA	
2/3/1992		0.70	< 0.3	< 0.3	0.50	NA	NA	400	NA	NA	NA	NA	NA	
6/29/1992		0.60	< 0.3	< 0.3	< 0.3	NA	NA	250	NA	NA	NA	NA	NA	
6/23/1993		0.55	< 0.5	< 0.5	< 0.5	NA	NA	11,000	NA	NA	NA	NA	NA	
10/11/1993		1.20	< 0.5	< 0.5	1.30	NA	NA	1,400	NA	NA	NA	NA	NA	
1/4/1994		0.72	< 0.5	< 0.5	1.10	NA	NA	3,700	NA	NA	NA	NA	NA	
5/10/1994		0.74	< 0.5	< 0.5	0.70	NA	NA	2,300	NA	NA	NA	NA	NA	
2/1/1995		2.10	< 1.0	< 1.0	< 1.0	NA	< 100	2,100	NA	NA	NA	NA	NA	
8/2/1995		< 0.5	< 0.5	< 0.5	< 0.5	NA	210	3,600	NA	NA	NA	NA	NA	
10/16/1995		0.73	< 0.5	< 0.5	< 0.5	NA	130	1,400	NA	NA	NA	NA	NA	
12/28/1995		< 0.5	< 0.5	< 0.5	< 0.5	NA	210	2,800	NA	NA	NA	NA	NA	
6/12/1996		NS	NS	NS	NS	NS	NS	--	NS	NA	NA	NA	NA	
6/4/1997		NA	NA	NA	NA	NA	NA	3,300	0.52	NA	NA	NA	NA	
9/30/1999		< 0.5	< 0.5	< 0.5	< 1.0	< 3.0	220	6,300	9.50	NA	NA	NA	NA	
10/11/2000		< 0.5	< 0.5	< 0.5	< 1.0	< 5.0	170	4,400	0.43	NA	NA	NA	NA	
9/27/2002		0.7J	< 2.5	< 2.5	< 2.5	< 2.5	17,000	67,000	NA	NA	NA	NA	NA	
3/28/2003		< 25	< 25	< 25	< 50	< 25	1,600	10,000	NA	NA	NA	NA	NA	
9/25/2003		0.52	< 0.50	< 0.50	< 1.0	< 0.50	150	12,000	NA	NA	NA	NA	NA	
3/29/2004		0.51	< 0.50	< 0.50	< 1.0	< 0.50	84 g	7,800 ndp	NA	NA	NA	NA	NA	
9/29/2004		< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	630 g	10,000 ndp	NA	NA	NA	NA	NA	
1/24/2005		< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	2,300 Q1	15,000 Q2	NA	NA	NA	NA	NA	
11/29/2005		< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	1,900	22,000	NA	NA	NA	NA	NA	
3/27/2006		< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	710	8,900	NA	NA	NA	NA	NA	
9/28/2006		< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	62	7,500	NA	NA	NA	NA	NA	
3/19/2007		< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	< 50	11,000	NA	NA	NA	NA	NA	
9/25/2007		< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	55	8,700	NA	NA	NA	NA	NA	
3/28/2008		< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	210	6,200	NA	NA	NA	NA	NA	
9/30/2008		< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	220	23,000	NA	NA	NA	NA	NA	
5/5/2010		NA	NA	NA	NA	NA	< 50	3,700	NA	< 0.5	< 0.6	< 1.0	2,800	
2/25/2011	< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	360	37,000	NA	NA	NA	NA	NA		
9/1/2011	0.59	4.90	0.98	10.0	< 0.50	140	4,600	NA	NA	NA	NA	NA		
2/29/2012	< 0.50	0.52	< 0.50	1.7	< 0.50	510	13,000	NA	NA	NA	2.0	NA		



**TABLE 3  
HISTORICAL GROUNDWATER MONITORING RESULTS SUMMARY**

UPS-OAKLAND HUB  
8400 PARDEE DRIVE, OAKLAND, CALIFORNIA  
STATE ID # 583

Monitoring Well	Date	Benzene µg/L	Toluene µg/L	Ethyl- benzene µg/L	Total Xylenes µg/L	MTBE µg/L	TPH as gasoline µg/L	TPH as diesel µg/L	D.O. (mg/L)	EDB µg/L	1,2-DCA µg/L	Naphthalene µg/L	TDS (mg/L)
MW-3	8/28/1990	0.50	0.80	4.30	2.30	NA	NA	18,000	NA	NA	NA	NA	NA
	6/19/1991	0.40	0.40	1.70	1.40	NA	NA	1,300	NA	NA	NA	NA	NA
	7/23/1991	0.30	< 0.3	1.50	0.50	NA	330	6,800	NA	NA	NA	NA	NA
	8/26/1991	13.00	13.00	5.80	26.00	NA	NA	<50	NA	NA	NA	NA	NA
	11/18/1991	0.60	< 0.3	< 0.3	< 0.3	NA	NA	2,500	NA	NA	NA	NA	NA
	2/3/1992	0.40	< 0.3	1.30	0.60	NA	NA	1,100	NA	NA	NA	NA	NA
	6/29/1992	< 0.3	< 0.3	1.30	0.30	NA	NA	3,200	NA	NA	NA	NA	NA
	6/23/1993	< 0.5	< 0.5	< 0.5	< 0.5	NA	NA	8,100	NA	NA	NA	NA	NA
	10/11/1993	1.00	< 0.5	1.50	2.40	NA	NA	7,100	NA	NA	NA	NA	NA
	1/4/1994	< 0.5	< 0.5	1.60	< 0.5	NA	NA	7,400	NA	NA	NA	NA	NA
	5/10/1994	< 0.5	< 0.5	< 0.5	< 0.5	NA	NA	5,700	NA	NA	NA	NA	NA
	2/1/1995	< 1.0	< 1.0	2.70	4.10	NA	810	10,000	NA	NA	NA	NA	NA
	8/2/1995	< 0.5	< 0.5	< 0.5	< 0.5	NA	1,200	6,500	NA	NA	NA	NA	NA
	10/16/1995	< 0.5	< 0.5	< 0.5	< 0.5	NA	930	9,800	NA	NA	NA	NA	NA
	12/28/1995	< 0.5	< 0.5	< 0.5	< 0.5	NA	690	11,000	NA	NA	NA	NA	NA
	6/4/1997	NA	NA	NA	NA	NA	NA	34,000	0.84	NA	NA	NA	NA
	9/30/1999	< 0.5	0.60	0.70	1.20	< 3.0	1300	8,700	8.60	NA	NA	NA	NA
	10/11/2000	< 0.5	< 0.5	< 0.5	< 1.0	< 5.0	430	20,000	0.51	NA	NA	NA	NA
	9/3/2002	<0.5	<0.5	<0.5	<0.5	<0.5	2,300	14,000	NA	NA	NA	NA	NA
	3/28/2003	<25	<25	<25	<50	<25	2,500	19,000	NA	NA	NA	NA	NA
	9/9/2003	<0.5	<0.5	<0.5	<1.0	<0.5	700	73,000	NA	NA	NA	NA	NA
	4/19/2004	<0.50	<0.50	<0.50	<1.0	<0.50	99	14,000 ndp	NA	NA	NA	NA	NA
	9/29/2004	<2.5	<2.5	<2.5	<5.0	<2.5	390 g	10,000 ndp	NA	NA	NA	NA	NA
	1/24/2005	<2.5	<2.5	<2.5	<5.0	<2.5	330 Q1	14,000 Q2	NA	NA	NA	NA	NA
	11/29/2005	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	1,200	8,300	NA	NA	NA	NA	NA
	3/27/2006	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	430	13,000	NA	NA	NA	NA	NA
	9/28/2006	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	370	17,000	NA	NA	NA	NA	NA
	3/19/2007	< 1.0	< 1.0	< 1.0	< 2.0	< 1.0	510	26,000	NA	NA	NA	NA	NA
	9/25/2007	<1.0	<1.0	<1.0	<2.0	<1.0	390	11,000	NA	NA	NA	NA	NA
	3/28/2008	<0.50	<0.50	<0.50	<1.0	<0.50	280	21,000	NA	NA	NA	NA	NA
	9/30/2008	<0.50	<0.50	<0.50	<1.0	<0.50	270	9,500	NA	NA	NA	NA	NA
	5/5/2010	NA	NA	NA	NA	NA	<150	24,000	NA	<0.50	<0.50	2.2	910
2/25/2011	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
9/1/2011	<0.50	1.70	<0.50	2.1	<0.50	450	24,000	NA	NA	NA	NA	NA	
2/29/2012	<0.50	<0.50	<0.50	1.3	<0.50	520	13,000	NA	NA	NA	2.1	NA	
MW-4	5/5/2010	NA	NA	NA	NA	NA	<50	5,200	NA	<5.0	<5.0	<1.0	1,100
	10/29/2010	<0.5	<0.5	<0.5	<1.0	<0.5	150	2,000	NA	NA	NA	<1.0	NA
	2/25/2011	<0.50	<0.50	<0.50	<1.0	<0.50	250	24,000	NA	NA	NA	NA	NA
	9/1/2011	<0.50	<0.50	<0.50	<1.0	<0.50	430	7,700	NA	NA	NA	NA	NA
	2/29/2012	<0.50	<0.50	<0.50	<1.0	<0.50	150	12,000	NA	NA	NA	<1.0	NA
MW-8	5/5/2010	NA	NA	NA	NA	NA	<50	70	NA	<0.50	<0.50	<1.0	2,900
	10/29/2010	<0.5	<0.5	<0.5	<1.0	<0.5	<50	1,100	NA	NA	NA	<1.0	NA
	2/25/2011	<0.50	<0.50	<0.50	<1.0	<0.50	<50	280	NA	NA	NA	NA	NA
	9/1/2011	<0.50	<0.50	<0.50	<1.0	<0.50	<50	200	NA	NA	NA	NA	NA
MW-9	2/29/2012	<0.50	<0.50	<0.50	<1.0	<0.50	<50	120	NA	NA	<1.0	NA	NA
	5/5/2010	NA	NA	NA	NA	NA	<50	110	NA	<0.50	<0.50	<1.0	6,200
	2/25/2011	<0.50	<0.50	<0.50	<1.0	<0.50	<50	580	NA	NA	NA	NA	NA
	9/1/2011	<0.50	0.55	<0.50	<1.0	<0.50	<50	240	NA	NA	NA	NA	NA
MW-10	2/29/2012	<0.50	<0.50	<0.50	<1.0	<0.50	<50	160	NA	NA	<1.0	NA	NA
	5/5/2010	NA	NA	NA	NA	NA	<50	110	NA	<0.50	<0.50	<1.0	2,100
	10/29/2010	<0.5	<0.5	<0.5	<1.0	<0.5	<50	650	NA	NA	NA	<1.0	NA
	2/25/2011	<0.50	<0.50	<0.50	<1.0	<0.50	<50	5,600	NA	NA	NA	NA	NA
	9/1/2011	<0.50	<0.50	<0.50	<1.0	<0.50	<50	250	NA	NA	NA	NA	NA
MW-11	2/29/2012	<0.50	<0.50	<0.50	<1.0	<0.50	<50	170	NA	NA	<1.0	NA	NA
	5/5/2010	NA	NA	NA	NA	NA	<50	430	NA	<0.50	<0.50	<1.0	10,000
	10/29/2010	<0.5	<0.5	<0.5	<1.0	<0.5	<50	7,200	NA	NA	NA	<1.0	NA
	2/25/2011	<0.50	<0.50	<0.50	<1.0	<0.50	<50	1,900	NA	NA	NA	NA	NA
	9/1/2011	<0.50	<0.50	<0.50	<1.0	<0.50	<50	1,100	NA	NA	NA	NA	NA
2/29/2012	0.53	<0.50	<0.50	<1.0	<0.50	<50	1,200	NA	NA	NA	<1.0	NA	

**TABLE 3  
HISTORICAL GROUNDWATER MONITORING RESULTS SUMMARY**

UPS-OAKLAND HUB  
8400 PARDEE DRIVE, OAKLAND, CALIFORNIA  
STATE ID # 583

Monitoring Well	Date	Benzene µg/L	Toluene µg/L	Ethyl- benzene µg/L	Total Xylenes µg/L	MTBE µg/L	TPH as gasoline µg/L	TPH as diesel µg/L	D.O. (mg/L)	EDB µg/L	1,2-DCA µg/L	Naphthalene µg/L	TDS (mg/L)
OW-1	6/23/1993	< 0.5	< 0.5	< 0.5	31.00	NA	NA	34,000,000	NA	NA	NA	NA	NA
	6/4/1997	NS	NS	NS	NS	NS	NS	NS	NS	NA	NA	NA	NA
	9/30/1999	< 2.0	< 2.0	< 2.0	4.20	< 12.0	8,300	28,000,000	9.70	NA	NA	NA	NA
	9/30/1999	< 1.0	< 1.0	1.90	8.90	< 6.0	2,900	340,000	--	NA	NA	NA	NA
	10/11/2000	< 0.5	< 0.5	< 0.5	< 1.0	< 5.0	2,100	58,000	0.74	NA	NA	NA	NA
	9/27/2002	0.6J	< 2.5	< 2.5	< 2.5	< 2.5	17,000	23,000	NA	NA	NA	NA	NA
	3/28/2003	<50	<50	<50	<100	<50	820	81,000	NA	NA	NA	NA	NA
	9/25/2003	<50	530.00	500.00	6200.00	<50	220	91,000	NA	NA	NA	NA	NA
	3/29/2004	<0.50	<0.50	<0.50	<1.0	<0.50	510	280,000 ndp	NA	NA	NA	NA	NA
	9/29/2004	<2.5	<2.5	<2.5	<5.0	<2.5	2,800 g	440,000 ndp	NA	NA	NA	NA	NA
	1/24/2005	<0.50	<0.50	<0.50	<1.0	<0.50	220 Q1	16,000 Q2	NA	NA	NA	NA	NA
	11/29/2005	< 0.50	< 0.50	< 0.50	< 1.0	< 0.50	650	30,000	NA	NA	NA	NA	NA
	3/27/2006	<13	<13	<13	<25	<13	<1,300	58,000	NA	NA	NA	NA	NA
	9/28/2006	<2.5	<2.5	<2.5	<5.0	<2.5	820	130,000	NA	NA	NA	NA	NA
	3/19/2007	<2.5	<2.5	<2.5	<5.0	<2.5	460	76,000	NA	NA	NA	NA	NA
	9/25/2007	<2.0	<2.0	<2.0	<4.0	<2.0	<200	42,000	NA	NA	NA	NA	NA
	3/28/2008	<0.50	<0.50	<0.50	<1.0	<0.50	1,700	120,000	NA	NA	NA	NA	NA
	9/30/2008	<0.50	<0.50	<0.50	<1.0	<0.50	340	180,000	NA	NA	NA	NA	NA
	5/5/2010	NA	NA	NA	NA	NA	74	7,000	NA	<0.50	<0.50	<1.0	1,800
	2/25/2011	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9/1/2011	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
2/29/2012	<5.0	<5.0	<5.0	<10.0	<5.0	<b>1,200</b>	<b>27,000</b>	NA	NA	NA	<10.0	NA	

**Notes:**

(µg/L) = are micrograms per liter and mg/L are milligrams per liter.

NA = Not Analyzed; NS = Not Sampled; NM = Not Measured

TPH = Total petroleum hydrocarbons; MTBE = Methyl tertiary butyl ether.

Title 22 of the California Code of Regulations, California Maximum Contaminant Levels (MCLs) for drinking water.

D.O. = Dissolved Oxygen measured in the field.

Results collected between the dates of 8/28/90 and 12/28/95 are based on prior reporting by Geraghty & Miller, Inc. (1996).

Bold values indicate analytical detections above MCL.

The 9/96, 10/96 BBL reports revealed concentrations reported as TPH as diesel did not resemble the diesel chromatogram standard, containing > C-26.

J - Estimated value between MDL and PQL.

ndp - Hydrocarbon reported does not match the pattern of laboratory Diesel standard.

\* = Not an MCL; Odor and taste threshold per the California Regional Water Quality Control Board regulations

Q2 = Quantity of unknown hydrocarbon(s) in sample based on diesel.

Q1 = Quantity of unknown hydrocarbon(s) in sample based on gasoline.

RWQCB ESLs = Regional Water Quality Control Board ESLs for Environmental Concerns at Sites with Contaminated Soil and Groundwater INTERIM FINAL - November 2007 (Revised May 2008) San Francisco Bay Region, CA

**Appendix A**

UPS – Oakland Hub  
Groundwater Parameters and Field Notes

## WELL GAUGING DATA

Project # 120229-DRI Date 2/29/12 Client Arcadis

Site 8400 Purdie Rd. Oakland Ca.

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
MW-2	0951	4	Sheen odor	4.73	0.02		4.75	14.25	↓	Skimmer
MW-3	0939	4	Strong odor	4.11	0.03		4.14	14.58		Skimmer
MW-4	0919	2					3.91	16.69		
MW-8	0934	2					3.63	12.22		
MW-9	0929	2					5.98	13.20		
MW-10	1016	2					8.32	12.19		
MW-11	0924	2					5.89	12.45		
OW-1	0942	6	Strong odor	7.46	0.08		7.54	18.05		↓
* Skimmers removed 30 min. prior to gauging. All stable.										

# WELLHEAD INSPECTION CHECKLIST

Date 2/29/12 Client Arcadis  
 Site Address 8400 Purdes Rd. Oakland Ca.  
 Job Number 120229-D01 Technician DR

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Debris Removed From Wellbox	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)
MW-2							X	
MW-3							X	
MW-4	X							
MW-8	X						No leak	
MW-9	X						No leak	
MW-10	X						No leak.	
MW-11							No leak.	
OW-1	X						No leak.	

NOTES: MW-11 Cracked apron. No leak. MW-3 Cracked apron.  
MW-2 Cracked apron.

# WELL MONITORING DATA SHEET

Project #: 120229-DR1	Client: Arcadis
Sampler: DR <u>BP</u>	Date: 2/29/12
Well I.D.: MW-2	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): 14.25	Depth to Water (DTW): 4.75
Depth to Free Product: 4.73	Thickness of Free Product (feet): 0.02
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 6.65	

Purge Method: Bailer	Waters: Peristaltic	Sampling Method: Bailer
Disposable Bailer	Extraction Pump	<u>Disposable Bailer</u>
Positive Air Displacement	Other: _____	Extraction Port
<u>Electric Submersible</u>		Dedicated Tubing

$6.2 \text{ (Gals.)} \times 3 = 18.6 \text{ Gals.}$ 1 Case Volume      Specified Volumes      Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius <sup>2</sup> * 0.163														

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1250	Emptied	Skimmer	appx 15mL SPH &		500mL H <sub>2</sub> O	blackish floating debris odor
1257	Bailed	appx	20mL SPH &		1.5 Gal H <sub>2</sub> O	
1302	16.9	6.99	4393	>1000	6.2	brown sheen odor
1304	Well Dewatered @			8.5 Gals		DTW: 12.08
1505	17.0	7.07	4812	474	—	odor light sheen

Did well dewater? Yes No      Gallons actually evacuated: 8.5

Sampling Date: 2/29/12      Sampling Time: 1505      Depth to Water: 8.72 (2hr)

Sample I.D.: MW-2      Laboratory: Kiff CalScience Other TA-SF

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See Col

EB I.D. (if applicable): @ Time      Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

## WELL MONITORING DATA SHEET

Project #: 120229-DRI	Client: Arcadis
Sampler: DR <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">B3</span>	Date: 2/29/12
Well I.D.: MW-3	Well Diameter: 2 3 <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">4</span> 6 8
Total Well Depth (TD): 14.58	Depth to Water (DTW): 4.14
Depth to Free Product: 4.11	Thickness of Free Product (feet): 0.03
Referenced to: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">PVC</span> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 6.22	

Purge Method: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Electric Submersible</span>	Waters: Peristaltic Extraction Pump	Sampling Method: <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">Disposable Bailer</span>
Disposal Bailer	Other: _____	Extraction Port
Positive Air Displacement		Dedicated Tubing

$6.8 \text{ (Gals.)} \times 3 = 20.4 \text{ Gals.}$ 1 Case Volume      Specified Volumes      Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius <sup>2</sup> * 0.163														

Time	Temp (°F or °C)	pH	Cond. (mS or μS)	Turbidity (NTUs)	Gals. Removed	Observations
1230						odor cloudy brown
1237						bronze blackish odor
1242	16.5	6.85	1939	>1000	6.8	bronze odor sheer
1244						Well Dewatered @ 9.4 Gals DTW: 11.84
1430	15.7	7.39	883	11	—	odor sheer (light)

Did well dewater? Yes No      Gallons actually evacuated: 9.4

Sampling Date: 2/29/12      Sampling Time: 1430      Depth to Water: 4.84

Sample I.D.: MW-3      Laboratory: Kiff CalScience Other: TA-SF

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See Col

EB I.D. (if applicable): @ Time      Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

# WELL MONITORING DATA SHEET

Project #: 120229-DR1	Client: Arcadis
Sampler: DR	Date: 2/29/12
Well I.D.: MW-4	Well Diameter: <input checked="" type="radio"/> 2   3   4   6   8
Total Well Depth (TD): 16.69	Depth to Water (DTW): 3.91
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI   HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 6.47	

Purge Method: Bailer	Waters Peristaltic	Sampling Method: Bailer
<u>Disposable Bailer</u>	Extraction Pump	<u>Disposable Bailer</u>
Positive Air Displacement	Other _____	Extraction Port
Electric Submersible		Dedicated Tubing
		Other: _____

2.0 (Gals.) X	3	= 6.0 Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1133	<del>17.5</del> 17.5	8.21	1672	>1000	2.0	odor / sh:en
1136	17.7	7.56	1690	>1000	4.0	" / "
1139	17.8	7.54	1692	>1000	6.0	" / "

Did well dewater?   Yes    No   Gallons actually evacuated: 6.0

Sampling Date: 2/29/12   Sampling Time: 1145   Depth to Water: 3.97

Sample I.D.: MW-4   Laboratory: Kiff   CalScience   Other: TA-SF

Analyzed for: TPH-G   BTEX   MTBE   TPH-D   Oxygenates (5)   Other: See Col

EB I.D. (if applicable): @ Time   Duplicate I.D. (if applicable):

Analyzed for: TPH-G   BTEX   MTBE   TPH-D   Oxygenates (5)   Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV



# WELL MONITORING DATA SHEET

Project #: <u>120229-DRI</u>	Client: <u>Arcadis</u>
Sampler: <u>DR</u>	Date: <u>2/29/12</u>
Well I.D.: <u>MW-8</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): <del>12.22</del> <u>12.22</u>	Depth to Water (DTW): <u>3.63</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>5.35</u>	

Purge Method: <u>Bailer</u> <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Positive Air Displacement <input type="checkbox"/> Electric Submersible	Waterra <input type="checkbox"/> Peristaltic <input type="checkbox"/> Extraction Pump Other _____	Sampling Method: <u>Bailer</u> <input checked="" type="checkbox"/> Disposable Bailer <input type="checkbox"/> Extraction Port <input type="checkbox"/> Dedicated Tubing Other: _____
---	--	--

$1.4 \text{ (Gals.)} \times 3 = 4.2 \text{ Gals.}$ 1 Case Volume      Specified Volumes      Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius <sup>2</sup> * 0.163														

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1232	16.3	7.25	7842	174	1.4	Yellow color
1236	16.9	7.06	9126	208	2.8	"
1240	16.9	7.04	9174	427	4.2	"

Did well dewater? Yes  No  Gallons actually evacuated: 4.2

Sampling Date: 2/29/12 Sampling Time: 1440 Depth to Water: 8.94 (2hr.)

Sample I.D.: MW-8 Laboratory: Kiff CalScience Other TA-SF

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: Sec Col

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

## WELL MONITORING DATA SHEET

Project #: 120229-DRI	Client: Arcadis
Sampler: DR	Date: 2/29/12
Well I.D.: MW-9	Well Diameter: <input checked="" type="radio"/> 3 <input type="radio"/> 4 <input type="radio"/> 6 <input type="radio"/> 8
Total Well Depth (TD): 13.20	Depth to Water (DTW): 5.98
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd):                  YSI                  HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 7.42	

Purge Method: Bailer	Waters	Sampling Method: Bailer
<u>Disposable Bailer</u>	Peristaltic	<u>Disposable Bailer</u>
Positive Air Displacement	Extraction Pump	Extraction Port
Electric Submersible	Other _____	Dedicated Tubing
		Other: _____

1.2 (Gals.) X	3	= 3.6 Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1204	18.3	7.01	8794	149	1.2	cloudy
1206	18.5	6.79	21.29	307	2.4	11
1208	18.6	6.77	21.44	767	3.6	11

Did well dewater?    Yes    No                  Gallons actually evacuated: 3.6

Sampling Date: 2/29/12    Sampling Time: 1410    Depth to Water: 11.02 (2hr)

Sample I.D.: MW-9                  Laboratory: Kiff    CalScience    Other: TA-SF

Analyzed for: TPH-G    BTEX    MTBE    TPH-D    Oxygenates (5)    Other: See Col

EB I.D. (if applicable):                  @                  Time                  Duplicate I.D. (if applicable):

Analyzed for: TPH-G    BTEX    MTBE    TPH-D    Oxygenates (5)    Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

# WELL MONITORING DATA SHEET

Project #: 120229-DR1	Client: Arcadis
Sampler: DR	Date: 2/29/12
Well I.D.: Mw - 10	Well Diameter: <u>3</u> 4 6 8
Total Well Depth (TD): 12-19	Depth to Water (DTW): 8.32
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.09	

Purge Method: Bailer	Waterra	Sampling Method: Bailer
<u>Disposable Bailer</u>	Peristaltic	<u>Disposable Bailer</u>
Positive Air Displacement	Extraction Pump	Extraction Port
Electric Submersible	Other _____	Dedicated Tubing
		Other: _____

0.6 (Gals.) X 3 = 1.8 Gals.  
 1 Case Volume      Specified Volumes      Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1025	17.2	6.99	8179	102	0.6	Yellow color
1027	17.5	7.03	8202	211	1.2	"
1029	17.5	7.02	8204	329	1.8	"

Did well dewater? Yes  No  Gallons actually evacuated: 1.8

Sampling Date: 2/29/12      Sampling Time: 1035      Depth to Water: 8.91

Sample I.D.: MW-10 / ~~MW-10 (post GAC)~~ Laboratory: Kiff CalScience Other: TA-SE

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See Col

EB I.D. (if applicable): @ \_\_\_\_\_ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

# WELL MONITORING DATA SHEET

Project #: <u>120229-DR1</u>	Client: <u>Arcadis</u>
Sampler: <u>DR</u>	Date: <u>2/29/12</u>
Well I.D.: <u>MW-11</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): <u>12.45</u>	Depth to Water (DTW): <u>5.89</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>7.20</u>	

Purge Method: <u>Bailer</u> <u>Disposable Bailer</u> Positive Air Displacement Electric Submersible	Watterra Peristaltic Extraction Pump Other _____	Sampling Method: <u>Bailer</u> <u>Disposable Bailer</u> Extraction Port Dedicated Tubing Other: _____
--	---	---

<u>1.0</u> (Gals.) X <u>3</u> = <u>3.0</u> Gals. 1 Case Volume      Specified Volumes      Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius<sup>2</sup> * 0.163</td> </tr> </tbody> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 0.163
Well Diameter	Multiplier	Well Diameter	Multiplier														
1"	0.04	4"	0.65														
2"	0.16	6"	1.47														
3"	0.37	Other	radius <sup>2</sup> * 0.163														

Time	Temp (°F or °C)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1054	16.5	7.33	6702	294	1.0	cloudy
1056	16.7	7.25	7174	71000	2.0	"
1058	16.7	7.24	7183	71000	3.0	"

Did well dewater?    Yes    No                      Gallons actually evacuated: 3.0

Sampling Date: 2/29/12      Sampling Time: 1300      Depth to Water: 9.02 (2 hr.)

Sample I.D.: MW-11                      Laboratory: Kiff    CalScience    Other: TA-SF

Analyzed for: TPH-G    BTEX    MTBE    TPH-D    Oxygenates (5)    Other: See Col

EB I.D. (if applicable): @ \_\_\_\_\_ Time      Duplicate I.D. (if applicable):

Analyzed for: TPH-G    BTEX    MTBE    TPH-D    Oxygenates (5)    Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

# WELL MONITORING DATA SHEET

Project #: 120229-DR1	Client: Arcadis
Sampler: DR (BP)	Date: 2/29/12
Well I.D.: OW-1	Well Diameter: 2 3 4 (6) 8
Total Well Depth (TD): 18.05	Depth to Water (DTW): 7.54
Depth to Free Product: 7.46	Thickness of Free Product (feet): 0.08
Referenced to: PVC Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.64	

Purge Method:  Bailer  Waterra  Sampling Method:  Bailer

Disposable Bailer  Peristaltic  Disposable Bailer

Positive Air Displacement  Extraction Pump  Extraction Port

Electric Submersible  Other \_\_\_\_\_  Dedicated Tubing

Other: \_\_\_\_\_

15.4 (Gals.) X	3	= 46.2 Gals.
I Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius <sup>2</sup> * 0.163

Time	Temp (°F or °C)	pH	Cond. (mS or μS)	Turbidity (NTUs)	Gals. Removed	Observations
1140	Emptied	skimmers	appx 40 mL SPH &	50 mL H2O		odor, yellowish brown
1150	Bailed	appx 120 mL SPH &	1.5 Gal H2O			brown, cloudy
1217	18.3	6.55	5894	155	15.5	grey at first odor strong
1219	Well Dewatered @ 21.0 Gals					DTW: 16.05
1420	18.2	6.60	5927	29	—	

Did well dewater?  Yes  No      Gallons actually evacuated: 21.0

Sampling Date: 2/29/12      Sampling Time: 1420      Depth to Water: 10.22 (2hr.)

Sample I.D.: OW-1      Laboratory: Kiff CalScience Other (TA-SF)

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See Col

EB I.D. (if applicable): @ Time      Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV



**Appendix B**

UPS – Oakland Hub  
Disposal manifests





<b>SHIPPING DOCUMENT</b>	1. Generator ID Number CAD09707509	2. Page 1 of 1	3. Emergency Response Phone (877) 818-0087	4. Shipping Document Tracking Number <b>ZZ 00273577</b>		
5. Generator's Name and Mailing Address UPS OAKLAND HUB 8400 PARDEE DRIVE OAKLAND, CA 94621		Generator's Site Address (if different than mailing address) SAME				
Generator's Phone: 770 428-9009						
6. Transporter 1 Company Name VEOLIA ES TECHNICAL SOLUTIONS			U.S. EPA ID Number NJ0080831389			
7. Transporter 2 Company Name			U.S. EPA ID Number			
8. Designated Facility Name and Site Address VEOLIA ES TECHNICAL SOLUTIONS, 1704 W. FIRST STREET			U.S. EPA ID Number			
Facility's Phone: 828 334-5117 AZUSA, CA 91702			CAD008302903			
<b>GENERATOR</b>	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No. Type	11. Total Quantity	12. Unit Wt./Vol.	13. Codes
		1. NON-DOT REGULATED MATERIAL, (NON HAZARDOUS CONTACT WATER)	002 DM	00800	P	NONE
		2. NON-DOT REGULATED MATERIAL, (SOIL)	008 DM	05600	P	NONE
		3.				
		4.				
14. Special Handling instructions and Additional Information ER Service Contracted by VESTS						
15. GENERATOR S/OFFEROR S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.						
Generator's/Offeror's Printed/Typed Name <i>Michael A. Calore</i>		Signature <i>Michael A. Calore</i>		Month	Day	Year
				03	01	12
<b>TRANSPORTER INT'L</b>	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____					
	17. Transporter Acknowledgment of Receipt of Shipment					
	Transporter 1 Printed/Typed Name <i>David E. Huffman</i>		Signature <i>David E. Huffman</i>		Month	Day
				03	01	12
Transporter 2 Printed/Typed Name		Signature		Month	Day	Year
<b>DESIGNATED FACILITY</b>	18. Discrepancy					
	18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection					
	Shipping Document Tracking Number: _____					
	18b. Alternate Facility (or Generator)			U.S. EPA ID Number		
	Facility's Phone: _____					
18c. Signature of Alternate Facility (or Generator)				Month	Day	Year
19. Report Management Method Codes (i.e., codes for treatment, disposal, and recycling systems)						
1.		2.		3.		4.
20. Designated Facility Owner or Operator: Certification of receipt of shipment except as noted in Item 18a						
Printed/Typed Name		Signature		Month	Day	Year



# Activity Report

JOB NO: 1550722000      WO NO: 1550722000  
 BILL DOC NO FC79699289  
 GENERATOR NO 586067      EPA ID: CAD09707509

BILL TO: ARCADIS US INC  
 ACCOUNTS PAYABLE  
 630 PLAZA DR. SUITE 600  
 HIGHLANDS RANCH, CO 80129  
 (732) 661-3827

JOB SITE: UPS OAKLAND HUB  
 8400 PARDEE DRIVE  
 OAKLAND, CA 94621  
 (770) 428-9009

CONTACT: ADRIANA SANCHEZ

CONTACT: JENNIFER HALCOMB-LEBEAU

MANIFEST NUMBER(S):  
 ZZ00273577

CUSTOMER P.O. NUMBER	PROJECT NUMBER	SHIP DATE	TERR.
		03/01/2012	C40

DESCRIPTION	# CONT.	CONT./CODE	QTY	UOM	PG/LN	WASTE AREA
Manifest # ZZ00273577 WIP 251208 / Approval AZU-BSLSOIL(NS) NON HAZARDOUS SOIL	8	551A2-DM	5600	P	1 / 2	
Manifest # ZZ00273577 WIP 251211 / Approval AZU-USFLEANWATR NON HAZARDOUS CONTACT WATER	2	551A2-DM	800	P	1 / 1	
03/01/2012 Manpwr. - SERVICE VEHICLE CHARGE		1317	1@1	EACH		
03/01/2012 Misc. - ENERGY & SECURITY SURCHARGE		3129	1	PERCNT		
03/01/2012 Mtrl. - 551A2 - 55 GAL DOT 17H DRUM RECONDITIONED		3354	2	EACH		

Material provided for manifest ZZ00273577

Total Hours: 0  
 # of Containers: 10  
 Total Pounds: 6400

Veolia Environmental Solutions is permitted for and has capacity to accept waste listed above in container quantities.

# Activity Report

JOB NO: 1550722000  
BILL DOC NO FC73639289  
GENERATOR NO 586067

WO NO: 1550722000  
EPA ID: CAD09707509

BILL TO: ARCADIS US INC  
ACCOUNTS PAYABLE  
630 PLAZA DR. SUITE 600  
HIGHLANDS RANCH, CO 80129  
(732) 661-3827

JOB SITE: UPS OAKLAND HUB  
8400 PARDEE DRIVE  
OAKLAND, CA 94621  
(770) 428-9009

CONTACT: ADRIANA SANCHEZ

CONTACT: JENNIFER HALCOMB-LEBEAU

MANIFEST NUMBER(S):  
2200273577

CUSTOMER P.O. NUMBER	PROJECT NUMBER	SHIP DATE	TERR.
		03/01/2012	C40

Comments:

By: 

Veolia Environmental Solutions is permitted for and has capacity to accept waste listed above in container quantities.

**Appendix C**

UPS – Oakland Hub  
SOS® Passive Skimmer specifications

## SOS® Passive Skimmers

### For Low Recovery Wells

The QED family of Passive Skimmers has been designed for free product recovery applications in sites where active pumping systems are not applicable due to existing conditions or extreme low permeability formations. The floating intake head follows the groundwater fluctuations in the recovery well, allowing only the free-floating phase (LNAPL) to be captured, without taking water, and stored in the built-in reservoir for further manual transfer to a tank.

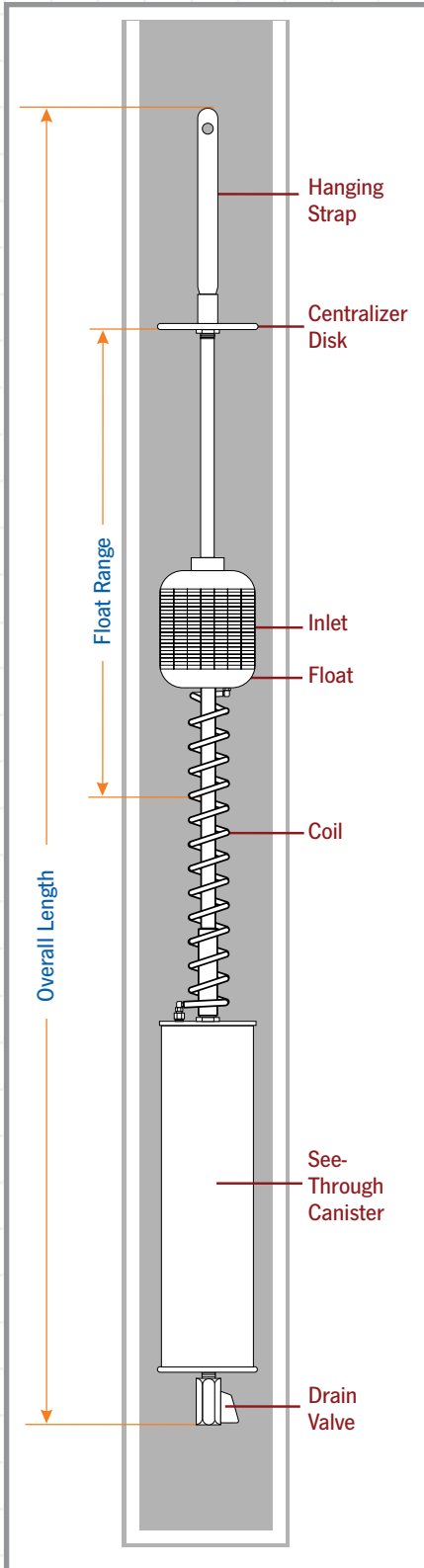
Passive Skimmers are available for 2" (50 mm) and 4" (100 mm) extraction wells, with different reservoir capacities.

### Advantages

1. Simple systems for extreme low recovery applications.
2. Inexpensive option if active system is not practical.







### Specifications

Model No.	2 in. SOS 301079	2 in. SOS 301080	4 in. SOS 301032	4 in. SOS 301033
Canister Volume	20 oz. (600 cc)	30 oz. (900 cc)	101 oz. (3,000 cc)	203 oz. (6,000 cc)
Well Diameter	2 in. (5 cm)	2 in. (5 cm)	4 in. (10 cm)	4 in. (10 cm)
Float Travel Range	12 in. (30 cm)	12 in. (30 cm)	18 in. (46 cm)	18 in. (46 cm)
Overall Length	65 in. (165 cm)	48 in. (122 cm)	119 in. (302 cm)	11 in. (28 cm)

LNAPL Fluid Density	< 1.0 SG
Kinematic Viscosity @ 50 °F (10 °C)	200 centistokes
Recommended Initial LNAPL Layer	> .25 in. (> .64 cm)
Residual LNAPL Layer	0.25 in. (.64 cm)
Suitable Types of LNAPL	Gasoline, jet fuel
Materials	Stainless steel, Viton®, PVC, brass, closed cell foam.

Viton is registered trademark of DuPont Dow Elastomers.



### Characterize Your Specific Site

The QED Test Kit enables you to measure the density and viscosity of your actual floating hydrocarbon layer. This FREE, do-it-yourself kit comes complete with simple, illustrated instructions. Once you have recorded the results of your hydrocarbon test, QED application specialists will be able to provide expert technical assistance in system design and specification.

**Appendix D**

UPS – Oakland Hub  
Laboratory Analytical Results

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

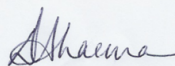
## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.  
TestAmerica San Francisco  
1220 Quarry Lane  
Pleasanton, CA 94566  
Tel: (925)484-1919

TestAmerica Job ID: 720-40684-1  
Client Project/Site: UPS-Oakland

For:  
ARCADIS U.S. Inc  
1000 Cobb Place Blvd NW  
Suite 500-A  
Kennesaw, Georgia 30144

Attn: Ms. Jennifer LeBeau



Authorized for release by:  
3/7/2012 4:40:01 PM

Dimple Sharma  
Project Manager I  
[dimple.sharma@testamericainc.com](mailto:dimple.sharma@testamericainc.com)

### LINKS

Review your project  
results through  
**TotalAccess**

Have a Question?



Visit us at:  
[www.testamericainc.com](http://www.testamericainc.com)

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

*Results relate only to the items tested and the sample(s) as received by the laboratory.*

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# Definitions/Glossary

Client: ARCADIS U.S. Inc  
Project/Site: UPS-Oakland

TestAmerica Job ID: 720-40684-1

## Qualifiers

### GC Semi VOA

Qualifier	Qualifier Description
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution may be flagged with a D.
X	Surrogate is outside control limits

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

# Case Narrative

Client: ARCADIS U.S. Inc  
Project/Site: UPS-Oakland

TestAmerica Job ID: 720-40684-1

---

**Job ID: 720-40684-1**

---

**Laboratory: TestAmerica San Francisco**

---

**Narrative**

---

**Job Narrative**  
**720-40684-1**

**Comments**

No additional comments.

**Receipt**

All samples were received in good condition within temperature requirements.

**GC/MS VOA**

Method 8260B: The following sample was diluted due to the abundance of non-target analytes: OW-1 (720-40684-6). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

**GC Semi VOA**

Method 8015B: Due to the level of dilution required for the following sample, surrogate recoveries are not reported: MW-2 (720-40684-7), OW-1 (720-40684-6), MW-3 (720-40684-8).

No other analytical or quality issues were noted.

**Organic Prep**

No analytical or quality issues were noted.



# Detection Summary

Client: ARCADIS U.S. Inc  
Project/Site: UPS-Oakland

TestAmerica Job ID: 720-40684-1

## Client Sample ID: MW-10

Lab Sample ID: 720-40684-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	170		51		ug/L	1		8015B	Total/NA

## Client Sample ID: MW-4

Lab Sample ID: 720-40684-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Gasoline Range Organics (GRO)	150		50		ug/L	1		8260B/CA_LUFTM	Total/NA
-C5-C12									
Diesel Range Organics [C10-C28]	12000		160		ug/L	3		8015B	Total/NA

## Client Sample ID: MW-11

Lab Sample ID: 720-40684-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.53		0.50		ug/L	1		8260B/CA_LUFTM	Total/NA
Diesel Range Organics [C10-C28]	1200		51		ug/L	1		8015B	Total/NA

## Client Sample ID: MW-9

Lab Sample ID: 720-40684-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	160		51		ug/L	1		8015B	Total/NA

## Client Sample ID: MW-8

Lab Sample ID: 720-40684-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	120		50		ug/L	1		8015B	Total/NA

## Client Sample ID: OW-1

Lab Sample ID: 720-40684-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Gasoline Range Organics (GRO)	1200		500		ug/L	10		8260B/CA_LUFTM	Total/NA
-C5-C12									
Diesel Range Organics [C10-C28]	27000		500		ug/L	10		8015B	Total/NA

## Client Sample ID: MW-2

Lab Sample ID: 720-40684-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	2.0		1.0		ug/L	1		8260B/CA_LUFTM	Total/NA
Toluene	0.52		0.50		ug/L	1		8260B/CA_LUFTM	Total/NA
Xylenes, Total	1.7		1.0		ug/L	1		8260B/CA_LUFTM	Total/NA
Gasoline Range Organics (GRO)	510		50		ug/L	1		8260B/CA_LUFTM	Total/NA
-C5-C12									
Diesel Range Organics [C10-C28]	13000		260		ug/L	5		8015B	Total/NA

## Client Sample ID: MW-3

Lab Sample ID: 720-40684-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Naphthalene	2.1		1.0		ug/L	1		8260B/CA_LUFTM	Total/NA
Xylenes, Total	1.3		1.0		ug/L	1		8260B/CA_LUFTM	Total/NA
Gasoline Range Organics (GRO)	520		50		ug/L	1		8260B/CA_LUFTM	Total/NA
-C5-C12									
Diesel Range Organics [C10-C28]	13000		500		ug/L	10		8015B	Total/NA

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: UPS-Oakland

TestAmerica Job ID: 720-40684-1

**Client Sample ID: MW-10**

**Lab Sample ID: 720-40684-1**

**Date Collected: 02/29/12 10:35**

**Matrix: Water**

**Date Received: 02/29/12 20:07**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			03/07/12 01:16	1
Benzene	ND		0.50		ug/L			03/07/12 01:16	1
Ethylbenzene	ND		0.50		ug/L			03/07/12 01:16	1
Naphthalene	ND		1.0		ug/L			03/07/12 01:16	1
Toluene	ND		0.50		ug/L			03/07/12 01:16	1
Xylenes, Total	ND		1.0		ug/L			03/07/12 01:16	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			03/07/12 01:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	104		67 - 130		03/07/12 01:16	1
1,2-Dichloroethane-d4 (Surr)	108		75 - 138		03/07/12 01:16	1
Toluene-d8 (Surr)	99		70 - 130		03/07/12 01:16	1

**Method: 8015B - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics [C10-C28]</b>	<b>170</b>		51		ug/L		03/01/12 14:07	03/02/12 14:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl	72		23 - 156	03/01/12 14:07	03/02/12 14:29	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: UPS-Oakland

TestAmerica Job ID: 720-40684-1

**Client Sample ID: MW-4**  
**Date Collected: 02/29/12 11:45**  
**Date Received: 02/29/12 20:07**

**Lab Sample ID: 720-40684-2**  
**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			03/07/12 01:45	1
Benzene	ND		0.50		ug/L			03/07/12 01:45	1
Ethylbenzene	ND		0.50		ug/L			03/07/12 01:45	1
Naphthalene	ND		1.0		ug/L			03/07/12 01:45	1
Toluene	ND		0.50		ug/L			03/07/12 01:45	1
Xylenes, Total	ND		1.0		ug/L			03/07/12 01:45	1
<b>Gasoline Range Organics (GRO) -C5-C12</b>	<b>150</b>		50		ug/L			03/07/12 01:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		67 - 130		03/07/12 01:45	1
1,2-Dichloroethane-d4 (Surr)	105		75 - 138		03/07/12 01:45	1
Toluene-d8 (Surr)	98		70 - 130		03/07/12 01:45	1

**Method: 8015B - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics [C10-C28]</b>	<b>12000</b>		160		ug/L		03/01/12 14:07	03/03/12 16:43	3

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl	32		23 - 156	03/01/12 14:07	03/03/12 16:43	3

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: UPS-Oakland

TestAmerica Job ID: 720-40684-1

**Client Sample ID: MW-11**

**Lab Sample ID: 720-40684-3**

**Date Collected: 02/29/12 13:00**

**Matrix: Water**

**Date Received: 02/29/12 20:07**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			03/07/12 02:14	1
<b>Benzene</b>	<b>0.53</b>		0.50		ug/L			03/07/12 02:14	1
Ethylbenzene	ND		0.50		ug/L			03/07/12 02:14	1
Naphthalene	ND		1.0		ug/L			03/07/12 02:14	1
Toluene	ND		0.50		ug/L			03/07/12 02:14	1
Xylenes, Total	ND		1.0		ug/L			03/07/12 02:14	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			03/07/12 10:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	107		67 - 130		03/07/12 02:14	1
4-Bromofluorobenzene	95		67 - 130		03/07/12 10:38	1
1,2-Dichloroethane-d4 (Surr)	107		75 - 138		03/07/12 02:14	1
1,2-Dichloroethane-d4 (Surr)	79		75 - 138		03/07/12 10:38	1
Toluene-d8 (Surr)	100		70 - 130		03/07/12 02:14	1
Toluene-d8 (Surr)	97		70 - 130		03/07/12 10:38	1

**Method: 8015B - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics [C10-C28]</b>	<b>1200</b>		51		ug/L		03/01/12 14:07	03/03/12 17:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl	60		23 - 156	03/01/12 14:07	03/03/12 17:30	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: UPS-Oakland

TestAmerica Job ID: 720-40684-1

**Client Sample ID: MW-9**  
**Date Collected: 02/29/12 14:10**  
**Date Received: 02/29/12 20:07**

**Lab Sample ID: 720-40684-4**  
**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			03/07/12 02:42	1
Benzene	ND		0.50		ug/L			03/07/12 02:42	1
Ethylbenzene	ND		0.50		ug/L			03/07/12 02:42	1
Naphthalene	ND		1.0		ug/L			03/07/12 02:42	1
Toluene	ND		0.50		ug/L			03/07/12 02:42	1
Xylenes, Total	ND		1.0		ug/L			03/07/12 02:42	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			03/07/12 02:42	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	105		67 - 130					03/07/12 02:42	1
1,2-Dichloroethane-d4 (Surr)	109		75 - 138					03/07/12 02:42	1
Toluene-d8 (Surr)	100		70 - 130					03/07/12 02:42	1

**Method: 8015B - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics [C10-C28]</b>	<b>160</b>		51		ug/L		03/01/12 14:07	03/02/12 15:40	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
p-Terphenyl	59		23 - 156				03/01/12 14:07	03/02/12 15:40	1

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: UPS-Oakland

TestAmerica Job ID: 720-40684-1

**Client Sample ID: MW-8**  
**Date Collected: 02/29/12 14:40**  
**Date Received: 02/29/12 20:07**

**Lab Sample ID: 720-40684-5**  
**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			03/07/12 03:11	1
Benzene	ND		0.50		ug/L			03/07/12 03:11	1
Ethylbenzene	ND		0.50		ug/L			03/07/12 03:11	1
Naphthalene	ND		1.0		ug/L			03/07/12 03:11	1
Toluene	ND		0.50		ug/L			03/07/12 03:11	1
Xylenes, Total	ND		1.0		ug/L			03/07/12 03:11	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			03/07/12 03:11	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
4-Bromofluorobenzene	104		67 - 130					03/07/12 03:11	1
1,2-Dichloroethane-d4 (Surr)	108		75 - 138					03/07/12 03:11	1
Toluene-d8 (Surr)	99		70 - 130					03/07/12 03:11	1

**Method: 8015B - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics [C10-C28]</b>	<b>120</b>		50		ug/L		03/01/12 14:07	03/02/12 16:03	1
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
p-Terphenyl	59		23 - 156				03/01/12 14:07	03/02/12 16:03	1



# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: UPS-Oakland

TestAmerica Job ID: 720-40684-1

**Client Sample ID: OW-1**

**Lab Sample ID: 720-40684-6**

**Date Collected: 02/29/12 14:20**

**Matrix: Water**

**Date Received: 02/29/12 20:07**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		5.0		ug/L			03/07/12 03:40	10
Benzene	ND		5.0		ug/L			03/07/12 03:40	10
Ethylbenzene	ND		5.0		ug/L			03/07/12 03:40	10
Naphthalene	ND		10		ug/L			03/07/12 03:40	10
Toluene	ND		5.0		ug/L			03/07/12 03:40	10
Xylenes, Total	ND		10		ug/L			03/07/12 03:40	10
<b>Gasoline Range Organics (GRO) -C5-C12</b>	<b>1200</b>		500		ug/L			03/07/12 03:40	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		67 - 130		03/07/12 03:40	10
1,2-Dichloroethane-d4 (Surr)	105		75 - 138		03/07/12 03:40	10
Toluene-d8 (Surr)	98		70 - 130		03/07/12 03:40	10

**Method: 8015B - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics [C10-C28]</b>	<b>27000</b>		500		ug/L		03/01/12 14:07	03/03/12 17:06	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl	0	DX	23 - 156	03/01/12 14:07	03/03/12 17:06	10

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: UPS-Oakland

TestAmerica Job ID: 720-40684-1

**Client Sample ID: MW-2**  
**Date Collected: 02/29/12 15:05**  
**Date Received: 02/29/12 20:07**

**Lab Sample ID: 720-40684-7**  
**Matrix: Water**

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			03/05/12 14:01	1
Benzene	ND		0.50		ug/L			03/05/12 14:01	1
Ethylbenzene	ND		0.50		ug/L			03/05/12 14:01	1
<b>Naphthalene</b>	<b>2.0</b>		1.0		ug/L			03/05/12 14:01	1
<b>Toluene</b>	<b>0.52</b>		0.50		ug/L			03/05/12 14:01	1
<b>Xylenes, Total</b>	<b>1.7</b>		1.0		ug/L			03/05/12 14:01	1
<b>Gasoline Range Organics (GRO) -C5-C12</b>	<b>510</b>		50		ug/L			03/05/12 14:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 130					03/05/12 14:01	1
1,2-Dichloroethane-d4 (Surr)	102		75 - 138					03/05/12 14:01	1
Toluene-d8 (Surr)	97		70 - 130					03/05/12 14:01	1

**Method: 8015B - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics [C10-C28]</b>	<b>13000</b>		260		ug/L		03/01/12 14:07	03/03/12 17:53	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
p-Terphenyl	0	DX	23 - 156				03/01/12 14:07	03/03/12 17:53	5

# Client Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: UPS-Oakland

TestAmerica Job ID: 720-40684-1

**Client Sample ID: MW-3**

**Lab Sample ID: 720-40684-8**

Date Collected: 02/29/12 14:30

Matrix: Water

Date Received: 02/29/12 20:07

**Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			03/05/12 14:30	1
Benzene	ND		0.50		ug/L			03/05/12 14:30	1
Ethylbenzene	ND		0.50		ug/L			03/05/12 14:30	1
<b>Naphthalene</b>	<b>2.1</b>		1.0		ug/L			03/05/12 14:30	1
Toluene	ND		0.50		ug/L			03/05/12 14:30	1
<b>Xylenes, Total</b>	<b>1.3</b>		1.0		ug/L			03/05/12 14:30	1
<b>Gasoline Range Organics (GRO) -C5-C12</b>	<b>520</b>		50		ug/L			03/05/12 14:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		67 - 130		03/05/12 14:30	1
1,2-Dichloroethane-d4 (Surr)	101		75 - 138		03/05/12 14:30	1
Toluene-d8 (Surr)	98		70 - 130		03/05/12 14:30	1

**Method: 8015B - Diesel Range Organics (DRO) (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Diesel Range Organics [C10-C28]</b>	<b>13000</b>		500		ug/L		03/01/12 14:07	03/05/12 13:26	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl	0	DX	23 - 156	03/01/12 14:07	03/05/12 13:26	10

# QC Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: UPS-Oakland

TestAmerica Job ID: 720-40684-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

**Lab Sample ID: MB 720-109103/5**

**Matrix: Water**

**Analysis Batch: 109103**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			03/05/12 08:56	1
Benzene	ND		0.50		ug/L			03/05/12 08:56	1
Ethylbenzene	ND		0.50		ug/L			03/05/12 08:56	1
Naphthalene	ND		1.0		ug/L			03/05/12 08:56	1
Toluene	ND		0.50		ug/L			03/05/12 08:56	1
Xylenes, Total	ND		1.0		ug/L			03/05/12 08:56	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			03/05/12 08:56	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		67 - 130		03/05/12 08:56	1
1,2-Dichloroethane-d4 (Surr)	103		75 - 138		03/05/12 08:56	1
Toluene-d8 (Surr)	97		70 - 130		03/05/12 08:56	1

**Lab Sample ID: LCS 720-109103/6**

**Matrix: Water**

**Analysis Batch: 109103**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	25.0	29.7		ug/L		119	62 - 130
Benzene	25.0	26.5		ug/L		106	79 - 130
Ethylbenzene	25.0	26.5		ug/L		106	80 - 120
Naphthalene	25.0	28.7		ug/L		115	70 - 130
Toluene	25.0	25.7		ug/L		103	78 - 120
m-Xylene & p-Xylene	50.0	53.5		ug/L		107	70 - 142
o-Xylene	25.0	27.4		ug/L		110	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	103		67 - 130
1,2-Dichloroethane-d4 (Surr)	103		75 - 138
Toluene-d8 (Surr)	100		70 - 130

**Lab Sample ID: LCS 720-109103/8**

**Matrix: Water**

**Analysis Batch: 109103**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C5-C12	500	553		ug/L		111	62 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	103		67 - 130
1,2-Dichloroethane-d4 (Surr)	103		75 - 138
Toluene-d8 (Surr)	99		70 - 130

# QC Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: UPS-Oakland

TestAmerica Job ID: 720-40684-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID: LCSD 720-109103/7**

**Matrix: Water**

**Analysis Batch: 109103**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Methyl tert-butyl ether	25.0	30.0		ug/L		120	62 - 130	1	20
Benzene	25.0	26.9		ug/L		108	79 - 130	1	20
Ethylbenzene	25.0	27.0		ug/L		108	80 - 120	2	20
Naphthalene	25.0	29.7		ug/L		119	70 - 130	3	20
Toluene	25.0	26.4		ug/L		106	78 - 120	3	20
m-Xylene & p-Xylene	50.0	54.7		ug/L		109	70 - 142	2	20
o-Xylene	25.0	28.1		ug/L		112	70 - 130	3	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	101		67 - 130
1,2-Dichloroethane-d4 (Surr)	102		75 - 138
Toluene-d8 (Surr)	100		70 - 130

**Lab Sample ID: LCSD 720-109103/9**

**Matrix: Water**

**Analysis Batch: 109103**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12	500	511		ug/L		102	62 - 120	8	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	102		67 - 130
1,2-Dichloroethane-d4 (Surr)	104		75 - 138
Toluene-d8 (Surr)	99		70 - 130

**Lab Sample ID: MB 720-109219/4**

**Matrix: Water**

**Analysis Batch: 109219**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			03/06/12 17:02	1
Benzene	ND		0.50		ug/L			03/06/12 17:02	1
Ethylbenzene	ND		0.50		ug/L			03/06/12 17:02	1
Naphthalene	ND		1.0		ug/L			03/06/12 17:02	1
Toluene	ND		0.50		ug/L			03/06/12 17:02	1
Xylenes, Total	ND		1.0		ug/L			03/06/12 17:02	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			03/06/12 17:02	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		67 - 130		03/06/12 17:02	1
1,2-Dichloroethane-d4 (Surr)	107		75 - 138		03/06/12 17:02	1
Toluene-d8 (Surr)	98		70 - 130		03/06/12 17:02	1



# QC Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: UPS-Oakland

TestAmerica Job ID: 720-40684-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID: LCS 720-109219/5**

**Matrix: Water**

**Analysis Batch: 109219**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methyl tert-butyl ether	25.0	30.6		ug/L		122	62 - 130
Benzene	25.0	27.2		ug/L		109	79 - 130
Ethylbenzene	25.0	27.0		ug/L		108	80 - 120
Naphthalene	25.0	29.2		ug/L		117	70 - 130
Toluene	25.0	26.4		ug/L		106	78 - 120
m-Xylene & p-Xylene	50.0	54.7		ug/L		109	70 - 142
o-Xylene	25.0	28.2		ug/L		113	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	103		67 - 130
1,2-Dichloroethane-d4 (Surr)	105		75 - 138
Toluene-d8 (Surr)	99		70 - 130

**Lab Sample ID: LCS 720-109219/7**

**Matrix: Water**

**Analysis Batch: 109219**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C5-C12	500	492		ug/L		98	62 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	104		67 - 130
1,2-Dichloroethane-d4 (Surr)	107		75 - 138
Toluene-d8 (Surr)	99		70 - 130

**Lab Sample ID: LCSD 720-109219/6**

**Matrix: Water**

**Analysis Batch: 109219**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Methyl tert-butyl ether	25.0	31.5		ug/L		126	62 - 130	3	20
Benzene	25.0	27.4		ug/L		110	79 - 130	1	20
Ethylbenzene	25.0	27.2		ug/L		109	80 - 120	1	20
Naphthalene	25.0	31.0		ug/L		124	70 - 130	6	20
Toluene	25.0	26.6		ug/L		106	78 - 120	1	20
m-Xylene & p-Xylene	50.0	55.2		ug/L		110	70 - 142	1	20
o-Xylene	25.0	28.8		ug/L		115	70 - 130	2	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	103		67 - 130
1,2-Dichloroethane-d4 (Surr)	105		75 - 138
Toluene-d8 (Surr)	99		70 - 130

# QC Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: UPS-Oakland

TestAmerica Job ID: 720-40684-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

**Lab Sample ID: LCSD 720-109219/8**

**Matrix: Water**

**Analysis Batch: 109219**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12	500	486		ug/L		97	62 - 120	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	103		67 - 130
1,2-Dichloroethane-d4 (Surr)	108		75 - 138
Toluene-d8 (Surr)	99		70 - 130

**Lab Sample ID: MB 720-109259/4**

**Matrix: Water**

**Analysis Batch: 109259**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	ND		0.50		ug/L			03/07/12 08:14	1
Benzene	ND		0.50		ug/L			03/07/12 08:14	1
Ethylbenzene	ND		0.50		ug/L			03/07/12 08:14	1
Naphthalene	ND		1.0		ug/L			03/07/12 08:14	1
Toluene	ND		0.50		ug/L			03/07/12 08:14	1
Xylenes, Total	ND		1.0		ug/L			03/07/12 08:14	1
Gasoline Range Organics (GRO) -C5-C12	ND		50		ug/L			03/07/12 08:14	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		67 - 130		03/07/12 08:14	1
1,2-Dichloroethane-d4 (Surr)	78		75 - 138		03/07/12 08:14	1
Toluene-d8 (Surr)	97		70 - 130		03/07/12 08:14	1

**Lab Sample ID: LCS 720-109259/7**

**Matrix: Water**

**Analysis Batch: 109259**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Organics (GRO) -C5-C12	500	534		ug/L		107	62 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	95		67 - 130
1,2-Dichloroethane-d4 (Surr)	83		75 - 138
Toluene-d8 (Surr)	99		70 - 130

**Lab Sample ID: LCSD 720-109259/8**

**Matrix: Water**

**Analysis Batch: 109259**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C5-C12	500	489		ug/L		98	62 - 120	9	20

# QC Sample Results

Client: ARCADIS U.S. Inc  
Project/Site: UPS-Oakland

TestAmerica Job ID: 720-40684-1

## Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCSD 720-109259/8

Matrix: Water

Analysis Batch: 109259

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene	98		67 - 130
1,2-Dichloroethane-d4 (Surr)	81		75 - 138
Toluene-d8 (Surr)	98		70 - 130

## Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 720-108950/1-A

Matrix: Water

Analysis Batch: 108996

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 108950

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		50		ug/L		03/01/12 14:07	03/02/12 10:58	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl	63		23 - 156	03/01/12 14:07	03/02/12 10:58	1

Lab Sample ID: LCS 720-108950/2-A

Matrix: Water

Analysis Batch: 108996

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 108950

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics [C10-C28]	2500	1840		ug/L		74	40 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
p-Terphenyl	114		23 - 156

Lab Sample ID: LCSD 720-108950/3-A

Matrix: Water

Analysis Batch: 108996

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 108950

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics [C10-C28]	2500	1790		ug/L		72	40 - 150	3	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
p-Terphenyl	117		23 - 156

# QC Association Summary

Client: ARCADIS U.S. Inc  
Project/Site: UPS-Oakland

TestAmerica Job ID: 720-40684-1

## GC/MS VOA

### Analysis Batch: 109103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-40684-7	MW-2	Total/NA	Water	8260B/CA_LUFT MS	
720-40684-8	MW-3	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-109103/6	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-109103/8	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-109103/7	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-109103/9	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-109103/5	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

### Analysis Batch: 109219

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-40684-1	MW-10	Total/NA	Water	8260B/CA_LUFT MS	
720-40684-2	MW-4	Total/NA	Water	8260B/CA_LUFT MS	
720-40684-3	MW-11	Total/NA	Water	8260B/CA_LUFT MS	
720-40684-4	MW-9	Total/NA	Water	8260B/CA_LUFT MS	
720-40684-5	MW-8	Total/NA	Water	8260B/CA_LUFT MS	
720-40684-6	OW-1	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-109219/5	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-109219/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-109219/6	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-109219/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-109219/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

### Analysis Batch: 109259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-40684-3	MW-11	Total/NA	Water	8260B/CA_LUFT MS	
LCS 720-109259/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
LCSD 720-109259/8	Lab Control Sample Dup	Total/NA	Water	8260B/CA_LUFT MS	
MB 720-109259/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

## GC Semi VOA

### Prep Batch: 108950

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-40684-1	MW-10	Total/NA	Water	3510C	
720-40684-2	MW-4	Total/NA	Water	3510C	

# QC Association Summary

Client: ARCADIS U.S. Inc  
Project/Site: UPS-Oakland

TestAmerica Job ID: 720-40684-1

## GC Semi VOA (Continued)

### Prep Batch: 108950 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-40684-3	MW-11	Total/NA	Water	3510C	
720-40684-4	MW-9	Total/NA	Water	3510C	
720-40684-5	MW-8	Total/NA	Water	3510C	
720-40684-6	OW-1	Total/NA	Water	3510C	
720-40684-7	MW-2	Total/NA	Water	3510C	
720-40684-8	MW-3	Total/NA	Water	3510C	
LCS 720-108950/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 720-108950/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 720-108950/1-A	Method Blank	Total/NA	Water	3510C	

### Analysis Batch: 108996

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-40684-1	MW-10	Total/NA	Water	8015B	108950
720-40684-4	MW-9	Total/NA	Water	8015B	108950
720-40684-5	MW-8	Total/NA	Water	8015B	108950
LCS 720-108950/2-A	Lab Control Sample	Total/NA	Water	8015B	108950
LCSD 720-108950/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	108950
MB 720-108950/1-A	Method Blank	Total/NA	Water	8015B	108950

### Analysis Batch: 109091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-40684-2	MW-4	Total/NA	Water	8015B	108950
720-40684-3	MW-11	Total/NA	Water	8015B	108950
720-40684-6	OW-1	Total/NA	Water	8015B	108950
720-40684-7	MW-2	Total/NA	Water	8015B	108950

### Analysis Batch: 109108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-40684-8	MW-3	Total/NA	Water	8015B	108950



# Lab Chronicle

Client: ARCADIS U.S. Inc  
Project/Site: UPS-Oakland

TestAmerica Job ID: 720-40684-1

## Client Sample ID: MW-10

Lab Sample ID: 720-40684-1

Date Collected: 02/29/12 10:35

Matrix: Water

Date Received: 02/29/12 20:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	109219	03/07/12 01:16	AC	TAL SF
Total/NA	Prep	3510C			108950	03/01/12 14:07	RU	TAL SF
Total/NA	Analysis	8015B		1	108996	03/02/12 14:29	JZ	TAL SF

## Client Sample ID: MW-4

Lab Sample ID: 720-40684-2

Date Collected: 02/29/12 11:45

Matrix: Water

Date Received: 02/29/12 20:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	109219	03/07/12 01:45	AC	TAL SF
Total/NA	Prep	3510C			108950	03/01/12 14:07	RU	TAL SF
Total/NA	Analysis	8015B		3	109091	03/03/12 16:43	JZ	TAL SF

## Client Sample ID: MW-11

Lab Sample ID: 720-40684-3

Date Collected: 02/29/12 13:00

Matrix: Water

Date Received: 02/29/12 20:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	109219	03/07/12 02:14	AC	TAL SF
Total/NA	Analysis	8260B/CA_LUFTMS		1	109259	03/07/12 10:38	AC	TAL SF
Total/NA	Prep	3510C			108950	03/01/12 14:07	RU	TAL SF
Total/NA	Analysis	8015B		1	109091	03/03/12 17:30	JZ	TAL SF

## Client Sample ID: MW-9

Lab Sample ID: 720-40684-4

Date Collected: 02/29/12 14:10

Matrix: Water

Date Received: 02/29/12 20:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	109219	03/07/12 02:42	AC	TAL SF
Total/NA	Prep	3510C			108950	03/01/12 14:07	RU	TAL SF
Total/NA	Analysis	8015B		1	108996	03/02/12 15:40	JZ	TAL SF

## Client Sample ID: MW-8

Lab Sample ID: 720-40684-5

Date Collected: 02/29/12 14:40

Matrix: Water

Date Received: 02/29/12 20:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	109219	03/07/12 03:11	AC	TAL SF
Total/NA	Prep	3510C			108950	03/01/12 14:07	RU	TAL SF
Total/NA	Analysis	8015B		1	108996	03/02/12 16:03	JZ	TAL SF

# Lab Chronicle

Client: ARCADIS U.S. Inc  
Project/Site: UPS-Oakland

TestAmerica Job ID: 720-40684-1

## Client Sample ID: OW-1

Lab Sample ID: 720-40684-6

Date Collected: 02/29/12 14:20

Matrix: Water

Date Received: 02/29/12 20:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		10	109219	03/07/12 03:40	AC	TAL SF
Total/NA	Prep	3510C			108950	03/01/12 14:07	RU	TAL SF
Total/NA	Analysis	8015B		10	109091	03/03/12 17:06	JZ	TAL SF

## Client Sample ID: MW-2

Lab Sample ID: 720-40684-7

Date Collected: 02/29/12 15:05

Matrix: Water

Date Received: 02/29/12 20:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	109103	03/05/12 14:01	DH	TAL SF
Total/NA	Prep	3510C			108950	03/01/12 14:07	RU	TAL SF
Total/NA	Analysis	8015B		5	109091	03/03/12 17:53	JZ	TAL SF

## Client Sample ID: MW-3

Lab Sample ID: 720-40684-8

Date Collected: 02/29/12 14:30

Matrix: Water

Date Received: 02/29/12 20:07

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B/CA_LUFTMS		1	109103	03/05/12 14:30	DH	TAL SF
Total/NA	Prep	3510C			108950	03/01/12 14:07	RU	TAL SF
Total/NA	Analysis	8015B		10	109108	03/05/12 13:26	JZ	TAL SF

**Laboratory References:**

TAL SF = TestAmerica San Francisco, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

# Certification Summary

Client: ARCADIS U.S. Inc  
Project/Site: UPS-Oakland

TestAmerica Job ID: 720-40684-1

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Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica San Francisco	California	State Program	9	2496

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Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

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# Method Summary

Client: ARCADIS U.S. Inc  
Project/Site: UPS-Oakland

TestAmerica Job ID: 720-40684-1

Method	Method Description	Protocol	Laboratory
8260B/CA_LUFTM S	8260B / CA LUFT MS	SW846	TAL SF
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL SF

**Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

**Laboratory References:**

TAL SF = TestAmerica San Francisco, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919



# Sample Summary

Client: ARCADIS U.S. Inc  
Project/Site: UPS-Oakland

TestAmerica Job ID: 720-40684-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-40684-1	MW-10	Water	02/29/12 10:35	02/29/12 20:07
720-40684-2	MW-4	Water	02/29/12 11:45	02/29/12 20:07
720-40684-3	MW-11	Water	02/29/12 13:00	02/29/12 20:07
720-40684-4	MW-9	Water	02/29/12 14:10	02/29/12 20:07
720-40684-5	MW-8	Water	02/29/12 14:40	02/29/12 20:07
720-40684-6	OW-1	Water	02/29/12 14:20	02/29/12 20:07
720-40684-7	MW-2	Water	02/29/12 15:05	02/29/12 20:07
720-40684-8	MW-3	Water	02/29/12 14:30	02/29/12 20:07

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720.40684

lofi

# BLAINE

TECH SERVICES, INC.

1680 ROGERS AVENUE  
 SAN JOSE, CALIFORNIA 95112-1105  
 FAX (408) 573-7771  
 PHONE (408) 573-0555

CONDUCT ANALYSIS TO DETECT

LAB TA - SF 136852 DHS #  
 ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND  
 EPA  RWQCB REGION  
 LIA  
 OTHER

CHAIN OF CUSTODY  
 BTS # 120229-DR1  
 CLIENT ARCADIS U.S., Inc.  
 SITE UPS  
 8400 Pardee Drive  
 Oakland, CA

C = COMPOSITE ALL CONTAINERS

TPH-Gro, BTEX, MTBE (8260)

TPH-D (8015)

SPECIAL INSTRUCTIONS  
 Invoice and Report to : Arcadis U.S., Inc.  
 Attn: Hugh Devery [hugh.devery@arcadis-us.com](mailto:hugh.devery@arcadis-us.com)  
 770-428-9009

Low Detection levels requested

SAMPLE I.D.	DATE	TIME	MATRIX S=SOIL W=H <sub>2</sub> O	CONTAINERS TOTAL	3 HCL Voas 2 NP ambers	TPH-Gro, BTEX, MTBE (8260)	TPH-D (8015)	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-10	2/29/12	1035	W	5		X	X				
MW-4		1145	W	5		X	X				
MW-11		1300	W	5		X	X				
MW-9		1410	W	5		X	X				
MW-8		1440	W	5		X	X				
OW-1		1420	W	5		X	X				
MW-2		1505	W	5		X	X				
MW-3		1430	W	5		X	X				

SAMPLING COMPLETED BY DATE 2/29/12 TIME 1515 SAMPLING PERFORMED BY D. Raynal / B. Penell RESULTS NEEDED NO LATER THAN Standard TAT

RELEASED BY [Signature] DATE 2/29/12 TIME 1600 RECEIVED BY [Signature] (sample custodian) DATE 2/29/12 TIME 1605

RELEASED BY [Signature] DATE 2/29/12 TIME 1605 RECEIVED BY Billy L. Lennor DATE 2-29-12 TIME 1605

RELEASED BY Billy L. Lennor DATE 2/29/12 TIME 1725 RECEIVED BY Joan Malen DATE 2-29-12 TIME 1725

SHIPPED VIA DATE SENT TIME SENT COOLER #

3.0, 4.5, 3.5, 5.5

## Login Sample Receipt Checklist

Client: ARCADIS U.S. Inc

Job Number: 720-40684-1

**Login Number: 40684**

**List Source: TestAmerica San Francisco**

**List Number: 1**

**Creator: Mullen, Joan**

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background		
The cooler's custody seal, if present, is intact.		
The cooler or samples do not appear to have been compromised or tampered with.		
Samples were received on ice.		
Cooler Temperature is acceptable.		
Cooler Temperature is recorded.		
COC is present.		
COC is filled out in ink and legible.		
COC is filled out with all pertinent information.		
Is the Field Sampler's name present on COC?		
There are no discrepancies between the sample IDs on the containers and the COC.		
Samples are received within Holding Time.		
Sample containers have legible labels.		
Containers are not broken or leaking.		
Sample collection date/times are provided.		
Appropriate sample containers are used.		
Sample bottles are completely filled.		
Sample Preservation Verified.		
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs		
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.		
Multiphasic samples are not present.		
Samples do not require splitting or compositing.		
Residual Chlorine Checked.		

