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June 29, 2009

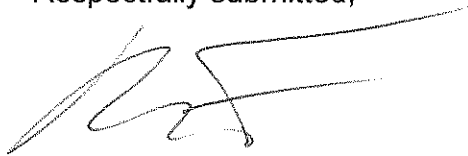
Mr. Steven Plunkett
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

SUBJECT: Second Quarter 2009 Groundwater Monitoring Report
PSI Project No. 575-8G004
Alcopark Fueling Facility - Site No. 2
165 13th Street, Oakland, California

Dear Mr. Plunkett:

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

Respectfully submitted,



Rod Freitag
Environmental Program Manager
Alameda County General Services Agency

**SECOND QUARTER 2009
GROUNDWATER MONITORING REPORT
ALCOPARK FUELING FACILITY
OAKLAND, CALIFORNIA**

**SECOND QUARTER 2009
GROUNDWATER MONITORING REPORT
ALCOPARK FUELING FACILITY
OAKLAND, CALIFORNIA**

Prepared for

ALAMEDA COUNTY GENERAL SERVICES AGENCY
1401 Lakeside Drive, 11th Floor
Oakland, California

Prepared by

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June 29, 2009
575-8G004

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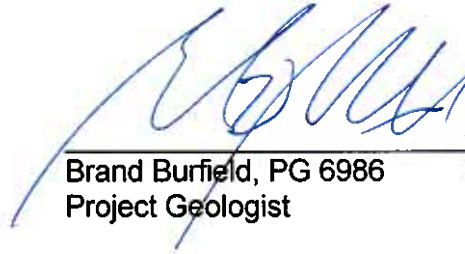
STATEMENT OF LIMITATIONS AND PROFESSIONAL CERTIFICATION

The information provided in this report prepared by Professional Service Industries, Inc. (PSI), Project Number 575-8G004, is intended exclusively for the use of Alameda County General Services Agency (ACGSA), for the evaluation of groundwater contamination as it pertains to the property at 165 13th Street, Oakland, California, at the time the activities were conducted. The professional services provided have been performed in accordance with practices generally accepted by other appropriate environmental professionals, geologists, hydrologists, hydrogeologists, engineers, and environmental scientists practicing in this field. No other warranty, either expressed or implied, is made. As with all subsurface groundwater sampling, there is no guarantee that the work conducted has identified any and all sources or locations of petroleum hydrocarbons or hazardous substances or chemicals in the groundwater.

This report is issued with the understanding that ACGSA is responsible for ensuring that the information contained herein is brought to the attention of the appropriate regulatory agency.



Frank R. Foss, REA
Department Manager



Brand Burfield, PG 6986
Project Geologist



1. INTRODUCTION

Professional Service Industries, Inc. (PSI) was retained by the Alameda County General Services Agency (ACGSA) to perform quarterly groundwater monitoring at their Alcopark Fueling Facility - Site No. 2, located at 165 13th Street in Oakland, California. The site location is presented on Figure 1.

The groundwater monitoring program was initially prompted by a request by the Alameda County Health Care Services Agency (ACEH), which requested additional information on the extent of petroleum hydrocarbon impacted groundwater (ACEH, May 20, 1997). As of this quarter, groundwater monitoring program frequency has been changed from annual to quarterly.

1.1 SCOPE OF WORK

The scope of work consisted of the following tasks:

- Measure the depth to water in wells MW-1, MW-4 and MW-5 and prepare a groundwater elevation map.
- Determine the groundwater flow direction and gradient.
- Collect and chemically analyze groundwater samples from wells MW-1, MW-6 and MW-7.
- Prepare a report documenting the field procedures, analytical results, and presenting our conclusions regarding the data generated.

1.2 SITE BACKGROUND

The ACGSA operates two 10,000-gallon Underground Storage Tanks (USTs) at the Alcopark fueling station to fuel Alameda County vehicles. Three groundwater monitoring wells MW-1, MW-4, and MW-5 were installed at the site in March, 1989 to assess environmental conditions subsequent to the repair of a line leak at Dispenser No. 1. Initial sample results indicated the presence of BTEX (benzene, toluene, ethyl-benzene, and xylenes) in the groundwater. Subsequent sample results indicated the presence of Total Petroleum Hydrocarbons as Gasoline (TPH-G). Based on the analytical data, it was concluded that contaminants detected on-site had originated from a source area located upgradient of the site. Sampling activities were halted in 1992 pending investigation of an upgradient source (ACGSA, Dec 2, 1997).

In September of 1992, overflow protection, spill containment, and automatic tank gauging were installed on the two underground tanks. In July and August of 1996, additional upgrade work was done to comply with Title 23 of the California Code of Regulations. This included replacement of underground single-walled steel piping with double-wall fiberglass piping, and installation of dispenser sumps, piping sumps, and sump leak sensors (ACGSA, 1997).

In their letter dated May 30, 1997, the ACEH instructed ACGSA to resume groundwater monitoring at Alcopark (ACEH, May, 20 1997). Sampling resumed in July, 1997. Analytical data from that sampling event indicated elevated TPH-G and BTEX concentrations in downgradient well MW-1, compared with historic levels. Methyl tert-Butyl ether (MTBE) was also detected. Additional samples collected in October, 1997 provided similar results. In their letter dated September 11, 1997, the ACEH directed ACGSA to investigate the extent and stability of the plume.

To better define groundwater conditions downgradient of the USTs, two borings were drilled on March 23, 1998. A grab groundwater sample was collected from one of the borings, and a small diameter (1/2 inch inner diameter) groundwater monitoring well MW-6 was installed in the other boring. In March 1999, the ACEH allowed sampling of MW-4 and MW-5 to be discontinued and recommended installation of another downgradient well. One additional small-diameter groundwater monitoring well (MW-7) was installed by PSI in September, 1999.

The ACEH issued a letter, dated July 18, 2000, requiring ACGSA to prepare a Site Conceptual Model in accordance with the Regional Water Quality Control Board's final draft "Guideline for Investigation and Cleanup of MTBE and Other Ether-Based Oxygenates." The Site Conceptual Model (PSI, 2000), indicated that there are no drinking water wells within 1/2 mile of the site, and Lake Merritt, the nearest surface water receptor, is salt water and not a potential source of drinking water. Based on these findings, it was concluded that, "...an Interim Remedial Action should not be required for the subject site because the migration of MTBE contaminated groundwater to the nearest receptor, Lake Merritt, is unlikely. Furthermore, since no potential drinking water sources are at risk, a risk assessment is not necessary for the site."

After reviewing the Site Conceptual Model report, the ACEH required that a supplemental fate and transport screening be done to assess potential MTBE impacts on the Lake Merritt ecosystem. A Fate and Transport report was issued (PSI, 2001) indicating no expectation of a significant impact on the ecology of Lake Merritt.

In accordance with the e-mailed authorization of Mr. Steven Plunkett of the ACEH, dated July 27, 2006, the frequency of groundwater sampling was changed to annually, beginning in 2007. In response to a 2008 request for case closure, the ACEH issued a review letter which denied the request and required that an updated Site Conceptual Model be prepared for the site to identify data gaps. In accordance with the ACEH review of the fuel leak case (ACEH, 2008) and with subsequent discussions with the ACEH, quarterly groundwater monitoring has resumed as of 2009.

2. GROUNDWATER MONITORING ACTIVITIES

A PSI representative performed groundwater monitoring activities on May 27, 2009. The activities were performed in accordance with PSI standard procedures presented below in section 2.2.

2.1 GROUNDWATER ELEVATION AND FLOW DIRECTION

Prior to groundwater sampling, on May 27, 2009, depth to groundwater was measured from the top of the well casings in monitoring wells MW-1, MW-4, and MW-5. Monitoring wells MW-6 and MW-7 have casing too narrow to accommodate a standard water level meter. The groundwater measurements were converted to groundwater elevations and the data were plotted on a groundwater elevation map (presented as Figure 2). The groundwater elevation data are presented in Table 1.

PSI's interpretation of the groundwater elevation data indicates that the groundwater is flowing to the southeast under a hydraulic gradient of 0.003. The flow direction is consistent with the flow direction determined for previous quarterly monitoring events.

2.2 GROUNDWATER SAMPLING

In previous annual and semi-annual groundwater monitoring events, MW-1, MW-6, and MW-7 were sampled without purging, as requested in the ACEH letter dated September 11, 1997. As per our recent discussions with Mr. Paresh Khatri of the ACEH, it was determined that for this and subsequent future groundwater sampling events, the wells should be purged.

On May 27, 2009, groundwater samples were collected from monitoring wells MW-1, MW-6, and MW-7. Prior to the collection of groundwater samples, the monitoring wells were purged of approximately three well volumes of water until pH, conductivity, and temperature stabilized. The groundwater monitoring purge logs are presented in Appendix A.

The following procedures for well monitoring, well purging, and water sampling were implemented while sampling the wells:

1. All non-dedicated equipment was washed prior to entering the well with a Liquinox solution, followed by a deionized water rinse.
2. Prior to purging the wells, depth-to-water was measured using a Solinst electric water level indicator to an accuracy of approximately 0.01 foot. The measurements were made to the top of the well casing on the north side.

3. Monitoring wells at the site were prepared for sampling by purging the well of approximately three well volumes of water using a battery-powered purge pump or dedicated vinyl tube with a check valve.
4. Water samples were collected with a battery-powered pump or dedicated vinyl tubing with check valve after the well was purged. The water collected was immediately decanted into laboratory-supplied vials and bottles. The containers were filled, capped, labeled, and placed in a chilled cooler through delivery to the laboratory for analysis.
5. Chain-of-custody procedures, including chain-of-custody forms, were used to document water sample handling and transport from collection to delivery to the laboratory for analyses.

To minimize the possibility of cross-contamination between sampling locations, most of the sampling equipment used is dedicated. To further minimize the possibility of cross-contamination, the water sounder and all other reusable sampling equipment were cleaned with a non-phosphate detergent and rinsed twice with deionized water prior to their use in another well.

3. LABORATORY ANALYSIS PROGRAM

The groundwater samples collected during this investigation were submitted to McCampbell Analytical, Inc. of Pittsburg, California. McCampbell Analytical is a State of California Department of Health Services certified environmental laboratory (Environmental Laboratory Accreditation Program #1644). The groundwater samples collected at the site were analyzed for the following constituents by the methods indicated:

- Volatile Organic Compounds (VOCs) using EPA Method 8260B.
- Total Petroleum Hydrocarbons as Gasoline (TPH-G) by EPA Method 8015-M

3.1 ANALYTICAL RESULTS

Tested analytes were detected in the samples from all three groundwater-monitoring wells sampled for this monitoring event.

- TPH-G was detected in wells MW-1 (2,000 micrograms per liter ($\mu\text{g/l}$)) and MW-6 (840 $\mu\text{g/l}$) and was not detected in MW-7.
- Benzene was detected in wells MW-1 (82 $\mu\text{g/l}$) and MW-6 (17 $\mu\text{g/l}$). Figure 3 depicts the benzene concentration with time in MW-1, MW-6, and MW-7. Benzene concentrations have varied with time and have not shown a consistent overall trend.
- MTBE was detected in wells MW-6 (38 $\mu\text{g/l}$) and MW-7 (8.3 $\mu\text{g/l}$). The MTBE concentrations increased in wells MW-6 and MW-7 since the previous sampling event. Figure 4 depicts the MTBE concentration with time in MW-1, MW-6, and MW-7. In general, MTBE concentrations appear to be decreasing over time.
- Additional VOCs, commonly associated with gasoline-impacted groundwater, were detected in the groundwater samples.

Current and historic analytical data is presented in Table 2. Laboratory reports are presented in Appendix B.

4. CONCLUSIONS AND RECOMMENDATIONS

Based on the information presented in this report, the following conclusions have been reached:

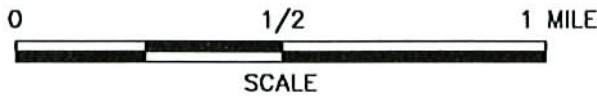
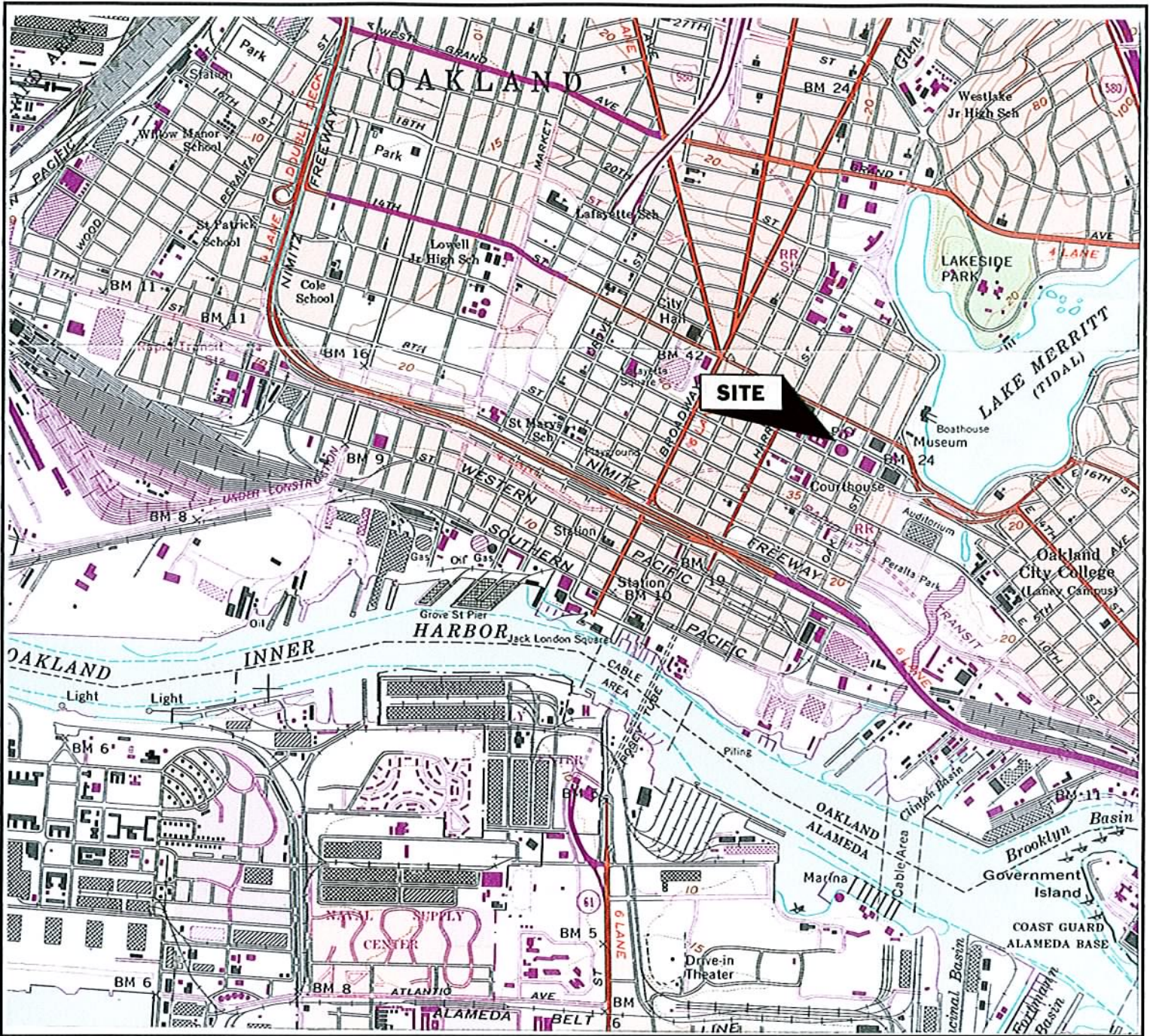
- Groundwater elevations measured at the site range from 13.64 to 14.70 feet above mean sea level (msl).
- Groundwater flow direction is to the southeast under a hydraulic gradient of 0.003, which is consistent with historic conditions.
- The groundwater samples collected from wells MW-1, MW-6 and MW-7 contained measurable concentrations of TPH-G, BTEX, and MTBE with benzene and MTBE being the primary contaminants of concern.

On March 10, 2009, PSI submitted the Data Gap Workplan for Updated Site Conceptual Model as requested by the ACEH. PSI is currently waiting for approval from ACEH and in the interim recommends the continuation of quarterly monitoring at the site through 2009 as outlined in the Data Gap Workplan.

5. REFERENCES

1. USGS, 1980, Oakland West, California, topographic map
2. ACEH, May 20, 1997; Continuation of Groundwater Monitoring Request, Letter to Mr. Jim DeVos.
3. ACEH, September 11, 1997; Workplan Request Letter to Mr. Rodman Freitag.
4. ACGSA, December 2, 1997; Request For Proposal (RFP) for Groundwater Services.
5. PSI, 2000; Site Conceptual Model Report.
6. PSI, 2001; MTBE Fate and Transport Screening Report.
7. ACEH, 2008; Fuel Leak Case Review, Letter to Mr. Rod Freitag.
8. PSI, March 10, 2009; Data Gap Workplan for Updated Site Conceptual Model.

FIGURES

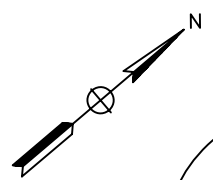


REFERENCE:
 U.S.G.S. OAKLANDWEST, CALIFORNIA, 1959
 PHOTOREVISED 1980



SITE LOCATION
 ALCOPARK FUELING STATION
 165 13TH STREET
 OAKLAND, CALIFORNIA
 PROJECT NUMBER: 575-4G009

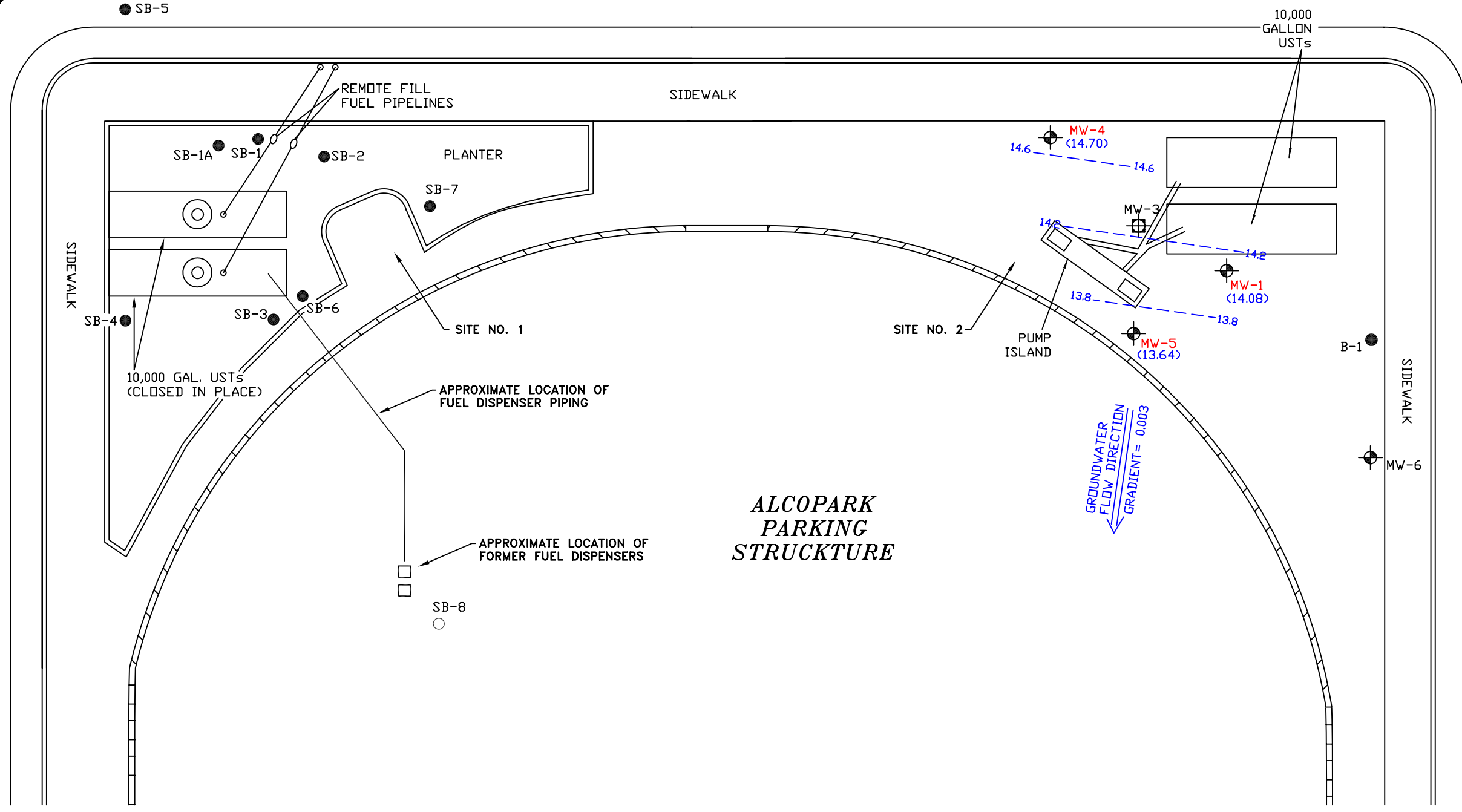
DATE: 3/04	CKD BY: F.P.	FIGURE NO: 1
FILE NO: 4G009-1		DRAWN BY: B.S.



JACKSON STREET

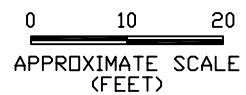
12TH STREET

13TH STREET



LEGEND:

- MW-5
(13.15) - MONITORING WELL LOCATION WITH GROUNDWATER ELEVATION INDICATED IN FEET MSL
- 14.6 - GROUNDWATER CONTOUR (ELEVATION INDICATED IN FEET MSL)
- MW-3 - VADOSE MONITORING WELL LOCATION
- B-1 - SOIL BORING
- UNDERGROUND PIPING

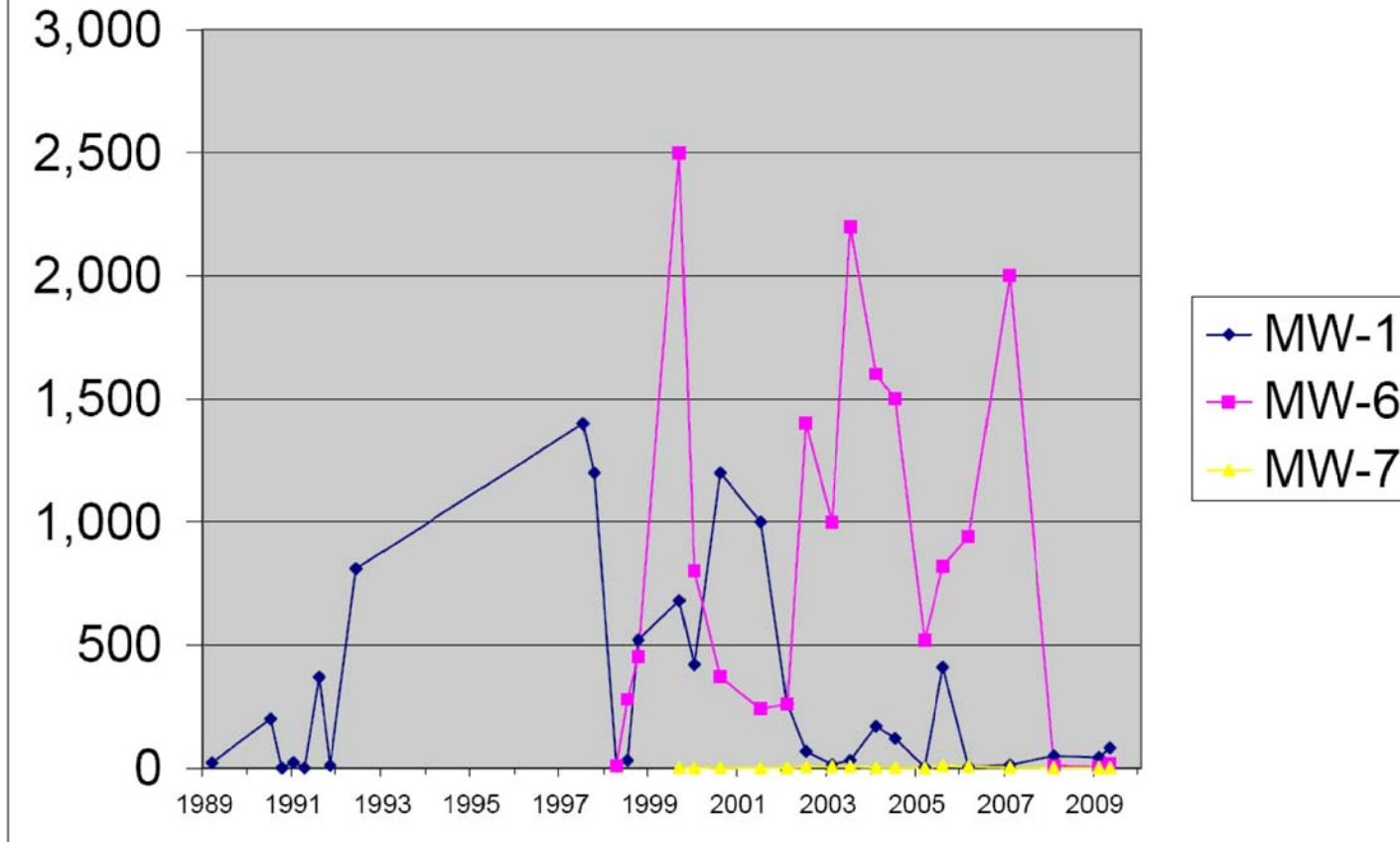


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GROUNDWATER ELEVATION MAP - 5/27/09
ALCOPARK PARKING FACILITY
INTERSECTION OF JACKSON AND 13TH STREETS
OAKLAND, CALIFORNIA
PROJECT NUMBER: 575-8G004

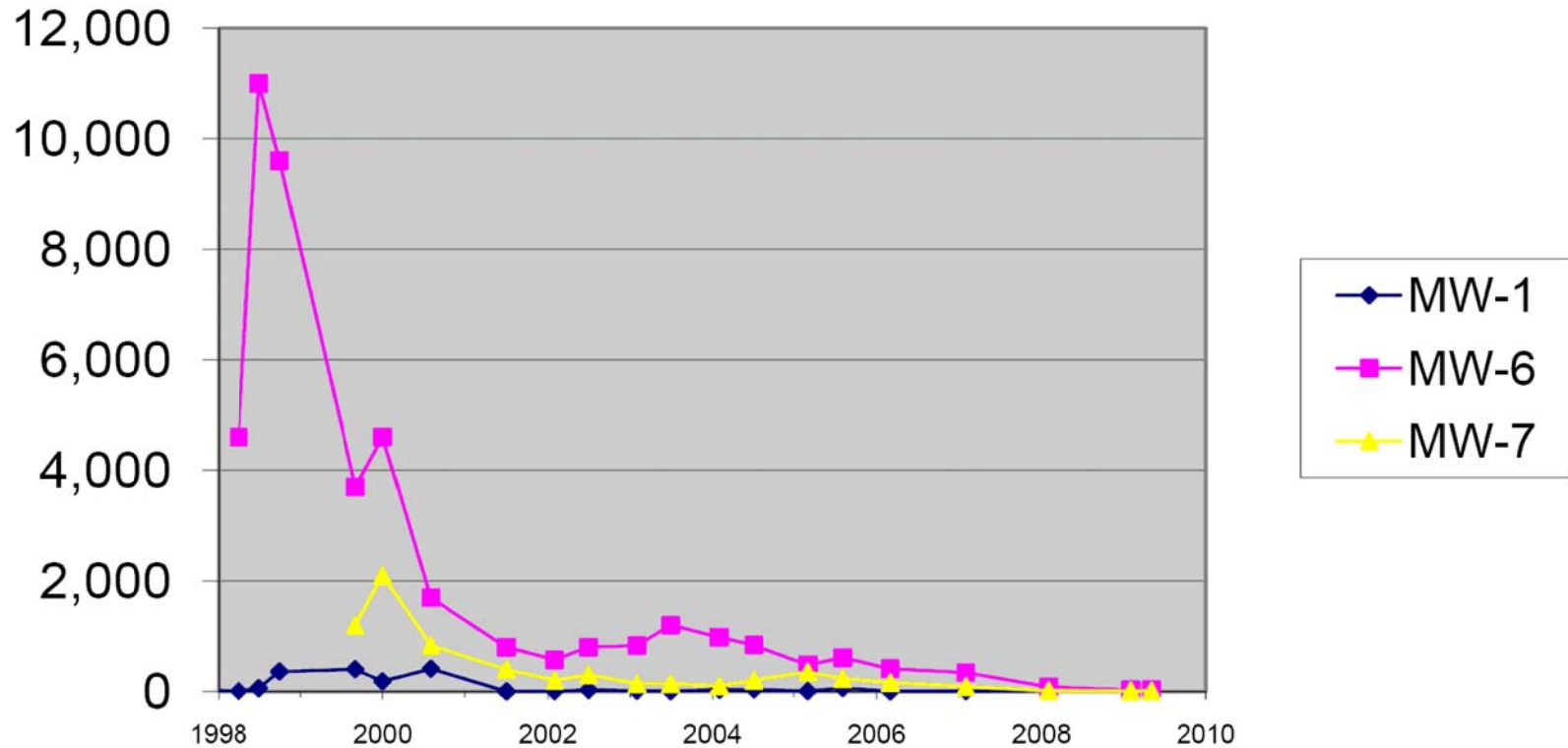
DATE: 6/09	CKD BY: F.P.	FIGURE NO.: 2
FILE NO.: 8G004-08		DRAWN BY: B. BURFIELD

Benzene Concentrations (ug/L)



Information To Build On <i>Engineering • Consulting • Testing</i>		4703 Tidewater Avenue, Suite B Oakland, California 94601 (510) 434-9200			
Project Name: ALCOPARK PARKING FACILITY SEC OF JACKSON AND 13TH STREET, OAKLAND, CA		Drawn By: E.R.	Date: 6/09	File No.: 8G004-BEN	Figure No.: 3
Title: BENZENE VS. TIME		Approved By: B.B.			Project No.: 575-8G004

MTBE Concentrations (ug/L)



psi Information
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Project Name:
ALCOPARK PARKING FACILITY
SEC OF JACKSON AND 13TH STREET, OAKLAND, CA

Drawn By:
E.R.

Date:
6/09

File No.:
8G004-MTBE

Figure No.:

Title:
MTBE VS. TIME

Approved By:
B.B.

Project No.:
575-8G004

4

TABLES

TABLE 1

SUMMARY OF GROUNDWATER ELEVATIONS
 ALCOPARK Fueling Facility Site No. 2
 Oakland, California

Well Number	TOC Elevation (feet msl)	Date	Depth to Groundwater	Groundwater Elevation (feet msl)
MW-1	33.00	3/21/1989	20.80	12.20
		7/26/1990	20.70	12.30
		10/25/1990	20.90	12.10
		1/25/1991	21.10	11.90
		4/25/1991	21.20	11.80
		8/27/1991	21.20	11.80
		11/25/1991	21.30	11.70
		6/11/1992	20.15	12.85
		7/16/1997	18.64	14.36
		10/21/1997	19.08	13.92
		3/11/1998	15.86	17.14
		4/1/1998	15.86	17.14
		7/15/1998	16.59	16.41
		10/22/1998	17.38	15.62
		9/9/1999	17.58	15.42
		1/18/2000	18.51	14.49
		5/4/2000	16.81	16.19
		8/22/2000	17.66	15.34
		2/8/2001	18.47	14.53
		7/20/2001	18.40	14.60
		2/18/2002	17.92	15.08
		7/19/2002	18.16	14.84
		2/10/2003	18.17	14.83
		7/15/2003	18.2	14.80
		2/12/2004	18.13	14.87
		7/7/2004	18.19	14.81
		3/24/2005	17.08	15.92
		8/17/2005	17.4	15.60
3/29/2006	16.03	16.97		
2/8/2007	18.07	14.93		
2/27/2008	18.56	14.44		
2/6/2009	19.84	13.16		
5/27/2009	18.92	14.08		

TABLE 1

SUMMARY OF GROUNDWATER ELEVATIONS
ALCOPARK Fueling Facility Site No. 2
Oakland, California

Well Number	TOC Elevation (feet msl)	Date	Depth to Groundwater	Groundwater Elevation (feet msl)
MW-4	33.63	3/21/1989	21.23	12.40
		7/26/1990	21.13	12.50
		10/25/1990	21.43	12.20
		1/25/1991	21.63	12.00
		4/25/1991	20.63	13.00
		8/27/1991	21.83	11.80
		11/25/1991	21.83	11.80
		6/11/1992	20.7	12.93
		7/16/1997	19.17	14.46
		10/21/1997	19.53	14.10
		3/11/1998	16.24	17.39
		4/1/1998	16.23	17.40
		7/15/1998	16.71	16.92
		10/22/1998	17.88	15.75
		9/9/1999	18.06	15.57
		1/18/2000	19.31	14.32
		5/4/2000	17.29	16.34
		8/22/2000	18.16	15.47
		2/8/2001	18.9	14.73
		7/20/2001	18.91	14.72
		2/18/2002	18.58	15.05
		7/19/2002	18.66	14.97
		2/10/2003	18.69	14.94
		7/15/2003	18.69	14.94
		2/12/2004	18.7	14.93
		7/7/2004	18.69	14.94
		3/24/2005	17.58	16.05
		8/17/2005	17.81	15.82
3/29/2006	16.41	17.22		
2/8/2007	18.48	15.15		
2/27/2008	18.57	15.06		
2/6/2009	20.3	13.33		
5/27/2009	18.93	14.70		

TABLE 1

SUMMARY OF GROUNDWATER ELEVATIONS
ALCOPARK Fueling Facility Site No. 2
Oakland, California

Well Number	TOC Elevation (feet msl)	Date	Depth to Groundwater	Groundwater Elevation (feet msl)
MW-5	33.01	3/21/1989	20.81	12.20
		7/26/1990	20.61	12.40
		10/25/1990	20.91	12.10
		1/25/1991	21.11	11.90
		4/25/1991	20.71	12.30
		8/27/1991	21.51	11.50
		11/25/1991	21.31	11.70
		6/11/1992	20.16	12.85
		7/16/1997	18.68	14.33
		10/21/1997	19.13	13.88
		3/11/1998	15.87	17.14
		4/1/1998	15.87	17.14
		7/15/1998	16.58	16.43
		10/22/1998	17.41	15.60
		9/9/1999	17.57	15.44
		1/18/2000	18.34	14.67
		5/4/2000	16.83	16.18
		8/22/2000	17.69	15.32
		2/8/2001	18.48	14.53
		7/20/2001	18.42	14.59
		2/18/2002	18.07	14.94
		7/19/2002	18.18	14.83
		2/10/2003	18.18	14.83
		7/15/2003	18.21	14.80
		2/12/2004	18.14	14.87
		7/7/2004	18.19	14.82
		3/24/2005	17.1	15.91
		8/17/2005	17.42	15.59
3/29/2006	16.04	16.97		
2/8/2007	18.08	14.93		
2/27/2008	18.16	14.85		
2/6/2009	19.86	13.15		
5/27/2009	19.37	13.64		

Notes:

feet msl = feet with respect to mean sea level

TABLE 2

**SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
ALCOPARK Fueling Facility Site No. 2
Oakland, California**

Well	Date	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes
MW-1	3/21/1989	ND	NA	21	3.9	0.4	4.5
	7/26/1990	1,400	NA	200	45	ND	53
	10/25/1990	1,200	NA	ND	7.3	2.2	46
	1/25/1991	270	NA	23	1.5	ND	3.1
	4/25/1991	230	NA	ND	ND	ND	ND
	8/27/1991	8,300	NA	370	64	ND	120
	11/25/1991	810	NA	9.3	ND	7.8	32
	6/11/1992	2,600	NA	810	16	21	42
	7/16/1997	19,000	ND (150)	1,400	2,800	500	2,600
	10/21/1997	14,000	29	1,200	1,000	590	2,800
	3/11/1998	NS	NS	NS	NS	NS	NS
	4/1/1998	ND (50)	6.3	5.4	ND (0.5)	ND (0.5)	0.82
	7/15/1998	71	57	31	ND (0.5)	ND (0.5)	3.1
	10/22/1998	5,100	360	520	140	250	950
	9/9/1999	2,400	400	680	140	130	370
	1/18/2000	4,100	180	420	11	210	350
	5/4/2000	NS	NS	NS	NS	NS	NS
	8/22/2000	9,400	410	1,200	130	410	920
	2/8/2001	NS	NS	NS	NS	NS	NS
	7/20/2001	9,600	ND (50)	1,000	300	350	2,000
	2/18/2002	1,500	ND (100)	260	6.5	2.8	49
	7/19/2002	180	28	68	ND (1.7)	ND (1.7)	6.8
	2/10/2003	210	11	14	0.75	ND (0.5)	4.0
	7/15/2003	370	4.6	31	0.99	22	75
	2/12/2004	1,800	29	170	2.7	140	87
	7/7/2004	800	37	120	ND (2.5)	67	38
	3/24/2005	ND (50)	4.7	4	ND (0.5)	2.5	2
	8/17/2005	4,100	59	410	35	380	1,500
	3/29/2006	NA	2.4	4.7	ND (0.5)	ND (0.5)	ND (0.5)
	2/8/2007	100	3.7	13	ND (0.5)	1.1	3.9
2/27/2008	270	ND (10)	49	0.81	3.2	17.0	
2/6/2009	2,600	ND (2.5)	43	24	62	320	
5/27/2009	2,000	ND (5.0)	82	35	130	670	

TABLE 2

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
 ALCOPARK Fueling Facility Site No. 2
 Oakland, California

Well	Date	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes
MW-4	3/21/1989	ND	NA	13	1.4	1.0	ND
	7/26/1990	NA	NA	0.8	ND	ND	ND
	10/25/1990	NA	NA	120	1.2	1.1	0.9
	1/25/1991	NA	NA	230	2.8	1.2	2.0
	4/25/1991	170	NA	12	ND	ND	2.3
	8/27/1991	ND	NA	87	1.3	0.8	0.8
	11/25/1991	1,400	NA	ND	1.7	8.6	3.6
	6/11/1992	560	NA	150	1.8	1.8	1.1
	7/16/1997	50	ND	ND	ND	ND	ND
	10/21/1997	ND	ND	ND	ND	ND	ND
	3/11/1998	NS	NS	NS	NS	NS	NS
	4/1/1998	ND (50)	ND (5.0)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
	7/15/1998	ND (50)	ND (5.0)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
	10/22/1998	ND (50)	ND (5.0)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
MW-5	3/21/1989	ND	NA	ND	ND	ND	ND
	7/26/1990	670	NA	0.8	ND	ND	ND
	10/25/1990	120	NA	13	ND	ND	ND
	1/25/1991	120	NA	3.2	ND	ND	ND
	4/25/1991	ND	NA	ND	ND	ND	ND
	8/27/1991	ND	NA	20	ND	0.5	ND
	11/25/1991	190	NA	2.7	ND	0.8	2.5
	6/11/1992	150	NA	37	ND	ND	ND
	7/16/1997	ND	22	ND	ND	ND	ND
	10/21/1997	ND	14	ND	ND	ND	ND
	3/11/1998	NS	NS	NS	NS	NS	NS
	4/1/1998	ND (50)	11	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
	7/15/1998	ND (50)	ND (5.0)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
	10/22/1998	ND (50)	ND (5.0)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)

TABLE 2

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
 ALCOPARK Fueling Facility Site No. 2
 Oakland, California

Well	Date	TPH-G	MTBE	Benzene	Toluene	Ethyl-benzene	Total Xylenes
MW-6	4/1/1998	740	4,600	9.8	3.2	3.0	15
	7/15/1998	6,200	11,000	280	43	180	350
	7/15/1998	NA	13,000	ND (500)	ND (500)	ND (500)	ND (500)
	10/22/1998	4,700	9,600	450	13	200	200
	10/22/1998	NA	9,100	470	ND (250)	ND (250)	ND (250)
	9/9/1999	6,600	3,700	2,500	43	310	250
	1/18/2000	3,500	4,600	800	ND (5.0)	40	13
	5/4/2000	NS	NS	NS	NS	NS	NS
	8/22/2000	1,400	1,700	370	4.8	12	35
	2/8/2001	NS	NS	NS	NS	NS	NS
	7/20/2001	1,100	800	240	2.9	2.3	3.4
	2/18/2002	1,500	570	260	ND (2.0)	11	4.3
	7/19/2002	1,800	800	1,400	ND (50)	ND (50)	ND (50)
	2/10/2003	4,000	830	1,000	ND (50)	ND (50)	ND (50)
	7/15/2003	4,100	1,200	2,200	ND (25)	180	260
	2/12/2004	7,200	980	1,600	ND (25)	100	440
	7/7/2004	4,000	840	1,500	ND (25)	150	210
	3/24/2005	4,600	480	520	ND (10)	86	280
	8/17/2005	2,800	610	820	ND (17)	190	250
	3/29/2006	NA	410	940	ND (50)	85	140
2/15/2007	6,800	340	2,000	ND (50)	130	190	
2/14/2008	780	80	11	1.3	8.8	37	
2/6/2009	120	26	2.9	ND (0.5)	ND (0.5)	0.56	
5/27/2009	840	38	17	1.2	13	33	

TABLE 2

**SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
ALCOPARK Fueling Facility Site No. 2
Oakland, California**

Well	Date	TPH-G	MTBE	Benzene	Toluene	Ethyl- benzene	Total Xylenes
MW-7	9/9/1999	92	1,200	1.6	ND (0.5)	ND (0.5)	ND (0.5)
	1/18/2000	ND	2,100	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
	5/4/2000	140	1,100	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
	8/22/2000	160	830	0.62	ND (0.5)	ND (0.5)	ND (0.5)
	2/8/2001	130	650	ND (0.5)	0.53	ND (0.5)	ND (0.5)
	7/20/2001	56	400	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
	2/18/2002	ND (50)	200	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
	7/19/2002	ND (50)	300	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
	2/10/2003	ND (50)	140	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
	7/15/2003	ND (50)	140	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
	2/12/2004	ND (50)	100	ND (1.7)	ND (1.7)	ND (1.7)	ND (1.7)
	7/7/2004	56	200	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
	3/24/2005	ND (50)	350	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
	8/17/2005	66	230	9	ND (5.0)	ND (5.0)	7
	3/29/2006	NA	160	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
	2/15/2007	70	87	ND (1.7)	ND (1.7)	ND (1.7)	ND (1.7)
	2/14/2008	ND (50)	13	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
2/6/2009	ND (50)	5.8	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	
5/27/2009	ND (50)	8.3	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	
W-B1	3/23/1998	3,100	4,200	250	18	160	290

Notes:

All results presented in micrograms per liter ($\mu\text{g/L}$).

TPH-G denotes Total Petroleum Hydrocarbons as Gasoline. MTBE denotes Methyl tert-Butyl Ether.

NA denotes Not Analyzed. NS denotes Not Sampled. ND denotes Not Detected. () denotes detection limit.

Data collected prior to 1998 was reported in Alameda County Request for Proposal dated December 2, 1997.

APPENDIX A

GROUNDWATER PURGE LOGS

APPENDIX B

LABORATORY REPORT AND CHAIN OF CUSTODY



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Professional Service Industries 4703 Tidewater Ave., Suite B Oakland, CA 94601	Client Project ID: #575-8G004; ALCO Park	Date Sampled: 05/27/09
		Date Received: 06/02/09
	Client Contact: Ezekiel Robles	Date Reported: 06/09/09
	Client P.O.:	Date Completed: 06/08/09

WorkOrder: 0906072

June 09, 2009

Dear Ezekiel:

Enclosed within are:

- 1) The results of the **3** analyzed samples from your project: **#575-8G004; ALCO Park,**
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0906072

ClientCode: PSIO

WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Report to:
 Ezekiel Robles
 Professional Service Industries
 4703 Tidewater Ave., Suite B
 Oakland, CA 94601
 (510) 434-9200 FAX: (510) 434-7676

Email: ezekiel.robles@psiusa.com
 cc:
 PO:
 ProjectNo: #575-8G004; ALCO Park

Bill to:
 Rod Freitag
 Alameda County General Services
 1401 Lakeside Drive, 11th Floor
 Oakland, CA 94601

Requested TAT: 5 days
Date Received: 06/02/2009
Date Printed: 06/09/2009

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0906072-001	MW-1	Water	5/27/2009 17:18	<input type="checkbox"/>	A	B	A										
0906072-002	MW-6	Water	5/27/2009 16:30	<input type="checkbox"/>	A	B											
0906072-003	MW-7	Water	5/27/2009 15:03	<input type="checkbox"/>	A	B											

Test Legend:

1	8260B+7OXY_W	2	G-MBTEX_W	3	PREFD REPORT	4		5	
6		7		8		9		10	
11		12							

Prepared by: Samantha Arbuckle

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Professional Service Industries**

Date and Time Received: **06/02/09 6:08:54 PM**

Project Name: **#575-8G004; ALCO Park**

Checklist completed and reviewed by: **Samantha Arbuckle**

WorkOrder N°: **0906072** Matrix Water

Carrier: Rob Pringle (MAI Courier)

Chain of Custody (COC) Information

- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Sample IDs noted by Client on COC? Yes No
- Date and Time of collection noted by Client on COC? Yes No
- Sampler's name noted on COC? Yes No

Sample Receipt Information

- Custody seals intact on shipping container/cooler? Yes No NA
- Shipping container/cooler in good condition? Yes No
- Samples in proper containers/bottles? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes No
- Container/Temp Blank temperature Cooler Temp: 6.2°C NA
- Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
- Sample labels checked for correct preservation? Yes No
- TTLC Metal - pH acceptable upon receipt (pH<2)? Yes No NA
- Samples Received on Ice? Yes No

(Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

Client contacted:

Date contacted:

Contacted by:

Comments:



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Telephone: 877-252-9262 Fax: 925-252-9269

Professional Service Industries 4703 Tidewater Ave., Suite B Oakland, CA 94601	Client Project ID: #575-8G004; ALCO Park	Date Sampled: 05/27/09
	Client Contact: Ezekiel Robles	Date Received: 06/02/09
	Client P.O.:	Date Extracted: 06/06/09
		Date Analyzed: 06/06/09

Volatiles Organics + Oxygenates by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0906072

Lab ID	0906072-001A
Client ID	MW-1
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND<100	10	10	tert-Amyl methyl ether (TAME)	ND<5.0	10	0.5
Benzene	82	10	0.5	Bromobenzene	ND<5.0	10	0.5
Bromochloromethane	ND<5.0	10	0.5	Bromodichloromethane	ND<5.0	10	0.5
Bromoform	ND<5.0	10	0.5	Bromomethane	ND<5.0	10	0.5
2-Butanone (MEK)	ND<20	10	2.0	t-Butyl alcohol (TBA)	ND<20	10	2.0
n-Butyl benzene	ND<5.0	10	0.5	sec-Butyl benzene	ND<5.0	10	0.5
tert-Butyl benzene	ND<5.0	10	0.5	Carbon Disulfide	ND<5.0	10	0.5
Carbon Tetrachloride	ND<5.0	10	0.5	Chlorobenzene	ND<5.0	10	0.5
Chloroethane	ND<5.0	10	0.5	Chloroform	ND<5.0	10	0.5
Chloromethane	ND<5.0	10	0.5	2-Chlorotoluene	ND<5.0	10	0.5
4-Chlorotoluene	ND<5.0	10	0.5	Dibromochloromethane	ND<5.0	10	0.5
1,2-Dibromo-3-chloropropane	ND<2.0	10	0.2	1,2-Dibromoethane (EDB)	ND<5.0	10	0.5
Dibromomethane	ND<5.0	10	0.5	1,2-Dichlorobenzene	ND<5.0	10	0.5
1,3-Dichlorobenzene	ND<5.0	10	0.5	1,4-Dichlorobenzene	ND<5.0	10	0.5
Dichlorodifluoromethane	ND<5.0	10	0.5	1,1-Dichloroethane	ND<5.0	10	0.5
1,2-Dichloroethane (1,2-DCA)	8.9	10	0.5	1,1-Dichloroethene	ND<5.0	10	0.5
cis-1,2-Dichloroethene	ND<5.0	10	0.5	trans-1,2-Dichloroethene	ND<5.0	10	0.5
1,2-Dichloropropane	ND<5.0	10	0.5	1,3-Dichloropropane	ND<5.0	10	0.5
2,2-Dichloropropane	ND<5.0	10	0.5	1,1-Dichloropropene	ND<5.0	10	0.5
cis-1,3-Dichloropropene	ND<5.0	10	0.5	trans-1,3-Dichloropropene	ND<5.0	10	0.5
Diisopropyl ether (DIPE)	ND<5.0	10	0.5	Ethanol	ND<500	10	50
Ethylbenzene	130	10	0.5	Ethyl tert-butyl ether (ETBE)	ND<5.0	10	0.5
Freon 113	ND<100	10	10	Hexachlorobutadiene	ND<5.0	10	0.5
Hexachloroethane	ND<5.0	10	0.5	2-Hexanone	ND<5.0	10	0.5
Methanol	ND<5000	10	500	Isopropylbenzene	ND<5.0	10	0.5
4-Isopropyl toluene	ND<5.0	10	0.5	Methyl-t-butyl ether (MTBE)	ND<5.0	10	0.5
Methylene chloride	ND<5.0	10	0.5	4-Methyl-2-pentanone (MIBK)	ND<5.0	10	0.5
Naphthalene	49	10	0.5	n-Propyl benzene	9.4	10	0.5
Styrene	ND<5.0	10	0.5	1,1,1,2-Tetrachloroethane	ND<5.0	10	0.5
1,1,2,2-Tetrachloroethane	ND<5.0	10	0.5	Tetrachloroethene	ND<5.0	10	0.5
Toluene	35	10	0.5	1,2,3-Trichlorobenzene	ND<5.0	10	0.5
1,2,4-Trichlorobenzene	ND<5.0	10	0.5	1,1,1-Trichloroethane	ND<5.0	10	0.5
1,1,2-Trichloroethane	ND<5.0	10	0.5	Trichloroethene	ND<5.0	10	0.5
Trichlorofluoromethane	ND<5.0	10	0.5	1,2,3-Trichloropropane	ND<5.0	10	0.5
1,2,4-Trimethylbenzene	130	10	0.5	1,3,5-Trimethylbenzene	24	10	0.5
Vinyl Chloride	ND<5.0	10	0.5	Xylenes	670	10	0.5

Surrogate Recoveries (%)

%SS1:	80	%SS2:	98
%SS3:	71		

Comments:

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in µg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

b1) aqueous sample that contains greater than ~1 vol. % sediment



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Professional Service Industries 4703 Tidewater Ave., Suite B Oakland, CA 94601	Client Project ID: #575-8G004; ALCO Park	Date Sampled: 05/27/09
	Client Contact: Ezekiel Robles	Date Received: 06/02/09
	Client P.O.:	Date Extracted: 06/06/09
		Date Analyzed: 06/06/09

Volatiles Organics + Oxygenates by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0906072

Lab ID	0906072-002A
Client ID	MW-6
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND<20	2.0	10	tert-Amyl methyl ether (TAME)	1.2	2.0	0.5
Benzene	17	2.0	0.5	Bromobenzene	ND<1.0	2.0	0.5
Bromochloromethane	ND<1.0	2.0	0.5	Bromodichloromethane	ND<1.0	2.0	0.5
Bromoform	ND<1.0	2.0	0.5	Bromomethane	ND<1.0	2.0	0.5
2-Butanone (MEK)	ND<4.0	2.0	2.0	t-Butyl alcohol (TBA)	17	2.0	2.0
n-Butyl benzene	ND<1.0	2.0	0.5	sec-Butyl benzene	ND<1.0	2.0	0.5
tert-Butyl benzene	ND<1.0	2.0	0.5	Carbon Disulfide	ND<1.0	2.0	0.5
Carbon Tetrachloride	ND<1.0	2.0	0.5	Chlorobenzene	ND<1.0	2.0	0.5
Chloroethane	ND<1.0	2.0	0.5	Chloroform	ND<1.0	2.0	0.5
Chloromethane	ND<1.0	2.0	0.5	2-Chlorotoluene	ND<1.0	2.0	0.5
4-Chlorotoluene	ND<1.0	2.0	0.5	Dibromochloromethane	ND<1.0	2.0	0.5
1,2-Dibromo-3-chloropropane	ND<0.40	2.0	0.2	1,2-Dibromoethane (EDB)	ND<1.0	2.0	0.5
Dibromomethane	ND<1.0	2.0	0.5	1,2-Dichlorobenzene	ND<1.0	2.0	0.5
1,3-Dichlorobenzene	ND<1.0	2.0	0.5	1,4-Dichlorobenzene	ND<1.0	2.0	0.5
Dichlorodifluoromethane	ND<1.0	2.0	0.5	1,1-Dichloroethane	ND<1.0	2.0	0.5
1,2-Dichloroethane (1,2-DCA)	ND<1.0	2.0	0.5	1,1-Dichloroethene	ND<1.0	2.0	0.5
cis-1,2-Dichloroethene	ND<1.0	2.0	0.5	trans-1,2-Dichloroethene	ND<1.0	2.0	0.5
1,2-Dichloropropane	ND<1.0	2.0	0.5	1,3-Dichloropropane	ND<1.0	2.0	0.5
2,2-Dichloropropane	ND<1.0	2.0	0.5	1,1-Dichloropropene	ND<1.0	2.0	0.5
cis-1,3-Dichloropropene	ND<1.0	2.0	0.5	trans-1,3-Dichloropropene	ND<1.0	2.0	0.5
Diisopropyl ether (DIPE)	ND<1.0	2.0	0.5	Ethanol	ND<100	2.0	50
Ethylbenzene	13	2.0	0.5	Ethyl tert-butyl ether (ETBE)	ND<1.0	2.0	0.5
Freon 113	ND<20	2.0	10	Hexachlorobutadiene	ND<1.0	2.0	0.5
Hexachloroethane	ND<1.0	2.0	0.5	2-Hexanone	ND<1.0	2.0	0.5
Methanol	ND<1000	2.0	500	Isopropylbenzene	3.2	2.0	0.5
4-Isopropyl toluene	ND<1.0	2.0	0.5	Methyl-t-butyl ether (MTBE)	38	2.0	0.5
Methylene chloride	ND<1.0	2.0	0.5	4-Methyl-2-pentanone (MIBK)	ND<1.0	2.0	0.5
Naphthalene	32	2.0	0.5	n-Propyl benzene	ND<1.0	2.0	0.5
Styrene	ND<1.0	2.0	0.5	1,1,1,2-Tetrachloroethane	ND<1.0	2.0	0.5
1,1,2,2-Tetrachloroethane	ND<1.0	2.0	0.5	Tetrachloroethene	ND<1.0	2.0	0.5
Toluene	1.2	2.0	0.5	1,2,3-Trichlorobenzene	ND<1.0	2.0	0.5
1,2,4-Trichlorobenzene	ND<1.0	2.0	0.5	1,1,1-Trichloroethane	ND<1.0	2.0	0.5
1,1,2-Trichloroethane	ND<1.0	2.0	0.5	Trichloroethene	ND<1.0	2.0	0.5
Trichlorofluoromethane	ND<1.0	2.0	0.5	1,2,3-Trichloropropane	ND<1.0	2.0	0.5
1,2,4-Trimethylbenzene	45	2.0	0.5	1,3,5-Trimethylbenzene	ND<1.0	2.0	0.5
Vinyl Chloride	ND<1.0	2.0	0.5	Xylenes	33	2.0	0.5

Surrogate Recoveries (%)

%SS1:	81	%SS2:	97
%SS3:	75		

Comments: b1

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in µg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

b1) aqueous sample that contains greater than ~1 vol. % sediment



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Professional Service Industries 4703 Tidewater Ave., Suite B Oakland, CA 94601	Client Project ID: #575-8G004; ALCO Park	Date Sampled: 05/27/09
	Client Contact: Ezekiel Robles	Date Received: 06/02/09
	Client P.O.:	Date Extracted: 06/05/09-06/06/09
		Date Analyzed 06/05/09-06/06/09

Volatiles Organics + Oxygenates by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0906072

Lab ID	0906072-003A
Client ID	MW-7
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	10	tert-Amyl methyl ether (TAME)	ND	1.0	0.5
Benzene	ND	1.0	0.5	Bromobenzene	ND	1.0	0.5
Bromochloromethane	ND	1.0	0.5	Bromodichloromethane	ND	1.0	0.5
Bromoform	ND	1.0	0.5	Bromomethane	ND	1.0	0.5
2-Butanone (MEK)	ND	1.0	2.0	t-Butyl alcohol (TBA)	ND	1.0	2.0
n-Butyl benzene	ND	1.0	0.5	sec-Butyl benzene	ND	1.0	0.5
tert-Butyl benzene	ND	1.0	0.5	Carbon Disulfide	ND	1.0	0.5
Carbon Tetrachloride	ND	1.0	0.5	Chlorobenzene	ND	1.0	0.5
Chloroethane	ND	1.0	0.5	Chloroform	ND	1.0	0.5
Chloromethane	ND	1.0	0.5	2-Chlorotoluene	ND	1.0	0.5
4-Chlorotoluene	ND	1.0	0.5	Dibromochloromethane	ND	1.0	0.5
1,2-Dibromo-3-chloropropane	ND	1.0	0.2	1,2-Dibromoethane (EDB)	ND	1.0	0.5
Dibromomethane	ND	1.0	0.5	1,2-Dichlorobenzene	ND	1.0	0.5
1,3-Dichlorobenzene	ND	1.0	0.5	1,4-Dichlorobenzene	ND	1.0	0.5
Dichlorodifluoromethane	ND	1.0	0.5	1,1-Dichloroethane	ND	1.0	0.5
1,2-Dichloroethane (1,2-DCA)	1.0	1.0	0.5	1,1-Dichloroethene	ND	1.0	0.5
cis-1,2-Dichloroethene	ND	1.0	0.5	trans-1,2-Dichloroethene	ND	1.0	0.5
1,2-Dichloropropane	ND	1.0	0.5	1,3-Dichloropropane	ND	1.0	0.5
2,2-Dichloropropane	ND	1.0	0.5	1,1-Dichloropropene	ND	1.0	0.5
cis-1,3-Dichloropropene	ND	1.0	0.5	trans-1,3-Dichloropropene	ND	1.0	0.5
Diisopropyl ether (DIPE)	ND	1.0	0.5	Ethanol	ND	1.0	50
Ethylbenzene	ND	1.0	0.5	Ethyl tert-butyl ether (ETBE)	ND	1.0	0.5
Freon 113	ND	1.0	10	Hexachlorobutadiene	ND	1.0	0.5
Hexachloroethane	ND	1.0	0.5	2-Hexanone	ND	1.0	0.5
Methanol	ND	1.0	500	Isopropylbenzene	ND	1.0	0.5
4-Isopropyl toluene	ND	1.0	0.5	Methyl-t-butyl ether (MTBE)	8.3	1.0	0.5
Methylene chloride	ND	1.0	0.5	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.5
Naphthalene	ND	1.0	0.5	n-Propyl benzene	ND	1.0	0.5
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloroethane	ND	1.0	0.5
1,1,2,2-Tetrachloroethane	ND	1.0	0.5	Tetrachloroethene	ND	1.0	0.5
Toluene	ND	1.0	0.5	1,2,3-Trichlorobenzene	ND	1.0	0.5
1,2,4-Trichlorobenzene	ND	1.0	0.5	1,1,1-Trichloroethane	ND	1.0	0.5
1,1,2-Trichloroethane	ND	1.0	0.5	Trichloroethene	ND	1.0	0.5
Trichlorofluoromethane	ND	1.0	0.5	1,2,3-Trichloropropane	ND	1.0	0.5
1,2,4-Trimethylbenzene	ND	1.0	0.5	1,3,5-Trimethylbenzene	ND	1.0	0.5
Vinyl Chloride	ND	1.0	0.5	Xylenes	ND	1.0	0.5

Surrogate Recoveries (%)

%SS1:	82	%SS2:	95
%SS3:	89		

Comments:

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in µg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

b1) aqueous sample that contains greater than ~1 vol. % sediment



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 43588

WorkOrder 0906072

Analyte	Extraction SW5030B			Spiked Sample ID: 0906068-001B								
	Sample µg/L	Spiked µg/L	MS % Rec.	MSD % Rec.	MS-MSD % RPD	LCS % Rec.	LCSD % Rec.	LCS-LCSD % RPD	Acceptance Criteria (%)			
tert-Amyl methyl ether (TAME)	ND	10	98.3	99.2	0.852	103	95.7	7.64	70 - 130	30	70 - 130	30
Benzene	ND	10	113	115	1.63	120	113	6.12	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	50	93.2	101	7.56	87.7	81.4	7.49	70 - 130	30	70 - 130	30
Chlorobenzene	ND	10	101	104	2.64	106	102	4.18	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND	10	115	119	3.91	116	110	5.93	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	10	108	111	2.31	112	105	5.93	70 - 130	30	70 - 130	30
1,1-Dichloroethene	ND	10	102	104	1.91	102	96.9	5.07	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	10	100	102	1.75	104	97.6	6.15	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	10	109	112	2.88	114	108	5.16	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	10	99.8	102	2.37	102	95.4	7.13	70 - 130	30	70 - 130	30
Toluene	0.62	10	122	122	0	127	121	4.25	70 - 130	30	70 - 130	30
Trichloroethene	ND	10	120	119	0.880	125	118	5.26	70 - 130	30	70 - 130	30
%SS1:	85	25	84	86	1.89	84	85	0.339	70 - 130	30	70 - 130	30
%SS2:	104	25	107	108	1.09	108	108	0	70 - 130	30	70 - 130	30
%SS3:	86	2.5	93	98	5.05	107	108	0.416	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 43588 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0906072-001A	05/27/09 5:18 PM	06/06/09	06/06/09 4:08 AM	0906072-002A	05/27/09 4:30 PM	06/06/09	06/06/09 4:45 AM
0906072-003A	05/27/09 3:03 PM	06/05/09	06/05/09 5:49 AM	0906072-003A	05/27/09 3:03 PM	06/06/09	06/06/09 5:23 AM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 43553

WorkOrder 0906072

EPA Method SW8021B/8015Bm		Extraction SW5030B							Spiked Sample ID: 0906019-001A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) [£]	ND	60	109	111	1.74	111	116	3.92	70 - 130	20	70 - 130	20
MTBE	ND	10	86.1	91.5	6.09	77.4	80.9	4.46	70 - 130	20	70 - 130	20
Benzene	ND	10	96.1	93.8	2.45	88.7	105	17.2	70 - 130	20	70 - 130	20
Toluene	ND	10	95.2	93.8	1.49	89.4	106	16.9	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	95.5	92.6	3.09	88.5	107	19.1	70 - 130	20	70 - 130	20
Xylenes	ND	30	96.7	94.3	2.54	90.2	107	16.8	70 - 130	20	70 - 130	20
%SS:	98	10	104	100	3.43	100	108	7.29	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 43553 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0906072-001B	05/27/09 5:18 PM	06/05/09	06/05/09 8:19 AM	0906072-002B	05/27/09 4:30 PM	06/06/09	06/06/09 4:09 AM
0906072-003B	05/27/09 3:03 PM	06/05/09	06/05/09 12:24 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.