General Services Agency

Aki K. Nakao, Director

Alameda County
SEP 20 2002
Environmental Health

September 16, 2002

TO: Eva Chu, Hazmat Specialist, HCSA-Environmental Health

FROM: Rod Freitag, Environmental Program Manager, GSA-TSD

SUBJECT: SEMIANNUAL GROUNDWATER MONITORING FOR ALCOPARK, 165-13TH ST, OAKLAND, CA

Enclosed is a copy of the report documenting groundwater monitoring results for the July, 2002 sampling event. Graphs contained in the report show that contaminant concentrations are trending lower with a slight uptick this last sampling event in the benzene and MTBE concentrations in MW-6 and MW-7. The uptick is primarily due to a change in analytical methods from EPA Method 8021 to EPA Method 8260. Had we reported results based on EPA Method 8021, as we have done for the previous sampling events, benzene and MTBE concentrations, with the exception of the benzene concentration in MW-6, would have actually been lower than those reported the previous sampling event (Ref.: laboratory reports included in Appendix B). Overall, petroleum hydrocarbon contaminants in the groundwater appear to be dissipating.

Based on our September 16, 2002 telephone conversation, it's my understanding that Environmental Health will continue to require sample analysis by EPA Method 8260 and will no longer accept results obtained using EPA Method 8021. We will change our analytical protocol, accordingly.

RDF:rdf:i:\e&em\prjt\env\7001\July 2002 report transmittal

Enclosure

Technical Services Department
1401 Lakeside Drive, Oakland, California 94612-4305
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GROUNDWATER MONITORING REPORT
THIRD QUARTER, 2002
ALCOPARK FUELING FACILITY
OAKLAND, CALIFORNIA

Prepared for

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

Prepared by

Professional Service Industries, Inc.
4703 Tidewater Avenue, Suite B
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(510) 434-9200

August 13, 2002
575-0G041

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STATEMENT OF LIMITATIONS AND PROFESSIONAL CERTIFICATION

Information provided in this report, prepared by Professional Service Industries, Inc. (PSI), is intended exclusively for the use of Alameda County General Services Agency (AGSA), for the evaluation of subsurface conditions as it pertains to the subject site. The professional services provided have been performed in accordance with practices generally accepted by other geologists, hydrologists, hydrogeologists, engineers, and environmental scientists practicing in this field. No other warranty, either expressed or implied, is made. As with all subsurface investigations, there is no guarantee that the work conducted will identify any or all sources or locations of contamination.

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

Frank R. Poss, REA
Senior Hydrogeologist

Chris Merritt

Chris Merritt, RG
Project Geologist

1. INTRODUCTION

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

The groundwater monitoring was prompted by a request by the Alameda County Health Care Services Agency (ACHCSA), which requested additional information on the extent of petroleum hydrocarbon impacted groundwater (ACHCSA, 1997a).

1.1 SCOPE OF WORK

The scope of work consisted of the following tasks:

- Measure the depth to water in the site wells 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 conclusions regarding the site condition.

1.2 SITE BACKGROUND

GSA operates two 10,000-gallon USTs to fuel County vehicles. Three groundwater monitoring wells were installed at the Alcopark fueling station 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 in the groundwater. Subsequent sample results indicated the presence of TPH-G. Based on the analytical data, it was surmised that contaminants detected on-site were emanating from a source area located upgradient of the site. Sampling activities were halted in 1992 pending investigation of an upgradient source (GSA, 1997).

By letter dated May 30, 1997, the ACHCSA instructed GSA to resume groundwater monitoring at Alcopark (ACHCSA, 1997b). Sampling resumed in July 1997. Analytical data from that sampling event indicated elevated TPH-G and BTEX concentrations in the downgradient well. MTBE was also detected. Additional samples collected in October

1997 provided similar results (GSA, 1997). By a letter dated September 11, 1997, the HCSA directed GSA to investigate the extent and stability of the plume.

To better define groundwater conditions downgradient of the UST, two borings were drilled on March 23, 1998. A grab groundwater sample was collected from one of the borings, and Well MW-6 was installed in the other boring. One more small diameter groundwater monitoring well (MW-7) was installed by PSI in September 1999 and the analytical results are presented in the PSI's report dated October 14, 1999.

1.2.1 Storage Tank System Upgrades

In September of 1992, overfill 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 (GSA, 1997).

2. GROUNDWATER MONITORING ACTIVITIES

A PSI representative performed groundwater-monitoring activities on July 19, 2002. The activities were performed in accordance with PSI standard procedures presented in Appendix A, and procedures described in a ACHCSA letter describing collection of samples without purging the wells (ACHCSA, 1997a).

2.1 Groundwater Elevation and Flow Direction

Prior to groundwater sampling, depth to groundwater was measured from the top of the well casings in each monitoring well. The groundwater measurements were converted to groundwater elevation and the data plotted on a groundwater elevation map. A groundwater elevation map was prepared for July 19, 2002. The map is presented as Figure 2. The groundwater elevation data are presented in Table 1 and Appendix A.

Interpretation of the groundwater elevation map indicates the groundwater is flowing to the east under a hydraulic gradient of 0.004. The flow direction is consistent with the measured flow direction in previous quarterly monitoring events. Groundwater elevation is generally lower than the previous quarter.

2.2 Groundwater Sampling

Monitoring wells MW-1, MW-6, and MW-7 were sampled without purging, as requested in the ACHCSA letter dated September 11, 1997. The groundwater samples were collected with disposable polyethylene tubing equipped with a check valve. The groundwater samples were collected according to PSI's standard protocol, included in Appendix A and were stored in an iced cooler at 4 degrees Celsius and maintained under Chain-of-Custody protocol.

To minimize the possibility of cross-contamination between sampling locations, most of the sampling equipment used is disposable. 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 use in the next well.

3. LABORATORY ANALYSIS PROGRAM

The groundwater samples collected during this investigation were submitted to McCampbell Analytical, Inc. of Pacheco, California. McCampbell Analytical is a State of California Department of Health Services certified hazardous waste laboratory (Environmental Laboratory Accreditation Program [ELAP] #1644). A summary of the analytical methods is presented below.

The groundwater samples collected at the site this quarter were analyzed for the following constituents by the indicated methods:

- Total Petroleum Hydrocarbons as Gasoline (TPH-G) in accordance with Environmental Protection Agency (EPA) Method 8015-Modified.
- Volatile Organic Compounds by EPA Method 8260.

The samples were transported to the laboratory under Chain-of-Custody protocol. Copies of the chain of custody forms are included in Appendix B.

3.1 ANALYTICAL RESULTS

The groundwater samples were collected and chemically analyzed in accordance with the analytical method requirements. The analytical data is summarized in Table 1. Laboratory reports are presented in Appendix B.

TPH-G, VOCs and/or MTBE were detected in groundwater samples from all groundwater-monitoring wells sampled for this monitoring event.

- TPH-G was detected only in Wells MW-1 (180 ug/l) and MW-6 (1,800 ug/l).
- Benzene was detected in Wells MW-1 (28 ug/l) and MW-6 (1,400 ug/l). The benzene concentrations have decreased in MW-1 and increased in MW-6 since the previous sampling event. 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 (800 ug/l) and MW-7 (300 ug/l). The MTBE concentrations have increased since the previous sampling event. Figure 4 depicts the ~~benzene~~ MTBE concentration with time in MW-1, MW-6, and MW-7. MTBE concentrations have generally declined at the site since groundwater monitoring commenced.

- Additional VOCs were detected in the groundwater samples. The VOCs detected are commonly associated with gasoline impacted groundwater. The groundwater sample with the maximum VOC concentration detected is presented below.

  - Naphthalene at 20 ug/L in MW-1
  - 1,2,4 Trimethylbenzene at 2 ug/L in MW-1
  - Xylenes at 6.8 ug/L in MW-1
  - Tert-Amyl methyl ether (TAME) at 130 ug/L in MW-6
  - 2-Butanone (Methyl Ethyl Ketone) at 23 ug/L in MW-7

4. CONCLUSIONS

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

- Groundwater elevation at the site ranges from approximately 14.83 to 14.97 feet above msl.
- Groundwater flow direction is to the east with a gradient of 0.004.
- The groundwater sample collected from wells MW-1, MW-6 and/or MW-7 contained measurable concentrations of TPH- and VOCs with MTBE and benzene being the primary contaminants of concern. Concentrations are generally higher than the previous sampling event in MW-6 and MW-7 and lower in MW-1.

REFERENCES

GSA, 1997, Request For Proposal (RFP) for Groundwater Services, December 2.

HCSA, 1997a, Workplan Request Letter to Mr. Rodman Freitag, September 11.

HCSA, 1997b, Continuation of Groundwater Monitoring Request, Letter to Mr. Jim DeVos, May 20.

HCSA, 1998, Quarterly Groundwater Monitoring Report Approval Letter, June 22.

Lawrence Livermore National Laboratory, 1995a, *Recommendations to Improve the Cleanup Process for California's Leaking Underground Fuel Tanks*, prepared for California State Water Resources Control Board, October 16.

Lawrence Livermore National Laboratory, 1995b, *California Leaking Underground Fuel Tank Historical Case Analyses*, prepared for California State Water Resources Control Board, November 16.

Lawrence Livermore National Laboratory, 1998, An Evaluation of MTBE Impacts to California Groundwater Resources, prepared for California State Water Resources Control Board, June 11.

Personal Communication, 1998, Mr. Rod Freitag of the Alameda General Services Agency, Discussion of the leak detection system at the Alcopark facility, April 15.

PSI, 2000, Quarterly Report, Alcopark Fueling Facility, prepared for Alameda GSA March 15, 2001.

USGS, 1980, Oakland West, California, topographic map.

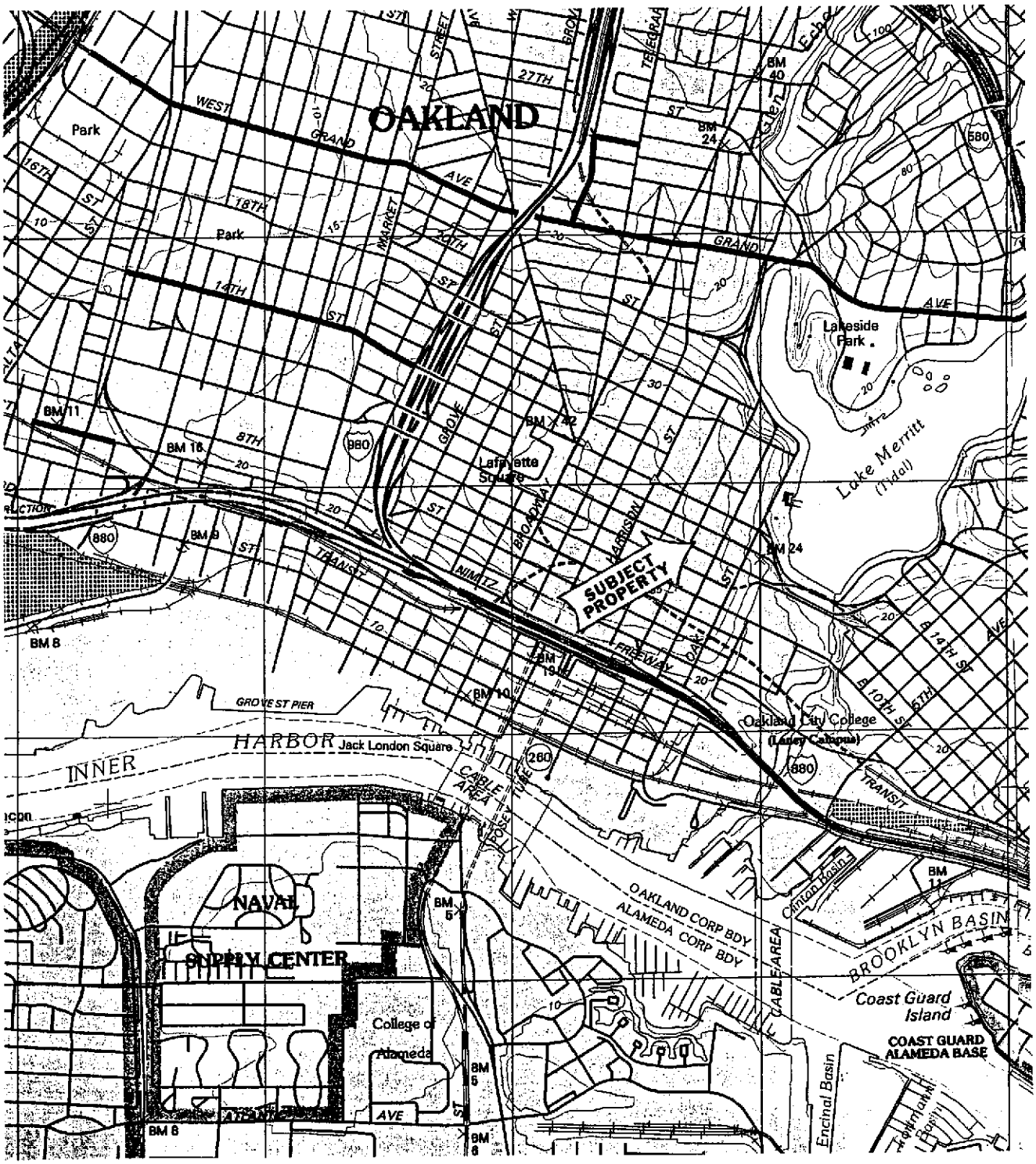
TABLE 1
GROUNDWATER ELEVATION AND ANALYTICAL DATA, SITE NO. 2
ALCOPARK FUELING FACILITY
OAKLAND, CALIFORNIA

All concentrations in ug/l (PPB).								
Well	Date	Groundwater Elevation	TPH-G	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
W-MW1	3/21/89	12.2	ND	NA	21	3.9	0.4	4.5
W-MW1	7/26/90	12.3	1,400	NA	200	45	ND	53
W-MW1	10/25/90	12.1	1,200	NA	ND	7.3	2.2	46
W-MW1	1/25/91	11.9	270	NA	23	1.5	ND	3.1
W-MW1	4/25/91	11.8	230	NA	ND	ND	ND	ND
W-MW1	8/27/91	11.8	8,300	NA	370	64	ND	120
W-MW1	11/25/91	11.7	810	NA	9.3	ND	7.8	32
W-MW1	6/11/92	12.85	2,600	NA	810	16	21	42
W-MW1	7/16/97	14.36	19,000	ND (150)	1,400	2,800	500	2,600
W-MW1	10/21/97	13.92	14,000	29	1,200	1,000	590	2,800
W-MW1	3/11/98	17.14	NS	NS	NS	NS	NS	NS
W-MW1	4/1/98	17.14	ND (50)	6.3	5.4	ND (0.5)	ND (0.5)	0.82
W-MW1	7/15/98	16.41	71	57	31	ND (0.5)	ND (0.5)	3.1
W-MW1	10/22/98	15.62	5,100	360	520	140	250	950
W-MW1	9/9/99	15.42	2,400	400	680	140	130	370
W-MW1	1/18/00	14.49	4,100	180	420	11	210	350
W-MW1	5/4/00	16.19	NS	NS	NS	NS	NS	NS
W-MW1	8/22/00	15.34	9,400	410	1,200	130	410	920
W-MW1	2/8/01	14.53	NS	NS	NS	NS	NS	NS
W-MW1	7/20/01	14.60	9,600	ND (50)	1,000	300	350	2,000
W-MW1	2/18/02	15.08	1,500	ND (100)	260	6.5	2.8	49
W-MW1	7/19/02	14.84	180	28	68	ND (1.7)	ND (1.7)	6.8
W-MW4	3/21/89	12.4	ND	NA	13	1.4	1.0	ND
W-MW4	7/26/90	12.5	NA	NA	0.8	ND	ND	ND
W-MW4	10/25/90	12.2	NA	NA	120	1.2	1.1	0.9
W-MW4	1/25/91	12.0	NA	NA	230	2.8	1.2	2.0
W-MW4	4/25/91	13.0	170	NA	12	ND	ND	2.3
W-MW4	8/27/91	11.8	ND	NA	87	1.3	0.8	0.8
W-MW4	11/25/91	11.8	1,400	NA	ND	1.7	8.6	3.6
W-MW4	6/11/92	12.93	560	NA	150	1.8	1.8	1.1
W-MW4	7/16/97	14.46	50	ND	ND	ND	ND	ND
W-MW4	10/21/97	14.10	ND	ND	ND	ND	ND	ND
W-MW4	3/11/98	17.39	NS	NS	NS	NS	NS	NS
W-MW4	4/1/98	17.40	ND (50)	ND (5.0)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
W-MW4	7/15/98	16.92	ND (50)	ND (5.0)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
W-MW4	10/22/98	15.75	ND (50)	ND (5.0)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
W-MW4	9/9/99	15.57	NS	NS	NS	NS	NS	NS
W-MW4	1/18/00	14.32	NS	NS	NS	NS	NS	NS
W-MW4	5/4/00	16.34	NS	NS	NS	NS	NS	NS
W-MW4	8/22/00	15.47	NS	NS	NS	NS	NS	NS
W-MW4	2/8/01	14.73	NS	NS	NS	NS	NS	NS
W-MW4	7/20/01	14.72	NS	NS	NS	NS	NS	NS
W-MW4	2/18/02	15.05	NS	NS	NS	NS	NS	NS
W-MW4	7/19/02	14.97	NS	NS	NS	NS	NS	NS
W-MW5	3/21/89	12.2	ND	NA	ND	ND	ND	ND
W-MW5	7/26/90	12.4	670	NA	0.8	ND	ND	ND
W-MW5	10/25/90	12.1	120	NA	13	ND	ND	ND
W-MW5	1/25/91	11.9	120	NA	3.2	ND	ND	ND
W-MW5	4/25/91	12.3	ND	NA	ND	ND	ND	ND
W-MW5	8/27/91	11.5	ND	NA	20	ND	0.5	ND
W-MW5	11/25/91	11.7	190	NA	2.7	ND	0.8	2.5
W-MW5	6/11/92	12.85	150	NA	37	ND	ND	ND
W-MW5	7/16/97	14.33	ND	22	ND	ND	ND	ND
W-MW5	10/21/97	13.88	ND	14	ND	ND	ND	ND
W-MW5	3/11/98	17.14	NS	NS	NS	NS	NS	NS

TABLE 1
GROUNDWATER ELEVATION AND ANALYTICAL DATA, SITE NO. 2
ALCOPARK FUELING FACILITY
OAKLAND, CALIFORNIA

All concentrations in ug/l (PPB).								
Well	Date	Groundwater Elevation	TPH-G	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
W-MW5	4/1/98	17.14	ND (50)	11	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
W-MW5	7/15/98	16.43	ND (50)	ND (5.0)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
W-MW5	10/22/98	15.60	ND (50)	ND (5.0)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
W-MW5	9/9/99	15.44	NS	NS	NS	NS	NS	NS
W-MW5	1/18/00	14.67	NS	NS	NS	NS	NS	NS
W-MW5	5/4/00	16.18	NS	NS	NS	NS	NS	NS
W-MW5	8/22/00	15.32	NS	NS	NS	NS	NS	NS
W-MW5	2/8/01	14.53	NS	NS	NS	NS	NS	NS
W-MW5	7/20/01	14.59	NS	NS	NS	NS	NS	NS
W-MW5	2/18/02	14.94	NS	NS	NS	NS	NS	NS
W-MW5	7/19/02	14.83	NS	NS	NS	NS	NS	NS
W-MW6	4/1/98	NA	740	4,600	9.8	3.2	3.0	15
W-MW6	7/15/98	NA	6,200	11,000	280	43	180	350
W-MW6	7/15/98	NA	NA	13,000	ND (500)	ND (500)	ND (500)	ND (500)
W-MW6	10/22/98	NA	4,700	9,600	450	13	200	200
W-MW6	10/22/98	NA	NA	9,100	470	ND (250)	ND (250)	ND (250)
W-MW6	9/9/99	NA	6,600	3,700	2,500	43	310	250
W-MW6	1/18/00	NA	3,500	4,600	800	ND (5.0)	40	13
W-MW6	5/4/00	NA	NS	NS	NS	NS	NS	NS
W-MW6	8/22/00	NA	1,400	1,700	370	4.8	12	35
W-MW6	2/8/01	NA	NS	NS	NS	NS	NS	NS
W-MW6	7/20/01	NA	1,100	800	240	2.9	2.3	3.4
W-MW6	2/18/02	NA	1,500	570	260	ND (2.0)	11	4.3
W-MW6	7/19/02	NA	1,800	800	1400	ND (50)	ND (50)	ND (50)
W-MW7	9/9/99	NA	92	1,200	1.6	ND (0.5)	ND (0.5)	ND (0.5)
W-MW7	1/18/00	NA	ND	2,100	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
W-MW7	5/4/00	NA	140	1,100	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
W-MW7	8/22/00	NA	160	830	0.62	ND (0.5)	ND (0.5)	ND (0.5)
W-MW7	2/8/01	NA	130	650	ND (0.5)	0.53	ND (0.5)	ND (0.5)
W-MW7	7/20/01	NA	56	400	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
W-MW7	2/18/02	NA	ND (50)	200	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
W-MW7	7/19/02	NA	ND (50)	300	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
W-B1	3/23/98	NA	3,100	4,200	250	18	160	290

Notes:
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.
Duplicate results presented in italics performed by EPA method 8260.



Environmental Geotechnical Construction
Consulting • Engineering • Testing

1320 West Winton
Hayward, CA 94545
510-785-1111
Fax 510-785-1192

FIGURE 1 - SITE LOCATION MAP

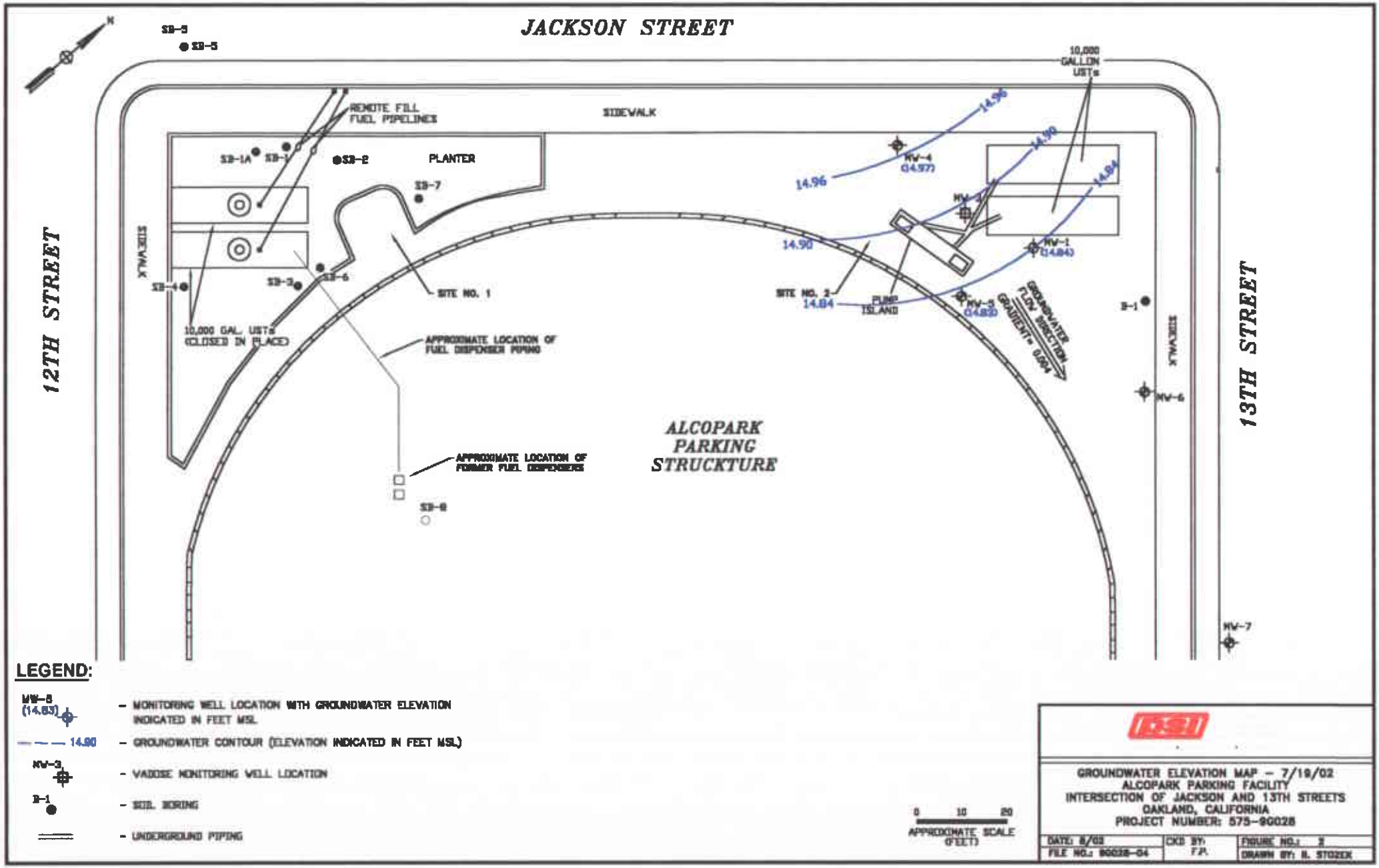
Former Alcopark Fueling Facility
Jackson and 12th Streets
Oakland, California

PROJECT NO.:
9G004

SOURCE:
USGS Topographic Maps
Oakland West, CA
Oakland East, CA

DATE:
Photorevised 1993

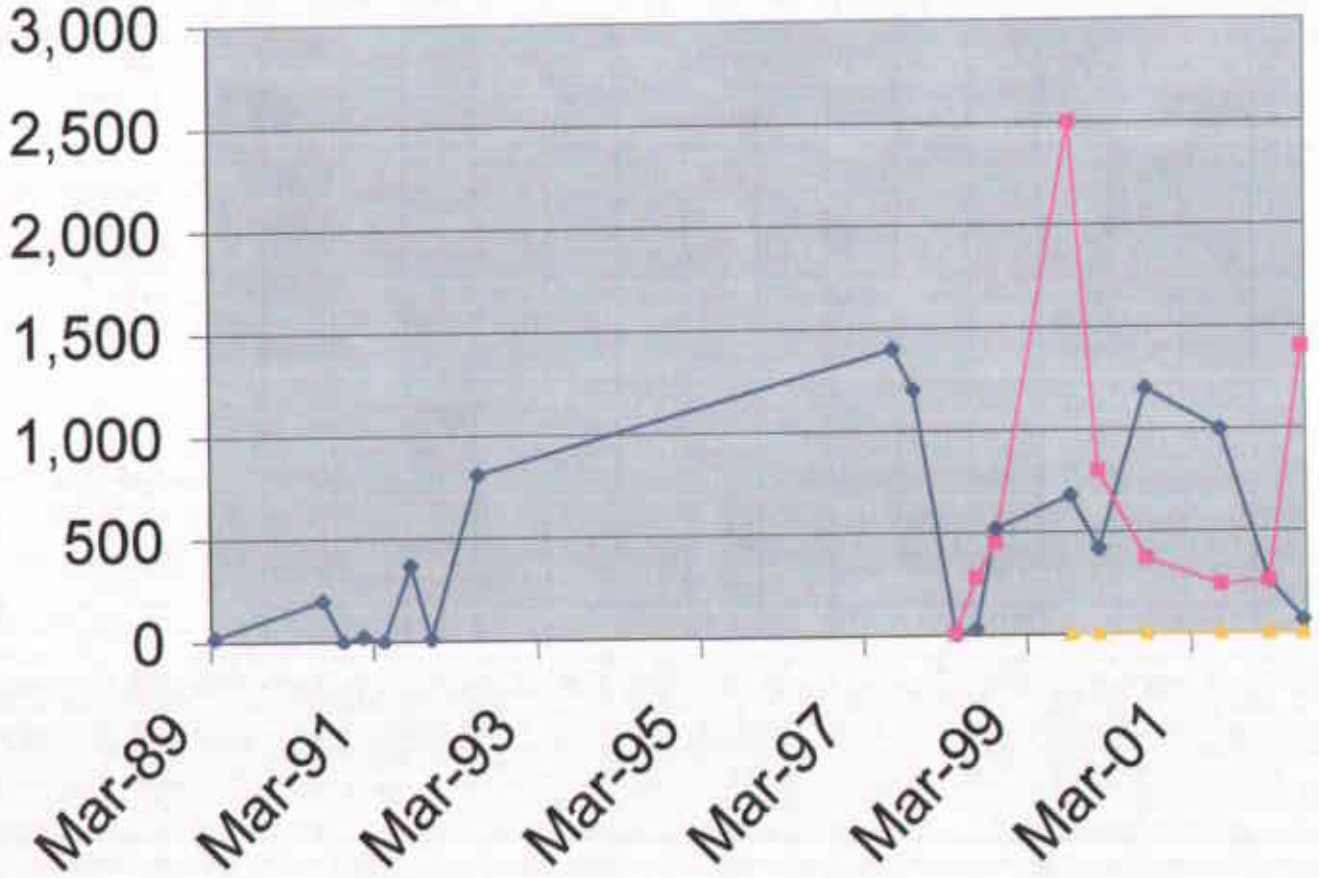
N



GROUNDWATER ELEVATION MAP – 7/19/02
ALCOPARK PARKING FACILITY
INTERSECTION OF JACKSON AND 13TH STREETS
OAKLAND, CALIFORNIA
PROJECT NUMBER: 575-90028

DATE: 8/02	CKD BY: F.P.	FIGURE NO.: 2
FILE NO.: 90028-04		DRAWN BY: H. STOZEK

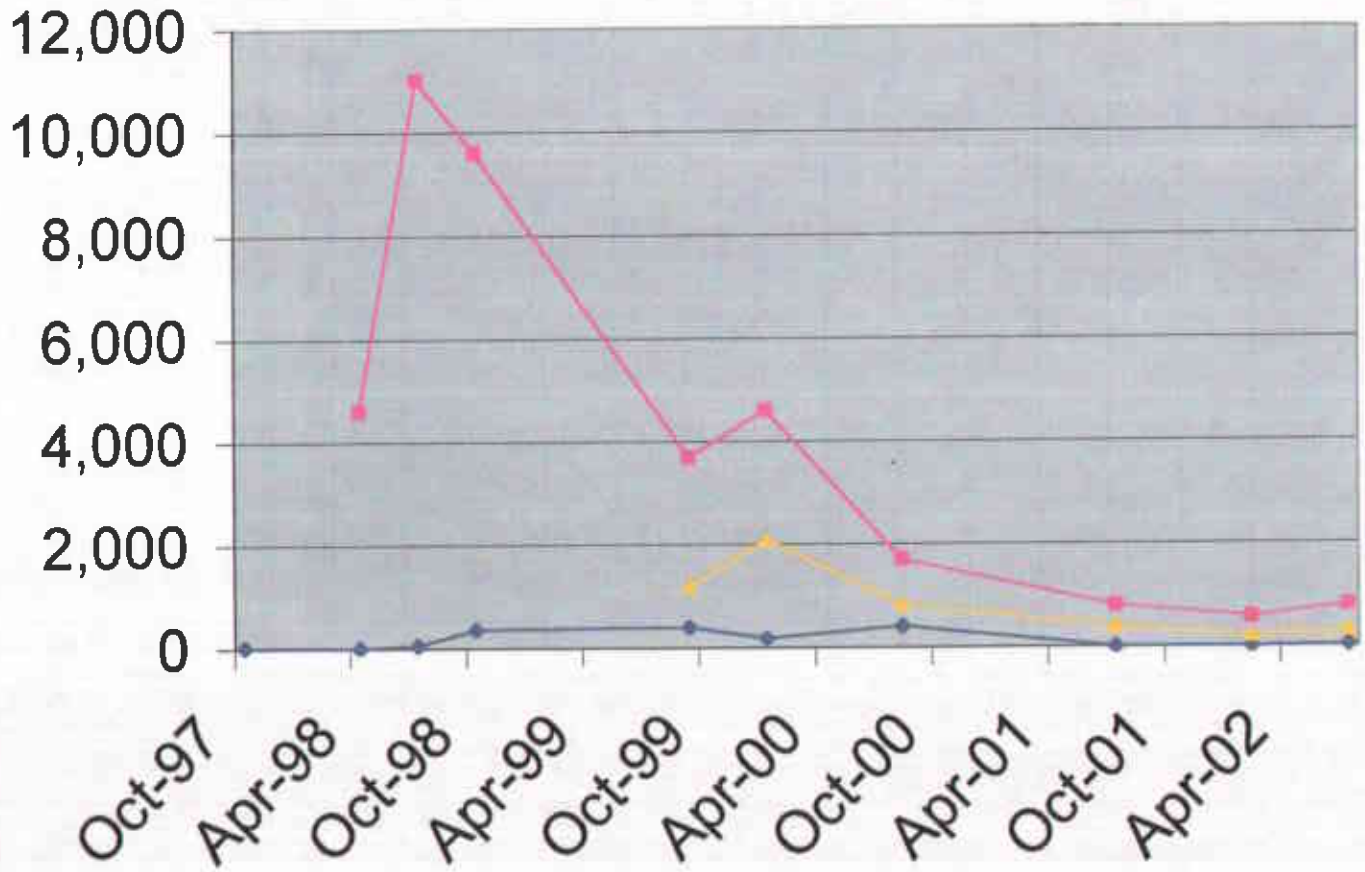
Benzene Concentrations (ug/L)



BENZENE VS. TIME
ALCOPARK PARKING FACILITY
INTERSECTION OF JACKSON AND 13TH STREETS
OAKLAND, CALIFORNIA
PROJECT NUMBER: 575-90028

DATE: 6/02	CKD BY: F.P.	FIGURE NO.: 3
FILE NO.: 90028-08		DRAWN BY: S. STOZEK

MTBE Concentrations (ug/L)



MTBE VS. TIME
ALCOPARK PARKING FACILITY
INTERSECTION OF JACKSON AND 13TH STREETS
OAKLAND, CALIFORNIA
PROJECT NUMBER: 575-90028

DATE: 6/02 | CKD BY: F.P. | FIGURE NO.: 4
FILE NO.: 90028-08 | DRAWN BY: S. STOZEK

APPENDIX A

GROUNDWATER SAMPLING FIELD PROCEDURES & WATER ELEVATIONS

APPENDIX A

GROUND-WATER SAMPLING

The following procedures will be used for ground water sampling:

1. All equipment shall be washed prior to entering the well with an Alconox solution, followed by two tap water rinses and a deionized water rinse.

2. Prior to purging wells, depth-to-water will be measured using an electronic sounder with an accuracy of approximately 0.01 foot. The measurements will be made to the top of the well casing on the north side.

4. Free floating product thickness and depth-to-ground water will be measured in wells containing free floating product using a Solinst oil-water interface probe to an accuracy of approximately 0.003 meters (0.01 foot). The measurements will be made to the top of the well casing on the north side.

5. Water samples will be collected with a Teflon disposable bailer. In the case of grab groundwater sampling, samples will be collected with a disposable Teflon lined plastic tube equipped with a check valve. The water collected will be immediately decanted into laboratory-supplied vials and bottles. The containers will be overfilled, capped, labeled, and placed in a chilled cooler, prior to delivery to the laboratory for analysis.

6. Chain of custody procedures, including chain of custody forms, will be used to document water sample handling and transport from collection to delivery to the laboratory for analysis.

7. Ground-water samples will be delivered to a State-certified hazardous waste laboratory within approximately 24 hours of collection.

FLUID MEASUREMENT FIELD DATA

SHEET: 1 OF 1

DATE: 7/19/02 | PROJECT NAME: ALAMEDA GSA - ALCO PARK | PROJECT NO:

WATER LEVEL MEASUREMENT INSTRUMENT: SOLINST | SERIAL NO:

PRODUCT DETECTION INSTRUMENT: | SERIAL NO:

EQUIP. DECON: ☒ ALCONOX WASH ☐ DIST/DEION 1 RINSE ☐ ISOPROPANOL ☐ ANALYTE FREE FINAL RINSE ☐ TAP WATER FINAL RINSE

☐ TAP WATER WASH ☐ LIQUINOX WASH ☒ DIST/DEION 2 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE ☐ AIR DRY

WELL NUMBER	GROUND SURFACE ELEVATION	TOP OF CASING ELEVATION	DEPTH TO PRODUCT BELOW TOC	DEPTH TO WATER BELOW TOC	WELL DEPTH BELOW TOC	PRODUCT THICKNESS	WATER TABLE ELEVATION	ACTUAL TIME	
MW-1				18.16				1534	S 1545
MW-4				18.66				1531	
MW-5				16.14				1536	
MW-6									
MW-7									S 1606

REMEMBER TO CORRECT PRODUCT THICKNESS FOR DENSITY BEFORE CALCULATING WATER TABLE ELEVATION

PREPARED BY:

PSI
Rev. 12/95

APPENDIX B

LABORATORY REPORT AND CHAIN OF CUSTODY

McCampbell Analytical Inc.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

Professional Service Industries 4703 Tidewater Ave., Suite B Oakland, CA 94601	Client Project ID: Alco Park	Date Sampled: 07/19/02
		Date Received: 07/19/02
	Client Contact: Chris Merritt	Date Reported: 08/09/02
	Client P.O.:	Date Completed: 08/09/02

August 09, 2002

Dear Chris:

Enclosed are:

1). the results of **3** samples from your **Alco Park project,**

2). a QC report for the above samples

3). a copy of the chain of custody, and

4). a bill 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 please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Angela Rydelius, Lab Manager

McCampbell Analytical Inc.
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Professional Service Industries	Client Project ID: Alco Park	Date Sampled: 07/19/02
4703 Tidewater Ave., Suite B		Date Received: 07/19/02
Oakland, CA 94601	Client Contact: Chris Merritt	Date Extracted: 08/05/02-08/06/02
	Client P.O.:	Date Analyzed: 08/05/02-08/06/02

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0207276

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001B	MW-1	W	180,a	17	41	0.79	0.57	6.3	1	98.0
002B	MW-6	W	1800,a	550	740	5.7	8.7	13	10	99.4
003B	MW-7	W	ND	180	ND	ND	ND	ND	1	98.5
Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	ug/L		
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg		

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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Professional Service Industries	Client Project ID: Alco Park	Date Sampled: 07/19/02
4703 Tidewater Ave., Suite B		Date Received: 07/19/02
Oakland, CA 94601	Client Contact: Chris Merritt	Date Extracted: 07/24/02
	Client P.O.:	Date Analyzed: 07/24/02

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

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0207276

Lab ID	0207276-001A
Client ID	MW-1
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND<17	3.3	5.0	tert-Amyl methyl ether (TAME)	3.6	3.3	0.5
Benzene	68	3.3	0.5	Bromobenzene	ND<1.7	3.3	0.5
Bromochloromethane	ND<1.7	3.3	0.5	Bromodichloromethane	ND<1.7	3.3	0.5
Bromoform	ND<1.7	3.3	0.5	Bromomethane	ND<1.7	3.3	0.5
2-Butanone (MEK)	ND<3.3	3.3	1.0	t-Butyl alcohol (TBA)	ND<17	3.3	5.0
n-Butyl benzene	ND<1.7	3.3	0.5	sec-Butyl benzene	ND<1.7	3.3	0.5
tert-Butyl benzene	ND<1.7	3.3	0.5	Carbon Disulfide	ND<1.7	3.3	0.5
Carbon Tetrachloride	ND<1.7	3.3	0.5	Chlorobenzene	ND<1.7	3.3	0.5
Chloroethane	ND<1.7	3.3	0.5	2-Chloroethyl Vinyl Ether	ND<3.3	3.3	1.0
Chloroform	ND<1.7	3.3	0.5	Chloromethane	ND<1.7	3.3	0.5
2-Chlorotoluene	ND<1.7	3.3	0.5	4-Chlorotoluene	ND<1.7	3.3	0.5
Dibromochloromethane	ND<1.7	3.3	0.5	1,2-Dibromo-3-chloropropane	ND<3.3	3.3	1.0
1,2-Dibromoethane (EDB)	ND<1.7	3.3	0.5	Dibromomethane	ND<1.7	3.3	0.5
1,2-Dichlorobenzene	ND<1.7	3.3	0.5	1,3-Dichlorobenzene	ND<1.7	3.3	0.5
1,4-Dichlorobenzene	ND<1.7	3.3	0.5	Dichlorodifluoromethane	ND<1.7	3.3	0.5
1,1-Dichloroethane	ND<1.7	3.3	0.5	1,2-Dichloroethane (1,2-DCA)	ND<1.7	3.3	0.5
1,1-Dichloroethene	ND<1.7	3.3	0.5	cis-1,2-Dichloroethene	ND<1.7	3.3	0.5
trans-1,2-Dichloroethene	ND<1.7	3.3	0.5	1,2-Dichloropropane	ND<1.7	3.3	0.5
1,3-Dichloropropane	ND<1.7	3.3	0.5	2,2-Dichloropropane	ND<1.7	3.3	0.5
1,1-Dichloropropene	ND<1.7	3.3	0.5	cis-1,3-Dichloropropene	ND<1.7	3.3	0.5
trans-1,3-Dichloropropene	ND<1.7	3.3	0.5	Diisopropyl ether (DIPE)	ND<1.7	3.3	0.5
Ethylbenzene	ND<1.7	3.3	0.5	Ethyl tert-butyl ether (ETBE)	ND<1.7	3.3	0.5
Hexachlorobutadiene	ND<17	3.3	5.0	2-Hexanone	ND<1.7	3.3	0.5
Iodomethane (Methyl iodide)	ND<1.7	3.3	0.5	Isopropylbenzene	ND<1.7	3.3	0.5
4-Isopropyl toluene	ND<1.7	3.3	0.5	Methyl-t-butyl ether (MTBE)	28	3.3	0.5
Methylene chloride	ND<1.7	3.3	0.5	4-Methyl-2-pentanone (MIBK)	ND<1.7	3.3	0.5
Naphthalene	20	3.3	5.0	n-Propyl benzene	ND<1.7	3.3	0.5
Styrene	ND<1.7	3.3	0.5	1,1,1,2-Tetrachloroethane	ND<1.7	3.3	0.5
1,1,2,2-Tetrachloroethane	ND<1.7	3.3	0.5	Tetrachloroethene	ND<1.7	3.3	0.5
Toluene	ND<1.7	3.3	0.5	1,2,3-Trichlorobenzene	ND<1.7	3.3	0.5
1,2,4-Trichlorobenzene	ND<1.7	3.3	0.5	1,1,1-Trichloroethane	ND<1.7	3.3	0.5
1,1,2-Trichloroethane	ND<1.7	3.3	0.5	Trichloroethene	ND<1.7	3.3	0.5
Trichlorofluoromethane	ND<1.7	3.3	0.5	1,2,3-Trichloropropane	ND<1.7	3.3	0.5
1,2,4-Trimethylbenzene	2.0	3.3	0.5	1,3,5-Trimethylbenzene	ND<1.7	3.3	0.5
Vinyl Acetate	ND<17	3.3	5.0	Vinyl Chloride	ND<1.7	3.3	0.5
Xylenes	6.8	3.3	0.5				

Surrogate Recoveries (%)

%SS1:	105	%SS2:	99.0
%SS3:	103		

Comments:

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in ug/kg, wipe samples in ug/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.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) sample diluted due to high organic content.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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Professional Service Industries	Client Project ID: Alco Park	Date Sampled: 07/19/02
4703 Tidewater Ave., Suite B		Date Received: 07/19/02
Oakland, CA 94601	Client Contact: Chris Merritt	Date Extracted: 07/24/02
	Client P.O.:	Date Analyzed: 07/24/02

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

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 0207276

Lab ID	0207276-002A
Client ID	MW-6
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND<1000	100	5.0	tert-Amyl methyl ether (TAME)	130	100	0.5
Benzene	1400	100	0.5	Bromobenzene	ND<50	100	0.5
Bromochloromethane	ND<50	100	0.5	Bromodichloromethane	ND<50	100	0.5
Bromoform	ND<50	100	0.5	Bromomethane	ND<50	100	0.5
2-Butanone (MEK)	ND<100	100	1.0	t-Butyl alcohol (TBA)	ND<500	100	5.0
n-Butyl benzene	ND<50	100	0.5	sec-Butyl benzene	ND<50	100	0.5
tert-Butyl benzene	ND<50	100	0.5	Carbon Disulfide	ND<50	100	0.5
Carbon Tetrachloride	ND<50	100	0.5	Chlorobenzene	ND<50	100	0.5
Chloroethane	ND<50	100	0.5	2-Chloroethyl Vinyl Ether	ND<100	100	1.0
Chloroform	ND<50	100	0.5	Chloromethane	ND<50	100	0.5
2-Chlorotoluene	ND<50	100	0.5	4-Chlorotoluene	ND<50	100	0.5
Dibromochloromethane	ND<50	100	0.5	1,2-Dibromo-3-chloropropane	ND<100	100	1.0
1,2-Dibromoethane (EDB)	ND<50	100	0.5	Dibromomethane	ND<50	100	0.5
1,2-Dichlorobenzene	ND<50	100	0.5	1,3-Dichlorobenzene	ND<50	100	0.5
1,4-Dichlorobenzene	ND<50	100	0.5	Dichlorodifluoromethane	ND<50	100	0.5
1,1-Dichloroethane	ND<50	100	0.5	1,2-Dichloroethane (1,2-DCA)	ND<50	100	0.5
1,1-Dichloroethene	ND<50	100	0.5	cis-1,2-Dichloroethene	ND<50	100	0.5
trans-1,2-Dichloroethene	ND<50	100	0.5	1,2-Dichloropropane	ND<50	100	0.5
1,3-Dichloropropane	ND<50	100	0.5	2,2-Dichloropropane	ND<50	100	0.5
1,1-Dichloropropene	ND<50	100	0.5	cis-1,3-Dichloropropene	ND<50	100	0.5
trans-1,3-Dichloropropene	ND<50	100	0.5	Diisopropyl ether (DIPE)	ND<50	100	0.5
Ethylbenzene	ND<50	100	0.5	Ethyl tert-butyl ether (ETBE)	ND<50	100	0.5
Hexachlorobutadiene	ND<500	100	5.0	2-Hexanone	ND<50	100	0.5
Iodomethane (Methyl iodide)	ND<50	100	0.5	Isopropylbenzene	ND<50	100	0.5
4-Isopropyl toluene	ND<50	100	0.5	Methyl-t-butyl ether (MTBE)	800	100	0.5
Methylene chloride	ND<50	100	0.5	4-Methyl-2-pentanone (MIBK)	ND<50	100	0.5
Naphthalene	ND<500	100	5.0	n-Propyl benzene	ND<50	100	0.5
Styrene	ND<50	100	0.5	1,1,1,2-Tetrachloroethane	ND<50	100	0.5
1,1,2,2-Tetrachloroethane	ND<50	100	0.5	Tetrachloroethene	ND<50	100	0.5
Toluene	ND<50	100	0.5	1,2,3-Trichlorobenzene	ND<50	100	0.5
1,2,4-Trichlorobenzene	ND<50	100	0.5	1,1,1-Trichloroethane	ND<50	100	0.5
1,1,2-Trichloroethane	ND<50	100	0.5	Trichloroethene	ND<50	100	0.5
Trichlorofluoromethane	ND<50	100	0.5	1,2,3-Trichloropropane	ND<50	100	0.5
1,2,4-Trimethylbenzene	ND<50	100	0.5	1,3,5-Trimethylbenzene	ND<50	100	0.5
Vinyl Acetate	ND<500	100	5.0	Vinyl Chloride	ND<50	100	0.5
Xylenes	ND<50	100	0.5				

Surrogate Recoveries (%)

%SS1:	99.5	%SS2:	102
%SS3:	110		

Comments:

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in ug/kg, wipe samples in ug/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.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) sample diluted due to high organic content.

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Professional Service Industries	Client Project ID: Alco Park	Date Sampled: 07/19/02
4703 Tidewater Ave., Suite B		Date Received: 07/19/02
Oakland, CA 94601	Client Contact: Chris Merritt	Date Extracted: 07/24/02
	Client P.O.:	Date Analyzed: 07/24/02

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

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 0207276

Lab ID	0207276-003A
Client ID	MW-7
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND<100	10	5.0	tert-Amyl methyl ether (TAME)	12	10	0.5
Benzene	ND<5.0	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)	23	10	1.0	t-Butyl alcohol (TBA)	ND<50	10	5.0
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	2-Chloroethyl Vinyl Ether	ND<10	10	1.0
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<10	10	1.0
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)	ND<5.0	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
Ethylbenzene	ND<5.0	10	0.5	Ethyl tert-butyl ether (ETBE)	ND<5.0	10	0.5
Hexachlorobutadiene	ND<50	10	5.0	2-Hexanone	ND<5.0	10	0.5
Iodomethane (Methyl iodide)	ND<5.0	10	0.5	Isopropylbenzene	ND<5.0	10	0.5
4-Isopropyl toluene	ND<5.0	10	0.5	Methyl-t-butyl ether (MTBE)	300	10	0.5
Methylene chloride	ND<5.0	10	0.5	4-Methyl-2-pentanone (MIBK)	ND<5.0	10	0.5
Naphthalene	ND<50	10	5.0	n-Propyl benzene	ND<5.0	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	ND<5.0	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	ND<5.0	10	0.5	1,3,5-Trimethylbenzene	ND<5.0	10	0.5
Vinyl Acetate	ND<50	10	5.0	Vinyl Chloride	ND<5.0	10	0.5
Xylenes	ND<5.0	10	0.5				

Surrogate Recoveries (%)

%SS1:	104	%SS2:	102
%SS3:	111		

Comments:

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in ug/kg, wipe samples in ug/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.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) sample diluted due to high organic content.

DHS Certification No. 1644

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QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: W WorkOrder: 0207280

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 3065 Spiked Sample ID: 0207281-001A

Compound	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(gas)	ND	60	90.5	92.8	2.57	91.3	92.6	1.44	80	120
MTBE	ND	10	83.3	81.1	2.64	85.6	86.2	0.728	80	120
Benzene	ND	10	89	89	0.0279	86.7	87.2	0.639	80	120
Toluene	ND	10	95.1	96.4	1.39	91.6	93	1.52	80	120
Ethylbenzene	ND	10	97.5	98	0.486	95.7	96.3	0.649	80	120
Xylenes	ND	30	99	99	0	95	95.3	0.350	80	120
%SS:	98.6	100	99	98.7	0.351	97.1	98.3	1.13	80	120

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

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

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.

% 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.

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QC SUMMARY REPORT FOR SW8260B

Matrix: W WorkOrder: 0207276

EPA Method: SW8260B	Extraction: SW5030B	BatchID: 3086	Spiked Sample ID: N/A

Compound	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
Benzene	N/A	10	N/A	N/A	N/A	108	110	2.00	70	130
tert-Amyl methyl ether (TAME)	N/A	10	N/A	N/A	N/A	117	116	0.646	70	130
Chlorobenzene	N/A	10	N/A	N/A	N/A	109	112	3.17	70	130
1,1-Dichloroethene	N/A	10	N/A	N/A	N/A	78.7	82.8	5.05	70	130
Methyl-t-butyl ether (MTBE)	N/A	10	N/A	N/A	N/A	103	102	0.499	70	130
Toluene	N/A	10	N/A	N/A	N/A	117	121	2.89	70	130
Trichloroethene	N/A	10	N/A	N/A	N/A	76	78.9	3.77	70	130
Diisopropyl ether (DIPE)	N/A	10	N/A	N/A	N/A	120	121	0.443	70	130
Ethyl tert-butyl ether (ETBE)	N/A	10	N/A	N/A	N/A	115	116	0.120	70	130
%SS3:	N/A	100	N/A	N/A	N/A	104	104	0.200	70	130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

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

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.

% 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.

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CHAIN-OF-CUSTODY RECORD

WorkOrder: 0207276

Client:
Professional Service Industries
4703 Tidewater Ave., Suite B
Oakland, CA 94601

TEL: (510) 434-9200
FAX:
ProjectNo: Alco Park
PO:

19-Jul-02

Sample ID	ClientSampID	Matrix	Collection Date	Bottle	Requested Tests SW8260B
0207276-001	MW-1	Water	7/19/02 3:45:00 PM		A
0207276-002	MW-6	Water	7/19/02 4:25:00 PM		A
0207276-003	MW-7	Water	7/19/02 4:06:00 PM		A

Comments:

	Date/Time		Date/Time
Relinquished by:		**Received by:**	
Relinquished by:		**Received by:**	
Relinquished by:		**Received by:**	

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

Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

PSI

McCAMPBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #D7
PACHECO, CA 94553-5560
Telephone: (925) 798-1620 Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME: ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ■ 5 DAY

EDF Required? ■ Yes ☐ No

Added 7/25/02 per C.M.

Report To: CHRIS MERRITT Bill To: ROD FRIETAG \ ALAMEDA GSA

Company: PSI

E-Mail: CHRIS.MERRITT@PSIUSA.com

Tele: (510) 434-9200 Fax: (510) 434-7676

Project #: ~~ALCOPARK~~ Project Name: ALCOPARK

Project Location: OAKLAND

Sampler Signature: CHRIS MERRITT

SAMPLE ID (Field Point Name)	LOCATION	Sampling Date	Sampling Time	# Containers	Type Containers	Matrix: Water	Soil	Air	Sludge	Other	Method Preserved: Ice	HCl	HNO_3	Other	BTEX & TPH as Gas (602/8020 + 8015)/MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260 w/oxygenates	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other: pH	TSS	Specific Conductivity		Comments
+ MW-1		7/19/02	1545	4	VOA	X									X								X											
+5 MW-6		↓	1625	↓	↓	X									X								X											
+2 MW-7		↓	1606	↓	↓	X									X								X											

Relinquished By:	Date:	Time:	Received By:
CHRIS MERRITT	7/19/02	1719	Martin Valle
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ___

PRESERVATION | VOAS ✓ | O&G | METALS | OTHER
APPROPRIATE CONTAINERS ✓