PANGEA

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Environmental Health

May 5, 2010

VIA ALAMEDA COUNTY FTP SITE

Mr. Paresh Khatri
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: **Groundwater Monitoring Report - First Quarter 2010**
Dublin Auto Wash
7240 Dublin Boulevard
Dublin, California
ACEH Case No. 304

Dear Mr. Khatri:

On behalf of Mr. Hooshang Hadjian, Pangea Environmental Services, Inc. has prepared this *Groundwater Monitoring Report – First Quarter 2010*. The report describes groundwater monitoring, sampling, and other site activities. As required by your July 24, 2009 letter, groundwater monitoring is performed *quarterly* on six wells to evaluate remedial effectiveness, with *annual* monitoring of sixteen site wells. A remediation progress update is included herein. System startup is anticipated by the end of May 2010.

Due to elevated concentrations detected in new source area wells DPE-1 and DPE-2, Pangea proposes sampling of these wells *quarterly* to evaluate remedial progress. Pangea proposes to commence quarterly sampling of these well during the third quarter 2010 sampling event (August). *Pangea respectfully requests ACEH concurrence with this recommendation.*

If you have any questions or comments, please call me at (510) 435-8664.

Sincerely,
Pangea Environmental Services, Inc.

Bob Clark-Riddell, P.E.
Principal Engineer

Attachment: *Groundwater Monitoring Report – First Quarter 2010*

cc: Mr. Hooshang Hadjian, 2108 San Ramon Valley Blvd, San Ramon, CA 94583
Mr. Jim Lange, 6500 Dublin Blvd., Suite 202, Dublin, CA 94568
Charlotte Evans, CRA (electronic copy)
SWRCB Geotracker (electronic copy)

GROUNDWATER MONITORING REPORT – FIRST QUARTER 2010

Dublin Auto Wash
7240 Dublin Boulevard
Dublin, California

May 5, 2010

Prepared for:

Mr. Hooshang Hadjian
2108 San Ramon Valley Blvd
San Ramon, CA 94583

Prepared by:

Pangea Environmental Services, Inc.
1710 Franklin Street, Suite 200
Oakland, California 94612

Written by:

Morgan Gillies
Project Manager

Bob Clark-Riddell, P.E.
Principal Engineer

Groundwater Monitoring Report – First Quarter 2010
7240 Dublin Boulevard
Dublin, California
May 5, 2010

INTRODUCTION

On behalf of Mr. Hooshang Hadjian, Pangea Environmental Services, Inc. (Pangea) conducted groundwater monitoring and sampling activities during this quarter at the subject site (Figure 1). The purpose of the monitoring and sampling is to evaluate groundwater flow direction and dissolved contaminant concentrations, and to inspect site wells for separate-phase hydrocarbons (SPH). The ACEH is requiring *quarterly* monitoring to evaluate remedial effectiveness. Current groundwater analytical results and elevation data are shown on Figure 2. Current and historical data are summarized on Table 1.

SITE BACKGROUND

The Dublin Auto Wash retail gasoline station is located at the southwest corner of Dublin Boulevard and Village Parkway in Dublin, California (Figure 1). Currently, there are three 10,000-gallon underground storage tanks (USTs) and a carwash at the site. Land use immediately surrounding the station is commercial.

From approximately 1988 to 1997, Chevron Products Company performed assessment and remediation of the site. A soil vapor extraction (SVE) system was operated at the site from December 1992 through June 1995. Mr. Hadjian is the responsible party for an unauthorized release from a leaking stainless steel flex-hose near the northernmost dispenser island in February 1997. Subsequently, a new product delivery system was installed and about 31 cubic yards of contaminated soil was removed from the release area. Gettler-Ryan, Inc. monitored the eight existing groundwater wells at the site until 2003, when SOMA Environmental Engineering, Inc., took over groundwater monitoring and conducted further characterization of the site using electrical conductivity logging to identify potential water-bearing zones. In November 2004, Pangea commenced coordination of groundwater monitoring and corrective action for the site. To delineate the contamination detected during SOMA's investigation, Pangea installed additional monitoring wells with shorter screen lengths in identified water-bearing zones in 2006. Pangea also drilled three soil borings (SB-1, SB-1A and SB-2) to help evaluate subsurface conditions downgradient of the 1997 release and north of the site, and the potential for contamination migration along the 18-inch sanitary sewer line in Dublin Boulevard.

The site subsurface consists primarily of clay, sandy clay, and clayey sand. The shallower soil (<34 ft bgs) is predominantly clay and sandy clay with thin lenses of clayey sand, while the deeper soil (>34 ft bgs) contains clayey sand units of apparently higher permeability than shallower materials. In March, April and May, 2006, Pangea installed fourteen monitoring wells to help define the vertical and lateral extent of groundwater contamination in the identified water-bearing zones. Wells with shorter screen lengths than existing wells were installed in the upper shallow (AA) zone from approximately 9 to 14 ft bgs (MW-7AA), the shallow (A) zone from approximately 15 to 20 ft bgs (MW-3A, MW-6A, MW-7A, MW-8A, MW-9A and MW-10A), the middle (B) zone from approximately 25 to 30 ft bgs (MW-6B and MW-7B), and the deep (C) zone from approximately 34 to 45 ft bgs (MW-6C, MW-7C, MW-9C, MW-10C and MW-11C). The well screen in MW-

3A was installed at a shallower depth than the other A-zone wells to intercept the SPH previously observed in destroyed well MW-3.

The shallower (AA, A and B) water-bearing zones primarily consist of thin lenses of clayey sand within sandy clay, while higher permeability silty sand and clayey sand are the predominant soil types constituting the deeper (C) water-bearing zone. Vapor wells VW-1 through VW-3 are screened from approximately 3 to 9 ft bgs in the upper shallow seasonal water-bearing zone, which appears to be a perched zone. In late March and early April 2006, wells EA-1, EA-2, EA-3 and MW-3 were destroyed to reduce the risk of vertical contaminant migration and improve the quality of contaminant concentration and groundwater elevation data. To compare the elevation of surface water in the flood control channel with site groundwater, point C-1 was surveyed on the roadway overpass above the channel. Well construction details are presented in Table 2.

An interim remedial action was conducted by Pangea in July 2006 by extracting approximately 40 gallons of impacted liquid from wells MW-3A and MW-7AA with a vacuum truck. In November 2007, Pangea conducted a five-day dual-phase extraction (DPE) test (and interim remediation event) to evaluate the effectiveness of DPE as remedial technique and to provide additional source removal. On December 9, 2008, Pangea submitted an *Interim Remediation Report and Corrective Action Plan* (CAP) describing DPE testing and proposing short-term dual phase extraction (DPE) as the most appropriate and cost-effective technique for site remediation. In a letter dated January 16, 2009, ACEH approved short-term DPE for additional source removal to help facilitate case closure.

In July 2009 Pangea installed two dual-phase extraction (DPE) wells to facilitate implementation of the approved corrective action plan (CAP). Wells DPE-1 and DPE-2 were constructed of 4-inch diameter and screened from 9 to 14 feet bgs. Details of the DPE well installation are described in Pangea's *Remediation Well Installation Report* dated December 16, 2009.

GROUNDWATER MONITORING AND SAMPLING

On February 11 and 12, 2010, groundwater monitoring and sampling was conducted at the site. As part of the monitoring program for this site, all well caps were removed the day before monitoring to allow water levels to equilibrate. A revised monitoring program, which included reduced sampling frequency for several site wells, was approved in a letter from the Alameda County Environmental Health Department (ACEH) dated January 16, 2009. The approved groundwater monitoring program is summarized in Appendix A. Groundwater samples were obtained from groundwater monitoring wells MW-1, MW-2, MW-3A, MW-4, MW-5 MW-6A, MW-6B, MW-7AA, MW-7A, MW-7B, MW-8A, MW-9A, MW-10A, and vadose wells VW-1, VW-2, and VW-3. The depth to water at survey point C-1 above the flood control channel was also measured. Monitoring and sampling of deep monitoring wells MW-6C, MW-7C, MW-9C, MW-10C and MW-11C was discontinued beginning in the second quarter 2007, as approved by Barney Chan of ACEH in a May 14, 2007 telephone

conversation, because no significant contamination had been detected in these deeper site wells during four consecutive quarters.

Before well purging, the dissolved oxygen (DO) concentration was measured in each sampled well. DO was measured by lowering a downwell sensor to the approximate middle of the water column, and allowing the reading to stabilize during gentle height adjustment. Prior to sample collection, approximately three casing volumes of water were purged using disposable bailers, an electric submersible pump, positive air displacement pump, or a peristaltic pump. During well purging, field technicians measured the pH, temperature and conductivity. Groundwater samples were collected from each well with a disposable bailer, and decanted into the appropriate containers supplied by the analytical laboratory. Groundwater samples were labeled, placed in protective plastic bags, and stored on crushed ice at or below 4^{o} C. All samples were transported under chain-of-custody to a State-certified analytical laboratory. Purge water was temporarily stored onsite in DOT-approved 55-gallon drums. Groundwater monitoring field data sheets are presented in Appendix B.

MONITORING RESULTS

Current and historical groundwater elevation data and analytical results are described below and summarized on Table 1. Groundwater samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by modified EPA Method 8015C; and benzene, toluene, ethylbenzene, xylenes (BTEX), and methyl tertiary butyl ether (MTBE) by EPA Method 8021B. Samples were analyzed by McCampbell Analytical, Inc. of Pittsburg, California, a State-certified laboratory. The laboratory analytical report is included in Appendix B. DO concentrations ranged from 0.55 mg/L (well MW-6A) to 1.77 mg/L (well VW-3).

Groundwater Flow Direction

Based on depth-to-water data collected February 11, 2010, groundwater elevations in shallow and intermediate zones are shown on Figure 2 and discussed below. Groundwater flow at the site is complex due to the combined effects of a generally upward gradient, the nearby creek/flood control channel, seasonal fluctuations in flow direction, and possible influences of the city sewer line located beneath Dublin Boulevard.

Vertical Gradient Evaluation: A comparison of clustered well pairs screened at different depths indicates that a consistent *upward* gradient component of approximately 0.14 ft/ft is present between the shallow and intermediate water-bearing zones at the portion of the site north of the dispenser islands (MW-6A and 6B), and a significantly smaller upward gradient is present southwest of the dispenser islands (MW-7A and MW-7B), as shown below on Table A. A downward gradient appears to be present between the upper shallow, AA-zone vapor wells (VW-1, VW-2 and VW-3) and the shallow A-zone monitoring wells, although this apparent gradient may be due to perched groundwater.

Table A – Vertical Gradient Evaluation using Paired Monitoring Wells

Monitoring Well Pair	Groundwater Elevation	Mean Screen Depth	Calculated Vertical Gradient
MW-6A	321.01	17.5	
MW-6B	322.49	28	
Difference	*1.48*	*10.5*	*0.14 (upwards)*
MW-7A	321.32	18	
MW-7B	321.45	28	
Difference	*0.13*	*10*	*0.013 (upwards)*

Horizontal Gradient Evaluation: Depth-to-water measurements collected during prior monitoring events indicate that the horizontal component of the groundwater flow direction to the north of the site has been consistently *southward to southeastward* for the *shallow* wells, but gradient directions in the southern portion of the site have fluctuated significantly, possibly due to the influence of the nearby flood control channel. As shown on Figure 2, the horizontal component of the groundwater flow direction in the *shallow* wells at the site for the current monitoring event appears to converge to the northeast along Dublin Boulevard and is possibly influenced by permeable backfill around the sanitary sewer line beneath Dublin Boulevard. The groundwater flow direction for the shallow water-bearing zone may also be affected by surface water infiltration from the onsite car wash. The horizontal component of groundwater flow in the *intermediate-depth* wells could not be determined since only two wells are screened at that depth.

Conclusion: The primary observation regarding the piezometric surface is that a moderately well-defined *upward* gradient is present in wells north of the dispenser islands. Historical depth-to-water and groundwater elevation data for the site are presented in Table 1.

Hydrocarbon Distribution in Groundwater

Based on recent results, hydrocarbon contamination is concentrated in the upper shallow (AA) and shallow (A) water-bearing zones in the vicinity of the fuel dispensers, as shown in Table 1 and on Figure 2. Wells MW-7AA and VW-3 contained the highest TPHg concentrations (4,300µg/L) detected this quarter. The highest benzene concentration was detected in well MW-7AA at 670 µg/L. In August 2009, elevated TPHg concentrations were detected in nearby remediation wells DPE-1 and DPE-2 at 25,000 µg/L and 6,600 µg/L, respectively (Table 1).

No separate-phase hydrocarbons (SPH) were detected in site wells this quarter. SPH was previously detected in MW-3 and replacement well MW-3A, but has not been detected in MW-3A since May 2006, shortly after well installation. A brief interim remedial action conducted on July 7, 2006, and consisting of removal of approximately 40 gallons of impacted liquid from well MW-3A using a vacuum truck, may have improved site conditions near well MW-3A. Site conditions were also likely improved by the five-day DPE test/removal event conducted in November 2007 on source area wells MW-3A, MW-6A, MW-7A and MW-7AA. Hydrocarbon concentrations in wells MW-3A, MW-6A and MW-7A generally increased after the November 2007 DPE testing and then returned to near or below pre-test levels. Hydrocarbon concentrations generally show stable to decreasing trends in all site wells, although concentrations remain elevated in select source area wells.

Fuel Oxygenate Distribution in Groundwater

MTBE was detected above reporting limits in seven of the 16 sampled wells, as shown in Table 1 and on Figure 2. The highest MTBE concentration was detected in source area well MW-7AA at 6,100 µg/L. MTBE concentrations in other sampled wells were within historic limits or trends. However, in August 2009, elevated MTBE concentrations were detected in nearby remediation wells DPE-1 and DPE-2 at 2,000 µg/L and 28 µg/L, respectively (Table 1).

MTBE concentrations in well MW-1 had been steadily increasing over a three-year period before reaching a historic high of 8,400 µg/L during the fourth quarter 2006 monitoring event, but have decreased substantially since then (<5.0 µg/L this quarter). The concentration reductions in well MW-1 may be due to interim remediation, MTBE migration from the area, or natural attenuation.

OTHER SITE ACTIVITIES

Additional Site Remediation

On January 16, 2009, ACEH approved implementation of short-term DPE as described in the *Interim Remediation Report and Corrective Action Plan* (CAP) dated December 9, 2008. Most of the remediation system has been installed. Pangea is awaiting PG&E shutdown of the transformer at the site so that the final electrical connections can be completed. We anticipate system startup in May 2010. Short-term DPE was selected to provide additional source removal and help facilitate regulatory case closure.

Future Groundwater Monitoring

In the *Groundwater Monitoring Report – Second Quarter 2009* dated June 25, 2009, Pangea recommended *semi-annually* monitoring until startup of the approved remediation system. In a letter dated July 24, 2009, ACEH required *quarterly* monitoring of six wells to evaluate remedial effectiveness and *annual* monitoring of sixteen site wells. The approved groundwater monitoring program is shown in Appendix A. Pangea will summarize groundwater monitoring activities and results in a groundwater monitoring report.

Due to elevated concentrations detected in new source area wells DPE-1 and DPE-2, Pangea proposes sampling of these wells *quarterly* to evaluate remedial progress. Pangea proposes to commence quarterly sampling of these well during the third quarter 2010 sampling event (August). Please comment on this recommendation.

Electronic Reporting

The report, laboratory data, and other applicable information will be uploaded to the State Water Resource Control Board's Geotracker database.

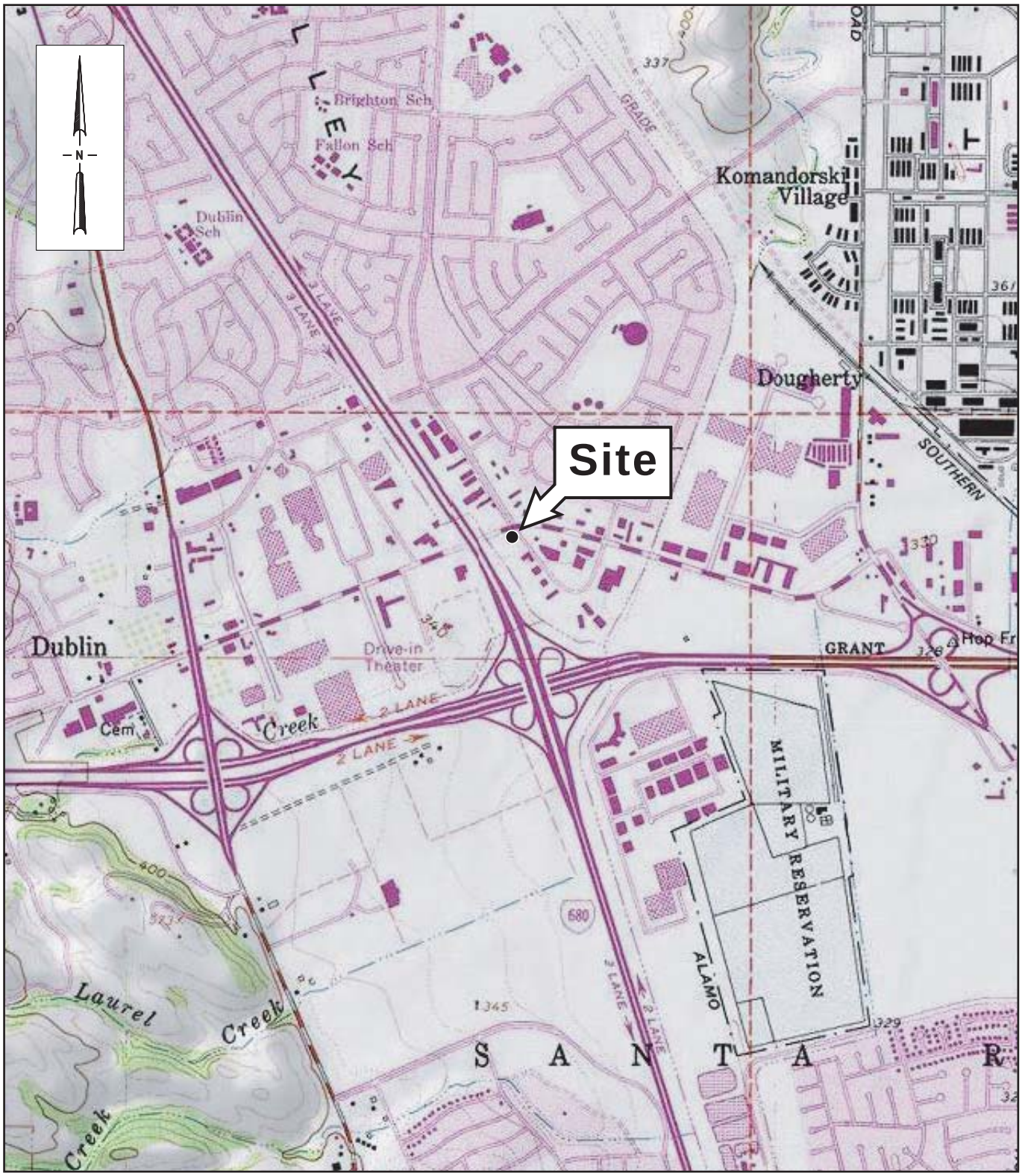
ATTACHMENTS

Figure 1 – Site Location Map
Figure 2 – Groundwater Elevation Contour and Hydrocarbon Concentration Map – Shallow

Table 1 – Groundwater Elevation and Analytical Data
Table 2 – Well Construction Details

Appendix A – Groundwater Monitoring Program
Appendix B – Groundwater Monitoring Field Data Sheets
Appendix C – Laboratory Analytical Results

2/17/2005



SOURCE: TOPO! MAPS

0 1/8 1/4 1/2 1

SCALE : 1" = 1/4 MILE

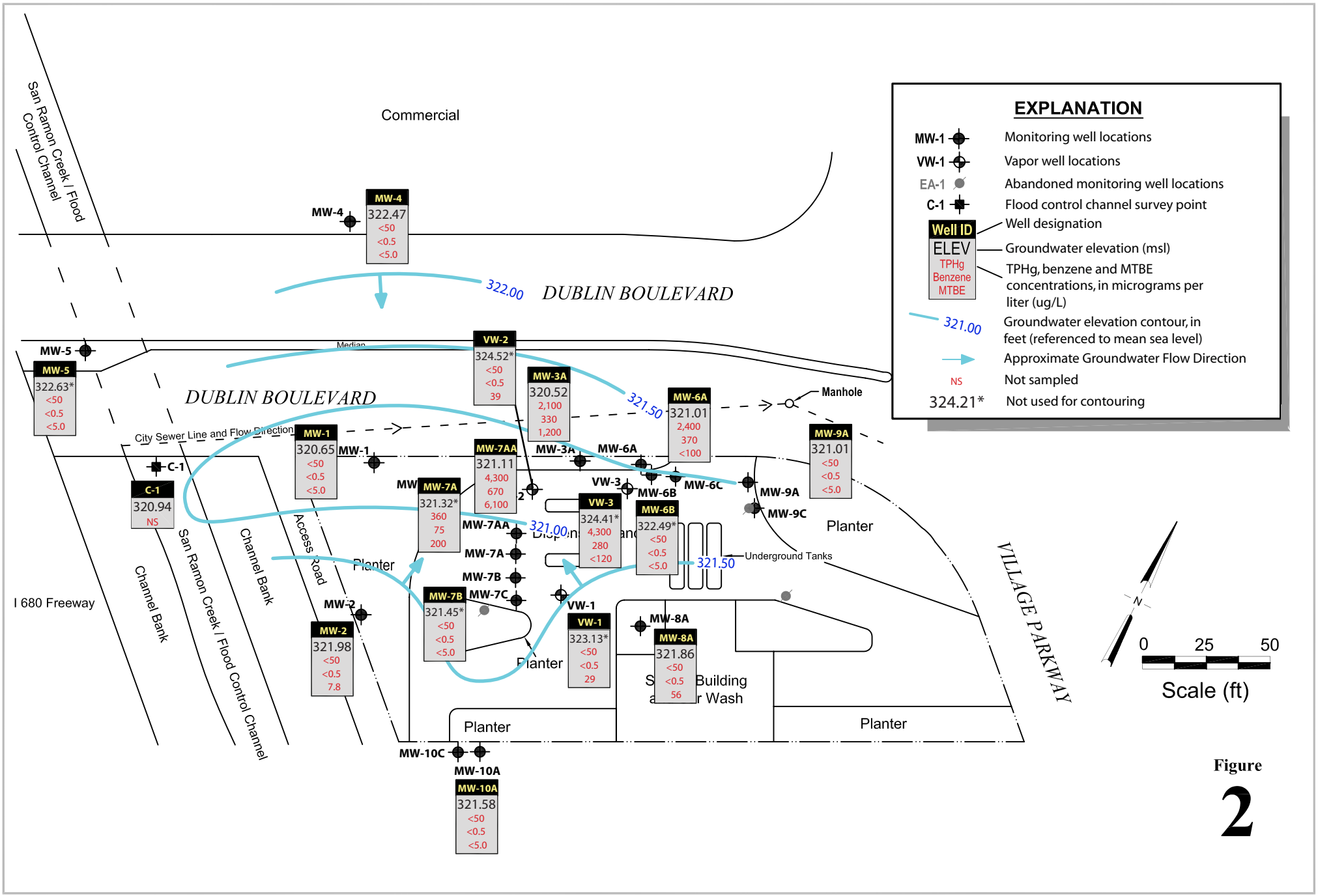
Figure 1

Dublin Auto Wash

7240 Dublin Boulevard
Dublin, California

PANGEA

Site Location Map



Figure

2

Dublin Auto Wash
7240 Dublin Boulevard
Dublin, California

PANGEA

Groundwater Elevation Contour and Hydrocarbon Concentration Map
February 11, 2010

Table 1. Groundwater Elevation and Analytical Data - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft, msl)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Dissolved Oxygen mg/L	Notes
				←			µg/L		→		
Surface Water (Flood Control Channel)											
C-1	08/17/06	11.60	321.29	--	--	--	--	--	--	--	Gauge data - flood control channel
332.89	11/24/06	12.10	320.79	--	--	--	--	--	--	--	
	02/21/07	12.10	320.79	--	--	--	--	--	--	--	
	05/15/07	12.05	320.84	--	--	--	--	--	--	--	
	08/28/07	11.90	320.99	--	--	--	--	--	--	--	
	12/21/07	12.16	320.73	--	--	--	--	--	--	--	
	02/26/08	12.21	320.68	--	--	--	--	--	--	--	
	05/21/08	12.40	320.49	--	--	--	--	--	--	--	
	08/13/08	11.95	320.94	--	--	--	--	--	--	--	
	11/13/08	12.40	320.49	--	--	--	--	--	--	--	
	02/06/09	12.02	320.87	--	--	--	--	--	--	--	
	05/28/09	11.98	320.91	--	--	--	--	--	--	--	
	08/13/09	12.01	320.88	--	--	--	--	--	--	--	
	11/24/09	11.92	320.97	--	--	--	--	--	--	--	
	02/11/10	**11.95**	**320.94**	--	--	--	--	--	--	--	
Upper Shallow (AA-Zone) Wells											
DPE-1	08/13/09	10.55	--	25,000	240	160	530	3,900	2,000	--	
DPE-2	08/13/09	11.06	--	6,600	8.8	<2.5	<2.5	710	28	--	
MW-7AA	05/31/06	9.18	321.49	12,000	1,000	410	180	1,600	23,000 (21,000)	0.44	TAME, TBA, DIPE, ETBE=ND
330.67	07/07/06	9.15	321.52	--	--	--	--	--	--	--	
	08/17/06	8.75	321.92	25,000	2,200	210	780	1,400	36,000(42,000)	0.24	
	11/24/06	9.84	320.83	27,000	3,400	1,100	1,300	3,400	37,000	0.33	
	02/21/07	9.60	321.07	18,000	2,400	670	200	2,800	41,000	0.58	
	05/15/07	10.20	320.47	11,000	1,500	200	520	1,100	47,000	0.49	
	08/28/07	10.20	320.47	4,500	720	13	73	100	18,000	0.33	
	12/21/07	10.09	320.58	3,700	550	32	74	330	12,000	0.58	
	02/26/08	8.96	321.71	5,400	970	7.2	320	100	15,000	0.74	
	05/21/08	10.28	320.39	22,000	2,700	19	940	440	28,000	0.71	
	08/13/08	10.38	320.29	3,900	510	<5.0	150	42	15,000	0.77	
	11/13/08	10.35	320.32	8,000	1,100	20	290	280	19,000	0.80	
	02/06/09	10.31	320.36	11,000	1,200	37	500	800	13,000	0.79	
	05/28/09	10.05	320.62	7,600	1,100	34	390	870	6,100	0.73	
	08/13/09	10.15	320.52	3,200	690	5.4	54	92	10,000	0.87	
	11/24/09	10.06	320.61	2,300	390	7.2	50	150	3,600	0.81	
	02/11/10	**9.56**	**321.11**	**4,300**	**670**	**9.0**	**73**	**240**	**6,100**	**0.64**	
VW-1	02/21/06	7.95	322.48	860	120	1.4	32	4.4	390 (440)	1.97	
330.43	06/01/06	7.89	322.54	1,100	92	2.2	11	1.4	600 (550)	0.11	TAME=12µg/L, TBA,DIPE,ETBE=ND
	07/07/06	7.71	322.72	--	--	--	--	--	--	--	
	08/17/06	7.65	322.78	--	--	--	--	--	--	0.07	
	11/24/06	7.75	322.68	Insufficient Water to Sample						0.48	
	02/21/07	7.81	322.62	620	52	4.3	<0.5	2.7	340	0.22	
	05/15/07	7.94	322.49	2,000	270	6.4	1.2	15	720	0.10	
	08/28/07	8.07	322.36	2,400	400	4.6	<0.5	23	610	0.27	
	12/21/07	8.20	322.23	Insufficient Water to Sample							
	02/26/08	8.20	322.23	Insufficient Water to Sample							
	05/21/08	8.21	322.22	Insufficient Water to Sample							
	08/13/08	8.27	322.16	Insufficient Water to Sample							
	11/13/08	5.97	324.46	<50	<0.5	<0.5	<0.5	<0.5	46	1.10	
	02/06/09	6.04	324.39	<50	<0.5	<0.5	<0.5	<0.5	80	0.97	
	05/28/09	6.30	324.13	--	--	--	--	--	--	--	
	08/13/09	6.61	323.82	--	--	--	--	--	--	--	
	11/24/09	6.99	323.44	--	--	--	--	--	--	--	
	02/11/10	**7.30**	**323.13**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**29**	**1.16**	
VW-2	02/21/06	6.01	324.16	1,600	150	2.7	55	20	1,700 (1,600)	1.97	
330.17	06/01/06	6.17	324.00	1,500	140	3.3	24	19	1,600 (1,600)	0.29	TAME, TBA, DIPE, ETBE=ND
	07/07/06	7.02	323.15	--	--	--	--	--	--	--	
	08/17/06	7.23	322.94	--	--	--	--	--	--	0.14	
	11/24/06	5.55	324.62	<50	5.7	<0.5	<0.5	<0.5	260	0.20	
	02/21/07	6.22	323.95	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.42	
	05/15/07	7.54	322.63	430	40	1.5	<0.5	1.0	470	0.28	
	08/28/07	7.82	322.35	1,200	170	5.0	<0.5	20	160	0.35	
	12/21/07	4.44	325.73	<50	<0.5	<0.5	<0.5	<0.5	100	0.70	
	02/26/08	4.56	325.61	<50	<0.5	<0.5	<0.5	<0.5	21	0.75	
	05/21/08	7.65	322.52	300	28	1.7	<0.5	0.97	<45	0.71	
	08/13/08	7.92	322.25	Insufficient Water to Sample						1.58	
	11/13/08	5.96	324.21	<50	8.0	<0.5	<0.5	<0.5	53	0.97	
	02/06/09	6.06	324.11	<50	<0.5	<0.5	<0.5	<0.5	38	0.95	
	05/28/09	6.90	323.27	--	--	--	--	--	--	--	
	08/13/09	7.52	322.65	--	--	--	--	--	--	--	
	11/24/09	6.28	323.89	--	--	--	--	--	--	--	
	02/11/10	**5.65**	**324.52**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**39**	**0.91**	
VW-3	02/21/06	6.10	324.39	8,900	390	29	490	650	<50	2.28	
330.49	06/01/06	6.22	324.27	5,900	230	4.5	270	63	<35 (15)	0.21	TAME, TBA, DIPE, ETBE=ND
	07/07/06	4.44	326.05	--	--	--	--	--	--	--	
	08/17/06	4.4 *	326.09	4,200	120	1.7	39	30	<25	0.10	

Table 1. Groundwater Elevation and Analytical Data - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft, msl)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Dissolved Oxygen mg/L	Notes
				←			µg/L		→		
VW-3 (cont'd)	11/24/06	6.15	324.34	7,600	310	9.9	270	420	<50	0.21	
	02/21/07	6.87	323.62	8,800	260	5.1	130	160	<90	0.29	
	05/15/07	7.13	323.36	5,600	270	6.9	110	110	<90	0.36	
	08/28/07	7.41	323.08	10,000	320	5.9	150	140	84	0.39	
	12/21/07	6.28	324.21	3,900	140	1.9	54	29	<50	0.66	
	02/26/08	6.09	324.40	5,600	270	4.5	68	130	<90	0.69	
	05/21/08	6.46	324.03	3,800	210	3.0	32	47	56	0.77	
	08/13/08	6.93	323.56	9,300	400	4.8	87	60	100	0.59	
	11/13/08	7.45	323.04	13,000	600	9.6	220	120	170	2.79	
	02/06/09	7.41	323.08	9,400	300	9.1	140	230	<150	2.16	
	05/28/09	5.93	324.56	--	--	--	--	--	--	--	
	08/13/09	6.40	324.09	--	--	--	--	--	--	--	
	11/24/09	6.75	323.74	--	--	--	--	--	--	--	
	02/11/10	**6.08**	**324.41**	**4300**	**280**	**3.7**	**52**	**80**	**<120**	**1.77**	
Shallow (A-Zone) Wells											
MW-1	10/04/94	12.8	320.76	2,100	150	170	61	320	--		
333.66	11/30/94	12.38	321.18	1,500	210	17	73	130	--		
	03/02/95	12.88	320.68	2,600	510	<10	160	<10	--		
	06/07/95	12.58	320.98	710	160	<2.0	45	<2.0	<10		
	09/26/95	13.15	320.41	1,100	140	1.4	92	1.8	<5.0		
	12/28/95	13.09	320.47	750	96	2.5	61	7.4	37		
	02/29/96	12.17	321.39	250	17	<0.5	18	0.81	9		
	06/27/96	12.95	320.61	710	72	<2.0	92	2.2	<10		
	09/12/96	13.11	320.55	300	53	<0.5	32	0.65	21		
	03/31/97	12.99	320.67	<200	4.1	<2.0	4.8	<2.0	640		
	12/23/98	13.87	319.79	<50	<50	<0.5	<0.5	<0.5	3200		
	03/25/99	12.01	321.65	<50	<0.5	<0.5	<0.5	<0.5	5,200 (5,200)		
	02/03/00	11.91	321.75	<500	<5.0	<5.0	<5.0	<5.0	3,180 (3,350)		
	01/23/01	12.57	321.09	<50.0	<0.5	<0.5	<0.5	<0.5	4,420		
	05/01/01	12.6	321.06	SAMPLED SEMI-ANNUALLY							
	08/28/01	12.74	320.92	<50	<0.5	<0.5	<0.5	<0.5	4,800		
	11/27/01	12.7	320.96	SAMPLED SEMI-ANNUALLY							
	02/28/02	12.7	320.96	<50	<0.5	<0.5	<0.5	<1.5	1,400		
	05/22/02	12.38	321.28	SAMPLED SEMI-ANNUALLY							
	08/20/02	12.57	321.09	<50	<0.5	<0.5	<0.5	<1.5	1,400		
	11/11/02	11.31	322.35	SAMPLED SEMI-ANNUALLY							
	05/08/03	11.85	321.81	<50	<0.5	<0.5	<0.5	<0.5	1,300 (1,200)		
	12/15/04	12.80	320.86	<50	<0.5	<0.5	<0.5	<0.5	1,700 (1,900)		
	02/21/05	11.81	321.85	<100	<1.0	<1.0	<1.0	<1.0	3,000 (3,800)	0.82	
	05/17/05	12.51	321.15	<120	<1.2	<1.2	<1.2	<1.2	3,400 (4,400)	0.75	
	08/17/05	12.35	321.31	<170	<1.7	<1.7	<1.7	<1.7	4,500 (4,900)	0.77	
	11/27/05	13.18	320.48	<170	<1.7	<1.7	<1.7	<1.7	5,400 (4,400)	0.90	
	02/21/06	12.61	321.05	<170	<1.7	<1.7	<1.7	<1.7	5,000 (5,400)	0.29/0.71	
333.69	06/01/06	12.47	321.22	<250	<2.5	<2.5	<2.5	<2.5	6,400 (6,300)	0.46	TAME, TBA, DIPE, ETBE=ND
	07/07/06	12.60	321.09	--	--	--	--	--	--	--	
	08/17/06	11.93	321.76	<250	<2.5	<2.5	<2.5	<2.5	7,700 (9,100)	0.43	
	11/24/06	13.01	320.68	<250	<2.5	<2.5	<2.5	<2.5	8,400	0.29	
	02/21/07	12.91	320.78	<50	<0.5	<0.5	<0.5	<0.5	3,600	0.24	
	05/15/07	13.40	320.29	<50	<0.5	<0.5	<0.5	<0.5	2,500	0.29	
	08/28/07	13.40	320.29	<50	<0.5	<0.5	<0.5	<0.5	170	0.40	
	12/21/07	13.40	320.29	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.68	
	02/26/08	12.60	321.09	<50	<0.5	<0.5	<0.5	<0.5	7.0	0.86	
	05/21/08	13.45	320.24	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.94	
	08/13/08	13.37	320.32	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.91	
	11/13/08	13.50	320.19	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.94	
	02/06/09	13.67	320.02	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.87	
	05/28/09	13.25	320.44	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.71	
	08/13/09	13.26	320.43	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.77	
	11/24/09	13.28	320.41	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.80	
	02/11/10	**13.04**	**320.65**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**0.81**	
MW-2	10/04/94	8.56	320.62	2300	160	280	96	480	--		
329.29	11/30/94	8.33	320.85	1,600	170	16	110	120	--		
	03/02/95	8.35	320.83	1,200	220	5.6	140	36	--		
	06/07/95	8.62	320.56	160	25	<0.5	16	<0.5	240		
	09/26/95	8.71	320.47	150	15	<0.5	7.2	<0.5	120		
	12/28/95	8.78	320.4	400	34	1.3	26	5.1	170		
	02/29/96	7.82	321.36	120	29	<0.5	<0.5	<0.5	790		
	06/27/96	8.72	320.46	150	13	<0.5	7	<0,5	850		
	09/12/96	8.81	320.48	<1,000	18	<10	<10	<10	3,100		
	03/31/97	8.65	320.64	<500	<5.0	<5.0	<5.0	<5.0	1,400		
	12/23/98	8.32	320.97	<50	<0.5	<0.5	<0.5	<1.5	900		
	03/25/99	7.89	321.4	<50	2.6	<0.5	<0.5	<0.5	1,100 (670)		
	02/03/00	7.53	321.76	<125	<1.25	<1.25	<1.25	<1.25	1,020 (1,100)		
	01/23/01	8.18	321.11	<50.0	<0.5	<0.5	<0.5	<0.5	642		
	05/01/01	8.43	320.86	70.8	<0.5	<0.5	<0.5	<0.5	342		
	08/28/01	8.39	320.9	<50	<0.5	<0.5	<0.5	<0.5	530		
	11/27/01	8.46	320.83	210	<0.5	<0.5	<0.5	<1.5	260		
	02/28/02	8.48	320.81	<50	<0.5	<0.5	<0.5	<1.5	180		
	05/22/02	8.14	321.15	<50	<0.5	<0.5	<0.5	<1.5	180		
	08/20/02	8.24	321.05	<50	<0.5	<0.5	<0.5	<1.5	160		
	11/11/02	8.06	321.23	<50	<0.5	<0.5	<0.5	<1.5	130		
	05/08/03	7.86	321.43	<50	<0.5	<0.5	<0.5	<0.5	180 (160)		
	12/15/04	8.60	320.69	<50	<0.5	<0.5	<0.5	<0.5	1,400 (1,600)		
	02/21/05	7.55	321.74	<50	<0.5	<0.5	<0.5	<0.5	800 (1,100)	1.35	
	05/17/05	8.52	320.77	<50	<0.5	<0.5	<0.5	<0.5	160 (210)	1.06	
	08/17/05	8.16	321.13	<50	<0.5	<0.5	<0.5	<0.5	190 (210)	0.90	
	11/27/05	9.00	320.29	<50	<0.5	<0.5	<0.5	<0.5	200 (210)	0.92	

Table 1. Groundwater Elevation and Analytical Data - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft, msl)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Dissolved Oxygen mg/L	Notes
				←			µg/L		→		
MW-2 (cont'd)	02/21/06	8.51	320.78	<50	<0.5	<0.5	<0.5	<0.5	240 (270)	0.33/0.46	
329.48	06/01/06	8.50	320.98	<50	<0.5	<0.5	<0.5	<0.5	120 (110)	0.38	TAME, TBA, DIPE, ETBE=ND
	07/07/06	8.57	320.91	--	--	--	--	--	--	--	
	08/17/06	8.21	321.27	<50	<0.5	<0.5	<0.5	<0.5	230(230)	0.30	
	11/24/06	8.87	320.61	<50	<0.5	<0.5	<0.5	<0.5	760	0.24	
	02/21/07	8.80	320.68	<50	<0.5	<0.5	<0.5	<0.5	1,100	0.21	
	05/15/07	8.94	320.54	<50	<0.5	<0.5	<0.5	<0.5	1,400	0.25	
	08/28/07	8.83	320.65	<50	<0.5	<0.5	<0.5	<0.5	1,800	0.33	
	12/21/07	8.93	320.55	<50	<0.5	<0.5	<0.5	<0.5	1,700	0.49	
	02/26/08	8.49	320.99	<50	<0.5	<0.5	<0.5	<0.5	590	0.51	
	05/21/08	9.06	320.42	<50	<0.5	<0.5	<0.5	<0.5	230	0.67	
	08/13/08	8.89	320.59	<50	<0.5	<0.5	<0.5	<0.5	190	0.77	
	11/13/08	9.16	320.32	<50	<0.5	<0.5	<0.5	<0.5	77	0.86	
	02/06/09	9.39	320.09	<50	<0.5	<0.5	<0.5	<0.5	20	0.81	
	05/28/09	8.86	320.62	<50	<0.5	<0.5	<0.5	<0.5	12	0.74	
	08/13/09	8.81	320.67	<50	<0.5	<0.5	<0.5	<0.5	10	0.69	
	11/24/09	9.04	320.44	<50	<0.5	<0.5	<0.5	<0.5	13	0.80	
	02/11/10	**7.50**	**321.98**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**7.8**	**0.76**	
MW-3A	05/29/06	10.13	321.28	--	--	--	--	--	--	--	0.03 SPH
331.39	07/07/06	10.15	321.24	4,200	340	27	75	79	32,000	--	
	08/17/06	9.56	321.83	6,200	410	68	100	650	28,000(34,000)	0.19	
	11/24/06	10.73	320.66	2,100	190	11	72	220	7,900	0.10	
	02/21/07	10.52	320.87	7,100	890	28	440	470	8,400	0.17	
	05/15/07	11.46	319.93	1,800	210	11	96	88	3,500	0.25	
	08/28/07	11.62	319.77	1,900	260	6.9	110	74	3,400	0.28	
	12/21/07	11.33	320.06	4,700	570	160	120	970	2,800	0.54	
	02/26/08	10.25	321.14	7,200	550	32	440	690	1,800	0.49	
	05/21/08	11.52	319.87	1,600	130	2.9	40	94	700	0.55	
	08/13/08	11.62	319.77	2,900	280	3.4	52	56	1,300	0.52	
	11/13/08	11.55	319.84	1,200	150	3.5	22	31	1,100	0.64	
	02/06/09	11.70	319.69	5,800	780	25	260	390	1,600	0.69	
	05/28/09	11.30	320.09	1,500	200	9.0	57	190	500	0.70	
	08/13/09	11.40	319.99	1,900	240	6.3	29	72	940	0.81	
	11/24/09	11.22	320.17	970	98	5.2	25	41	360	0.79	
	02/11/10	**10.87**	**320.52**	**2,100**	**330**	**8.6**	**27**	**34**	**1,200**	**0.72**	
MW-4	03/01/96	9.9	322.74	<50	<0.5	<0.5	<0.5	<0.5	<2.5		
332.63	04/02/96	9.77	322.87	--	--	--	--	--	--		
	06/27/96	10	322.64	<50	<0.5	<0.5	<0.5	<0.5	<2.5		
	09/12/96	11.67	320.96	<50	<0.5	<0.5	<0.5	<0.5	3.5		
	03/31/97	10.59	322.04	<50	<0.5	<0.5	<0.5	<0.5	<2.5		
	12/23/98	10.37	322.26	<50	<0.5	<0.5	<0.5	<1.5	<2.5		
	03/25/99	9.91	322.72	<50	<0.5	<0.5	<0.5	<0.5	<2.5		
	02/03/00	10.32	322.31	<50	<0.5	<0.5	<0.5	<0.5	<2.5/<2.0 (3)		
	01/23/01	10.54	322.09	<50	<0.5	<0.5	<0.5	<0.5	<5.0		
	05/01/01	10.32	322.31				SAMPLED ANNUALLY				
	08/28/01	10.57	322.06				SAMPLED ANNUALLY				
	11/27/01	10.29	322.34				SAMPLED ANNUALLY				
	02/28/02	10.3	322.33	<50	<0.5	<0.5	<0.5	<1.5	<2.5		
	05/22/02	10.12	322.51				SAMPLED ANNUALLY				
	08/20/02	10.43	322.2				SAMPLED ANNUALLY				
	11/11/02	9.89	322.74				SAMPLED ANNUALLY				
	05/08/03	9.79	322.84	<50	<0.5	<0.5	<0.5	<0.5	<2		
	12/15/04	10.56	322.07	<50	<0.5	<0.5	<0.5	<0.5	<5.0		
	02/21/05	9.50	323.13	<50	<0.5	<0.5	<0.5	<0.5	<5.0 (<0.5)	1.60	
	05/17/05	10.20	322.43				SAMPLED ANNUALLY			1.29	
	08/17/05	10.50	322.13				SAMPLED ANNUALLY			1.10	
	11/27/05	11.07	321.56				SAMPLED ANNUALLY			1.01	
	02/21/06	10.53	322.10	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.14/0.90	
332.64	05/29/06	10.33	322.31				SAMPLED ANNUALLY			--	
	07/07/06	10.52	322.12	--	--	--	--	--	--	--	
	08/17/06	10.45	322.19	--	--	--	--	--	--	--	
	11/24/06	10.95	321.69	--	--	--	--	--	--	0.22	
	02/21/07	10.71	321.93	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.40	
	05/15/07	11.24	321.40	--	--	--	--	--	--	--	
	08/28/07	11.42	321.22	--	--	--	--	--	--	0.52	
	12/21/07	11.26	321.38	--	--	--	--	--	--	0.81	
	02/26/08	10.12	322.52	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.06	
	05/21/08	11.30	321.34	--	--	--	--	--	--	0.98	
	08/13/08	11.23	321.41	--	--	--	--	--	--	0.71	
	11/13/08	10.93	321.71	--	--	--	--	--	--	--	
	02/06/09	10.98	321.66	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.67	
	05/28/09	10.96	321.68	--	--	--	--	--	--	--	
	08/13/09	11.23	321.41	--	--	--	--	--	--	--	
	11/24/09	11.15	321.49	--	--	--	--	--	--	--	
	02/11/10	**10.17**	**322.47**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**0.69**	
MW-5	03/01/96	10.62	322.58	<50	<0.5	<0.5	<0.5	<0.5	<2.5		
333.47	04/02/96	10.14	323.06	--	--	--	--	--	--		
	06/27/96	10.22	322.98	<50	<0.5	<0.5	<0.5	<0.5	<2.5		
	09/12/96	10.85	322.19	<50	<0.5	<0.5	<0.5	<0.5	<2.5		
	03/31/97	10.44	322.6	<50	<0.5	<0.5	<0.5	<0.5	<2.5		
	12/23/98	10.21	322.83	<50	<0.5	<0.5	<0.5	<1.5	<2.5		
	03/25/99	9.92	323.12	<50	<0.5	<0.5	<0.5	<0.5	<2.5		
	02/03/00	9.63	323.41	<50	<0.5	<0.5	<0.5	<0.5	<2.5/<2.03		
	01/23/01	10.35	322.69	<50	<0.5	<0.5	<0.5	<0.5	<5.0		
	05/01/01	10.34	322.7				SAMPLED ANNUALLY				

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Well ID *TOC Elev* *(ft)*	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft, msl)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Dissolved Oxygen mg/L	Notes
				←			µg/L		→		
MW-5 (cont'd)	08/28/01	10.44	322.6			SAMPLED ANNUALLY					
	11/27/01	10.17	322.87			SAMPLED ANNUALLY					
	02/28/02	10.2	322.84	<50	<0.5	<0.5	<0.5	<1.5	<2.5		
	05/22/02	10.38	322.66			SAMPLED ANNUALLY					
	08/20/02	10.36	322.68			SAMPLED ANNUALLY					
	11/11/02	10.03	323.01			SAMPLED ANNUALLY					
	05/08/03	9.56	323.48	<50	<0.5	<0.5	<0.5	<0.5	3.4/<0.5		
	12/15/04	10.08	322.96	<50	<0.5	<0.5	<0.5	<0.5	<5.0		
	02/21/05	9.90	323.14	<50	<0.5	<0.5	<0.5	<0.5	<5.0 (0.54)	1.62	
	05/17/05	10.33	322.71			SAMPLED ANNUALLY				1.47	
	08/17/05	10.40	322.64			SAMPLED ANNUALLY				1.18	
333.13	11/27/05	10.43	322.61			SAMPLED ANNUALLY				1.19	
	02/21/06	10.32	322.81	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.48/0.76	
	05/29/06	10.41	322.72			SAMPLED ANNUALLY				--	
	07/07/06	10.46	322.67	--	--	--	--	--	--	--	
	08/17/06	10.49	324.19	--	--	--	--	--	--	--	
	11/24/06	10.92	322.21	--	--	--	--	--	--	0.27	
	02/21/07	10.90	322.23	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.73	
	05/15/07	10.97	322.16	--	--	--	--	--	--	--	
	08/28/07	11.07	322.06	--	--	--	--	--	--	0.55	
	12/21/07	10.80	322.33	--	--	--	--	--	--	0.97	
	02/26/08	10.38	322.75	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.01	
	05/21/08	10.97	322.16	--	--	--	--	--	--	0.95	
	08/13/08	10.98	322.15	--	--	--	--	--	--	0.99	
	11/13/08	11.01	322.12	--	--	--	--	--	--	--	
	02/06/09	11.05	322.08	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.82	
	05/28/09	10.80	322.33	--	--	--	--	--	--	--	
	08/13/09	10.90	322.23	--	--	--	--	--	--	--	
	11/24/09	10.96	322.17	--	--	--	--	--	--	--	
	02/11/10	**10.50**	**322.63**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**0.80**	
MW-6A	06/01/06	10.38	321.43	620	20	<2.5	<2.5	43	5,700 (5,300)	0.73	TAME, TBA, DIPE, ETBE=ND
331.81	07/07/06	10.15	321.66	--	--	--	--	--	--	--	
	08/17/06	9.69	322.12	860	55	3.1	31	41	5,300(6,200)	0.49	
	11/24/06	11.10	320.71	330	14	<2.5	11	3.4	5,500	0.37	
	02/21/07	10.72	321.09	360	13	1.8	16	34	4,400	0.50	
	05/15/07	11.69	320.12	<500	40	5.3	11	16	7,300	0.52	
	08/28/07	11.98	319.83	<250	<2.5	<2.5	<2.5	<2.5	7,300	0.39	
	12/21/07	11.31	320.50	4,400	200	45	50	550	3,500	0.45	
	02/26/08	10.15	321.66	6,800	740	130	290	600	330	0.61	
	05/21/08	11.60	320.21	1,900	150	8.1	44	100	88	0.63	
	08/13/08	11.91	319.90	1,200	84	3.7	36	18	<75	0.42	
	11/13/08	11.73	320.08	150	15	1.4	3.0	4.2	35	0.44	
	02/06/09	11.66	320.15	550	100	9.3	22	34	<90	0.48	
	05/28/09	11.45	320.36	600	98	14	21	42	48	0.55	
	08/13/09	11.49	320.32	79	1.6	1.5	0.66	0.76	9.4	0.69	
	11/24/09	11.15	320.66	240	21	3.7	5.8	20	<20	0.72	
	02/11/10	**10.80**	**321.01**	**2,400**	**370**	**65**	**47**	**320**	**<100**	**0.55**	
MW-7A	05/31/06	9.19	321.52	<50	1.3	<0.5	0.79	0.82	760 (770)	0.40	TAME, TBA, DIPE, ETBE=ND
330.71	07/07/06	9.17	321.54	--	--	--	--	--	--	--	
	08/17/06	8.68	322.03	60	1.1	<0.5	<0.5	1.1	930 (1,400)	0.29	
	11/24/06	9.88	320.83	<50	<0.5	<0.5	<0.5	<0.5	260	0.20	
	02/21/07	9.59	321.12	<50	4.6	<0.5	0.62	2.2	270	0.35	
	05/15/07	10.15	320.56	<50	<0.5	<0.5	<0.5	<0.5	45	0.40	
	08/28/07	10.09	320.62	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.42	
	12/21/07	10.00	320.71	3,200	180	38	100	410	890	0.68	
	02/26/08	8.78	321.93	1,300	150	1.8	59	99	410	0.90	
	05/21/08	10.16	320.55	200	18	<0.5	3.3	<0.5	30	0.75	
	08/13/08	10.27	320.44	<50	<0.5	<0.5	<0.5	<0.5	24	0.81	
	11/13/08	10.27	320.44	<50	<0.5	<0.5	<0.5	<0.5	30	0.85	
	02/06/09	10.22	320.49	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.83	
	05/28/09	9.91	320.80	--	--	--	--	--	--	--	
	08/13/09	9.98	320.73	--	--	--	--	--	--	--	
	11/24/09	9.93	320.78	--	--	--	--	--	--	--	
	02/11/10	**9.39**	**321.32**	**360**	**75**	**0.83**	**4.8**	**62**	**200**	**0.90**	
MW-8A	05/29/06	9.55	321.64	<50	<0.5	<0.5	<0.5	<0.5	20 (18)	0.39	TAME, TBA, DIPE, ETBE=ND
331.19	07/07/06	9.20	321.99	--	--	--	--	--	--	--	
	08/17/06	8.73	322.46	<50	<0.5	<0.5	<0.5	<0.5	19 (26)	0.26	
	11/24/06	9.80	321.39	<50	<0.5	<0.5	<0.5	<0.5	34	0.21	
	02/21/07	9.81	321.38	<50	<0.5	<0.5	<0.5	<0.5	16	0.29	
	05/15/07	10.05	321.14	<50	<0.5	<0.5	<0.5	<0.5	13	0.33	
	08/28/07	9.83	321.36	<50	<0.5	<0.5	<0.5	<0.5	19	0.35	
	12/21/07	10.36	320.83	<50	<0.5	<0.5	<0.5	<0.5	16	0.61	
	02/26/08	8.33	322.86	<50	<0.5	<0.5	<0.5	<0.5	38	0.77	
	05/21/08	9.99	321.20	<50	<0.5	<0.5	<0.5	<0.5	13	0.81	
	08/13/08	10.49	320.70	<50	<0.5	<0.5	<0.5	<0.5	68	0.65	
	11/13/08	10.39	320.80	<50	<0.5	<0.5	<0.5	<0.5	110	0.68	
	02/06/09	10.42	320.77	<50	<0.5	<0.5	<0.5	<0.5	75	0.70	
	05/28/09	9.90	321.29	<50	<0.5	<0.5	<0.5	<0.5	36	0.66	
	08/13/09	9.78	321.41	<50	<0.5	<0.5	<0.5	<0.5	68	0.74	
	11/24/09	9.76	321.43	<50	<0.5	<0.5	<0.5	<0.5	66	0.71	
	02/11/10	**9.33**	**321.86**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**56**	**0.63**	
MW-9A	05/29/06	10.13	321.04	<50	<0.5	<0.5	<0.5	<0.5	210 (210)	0.46	TAME, TBA, DIPE, ETBE=ND
331.17	07/07/06	9.96	321.21	--	--	--	--	--	--	--	
	08/17/06	9.40	321.77	150	<0.5	1.3	<0.5	<0.5	79(100)	0.53	
	11/24/06	11.02	320.15	200	<0.5	2.4	<0.5	<0.5	31	0.38	
	02/21/07	10.53	320.64	<50	<0.5	<0.5	<0.5	<0.5	21	0.33	
	05/15/07	10.81	320.36	86	<0.5	<0.5	<0.5	<0.5	31	0.45	

Table 1. Groundwater Elevation and Analytical Data - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft, msl)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Dissolved Oxygen mg/L	Notes
				←			µg/L		→		
MW-9A (cont'd)	08/28/07	11.11	320.06	95	<0.5	1.4	<0.5	<0.5	10	0.38	
	12/21/07	10.76	320.41	120	<0.5	2.9	<0.5	0.51	9.5	0.50	
	02/26/08	9.71	321.46	120	<0.5	1.2	<0.5	<0.5	9.5	0.86	
	05/21/08	10.75	320.42	86	<0.5	<0.5	<0.5	<0.5	6.3	0.84	
	08/13/08	11.31	319.86	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.76	
	11/13/08	11.14	320.03	52	<0.5	<0.5	<0.5	<0.5	5.5	0.63	
	02/06/09	11.16	320.01	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.61	
	05/28/09	10.75	320.42	--	--	--	--	--	--	--	
	08/13/09	10.65	320.52	--	--	--	--	--	--	--	
	11/24/09	10.48	320.69	--	--	--	--	--	--	--	
	02/11/10	**10.16**	**321.01**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**0.63**	
MW-10A	05/29/06	11.60	318.33	<50	<0.5	<0.5	<0.5	0.67	5.3 (4.7)	0.68	TAME, TBA, DIPE, ETBE=ND
329.93	07/07/06	9.78	320.15	--	--	--	--	--	--	--	
	08/17/06	8.80	321.13	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.47	
	11/24/06	12.61	317.32	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.26	
	02/21/07	8.96	320.97	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.25	
	05/15/07	9.22	320.71	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.30	
	08/28/07	8.44	321.49	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.35	
	12/21/07	8.81	321.12	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.47	
	02/26/08	7.34	322.59	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.70	
	05/21/08	9.22	320.71	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.64	
	08/13/08	9.25	320.68	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.61	
	11/13/08	9.47	320.46	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.70	
	02/06/09	9.50	320.43	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.68	
	05/28/09	9.11	320.82	--	--	--	--	--	--	--	
	08/13/09	9.21	320.72	--	--	--	--	--	--	--	
	11/24/09	9.26	320.67	--	--	--	--	--	--	--	
	02/11/10	**8.35**	**321.58**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**0.64**	
Intermediate-Depth (B-zone) Wells											
MW-6B	06/01/06	8.41	322.49	<50	<0.5	<0.5	<0.5	<0.5	18 (16)	0.34	TAME, TBA, DIPE, ETBE=ND
330.9	07/07/06	8.55	322.35	--	--	--	--	--	--	--	
	08/17/06	8.66	322.24	<50	<0.5	<0.5	<0.5	<0.5	8.5(9.6)	0.40	
	11/24/06	9.25	321.65	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.31	
	02/21/07	8.80	322.10	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.37	
	05/15/07	9.21	321.69	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.31	
	08/28/07	9.60	321.30	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.51	
	12/21/07	9.42	321.48	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.82	
	02/26/08	7.87	323.03	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.80	
	05/21/08	9.37	321.53	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.87	
	08/13/08	9.70	321.20	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.81	
	11/13/08	9.62	321.28	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.78	
	02/06/09	9.53	321.37	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.71	
	05/28/09	9.23	321.67	--	--	--	--	--	--	--	
	08/13/09	9.63	321.27	--	--	--	--	--	--	--	
	11/24/09	9.63	321.27	--	--	--	--	--	--	--	
	02/11/10	**8.41**	**322.49**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**0.68**	
MW-7B	05/31/06	9.05	321.64	<50	0.79	<0.5	<0.5	0.75	6.4 (6.6)	0.17	TAME, TBA, DIPE, ETBE=ND
330.69	07/07/06	9.03	321.66	--	--	--	--	--	--	--	
	08/17/06	8.62	322.07	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.22	
	11/24/06	9.75	320.94	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.27	
	02/21/07	9.44	321.25	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.29	
	02/21/07	9.44	321.25	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.29	
	05/15/07	9.97	320.72	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.33	
	08/28/07	9.96	320.73	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.51	
	12/21/07	9.87	320.82	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.53	
	02/26/08	8.64	322.05	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.59	
	05/21/08	10.05	320.64	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.56	
	08/13/08	10.17	320.52	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.51	
	11/13/08	10.15	320.54	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.53	
	02/06/09	10.18	320.51	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.55	
	05/28/09	9.80	320.89	--	--	--	--	--	--	--	
	08/13/09	9.89	320.80	--	--	--	--	--	--	--	
	11/24/09	9.85	320.84	--	--	--	--	--	--	--	
	02/11/10	**9.24**	**321.45**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<5.0**	**0.81**	
Deep (C-Zone) Wells											
MW-6C	06/01/06	8.21	322.67	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.29	TAME, TBA, DIPE, ETBE=ND
330.88	07/07/06	8.41	322.47	--	--	--	--	--	--	--	
	08/17/06	8.56	322.32	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.21	
	11/24/06	9.12	321.76	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.28	
	02/21/07	8.62	322.26	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.21	
MW-7C	05/31/06	8.65	322.09	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.12	TAME, TBA, DIPE, ETBE=ND
330.74	07/07/06	8.70	322.04	--	--	--	--	--	--	--	
	08/17/06	8.52	322.22	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.17	
	11/24/06	9.42	321.32	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.19	
	02/21/07	9.01	321.73	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.31	
MW-9C	05/29/06	16.59	314.89	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.28	TAME, TBA, DIPE, ETBE=ND
331.48	07/07/06	8.85	322.63	--	--	--	--	--	--	--	
	08/17/06	9.20	322.28	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.21	
	11/24/06	9.61	321.87	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.33	
	02/21/07	8.94	322.54	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.46	

Table 1. Groundwater Elevation and Analytical Data - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft, msl)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Dissolved Oxygen mg/L	Notes
				←			µg/L		→		
MW-10C	05/29/06	7.28	322.38	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.16	TAME, TBA, DIPE, ETBE=ND
329.66	07/07/06	7.28	322.38	--	--	--	--	--	--	--	
	08/17/06	7.29	322.37	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.22	
	11/24/06	10.75	318.91	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.33	
	02/21/07	7.69	321.97	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.39	
MW-11C	05/31/06	9.90	321.71	<50	<0.5	<0.5	<0.5	<0.5	11 (11)	0.29	TAME, TBA, DIPE, ETBE=ND
331.61	07/07/06	10.02	321.59	--	--	--	--	--	--	--	
	08/17/06	9.60	322.01	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.22	
	11/24/06	10.60	321.01	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.28	
	02/21/07	10.30	321.31	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.43	
Destroyed Wells											
MW-3	10/04/94	12.06	320.67	6,300	610	750	68	670	--		
332.86	11/30/94	11.38	321.35	17	3,600	490	430	610	--		
	03/02/95	11.97	320.76	8,500	2,200	<50	240	<50	64,000		
	06/07/95	11.54	321.19	3,000	710	18	220	44	3,100		
	09/26/95	12.36	320.37	<10,000	230	<100	130	<100	64,000		
	12/28/95	12.07	320.66	<12,500	760	<125	<125	<125	100,000		
	02/29/96	11.01	321.72	1,600	380	<10	84	17	33,000		
	06/27/96	11.93	320.8	1,400	<2.5	4.3	130	4	96,000		
	09/12/96	12.26	320.6	<10,000	560	<l00	110	<100	100,000		
	03/31/97	12.04	320.82	<25,000	1,200	370	<250	380	130,000		
	12/23/98	12.92	319.94	--	--	--	--	--	--		0.1' SPH; 0.079 gal SPH removed
	03/25/99	12.56	320.3	--	--	--	--	--	--		0.05' SPH; 0.05 gal SPH removed
	02/03/00	11.12	321.74	92,100	4,780	11,400	2,270	15,800	137,000 (162,000)		
	1/23/2001	11.78	321.08	60,600	4,810	7,500	1,870	11,000	148,000		Absorbent sock in well
	5/1/2001	10.66	322.2	56,000	3,760	5,640	<2,500	8,740	136,000		Absorbent sock in well
	8/28/2001	11.79	321.07	32,000	3,800	2,600	1,200	7,500	160,000		Absorbent sock in well
	11/27/2001	11.98	320.88	110,000	1,300	2,400	1,500	9,400	90,000		Absorbent sock removed
	02/28/02	11.81	321.05	24,000	1,900	820	520	3,100	90,000		
	05/22/02	11.6	321.26	110,000	4,000	3,200	2,800	18,000	140,000		
	08/20/02	11.81	321.05	37,000	2,600	1,500	890	4,800	110,000		
	11/11/02	11.63	321.23	81,000	2,900	2,100	2,100	14,000	110,000		
	05/08/03	10.91	321.95	5,700	770	69	130	365	76,000 (70,000)		
	12/15/04	11.97	320.89	33,000	1,700	430	1,300	7,000	70,000 (89,000)		
	02/21/05	10.81	322.06	--	--	--	--	--	--	1.29	0.01 SPH
	05/17/05	11.63	321.29	--	--	--	--	--	--	1.06	0.08 SPH
	08/17/05	10.83	322.03	39,000	1,500	260	780	2,700	42,000 (47,000)	0.93	
	11/27/05	12.29	320.72	--	--	--	--	--	--	--	0.19 SPH
	02/21/06	11.73	321.28	--	--	--	--	--	--	--	0.19 SPH
	03/30/06	--	--	--		**Well Destroyed**		--	--	--	Well Destroyed
EA-1	10/17/88	--	--	<50	<0.5	<0.5	<0.5	<0.5	--		
331.21	10/24/88	10.64	322.77	--	--	--	--	--	--		
	11/02/88	10.69	322.72	--	--	--	--	--	--		
	12/20/88	10.51	322.9	<50	<0.5	<0.5	<0.5	<0.5	--		
	03/28/89	9.87	323.54	<250	<0.5	<0.5	<0.5	<0.5	--		
	08/02/89	10.34	323.07	<50	<0.1	<0.1	<0.1	<0.1	--		
	11/06/89	10.65	322.76	<500	<3.0	<5.0	<5.0	<5.0	--		
	01/25/90	10.6	322.81	<50	<0.5	<0.5	<0.5	<0.5	--		
	04/23/90	10.58	322.83	71	2	5	3	8	--		
	08/01/90	10.88	322.53	300	86	21	10	33	--		
	10/24/91	11.12	322.29	280	69	13	11	16	--		
	01/31/91	11.16	322.25	460	160	11	17	17	--		
	08/21/91	10.8	322.61	2,400	400	220	44	120	--		
	08/21/91	10.8	322.61	2,300	390	210	42	120	--		Duplicate
	10/07/91	10.79	322.62	--	--	--	--	--	--		
	01/28/92	10.79	322.62	3,600	320	360	110	310	--		
	01/28/92	10.79	322.62	3,000	290	320	99	270	--		Duplicate
	06/05/92	10.84	322.57	1,700	290	89	61	130	--		
	09/30/92	11.06	322.35	2,100	160	260	80	350	--		
	12/30/92	10.15	323.26	3,200	240	180	110	310	--		
	03/29/93	9.42	323.99	23,000	700	3,000	610	3,000	--		
	06/25/93	10.42	322.99	2.7	130	590	130	590	--		
	09/16/93	10.66	322.75	3.9	410	830	220	890	--		
	12/20/93	10.6	322.81	27	1,200	2,600	1,100	4,200	--		
	03/29/94	10.41	323	6.3	250	700	200	830	--		
	06/22/94	10.4	323.01	4.1	71	240	110	460	<30		
	09/20/94	10.37	323.04	8,500	1,200	1,300	370	1,400	--		
	10/04/94	10.34	323.07	7,600	97	360	150	620	--		
	11/30/94	9.46	323.95	8,800	180	490	240	900	--		
	03/02/95	9.96	321.07	6.9	82	570	210	970	--		
	06/15/95	9.8	321.23	4.8	44	210	160	620	<25		
	09/26/95	10.48	320.55	13,000	150	620	370	1,400	<125		
	12/28/95	10.14	320.89	11,000	74	250	200	750	79		
	02/29/96	8.74	322.29	17,000	59	480	350	1,600	<l25		
	06/27/96	10.21	320.82	3,600	22	130	130	49	46		
	09/12/96	10.49	320.72	2,000	20	<10	18	44	<50		
	03/31/97	10.19	321.02	17,000	87	230	330	1,200	310		
	12/23/98	9.83	321.38	290	20	0.88	1.1	16	<2.5		
	03/25/99	9.13	322.08	500	21	<0.5	21	<0.5	18		
	02/03/00	9.05	322.16	2,310	35.7	90	21.8	147	1,280 (365)		
	01/23/01	--	--	--	--	--	--	--	--		Inaccessible
	05/01/01	9.82	321.39	7,710	19.9	12.6	22.3	64	31.8		
	08/28/01	10.04	321.17	4,800	69	<25	50	140	160		
	11/27/01	10.05	321.16	5,300	25	<5.0	30	120	<20		

Table 1. Groundwater Elevation and Analytical Data - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft, msl)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Dissolved Oxygen mg/L	Notes
				←			µg/L		→		
EA-1 (cont'd)	02/28/02	--	--	--	--	--	--	--	--		Inaccessible
	05/22/02	9.05	322.16	110	<1.0	<0.50	1	<1.5	<2.5		
	08/20/02	9.21	322	410	2.6	<0.50	8.5	29	<5.0		
	11/11/02	9.01	322.2	3,800	<0.50	1.3	17	47	<5.0		
	05/08/03	8.23	322.98	1,700	11	0.97	63	161	<2.0		
	12/15/04	--	--	--	--	--	--	--	--		Inaccessible
	02/21/05	--	--	--	--	--	--	--	--		Inaccessible
	05/17/05	--	--	--	--	--	--	--	--		Inaccessible
	08/17/05	--	--	--	--	--	--	--	--		Inaccessible
	11/27/05	--	--	--	--	--	--	--	--		Inaccessible
	02/21/06	--	--	--	--	--	--	--	--		Inaccessible
	03/31/06	--	--	--		**Well Destroyed**		--	--	--	Well Destroyed
EA-2	10/17/88	--	--	<50	<0.5	<0.5	<0.5	1.2	--		
330.41	10/24/88	9.7	322.89	--	--	--	--	--	--		
	11/02/88	10.03	322.56	--	--	--	--	--	--		
	12/20/88	9.98	322.61	<50	<0.5	<0.5	<0.5	<0.5	--		
	03/28/89	8.8	323.79	<250	<2	<0.5	<0.5	<0.5	--		
	08/02/89	9.44	323.15	<50	<0.1	<0.1	<0.1	<0.1	--		
	11/06/89	9.53	323.06	<500	<3.0	<5.0	<5.0	<5.0	--		
	01/25/90	9.27	323.32	<50	<0.5	<0.5	<0.5	<0.5	--		
	04/23/90	9.35	323.24	<50	0.6	0.8	<0.5	2	--		
	08/01/90	9.71	322.88	<50	<0.5	<0.5	<0.5	<0.5	--		
	10/24/90	10.08	322.51	<50	<0.5	<0.5	<0.5	<0.5	--		
	01/31/91	10.21	322.38	<50	<0.5	<0.5	<0.5	<0.5	--		
	01/31/91	10.21	322.38	<50	<0.5	<0.5	<0.5	<0.5	--		Duplicate
	08/21/91	9.8	322.79	<50	<0.5	<0.5	<0.5	<0.5	--		
	10/07/91	9.98	322.61	--	--	--	--	--	--		
	01/28/92	9.81	322.78	<50	0.8	<0.5	<0.5	<0.5	--		
	06/05/92	9.86	322.73	<50	<0.5	<0.5	<0.5	<0.5	--		
	09/30/92	10.6	321.99	66	1	3.2	1.3	7.4	--		
	12/30/92	9.11	323.48	<50	<0.5	<0.5	<0.5	<0.5	--		
	03/29/93	7.73	324.86	<50	<0.5	<0.5	<0.5	<1.5	--		
	06/25/93	9.22	323.37	<50	<0.5	<0.5	<0.5	<1.5	--		
	09/16/93	10	322.59	<50	<0.5	<0.5	<0.5	<1.5	--		
	12/20/93	9.38	323.21	<50	<0.5	<0.5	<0.5	<0.5	--		
	03/29/94	9.3	323.29	<50	<0.5	0.6	<0.5	<0.5	--		
	06/22/94	9.49	323.1	<50	<0.5	<0.5	<0.5	<0.5	--		
	09/26/94	9.72	322.87	<50	<0.5	<0.5	<0.5	<0.5	--		
	10/04/94	9.58	323.01	<50	<0.5	<0.5	<0.5	<0.5	--		
	11/30/94	8.7	323.89	<50	<0.5	<0.5	<0.5	<0.5	--		
	03/02/95	8.54	321.67	<50	<0.5	<0.5	<0.5	<0.5	--		
	06/07/95	8.42	321.79	<50	<0.5	<0.5	<0.5	<0.5	<2.5		
	09/26/95	9.34	320.87	540	6.8	<0.5	47	29	13		
	12/28/95	8.84	321.37	<50	<0.5	<0.5	<0.5	<0.5	<2.5		
	02/29/96	7.44	322.77	<50	<0.5	<0.5	<0.5	1.5	<2.5		
	06/27/96	8.83	321.38	<50	<0.5	<0.5	<0.5	<0.5	<2.5		
	09/12/96	9.4	321.01	<50	<0.5	<0.5	<0.5	<0.5	<2.5		
	03/31/97	9.11	321.3	<50	<0.5	<0.5	<0.5	<0.5	<2.5		
	12/23/98	8.91	321.5	<50	<0.5	<0.5	<0.5	<0.5	<2.5		
	03/25/99	8.1	322.31	<50	<0.5	<0.5	<0.5	<0.5	2.7		
	02/03/00	8.36	322.05	<50	<0.5	<0.5	<0.5	<0.5	<2.5 (<2.0)		
	01/23/01	9.08	321.33	441 (1)	1.27	0.542	40.3	31	72.9		
	05/01/01	8.87	321.54			SAMPLED ANNUALLY					
	08/28/01	9.45	320.96			SAMPLED ANNUALLY					
	11/27/01	9.5	320.91			SAMPLED ANNUALLY					
	02/28/02	9.05	321.36	<50	<0.50	<0.50	<0.5	<1.5	74		
	05/22/02	9.04	321.37			SAMPLED ANNUALLY					
	08/20/02	9	321.41			SAMPLED ANNUALLY					
	11/11/02	9.03	321.38			SAMPLED ANNUALLY					
	05/08/03	7.26	323.15	<50	<0.5	<0.5	<0.5	<0.5	2.2/0.9		
	12/15/04	8.96	321.45	<50	<0.5	<0.5	<0.5	<0.5	<5.0		
	02/21/05	7.20	323.21	<50	<0.5	<0.5	<0.5	<0.5	13 (11)	0.64	
	05/17/05	8.21	322.20			SAMPLED ANNUALLY				0.77	
	08/17/05	7.97	322.44			SAMPLED ANNUALLY				0.85	
	11/27/05	9.83	320.58			SAMPLED ANNUALLY				0.84	
	02/21/06	8.78	321.63	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.51/0.68	
	03/28/06	--	--	--		**Well Destroyed**		--	--	--	Well Destroyed
EA-3	10/17/88	--	--	<50	1.8	<0.5	<0.5	3	--		
331.5	10/24/88	11.03	322.61	--	--	--	--	--	--		
	11/02/88	11.03	322.61	--	--	--	--	--	--		
	12/20/88	10.96	322.68	240	90	1.2	13	3.3	--		
	03/28/89	9.77	323.87	2,300	380	130	240	910	--		
	08/02/89	10.65	322.99	<50	<0.1	<0.1	<0.1	<0.1	--		
	11/06/89	10.78	322.86	<500	<3.0	<5.0	<5.0	<5.0	--		
	01/25/90	10.66	322.98	<50	<0.5	<0.5	<0.5	<0.5	--		
	04/23/90	10.68	322.96	<50	0.8	<0.5	0.9	<0.5	--		
	08/01/90	11.03	322.61	<50	<0.5	<0.5	<0.5	<0.5	--		
	10/24/90	11.35	322.29	<50	<0.5	<0.5	<0.5	<0.5	--		
	01/31/91	11.52	322.12	<50	<0.5	<0.5	<0.5	<0.5	--		
	08/21/91	--	--	--	--	--	--	--	--		
	10/07/91	11.15	322.49	180	40	20	4.7	8.4	--		
	10/7/1991	--	--	200	43	17	4.1	6.7	--		Duplicate
	01/28/92	11.08	322.56	640	69	85	13	46	--		
	06/05/92	10.98	322.66	250	63	8.3	3	9.5	--		
	09/30/92	11.38	322.26	330	120	33	6.3	22	--		
	12/30/92	10.48	323.16	58	7.6	1.3	2.5	5.4	--		
	03/29/93	9.3	324.34	120	11	4.5	6.2	13	--		
	06/25/93	10.46	323.18	<50	<0.5	<0.5	<0.5	<1.5	--		

Table 1. Groundwater Elevation and Analytical Data - Dublin Auto Wash, 7240 Dublin Boulevard, Dublin, CA

Well ID *TOC Elev* *(ft)*	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft, msl)	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Dissolved Oxygen mg/L	Notes
				← µg/L →							
EA-3 (cont'd)	09/16/93	10.9	322.74	85	3.9	8.8	4.5	22	--		
	12/20/93	10.66	322.98	190	12	12	13	50	--		
	03/29/94	10.5	323.14	<50	<0.5	1.2	<0.5	0.9	--		
	06/22/94	10.64	323	<50	<0.5	<0.5	<0.5	<0.5	<3.0		
	09/26/94	10.72	322.92	<50	<0.5	<0.5	<0.5	<0.5	--		
	10/04/94	10.68	322.96	<50	<0.5	<0.5	<0.5	0.7	--		
	11/30/94	9.66	323.98	170	6.1	3	6.5	28	--		
	03/02/95	9.92	321.38	<50	<0.5	<0.5	<0.5	<0.5	--		
	06/07/95	9.72	321.58	<50	<0.5	<0.5	<0.5	<0.5	3.2		
	09/26/95	10.6	320.7	2,000	140	<5.0	<5.0	190	280		
	12/28/95	9.82	321.48	<50	<0.5	<0.5	<0.5	<0.5	26		
	02/29/96	8.28	323.02	<50	2.1	<0.5	2.5	6	31		
	06/27/96	9.91	321.39	<50	<0.5	<0.5	<0.5	<0.5	<2.5		
	09/12/96	10.59	320.91	13,000	<20	<20	<20	<20	48		
	03/31/97	--	--	--	--	--	--	--	--		Inaccessible
	04/15/97	10.25	321.25	<125	2	<1.2	<1.2	<1.2	680		
	12/23/98	--	--	--	--	--	--	--	--		Inaccessible
	03/25/99	--	--	--	--	--	--	--	--		Inaccessible
	02/03/00	--	--	--	--	--	--	--	--		Inaccessible
	01/23/01	10.31	321.19	862 (1)	3.97	1.15	18.9	48.6	289		
	05/01/01	10.15	321.35	SAMPLED SEMI-ANNUALLY							
	08/28/01	10.56	320.94	<50	<0.5	<0.5	<0.5	<0.5	37		
	11/27/01	10.65	320.85	SAMPLED SEMI-ANNUALLY							
	02/28/02	10.37	321.13	<50	1.3	<0.50	2	1.8	90		
	05/22/02	10.27	321.23	SAMPLED SEMI-ANNUALLY							
	08/20/02	10.3	321.2	<50	<0.50	<0.50	<0.50	<1.5	40		
	11/11/02	9.05	322.45	SAMPLED SEMI-ANNUALLY							
	05/08/03	8.83	322.67	<50	<0.5	<0.5	<0.5	<0.5	39/37		
	12/15/04	10.39	321.11	<50	<0.5	<0.5	<0.5	<0.5	18 (17)		
	02/21/05	8.80	322.70	<50	<0.5	<0.5	2.3	1.4	180 (290)	0.69	
	05/17/05	9.57	321.93	140	0.68	<0.5	6.6	0.94	250 (340)	0.86	
	08/17/05	9.23	322.27	3,800	11	3.7	110	24	200 (200)	0.99	
	11/27/05	11.05	320.45	150	<0.5	1.8	2.4	0.56	88 (85)	0.81	
	02/21/06	10.10	321.40	83	<0.5	0.72	1.7	<0.5	40 (49)	0.38/0.65	
	04/03/06	--	--	--		**Well Destroyed**		--	--	--	Well Destroyed
Grab Groundwater Analytical Data											
SB-1A-W	05/18/06	11.20	NA	170	1.5	1.5	1.2	5.9	570 (500)	--	TAME=90µg/L, TBA,DIPE,ETBE=ND
DPB-1	05/01/03	16-20	NA	12,000	25	440	440	2,180	8,100	--	
DPB-2	04/22/03	NA	NA	710	1.1	<1	18	74	540	--	
DPB-3	04/17/03	16-20	NA	48,000	400	5,800	1,500	9,500	8,900	--	
	04/17/03	27-31	NA	62,000	700	9,900	1,300	7,900	4,200	--	
	04/17/03	39-43	NA	27,000	210	3,200	640	4,100	7,700	--	
DPB-4	04/17/03	32-36	NA	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	
DPB-5	04/30/03	7-11	NA	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	
	04/17/03	11-15	NA	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	
	04/30/03	26-30	NA	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	
	04/17/03	36-40	NA	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	
DPB-6	04/18/03	15-19	NA	7,700	18	77	170	640	5.9	--	
	04/18/03	26-30	NA	4,700	21	76	160	650	6.2	--	
	04/18/03	35-39	NA	2,900	8.8	24	54	249	100	--	
DPB-7	04/18/03	15-19	NA	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	
	04/18/03	20-24	NA	7,000	42	640	190	990	300	--	
	04/18/03	35-39	NA	150	<0.5	1.8	0.8	5.7	<0.5	--	
DPB-8	05/01/03	NA	NA	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	
DPB-S	04/18/03	14-18	NA	20,000	<170	<170	380	6,600	53,000	--	
	04/18/03	26-30	NA	1,500	7.1	<3.1	7.4	170	760	--	
	04/18/03	35-39	NA	4,300	<63	<63	<63	910	42,000	--	

ABBREVIATIONS AND NOTES:

SPH = Separate-phase hydrocarbons; calculated groundwater elevation corrected for SPH by the relation: Groundwater Elevation = Well Elevation - Depth to Water +(0.8xSPH Thickness)
Groundwater monitoring data and laboratory analytical results prior to December 14, 2004, were scanned from a report by SOMA.
(ft) = Feet
(msl) = Mean sea level
TOC Elev. (ft) = Top of casing elevation
µg/L = Micrograms per liter - approximately equal to parts per billion = ppb
mg/L = Milligrams per liter - approximately equal to parts per million = ppm
TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015C
BTEX = Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8020/8021.
MTBE = Methyl tertiary butyl ether by EPA Method 8020/8021. (Concentrations in parentheses are by EPA Method 8260B).
1,2-DCA = 1,2-Dichloroethane
TAME = Tertiary amyl methyl ether by EPA Method 8260B
TBA = Tertiary butyl alcohol by EPA Method 8260B
DIPE = Diispopropyl ether by EPA Method 8260B
ETBE = Ethyl tertiary butyl ether by EPA Method 8260B
-- = Not Measured/Not Analyzed
1 Laboratory report indicates weathered gasoline C6-C12
Dissolved oxygen concentrations measured downhole pre-purge or pre-purge/post-purge
* = Cap loose, sprinkler runoff entering well

Table 2 –Well Construction Details –7240 Dublin Blvd., Dublin, CA

Well ID (TOC Elev)	Total Depth of Well (feet bgs)	Screened Interval (ft bgs)	Drill Hole Diameter (inches)	Casing Diameter (inches)	Surface Seal Depth (ft bgs)
DPE-1	14	9-14	10	4	0-8
DPE-2	14	9-14	10	4	0-8
MW-1	25	5-25	8	2	0-4
MW-2	20	5-20	8	2	0-4
MW-3A	17	10-17	10	4	0-9
MW-4	20	8.5-20	8	2	0-8
MW-5	21	8.5-21	8	2	0-8
MW-6A	20	15-20	10	4	0-14
MW-6B	30	26-30	8	2	0-25
MW-6C	44	34-44	8	2	0-33
MW-7AA	14	9-14	10	4	0-8
MW-7A	20	16-20	10	4	0-15
MW-7B	30	26-30	8	2	0-25
MW-7C	45	35-45	12	2	0-34
MW-8A	20	15-20	8	2	0-4
MW-9A	20	15-20	8	2	0-14
MW-9C	45	35-45	12	2	0-34
MW-10A	20	15-20	8	2	0-14
MW-10C	45	35-45	8	2	0-34
MW-11C	43.5	33.5-43.5	8	2	0-32
VW-1	9	3-9	8	2	0-2.5
VW-2	9	3-9	8	2	0-2.5
VW-3	9	3-9	8	2	0-2.5

APPENDIX A

Groundwater Monitoring Program

Table A. Quarterly Groundwater Monitoring Program During Remediation

7240 Dublin Boulevard, Dublin, CA

Well ID	Well Type	Screened Interval (ft bgs)	Well Location for Monitoring	Casing Diam. (in)	Gauge Frequency	Sample Frequency[1, 2]
Surface Water						
C-1*	Gauging Point	--	W, Flood Control Channel	--	Q	---
Upper Shallow AA-Zone Wells						
DPE-1	DPE	9-14	W Intermediate	4	Q (proposed)	Q (proposed)
DPE-2	DPE	9-14	W Intermediate	4	Q (proposed)	Q (proposed)
MW-7AA	Mon (Proposed DPE)	9-14	Source	4	Q	Q
VW-1	Mon+SVE (Proposed DPE)	3-9	Source	2	Q	1st
VW-2	Mon+SVE (Proposed DPE)	3-9	Source	2	Q	1st
VW-3	Mon+SVE (Proposed DPE)	3-9	Source	2	Q	1st
Shallow A-Zone Wells						
MW-1	Mon	5-25	W, Adjacent SS	2	Q	Q
MW-2	Mon	5-20	W, Adjacent Flood Channel	2	Q	Q
MW-3A	Mon (Proposed DPE)	10-17	N Source, Adjacent SS	4	Q	Q
MW-4	Mon	8.5-20	NW Upgradient, Offsite	2	Q	1st
MW-5	Mon	8.5-21	W Upgradient, Offsite	2	Q	1st
MW-6A	Mon (Proposed DPE)	15-20	N Source, Adjacent SS	4	Q	Q
MW-7A	Mon (Proposed DPE)	16-20	Source	4	Q	1st
MW-8A	Mon	15-20	S, Adjacent Building	2	Q	Q
MW-9A	Mon	15-20	NE Perimeter	2	Q	1st
MW-10A	Mon	15-20	S Perimeter	2	Q	1st
Intermediate Depth B-Zone Wells						
MW-6B	Mon	26-30	N Source, Adjacent SS	2	Q	1st
DW-7B	Mon	26-30	Source	2	Q	1st
Deep C-Zone Wells						
MW-6C	Mon	34-44	N Source, Adjacent SS	2	---	---
MW-7C	Mon	35-45	Source	2	---	---
MW-9C	Mon	35-45	NE Perimeter	2	---	---
MW-10C	Mon	35-45	S Perimeter	2	---	---
MW-11C	Mon	33.5-43.5	W Intermediate	2	---	---

Notes and Abbreviations:

1 = Summary: 6 wells sampled each quarter, 16 wells sampled 1st quarter. 5 C-zone wells not sampled.

2 = Sample Analytes: Total Petroleum Hydrocarbons as Gasoline (TPHg), benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl tertiary butyl ether (MTBE) by EPA Method 8015Cm/8021B.

Q = All four quarters. Typically B months (February, May, August, November)

1st = 1st quarter only, typically February

Mon = Groundwater Monitoring Only

SVE = Soil Vapor Extraction

DPE = Dual Phase Extraction

N, S, W, E = Cardinal directions North, South, West, East and other directions (e.g., Northeast = NE)

SS = Sanitary Sewer beneath Dublin Blvd

* = Surface water level gauging point, not a well.

-- = Not gauged or sampled.

APPENDIX B

Groundwater Monitoring Field Data Sheets

Pangea
ENVIRONMENTAL SERVICES, INC.

Well Gauging Data Sheet

Project.Task #:1001.001 222				Project Name: Dublin Car Wash			
Address: 7420 Dublin Bloulevard, Dublin, CA						Date:2/11/10	
Name: Sanjiv Gill				Signature:			
Well ID	Well Size (in.)	Time	Depth to Immiscible Liquid (ft)	Thickness of Immiscible Liquid (ft)	Depth to Water (ft)	Total Depth (ft)	Measuring Point
MW-1	2"	8:30			13.04	25.32	TOC
MW-2	2"	8:35			7.50	20.00	
MW-3A	4"	9:05			10.87	16.78	
MW-4	2"	8:05			10.17	19.78	
MW-5	2"	8:10			10.50	20.56	
MW-6A	2"	9:00			10.80	19.13	
MW-6B	2	8:55			8.41	29.73	
MW-7AA	4"	8:50			9.56	13.84	
MW-7A	4"	8:45			9.39	19.53	
MW-7B	2"	8:40			9.24	28.42	
MW-8A	2"	8:25			9.33	19.01	X

Comments:

Pangea
ENVIRONMENTAL SERVICES, INC.

Well Gauging Data Sheet

Project.Task #:1001.001 222				Project Name: Dublin Car Wash			
Address: 7420 Dublin Bloulevard, Dublin, CA						Date:2/11/10	
Name: Sanjiv Gill				Signature:			
Well ID	Well Size (in.)	Time	Depth to Immiscible Liquid (ft)	Thickness of Immiscible Liquid (ft)	Depth to Water (ft)	Total Depth (ft)	Measuring Point
MW-9A	2"	8:15			10.16	19.66	TOC
MW-10A	2"	8:20			8.35	19.51	
VW-1	2"	9:10			7.30	8.40	
VW-2	2"	9:15			5.65	8.30	
VW-3	2"	9:20			6.08	8.40	*
C-1 [redacted]	—	9:25			11.95	—	TOG
[redacted]							

Comments:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-1

Project.Task #: 1001.001 222	Project Name: Dublin Car Wash
Address: 7420 Dublin Boulevard, Dublin, CA	
Date: 2/11/10	Weather: Cloudy
Well Diameter: 2"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius² * 0.163
Total Depth (TD): 25.32	Depth to Product:
Depth to Water (DTW): 13.04	Product Thickness:
Water Column Height: 12.28	1 Casing Volume: 1.96 gallons
Reference Point: TOC	3 Casing Volumes: 5.88 gallons
Purging Device: Disposable Bailer, 3" PVC Bailer, Parastaltic Pump, Whal Pump	
Sampling Device: Disposable Bailer	

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
7:25	17.9	7.41	1755				2.0	
7:30	17.4	7.36	1780				4.0	
7:35	17.6	7.33	1784				6.0	

Comments: YSI 550A DO meter

pre purge DO = 0.81 mg/l

post purge DO = mg/l

turbid

Sample ID: MW-1	Sample Time: 7:40
Laboratory: McCampbell Analytical, INC.	Sample Date: 2/12/10
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-2

Project.Task #: 1001.001 222	Project Name: Dublin Car Wash
Address: 7420 Dublin Boulevard, Dublin, CA	
Date: 2/11/10	Weather: Cloudy
Well Diameter: 2"	Volume/ft. 1" = 0.04, 2" = 0.16, 3" = 0.37, 4" = 0.65, 6" = 1.47, radius^2 * 0.163
Total Depth (TD): 20.00	Depth to Product:
Depth to Water (DTW): 7.50	Product Thickness:
Water Column Height: 12.50	1 Casing Volume: 2.00 gallons
Reference Point: TOC	3 Casing Volumes: 6.00 gallons

Purging Device: (Disposable Bailer), 3" PVC Bailer, Parastaltic Pump, Whal Pump

Sampling Device: Disposable Bailer

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
7:55	17.9	7.43	1540				2.0	
8:00	18.1	7.46	1510				4.0	
8:05	18.1	7.49	1519				6.0	

Comments: YSI 550A DO meter

pre purge DO = 0.76 mg/l

post purge DO = mg/l

turbid

Sample ID: MW-2	Sample Time: 8:10
Laboratory: McCampbell Analytical, INC.	Sample Date: 2/12/10
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

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ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-3A

Project.Task #: 1001.001 222	Project Name: Dublin Car Wash
Address: 7420 Dublin Boulevard, Dublin, CA	
Date: 2/11/10	Weather: Cloudy
Well Diameter: 4"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius² * 0.163
Total Depth (TD): 16.78	Depth to Product:
Depth to Water (DTW): 10.87	Product Thickness:
Water Column Height: 5.91	1 Casing Volume: 3.84 gallons
Reference Point: TOC	3 Casing Volumes: 11.52 gallons
Purging Device: Disposable Bailer, 3" PVC Bailer, Parastaltic Pump, Whal Pump	
Sampling Device: Disposable Bailer	

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
9:15	18.0	7.09	1396				4	
9:20	18.0	7.15	1431				8	
9:25	18.0	7.17	1447				11.5	

Comments: YSI 550A DO meter — pre purge DO = 0.72 mg/l

post purge DO = mg/l

turbid

Sample ID: MW-3A	Sample Time: 9:30
Laboratory: McCampbell Analytical, INC.	Sample Date: 2/12/10
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

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ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-4

Project.Task #: 1001.001 222	Project Name: Dublin Car Wash
Address: 7420 Dublin Boulevard, Dublin, CA	
Date: 2/11/10	Weather: Cloudy
Well Diameter: 2"	Volume/ft. 1" = 0.04, 2" = 0.16, 3" = 0.37, 4" = 0.65, 6" = 1.47, radius^2 * 0.163
Total Depth (TD): 19.78	Depth to Product:
Depth to Water (DTW): 10.17	Product Thickness:
Water Column Height: 9.61	1 Casing Volume: 1.53 gallons
Reference Point: TOC	3 Casing Volumes: 4.59 gallons

Purging Device: Disposable Bailer, 3" PVC Bailer, Parastaltic Pump, Whal Pump

Sampling Device: Disposable Bailer

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
9:30	18.4	6.99	1948				1.5	
9:35	18.1	6.97	2010				3.0	
9:40	18.2	6.97	1970				4.5	

Comments: YSI 550A DO meter

pre purge DO = 0.69 mg/l

post purge DO = mg/l

very turbid

Sample ID: MW-4	Sample Time: 9:45
Laboratory: McCampbell Analytical, INC.	Sample Date: 2/11/10
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

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ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-5

Project.Task #: 1001.001 222	Project Name: Dublin Car Wash
Address: 7420 Dublin Boulevard, Dublin, CA	
Date: 2/11/10	Weather: Cloudy
Well Diameter: 2"	Volume/ft. 1" = 0.04, 2" = 0.16, 3" = 0.37, 4" = 0.65, 6" = 1.47, radius² * 0.163
Total Depth (TD): 20.56	Depth to Product:
Depth to Water (DTW): 10.50	Product Thickness:
Water Column Height: 10.06	1 Casing Volume: 1.60 gallons
Reference Point: TOC	3 Casing Volumes: 4.80 gallons
Purging Device: Disposable Bailer, 3" PVC Bailer, Parastaltic Pump, Whal Pump	
Sampling Device: Disposable Bailer	

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
10:00	17.7	6.97	1636				1.5	
10:05	17.9	6.95	1639				3.0	
10:10	18.1	6.93	1645				5.0	

Comments: YSI 550A DO meter

pre purge DO = 0.80 mg/l

post purge DO = mg/l

very turbid

Sample ID: MW-5	Sample Time: 10:15
Laboratory: McCampbell Analytical, INC.	Sample Date: 2/11/10
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-6A

Project.Task #: 1001.001 222	Project Name: Dublin Car Wash
Address: 7420 Dublin Boulevard, Dublin, CA	
Date: 2/11/10	Weather: Cloudy
Well Diameter: 2"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius^2 * 0.163
Total Depth (TD): 19.13	Depth to Product:
Depth to Water (DTW): 10.80	Product Thickness:
Water Column Height: 8.30	1 Casing Volume: 1.33 gallons
Reference Point: TOC	3 Casing Volumes: 3.99 gallons
Purging Device: Disposable Bailer, 3" PVC Bailer, Parastaltic Pump, Whal Pump	
Sampling Device: Disposable Bailer	

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
8:55	17.6	6.93	1795				1.5	
8:57	17.7	6.98	1830				3.0	
9:00	17.6	6.99	1844				4.0	

Comments: YSI 550A DO meter

pre purge DO = 0.55 mg/l

post purge DO = mg/l

silty, very turbid

Sample ID: MW-6A	Sample Time: 9:05
Laboratory: McCampbell Analytical, INC.	Sample Date: 2/12/10
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

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ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-6B

Project.Task #: 1001.001 222	Project Name: Dublin Car Wash
Address: 7420 Dublin Boulevard, Dublin, CA	
Date: 2/11/10	Weather: Cloudy
Well Diameter: 2"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius^2 * 0.163
Total Depth (TD): 29.73	Depth to Product:
Depth to Water (DTW): 8.41	Product Thickness:
Water Column Height: 21.32	1 Casing Volume: 3.41 gallons
Reference Point: TOC	3 Casing Volumes: 10.23 gallons

Purging Device: (Disposable Bailer), 3" PVC Bailer, Parastaltic Pump, Whal Pump

Sampling Device: Disposable Bailer

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
8:25	18.6	7.08	2192				3.5	
8:35	18.1	7.11	2196				7.0	
8:40	18.3	7.12	2255				10.0	

Comments: YSI 550A DO meter

pre purge DO = 0.68 mg/l

post purge DO = mg/l

turbid

Sample ID: MW-6B	Sample Time: 8:45
Laboratory: McCampbell Analytical, INC.	Sample Date: 2/12/10
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

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MONITORING FIELD DATA SHEET

Well ID: MW-7AA

Project.Task #: 1001.001 222	Project Name: Dublin Car Wash
Address: 7420 Dublin Boulevard, Dublin, CA	
Date: 2/11/10	Weather: Cloudy
Well Diameter: 4"	Volume/ft. 1" = 0.04, 2" = 0.16, 3" = 0.37, 4" = 0.65, 6" = 1.47, radius² * 0.163
Total Depth (TD): 13.84	Depth to Product:
Depth to Water (DTW): 9.56	Product Thickness:
Water Column Height: 4.28	1 Casing Volume: 2.78 gallons
Reference Point: TOC	3 Casing Volumes: 8.34 gallons

Purging Device: Disposable Bailer, (3" PVC Bailer), Parastaltic Pump, Whal Pump

Sampling Device: Disposable Bailer

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
6:50	18.4	7.10	1896				3	
6:55	18.0	7.07	1951				6	
7:00	17.9	7.03	1956				8	

Comments: YSI 550A DO meter — pre purge DO = 0.64 mg/l

post purge DO = mg/l

turbid

Sample ID: MW-7AA	Sample Time: 7:05
Laboratory: McCampbell Analytical, INC.	Sample Date: 2/12/10
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

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MONITORING FIELD DATA SHEET

Well ID: MW-7A

Project.Task #: 1001.001 222	Project Name: Dublin Car Wash
Address: 7420 Dublin Boulevard, Dublin, CA	
Date: 2/11/10	Weather: Cloudy
Well Diameter: 4"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius^2 * 0.163
Total Depth (TD): 19.53	Depth to Product:
Depth to Water (DTW): 9.39	Product Thickness:
Water Column Height: 10.14	1 Casing Volume: 6.59 gallons
Reference Point: TOC	3 Casing Volumes: 19.77 gallons
Purging Device: ~~Disposable Bailer~~ 3" PVC Bailer, Parastaltic Pump, Whal Pump	
Sampling Device: Disposable Bailer	

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
6:15	18.0	7.22	1959				6.5	
6:25	17.9	7.19	1982				13.0	
6:30	17.4	7.18	1997				20.0	

Comments: YSI 550A DO meter — pre purge DO = 0.90 mg/l

post purge DO = mg/l

turbid

Sample ID: MW-7A	Sample Time: 6:35
Laboratory: McCampbell Analytical, INC.	Sample Date: 2/12/10
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

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MONITORING FIELD DATA SHEET

Well ID: MW-7B

Project.Task #: 1001.001 222	Project Name: Dublin Car Wash
Address: 7420 Dublin Boulevard, Dublin, CA	
Date: 2/11/10	Weather: Cloudy
Well Diameter: 2"	Volume/ft. 1" = 0.04, 2" = 0.16, 3" = 0.37, 4" = 0.65, 6" = 1.47, radius^2 * 0.163
Total Depth (TD): 28.42	Depth to Product:
Depth to Water (DTW): 9.24	Product Thickness:
Water Column Height: 19.18	1 Casing Volume: 3.06 gallons
Reference Point: TOC	3 Casing Volumes: 9.18 gallons

Purging Device: (Disposable Bailer), 3" PVC Bailer, Parastaltic Pump, Whal Pump

Sampling Device: Disposable Bailer

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
5:30	18.3	7.35	618				3	
5:40	18.0	7.35	625				6	
5:50	17.8	7.38	631				9	

Comments: YSI 550A DO meter — pre purge DO = 0.81 mg/l

post purge DO = mg/l

turbid

Sample ID: MW-7B	Sample Time: 5:55
Laboratory: McCampbell Analytical, INC.	Sample Date: 2/12/10
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

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ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-8A

Project.Task #: 1001.001 222	Project Name: Dublin Car Wash
Address: 7420 Dublin Boulevard, Dublin, CA	
Date: 2/11/10	Weather: Cloudy
Well Diameter: 2"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius^2 * 0.163
Total Depth (TD): 19.01	Depth to Product:
Depth to Water (DTW): 9.33	Product Thickness:
Water Column Height: 9.68	1 Casing Volume: 1.54 gallons
Reference Point: TOC	3 Casing Volumes: 4.62 gallons
Purging Device: Disposable Bailer, 3" PVC Bailer, Parastaltic Pump, Whal Pump	
Sampling Device: Disposable Bailer	

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
11:00	17.7	7.70	1095				1.5	
11:05	18.1	7.67	1110				3.0	
11:10	18.2	7.64	1115				4.5	

Comments: YSI 550A DO meter

pre purge DO = 0.63 mg/l

post purge DO = mg/l

turbid

Sample ID: MW-8A	Sample Time: 11:15
Laboratory: McCampbell Analytical, INC.	Sample Date: 2/11/10
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

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ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: MW-9A

Project.Task #: 1001.001 222	Project Name: Dublin Car Wash
Address: 7420 Dublin Boulevard, Dublin, CA	
Date: 2/11/10	Weather: Cloudy
Well Diameter: 2"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius^2 * 0.163
Total Depth (TD): 19.66	Depth to Product:
Depth to Water (DTW): 10.16	Product Thickness:
Water Column Height: 9.50	1 Casing Volume: 1.52 gallons
Reference Point: TOC	3 Casing Volumes: 4.56 gallons
Purging Device: Disposable Bailer, 3" PVC Bailer, Parastaltic Pump, Whal Pump	
Sampling Device: Disposable Bailer	

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
10:30	17.8	7.33	698				1.5	
10:35	17.9	7.39	695				3.0	
10:40	18.1	7.40	695				4.5	

Comments: YSI 550A DO meter

pre purge DO = 0.63 mg/l

post purge DO = mg/l

turbid

Sample ID: MW-9A	Sample Time: 10:45
Laboratory: McCampbell Analytical, INC.	Sample Date: 2/11/10
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

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MONITORING FIELD DATA SHEET

Well ID: MW-10A

Project.Task #: 1001.001 222	Project Name: Dublin Car Wash
Address: 7420 Dublin Boulevard, Dublin, CA	
Date: 2/11/10	Weather: Cloudy
Well Diameter: 2"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius² * 0.163
Total Depth (TD): 19.51	Depth to Product:
Depth to Water (DTW): 8.35	Product Thickness:
Water Column Height: 11.16	1 Casing Volume: 1.78 gallons
Reference Point: TOC	3 Casing Volumes: 5.34 gallons
Purging Device: (Disposable Bailer), 3" PVC Bailer, Parastaltic Pump, Whal Pump	
Sampling Device: Disposable Bailer	

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
11:30	17.6	7.24	1895					
11:35	17.4	7.29	1864					
11:40	17.7	7.28	1861					

Comments: YSI 550A DO meter

pre purge DO = 0.64 mg/l

post purge DO = mg/l

turbid

Sample ID: MW-10A	Sample Time: 11:45
Laboratory: McCampbell Analytical, INC.	Sample Date: 2/11/10
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

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ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: VW-1

Project.Task #: 1001.001 222	Project Name: Dublin Car Wash
Address: 7420 Dublin Boulevard, Dublin, CA	
Date: 2/11/10	Weather: Cloudy
Well Diameter: 2"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius^2 * 0.163
Total Depth (TD): 8.40	Depth to Product:
Depth to Water (DTW): 7.30	Product Thickness:
Water Column Height: 1.10	1 Casing Volume: 0.17 gallons
Reference Point: TOC	3 Casing Volumes: 0.51 gallons
Purging Device: Disposable Bailer, 3" PVC Bailer, Parastaltic Pump, Whal Pump	
Sampling Device: Disposable Bailer	

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
2-11-10 12:00		Dewatered					.2	
							~~.4~~	
							~~.5~~	

Comments: YSI 550A DO meter — pre purge DO = 1.16 mg/l

post purge DO = mg/l

turbid

Sample ID: VW-1	Sample Time: 9:40
Laboratory: McCampbell Analytical, INC.	Sample Date: 2/12/10
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: VW-2

Project.Task #: 1001.001 222	Project Name: Dublin Car Wash
Address: 7420 Dublin Boulevard, Dublin, CA	
Date: 2/11/10	Weather: Cloudy
Well Diameter: 2"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius^2 * 0.163
Total Depth (TD): 8.30	Depth to Product:
Depth to Water (DTW): 5.65	Product Thickness:
Water Column Height: 2.65	1 Casing Volume: 0.42 gallons
Reference Point: TOC	3 Casing Volumes: 1.26 gallons

Purging Device: (Disposable Bailer), 3" PVC Bailer, Parastaltic Pump, Whal Pump

Sampling Device: Disposable Bailer

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
2-11-10 12:20		Dewatered					0.5	
							~~1.0~~	
							~~1.2~~	

Comments: YSI 550A DO meter pre purge DO = 0.91 mg/l

post purge DO = mg/l

turbid

Sample ID: VW-2	Sample Time: 9:45
Laboratory: McCampbell Analytical, INC.	Sample Date: 2/12/10
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

Pangea
ENVIRONMENTAL SERVICES, INC.

MONITORING FIELD DATA SHEET

Well ID: VW-3

Project.Task #: 1001.001 222	Project Name: Dublin Car Wash
Address: 7420 Dublin Boulevard, Dublin, CA	
Date: 2/11/10	Weather: Cloudy
Well Diameter: 2"	Volume/ft. 1" = 0.04 | 2" = 0.16 | 3" = 0.37 | 4" = 0.65 | 6" = 1.47 | radius^2 * 0.163
Total Depth (TD): 8.40	Depth to Product:
Depth to Water (DTW): 6.08	Product Thickness:
Water Column Height: 2.32	1 Casing Volume: 0.37 gallons
Reference Point: TOC	3 Casing Volumes: 1.11 gallons

Purging Device: Disposable Bailer, 3" PVC Bailer, Parastaltic Pump, Whal Pump

Sampling Device: Disposable Bailer

Time	Temp ©	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
2-11-10 12:45		Dewatered					.3	
							~~.6~~	
							~~1.0~~	

Comments: YSI 550A DO meter

pre purge DO = 1.77 mg/l

post purge DO = mg/l

Sample ID: VW-3	Sample Time: 9:50
Laboratory: McCampbell Analytical, INC.	Sample Date: 2/12/10
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021	
Sampler Name: Sanjiv Gill	Signature:

McCAMPBELL ANALYTICAL, INC.
1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

GeoTracker EDF ☒ **PDF** ☐ **Excel** ☐ **Write On (DW)** ☐

☐ Check if sample is effluent and "J" flag is required

Report To: Morgan Gillies	**Bill To:** Pangea
Company: Pangea Environmental Services	
1710 Franklin St. Ste 200 Oakland, CA	**E-Mail:** mgillies@pangeaenv.com
Tele: (510) 837-3702	**Fax:** (510) 837-3709
Project #: 1001.001	**Project Name:** Dublin Car Wars
Project Location: 7420 Dublin Blvd., Dublin, CA	
Sampler Signature: Muskan Environmental Sampling	

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED ICE	METHOD PRESERVED HCL	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 8260 (HVOCs)	MTBE / BTEX ONLY (EPA 602 / 8021)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515.3 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.8 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Lead (200.7 / 200.8 / 6010 / 6020)	Other			Comments
MW-1		2-12-10	7:40	3	VOA	X					X	X			X																				Filter Samples for Metals analysis: Yes / No
MW-2		2-12-10	8:10																																
MW-3A		2-12-10	9:30																																
MW-4		2-11-10	9:45																																
MW-5		2-11-10	10:15																																
MW-6A		2-12-10	9:05																																
MW-7AA		2-12-10	7:05																																
MW-7A		2-12-10	6:35																																
MW-7B		2-12-10	5:55																																
MW-8A		2-11-10	11:15																																
MW-9A		2-11-10	10:45																																
MW-10A		2-11-10	11:45																																
MW-6B		2-12-10	8:45																																
VW-1		2-12-10	9:40	1	1	1					1	1			1																				

Relinquished By:	**Date:** 2/12/10	**Time:** 1105	**Received By:**	
Relinquished By:	**Date:**	**Time:**	**Received By:**	
Relinquished By:	**Date:**	**Time:**	**Received By:**	

ICE/t°_____
GOOD CONDITION_____
HEAD SPACE ABSENT_____
DECHLORINATED IN LAB_____
APPROPRIATE CONTAINERS_____
PRESERVED IN LAB_____

COMMENTS:

	VOAS	O&G	METALS	OTHER
PRESERVATION				
pH<2				

McCAMPBELL ANALYTICAL, INC.
1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

GeoTracker EDF ☒ **PDF** ☐ **Excel** ☐ **Write On (DW)** ☐

☐ Check if sample is effluent and "J" flag is required

Report To: Morgan Gillies **Bill To:** Pangea

Company: Pangea Environmental Services
1710 Franklin St. Ste 200
Oakland, CA

E-Mail: mgillies@pangeaenv.com

Tele: (510) 837-3702 **Fax:** (510) 837-3709

Project #: 1001.001 **Project Name:** Dublin Car Wars

Project Location: 7420 Dublin Blvd., Dublin, CA

Sampler Signature: Muskan Environmental Sampling

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED ICE	METHOD PRESERVED HCL	METHOD PRESERVED HNO_3	METHOD PRESERVED Other
VW-2		2-12-10	9:45	3	VOA	X					X	X		
VW-3		2-12-10	9:50	3	VOA	X					X	X		

Analysis Request	Other	Comments
BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE		Filter Samples for Metals analysis: Yes / No
TPH as Diesel (8015)		
Total Petroleum Oil & Grease (1664 / 5520 E/B&F)		
Total Petroleum Hydrocarbons (418.1)		
EPA 8260 (HVOCs)		
MTBE / BTEX ONLY (EPA 602 / 8021)		
EPA 505/ 608 / 8081 (Cl Pesticides)		
EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners		
EPA 507 / 8141 (NP Pesticides)		
EPA 515.3 / 8151 (Acidic Cl Herbicides)		
EPA 524.2 / 624 / 8260 (VOCs)		
EPA 525.2 / 625 / 8270 (SVOCs)		
EPA 8270 SIM / 8310 (PAHs / PNAs)		
CAM 17 Metals (200.8 / 6020)		
LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)		
Lead (200.7 / 200.8 / 6010 / 6020)		
BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE: X (VW-2), X (VW-3)		

	Date:	Time:	Received By:
Relinquished By:	2/12/10	1105	
Relinquished By:			
Relinquished By:			

ICE/t°_____
GOOD CONDITION_____
HEAD SPACE ABSENT_____
DECHLORINATED IN LAB_____
APPROPRIATE CONTAINERS_____
PRESERVED IN LAB_____

COMMENTS:

	VOAS	O&G	METALS	OTHER
PRESERVATION			pH<2	

APPENDIX C

Laboratory Analytical Results

McCampbell Analytical, Inc.
"When Quality Counts"

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

Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #1001.001; Dublin Car Wars	Date Sampled: 02/11/10-08/12/10
		Date Received: 02/12/10
	Client Contact: Morgan Gillies	Date Reported: 02/19/10
	Client P.O.:	Date Completed: 02/18/10

WorkOrder: 1002345

February 19, 2010

Dear Morgan:

Enclosed within are:

1) The results of the **16** analyzed samples from your project: **#1001.001; Dublin Car Wars,**
2) A QC report for the above samples,
3) A copy of the chain of custody, and
4) An invoice for analytical services.

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

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

McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

1002345

McCAMPBELL ANALYTICAL, INC.
1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

GeoTracker EDF ☒ **PDF** ☐ **Excel** ☐ **Write On (DW)** ☐

☐ Check if sample is effluent and "J" flag is required

Report To: Morgana Gillies Bill To: Pangea

Company: Pangea Environmental Services
1710 Franklin St. Ste 200
Oakland, CA

E-Mail: mgillies@pangeaenv.com

Tele: (510) 837-3702 Fax: (510) 837-3709

Project #: 1001.001 Project Name: Dublin Car Wars

Project Location: 7420 Dublin Blvd., Dublin, CA

Sampler Signature: Muskan Environmental Sampling

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX: Water	Soil	Air	Sludge	Other	METHOD PRESERVED: ICE	HCL	HNO_3	Other
MW-1		2-12-10	7:40	3	VOA	X					X	X		
MW-2		2-12-10	8:10											
MW-3A		2-12-10	9:30											
MW-4		2-11-10	9:45											
MW-5		2-11-10	10:15											
MW-6A		2-12-10	9:05											
MW-7AA		2-12-10	7:05											
MW-7A		2-12-10	6:35											
MW-7B		2-12-10	5:55											
MW-8A		2-11-10	11:15											
MW-9A		2-11-10	10:45											
MW-10A		2-11-10	11:45											
MW-6B		2-12-10	8:45											
VW-1		2-12-10	9:40	↓	↓	↓					↓	↓		

Analysis Request

BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 8260 (HVOCs)	MTBE / BTEX ONLY (EPA 602 / 8021)	EPA 505/ 608 / 8081 (Cl Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515.3 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.8 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Lead (200.7 / 200.8 / 6010 / 6020)	Other	Comments
X																	Filter Samples for Metals analysis: Yes / No

Relinquished By:	Date:	Time:	Received By:
	2/12/10	1105	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° 3.0
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB

PRESERVATION VOAS ✓ O&G METALS OTHER pH<2

COMMENTS:

McCAMPBELL ANALYTICAL, INC.
1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701
Website: www.mccampbell.com Email: main@mccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

GeoTracker EDF ☒ **PDF** ☐ **Excel** ☐ **Write On (DW)** ☐
☐ Check if sample is effluent and "J" flag is required

Report To: Morgan Gillies **Bill To:** Pangea

Company: Pangea Environmental Services
1710 Franklin St. Ste 200
Oakland, CA

E-Mail: mgillies@pangeaenv.com
Tele: (510) 837-3702 **Fax:** (510) 837-3709
Project #: 1001.001 **Project Name:** Dublin Car Wars
Project Location: 7420 Dublin Blvd., Dublin, CA
Sampler Signature: Muskan Environmental Sampling

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED ICE	METHOD PRESERVED HCL	METHOD PRESERVED HNO_3	METHOD PRESERVED Other
VW-2		2-12-10	9:45	3	VOA	X					X	X		
VW-3		2-12-10	9:50	3	VOA	X					X	X		

Analysis Request	Other	Comments
BTEX & TPH as Gas (602 / 8021 + 8015) / MTBE		Filter Samples for Metals analysis: Yes / No
TPH as Diesel (8015)		
Total Petroleum Oil & Grease (1664 / 5520 E/B&F)		
Total Petroleum Hydrocarbons (418.1)		
EPA 8260 (HVOCs)		
MTBE / BTEX ONLY (EPA 602 / 8021)		
EPA 505/ 608 / 8081 (Cl Pesticides)		
EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners		
EPA 507 / 8141 (NP Pesticides)		
EPA 515.3 / 8151 (Acidic Cl Herbicides)		
EPA 524.2 / 624 / 8260 (VOCs)		
EPA 525.2 / 625 / 8270 (SVOCs)		
EPA 8270 SIM / 8310 (PAHs / PNAs)		
CAM 17 Metals (200.8 / 6020)		
LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)		
Lead (200.7 / 200.8 / 6010 / 6020)		
VW-2: X		
VW-3: X		

Relinquished By:	Date:	Time:	Received By:
	2/12/10	1105	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t°_____ COMMENTS:
GOOD CONDITION_____
HEAD SPACE ABSENT_____
DECHLORINATED IN LAB_____
APPROPRIATE CONTAINERS_____
PRESERVED IN LAB_____

VOAS O&G METALS OTHER
PRESERVATION_____ pH<2_____

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1002345 **ClientCode: PEO**

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Morgan Gillies
Pangea Environmental Svcs., Inc.
1710 Franklin Street, Ste. 200
Oakland, CA 94612
(510) 836-3700 FAX (510) 836-3709
Email: mgillies@pangeaenv.com
cc:
PO:
ProjectNo: #1001.001; Dublin Car Wars

Bill to:
Bob Clark-Riddell
Pangea Environmental Svcs., Inc.
1710 Franklin Street, Ste. 200
Oakland, CA 94612

Requested TAT: 5 days

Date Received: **02/12/2010**
Date Printed: **02/12/2010**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
1002345-001	MW-1	Water	2/12/2010 7:40	☐	A	A										
1002345-002	MW-2	Water	2/12/2010 8:10	☐	A											
1002345-003	MW-3A	Water	8/12/2010 9:30	☐	A											
1002345-004	MW-4	Water	2/11/2010 9:45	☐	A											
1002345-005	MW-5	Water	2/11/2010 10:15	☐	A											
1002345-006	MW-6A	Water	2/12/2010 9:05	☐	A											
1002345-007	MW-7AA	Water	2/12/2010 7:05	☐	A											
1002345-008	MW-7A	Water	2/12/2010 6:35	☐	A											
1002345-009	MW-7B	Water	2/12/2010 5:55	☐	A											
1002345-010	MW-8A	Water	2/11/2010 11:15	☐	A											
1002345-011	MW-9A	Water	2/11/2010 10:45	☐	A											
1002345-012	MW-10A	Water	2/11/2010 11:45	☐	A											
1002345-013	MW-6B	Water	2/12/2010 8:45	☐	A											
1002345-014	VW-1	Water	2/12/2010 9:40	☐	A											

Test Legend:

1	G-MBTEX_W	2	PREDF REPORT	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Maria Venegas

Comments:

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

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 1002345 **ClientCode: PEO**

☐ WaterTrax ☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Morgan Gillies
Pangea Environmental Svcs., Inc.
1710 Franklin Street, Ste. 200
Oakland, CA 94612
(510) 836-3700 FAX (510) 836-3709

Email: mgillies@pangeaenv.com
cc:
PO:
ProjectNo: #1001.001; Dublin Car Wars

Bill to:
Bob Clark-Riddell
Pangea Environmental Svcs., Inc.
1710 Franklin Street, Ste. 200
Oakland, CA 94612

Requested TAT: 5 days

Date Received: **02/12/2010**
Date Printed: **02/12/2010**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below) 1	2	3	4	5	6	7	8	9	10	11	12
1002345-015	VW-2	Water	2/12/2010 9:45	☐	A											
1002345-016	VW-3	Water	2/12/2010 9:50	☐	A											

Test Legend:

1	G-MBTEX_W	2	PREDF REPORT	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Maria Venegas

Comments:

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

McCampbell Analytical, Inc.
"When Quality Counts"

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

Sample Receipt Checklist

Client Name: **Pangea Environmental Svcs., Inc.**
Date and Time Received: **2/12/2010 3:04:55 PM**

Project Name: **#1001.001; Dublin Car Wars**
Checklist completed and reviewed by: Maria Venegas

WorkOrder N°: **1002345** Matrix Water
Carrier: Client Drop-In

Chain of Custody (COC) Information

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

Sample Receipt Information

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

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 3°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑
Samples Received on Ice?	Yes ☑	No ☐	

(Ice Type: WET ICE)

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

Client contacted: Date contacted: Contacted by:

Comments:

McCampbell Analytical, Inc.
"When Quality Counts"

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

Pangea Environmental Svcs., Inc.	Client Project ID: #1001.001; Dublin Car Wars	Date Sampled: 02/11/10-08/12/10
		Date Received: 02/12/10
1710 Franklin Street, Ste. 200	Client Contact: Morgan Gillies	Date Extracted: 02/16/10-02/18/10
Oakland, CA 94612	Client P.O.:	Date Analyzed: 02/16/10-02/18/10

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Bm Work Order: 1002345

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS	Comments
001A	MW-1	W	ND	ND	ND	ND	ND	ND	1	104	
002A	MW-2	W	ND	7.8	ND	ND	ND	ND	1	96	
003A	MW-3A	W	2100	1200	330	8.6	27	34	10	110	d1
004A	MW-4	W	ND	ND	ND	ND	ND	ND	1	100	b1
005A	MW-5	W	ND	ND	ND	ND	ND	ND	1	98	
006A	MW-6A	W	2400	ND<100	370	65	47	320	5	106	d1
007A	MW-7AA	W	4300	6100	670	9.0	73	240	10	110	d1
008A	MW-7A	W	360	200	75	0.83	4.8	62	1	117	d1
009A	MW-7B	W	ND	ND	ND	ND	ND	ND	1	97	
010A	MW-8A	W	ND	56	ND	ND	ND	ND	1	98	
011A	MW-9A	W	ND	ND	ND	ND	ND	ND	1	97	
012A	MW-10A	W	ND	ND	ND	ND	ND	ND	1	98	
013A	MW-6B	W	ND	ND	ND	ND	ND	ND	1	103	
014A	VW-1	W	ND	29	ND	ND	ND	ND	1	101	
015A	VW-2	W	ND	39	ND	ND	ND	ND	1	108	
016A	VW-3	W	4300	ND<120	280	3.7	52	80	3.3	120	d1
Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	µg/L			
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg			

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

cluttered chromatogram; sample peak coelutes w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation:

b1) aqueous sample that contains greater than ~1 vol. % sediment
d1) weakly modified or unmodified gasoline is significant

DHS ELAP Certification 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.
"When Quality Counts"

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

QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 48504 WorkOrder 1002345

EPA Method SW8021B/8015Bm **Extraction SW5030B** **Spiked Sample ID: 1002129-001A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	60	97.5	109	11.2	111	109	1.65	70 - 130	20	70 - 130	20
MTBE	ND	10	101	107	5.91	121	118	2.73	70 - 130	20	70 - 130	20
Benzene	ND	10	94.7	96.3	1.66	111	107	3.25	70 - 130	20	70 - 130	20
Toluene	ND	10	94.6	95.7	1.11	99.1	95.3	3.85	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	92.7	93.8	1.23	99.3	95.7	3.66	70 - 130	20	70 - 130	20
Xylenes	ND	30	95.7	96.8	1.13	113	109	3.45	70 - 130	20	70 - 130	20
%SS:	99	10	99	98	0.172	100	99	0.935	70 - 130	20	70 - 130	20

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

BATCH 48504 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1002345-016A	02/12/10 9:50 AM	02/18/10	02/18/10 1:57 AM				

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

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

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

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

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

McCampbell Analytical, Inc.
"When Quality Counts"

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QC SUMMARY REPORT FOR SW8021B/8015Bm

W.O. Sample Matrix: Water QC Matrix: Water BatchID: 48661 WorkOrder 1002345

EPA Method SW8021B/8015Bm **Extraction SW5030B** **Spiked Sample ID: 1002345-004A**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	60	96	99.7	3.77	107	94.1	12.9	70 - 130	20	70 - 130	20
MTBE	ND	10	80.4	79.9	0.459	102	105	2.70	70 - 130	20	70 - 130	20
Benzene	ND	10	95.3	94.9	0.360	94.5	95.1	0.627	70 - 130	20	70 - 130	20
Toluene	ND	10	93.4	92.7	0.690	95.4	95	0.466	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	93.8	93.1	0.709	93	93.2	0.225	70 - 130	20	70 - 130	20
Xylenes	ND	30	96.4	95.7	0.764	95.8	95.5	0.372	70 - 130	20	70 - 130	20
%SS:	97	10	97	99	2.08	97	96	1.16	70 - 130	20	70 - 130	20

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

BATCH 48661 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1002345-001A	02/12/10 7:40 AM	02/16/10	02/16/10 1:40 PM	1002345-002A	02/12/10 8:10 AM	02/16/10	02/16/10 4:13 PM
1002345-003A	08/12/10 9:30 AM	02/16/10	02/16/10 2:00 PM	1002345-004A	02/11/10 9:45 AM	02/17/10	02/17/10 4:50 PM
1002345-005A	02/11/10 10:15 AM	02/16/10	02/16/10 5:20 PM	1002345-006A	02/12/10 9:05 AM	02/16/10	02/16/10 5:54 PM
1002345-007A	02/12/10 7:05 AM	02/16/10	02/16/10 3:06 PM	1002345-007A	02/12/10 7:05 AM	02/16/10	02/16/10 6:27 PM
1002345-008A	02/12/10 6:35 AM	02/16/10	02/16/10 11:07 PM	1002345-009A	02/12/10 5:55 AM	02/17/10	02/17/10 12:36 AM
1002345-010A	02/11/10 11:15 AM	02/17/10	02/17/10 1:06 AM	1002345-011A	02/11/10 10:45 AM	02/18/10	02/18/10 2:56 AM
1002345-012A	02/11/10 11:45 AM	02/17/10	02/17/10 2:34 AM	1002345-013A	02/12/10 8:45 AM	02/17/10	02/17/10 3:03 AM
1002345-014A	02/12/10 9:40 AM	02/16/10	02/16/10 7:00 PM	1002345-015A	02/12/10 9:45 AM	02/17/10	02/17/10 3:33 AM

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

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

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

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