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10:30 am, Apr 15, 2011 Alameda County Environmental Health

April 13, 2011

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

Subject:

Semi-Annual Summary Report, October 2010 through March 2011

Site:

76 Station No. 5748/6419

6401 Dublin Boulevard

Dublin, California

Fuel Leak Case No. RO0000459

Dear Mr. Khatari;

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

If you have any questions or need additional information, please call:

Liz Bermudez

Pacific Convenience & Fuel

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San Ramon, California 94583

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Sincerely,

PACIFIC CONVENIENCE & FUEL

Liz Bermudez

LIZ BERMUDEZ

Senior Paralegal

Attachment



Semi-Annual Summary Report, October 2010 through March 2011

76 Station No. 5748/6419 6401 Dublin Boulevard Dublin, California

Alameda County Health Care Services Agency No.: RO0000459

GeoTracker Global ID No.T0600101443

Antea Group Project No. 142705748

April 13, 2011

Prepared for:
Mr. Paresh Khatri
Alameda County Health Care
Services Agency
1131 Harbor Bay Parkway,
Suite 250
Alameda, CA 94502-6577

Prepared by:
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Antea Group Project No. 142705748

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Attachment A	Summary of Previous Environmental Investigations
Attachment B	Blaine Tech Services Groundwater Sampling Procedures
Attachment C	Blaine Tech Services Groundwater Sampling Field Data Sheets
Attachment D	Certified Laboratory Analytical Report and Data Validation Form
Attachment F	Waste Manifest



1.0 SITE INFORMATION

Antea Group Project No. 142705748

Station Number:	76 Station No. 5748/6419
Site Address:	6401 Dublin Boulevard, Dublin, California, 94568
Contact:	Mr. Dennis Dettloff
	Project Manager
	Antea Group
	11050 White Rock Road, Suite 110
	Rancho Cordova, California 95670
Consulting Company:	Antea Group
Delta Project No.:	142705748
Contact/ Primary Agency:	Mr. Paresh Khatri,
	Alameda County Health Care Services Agency

1.1 Work Performed (October 2010 through March 2011)

- 1. Blaine Tech Services, Inc. (Blaine Tech) conducted the semi-annual groundwater sampling event on March 8, 2011.
- 2. Antea Group replaced MW-1 with MW-1R in the same borehole. Antea Group prepared the *Site Investigation Report and Work Plan* dated February 3, 2011 to summarize results of these activities propose additional investigation.

1.2 Work Proposed (April through September 2011)

- 1. Antea Group prepared the *Semi-Annual Summary Report October 2010 through March 2011*, contained herein.
- 2. Blaine Tech will conduct the semi-annual groundwater monitoring and sampling event during the third quarter 2011.

1.3 Background

AnteaTMGroup (formerly Delta Consultants) is pleased to submit this Quarterly Summary Report, First Quarter 2011 for the referenced site in Sacramento, CA (**Figure 1**). The subject site is an active 76 station located on the western corner of Dublin Boulevard and Dougherty Road in Dublin, California. The site is bounded to the south by Dublin Boulevard, to the northeast by Dougherty Road, and to the west-northwest by a shopping center. Properties in the immediate site vicinity are commercial, including service stations and retail facilities.

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Current above ground site facilities consist of two dispenser islands, a car wash, and a station building/convenience store. Two 12,000-gallon gasoline underground storage tanks (USTs) are located in the common pit, east of the station building (**Figures 1 and 2**).

Previous investigation information and site history are presented as **Attachment A**. Blaine Tech's procedures for groundwater monitoring and sampling, and equipment decontamination are presented as **Attachment B**. The groundwater monitoring and sampling field data sheets are presented as **Attachment C**. The groundwater sampling certified analytical report and chain-of-custody (COC) documentation are presented as **Attachment D**.

Site summary data has been tabled in the following:

- **Table 1** summarizes the current groundwater gauging and analytical data.
- **Table 2** summarizes the historical groundwater gauging and analytical data.
- **Table 3** summarizes the well construction details.
- Table 4 summarizes the historical groundwater flow direction and gradient information.

This report summarizes the groundwater data collected to date, focusing on the most recent analytical data obtained from groundwater samples collected on March 8, 2011. This report has received a technical review by Mr. Dennis S. Dettloff, California Professional Geologist No. 7480.

2.0 CURRENT PROJECT STATUS

Current phase of project:	Groundwater Monitoring
Local Oversight Program (LOP) – Lead agency for cleanup oversight:	Alameda County Health Care Services Agency No. RO0000459
Contact:	Mr. Paresh Khatri
Monitoring well gauging schedule:	Semi-Annual: MW-1R, MW-3, and MW-5
Monitoring well sampling schedule:	Semi-Annual: MW-1R, MW-3, and MW-5
Total number of monitoring wells (Table 3):	3
Range of well depths (total depth below ground surface, bgs) (Table 3):	19-20 feet
Wells with historical measurable LNAPL (light non-aqueous phase liquid):	None
Generalized site geology:	Predominantly silt and clay with some poorly graded sand to 20 feet bgs the maximum depth explored.
Historical Depth to Water Range, in feet below top of casing (BTOC):	Min: 5.09 (MW-2, Q1 1998) Max: 13.37 (MW-8, Q1 2004)

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Historical Groundwater Elevation Range, in feet above mean sea level:	Min: 316.60 (MW-8, Q1 2004) Max: 326.78 (MW-3, Q1 2011)
Local Receptors:	There is a canal 625 feet southeast of the site (See Attachment A)
Current Remediation Technique:	No active remediation

2.1 Groundwater Monitoring

Semi-annual groundwater monitoring and sampling was conducted at the site on March 8, 2011 by Blaine Tech Services per their standard sampling protocol (**Attachment B**). Three monitoring wells were gauged and sampled. A copy of Blaine Tech's field notes is included as **Attachment C**. Measured depth to groundwater and respective groundwater elevations are summarized in **Table 1**. Depths to water were measured to within 0.01 feet BTOC in monitoring wells MW-1R, MW-3, and MW-5 using a water level indicator. Historic laboratory analytical results are summarized in **Table 2**. Gauging and sampling data from the most recent quarterly event are summarized below.

Well gauging and sampling date:	March 8, 2011
Wells gauged:	MW-1R, MW-3, and MW-5
Wells sampled:	MW-1R, MW-3, and MW-5
Purge method:	3 well casing volumes via electric, submersible pump
Sample collection method:	Disposable bailers
Groundwater parameters measured (Attachment C):	Temperature, pH, conductivity, Oxygen Reduction Potential (ORP), Turbidity, and D.O.
Wells with measurable LNAPL:	None
Depth to Water Range (ft BTOC):	6.43 (MW-1R) to 6.62 (MW-3)
Groundwater Elevation Range (ft above mean sea level):	326.51 (MW-5) to 326.78 (MW-3)
Change in water depths from previous event (average change for all gauged wells):	4.16 foot increase (Note: new survey elevations increase TOC Elevation by approximately 2.86 feet)
Groundwater Flow Direction and Gradient (ft/ft):	0.0029 ft/ft south

All monitoring and sampling activities for the site during the first quarter 2011 were conducted by Blaine Tech and reviewed and certified by a California Professional Geologist.

2.1.1 Groundwater Sample Analysis

Groundwater samples collected from monitoring wells MW-1R, MW-3, and MW-5 were submitted with COC documentation to Pace Laboratory (Pace) in Seattle, WA, a California state-certified laboratory (No. 01153CA). Samples were analyzed for the presence of total petroleum hydrocarbons as gasoline (TPHg) by the CA LUFT Method, and benzene, toluene, ethylbenzene, total xylenes (collectively BTEX), methyl tertiary-butyl ether (MTBE), and ethanol by Environmental Protection Agency (EPA) Method 8260.



2.1.2 Groundwater Quality Data

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Groundwater analytical results are tabulated in **Table 1** (current) and **Table 2** (historical). During the March 2011 sampling event, the following ranges of contaminant concentrations were reported in the specified site wells (only the constituents detected are shown):

	Number of Reported	Minimum Reported	Maximum Reported
Constituents	Concentrations Above LRL of Total	Concentration, in μg/L	Concentration, in μg/L
	Samples Analyzed	(Sample ID)	(Sample ID)
TPHg	1 of 3	<50 (MW-1R, MW-3)	94.6 (MW-5)
Danzana	0 of 3	<0.50 (MW-1R, MW-3,	<0.50 (MW-1R, MW-3, and
Benzene		and MW-5)	MW-5)
MTBE	3 of 3	0.85 (MW-1R)	116 (MW-5)

Key: LRL = Laboratory reporting limits $\mu g/L = Micrograms per liter$

2.1.3 Contaminants of Concern

TPHg: TPHg was above the laboratory's indicated reporting limits in the groundwater sample collected and submitted for analysis from monitoring well MW-5 (94.6 μ g/L) during the current event. However, as noted above, the laboratory report indicated that TPHg reported in the groundwater sample collected from monitoring well MW-5 did not match the pattern of the laboratory standard for gasoline. This is likely due to the presence of MTBE in the samples.

Benzene: Benzene was below the laboratory's indicated reporting limits in each of the groundwater samples collected and submitted for analysis during the current event.

MTBE: MTBE was above the laboratory's indicated reporting limit in the groundwater samples collected and submitted for analysis from monitoring wells MW-1R (0.85 μ g/L), MW-3 (19.5 μ g/L), and MW-5 (116 μ g/L) during the current event.

All other constituents tested were below the laboratory's indicated reporting limits in the groundwater samples collected and submitted for analysis during the current event. The March 8, 2011 groundwater analytical results and historical groundwater monitoring and analytical results are presented in **Table 1** and **Table 2**. Pace Laboratory's analytical report and chain-of-custody documentation are presented as **Attachment D**.

The March 8, 2011 2011 groundwater elevation contour map is presented as **Figure 3.** An isoconcentration map for MTBE is presented as **Figure 4**. Historical groundwater flow directions are shown on a rose diagram, presented as **Figure 5**.

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2.1.4 Waste Disposal Summary

A total of approximately 23 gallons of waste water were generated during the March 2011 groundwater sampling event. The generated waste water was temporarily stored by Blaine Tech in a 2000-gallon poly tank. The generated waste water was later transported for proper disposal at Seaport Environmental in Redwood City, California, where the waste water was properly disposed. The method of containment and disposal is reported in Blaine Tech's procedures for groundwater sampling in **Attachment B**. A copy of the waste disposal manifest is presented as **Attachment E**.

2.1.5 Quality Assurance / Quality Control

Antea Group's QA/QC measures included a detailed QA/QC data validation check on the Pace laboratory analytical results for the March 2011 sampling event. Antea Group's laboratory data validation checklist and the Pace laboratory report are presented as **Attachment D**. A summary of QA/QC information follows.

Laboratory QA/QC Performed:	Yes (validated by Antea Group)
Laboratory Data Qualifiers:	One (n1)
Validity of Laboratory Data:	Data set is Valid

Data Qualifiers:

n1 – The TPHg result (for MW-5) did not match the pattern of the laboratory standard for gasoline.

Based on a review of the laboratory's analytical report, including their QA/QC procedures and those implemented by Antea Group, we conclude that the laboratory data obtained during this groundwater sampling event are valid for their intended purpose.

2.2 Regulatory Correspondence

In a letter from Paresh Khatri, ACHCSA approved Delta's work plan titled *Monitoring Well MW-1 Redevelopment Report and Work Plan*, dated September 20, 2010.

In a letter from Paresh Khatri dated November 18, 2010, ACHCSA commented on the lack of an access agreement between PC&F and Tralee Village, LLC. (owner of offsite property 6599 Dublin Blvd). Paresh recommended Tralee Village, LLC ask for reasonable access fees to come to an agreement or they will be legally responsible for the contaminated condition of the 6599 Dublin Blvd and may be required to conduct remedial investigation of the contamination at their own expense.

In an email from Paresh Khatri dated January 13, 2011, asked for a summary report detailing the monitoring well replacement and the proposed down-gradient boring.

2.3 Remedial Activities

There are currently no active remediation activities taking place at this site.

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3.0 CONCLUSIONS AND RECOMMENDATIONS

Antea Group recommends continuing the sampling program until the additional site investigation can be completed. At which time if it is shown that contaminants are not migrating off-site, Antea Group will prepare and submit a site closure request.

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4.0 Remarks

The recommendations contained in this report represent Antea USA, Inc.'s professional opinions based upon the currently available information and are arrived at in accordance with currently accepted professional standards. This report is based upon a specific scope of work requested by the client. For any reports cited that were not generated by Delta or Antea Group, the data from those reports is used "as is" and is assumed to be accurate. Antea Group does not guarantee the accuracy of this data for the referenced work performed nor the inferences or conclusions stated in these reports. The contract between Antea USA, Inc. and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of Antea USA, Inc.'s client and anyone else specifically identified in writing by Antea USA, Inc. as a user of this report. Antea USA, Inc. will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Antea USA, Inc. makes no express or implied warranty as to the contents of this report.

Prepared by:

Jonathan Fillingame

Staff Geologist

Information, conclusions, and recommendations provided by Antea Group in this document regarding the site have been prepared under the supervision of and reviewed by the licensed professional whose signature appears DFM DFM below.

Licensed Approver:

Dennis S. Dettloff, P.G.

Project Manager

California Registered Professional Geologist No. 7480

Mr. Paresh Khatri, Alameda County Health Care Services Agency, 1131 Harbor Bay Parkway, Suite 250, cc:

Alameda, CA 94502-6577

GeoTracker (upload)

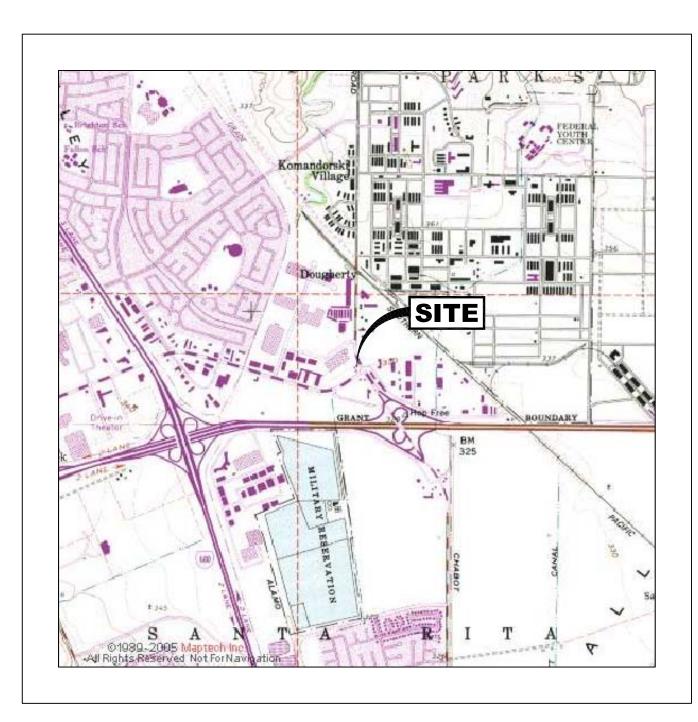
DENNIS SHANNON DETTLOFF No. 7480



Figures

Antea Group Project No. 142705748

Figure 1	Site Locator Map
Figure 2	Site Plan
Figure 3	Groundwater Elevation Contour Map – March 8, 2011
Figure 4	Dissolved Phase MTBE Isoconcentration Map – March 8, 2011
Figure 5	Historical Groundwater Flow Directions





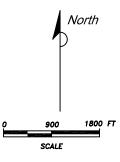


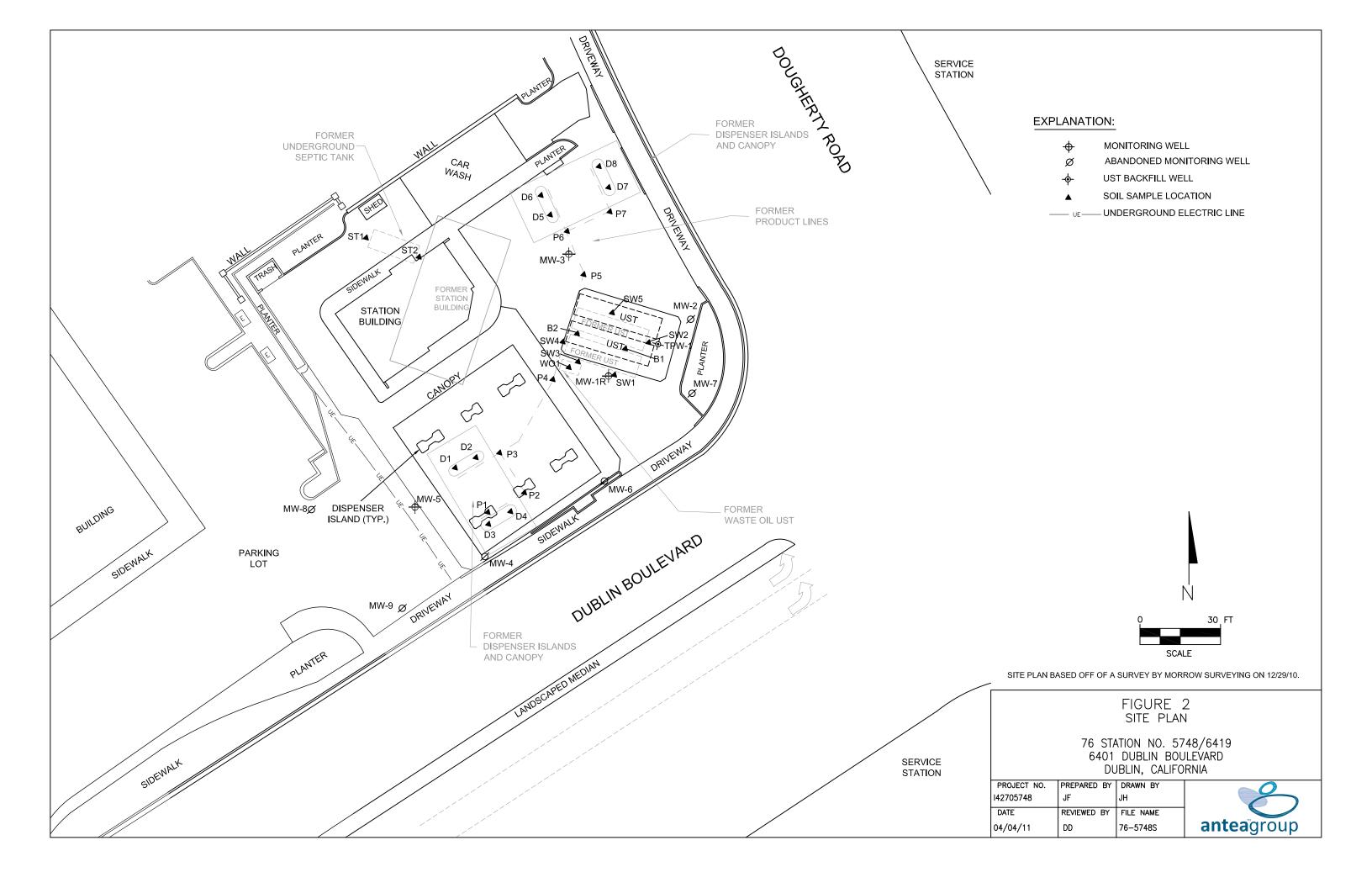
FIGURE 1 SITE LOCATION MAP

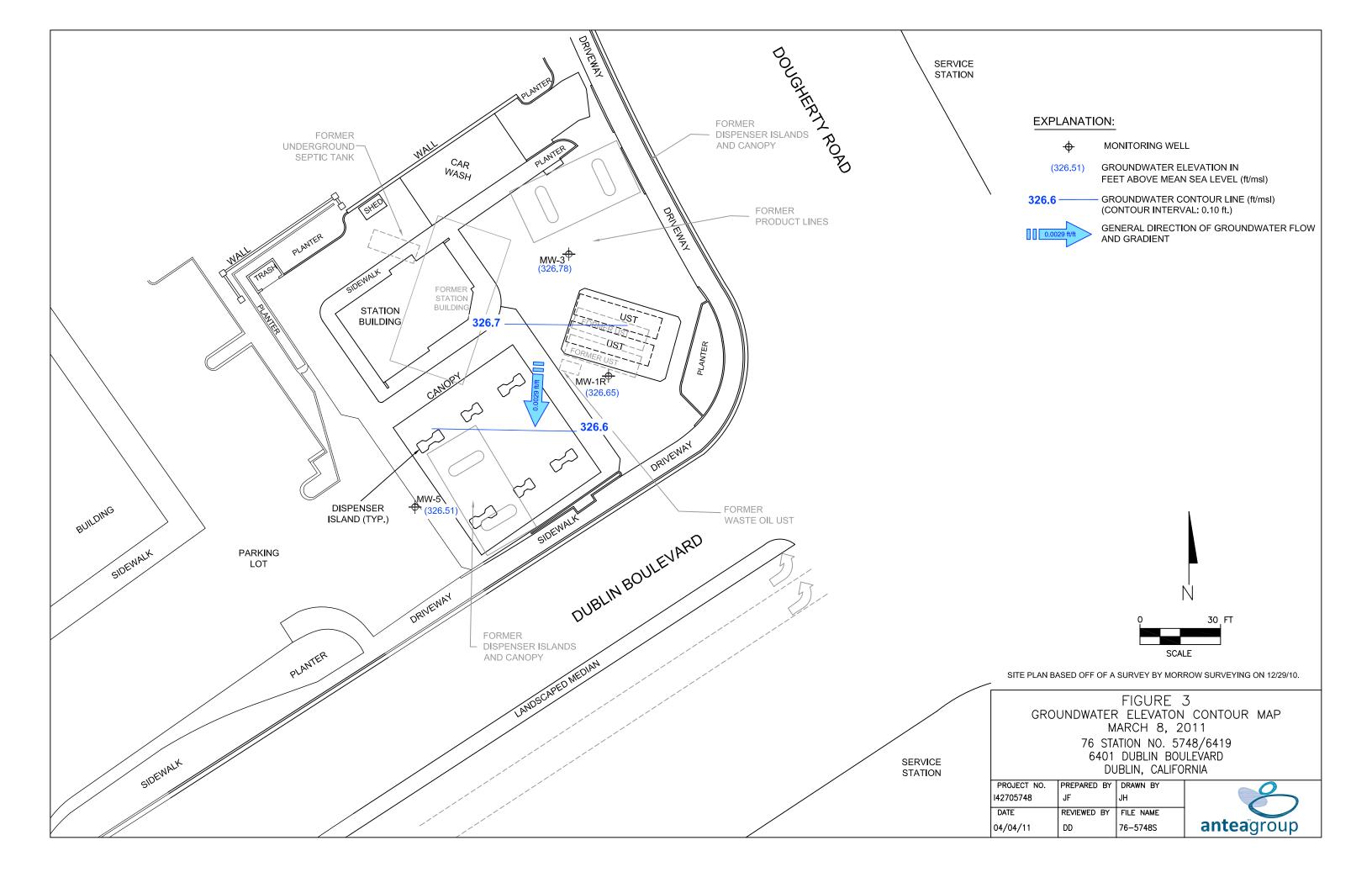
76 STATION NO. 5748 / 6419 6401 DUBLIN BOULEVARD DUBLIN, CALIFORNIA

PROJECT NO.	DRAWN BY
C105748	JH 2/2/11
FILE NO.	PREPARED BY
5748-SiteLocator	JH
REVISION NO.	REVIEWED BY
	DD



SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP, DUBLIN (1998) QUADRANGLE





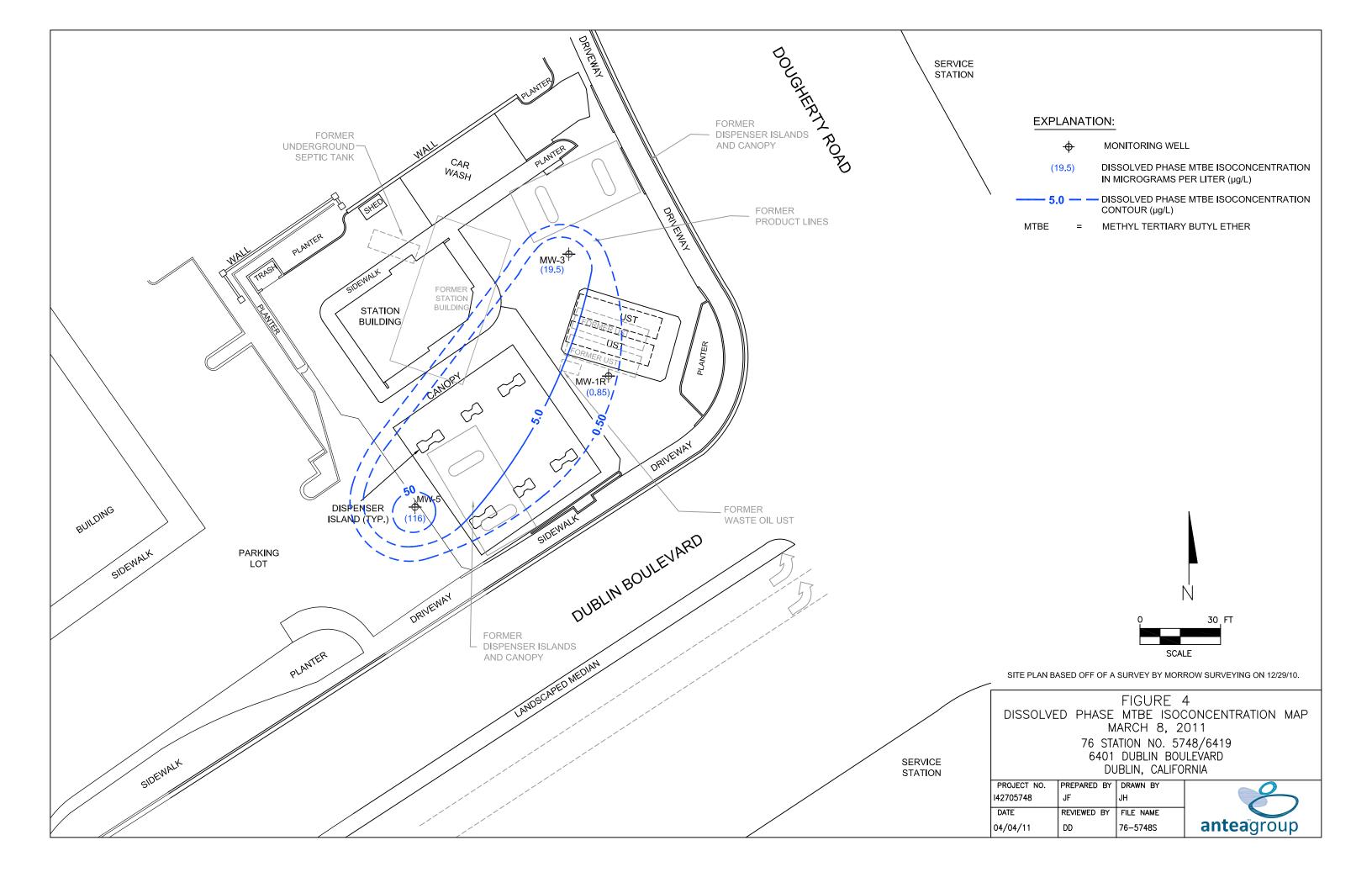
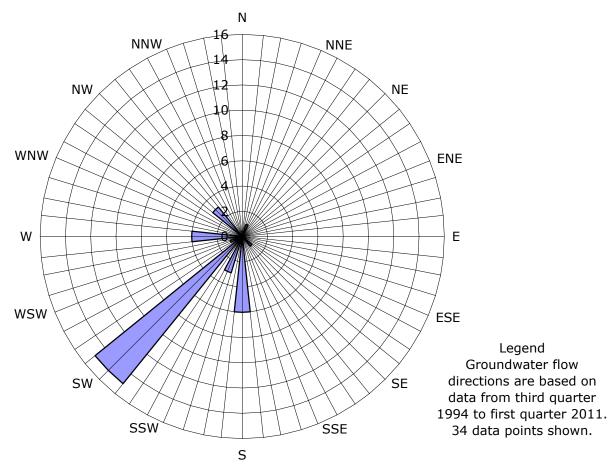


Figure 5
Historic Groundwater Flow Directions
76 Station No. 5748/6419

6401 Dublin Blvd. Dublin, California





Tables

Table 1	Current Groundwater Gauging and Analytical Data
Table 2	Historical Groundwater Gauging and Analytical Data
Table 3	Well Construction Details
Table 4	Groundwater Gradient and Flow Direction Data

TABLE 1

CURRENT GROUNDWATER GAUGING AND ANALYTICAL DATA 76 Station No. 5748/6419 6401 DUBLIN BLVD DUBLIN, CALIFORNIA



			GROUNDWATER	GAUGING DATA	ı			GROUND	WATER ANALYTI	CAL DATA		
Well I.D.	Date		Depth to Water		Water	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene	Total Xylenes	MTBE (ug/L)	Ethanol (ug/L)
		(ft)	(ft)	Thickness (ft)	Elevation* (ft)				(ug/L)	(ug/L)		
MW-1R	3/8/2011	333.08	6.43	NP	326.65	<50.0	<0.50	<0.50	<0.50	<1.5	0.85	<250
MW-3	3/8/2011	333.4	6.62	NP	326.78	<50.0	<0.50	<0.50	<0.50	<1.5	19.5	<250
MW-5	3/8/2011	333.05	6.54	NP	326.51	94.6	<0.50	<0.50	<0.50	<1.5	116	<250

Gauging Notes:

TOC - Top of Casing

ft - Feet

NP - LNAPL not present

LNAPL - Light non-aqueous phase liquid

* - Corrected for LNAPL if present (assumes LNAPL specific gravity = 0.75)

-- - No information available

Analytical Notes:

< - Below the laboratory's indicated reporting limit

ug/L - micrograms/liter

TPHg- Total Petroleum Hydrocarbons as gasoline

MTBE- Methyl tertiary-butyl ether

Bold- Above the laboratory's indicated reporting limit

TABLE 2

HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA 76 Service No. 5748/6419 6401 DUBLIN BLVD



DUBLIN, CALIFORNIA

			GROUNDWATER	GAUGING DATA	1							GROUND	WATER ANALYTI	CAL DATA						
Well I.D.	Date	TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B)	MTBE (SW8260B)	TBA (ug/L)	Ethanol (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	1,2- Dibromoethane (EDB) (ug/L)	1,2- Dichloroethane	DRO (ug/L)
	3/14/1994	330.45	7.27	NP	323.18	1800	17	ND	ND	ND	(ug/L) 	(ug/L) 						(EDB) (ug/L)	(ug/L) 	810
	8/25/1994	330.45	8.57	NP	321.88	9200	48	ND	540	ND										910
	9/30/1994	330.45	8.78	NP	321.67															
	10/20/1994	330.45	8.98	NP	321.47															
	11/18/1994	330.45	7.69	NP	322.76	5100	33	ND	560	38										910
	12/20/1994	330.45	7.58	NP	322.87															
	1/17/1995	330.45	6.03	NP	324.42															
	2/15/1995	330.45	6.29	NP	324.16	3300	13	ND	180	5.2										660
	3/13/1995 4/6/1995	330.45 330.45	5.64 5.62	NP NP	324.81 324.83															
	5/17/1995	330.45	6.26	NP	324.19	130	0.75	ND	1.5	ND										200
	6/15/1995	330.45	6.75	NP	323.70															
	8/25/1995	330.45	7.91	NP	322.54	490	9.1	ND	21	2										
	11/28/1995	330.45	9.03	NP	321.42	1400	18	3	98	3.6										
	2/26/1996	330.45	5.77	NP	324.68	560	9.3	ND	22	ND	1300									
	8/23/1996	330.45	7.78	NP	322.67	ND	ND	ND	ND	ND	640									
	2/17/1997	330.23	5.73	NP	324.50	120	1	0.95	ND	ND	280									
	8/18/1997	330.23	7.38	NP	322.85	ND	ND	ND	ND	ND	100									
	2/2/1998 8/24/1998	330.23 330.23	5.10 6.73	NP NP	325.13 323.50	ND ND	130 ND	ND ND	ND ND	ND ND	32000 26000	24000								
	2/10/1999	330.23	5.46	NP	323.30	ND	ND	ND ND	ND	ND ND	84000	100000								
	4/12/1999	330.23	6.38	NP	323.85	ND	ND	ND	ND	ND	140000	120000								
	5/21/1999	330.21	5.95	NP	324.26															
NA) A / 1	8/2/1999	330.21	6.75	NP	323.46	ND	ND	ND	ND	ND	91000	140000								
MW-1	2/11/2000	330.21	6.44	NP	323.77	ND	ND	ND	ND	ND	38000	39000								
	7/26/2000	330.18	7.08	NP	323.10	146	ND	ND	ND	ND	30900	42800	ND		ND	ND	ND	ND	ND	
	2/2/2001	330.18	6.99	NP	323.19	ND	ND	ND	ND	ND	5380	6430								
	5/16/2001	330.18	NG	NG	NG						40000									
	8/24/2001 10/11/2001	330.18 330.17	7.72 7.72	NP NP	322.46 322.45	<50 	8.3	<0.50	<0.50	<0.50	10000	6600	<1000	<25000	<100	<100	<100	<100	<100	
	2/6/2002	330.17	6.43	NP NP	323.74	<50	<0.50	<0.50	<0.50	<0.50	450	420	<100	<2500	<5.0	<5.0	<5.0	<5.0	<5.0	
	7/30/2002	330.17	7.45	NP	322.72	<1000	<10	<10	<10	<20		2400	<2000	<10000	<40	<40	<40	<40	<40	
	2/17/2003	330.17	6.18	NP	323.99	<250	<2.5	<2.5	<2.5	<5.0		600	<500	<2500	<10	<10	<10	<10	<10	
	8/18/2003	330.17	6.25	NP	323.92	3900	<20	<20	<20	<40		2700	<4000	<20000	<80	<80	<80	<80	<80	
	2/24/2004	330.17	5.59	NP	324.58	<1000	<10	<10	<10	<20		1400	<2000	<10000	<40	<40	<40	<40	<40	
	9/17/2004	330.17	7.08	NP	323.09	<50	<0.50	<0.50	<0.50	<1.0		14	470	<50	<1.0	<0.5	<0.5	<0.5	<0.5	
	3/22/2005	330.17	5.29	NP	324.88	<50	<0.50	<0.50	<0.50	<1.0		100	<5.0	<50	<0.5	<0.5	<0.5	<0.50	<0.5	
	9/29/2005	330.17	dry	dry	dry	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	1/9/2006	330.17	7.05	NP	323.12	<50	<0.50	<0.50	<0.50	<1.0		2.8	<10	<250	<0.50	<0.50	<0.50	<0.50	<0.50	
	9/27/2006 3/29/2007	330.17 330.17	8.05 8.38	NP NP	322.12 321.79	<50 <50	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50		1.4 <0.50		<250 <250						
	9/21/2007	330.17	9.93	NP	320.24	<50	<0.50	<0.50	<0.50	<0.50		1.5		<250						
	3/27/2008	330.17	6.59	NP	323.58	<50	<0.50	<0.50	<0.50	<1.0		<0.50		<250						
	9/2/2008	330.17	7.37	NP	322.80	<50	<0.50	<0.50	<0.50	<1.0		16		<250						
	3/6/2009	330.17	5.36	NP	324.81	<50	<0.50	<0.50	<0.50	<1.0		<0.50		<250						
	8/21/2009	330.17	7.50	NP	322.67	<50	<0.50	<0.50	<0.50	<1.0		3.3		<250						
	3/10/2010	330.17	6.08	NP	324.09	<50.0	<0.50	<0.50	<0.50	1.9	-	<0.50		<250						
	9/24/2010	330.17	7.52	NP	322.65	<50.0	<0.50	<0.50	<0.50	<1.5		2.3		<250						
MW-1R	3/8/2011	333.08	6.43	NP	326.65	<50.0	<0.50	<0.50	<0.50	<1.5		0.85		<250						
MW-2	3/14/1994 8/25/1994	330.40 330.40	7.23 8.41	NP NP	323.17	ND ND	ND ND	2.8 ND	1.1 ND	8 ND										
IVI VV -Z	9/30/1994	330.40	8.41	NP NP	321.99 321.67	ND 	ND 	ND 		ND 										
	10/20/1994	330.40	8.92	NP	321.48															
	11/18/1994	330.40	7.67	NP	322.73	ND	ND	ND	ND	ND										
	12/20/1994	330.40	7.48	NP	322.92															

TABLE 2 HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA

76 Service No. 5748/6419 6401 DUBLIN BLVD DUBLIN, CALIFORNIA



			GROUNDWATER	GAUGING DATA								GROUND	WATER ANALYTI	CAL DATA						
Well I.D.	Date	TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	TBA (ug/L)	Ethanol (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	1,2- Dibromoethane (EDB) (ug/L)	1,2- Dichloroethane (ug/L)	DRO (ug/L)
	1/17/1995	330.40	6.00	NP	324.40															
	2/15/1995	330.40	6.16	NP	324.24	ND	ND	ND	ND	ND										
	3/13/1995	330.40	5.59	NP	324.81															
	4/6/1995	330.40	5.51	NP	324.89															
	5/17/1995 6/15/1995	330.40 330.40	6.15 6.61	NP NP	324.25 323.79	ND 	ND 	ND 	ND 	ND 										
	8/25/1995	330.40	7.45	NP NP	323.79	ND	ND	ND	ND	ND										
	11/28/1995	330.40	8.85	NP	321.55	ND	ND	ND	ND	ND										
	2/26/1996	330.40	5.49	NP	324.91	ND	ND	ND	ND	ND										
	8/23/1996	330.40	7.44	NP	322.96	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/17/1997	330.27	5.64	NP	324.63	ND	ND	ND	ND	ND	ND									
	8/18/1997	330.27	7.40	NP	322.87															
	2/2/1998	330.27	5.09	NP	325.18	ND	ND	ND	ND	ND	62									
	8/24/1998	330.27	6.70	NP	323.57					 ND										
MW-2	2/10/1999 5/21/1999	330.27 330.30	5.56 5.98	NP NP	324.71 324.32	ND 	ND 	ND 	ND 	ND 	130									
	8/2/1999	330.30	6.72	NP NP	324.32	ND	ND	ND	ND	ND	120									
	2/11/2000	330.30	6.43	NP	323.87	ND	ND	ND	ND	ND	39									
	7/26/2000	330.24	7.03	NP	323.21	ND	ND	ND	ND	ND	89.9									
	2/2/2001	330.24	6.81	NP	323.43	ND	ND	ND	ND	ND	20.1									
	5/16/2001	330.24	NG	NG	NG															
	8/24/2001	330.24	7.57	NP	322.67	<50	<0.50	<0.50	<0.50	<0.50	36									
	10/11/2001	330.24	7.62	NP	322.62															
	2/6/2002	330.24	6.40	NP	323.84	<50	<0.50	<0.50	<0.50	<0.50	23	21	<20	<500	<1.0	<1.0	<1.0	<1.0	<1.0	
	7/30/2002	330.24	7.12	NP	323.12	<50	<0.50	<0.50	<0.50	<1.0		11								
	2/17/2003	330.24	6.17	NP	324.07	<50	<0.50	<0.50	<0.50	<1.0		25								
	8/18/2003	330.24	6.36 5.87	NP	323.88	<50	<0.50	<0.50	<0.50	<1.0		<2		<500						
	2/24/2004 9/17/2004	330.24 330.24	7.22	NP NP	324.37 323.02	<100 120	<1.0 <0.50	<1.0 <0.50	<1.0 <0.50	<2.0 <1.0		100 70		<1000 <50						
	3/22/2005	330.24	5.55	NP	324.69	110	<0.50	1.3	0.68	2.4		29		<50						
	9/29/2005	330.24	8.26	NP	321.98	<50	<0.50	<0.50	<0.50	<1.0		23		<250						
	1/9/2006	330.24	7.41	NP	322.83	<50	<0.50	<0.50	<0.50	<1.0		25		<250						
	9/27/2006	330.24	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD
	3/14/1994	331.11	7.93	NP	323.18	150	ND	ND	ND	ND										
	8/25/1994	331.11	9.20	NP	321.91	130	ND	ND	ND	ND										
	9/30/1994	331.11	9.43	NP	321.68															
	10/20/1994 11/18/1994	331.11	9.64 8.39	NP NP	321.47 322.72	120	 ND	 ND		 ND										
	12/20/1994	331.11 331.11	8.20	NP NP	322.72	130			ND 	ND 										
	1/17/1995	331.11	6.72	NP	324.39															
	2/15/1995	331.11	6.93	NP	324.18	130	ND	ND	ND	ND										
MW-3	3/13/1995	331.11	6.30	NP	324.81			-												
	4/6/1995	331.11	8.20	NP	322.91															
	5/17/1995 6/15/1995	331.11 331.11	6.88 7.35	NP NP	324.23 323.76	99	ND	ND 	ND 	ND										
	8/25/1995	331.11	7.35 8.20	NP NP	323.76	ND	 ND	ND	 ND	 ND										
	11/28/1995	331.11	9.52	NP	321.59	ND	ND	ND	ND	ND										
	2/26/1996	331.11	6.25	NP	324.86	ND	ND	ND	ND	ND										
	8/23/1996	331.11	7.98	NP	323.13	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/17/1997	330.68	6.07	NP	324.61	ND	ND	ND	ND	ND	68									
	8/18/1997	330.68	7.82	NP	322.86					 ND										
	2/2/1998	330.68	5.50	NP	325.18	ND	ND	ND	ND	ND	100									
	8/24/1998 2/10/1999	330.68 330.68	7.12 5.80	NP NP	323.56 324.88	 ND	 ND	 ND	 ND	 ND	92									
	5/21/1999	330.68	6.16	NP NP	324.88					ND 										
	8/2/1999	330.49	6.95	NP	323.54	ND	ND	ND	ND	ND	140									
	0/4/1333	330.43	0.33	INF	J 2 J.J4	שאו	שאו	חאו	טאו	טאו	140									

TABLE 2 HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA

76 Service No. 5748/6419 6401 DUBLIN BLVD DUBLIN, CALIFORNIA



			GROUNDWATER	GAUGING DATA								GROUND	WATER ANALYTI	ICAL DATA						
Well I.D.	Date	TOC Floration	Depth to Water	LNAPL	Water				Ethylbenzene	Total Xylenes	MTBE	MTBE						1,2-	1,2-	
Well i.b.	Date	(ft)	(ft)	Thickness (ft)	Elevation* (ft)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	(ug/L)	(ug/L)	(SW8021B)	(SW8260B)	TBA (ug/L)	Ethanol (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)		Dichloroethane	DRO (ug/L)
		` '	, ,								(ug/L)	(ug/L)						(EDB) (ug/L)	(ug/L)	
	2/11/2000	330.49	6.71	NP	323.78	ND	ND	ND	ND	ND	46									
	7/26/2000	330.60	7.35	NP	323.25	ND	ND	ND	ND	ND	927									
	2/2/2001	330.60	7.17	NP	323.43	ND	ND	ND	ND	ND	2240									
	5/16/2001 8/24/2001	330.60 330.60	NG 7.88	NG NP	NG 322.72	<50	<0.50	<0.50	<0.50	<0.50	2500									
	10/11/2001	330.59	7.83	NP	322.72															
	2/6/2002	330.59	6.73	NP	323.86	<1000	<10	<10	<10	<10	4300	3300	<670	<17000	<33	<33	<33	<33	<33	
	7/30/2002	330.59	7.38	NP	323.21	<2500	<25	<25	<25	<50		4900								
	2/17/2003	330.59	6.49	NP	324.10	<2500	<25	<25	<25	<50		4400								
MW-3	8/18/2003	330.59	6.70	NP	323.89	4400	<20	<20	<20	<40		3300		<20000						
	2/24/2004	330.59	6.11	NP	324.48	<2500	<25	<25	<25	<50		3000		<25000						
	9/17/2004	330.59	7.61	NP	322.98	<1300	<13	<13	<13	<25		2300		<1300						
	3/22/2005	330.59	5.79	NP	324.80	<1300	<0.50	<0.50	<0.50	<1.0		1600		<1300						
	9/29/2005	330.59	9.24	NP	321.35	680	<0.50	<0.50	<0.50	<1.0		1600		<250						
	1/9/2006	330.59	7.74	NP	322.85	410	<0.50	<0.50	<0.50	<1.0		1200		<250						
	9/27/2006	330.59	8.54	NP	322.05	780	<5.0	<5.0	<5.0	<5.0		1500		<2500						
	3/29/2007	330.59	8.82 9.38	NP	321.77	230	<0.50 <0.50	<0.50	<0.50	<0.50		230		<250						
	9/21/2007 3/27/2008	330.59 330.59	7.08	NP NP	321.21 323.51	140 84	<0.50	<0.50 <0.50	<0.50	<0.50 <1.0		160 98		<250 <250						
	9/2/2008	330.59	7.84	NP NP	323.31	<50	<0.50	<0.50	<0.50 <0.50	<1.0		50		<250						
	3/6/2009	330.59	5.85	NP	324.74	<50	<0.50	<0.50	<0.50	<1.0		43		<250						
	8/21/2009	330.59	8.04	NP	322.55	<50	<0.50	<0.50	<0.50	<1.0		33		<250						
	3/10/2010	330.59	6.43	NP	324.16	<50.0	<0.50	<0.50	<0.50	<1.5		16.7		<250						
	9/24/2010	330.59	8.02	NP	322.57	<50.0	<0.50	<0.50	<0.50	<1.5		23.5		<250						
	3/8/2011	333.40	6.62	NP	326.78	<50.0	<0.50	<0.50	<0.50	<1.5		19.5		<250						
	5/21/1999	330.36	6.43	NP	323.93	ND	ND	ND	ND	ND	960	910								
	8/2/1999	330.36	7.34	NP	323.02	ND	10	ND	13	11	ND									
	2/11/2000	330.36	6.92	NP	323.44	ND	ND	ND	ND	ND	2700									
	7/26/2000	330.35 330.35	7.68 7.40	NP NP	322.67 322.95	ND ND	ND ND	ND ND	ND ND	ND ND	3710 5340									
	2/2/2001 8/24/2001	330.35	8.14	NP NP	322.95	<50	<0.50	<0.50	<0.50	<0.50	7800									
	10/11/2001	330.35	8.29	NP	322.21															
	2/6/2002	330.35	7.28	NP	323.07	<100	<1.0	<1.0	<1.0	<1.0	2300	3100	<500	<12000	<25	<25	<25	<25	<25	
MW-4	7/30/2002	330.35	7.76	NP	322.59	<500	<5.0	<5.0	5.8	<10		1600								
	2/17/2003	330.35	6.85	NP	323.50	<1000	<10	<10	<10	<20		2200								
	8/18/2003	330.35	7.30	NP	323.05	2000	<10	<10	<10	<20		1400		<10000						
	2/24/2004 9/17/2004	330.35 330.35	6.55 8.00	NP NP	323.80 322.35	<2000 340	<20 <2.5	<20 <2.5	<20 <2.5	<40 <5.0		2000 610		<250						
	3/22/2005	330.35	6.37	NP NP	322.35	<200	<0.50	<0.50	<0.50	<1.0		290		<200						
	9/29/2005	330.35	9.43	NP	320.92	84	<0.50	<0.50	0.53	<1.0		57		<250						
	1/9/2006	330.35	7.97	NP	322.38	100	<0.50	<0.50	1.5	<1.0		150		<250						
	9/27/2006	330.35	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD
	5/21/1999	330.20	5.99	NP	324.21	ND	ND	ND	ND	ND	32	33								
N 4147 F	8/2/1999	330.20	6.83	NP	323.37	ND	ND	ND	ND	ND	230									
MW-5	2/11/2000 7/26/2000	330.20 330.20	6.34 7.06	NP NP	323.86 323.14	ND ND	ND ND	ND ND	ND ND	ND ND	98 25.9									
	2/2/2001	330.20	6.81	NP NP	323.14	ND ND	ND ND	ND ND	ND ND	ND ND	18									
	8/24/2001	330.20	7.60	NP	323.39	<50	<0.50	<0.50	<0.50	<0.50	18									
	10/11/2001	330.18	7.34	NP	322.84															
	2/6/2002	330.18	6.55	NP	323.63	<50	<0.50	<0.50	<0.50	<0.50	7.7	7.9	<20	<500	<1.0	<1.0	<1.0	<1.0	<1.0	
	7/30/2002	330.18	7.15	NP	323.03	<50	<0.50	<0.50	<0.50	<1.0		4.6								
	2/17/2003	330.18	6.27	NP	323.91	<50	<0.50	<0.50	<0.50	<1.0		2.8								
	8/18/2003	330.18	6.57	NP	323.61	75	<0.50	<0.50	<0.50	<1.0		3.8		<500						
	2/24/2004	330.18	5.88	NP	324.30	<50	<0.50	<0.50	<0.50	<1.0		3.3		<500						
	9/17/2004	330.18	7.41	NP	322.77	<50	<0.50	<0.50	<0.50	1.4		6.0								
1	3/22/2005	330.18	5.58	NP	324.60	<50	<0.50	<0.50	<0.50	<1.0		5.8		<50						

TABLE 2 HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA 76 Service No. 5748/6419 6401 DUBLIN BLVD

DUBLIN, CALIFORNIA



			GROUNDWATER	GAUGING DATA	1							GROUND	WATER ANALYTI	ICAL DATA						
Well I.D.	Date	TOC Flouration	Depth to Water	LNAPL	Motor				Ethylbonzono	Total Vulonos	MTBE	MTBE						1,2-	1,2-	'
well i.D.	Date		•		Water	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene	Total Xylenes	(SW8021B)	(SW8260B)	TBA (ug/L)	Ethanol (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	Dibromoethane	Dichloroethane	DRO (ug/L)
		(ft)	(ft)	Thickness (ft)	Elevation* (ft)				(ug/L)	(ug/L)	(ug/L)	(ug/L)						(EDB) (ug/L)	(ug/L)	
	9/29/2005	330.18	9.42	NP	320.76	<50	<0.50	<0.50	<0.50	<1.0		7.8		<250						
MW-5	1/9/2006	330.18	7.93	NP	322.25	<50	<0.50	<0.50	<0.50	<1.0		14		<250						
	9/27/2006	330.18	8.60	NP	321.58	300	<0.50	<0.50	<0.50	<0.50		860		<250						
	3/29/2007	330.18	8.82	NP	321.36	520	<0.50	<0.50	<0.50	<0.50		690		<250						
	9/21/2007	330.18	9.66	NP	320.52	300	<0.50	<0.50	<0.50	<0.50		490		<250						
	3/27/2008	330.18	7.12	NP	323.06	580	<0.50	<0.50	<0.50	<1.0		1400		<250						
	9/2/2008	330.18	7.70	NP	322.48	360	<0.50	<0.50	<0.50	<1.0		840		<250						
	3/6/2009	330.18	5.79	NP	324.39	240	<0.50	<0.50	<0.50	<1.0		480		<250						
	8/21/2009	330.18	7.90	NP	322.28	260	<0.50	<0.50	<0.50	<1.0		310		<250						
	3/10/2010	330.18	6.30	NP	323.88	94.8	<0.50	<0.50	<0.50	<1.5		144		<250						
	9/24/2010	330.18	7.93	NP	322.25	169	<0.50	<0.50	<0.50	<1.5		209		<250						
	3/8/2011	333.05	6.54	NP	326.51	94.6	<0.50	<0.50	<0.50	<1.5		116		<250						
	5/21/1999	330.49	6.24	NP NP	324.25	ND	ND	ND	ND	ND	2200	2300	<170		<8.3	<8.3	<8.3			
	8/2/1999	330.49	7.10	NP NP	323.39	ND ND	ND ND	ND ND	ND ND	ND ND	ND				<0.5 					
	2/11/2000	330.49	6.60	NP NP	323.89	ND	ND ND	ND ND	ND ND	ND	2500									
	7/26/2000	330.49	7.31	NP NP	323.18	ND	ND ND	ND ND	ND ND	ND ND	4280									
	2/2/2001	330.49	7.02	NP	323.47	ND	ND	ND	ND	ND	1990									
	8/24/2001	330.49	7.84	NP	322.65	<200	<2.0	<2.0	<2.0	<2.0	1100									
	10/11/2001	330.47	8.03	NP	322.44															
	2/6/2002	330.47	6.78	NP	323.69	<50	<0.50	<0.50	<0.50	<0.50	610	680	<170	<4200	<8.3	<8.3	<8.3	<8.3	<8.3	
MW-6	7/30/2002	330.47	7.40	NP	323.07	180	<0.50	<0.50	<0.50	<1.0		160								
	2/17/2003	330.47	6.49	NP	323.98	<250	<2.5	<2.5	<2.5	<5.0		400								
	8/18/2003	330.47	6.81	NP	323.66	320	<1.0	<1.0	<1.0	<2.0		280		<1000						
	2/24/2004	330.47	6.11	NP	324.36	130	<1.0	<1.0	<1.0	<2.0		200		<1000						
	9/17/2004	330.47	7.64	NP	322.83	110	<1.0	<1.0	<1.0	<2.0		200		<100						
	3/22/2005	330.47	5.81	NP	324.66	<50	<0.50	<0.50	<0.50	<1.0		83		<50	-					
	9/29/2005	330.47	9.19	NP	321.28	110	<0.50	<0.50	<0.50	<1.0		140		<250						
	1/9/2006	330.47	7.65	NP	322.82	100	<0.50	<0.50	<0.50	<1.0		160		<250						
	9/27/2006	330.47	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD
	5/21/1999	330.43	6.13	NP	324.30	ND	ND	ND	ND	ND	22	22								
	8/2/1999	330.43	6.92	NP	323.51	ND	ND	ND	ND	ND	31									
	2/11/2000	330.43	6.50	NP	323.93	ND	ND	ND	ND	ND	20									
	7/26/2000	330.43	7.18	NP	323.25	ND	ND	ND	ND	ND	17.9									
	2/2/2001	330.43	6.95	NP	323.48	ND	ND	ND	ND	ND	ND									
	8/24/2001	330.43	7.72	NP	322.71	<50	<0.50	<0.50	<0.50	<0.50	4.4									
	10/11/2001	330.41	7.87	NP	322.54															
MW-7	2/6/2002	330.41	6.62	NP	323.79	<50	<0.50	<0.50	<0.50	<0.50	3.9	3.2	<20	<500	1.4	<1.0	<1.0	<1.0	<1.0	
	7/30/2002	330.41	NG	NG	NG	<50	<0.50	<0.50	<0.50	<1.0		4.3								
	2/17/2003	330.41	NG	NG	NG	<50	<0.50	<0.50	<0.50	<1.0		4.7								
	8/18/2003	330.41	6.64	NP	323.77	76	<0.50	<0.50	<0.50	<1.0		6.3		<500						
	2/24/2004	330.41	6.01	NP ND	324.40	<50	<0.50	<0.50	<0.50	<1.0		6.2		<500						
	9/17/2004	330.41	7.45	NP NP	322.96	<50	<0.50	<0.50	<0.50	<1.0		8.7 9.4		<50						
	3/22/2005 9/29/2005	330.41	5.73 8.94	NP NP	324.68 321.47	<50 <50	<0.50 <0.50	<0.50 <0.50	<0.50 <0.50	<1.0		9.4		<50 <250						
	1/9/2006	330.41 330.41	7.43	NP NP	321.47	<50 <50	<0.50	<0.50	<0.50	<1.0 <1.0		7.6		<250 <250						
MW-7	9/27/2006		7.43 WD	WD	322.98 WD	VD VSD	<0.50 WD	<0.50 WD	<0.50 WD	VD VI.0	WD	VD WD	WD	<250 WD	WD	WD	WD	WD	WD	WD
17177-7		330.41	7.57	NP	322.40		<0.50	<0.50	<0.50	<0.50		<2.0	<20	<500	<2.0	<2.0		+		
	10/11/2001 2/6/2002	329.97 329.97	6.35	NP NP	322.40	<50 <50	<0.50	<0.50	<0.50	<0.50	<2.5 <2.5	<1.0	<20	<500 <500	<1.0	<2.0 <1.0	<2.0 <1.0	<2.0 <1.0	<2.0 <1.0	
	7/30/2002	329.97	6.95	NP NP	323.02	<50	<0.50	<0.50	<0.50	<1.0		<2.0						<1.0 		
	2/17/2003	329.97	6.11	NP NP	323.02	<50 <50	<0.50	<0.50	<0.50	<1.0		<2.0								
MW-8	8/18/2003	329.97	6.33	NP NP	323.64	53	<0.50	<0.50	<0.50	<1.0		<2		<500						
	2/24/2004	329.97	13.37	NP NP	316.60	<50	<0.50	<0.50	<0.50	<1.0		<2.0		<500						
	9/17/2004	329.97	7.23	NP NP	322.74	<50	<0.50	<0.50	<0.50	<1.0		4.0		<50						
	3/22/2005	329.97	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD
	10/11/2001	329.51	7.12	NP NP	322.39	<50	<0.50	<0.50	<0.50	<0.50	22	15	<20	<500	<2.0	<2.0	<2.0	<2.0	<2.0	
	2/6/2002	329.51	5.94	NP	323.57	<50	<0.50	<0.50	<0.50	<0.50	19	14	<20	<500	<1.0	<1.0	<1.0	<1.0	<1.0	
	7/30/2002	329.51	6.53	NP	322.98	<50	<0.50	<0.50	<0.50	<1.0		9								
	2/17/2003	329.51	5.63	NP	323.88	<50	<0.50	<0.50	<0.50	<1.0		4.9								
N/\\/-9	, ,				- 2.22					**			I.	1	I	I	1		l.	

TABLE 2

HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA

76 Service No. 5748/6419 6401 DUBLIN BLVD DUBLIN, CALIFORNIA



			GROUNDWATER	GAUGING DATA	1							GROUND	WATER ANALYTI	CAL DATA						
Well I.D.	Date	(ft) (ft) Thickness (ft) Elevati					Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	TBA (ug/L)	Ethanol (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	1,2- Dibromoethane (EDB) (ug/L)	1,2- Dichloroethane (ug/L)	DRO (ug/L)
10100-5	8/18/2003	329.51	5.99	NP	323.52	57	<0.50	<0.50	<0.50	<1		6.2		<500						
	2/24/2004	329.51	5.27	NP	324.24	<50	<0.50	<0.50	<0.50	<1.0		5.6		<500						
	9/17/2004	329.51	6.80	NP	322.71	<50	<0.50	<0.50	<0.50	<1.0		4.8		<50						
	3/22/2005	329.51	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD	ABD

Gauging Notes:

TOC - Top of Casing

ft - Feet

NP - LNAPL not present

LNAPL - Light non-aqueous phase liquid

* - Corrected for LNAPL if present (assumes LNAPL specific gravity = 0.75)

ABD - Well Abandoned

NG - Not gauged

WD - Well Destroyed

DRY - Well is dry

-- - No information available

Analytical Notes:

-- - No information available

< - Below the laboratory's indicated reporting limit

ABD - Well Abandoned

DRY - Well was Dry; sample could not be taken

ND - Not detected, and detection limit is not known

NS - Well not sampled.

ug/L - micrograms/liter

WD - Well Destroyed

TPHg- Total Petroleum Hydrocarbons as gasoline

MTBE- Methyl tertiary-butyl ether

TBA- Tertiary-butyl alcohol DIPE- Di-isopropyl ether

ETBE- Ethyl tertiary-butyl ether

TAME- Tertiary-amyl methyl ether

DRO- diesel range organics

TABLE 3 Well Construction Details 76 Station No. 5748/6419 6401 Dublin Dublin, CA



Well I.D.	Construction Date	Elevation (TOC feet above MSL)	Boring Depth (feet bgs)	Borehole Diameter (inches)	Casing Diameter (inches)	Casing Material	Slot Size (inches)	Screened Interval (feet bgs)	Filter Pack Interval (feet bgs)	Bentonite Seal Interval (feet bgs)	Cement Seal Interval (feet bgs)	Comments
Groundwater I	Monitoring Well	s										
MW-1R	12/21/10	333.08	20	10	4	PVC	0.02	5-15	4-15	3-4	0-3	Bentonite from 15 to 20 feet
MW-3	02/24/94	333.40	20	8	2	PVC	0.01	4-19	3-19	2-3	0-2	
MW-5	05/10/99	333.05	19	8	2	PVC	0.02	4-19	3.5-19	2.5-3.5	0-2.5	

Notes:

bgs = below ground surface

TOC = top of casing

MSL = mean sea level

-- = Not available

Elevations are in US survey feet, Vertical Datum is NAD 83

All wells were surveyed on December 29, 2010

TABLE 4 Groundwater Gradient and Flow Direction Data 76 Station No. 5748/6419 6401 Dublin Blvd. Dublin, California

Site	Monitoring	Groundwater						Gro	undv	vater	Flow	Direct	ion					
	Date	Gradient	N.	LAINIE	NIE	ENIE	_	LECE	C.F.	665	-	CCM	CIA	I VA (C) A (١	I va / N I va /	NI) A /	LAIANA
	00/05/04	(feet per foot)	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW		WSW		WNW		NNW
5748	08/25/94	0.00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	11/18/94	0.00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	02/15/95	0.00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	05/17/95	0.00	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	08/25/95	0.01	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	11/28/95	0.004	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	02/26/96	0.006	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	08/23/96	0.01	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	02/17/97	0.003	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	08/18/97	0.0005	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	02/02/98	0.001	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	08/24/98	0.002	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	02/10/99	0.003	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	08/02/99	0.004	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	02/11/00	0.007	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	07/26/00	0.006	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	02/02/01	0.004 ; 0.02	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	08/24/01	0.005 ; 0.02	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	02/06/02	0.003 ; 0.01	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	07/30/02	0.002 ; 0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	02/17/03	0.005 ; 0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	08/18/03	0.003	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	02/24/04	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	09/17/04	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	03/22/05	0.020	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	09/29/05	0.007	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	01/09/06	0.010	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	09/27/06	0.010	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	03/27/07	0.010	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	09/21/07	0.020	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	03/27/08	0.007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	09/02/08	0.005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	03/06/09	0.005	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	08/21/09	0.005	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	03/12/10	0.003	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	09/24/10	0.006	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	03/08/11	0.003	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
		0.006 Average	0	1	0	0	0	0	1	0	6	3	15	1	4	0	3	0

Explanation

NA = Not available

Number of Events = 34

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Attachment A

Summary of Previous Environmental Investigations

Attachment A - Summary of Previous Environmental Investigations 76 Station No. 5748/6419

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Updated 04/01/2011



SUMMARY OF PREVIOUS ENVIRONMENTAL INVESTIGATIONS

<u>September 1993:</u> Two 10,000-gallon gasoline USTs, one 55-gallon waste-oil UST, and the associated product piping were removed from the site subsequent to confirmation sampling. Groundwater was observed entering the UST excavation. Concentrations of petroleum hydrocarbons in confirmation soil samples beneath the fuel USTs were non-detect to low. Petroleum hydrocarbon and volatile organic compounds (VOCs) concentrations in confirmation soil samples beneath the waste oil UST were non-detect to low, and concentrations of metals were considered background levels. Petroleum hydrocarbon and lead concentrations in confirmation soil samples from the dispenser islands were non-detect, and low, respectively. Petroleum hydrocarbon and lead concentrations in confirmation soil samples from the piping trenches were non-detect, and low, respectively.

February 1994: Three on-site monitoring wells (MW-1 through MW-3) were installed.

<u>June 1999:</u> Four on-site monitoring wells (MW-4 through MW-7) were installed to a depth of approximately 19 feet below ground surface (bgs).

<u>November 1999:</u> A four-inch diameter groundwater observation and extraction well (TPW-1) was installed in the gasoline UST pit backfill to allow purging of MTBE impacted groundwater.

September 2001: Two off-site monitoring wells (MW-8 and MW-9) were installed to a depth of 20 feet bgs.

October 2003: Site environmental consulting responsibilities were transferred to TRC.

<u>December 2004:</u> Off-site monitoring wells MW-8 and MW-9 were abandoned due to construction activities planned at those locations by Pin Brothers Fine Homes.

<u>January 12, 2006:</u> On-site monitoring wells MW-2, MW-4, MW-6, and MW-7 were abandoned at the request of the City of Dublin in anticipation of street widening on both Dougherty Road and Dublin Boulevard.

<u>December 21, 2010</u>: MW-1 was replaced with MW-1R after the casing in MW-1 was found to be compromised. MW-1 was over-drilled and MW-1R was installed in the same boring.

Attachment A - Summary of Previous Environmental Investigations 76 Station No. 5748/6419 Page 2 of 2 Updated 04/01/2011



January 2011: Delta Consultants rebranded to Antea Group.

SENSITIVE RECEPTORS SURVEY

<u>July 3, 2007:</u> TRC completed a sensitive receptor survey for the site. According to California Department of Water Resources (DWR) and the Zone 7 Water Agency records, four water supply wells are located within a one-half mile of the site. Three of the wells are listed by the Zone 7 Water Agency as water supply wells and are located approximately 1,940 feet east, 2,175 feet north, and 2,070 feet northwest of the site. One well is listed by the Zone 7 Water Agency as an abandoned water supply well and is located approximately 2,440 feet west-southwest of the site.

Three surface water bodies were identified within a one-half mile of the site. San Ramon Creek is located approximately 2,145 feet northwest of the site, an unnamed canal is located approximately 625 feet southwest of the site, and the Chabot Canal is located approximately 1,650 feet east of the site.

Current Consultant: Antea Group

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Attachment B

Blaine Tech Services Groundwater Sampling Procedures

BLAINE TECH SERVICES, INC. METHODS AND PROCEDURES FOR THE ROUTINE MONITORING OF GROUNDWATER WELLS

SAMPLING PROCEDURES OVERVIEW

SAFETY

All groundwater monitoring assignments performed for DELTA comply with safety guidelines, 29 CFR 1910.120 and SB-198 Injury and Illness Prevention Program (IIPP). All Field Technicians receive the full 40 hour 29CFR 1910.120 OSHA SARA HAZWOPER course, medical clearance and on-the-job training prior to commencing any work on any DELTA COP/ELT site.

INSPECTION AND GAUGING

Wells are inspected prior to evacuation and sampling. The condition of the wellhead is checked and noted according to a wellhead inspection checklist.

Standard measurements include the depth to water (DTW) and the total well depth (TD) obtained with industry standard electronic sounders which are graduated in increments of hundredths of a foot

The water in each well is inspected for the presence of Immiscibles or sheen and when free product is suspected, it is confirmed using an electronic interface probe (e.g. MMC). No samples are collected from a well containing free product.

EVACUATION

Depth to water measurements are collected by our personnel prior to purging and minimum purge volumes are calculated anew for each well based on the height of the water column and the diameter of the well. Expected purge volumes are never less than three case volumes and are set at no less than four case volumes in some jurisdictions.

Well purging devices are selected on the basis of the well diameter and the total volume to be evacuated. In most cases the well will be purged using an electric submersible pump (i.e. Grundfos) suspended near (but not touching) the bottom of the well. Small volumes of purgewater are often removed by hand bailing with a disposable bailer.

PARAMETER STABILIZATION

Well purging completion standards include minimum purge volumes, but additionally require stabilization of specific groundwater parameters prior to sample collection. Typical groundwater parameters used to measure stability are electrical conductivity, pH, and temperature. Instrument readings are obtained at regular intervals during the evacuation process (no less

than once per case volume).

Stabilization standards for routine quarterly monitoring of fuel sites include the following: Temperature is considered to have stabilized when successive readings do not fluctuate more than +/- 1 degree Celsius. Electrical conductivity is considered stable when successive readings are within 10%. pH is considered to be stable when successive readings remain constant or vary no more than 0.2 of a pH unit.

DEWATERED WELLS

Normal evacuation removes no less than three case volumes of water from the well. However, less water may be removed in cases where the well dewaters and does not recharge.

Wells known to dewater are evacuated as early as possible during each site visit in order to allow for the greatest amount of recovering. Any well that does not recharge to 80% of its original volume will be sampled prior to the departure of our personnel from the site in order to eliminate the need of a return visit.

In jurisdictions where a certain percentage of recovery is included in the local completion standard, our personnel follow the regulatory expectation.

PURGEWATER CONTAINMENT

All non-hazardous purgewater evacuated from each groundwater monitoring well is captured and contained in on-board storage tanks on the Sampling Vehicle and/or special water hauling trailers. Effluent from the decontamination of reusable apparatus (sounders, electric pumps and hoses etc.), consisting of groundwater combined with deionized water and non-phosphate soap, is also captured and pumped into effluent tanks.

Non hazardous purgewater is transported under standard Bill of Lading or Non-Hazardous manifest to a Blaine Tech Services, Inc. facility before being transported to an approved disposal facility.

SAMPLE COLLECTION DEVICES

All samples are collected using disposable bailers.

SAMPLE CONTAINERS

Sample material is decanted directly from the sampling bailer into sample containers provided by the laboratory which will analyze the samples. The type of sample container, material of construction, method of closure and filling requirements are specific to the intended analysis. Chemicals needed to preserve the sample material are commonly placed inside the sample containers by the laboratory or glassware vendor prior to delivery of the bottle to our personnel. The laboratory sets the number of replicate containers.

TRIP BLANKS

Upon request, a Trip Blank is carried to each site and is kept inside the cooler for the duration of the sampling event. It is turned over to the laboratory for analysis with the samples from that site.

DUPLICATES

Upon request, one Duplicate sample is collected at each site. It is up to the Field Technician to choose the well at which the Duplicate is collected. Typically, a duplicate is collected from one of the most contaminated wells. The Duplicate sample is labeled DUP thus rendering the sample blind.

SAMPLE STORAGE

All sample containers are promptly placed in food grade ice chests for storage in the field and transport (direct or via our facility) to the analytical laboratory that will perform the intended analytical procedures. These ice chests contain quantities of restaurant grade ice as a refrigerant material. The samples are maintained in either an ice chest or a refrigerator until relinquished into the custody of the laboratory or laboratory courier.

DOCUMENTATION CONVENTIONS

Each and every sample container has a label affixed to it. In most cases these labels are generated by our office personnel and are partially preprinted. Labels can also be hand written by our field personnel. The site is identified with the store number and site address, as is the particular groundwater well from which the sample is drawn (e.g. MW-1, MW-2, S-1 etc.). The time at which the sample was collected and the initials of the person collecting the sample are handwritten onto the label.

Chain of Custody records are created using client specific preprinted forms following USEPA specifications.

Bill of Lading records are contemporaneous records created in the field at the site where the non-hazardous purgewater is generated. Field Technicians use preprinted Bill of Lading forms.

DECONTAMINATION

All equipment is brought to the site in clean and serviceable condition and is cleaned after use in each well and before subsequent use in any other well. Equipment is decontaminated before leaving the site.

The primary decontamination device is a commercial steam cleaner. The steam cleaner is detuned to function as a hot pressure washer which is then operated with high quality deionized water which is produced at our facility and stored onboard our sampling vehicle. Cleaning is facilitated by the use of proprietary fixtures and devices included in the patented workstation that is incorporated in each sampling vehicle. The steam cleaner is used to decon reels, pumps

and bailers.

Any sensitive equipment or parts (i.e. Dissolved Oxygen sensor membrane, sounder etc.) that cannot be washed using the hot high pressure water, will be sprayed with a non-phosphate soap and deionized water solution and rinsed with deionized water.

EXAMPLE: The sounder is cleaned between wells using the non-phosphate soap and deionized water solution followed by deionized water rinses. The sounder is then washed with the steam cleaner between sites or as necessitated by use in a particularly contaminated well.

DISSOLVED OXYGEN READINGS

All Dissolved Oxygen readings are taken using YSI meters (e.g. YSI Model 550 meter). These meters are equipped with membrane probe that enables them to collect accurate in-situ readings.

The probe and reel is decontaminated between wells as described above. The meter is calibrated as per the instructions in the operating manual. The probe is lowered into the water column allowed to stabilize before use.

OXYIDATON REDUCTION POTENTIAL READINGS

All readings are obtained with either Corning or Myron-L meters (e.g. Corning ORP-65 or a Myron-L Ultrameter GP). The meter is cleaned between wells as described above. The meter is calibrated at the start of each day according to the instruction manual. In use the probe is placed in a cup of freshly obtained monitoring well water and allowed to stabilize.

Semi-Annual Summary Report, October 2010 through March 2011 76 Station No. 5748/6419 Dublin, CA Antea Group Project No. I42705748



Attachment C

Blaine Tech Services Groundwater Sampling Field Data Sheets

					C	OP-	<u>-EL</u>	<u>r w</u>	<u>ell-t</u>	lead In	spection				
Proje	ect No:	705	57	48					Site Ad	dress:	6401 L	Dublin 1	Blud	Dublin	
Field		BP										3/8/11			Weather: Over cas L
			ell Coi	adibia								•			
			JII CU	JUILIU	78.8			٤	_						
Sample Order	Field Point		Bolts	Seal	Lid Secure	Lock	Expanding Cap	Water in Well Box	Well Casing Dia.	Time Gauged	Depth to Water (Feet)	Depth to Bottom (Feet)	Depth to LNAPL (Feet)	LNAPL Thickness (Feet)	Comments
1	HW-1R		0	G	G	9	G	N	4	1212	6.43	14.60	4.5.10009000mmss	**####################################	
2	HW - 3		Ġ	G	(7	G	Ġ	Y	2	1216	6.62	1832	and the same	September 1994	
3	MW-5		G	G	G	G	9	N	Leave .	1221	6.54	19.23	**************************************	######################################	
							į į								

									·		ex a		WAR STORY	and the second	-
									r.y		- 24%				4.
												An extra May			
		**************************************	,												

															,
		A-101				1									ž
								 							
Note	s:														** All well caps opened at least 15 minutes or longer before gauging wells: CIRCLE ONE: YES ONO**

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Page __l__ of __l__

	СО	P-ELT Gr	oundwa	ıter Samı	pling Fo	rm	Yes I	
Site Address	6401	Dublin	Blud	D.	ublin			
Project No	270	5748	1	ield Technician:	BP	inell	ś	The state of the s
Field Point	: MW-1	R		Date:	3/	8/11	:	
Depth to Water (DTW (ft bgs)	6	.43	Wel	l Diameter (in):	600	4 6 8		
Depth to LNAPL (ft bgs)		•	Thicknes	s of LNAPL (ft):	· · · · · · · · · · · · · · · · · · ·	autore.		
Total Depth of Well (ft bgs):		.60	Water Colu	mn Height (ft):	.*	8,17		
		Pur	CONTRACT OF THE CONTRACT OF TH	d Calculations	51	7		
Purge Method:		Purge Ec	juipment:			Sample Coll	ection Metho	d:
Low-Flow 3 casing volumes Other:		electric Si Peristal Bladde	ble Bailer ubmersible tic Pump er Pump			Extrac Dedical Disposa	able Bailed (1) ction Port ted Tubing ble Tubing	BED
Water Column Height (ft):_ Casing Volume (gal):	5.4	X Specified Vo	Factor (gal/ft	3	= Casi	Purge (gal):	al): <u>5. 4</u> 16. 2	
Conversion Factors Purge: Start		= 0.17 4"	= 0.66 6"	= 1.5 8" =	2.6 Other Stop Time:_	= radius ² * 0		
	Temp		Conductivity	I	Turbidibu	D.O.	Volume	Water Level (for
Time	(°C)	pН	(µS/cm)	ORP (mV)	(NTU)	(mg/L)	Purged (gal)	1
Pre-Purge								
1236	16,77	7.42		-179,1	63	2.72	2.7	
1238	16,66	7.53	2578	-189.4	88	2.14	5,4	
1739	16.81	7.67	2588	-205,7	217	0.60	8,1	
t240	Well:	Dewate	red @	8.90	als		5.9	DW12.35
					7 .5.			
	-				. 34 ⁷⁷ a			
1440	17,58	7.48	2636	-238.7	117	2.95	Commence of the Commence of th	
Post-Purge						-seatistation		
Did Well dewater?	Yes, N	lo	Total	Purge volume ((gal): 영	9	435	
THE CONTRACT AND ADDRESS AS A SECOND AS A	DTW:	9.98	(Zhe)					
Other Comments:	80% (2:8.	06					the control of the co
Sample Info:								
Sample ID:	MN-IR	201103	31	Sample Date	and Time:	3/8/11	@ 10	140
Selected Analysis:	3EE	COC						
ignature: #	reel			Date:	3,	18/11		
ntea [™] Group, 1-800-477-7411		LNAPL= light non- bgs = below groun ORP = Oxidation-R	d surface	t	gal = gallon/s emp = temperati NTU = Nephelome		its	

mV = millivolts

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Page of

	COF	P-ELT Gr	oundwa	ter Samı	pling Fo	rm		
Site Address:	6401	Dublin	Blud	Di	ublin			No. of Control of Cont
Project No:	•	5748		eld Technician:	BPO	ine []		
Field Point:	MW-3		,	Date:	3/	8/11		
Depth to Water (DTW) (ft bgs):	6.	67	. Well	Diameter (in):	3	4 6 8		
Depth to LNAPL (ft bgs):	4		Thickness	s of LNAPL (ft):	·//mare		*	
Total Depth of Well (ft bgs):	18.	32		mn Height (ft):		70		
S Mathada			Maria de la companya	d Calculations		Sample Celle	ection Method	-I -
Purge Method:		_	quipment:			•		
Low-Flow 3 casing volumes			ble Bailer ubmersible			<u> Disposa</u> Extrac	ble Bailed Wif	BED
Other:			tic Pump				ed Tubing ble Tubing	
		Other:	er Pump	-	0	ther:	9	
Water Column Height (ft):_	11.70	X Conversion	Factor (gal/ft): 0.17	= Casi	ng Volume (g	al): Z, O	
Casing Volume (gal):		X Specified V	olumes:	3	_ = Calculated	Purge (gal):	6,0	
Conversion Factors			= 0.66 6"	= 1.5 8" =		$= radius^2 * 0.$	163	-
Purge: Start 1	Time:	<u> </u>		:	Stop Time:	*	- National	
Time	Temp (°C)	pН	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
Pre-Purge				Communication .				
1252	16.73	7.67	2663	-180.6	202	0.96	1.0	
1252	16.58	7.60	2473	-180.7	138	2.3	2.0	
1253	18:40	7.31	z 363	-191.5	117	0.86	3.0	
1253	18.45	7.23	2388	-199.2	47	0.80	4.0	
1754	18.89	7,20	2387	-206.6	32	0.48	5.0	
1255	19.13	7.70	2369	-210.8	27	0.40	6.0	14.26
	·			NOT A	r 80°70			
Post-Purge						- Decision of the Control of the Con		
Did Well dewater?	Yes (N	9)	Total	Purge volume ((gal): <i>6</i>	.0		
	DTW:	7.69						
Other Comments:	80% (2 : 8.9	16					
Sample Info:								
Sample ID:	MN-3-	201103	31	Sample Date	and Time:	3/8/11	@ 1.	330
Selected Analysis:	3EE	coc				•		
Signature: #	reel			Date:	3,	18/11		
ntea [™] Group, 1-800-477-7411		LNAPL= light non	-aqueous phase li	quids	gal = gallon/s			

bgs = below ground surface
ORP = Oxidation-Reduction Potential

D.O.= dissolved oxygen

temp = temperature

NTU = Nephelometric Turbidity Units

mV = millivolts



		EITCE	oundwa	ter Samp	Ning Eo	-m		
						111		
Site Address:	6401	Dublin	1	eld Technician:	blin BPa			AND DESCRIPTION OF THE PROPERTY OF THE PROPERT
Project No: Field Point:	200	5748	1 1	Date:	<u> </u>	8/11		
Depth to Water (DTW)	,	4 . A	Well	Diameter (in):		4 6 8		
(ft bgs):	6,5	4	WEI	Diameter (iii).	9			
Depth to LNAPL (ft bgs):	dentance			s of LNAPL (ft):				· · · · · · · · · · · · · · · · · · ·
Total Depth of Well (ft bgs):	19.			mn Height (ft):	€ 6	4.69		
Purge Method:			ging Info and	d Calculations		Sample Colle	ction Method	:
Purge Method:			ble Bailer		•	-	ble Bailed	
Low-Flow 3 casing volumes		Electric Si	ubmersible			Extract	ion Port	DED
Other:			tic Pump er Pump				ed Tubing ole Tubing	
	¥ .	Other:	,	_	Ot	her:		_
Water Column Height (ft):	2,69	X Conversion	Factor (gal/ft	1: 0.17	= Casii	ng Volume (ga	nl):	
Casing Volume (gal):	2.2	X Specified V	olumes:	3	= Calculated	Purge (gal): _	6.6	
Conversion Factors		= 0.17 4"	= 0.66 6"	= 1.5 8" =	2.6 Other	$= radius^2 * 0.$		
Purge: Start 1	rime:	1303		•				
Time	Temp (°C)	рН	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
Pre-Purge				Parameter Control				
1303	18.90	7,25	2344	-177.5	106	0.61	1.1	
1304	18.53	7.24	\$1589	- 1887	80	6.99	2,2	
1305	19.21	7.20	1431	- 196.6	306	1.89	3.3	
1305	19.30	7.25	1502	- 193.6	534	2,04	4.4	
1306	19.57	7.22	1674	- 198.8	297	1,17	5,5	
1307	19.82	7.20	1779	- 205,5	192	0.83	6.6	
1307	19.99	7.19	1808	- 209,1	175	0.76	7,7	
	•							
Post-Purge				-	2.0	- white the same of the same o		
Did Well dewater?	Yes (N	و)	Total	Purge volume	(gal): 🛛 🥻	<u>', 7</u>		***************************************
	DTW:	7.48				MS/MS	D	
Other Comments:	80% (2: 9.	07			ı		
Sample Info:					ar a said			
Sample ID:	MW-5_	201103	31	Sample Date	and Time:	3/8/11	@ 13	45
Selected Analysis:		COC		*. · · · · · · · · · · · · · · · · · · ·		agi ^{ri}		
Signature: ##	eel			Date: _	3,	18/11		
			And a second sec	-	-			

Antea[™]Group, 1-800-477-7411

LNAPL= light non-aqueous phase liquids bgs = below ground surface ORP = Oxidation-Reduction Potential D.O.= dissolved oxygen

gal = gallon/s temp = temperature NTU = Nephelometric Turbidity Units mV = millivolts



Page of ____



COP ELT CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

Page: Cooler# 1 of ___ of

1Q 2011 GW Event

	3																						•••	
Required La Lab Name: F	b Information:	Required Project Information:			Required Invoice I	Information:																		
	ace-opatile	Site ID #: 2705748 Task:	WG_Q_	201103	Send Invoice to:	David Sowle	9								7									
Address:		AnteaGrp proj#			Address: 11050 V	White Rock Ro	oad, Suite	e 110			*********		······································		Tur	arc	und t	ime /	(days)	\	10			
940 S. Harne	ey Street Seattle WA 98108	Site Address 6401 Dublin Blvd	i		City/State	Rancho Cor	rdova CA	95670 F	hone #	f: 1	-800-4	77-74	11							ndard		<u> </u>		
Lab PM: F	Regina Ste. Marie	City Dublin Sta	ate C	A 94568	Reimbursement pro	.1		on-reimb						rk one	i i						1 1	Special	·	Mark
Phone/Fax:	P: 206-957-2433 F: 206-767-5063									, it proj		Υ	IVIC	IK OHE						e Pacl				
Lab PM emai	Regina.SteMarie@pacelabs.com	AG PM Name: Tony Pe Phone/Fax: P: 1-800-477-74		225 9506	Send EDD to	copeltdata@	Dintelliger	ntehs.cor	n	·					MA	MCF	^o Cert	t?		CTR	CP C	ert?		Mark
Applicable La		AG PM Email: tony.perini@			CC Hardcopy r	i	···						~		Lab	Pro	ject l	D (la	b use	e)		- variable of	NAMES OF THE OWNER, WATER	ALL PROPERTY OF THE PERSON NAMED OF
		Valid Matrix Codes	, an ite a gro	up.com	CC Hardcopy r	eport to		nhalan (constant line arroys		80000000000000000000000000000000000000					Re	que	sted	7	77	7	77	77	77	7.
ITEM#	SAMPLE ID One Character per box. (A-Z, 0-9 / -) Samples IDs MUST BE UNIQUE	AMATRIX DRIBANGS WATER USANTER WATER	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE T	rime .	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Jnpreserved	HNO3		Native Na ₂ S ₂ O ₃		An Soot	alys	es /						Comme Sample	ents/Lab
1 <u>MV</u>	/-1R_20110331		WG	G	3/8/11	144	0 (6	N			X			11	X X	. [f			ff		oampie	1.0.
2 MV	/-3_20110331		WG	6	3/8/11	133			N			X.	+	f		<u>^ </u>	+-+	_	+		+ +	······································		
3 MV	/-5_20110331		WG	4	3/8/11	1315		×/	N	\Box		X	+	H		_	11		+		++		***************************************	
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Additional C	omments/Special Instructions:		RELING	UISHED BY	/ AFFILIATION	D	DATE 1	TIME	ACCEF) 	Y / AF	EINA	IIIONI				DATE		TIME	92	mola	Posoi	pt Cond	litiono
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TEST EQUIPMENT CALIBRATION LOG

ROJECT NAM	ME COP 6401	Dublin Blud	Dublin	PROJECT NUI	MBER 27057	48	
QUIPMENT JAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	ТЕМР.	INITIALS
751 556	451 56 1362	3/8/11	PM 7.00 10.00 4.00	7.00	ye s	17.29	BO
	!		ORP Z40 mV	389925 m07-4061	ye s	17.19	<i>BP</i>
Heri	86.06.4		De 10,0 mg/c	9.29 mg/L	yes	17,1%	BD
Hack Turnidinter	06060 LO 17/21	3/8/11	0.1, 20, 100 800 NTUS	809	45	Non-abanggar	£0
		-					F. 1912
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Semi-Annual Summary Report, October 2010 through March 2011 76 Station No. 5748/6419 Dublin, CA Antea Group Project No. I42705748



Attachment D

Certified Laboratory Analytical Report and Data Validation Form





March 21, 2011

Dennis Dettloff Antea USA 11050 White Rock Rd. #110 Rancho Cordova, CA 95670

RE: Project: 2705748

Pace Project No.: 256871

Dear Dennis Dettloff:

Enclosed are the analytical results for sample(s) received by the laboratory on March 09, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Andy Brownfield for Regina SteMarie

Andy Brownfield

regina.stemarie@pacelabs.com

Project Manager

Enclosures

cc: Tara Bosch, Antea USA
Jonathon Fillingame, Antea USA
Lia Holden, Antea USA
Dan Keltner, Antea USA
Josh Mahoney, Antea USA
Tony Perini, Antea USA
Nicole Persaud, Antea USA
Don Pinkerton, Antea USA
Doug Umland, Antea USA
Ed Weyrens, Antea USA







CERTIFICATIONS

Project: 2705748 Pace Project No.: 256871

Washington Certification IDs
940 South Harney Street, Seattle, WA 98108
Alaska CS Certification #: UST-025
Alaska Drinking Water VOC Certification #: WA01230
Alaska Drinking Water Micro Certification #: WA01230

California Certification #: 01153CA California Certification #: E87617
Oregon Certification #: WA200007
Washington Certification #: C1229





SAMPLE ANALYTE COUNT

Project: 2705748
Pace Project No.: 256871

				Analytes	
Lab ID	Sample ID	Method	Analysts	Reported	Laboratory
256871001	MW-1R_20110331	EPA 5030B/8260	ATH	10	PASI-S
		CA LUFT	LPM	2	PASI-S
256871002	MW-3_20110331	EPA 5030B/8260	LPM	10	PASI-S
		CA LUFT	LPM	2	PASI-S
256871003	MW-5_20110331	EPA 5030B/8260	LPM	10	PASI-S
		CA LUFT	LPM	2	PASI-S







HITS ONLY

Project: 2705748
Pace Project No.: 256871

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
256871001	MW-1R_20110331					
EPA 5030B/8260	Methyl-tert-butyl ether	0.85 u	g/L	0.50	03/12/11 06:48	
256871002	MW-3_20110331					
EPA 5030B/8260	Methyl-tert-butyl ether	19.5 u	g/L	0.50	03/14/11 05:06	
256871003	MW-5_20110331					
EPA 5030B/8260	Methyl-tert-butyl ether	116 u	g/L	0.50	03/15/11 06:23	
CALUFT	TPH-Gasoline (C05-C12)	94.6 u	g/L	50.0	03/11/11 04:12	1n





ANALYTICAL RESULTS

Project: 2705748
Pace Project No.: 256871

Date: 03/21/2011 09:57 AM

Sample: MW-1R_20110331	Lab ID: 2568	371001	Collected: 03/08/1	1 14:40	Received: 0	3/09/11 09:05	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
8260 MSV	Analytical Meth	od: EPA 5	030B/8260					
Benzene	ND ug/	'L	0.50	1		03/12/11 06:4	8 71-43-2	
Ethanol	ND ug/	'L	250	1		03/12/11 06:4	8 64-17-5	
Ethylbenzene	ND ug/	'L	0.50	1		03/12/11 06:4	8 100-41-4	
Methyl-tert-butyl ether	0.85 ug/	'L	0.50	1		03/12/11 06:4	8 1634-04-4	
Toluene	ND ug/	'L	0.50	1		03/12/11 06:4	8 108-88-3	
Xylene (Total)	ND ug/		1.5	1		03/12/11 06:4	8 1330-20-7	
4-Bromofluorobenzene (S)	113 %		80-120	1		03/12/11 06:4	8 460-00-4	
Dibromofluoromethane (S)	98 %		80-122	1		03/12/11 06:4	8 1868-53-7	
1,2-Dichloroethane-d4 (S)	95 %		80-124	1			8 17060-07-0	
Toluene-d8 (S)	89 %		80-123	1		03/12/11 06:4		
CA LUFT MSV GRO	Analytical Meth	od: CA LU	FT					
TPH-Gasoline (C05-C12)	ND ug/	'L	50.0	1		03/11/11 03:3	7	
4-Bromofluorobenzene (S)	111 %		82-116	1		03/11/11 03:3	7 460-00-4	
Sample: MW-3_20110331	Lab ID: 2568	371002	Collected: 03/08/1	1 13:30	Received: 0	3/09/11 09:05	Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qua
3260 MSV	Analytical Meth	od: EPA 5	030B/8260					
Benzene	ND ug/	'L	0.50	1		03/14/11 05:0	6 71-43-2	
Ethanol	ND ug/	L L	250	1		03/14/11 05:0	6 64-17-5	
Ethylbenzene	ND ug/	L L	0.50	1		03/14/11 05:0	6 100-41-4	
Methyl-tert-butyl ether	19.5 ug/	'L	0.50	1		03/14/11 05:0	6 1634-04-4	
Toluene	ND ug/		0.50	1		03/14/11 05:0	6 108-88-3	
Xylene (Total)	ND ug/	'L	1.5	1		03/14/11 05:0	6 1330-20-7	
4-Bromofluorobenzene (S)	109 %		80-120	1		03/14/11 05:0		
Dibromofluoromethane (S)	91 %		80-122	1		03/14/11 05:0		
1,2-Dichloroethane-d4 (S)	100 %		80-124	1			6 17060-07-0	
Toluene-d8 (S)	99 %		80-123	1		03/14/11 05:0		
CA LUFT MSV GRO	Analytical Meth	od: CA LU	FT					
TPH-Gasoline (C05-C12)	ND ug/	'L	50.0	1		03/11/11 03:5	5	
4-Bromofluorobenzene (S)	112 %		82-116	1		03/11/11 03:5	5 460-00-4	
Sample: MW-5_20110331	Lab ID: 2568	271002	Collected: 03/08/1	1 13:1F	Pacaivod: 0	3/09/11 09:05	Matrix: Water	
•								_
Parameters	Results —	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	- Qu
8260 MSV	Analytical Meth	od: EPA 5	030B/8260					
Benzene	ND ug/	'L	0.50	1		03/15/11 06:2	3 71-43-2	
Ethanol	ND ug/	'L	250	1		03/15/11 06:2	3 64-17-5	
Ethylbenzene	ND ug/	'L	0.50	1		03/15/11 06:2		
Methyl-tert-butyl ether	116 ug/	/1	0.50	1		03/15/11 06:2	0 4004 04 4	

REPORT OF LABORATORY ANALYSIS

Page 5 of 12





ANALYTICAL RESULTS

Project: 2705748
Pace Project No.: 256871

Sample: MW-5_20110331	Lab ID: 256871003	Collected: 03/08/1	1 13:15	Received: 03	3/09/11 09:05 N	Matrix: Water	
Parameters	Results Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA	5030B/8260					
Toluene	ND ug/L	0.50	1		03/15/11 06:23	108-88-3	
Xylene (Total)	ND ug/L	1.5	1	03/15/11 06:23		1330-20-7	
4-Bromofluorobenzene (S)	107 %	80-120	1		03/15/11 06:23	460-00-4	
Dibromofluoromethane (S)	107 %	80-122	1		03/15/11 06:23	1868-53-7	
1,2-Dichloroethane-d4 (S)	109 %	80-124	1		03/15/11 06:23	17060-07-0	
Toluene-d8 (S)	112 %	80-123	1		03/15/11 06:23	2037-26-5	
CA LUFT MSV GRO	Analytical Method: CA Ll	JFT					
TPH-Gasoline (C05-C12)	94.6 ug/L	50.0	1		03/11/11 04:12		1n
4-Bromofluorobenzene (S)	112 %	82-116	1		03/11/11 04:12	460-00-4	

Date: 03/21/2011 09:57 AM

REPORT OF LABORATORY ANALYSIS

Page 6 of 12





Project: 2705748
Pace Project No.: 256871

QC Batch: MSV/3977 Analysis Method: EPA 5030B/8260

QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge

Associated Lab Samples: 256871001

METHOD BLANK: 61952 Matrix: Water

Associated Lab Samples: 256871001

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	0.50	03/12/11 03:14	
Ethanol	ug/L	ND	250	03/12/11 03:14	
Ethylbenzene	ug/L	ND	0.50	03/12/11 03:14	
Methyl-tert-butyl ether	ug/L	ND	0.50	03/12/11 03:14	
Toluene	ug/L	ND	0.50	03/12/11 03:14	
Xylene (Total)	ug/L	ND	1.5	03/12/11 03:14	
1,2-Dichloroethane-d4 (S)	%	101	80-124	03/12/11 03:14	
4-Bromofluorobenzene (S)	%	101	80-120	03/12/11 03:14	
Dibromofluoromethane (S)	%	100	80-122	03/12/11 03:14	
Toluene-d8 (S)	%	97	80-123	03/12/11 03:14	

LABORATORY CONTROL SAMPLE: 61953

		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Benzene	ug/L	20	16.4	82	76-127	
Ethanol	ug/L	400	399	100	31-182	
Ethylbenzene	ug/L	20	15.6	78	72-125	
Methyl-tert-butyl ether	ug/L	20	22.3	111	58-145	
Toluene	ug/L	20	15.3	77	69-125	
Xylene (Total)	ug/L	60	51.0	85	74-124	
1,2-Dichloroethane-d4 (S)	%			102	80-124	
4-Bromofluorobenzene (S)	%			103	80-120	
Dibromofluoromethane (S)	%			100	80-122	
Toluene-d8 (S)	%			100	80-123	

MATRIX SPIKE & MATRIX SP	IKE DUPLICAT	E: 62164			62165						
Parameter	Units	256835001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	ug/L	ND	20	20	17.0	19.3	85	96	75-124	13	
Ethanol	ug/L	ND	400	400	439	458	110	114	36-177	4	
Ethylbenzene	ug/L	ND	20	20	16.3	18.3	81	92	76-124	12	
Methyl-tert-butyl ether	ug/L	ND	20	20	21.2	24.9	106	125	72-130	16	
Toluene	ug/L	ND	20	20	15.8	18.2	79	91	75-124	14	
Xylene (Total)	ug/L	ND	60	60	52.0	59.5	87	99	76-123	13	
1,2-Dichloroethane-d4 (S)	%						98	100	80-124		
4-Bromofluorobenzene (S)	%						101	100	80-120		
Dibromofluoromethane (S)	%						98	100	80-122		
Toluene-d8 (S)	%						98	100	80-123		

Date: 03/21/2011 09:57 AM

REPORT OF LABORATORY ANALYSIS

Page 7 of 12





Project: 2705748 Pace Project No.: 256871

QC Batch: MSV/3985 Analysis Method: EPA 5030B/8260

QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge

Associated Lab Samples: 256871002

METHOD BLANK: 62062 Matrix: Water

Associated Lab Samples: 256871002

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	0.50	03/14/11 02:11	
Ethanol	ug/L	ND	250	03/14/11 02:11	
Ethylbenzene	ug/L	ND	0.50	03/14/11 02:11	
Methyl-tert-butyl ether	ug/L	ND	0.50	03/14/11 02:11	
Toluene	ug/L	ND	0.50	03/14/11 02:11	
Xylene (Total)	ug/L	ND	1.5	03/14/11 02:11	
1,2-Dichloroethane-d4 (S)	%	95	80-124	03/14/11 02:11	
4-Bromofluorobenzene (S)	%	111	80-120	03/14/11 02:11	
Dibromofluoromethane (S)	%	98	80-122	03/14/11 02:11	
Toluene-d8 (S)	%	94	80-123	03/14/11 02:11	

LABORATORY CONTROL SAMPLE: 62063

		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Benzene	ug/L	20	18.4	92	76-127	_
Ethanol	ug/L	400	472	118	31-182	
Ethylbenzene	ug/L	20	17.4	87	72-125	
Methyl-tert-butyl ether	ug/L	20	24.3	121	58-145	
Toluene	ug/L	20	17.0	85	69-125	
Xylene (Total)	ug/L	60	55.2	92	74-124	
1,2-Dichloroethane-d4 (S)	%			99	80-124	
4-Bromofluorobenzene (S)	%			111	80-120	
Dibromofluoromethane (S)	%			94	80-122	
Toluene-d8 (S)	%			97	80-123	

MATRIX SPIKE & MATRIX SP	IKE DUPLICAT	E: 62540			62541						
Parameter	2 Units	256845002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	ug/L	ND	20	20	18.3	18.2	91	91	75-124	.3	
Ethanol	ug/L	ND	400	400	482	573	120	143	36-177	17	
Ethylbenzene	ug/L	ND	20	20	17.6	17.4	88	87	76-124	.9	
Methyl-tert-butyl ether	ug/L	ND	20	20	24.2	23.7	121	118	72-130	2	
Toluene	ug/L	ND	20	20	16.9	16.9	83	83	75-124	.2	
Xylene (Total)	ug/L	ND	60	60	55.6	55.4	93	92	76-123	.4	
1,2-Dichloroethane-d4 (S)	%						96	95	80-124		
4-Bromofluorobenzene (S)	%						103	105	80-120		
Dibromofluoromethane (S)	%						95	93	80-122		
Toluene-d8 (S)	%						96	97	80-123		

Date: 03/21/2011 09:57 AM

REPORT OF LABORATORY ANALYSIS This report shall not be reproduced, except in full,

Page 8 of 12







Project: 2705748
Pace Project No.: 256871

QC Batch: MSV/3993 Analysis Method: EPA 5030B/8260

QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge

Associated Lab Samples: 256871003

METHOD BLANK: 62217 Matrix: Water

Associated Lab Samples: 256871003

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	0.50	03/15/11 00:57	
Ethanol	ug/L	ND	250	03/15/11 00:57	
Ethylbenzene	ug/L	ND	0.50	03/15/11 00:57	
Methyl-tert-butyl ether	ug/L	ND	0.50	03/15/11 00:57	
Toluene	ug/L	ND	0.50	03/15/11 00:57	
Xylene (Total)	ug/L	ND	1.5	03/15/11 00:57	
1,2-Dichloroethane-d4 (S)	%	108	80-124	03/15/11 00:57	
4-Bromofluorobenzene (S)	%	107	80-120	03/15/11 00:57	
Dibromofluoromethane (S)	%	105	80-122	03/15/11 00:57	
Toluene-d8 (S)	%	111	80-123	03/15/11 00:57	

LABORATORY CONTROL SAMPLE: 62218

		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Benzene	ug/L		17.9	90	76-127	
Ethanol	ug/L	400	373	93	31-182	
Ethylbenzene	ug/L	20	17.8	89	72-125	
Methyl-tert-butyl ether	ug/L	20	18.7	94	58-145	
Toluene	ug/L	20	17.2	86	69-125	
Xylene (Total)	ug/L	60	53.0	88	74-124	
1,2-Dichloroethane-d4 (S)	%			110	80-124	
4-Bromofluorobenzene (S)	%			109	80-120	
Dibromofluoromethane (S)	%			113	80-122	
Toluene-d8 (S)	%			111	80-123	

MATRIX SPIKE & MATRIX SP	IKE DUPLICAT	E: 62223			62224						
Parameter	Z Units	256840005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	ug/L	ND	20	20	20.1	22.0	101	110	75-124	9	
Ethanol	ug/L	ND	400	400	409	408	102	102	36-177	.2	
Ethylbenzene	ug/L	ND	20	20	20.3	21.9	102	110	76-124	7	
Methyl-tert-butyl ether	ug/L	ND	20	20	19.6	21.0	98	105	72-130	7	
Toluene	ug/L	ND	20	20	19.3	21.0	97	105	75-124	8	
Xylene (Total)	ug/L	ND	60	60	59.4	64.7	99	108	76-123	9	
1,2-Dichloroethane-d4 (S)	%						109	109	80-124		
4-Bromofluorobenzene (S)	%						111	111	80-120		
Dibromofluoromethane (S)	%						113	114	80-122		
Toluene-d8 (S)	%						111	112	80-123		

Date: 03/21/2011 09:57 AM

REPORT OF LABORATORY ANALYSIS

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Project: 2705748 Pace Project No.: 256871

QC Batch: MSV/3973 Analysis Method: CA LUFT

QC Batch Method: CA LUFT Analysis Description: CA LUFT MSV GRO

Associated Lab Samples: 256871001, 256871002, 256871003

METHOD BLANK: 61851 Matrix: Water

Associated Lab Samples: 256871001, 256871002, 256871003

Reporting Blank Limit Parameter Result Qualifiers Units Analyzed TPH-Gasoline (C05-C12) ND 50.0 03/10/11 23:17 ug/L % 82-116 4-Bromofluorobenzene (S) 110 03/10/11 23:17

LABORATORY CONTROL SAMPLE: 61852

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers TPH-Gasoline (C05-C12) ug/L 500 506 101 60-140 4-Bromofluorobenzene (S) % 108 82-116

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 61916 61917 MSD MS 256835001 Spike Spike MS MSD MS MSD % Rec Parameter Units Result Conc. Conc. Result Result % Rec % Rec Limits **RPD** Qual

TPH-Gasoline (C05-C12) ug/L ND 500 500 473 468 90 89 60-140 4-Bromofluorobenzene (S) % 112 110 82-116

Date: 03/21/2011 09:57 AM





QUALIFIERS

Project: 2705748 Pace Project No.: 256871

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel Clean-Up

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

LABORATORIES

PASI-S Pace Analytical Services - Seattle

ANALYTE QUALIFIERS

Date: 03/21/2011 09:57 AM

The GRO result for this sample did not match the pattern of the laboratory standard for gasoline. This is likely due to the 1n presence of MTBE in the sample.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 2705748
Pace Project No.: 256871

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
256871001	MW-1R_20110331	EPA 5030B/8260	MSV/3977		
256871002	MW-3_20110331	EPA 5030B/8260	MSV/3985		
256871003	MW-5_20110331	EPA 5030B/8260	MSV/3993		
256871001	MW-1R_20110331	CA LUFT	MSV/3973		
256871002	MW-3_20110331	CA LUFT	MSV/3973		
256871003	MW-5_20110331	CA LUFT	MSV/3973		

Date: 03/21/2011 09:57 AM

REPORT OF LABORATORY ANALYSIS

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256871

1Q 2011 GW Event

COP ELT CHAIN-OF-CUSTODY / Analytical Request Document

Page: Cooler# 1 of

.

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

anteagroup

	anceagroup																							
	d Lab Information:	Required Project Information:			Required Invoice I										_		2.1	(1	. 1	1	39			
Lab Nam	ne: Pace-Seattle	Site ID #: 2705748 Task:	WG_C	Q_201103	Send Invoice to:	David Sowl	е								-	210	14	11	IL	- 6				
Address:		AnteaGrp proj#			Address: 11050 V	White Rock R	oad, Suite	110							Turi	n aro	ound	time	e (day	ys)		10		
940 S. H	larney Street Seattle WA 98108	Site Address 6401 Dublin Bl	vd		City/State	Rancho Co	rdova CA	95670	Phone #:	1-8	300-477-	7411			QC	leve	I Re	quire	ed: St	tanda	ırd	Special		Mark one
Lab PM:	Regina Ste. Marie	City Dublin · S	State	CA 94568	Reimbursement pro	oject?	oject? Non-reimbursement project? Mark one			one	NJ	Redu	uced	Deli	ivera	ble P	ackag	je?						
Phone/Fa	ax: P: 206-957-2433 F: 206-767-5063	AG PM Name: Tony F	Perini		Send EDD to	copeltdata@	තintelliger	ntehs.cr	om						MA	MCF	P Ce	ert?		СТ	RCP Cert?			Mark One
Lab PM e	email Regina.SteMarie@pacelabs.com	Phone/Fax: P: 1-800-477-7		08-225-8506	CC Hardcopy r		5		****						Lab	Pro	ject	ID (lab u	ıse)				
Applicabl	le Lab Quote #:	AG PM Email: tony.perini	@anteaç	group.com	CC Hardcopy r	report to									Re	que	ste	d /	17	11	17	111	11	
ITEM#	SAMPLE ID One Character per box. (A-Z, 0-9 / ,-) Samples IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX COMMINION WATER	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE '	TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Jnpreserved		servat		Methanol	1	nalys		//				/ /	Comment Sample I.	
	MW-1R_20110331		wg	G	3/8/11	14.4	10 (6	N		X	-					×							
2	MW-3_20110331		WG	, ,	3/8/11	133		6	N		X						×	\Box						
	MW-5_20110331		wg	,'	3/8/11	131		10	N		X			+	×	× ×	×	\Box		\top				
4				-1	0,	10																		
5											\top			1			1	\Box						
6														+				\Box				1		
7			+								\vdash	+		+	H	+	+	\forall	\top	\top	\vdash	_		
8			+									+		\top	T	+	+	\forall	\vdash	\top				
9			+							\vdash	\vdash			+	+	+	+	\Box					-	
10			+							\vdash				+	\vdash		+		\vdash	+		_		
11										\vdash	+	+		+	\vdash	+	+	\Box	\vdash	\top		1		
12			1									+		+	+		+	+	\vdash	+	\vdash	_		
1000	al Comments/Special Instructions:		RELI	INQUISHED BY /	/ AFFILIATION	الكاف	DATE T	TIME	ACCEP	TED BY	/ AFFI	LIATIO	ON		18		DAT	E	TIM	ΜE	Sam	ple Rece	ipt Conditi	ions
			B	on Pani	JI/BTS		18/11 13	100		New Year												Y/N	Y/N	Y/N
				ED EX	1. / // //	5	30911 04	905	Color	H, W	1001	VP.	10)Ar	5	D	309	111	090	75	0.4	_	Ø N	YIN
			1	V			2011110	100	CMA	4 10	N.M.	L	11	NO			501	"	010	10	0.9		2.00 × 500 ×	700770000
Glob	oal ID: T0600101443																				01.7	Y/N Y/N	Y/N Y/N	Y/N Y/N
	TO VIOLENCE & BANG		SHIP	PING METHOD	D: (mark as appropria	ate) S	AMPLER	NAME	E AND S	IGNATU	JRE		N/AN		25		100		181		Ç	U	522	
					EEDEX NINT Nam				sen :													ples e?	Sample intact?	Trip Blank?
			USM	MAIL	SIGNATUI	IRE of SAMPLER	S	3	A	Des	00	DATE	E Signed	3/	8/	Ti	me:/	51	45	-		Samples on Ice?	Sar	Trip

Sample Container Count

	2	5	6	8	7	1
Pace An	alyti	cal	-			

CLIENT: Artec

COC PAGE ____ of ___

COC ID#_____

Imple Line	VG9H	AG1H	AG1U	BG1H	BP1U	BP2U	BP3U	BP2N	BP2S	WGFU	WGKU	 Comments
1	6											
2	6											
3	10											
4												
5												
6												
7												
8												
9												
10												
11												
12												Trip Blank? No

AG1H	1 liter HCL amber glass	BP2S	500mL H2SO4 plastic	JGFU	4oz unpreserved amber wide
AG1U	1liter unpreserved amber glass	BP2U	500mL unpreserved plastic	R	terra core kit
AG2S	500mL H2SO4 amber glass	BP2Z	500mL NaOH, Zn Ac	U	Summa Can
AG2U	500mL unpreserved amber glass	BP3C	250mL NaOH plastic	VG9H	40mL HCL clear vial
AG3S	250mL H2SO4 amber glass	BP3N	250mL HNO3 plastic	VG9T	40mL Na Thio. clear vial
BG1H	1 liter HCL clear glass	BP3S	250mL H2SO4 plastic	VG9U	40mL unpreserved clear vial
BG1U	1 liter unpreserved glass	BP3U	250mL unpreserved plastic	VG9W	40mL glass vial preweighted (EPA 5035)
BP1N	1 liter HNO3 plastic	DG9B	40mL Na Bisulfate amber vial	VSG	Headspace septa vial & HCL
BP1S	1 liter H2SO4 plastic	DG9H	40mL HCL amber voa vial	WGFU	4oz clear soil jar
BP1U	1 liter unpreserved plastic	DG9M	40mL MeOH clear vial	WGFX	4oz wide jar w/hexane wipe
BP1Z	1 liter NaOH, Zn, Ac	DG9T	40mL Na Thio amber vial	ZPLC	Ziploc Bag
BP2N	500mL HNO3 plastic	DG9U	40mL unpreserved amber vial		
BP2O	500mL NaOH plastic	1	Wipe/Swab		

	Sample Cond	ition Upon Receip	t .	
Pace Analytical Client Nan	ne: Antea	3	Project#	256871
Courier: Fed Ex ☐ UPS ☐ USPS ☐ Courier: 8738 82 5542,559	53	Pace Other		
Custody Seal on Cooler/Box Present:	res No Seals	s intact: Yes	No	
Packing Material: Bubble Wrap Bub	oble Bags None	Other	Temp. Blank Yes	No
Thermometer Used 132013 or 101731962 or 22	26099 Type of Ice: Wet	Blue None	Samples on ice, cooling p	
Cooler Temperature 0.4°c, 0.9°c Temp should be above freezing ≤ 6°C	Biological Tissue	e is Frozen: Yes No Comments:	Date and Initials of p	
Chain of Custody Present:	ØYes □No □N/A	1.		
Chain of Custody Filled Out:	☐Yes ☐No ☐N/A	2.		
Chain of Custody Relinquished:	ØYes □No □N/A	3.		
Sampler Name & Signature on COC:	ØYes □No □N/A	4.		
Samples Arrived within Hold Time:	ØYes □No □N/A	5.		
Short Hold Time Analysis (<72hr):	□Yes ☑No □N/A	6.		
Rush Turn Around Time Requested:	□Yes □No □N/A	7.		
Follow Up / Hold Analysis Requested:	□Yes ☑No □N/A	8.		
Sufficient Volume:	PYes DNo DN/A	9.		
Correct Containers Used:	DYes ONO ONA	10.		
-Pace Containers Used:	ØYes □No □N/A			
Containers Intact:	ØYes DNo DN/A	11.		
Filtered volume received for Dissolved tests	□Yes □No ☑N/A	12.		
Sample Labels match COC:	Yes No N/A	13.		
-Includes date/time/ID/Analysis Matrix:	WT			
All containers needing preservation have been checked.	□Yes □No □N/A	14.		
All containers needing preservation are found to be in compliance with EPA recommendation.	□Yes □No □N/A		. 11	
Exceptions: VOA, coliform, TOC, O&G		Initial when completed	Lot # of added preservative	
Samples checked for dechlorination:	□Yes □No □N/A			
Headspace in VOA Vials (>6mm):	□Yes ŴÑo □N/A			
Trip Blanks Present:	□Yes ☑No □N/A		•	
Trip Blank Custody Seals Present	Dyes DNo DN/A			
Pace Trip Blank Lot # (if purchased):				
				W 1
Client Notification/ Resolution:	D-t-	(Time:	Field Data Required?	Y / N
Person Contacted: Comments/ Resolution:	Date	/Time:		
Comments/ Resolution.				

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Project Manager Review:

Date:

Is the Data Valid? (circle) (Yes) / No

Preservation Temperature (if Known): 0.9 °C

Antea Group Lab Validation Sheet

Project/Client: COP/ELT Project #: 142705748		
Date of Validation: 4/1/11 Date of Analysis: 3/15/11 Sample Date: 3/8/11 Completed By: Jon F. Signature: Analytical Lab Used and Report # (if any): Pace Analytical 256571	Circle or Highlight Yes/No below	
1. Was the analysis the one requested?	Yes/ No	
2. Do the sample number(s) on the chain-of-custody (COC) match the one(s) that appear on the laboratory data sheet?	Yes/ No	
3. Were samples prepared (extracted, filtered, etc.) within EPA holding times?	Yes/ No	
4. Once prepared/extracted, were the samples analyzed within the EPA holding times?	Yes/ No	
5. Were Laboratory blanks performed, if so, were they below non-detect?	Yes/ No	
6. Are the units correct? (i.e., soil samples in mg/kg or ug/g, water samples mg/L, ug/L, and air samples in volume mg/m^3,etc.)	Yes/ No	
7. Were appropriate Matrix Spike (MS) and Matrix Spike Duplicate (MSD) samples included in the laboratory batch sample?	Yes/ No	
8. In lieu of MS/ MSD, were surrogate spike (SS) or surrogate spike duplicate (SSD) samples included in the laboratory batch samples?	Yes / No	N/a
9. Were MS/ MSD (or SS/SSD) within the acceptable range of % recovery (i.e., approx 80-120% depending on analyte)?	Yes / No	
10. Were MS/MSD (or SS/SSD) values used to calculate Relative Percent Difference (RPD)?	Yes/ No	
11. Were Relative Percent Difference values within the acceptable range (i.e. ± 25%)?	Yes/ No	
If any answer is no, explain why and what corrective action was taken:		

Semi-Annual Summary Report, October 2010 through March 2011 76 Station No. 5748/6419 Dublin, CA Antea Group Project No. I42705748



Attachment E

Waste Manifest

	NON-HAZARDOUS 1. Generator's WASTE MANIFEST	S US EPA ID No.		Manifest Document No.	574B-0311	2. Page 1	
	nerator's Name and Mailing Address POSE ATW: LIZ BERNY ZLOC 3 CAMINO RAM SUTTE SEE nerator's Phone (925) 864-10900 SAN RAMON, CA 91			WIOI DIDLUM BYO			
	5. Transporter 1 Company Name 6. US EPA ID Number			A. State Transporter's ID			
7. Ti	ansporter 2 Company Name			B. Transporter 1 Phone S = 44(G C. State Transporter's ID			
. o 'D	esignated Facility Name and Sile Address	10. US EPA ID Number		D. Transporter	THE THE PERSON OF THE PERSON AND ADDRESS.		
Se	Seaport Environmental 300 seaport Hvd. 000013572 Reductor City, CA 940103			F. Facility's Phone LPSD-3104-1024			
ೌರ							
	WASTE DESCRIPTION		12. Co	ntainers Type	13. Total Quantity	14. Unit WL/Vol	
a.				V 10 10 1	N. 1. N.		
	Non hazardous washe liquid			77	28	6	
b.							
						1	
C.		·					
ý.							
d.							
G. Additional Descriptions for Materials Listed Above H. Handling Codes for Wastes Listed Above							
15. S	pecial Handling Instructions and Additional Information Our Protective operaneum while h	handling	App	word Nor	nex 520-6	79	
W	ear proketive aguinament while high to and volumes are appoint the energeny phone number (unate	West bil	1 Blains	Tech Service	e)	
À4	he emorgency phone number (310) 885-4455	Black	teh fl)4, NN-0316	94-1PS	
16.0	16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shigment are fully and accurately described and are in all respects						
in	16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.						
Printe	(Anten (anoup)	FOF Signature SA	<u> </u>	<u> </u>	Month	Date Day Ye	
_)6	rilyn Menoles Praf	L Clear	MOM	endy	1 2	12311	
····	ranspolle 1 Acknowledgement of Receipt of Materials	Signature	(-)	2/9	Month	Date Day Ye	
	Ben Panell		ZU		3.	8 ក	
	ransporter 2 Acknowledgement of Receipt of Materials	Signalure		•	Month	Date Day Ye	
-				:			
40.0	screpancy Indication Space		•				
19. D							
	Allie Courses Consider Codifficial and a state of the sta	storials equated by this monifest arrest as a second	in item 10	······································			
	acility Owner or Operator; Certification of receipt of the waste ma	aterials covered by this manifest, except as noted	in item 19.			Date	

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