

# Atlantic Richfield Company (a BP affiliated company)

P.O. Box 1257 San Ramon, California 94583

Phone: (925) 275-3801 Fax: (925) 275-3815

1 June 2009

10:41 am, Jun 03, 2009

**RECEIVED** 



Alameda County
Environmental Health

Re: Addendum to Soil & Ground-Water Investigation Work Plan

Former BP Service Station # 11102 100 MacArthur Boulevard

Oakland, California

ACEH Case #RO0000456

"I declare, that to the best of my knowledge at the present time, that the information and/or recommendations contained in the attached document are true and correct."

Submitted by:

Paul Supple

**Environmental Business Manager** 



1 June 2009

Project No. 06-88-643

Atlantic Richfield Company P.O. Box 1257 San Ramon, California 94583 Submitted via ENFOS

Attn.: Mr. Paul Supple

Re:

Addendum to Soil & Ground-Water Investigation Work Plan, Former BP Service

Station No.11102, 100 MacArthur Boulevard, Oakland, Alameda County,

California; ACEH Case No.RO0000456.

Dear Mr. Supple:

Provided herein is an addendum to the *Initial Site Conceptual Model with Soil & Ground-Water Investigation Work Plan* (herein referred to as the *Work Plan*) submitted to Alameda County Environmental Health (ACEH) by Broadbent and Associates, Inc. (BAI) on 9 April 2009. In response to the *Work Plan*, ACEH issued the 24 April 2009 letter with technical comments and a request for the submittal of a work plan addendum. A copy of this letter is attached. Each technical comment is addressed, in turn, in the following sections.

# Monitoring Well Construction and Hydrogeologic Setting

In the ACEH letter, concerns were expressed regarding the "excessive" screened intervals for proposed new monitoring wells MW-4 through MW-6. In an attempt to construct useful wells that would accommodate the seasonal and periodic fluctuations, BAI had proposed in the *Work Plan* screen intervals for each new well from 10 to 30 feet below ground surface (ft bgs). It is presently unknown with certainty what the depths to ground water are in the areas proposed for new wells MW-4 through MW-6. Depth to ground water at the Site has historically ranged from approximately eight to 17 ft bgs. Upon further review, including analysis of off-site wells owned by others and the geologic cross-sections discussed below, BAI now proposes that the screened intervals be targeted to extend from approximately 10 to 20 ft bgs. This change will be implemented during well installation activities. However, conditions encountered in the field will influence the final well construction details including the total depth and screen interval, with the primary objective of securing an adequate water column for monitoring/sampling throughout the year and the secondary objective of minimizing the screen length, so as not to connect separate water-bearing zones.

NEVADA

ARIZONA

**CALIFORNIA** 

TEXAS

# **Cross-Sections**

The creation of geologic cross-sections was requested by ACEH in their 24 April 2009 letter "to assist in identifying or justifying appropriate screened intervals for the proposed ground-water monitoring wells." Although previously constructed geologic cross-sections were provided within Appendix C of the *Work Plan*, new geologic cross-sections for the Site and vicinity are provided as attached Drawings 1-3. Several off-site monitoring wells and borings associated with the adjacent former Unocal Station No.1871 located at 96 MacArthur Boulevard were utilized to extend the geologic cross-sections off-site.

The subsurface lithology encountered beneath the majority of the Site and immediate vicinity consists mainly of silts and clays of relatively lower permeability. Several small and seemingly discrete layers of silty and clayey sands and gravels of relatively moderate permeability have been observed at various depths both on and offsite. A large layer of relatively moderately permeable soil has been observed from ground surface to an approximate total depth of 20 ft bgs near the base of the hill behind the station building. A small layer of sands and gravels of relatively higher permeability was observed within boring B-4 from approximately six to ten ft bgs.

# **TBA Iso-Concentration Map**

Due to elevated concentrations of tert-Butyl alcohol (TBA) detected in on-site wells, the ACEH requested in their 24 April 2009 letter that TBA concentrations be added on the figure depicting Gasoline Range Organics (GRO), Benzene, and Methyl tert-butyl ether (MTBE) concentrations associated with the Site. A revised Ground-Water Elevation Contour and Analytical Summary Map utilizing the data from First Quarter 2009, but including TBA concentrations, is provided as Drawing 4.

The ACEH also requested that "GRO, Benzene, MTBE, and TBA isoconcentration figures, which utilize aerial photographs as base maps" be included in all future reports. At the present time it is impractical to develop iso-concentration contour maps using concentrations from only the three current monitoring wells. Upon completion of well installation and ground-water monitoring activities at the proposed offsite monitoring wells, iso-concentration figures will be created and included in subsequent reports. However, it is cost-prohibitive to contract for an aerial survey that would have accurate horizontal control. In the *Work Plan*, BAI provided an aerial Area Development Photo taken from a common internet application to show the location of the Site within the surrounding vicinity. It is infeasible to utilize similar uncontrolled aerial photographs as base maps due to the inability to accurately manipulate the horizontal attributes and scales of aerial photographs. As proposed in the *Work Plan*, an accurate map of the Site and vicinity will be generated following survey activities associated with the installation of the proposed off-site wells.

# **Contaminant Concentrations Versus Time**

The ACEH requested in their letter dated 24 April 2009 that the contaminant concentrations in ground water versus time graphs submitted with the *Work Plan* be expanded to include ground-water elevation data. It was also requested that individual graphs for each well be produced and a graph depicting TBA concentrations versus time and ground-water elevation be generated. The revised graphs for each well are provided as Figures 1-4. It should be noted that historic concentrations reported as non-detect are represented on each graph as half of the laboratory reporting limit rather than zero. Tables 1 and 2, containing analytical concentration data, are provided for easy reference. An interpretation and evaluation of the data contained within these graphs is provided below.

After review of the historical concentrations observed within wells MW-1, MW-2, and MW-3 on-site, the source area of the release is not obvious since high concentrations were observed within wells MW-1 (near the former waste oil tank) and MW-2 (near the UST pit and product dispensers/piping) immediately following well installation. Contaminant concentrations within well MW-1 have gradually decreased over time while concentrations within wells MW-2 and MW-3 have gradually increased over time, which suggests that the contaminant plume is migrating down-gradient since the release. There does appear to be a strong correlation between contaminant concentrations and ground-water elevations. Upon further examination of the trends depicted for GRO and MTBE in each well over time, it is apparent that the majority of the GRO constituents within each well are or were comprised of MTBE. Furthermore, in wells MW-1 and MW-2, presumed to be closer to the source area than MW-3, TBA concentrations appear to be rising as MTBE concentrations drop, typical of transformation during biodegradation.

# **Quarterly Monitoring Report Due Dates**

Ground-water monitoring is currently completed on a quarterly basis at Station No.11102. The deadline for submittal of past quarterly ground-water monitoring reports at Station No.11102 was 30 days following the close of the quarter. However, the ACEH letter dated 24 April 2009 stipulated that quarterly monitoring reports must be submitted within 30 days of sampling. It is our understanding that the ACEH has implemented this change in an effort to spread out report submittals received.

As you are aware, BP currently has two suppliers working on the environmental case at Station No.11102. Stratus Environmental, Inc. (Stratus) completes the field work and BAI generates the final reports for submittal to the ACEH. Typically, Stratus receives the laboratory report two weeks following completion of the monitoring/sampling event. Stratus then generates a certified data packet which includes field data sheets, non-hazardous waste transportation form, chain-of-custody documentation, laboratory analytical results, and field procedures for ground-water sampling, which BAI typically receives one month following completion of the sampling event.

Page 4

As detailed above, the timing of when BAI receives the necessary information to facilitate generation of a monitoring report makes it not possible to meet the stipulated deadline of within 30 days following the sampling date. Furthermore, monitoring reports serve to summarize all environmental work completed at Station No.11102 through the end of the given quarter; therefore, submittal of a report before close of the quarter is not logical. BAI currently generates approximately 50 reports for former BP stations in Alameda County each quarter. A report deadline based on a specific number of days since sampling is not cost effective as reports are generated, reviewed, and processed in batch format.

Alternatively, it is proposed that a given quarter be split into two halves. If Station No.11102 is sampled in the first half of the quarter, the deadline for submittal of the report would be five business days following close of the quarter (e.g., for Second Quarter 2009, the report deadline would be 7 July 2009). If Station No.11102 is sampled in the second half of the quarter, the deadline for submittal of the report would be 30 days following close of the quarter (e.g., for Second Quarter 2009, the report deadline would be 30 July 2009). The more recent sampling events for Station No.11102 have been completed in the first half of the quarter; therefore, the deadline for submittal of future reports at Station No.11102 would be 5 business days following the close of the quarter. In addition to being a cost-effective and achievable deadline for BP, this revision will also spread out report submittals received by ACEH and serve to provide reports encompassing the full quarter.

We trust that the above modifications/explanations to the *Work Plan* will satisfy the comments and requests expressed by ACEH in their letter dated 24 April 2009. Once ACEH has approved this *Addendum to Work Plan for Soil & Ground-Water Investigation*, Stratus Environmental Inc. (Stratus) will be directed to execute the proposed scope of work. Upon completion of field work, Stratus will prepare a certified data packet summarizing field activities and including copies of the necessary permits, boring logs/well construction records, survey records, and laboratory analytical reports. BAI will complete a soil and ground-water investigation report for submittal to ACEH within 60 days after completion of field work.

Should you have any questions or concerns, please do not hesitate to contact me at (530) 566-1400.

Sincerely,

BROADBENT & ASSOCIATES, INC.

Thomas A. Venus, P.E.

Senior Engineer

Page 5

#### Attachments:

ACEH Letter dated 24 April 2009

Drawing 1: Site Layout Plan with Geologic Cross-Section Locations

Drawing 2: Geologic Cross-Section A-A'

Drawing 3: Geologic Cross-Section B-B'

Drawing 4: Ground-Water Elevation Contour and Analytical Summary Map

Figure 1: MW-1 Concentrations and Ground-Water Elevations vs. Time

Figure 2: MW-2 Concentrations and Ground-Water Elevations vs. Time

Figure 3: MW-3 Concentrations and Ground-Water Elevations vs. Time

Table 1: Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses

Table 2: Summary of Fuel Additives Analytical Data

cc: Mr. Paresh Khatri, Alameda County Environmental Health (Submitted via ACEH ftp Site)

Ms. Shelby Lathrop, ConocoPhillips, 76 Broadway, Sacramento, CA 95818

Mr. Chris Jimmerson, Reimbursement Processor, Delta Environmental Consulting Inc., (Submitted via ENFOS)

Electronic copy uploaded to GeoTracker

# ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY



RECEIVED
APR 2 7 2009
BY:

DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES ENVIRONMENTAL PROTECTION 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 (510) 567-6700 FAX (510) 337-9335

April 24, 2009

Paul Supple BP West Coast Products, LLC. P.O. Box 1257 San Ramon, CA 94583

Jennifer Sedlachek Exxon Mobil Refining and Supply Co. 7096 Piedmont Ave., #194 Oakland, CA 94611

Terry Grayson ConoccoPhillips 76 Broadway Sacramento, CA 95818

Subject: Fuel Leak Case No. RO0000456 and GeoTracker Global ID T0600100908, BP #11102,

100 W. Macarthur Boulevard, Oakland, CA 94610

Dear Mr. Supple, Ms. Sedlachek, and Mr. Grayson:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above-referenced site including the recently submitted document entitled, "Initial Site Conceptual Model with Soil & Ground-Water Investigation Work Plan," dated April 9, 2009, which was prepared by Broadbent & Associates, Inc. for the subject site. To characterize the extent of the soil and groundwater plume off-site to the southwest, BAI proposes to install three groundwater monitoring wells (MW-4 through MW-6).

ACEH generally concurs with the proposed scope of work. However, ACEH has concerns regarding the proposed monitoring well construction. ACEH requests that you address in the technical comments below and submit a Work Plan addendum due by the date specified below.

# **TECHNICAL COMMENTS**

- 1. Monitoring Well Construction and Hydrogeologic Setting Depth to groundwater (DTW) at the site has ranged from approximately 8 feet to 17 feet below the ground surface (bgs). BAI proposes to install the three groundwater monitoring wells to a depth of 30 feet bgs with screened intervals ranging from 10 feet to 30 feet bgs. ACEH is concerned that the proposed screened intervals appear excessive, based on historic depth to groundwater data collected at the site. This may yield analytical results that are not indicative of actual site conditions. ACEH requests that BAI justify the proposed well construction or propose shorter screened intervals. Please address the above-mentioned concerns and submit a work plan addendum due by the date specified below.
- 2. <u>Cross-sections</u> In our January 8, 2009, correspondence, we requested that cross-sections be included in the SCM. Preparation of cross-sections may assist in identifying or justifying appropriate screened intervals for proposed groundwater monitoring wells. Please prepare cross-sections and submit a work plan addendum due by the date specified below.

Mr. Supple, Ms. Sedlachek, and Mr. Grayson RO0000456 April 24, 2009, Page 2

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- 3. TBA Iso-concentration Map BAI has posted the TPH-g, benzene and MTBE concentrations detected in groundwater on a figure in the above-mentioned report. Significantly elevated concentrations of TBA have also been detected in groundwater samples collected from site monitoring wells. At this time, it may be advantageous to illustrate contaminant concentrations detected in groundwater on figures. Please include TPH-g, benzene, MTBE, and TBA iso-concentration figures, which utilize aerial photographs as base maps for your site and accurately depict neighboring structures and site features in relation to the groundwater contaminant plumes, in all future reports.
- 4. Contaminant Concentrations Versus Time BAI has included contaminant concentrations in groundwater versus time graphs for gasoline, benzene and MTBE. Based on the MTBE data, several spikes in MTBE concentrations are depicted between 1998 and 2004. Groundwater elevation data was not included in the figure, all three wells were superimposed on the same graph, and an adequate evaluation of the nature of the release (i.e. possible causes) was not included in the SCM. At this time, please prepare separate graphs for each well and include groundwater elevation data and an interpretation and evaluation of the data. Since significantly elevated concentrations of TBA have also been detected in groundwater samples collected from site monitoring wells, a TBA concentration versus time graph also appears warranted. Please address the above-mentioned concerns and submit a work plan addendum due by the date specified below.

#### NOTIFICATION OF FIELDWORK ACTIVITIES

Please schedule and complete the fieldwork activities by the date specified below and provide ACEH with at least three (3) business days notification prior to conducting the fieldwork including routine groundwater sampling.

# **TECHNICAL REPORT REQUEST**

Please submit technical reports to ACEH (Attention: Paresh Khatri), according to the following schedule:

- June 8, 2009 Soil and Water Investigation Work Plan Addendum
- Due within 30 Days of Sampling Quarterly Monitoring Report (2<sup>nd</sup> Quarter 2009)
- Due within 30 Days of Sampling Quarterly Monitoring Report (3<sup>rd</sup> Quarter 2009)
- **Due within 30 Days of Sampling** Quarterly Monitoring Report (4<sup>th</sup> Quarter 2009)
- Due within 30 Days of Sampling Quarterly Monitoring Report (1<sup>st</sup> Quarter 2010)

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the

Mr. Supple, Ms. Sedlachek, and Mr. Grayson RO0000456 April 24, 2009, Page 3

responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

#### **ELECTRONIC SUBMITTAL OF REPORTS**

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/electronic\_submittal/report\_rgmts.shtml.

#### PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

# PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

#### UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

Mr. Supple, Ms. Sedlachek, and Mr. Grayson RO0000456 April 24, 2009, Page 4

# **AGENCY OVERSIGHT**

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

Thank you for your cooperation. If you have any questions, please call me at (510) 777-2478 or send me an electronic mail message at paresh.khatri@acgov.org.

Tom Venus, Broadbent & Associates, 1324 Mangrove Ave., Suite 212, Chico, 95926

Sincerely,

Paresh C. Khatri

**Hazardous Materials Specialist** 

Donna L. Drogos, PE

Supervising Hazardous Materials Specialist

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

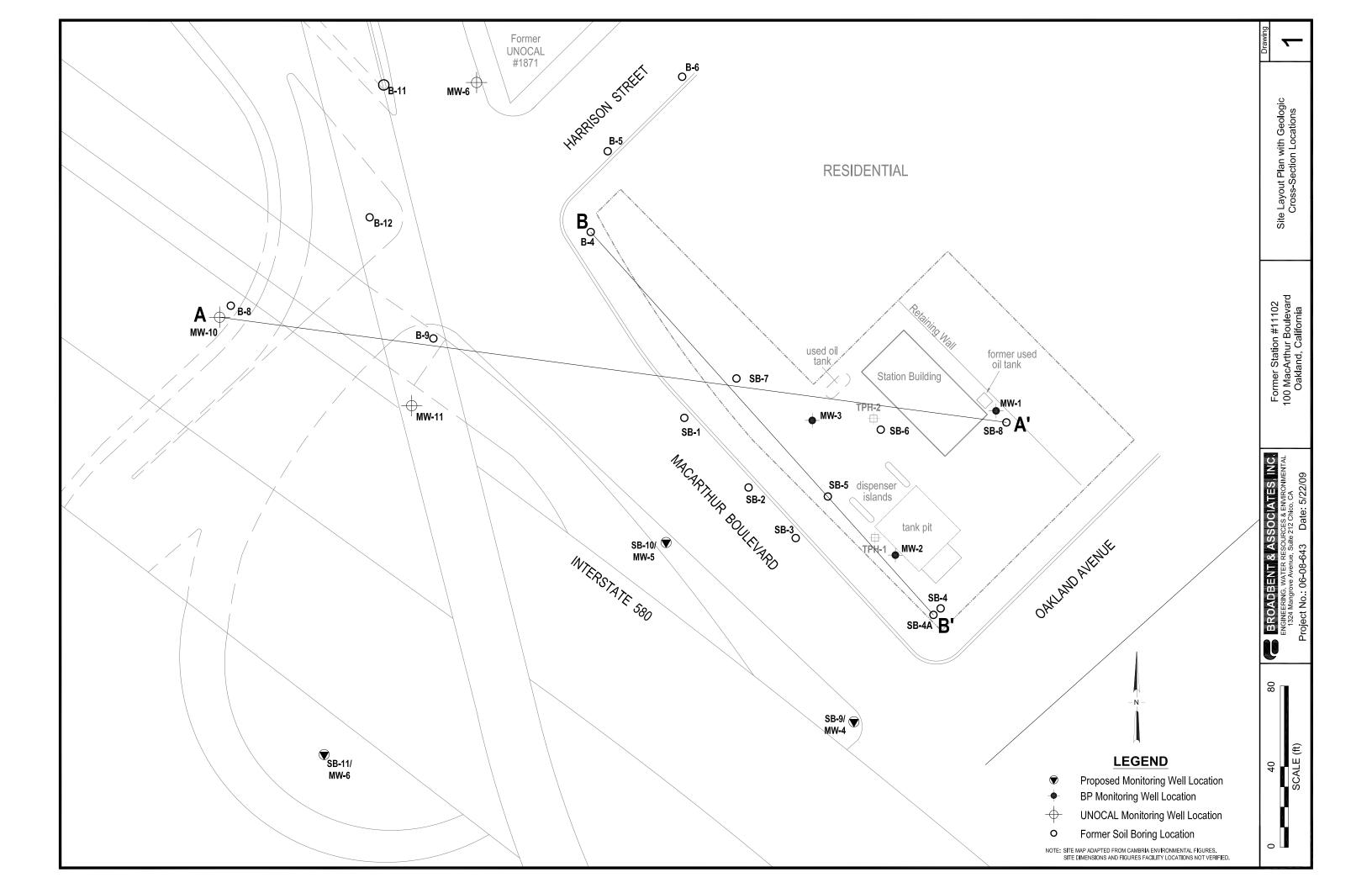
Leroy Griffin, Oakland Fire Department, 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland, CA 94612-2032

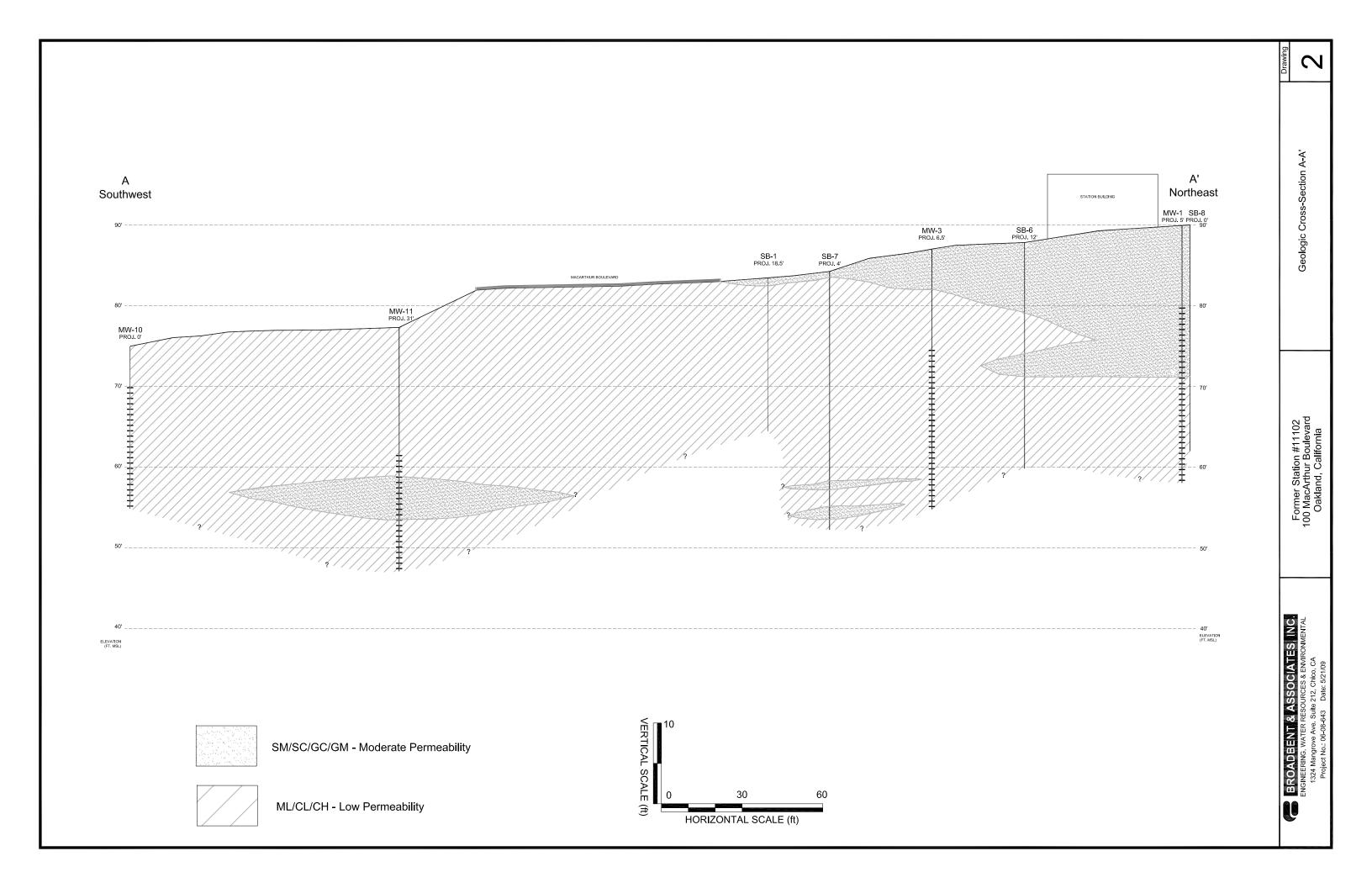
Donna Drogos, ACEH

Paresh Khatri, ACEH GeoTracker

File

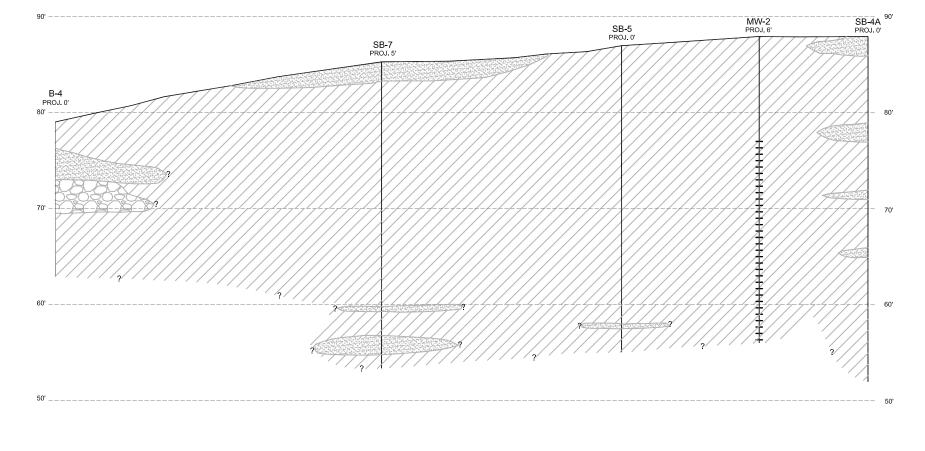
CC:





60 HORIZONTAL SCALE (ft)







SP/SW/GP/GW - High Permeability



ML/CL/CH - Low Permeability



SM/SC/GC/GM - Moderate Permeability

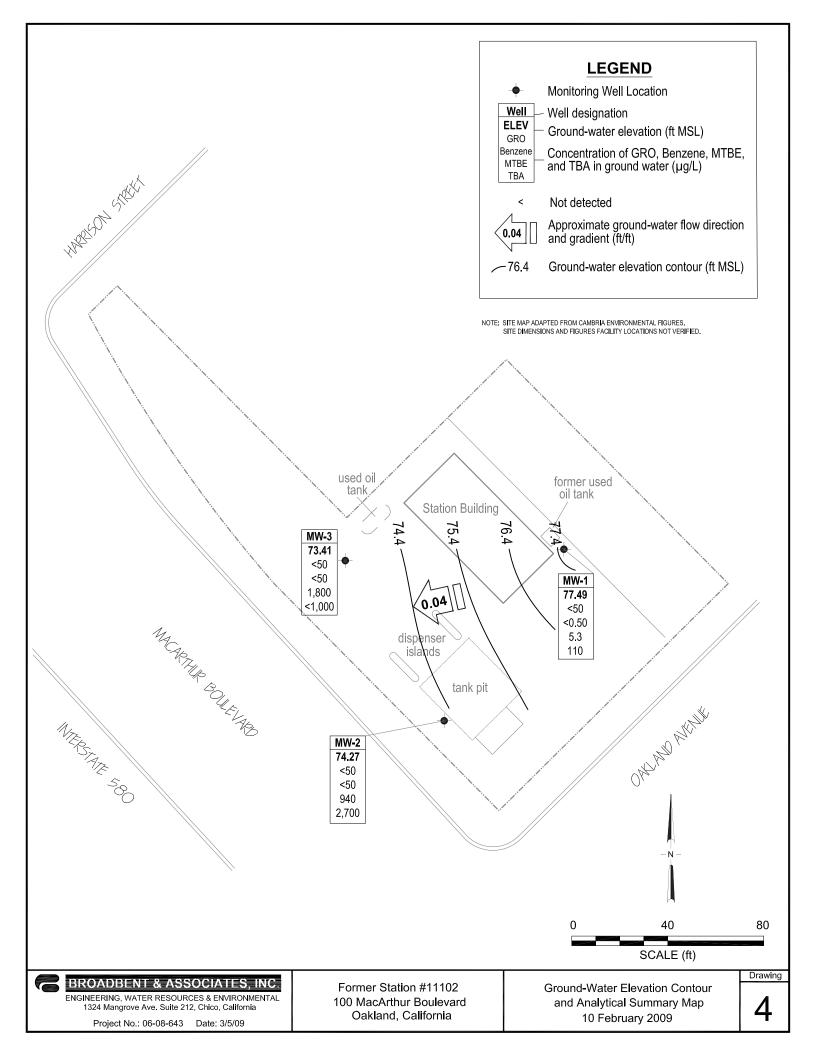


Figure 1
MW-1 Concentrations and Ground-Water Elevations vs. Time
Former BP Station #11102
100 MacArthur Boulevard, Oakland, California

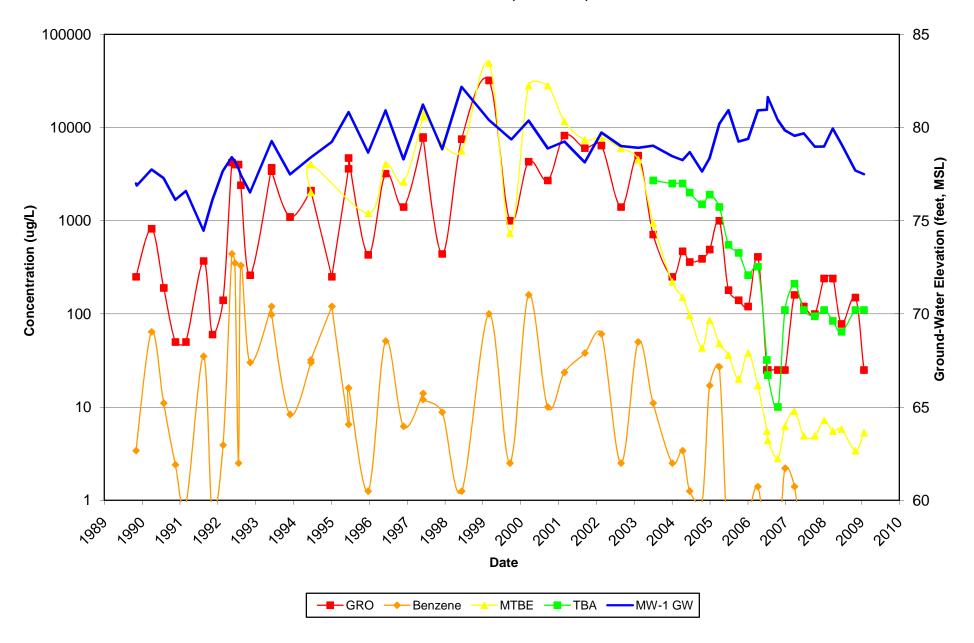


Figure 2
MW-2 Concentrations and Ground-Water Elevations vs. Time
Former BP Station #11102
100 MacArthur Boulevard, Oakland, California

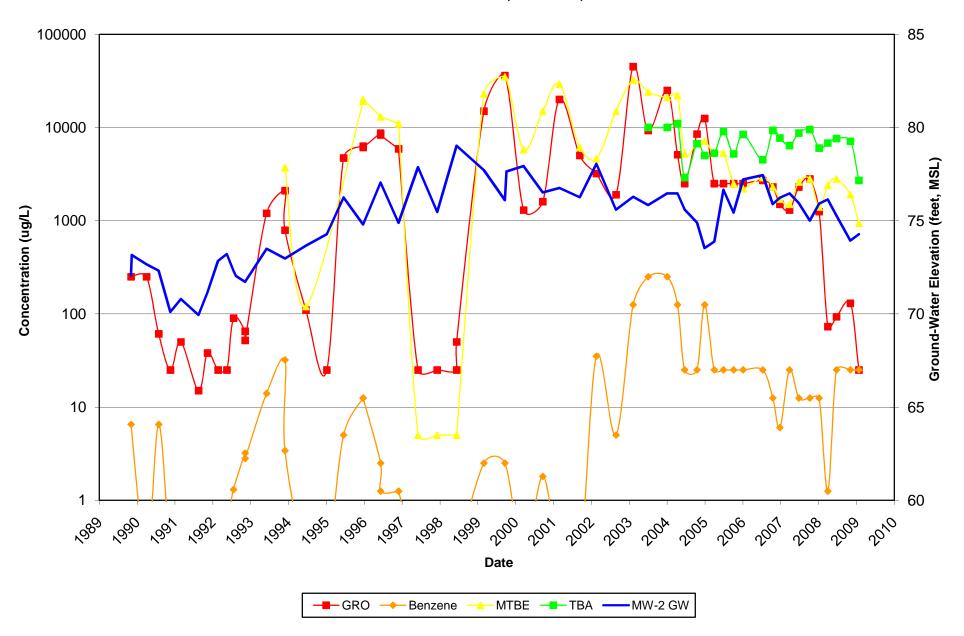


Figure 3
MW-3 Concentrations and Ground-Water Elevations vs. Time
Former BP Station #11102
100 MacArthur Boulevard, Oakland, California

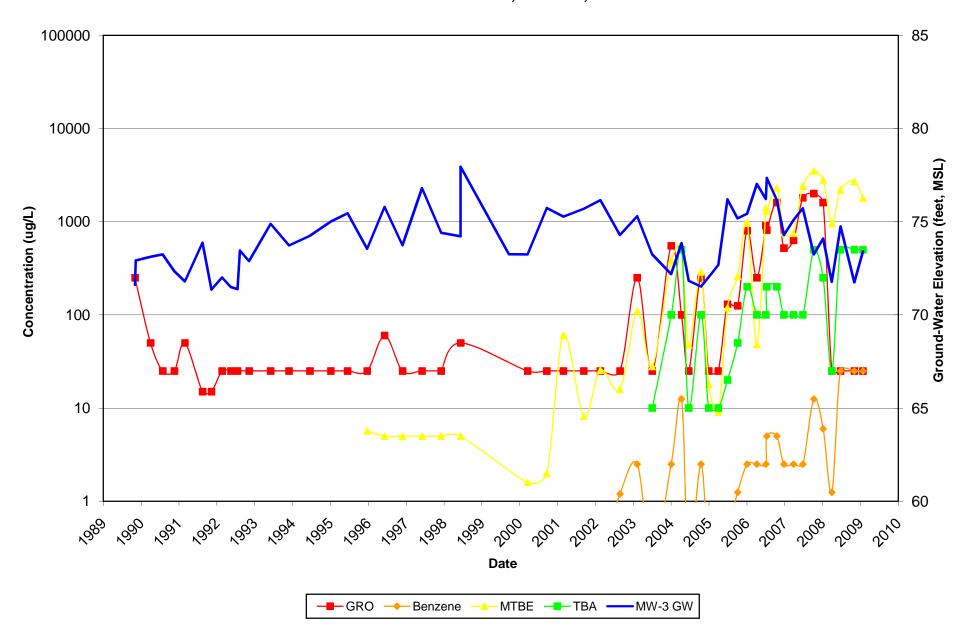


Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #11102, 100 MacArthur Blvd., Oakland, CA

			тос		Product	Water Level	,,,,,									DRO/		
Well and			Elevation	DTW	Thickness	Elevation	GRO/			Ethyl-	Total		DO			TPHd	TOG	HVOC
Sample Date	P/NP	Footnote	(feet msl)	(feet bgs)	(feet)	(feet msl)	TPHg	Benzene	Toluene	Benzene	Xylenes	MtBE	(mg/L)	Lab	pН	(µg/L)	(µg/L)	$(\mu g/L)$
MW-1																		
11/4/1989			90.20	13.21		76.99	< 500	3.4	0.6	< 0.3	< 0.3			SAL		<50	< 5000	
11/11/1989			90.20	13.32		76.88												
4/3/1990			90.20	12.46		77.74	820	64	1.9	23	34			ANA				
7/30/1990			90.20	12.92		77.28	190	11	< 5.0	< 5.0	< 5.0			ANA		<50	< 5000	
11/20/1990			90.20	14.08		76.12	50	2.4	< 0.3	< 0.3	< 0.3			SAL		79	<5000	
3/1/1991			90.20	13.61		76.59	<100	0.9	< 0.3	< 0.3	0.3			SAL		<1000	14,000	
8/19/1991			90.20	15.74		74.46	370	35	0.73	6.4	5.6			SEQ		<50	<5000	
11/13/1991			90.20	14.08		76.12	60	0.68	< 0.3	< 0.3	< 0.3			SEQ		<50	<5000	
2/24/1992			90.20	12.52		77.68	140	3.9	0.66	1.2	3.8			SEQ		100	<5000	
5/19/1992			90.20	11.80		78.40	4,200	440	21	250	37			SEQ		910	<5000	
6/17/1992			90.20	12.01		78.19	4,000	350	14	150	17			SEQ		560	<5000	
7/22/1992			90.20	12.42		77.78	4,000	< 5.0	19	210	61			ANA				
8/14/1992			90.20	12.75		77.45	2,400	330	20	150	47			SEQ		1,700	<5000	
11/11/1992			90.20	13.69		76.51	260	30	3.4	7.6	6.8			ANA		92	< 5000	
6/7/1993			90.20	10.93		79.27	3,400	98	11	21	7.6			PACE		440		
6/7/1993		с	90.20				3,700	120	12	26	9.5			PACE				
12/2/1993			90.20	12.72		77.48	1,100	8.3	3.6	0.6	1.5			PACE		120	<5000	
6/22/1994		c, d	90.20				2,100	30	3.2	2	15	2,000		PACE				
6/22/1994		d	90.20	11.81		78.39	2,100	32	3.8	2.2	17	4,000	3.2	PACE		<50	<5000	
1/10/1995			90.20	10.97		79.23	< 500	120	<5	<5	<10		3.9	ATI		420		
1/10/1995		с	90.20				< 500	120	<5	5	<10			ATI				
6/21/1995			90.20	9.38		80.82	4,700	16	< 5.0	< 5.0	<10		6.7	ATI		1,300	2,900	0.6
6/21/1995		c, e	90.20				3,600	<13	<5.0	<5.0	<10			ATI				
12/27/1995			90.20	11.55		78.65	430	<2.5	<2.5	<2.5	< 5.0	1,200	6.3	ATI		2,100	640	
6/13/1996			90.20	9.28		80.92	3,200	51	<12	<12	<12	4,000	6.3	SPL		920	2,000	
12/4/1996		f	90.20	11.91		78.29	1,400	6.2	<5	<5	<5	2,600	6.7	SPL		280	2,000	6
6/10/1997		С	90.20				7,700	14	<25	<25	<25	13,000		SPL				
6/10/1997			90.20	8.97		81.23	7,900	12	<10	<10	<10	15,000	6	SPL		1,700	<5	
12/12/1997			90.20	11.37		78.83	440	8.8	<1.0	2.6	9.4	6,700	5.5	SPL		760	1,200	
6/18/1998			90.20	8.02		82.18	7,500	<2.5	< 5.0	< 5.0	< 5.0	5,600	4.9	SPL		2,900	<5	
3/9/1999			90.20	9.80		80.40	32,000	100	16	72	110	49,000		SPL				

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #11102, 100 MacArthur Blvd., Oakland, CA

			TOC		Product	Water Level		C	oncentrati	ons in (µg/l						DRO/		
Well and			Elevation	DTW	Thickness	Elevation	GRO/			Ethyl-	Total		DO			TPHd	TOG	HVOC
Sample Date	P/NP	Footnote	(feet msl)	(feet bgs)	(feet)	(feet msl)	TPHg	Benzene	Toluene	Benzene	Xylenes	MtBE	(mg/L)	Lab	pН	(µg/L)	(µg/L)	(µg/L)
MW-1 Cont.																		
9/28/1999			90.20	10.78		79.42	1,000	<5.0	<5.0	< 5.0	< 5.0	730		SPL				<1.0
10/14/1999			90.20	10.84		79.36								SPL		660		
3/27/2000			90.20	9.83		80.37	4,300	160	19	37	43	28,000		PACE				
9/28/2000			90.20	11.33		78.87	2,700	10	2.6	1.1	2.7	28,000		PACE				
3/8/2001			90.20	10.96		79.24	8,200	23.5	6.09	5.23	8.97	11,600		PACE				
9/21/2001			90.20	12.07		78.13	6,000	37.9	< 0.5	< 0.5	<1.5	7,370		PACE				
2/28/2002			90.20	10.48		79.72	6,400	60.8	<5.0	6.43	<10	7,750		PACE				
9/6/2002			90.20	11.20		79.00	1,400	< 5.0	< 5.0	< 5.0	< 5.0	6,000		SEQ				
2/19/2003		h	90.20	11.29		78.91	<10000	<100	110	<100	<100	4,500		SEQ				
7/14/2003			90.20	11.18		79.02	710	11	<10	<10	<10	940		SEQ				
01/14/2004			90.20	11.74		78.46	< 500	<5.0	<5.0	< 5.0	< 5.0	220		SEQM	6.6			
04/23/2004	P	1	90.20	11.95		78.25	470	3.4	<2.5	<2.5	<2.5	150		SEQM	6.7			
07/01/2004	P		90.20	11.52		78.68	360	<2.5	<2.5	<2.5	<2.5	96		SEQM	6.0			
10/28/2004	P		90.20	12.56		77.64	390	0.94	< 0.50	< 0.50	< 0.50	43		SEQM	6.2			
01/10/2005	P		90.20	11.85		78.35	490	17	<2.5	5.8	5.4	85		SEQM	7.6			
04/13/2005	P		90.20	10.00		80.20	1,000	27	<2.5	<2.5	25	48		SEQM	6.6			
07/11/2005	P		90.20	9.27		80.93	180	< 0.50	< 0.50	< 0.50	< 0.50	36		SEQM	7.7			
10/17/2005	P		90.20	10.96		79.24	140	< 0.50	< 0.50	< 0.50	< 0.50	20		SEQM	8.0			
01/17/2006	P		90.20	10.81		79.39	120	0.64	< 0.50	< 0.50	0.56	38		SEQM	6.5			
04/21/2006	P	m	90.20	9.28		80.92	410	1.4	1.0	< 0.50	< 0.50	17		SEQM	6.5			
7/17/2006			90.20	9.25		80.95	<50	< 0.50	< 0.50	< 0.50	< 0.50	5.5		TAMC	7.7			
7/26/2006			90.20	8.57		81.63	< 50	< 0.50	< 0.50	< 0.50	< 0.50	4.4		TAMC	6.6			
10/31/2006	P		90.20	9.80		80.40	<50	< 0.50	< 0.50	< 0.50	< 0.50	2.8	2.81	TAMC	6.99			
1/8/2007	P		90.20	10.36		79.84	< 50	2.2	< 0.50	< 0.50	< 0.50	6.2	2.51	TAMC	6.97			
4/10/2007	P		90.20	10.65		79.55	160	1.4	< 0.50	< 0.50	< 0.50	9.0	1.75	TAMC	7.00			
7/10/2007	P	p	90.20	10.52		79.68	120	< 0.50	< 0.50	< 0.50	< 0.50	4.9	2.01	TAMC	6.60	160		
10/24/2007	P		90.20	11.23		78.97	100	< 0.50	< 0.50	< 0.50	< 0.50	4.9	1.89	TAMC	6.57			
1/22/2008	P		90.20	11.22		78.98	240	< 0.50	< 0.50	0.83	1.7	7.2	3.18	TAMC	6.49			
4/15/2008	P		90.20	10.26		79.94	240	< 0.50	< 0.50	< 0.50	0.73	5.5	3.32	CEL	6.45			
7/8/2008	P		90.20	11.10		79.10	78	< 0.50	< 0.50	< 0.50	< 0.50	5.8	1.65	CEL	6.78			
11/19/2008	P		90.20	12.51		77.69	150	< 0.50	< 0.50	< 0.50	< 0.50	3.4	1.59	CEL	6.84			

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #11102, 100 MacArthur Blvd., Oakland, CA

Well and			TOC Elevation	DTW	Product Thickness	Water Level Elevation	GRO/	C	oncentrati	ons in (µg/l	L) Total		DO			DRO/ TPHd	TOG	нуос
Sample Date	P/NP	Footnote	(feet msl)		(feet)	(feet msl)	TPHg	Benzene	Toluene	Benzene	Xylenes	MtBE	(mg/L)	Lab	pН	(μg/L)	(μg/L)	(μg/L)
MW-1 Cont.																		
2/10/2009	P		90.20	12.71		77.49	<50	<0.50	<0.50	<0.50	<0.50	5.3	1.63	CEL	7.00			
MW-2																		
11/4/1989			87.91	15.84		72.07	< 500	6.5	<0.3	<0.3	< 0.3			SAL				
11/11/1989			87.91	14.75		73.16												
4/3/1990			87.91	15.25		72.66	< 500	< 0.5	< 0.5	< 0.5	< 0.5			ANA				
7/30/1990			87.91	15.59		72.32	61	6.5	< 0.5	< 0.5	< 0.5			ANA				
11/20/1990			87.91	17.81		70.10	<50	0.3	< 0.3	< 0.3	< 0.3			SAL				
3/1/1991			87.91	17.11		70.80	<100	0.4	< 0.3	< 0.3	< 0.3			SAL				
8/19/1991			87.91	17.97		69.94	<30	< 0.3	< 0.3	< 0.3	< 0.3			SEQ				
11/13/1991			87.91	16.76		71.15	38	0.32	< 0.3	< 0.3	< 0.3			SEQ				
2/24/1992			87.91	15.07		72.84	<50	<0.5	< 0.5	< 0.5	0.58			SEQ				
5/19/1992			87.91	14.70		73.21	< 50	0.55	< 0.5	< 0.5	< 0.5			SEQ				
7/22/1992			87.91	15.60		72.31	90	1.3	0.6	0.9	1.9			ANA				
8/14/1992			87.91	15.88		72.03												
11/11/1992			87.91	16.19		71.72	52	2.8	< 0.5	< 0.5	0.9			ANA				
11/11/1992		c	87.91				65	3.2	< 0.5	< 0.5	1			ANA				
6/7/1993			87.91	14.42		73.49	1,200	14	2.8	1.9	1.71			PACE				
12/2/1993		d	87.91	14.94		72.97	790	3.4	0.5	10	< 0.5	3,700		PACE				
12/2/1993		c, d	87.91				2,100	32	3.8	2.2	17	3,700		PACE				
6/22/1994		d	87.91	14.25		73.66	110	< 0.5	< 0.5	< 0.5	< 0.5	120	3.9	PACE				
1/10/1995			87.91	13.64		74.27	< 50	< 0.5	< 0.5	0.6	1		4.3	ATI				
6/21/1995			87.91	11.66		76.25	4,700	<10	<10	<10	<20		7.8	ATI				
12/27/1995			87.91	13.11		74.80	6,100	<25	<25	<25	<50	20,000	6.7	ATI				
12/27/1995		c	87.91				6,300	<25	<25	<25	< 50	19,000		ATI				
6/13/1996			87.91	10.86		77.05	8,300	<2.5	<2.5	<2.5	<2.5	13,000	6.5	SPL				
6/13/1996		c	87.91				8,700	<5	<5	<5	<5	13,000		SPL				
12/4/1996			87.91	13.03		74.88	5,900	<2.5	<5	<5	<5	11,000	6.3	SPL				
12/4/1996		c	87.91				5,900	<2.5	<5	<5	<5	11,000		SPL				
6/10/1997			87.91	10.04		77.87	<50	<0.5	<1.0	<1.0	<1.0	<10	5.8	SPL				
12/12/1997			87.91	12.44		75.47	<50	< 0.5	<1.0	<1.0	<1.0	<10	5.7	SPL				

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #11102, 100 MacArthur Blvd., Oakland, CA

Well and   Sample Date   PNP   Fostion   Elevation   Driver   Elevation   Creek   PNP   Fostion   Elevation   Creek   PNP   Fostion   Elevation   Creek   Elevation							Station #1	. ,											
Mary Cont.   No.   No.									C	oncentrati 	,,,								
MW-2 Cont.		D/NID	F 4 4						D	TO 1			MADE	_	T . 1				
6181998	Sample Date	P/NP	Footnote	(feet msi)	(feet bgs)	(feet)	(feet msi)	TPHg	Benzene	1 oluene	Benzene	Aylenes	MtBE	(mg/L)	Lab	рн	(μg/L)	(μg/L)	(μg/L)
6/18/1998	MW-2 Cont.																		
39/1999     8791   10.20     77.71   15.000   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5.0   <5	6/18/1998			87.91	8.89		79.02	50	< 0.5	<1.0	<1.0	<1.0	<10	5.3	SPL				
928/1999 8791 11.81 76.10 36.000 <-5.0 12 7 26 35.000 SPL <-3.0	6/18/1998		с	87.91				< 50	< 0.5	<1.0	<1.0	<1.0	<10		SPL				
1014/1999	3/9/1999			87.91	10.20		77.71	15,000	<5.0	<5.0	<5.0	<5.0	23,000		SPL				
3272000 87.91 9.98 77.93 1.300 <-0.5	9/28/1999			87.91	11.81		76.10	36,000	< 5.0	12	7	26	35,000		SPL				< 5.0
9.28/2000 87.91   11.40   76.51   1.600   1.8   1.7   0.54   2.2   15.000   PACE             3.8/2001   87.91   11.16   76.75   20,000   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5   <0.5	10/14/1999			87.91	10.27		77.64								SPL		100		
3/8/2001 87.91 11.16 76.75 20.000 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	3/27/2000			87.91	9.98		77.93	1,300	< 0.5	< 0.5	0.51	< 0.5	5,800		PACE				
921/2001 87.91 11.65 76.26 5.000 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0.5 <-0	9/28/2000			87.91	11.40		76.51	1,600	1.8	1.7	0.54	2.2	15,000		PACE				
2/28/2002 87.91 9.86 78.05 3.200 35.1 <-0.5 <-0.5 <-0.5 <-0.0 4.620 PACE	3/8/2001			87.91	11.16		76.75	20,000	< 0.5	< 0.5	< 0.5	< 0.5	29,100		PACE				
9/6/2002 h 87.91 12.32 75.59 1.900 <10 <10 <10 <10 <10 15,000 SEQ	9/21/2001			87.91	11.65		76.26	5,000	< 0.5	< 0.5	< 0.5	<1.5	6,110		PACE				
2/19/2003     h	2/28/2002			87.91	9.86		78.05	3,200	35.1	< 0.5	< 0.5	<1.0	4,620		PACE				
7/14/2003          87.91         12.07          75.84         9,300         <500         <500         <500         24,000          SEQ	9/6/2002			87.91	12.32		75.59	1,900	<10	<10	<10	<10	15,000		SEQ				
01/14/2004 P 87.91 11.45 76.46 <50.000 <500 <500 <500 <500 <500 <21.000 SEQM 6.9	2/19/2003		h	87.91	11.63		76.28	45,000	<250	<250	<250	<250	32,000		SEQ				
04/23/2004 P 1 87.91 11.45 76.46 5.100 <250 <250 <250 <250 <250 22,000 SEQM 6.8 0.701/2004 P 87.91 12.32 75.59 <5.000 <50 <50 <50 <50 <50 <50 <50 <- Sequence of the control of the	7/14/2003			87.91	12.07		75.84	9,300	< 500	< 500	< 500	< 500	24,000		SEQ				
07/01/2004         P         87.91         12.32          75.59         <0,000         <50         <50         <50         <50         5.200          SEQM         5.6             10/28/2004         P         87.91         13.02          74.89         8,500         <50         <50         <50         <50         6.800          SEQM         6.2 </td <td>01/14/2004</td> <td>P</td> <td></td> <td>87.91</td> <td>11.45</td> <td></td> <td>76.46</td> <td>&lt;50,000</td> <td>&lt; 500</td> <td>&lt; 500</td> <td>&lt; 500</td> <td>&lt; 500</td> <td>21,000</td> <td></td> <td>SEQM</td> <td>6.9</td> <td></td> <td></td> <td></td>	01/14/2004	P		87.91	11.45		76.46	<50,000	< 500	< 500	< 500	< 500	21,000		SEQM	6.9			
10/28/2004   P	04/23/2004	P	1	87.91	11.45		76.46	5,100	<250	<250	<250	<250	22,000		SEQM	6.8			
01/10/2005 P 87.91 14.38 73.53 <25,000 <250 <250 <250 <250 7,100 SEQM 7.6	07/01/2004	P		87.91	12.32		75.59	<5,000	< 50	< 50	< 50	< 50	5,200		SEQM	5.6			
04/13/2005         P         87.91         14.03          73.88         <5,000         <50         <50         <50         5,300          SEQM         6.6	10/28/2004	P		87.91	13.02		74.89	8,500	< 50	< 50	<50	<50	6,800		SEQM	6.2			
07/11/2005         P         87.91         11.25          76.66         <5,000         <50         <50         <50         5,300          SEQM         7.5	01/10/2005	P		87.91	14.38		73.53	<25,000	<250	<250	<250	<250	7,100		SEQM	7.6			
10/17/2005         P         87.91         12.48          75.43         <5,000         <50         <50         <50         2,500          SEQM         8.2	04/13/2005	P		87.91	14.03		73.88	<5,000	<50	<50	<50	<50	5,300		SEQM	6.6			
01/17/2006         P         87.91         10.70          77.21         <5,000         <50         <50         <50         2,200          SEQM         7.0	07/11/2005	P		87.91	11.25		76.66	<5,000	< 50	< 50	<50	< 50	5,300		SEQM	7.5			
04/21/2006          n         87.91	10/17/2005	P		87.91	12.48		75.43	<5,000	<50	<50	<50	< 50	2,500		SEQM	8.2			
7/26/2006          k         87.91         10.47          77.44         2,700         <50	01/17/2006	P		87.91	10.70		77.21	<5,000	< 50	< 50	< 50	< 50	2,200		SEQM	7.0			
10/31/2006       P       87.91       12.02        75.89       2,300       <25	04/21/2006		n	87.91															
1/8/2007       P       87.91       11.68        76.23       1500       <12	7/26/2006		k	87.91	10.47		77.44	2,700	< 50	<50	<50	<50	2,900		TAMC	6.69			
4/10/2007       P       k       87.91       11.45        76.46       1,300       <50	10/31/2006	P		87.91	12.02		75.89	2,300	<25	<25	<25	<25	2,300	2.02	TAMC	6.71			
7/10/2007       P       k, p       87.91       11.97        75.94       2,300       <25       <25       <25       <25       2,600       1.82       TAMC       6.69       120           10/24/2007       P       k       87.91       12.91        75.00       2,800       <25	1/8/2007	P		87.91	11.68		76.23	1500	<12	<12	<12	<12	1700	1.37	TAMC	6.54			
10/24/2007 P k 87.91 12.91 75.00 2,800 <25 <25 <25 <25 2,800 1.55 TAMC 6.77 1/22/2008 P 87.91 12.00 75.91 <2,500 <25 <25 <25 <25 1,400 2.08 TAMC 6.55	4/10/2007	P	k	87.91	11.45		76.46	1,300	<50	<50	<50	<50	1,500	1.60	TAMC	6.89			
1/22/2008 P 87.91 12.00 75.91 <2,500 <25 <25 <25 1,400 2.08 TAMC 6.55	7/10/2007	P	k, p	87.91	11.97		75.94	2,300	<25	<25	<25	<25	2,600	1.82	TAMC	6.69	120		
	10/24/2007	P	k	87.91	12.91		75.00	2,800	<25	<25	<25	<25	2,800	1.55	TAMC	6.77			
4/15/2008 P 87.91 11.77 76.14 73 <2.5 <2.5 <2.5 <2.5 2.400 3.12 CEL 6.72	1/22/2008	P		87.91	12.00		75.91	<2,500	<25	<25	<25	<25	1,400	2.08	TAMC	6.55			
5 20 20 20 20 20 20 20 20 20 20 20 20 20	4/15/2008	P		87.91	11.77		76.14	73	<2.5	<2.5	<2.5	<2.5	2,400	3.12	CEL	6.72			

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #11102, 100 MacArthur Blvd., Oakland, CA

			тос		Product	Water Level		С	oncentrati	ons in (μg/l	L)					DRO/		
Well and			Elevation	DTW	Thickness	Elevation	GRO/			Ethyl-	Total		DO			TPHd	TOG	HVOC
Sample Date	P/NP	Footnote	(feet msl)	(feet bgs)	(feet)	(feet msl)	TPHg	Benzene	Toluene	Benzene	Xylenes	MtBE	(mg/L)	Lab	pН	$(\mu g/L)$	(µg/L)	(µg/L)
MW-2 Cont.																		
7/8/2008	P		87.91	12.65		75.26	93	<50	<50	<50	<50	2,800	1.78	CEL	7.05			
11/19/2008	P		87.91	13.98		73.93	130	<50	< 50	<50	<50	1,900	1.75	CEL	6.72			
2/10/2009	P		87.91	13.64		74.27	<50	<50	<50	<50	<50	940	1.71	CEL	7.04			
MW-3																		
11/4/1989			87.02	15.40		71.62	< 500	<0.3	< 0.3	< 0.3	< 0.3			SAL				
11/11/1989			87.02	14.10		72.92												
4/3/1990			87.02	13.90		73.12	<100	< 0.5	< 0.5	< 0.5	< 0.5			ANA				
7/30/1990			87.02	13.77		73.25	<50	< 0.5	< 0.5	< 0.5	< 0.5			ANA			< 5000	
11/20/1990			87.02	14.67		72.35	<50	0.3	0.8	0.4	1.5			SAL				
3/1/1991			87.02	15.22		71.80	<100	0.4	< 0.3	< 0.3	< 0.3			SAL				
8/19/1991			87.02	13.15		73.87	<30	< 0.3	< 0.3	< 0.3	< 0.3			SEQ				
11/13/1991			87.02	15.66		71.36	<30	< 0.3	< 0.3	< 0.3	< 0.3			SEQ				
2/24/1992			87.02	15.01		72.01	<50	0.65	1.4	0.66	4.4			SEQ				
5/19/1992			87.02	15.52		71.50	< 50	< 0.5	< 0.5	< 0.5	< 0.5			SEQ				
7/22/1992			87.02	15.63		71.39	<50	< 0.5	< 0.5	< 0.5	< 0.5			ANA		< 50	< 5000	
8/14/1992			87.02	13.57		73.45												
11/11/1992			87.02	14.13		72.89	<50	< 0.5	0.7	< 0.5	1.3			ANA				
6/7/1993			87.02	12.13		74.89	<50	< 0.5	< 0.5	< 0.5	< 0.5			PACE				
12/2/1993			87.02	13.29		73.73	<50	< 0.5	< 0.5	< 0.5	< 0.5			PACE				
6/22/1994			87.02	12.78		74.24	<50	< 0.5	< 0.5	< 0.5	< 0.5		2.9	PACE				
1/10/1995			87.02	12.01		75.01	<50	<0.5	< 0.5	< 0.5	<1		3.8	ATI				
6/21/1995			87.02	11.57		75.45	< 50	< 0.50	< 0.50	< 0.50	<1.0		7.4	ATI				
12/27/1995			87.02	13.47		73.55	<50	< 0.50	< 0.50	< 0.50	<1.0	5.7	7.3	ATI				
6/13/1996			87.02	11.22		75.80	60	< 0.5	< 0.5	< 0.5	< 0.5	<10	6.8	SPL				
12/4/1996			87.02	13.28		73.74	<50	<0.5	<1	<1	<1	<10	6.7	SPL				
6/10/1997			87.02	10.22		76.80	< 50	< 0.5	<1.0	<1.0	<1.0	<10	6.1	SPL				
12/12/1997			87.02	12.61		74.41	<50	< 0.5	<1.0	<1.0	<1.0	<10	5.6	SPL				
12/12/1997		с	87.02				< 50	< 0.5	<1.0	<1.0	<1.0	<10		SPL				
6/18/1998			87.02	12.80		74.22												
6/18/1998			87.02	9.07		77.95	50	< 0.5	<1.0	<1.0	<1.0	<10	5.3	SPL				

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #11102, 100 MacArthur Blvd., Oakland, CA

						Station #1	, , , ,											
			TOC		Product	Water Level	ano.	C	oncentrati 	ons in (µg/l			700			DRO/	maa	*****
Well and	P/NP	E44-	Elevation		Thickness	Elevation	GRO/	D	T-1	Ethyl-	Total	MADE	DO	T -L	11	TPHd	TOG	HVOC
Sample Date	P/NP	Footnote	(feet msl)	(feet bgs)	(feet)	(feet msl)	TPHg	Benzene	1 oluene	Benzene	Xylenes	MtBE	(mg/L)	Lab	pН	(μg/L)	(µg/L)	(µg/L)
MW-3 Cont.																		
9/28/1999			87.02	13.76		73.26												
3/27/2000			87.02	13.77		73.25	<50	< 0.5	< 0.5	< 0.5	< 0.5	1.6		PACE				
9/28/2000			87.02	11.28		75.74	<50	< 0.5	7.4	< 0.5	1.3	2		PACE				
3/8/2001			87.02	11.75		75.27	<50	< 0.5	< 0.5	< 0.5	< 0.5	60.4		PACE				
9/21/2001			87.02	11.33		75.69	<50	< 0.5	< 0.5	< 0.5	<1.5	8.18		PACE				
2/28/2002			87.02	10.86		76.16	<50	< 0.5	< 0.5	< 0.5	<1.0	25.5		PACE				
9/6/2002			87.02	12.73		74.29	<50	1.2	< 0.5	< 0.5	1	16		SEQ				
2/19/2003		h	87.02	11.72		75.30	< 500	< 5.0	< 5.0	< 5.0	< 5.0	110		SEQ				
7/14/2003			87.02	13.76		73.26	<50	< 0.50	< 0.50	< 0.50	0.67	28		SEQ				
01/14/2004	P		87.02	14.83		72.19	550	< 5.0	< 5.0	< 5.0	< 5.0	380		SEQM	8.1			
04/23/2004	P	1	87.02	13.17		73.85	<200	<25	<25	<25	<25	560		SEQM	6.8			
07/01/2004	P		87.02	15.19		71.83	< 50	< 0.50	< 0.50	< 0.50	0.50	48		SEQM	6.4			
10/28/2004	P		87.02	15.50		71.52	< 500	<5.0	<5.0	<5.0	<5.0	290		SEQM	6.3			
01/10/2005	P		87.02	15.00		72.02	<50	< 0.50	< 0.50	< 0.50	< 0.50	18		SEQM	7.6			
04/13/2005	P		87.02	14.34		72.68	<50	< 0.50	< 0.50	< 0.50	< 0.50	9.0		SEQM	7.1			
07/11/2005	P	k	87.02	10.82		76.20	130	<1.0	<1.0	<1.0	<1.0	120		SEQM	7.8			
10/17/2005	P		87.02	11.84		75.18	<250	<2.5	<2.5	<2.5	<2.5	260		SEQM	8.5			
01/17/2006	P		87.02	11.59		75.43	800	< 5.0	< 5.0	< 5.0	< 5.0	980		SEQM	7.2			
04/21/2006	P		87.02	10.00		77.02	< 500	<5.0	<5.0	<5.0	< 5.0	48		SEQM	6.7			
7/17/2006	P	k	87.02	10.80		76.22	910	< 5.0	<5.0	< 5.0	< 5.0	1,400		TAMC	7.7			
7/26/2006	P		87.02	9.67		77.35	810	<10	<10	<10	<10	1,300		TAMC	6.56			
10/31/2006	P		87.02	10.85		76.17	1,600	<10	<10	<10	<10	2,300	2.50	TAMC	6.84			
1/8/2007	P		87.02	12.73		74.29	520	<5.0	<5.0	<5.0	< 5.0	760	3.61	TAMC	7.12			
4/10/2007	P	k	87.02	11.93		75.09	630	< 5.0	< 5.0	< 5.0	< 5.0	750	2.31	TAMC	7.15			
7/10/2007	P	k, p	87.02	11.30		75.72	1,800	<5.0	<5.0	<5.0	<5.0	2,400	1.56	TAMC	6.72	66		
10/24/2007	P	k	87.02	13.77		73.25	2,000	<25	<25	<25	<25	3,500	1.62	TAMC	6.41			
1/22/2008	P	k	87.02	12.92		74.10	1,600	<12	<12	<12	<12	2,800	2.17	TAMC	6.32			
4/15/2008	P		87.02	15.25		71.77	<50	<2.5	<2.5	<2.5	<2.5	960	3.44	CEL	6.71			
7/8/2008	P		87.02	12.27		74.75	<50	<50	<50	<50	<50	2,200	1.52	CEL	7.01			
11/19/2008	P		87.02	15.27		71.75	< 50	<50	<50	<50	<50	2,700	1.60	CEL	6.83			
2/10/2009	P		87.02	13.61		73.41	<50	<50	<50	<50	<50	1,800	1.66	CEL	6.98			
																		4

Table 1. Summary of Ground-Water Monitoring Data: Relative Water Elevations and Laboratory Analyses
Station #11102, 100 MacArthur Blvd., Oakland, CA

			тос		Product	Water Level		C	oncentrati	ons in (µg/	L)					DRO/		
Well and	P/NP	Footnote	Elevation (feet msl)		Thickness (feet)	Elevation (feet msl)	GRO/	Dongono	Toluene	Ethyl- Benzene	Total Xylenes	MtBE	DO (mg/L)	Lab	pН	TPHd	TOG	HVOC
Sample Date	P/NP	roomote	(leet ilisi)	(reet bgs)	(leet)	(feet filst)	TPHg	Benzene	Totuelle	Delizelle	Aylelles	MILDE	(mg/L)	Lab	рп	(μg/L)	(µg/L)	(µg/L)
MW-3																		
QC-2																		
11/11/1992		g					< 50	< 0.5	< 0.5	< 0.5	< 0.5			ANA				
6/7/1993		g					< 50	< 0.5	< 0.5	< 0.5	< 0.5			PACE				
12/2/1993		g					< 50	< 0.5	< 0.5	< 0.5	< 0.5			PACE				
6/22/1994		g					< 50	< 0.5	< 0.5	< 0.5	< 0.5			PACE				
1/10/1995		g					< 50	< 0.5	< 0.5	< 0.5	<1			ATI				
6/21/1995		g					< 50	< 0.50	< 0.50	< 0.50	<1.0			ATI				
12/27/1995		g					< 50	< 0.50	< 0.50	< 0.50	<1.0	<5.0		ATI				
6/13/1996		g					< 50	< 0.5	< 0.5	< 0.5	< 0.5	<10		SPL				

#### ABBREVIATIONS & SYMBOLS:

--/--- Not analyzed/applicable/measured/available

< = Not detected at or above specified laboratory reporting limit

DO = Dissolved oxygen

DRO = Diesel range organics

DTW = Depth to water in ft bgs

ft bgs = feet below ground surface

ft MSL = feet above mean sea level

GRO = Gasoline range organics, range C4-C12

GWE = Groundwater elevation measured in ft MSL

HVOC = Halogenated volatile organic compounds

mg/L = Milligrams per liter

MTBE = Methyl tert-butyl ether

NP = Well not purged prior to sampling

P = Well purged prior to sampling

TOC = Top of casing measured in ft MSL

TOG = Total oil and grease

TPH-d = Total petroleum hydrocarbons as diesel

TPH-g = Total petroleum hydrocarbons as gasoline

 $\mu g/L = Micrograms per liter$ 

ANA = Anametrix, Inc.

PACE = Pace, Inc.

ATI = Analytical Technologies, Inc.

SAL = Superior Analytical Laboratory

SPL = Southern Petroleum Laboratories

SEQ/SEQM = Sequoia Analytical/Sequoia Analytical - Morgan Hill (Laboratories)

CEL = CalScience Environmental Laboratories, Inc.

#### FOOTNOTES:

c = Blind duplicate.

d = A copy of the documentation for this data is included in Appendix C of Alisto report 10-076-06-002.

e = Tetrachloroethene

f = trans-1,2-Dichloroethene

g = Travel blank.

h = TPH-g, benzene, toluene, ethylbenzene, and total xylenes (BTEX), and MTBE analyzed by EPA Method 8260B beginning on 1st quarter sampling event (2/19/03).

k = The hydrocarbon result was partly due to individual peaks in the quantification range (GRO).

1 = GRO analyzed by EPA Method 8015B.

m = Confirmatory analysis for total xylenes was past holding time.

n = Well inaccessible.

p = Hydrocarbon in req. fuel range, but doesn't resemble req. fuel (DRO).

#### NOTES:

Beginning in the fourth quarter 2003, the laboratory modified the reported analyte list. TPH-g was changed to GRO. The resulting data may be impacted by the potential of non-TPH-g analytes within the requested fuel range resulting in a higher concentration being reported.

Beginning in the second quarter 2004, the carbon range for GRO was changed from C6-C10 to C4-C12.

Values for pH and DO were obtained through field measurements.

GRO analysis was completed by EPA method 8260B (C4-C12) for samples collected from the time period April 2006 through February 4, 2008. The analysis for GRO was changed to EPA method 8015B (C6-C12) for samples collected from the time period February 5, 2008 through the present.

Note: The data within this table collected prior to April 2006 was provided to Broadbent & Associates, Inc. by Atlantic Richfield Company and their previous consultants. Broadbent & Associates, Inc. has not verified the accuracy of this information.

Table 2. Summary of Fuel Additives Analytical Data Station #11102, 100 MacArthur Blvd., Oakland, CA

Well and				Concentrati	ons in (µg/L)		•		
Sample Date	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	Comments
MW-1							,		
7/14/2003	<2000	2,700	940	<20	<20	<20			
01/14/2004	<1,000	2,500	220	< 5.0	< 5.0	<5.0	< 5.0	< 5.0	
04/23/2004	< 500	2,500	150	<2.5	<2.5	<2.5	<2.5	<2.5	
07/01/2004	< 500	2,000	96	<2.5	<2.5	<2.5	<2.5	<2.5	
10/28/2004	<5.0	1,500	43	< 0.50	< 0.50	0.58	< 0.50	< 0.50	
01/10/2005	< 500	1,900	85	<2.5	<2.5	<2.5	<2.5	<2.5	
04/13/2005	< 500	1,400	48	<2.5	<2.5	<2.5	<2.5	<2.5	
07/11/2005	<100	550	36	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
10/17/2005	<100	450	20	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	a
01/17/2006	<300	260	38	< 0.50	< 0.50	0.54	< 0.50	< 0.50	
04/21/2006	<300	320	17	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
7/17/2006	<300	32	5.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
7/26/2006	<300	22	4.4	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
10/31/2006	<300	<20	2.8	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	a
1/8/2007	<300	110	6.2	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
4/10/2007	<300	210	9.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
7/10/2007	<300	110	4.9	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
10/24/2007	<300	94	4.9	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
1/22/2008	<300	110	7.2	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
4/15/2008	<300	84	5.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
7/8/2008	<300	64	5.8	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
11/19/2008	<300	110	3.4	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
2/10/2009	<300	110	5.3	<0.50	<0.50	<0.50	<0.50	<0.50	
MW-2									
7/14/2003	<100000	<20000	24,000	<1000	<1000	<1000			
01/14/2004	<100,000	<20,000	21,000	< 500	< 500	< 500	<500	< 500	
04/23/2004	<50,000	11,000	22,000	<250	<250	420	<250	<250	
07/01/2004	<10,000	2,900	5,200	<50	<50	110	<50	<50	
10/28/2004	<5.0	6,700	6,800	<50	<50	120	<50	<50	
01/10/2005	<50,000	<10,000	7,100	<250	<250	<250	<250	<250	
04/13/2005	<10,000	5,300	5,300	<50	<50	95	<50	<50	

Table 2. Summary of Fuel Additives Analytical Data Station #11102, 100 MacArthur Blvd., Oakland, CA

Well and					ons in (µg/L)		mur bivu., O		
Sample Date	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	Comments
MW-2 Cont.									
07/11/2005	10,000	0.000	5 200	-50	-50	00	-50	<i>-</i> 50	
07/11/2005	<10,000	9,000	5,300	<50	<50	99	<50	<50	
10/17/2005	<10,000	5,200	2,500	<50	<50	<50	<50	<50	a
01/17/2006	<30,000	8,400	2,200	<50	<50	<50	<50	<50	
04/21/2006									Well inaccessible
7/26/2006	<30,000	4,500	2,900	<50	<50	<50	<50	< 50	
10/31/2006	<15,000	9,300	2,300	<25	<25	41	<25	<25	a
1/8/2007	<7,500	7700	1700	<12	<12	38	<12	<12	
4/10/2007	<30,000	6,400	1,500	< 50	< 50	< 50	< 50	< 50	
7/10/2007	<15,000	8,700	2,600	<25	<25	42	<25	<25	
10/24/2007	<15,000	9,500	2,800	<25	<25	52	<25	<25	
1/22/2008	<15,000	6,000	1,400	<25	<25	<25	<25	<25	
4/15/2008	<1,500	6,800	2,400	<2.5	<2.5	30	2.8	<2.5	
7/8/2008	<30,000	7,600	2,800	<50	<50	<50	<50	< 50	
11/19/2008	<30,000	7,100	1,900	<50	<50	< 50	<50	< 50	
2/10/2009	<30,000	2,700	940	<50	<50	<50	<50	< 50	
MW-3									
7/14/2003	<100	<20	28	<1.0	<1.0	<1.0			
01/14/2004	<1,000	<200	380	<5.0	<5.0	<5.0	<5.0	<5.0	
04/23/2004	<5,000	<1,000	560	<25	<25	<25	<25	<25	
07/01/2004	<100	<20	48	< 0.50	< 0.50	0.52	<0.50	< 0.50	
10/28/2004	<5.0	<200	290	<5.0	<5.0	<5.0	<5.0	<5.0	
01/10/2005	<100	<20	18	<0.50	< 0.50	<0.50	< 0.50	< 0.50	
04/13/2005	<100	<20	9.0	<0.50	<0.50	< 0.50	< 0.50	< 0.50	
07/11/2005	<200	<40	120	<1.0	<1.0	1.4	<1.0	<1.0	a
10/17/2005	<500	<100	260	<2.5	<2.5	4.2	<2.5	<2.5	a
01/17/2006	<3,000	200	980	<5.0	<5.0	13	<5.0	<5.0	
04/21/2006	<3,000	<200	48	<5.0	<5.0	<5.0	<5.0	<5.0	
7/17/2006	<3,000	<200	1,400	<5.0	<5.0	15	<5.0	<5.0	
7/26/2006	<6,000	<400	1,400	<10	<10	18	<10	<10	
10/31/2006	<6,000	<400	2,300	<10	<10	39	<10	<10	a
1/8/2007	<3000	<200	760	<5.0	<5.0	9.7	<5.0	<5.0	
1/0/2007	<b>\_3000</b>	200	700	3.0	3.0	7.1	3.0	₹3.0	

Table 2. Summary of Fuel Additives Analytical Data Station #11102, 100 MacArthur Blvd., Oakland, CA

Well and				Concentrati	ons in (µg/L)				
Sample Date	Ethanol	TBA	MTBE	DIPE	ETBE	TAME	1,2-DCA	EDB	Comments
MW-3 Cont.									
4/10/2007	<3,000	<200	750	<5.0	<5.0	<5.0	<5.0	<5.0	
7/10/2007	<3,000	<200	2,400	< 5.0	< 5.0	39	<5.0		
10/24/2007	<15,000	<1,000	3,500	<25	<25	58	<25	<25	
1/22/2008	<7,500	< 500	2,800	<12	<12	34	<12	<12	
4/15/2008	<1,500	<50	960	<2.5	<2.5	9.2	<2.5	<2.5	
7/8/2008	<30,000	<1,000	2,200	< 50	< 50	<50	<50	< 50	
11/19/2008	<30,000	<1,000	2,700	<50	<50	<50	<50	< 50	
2/10/2009	<30,000	<1,000	1,800	<50	<50	<50	<50	<50	

#### SYMBOLS & ABBREVIATIONS:

- -- = Not analyzed/applicable/measured/available
- < = Not detected at or above specified laboratory reporting limit

1,2-DCA = 1,2-Dichloroethane

DIPE = Di-isopropyl ether

EDB = 1,2-Dibromoethane

ETBE = Ethyl tert-butyl ether

MTBE = Methyl tert-butyl ether

TAME = tert-Amyl methyl ether

TBA = tert-Butyl alcohol

 $\mu g/L = Micrograms per Liter$ 

#### FOOTNOTES:

a = The calibration verification for ethanol was within the method limits but outside the contract limits.

#### NOTES:

All volatile organic compounds were analyzed using EPA Method 8260B.

Note: The data within this table collected prior to April 2006 was provided to Broadbent & Associates, Inc. by Atlantic Richfield Company and their previous consultants. Broadbent & Associates, Inc. has not verified the accuracy of this information.