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By dehloptoxic at 1:28 pm, Nov 30, 2006



November 2, 2006

Mr. Barney Chan
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: **Groundwater Monitoring Report - Third Quarter 2006**
Dublin Auto Wash
7240 Dublin Boulevard
Dublin, California
ACHCSA Case No. 304

Dear Mr.Chan:

On behalf of Mr. Hooshang Hadjian, Pangea Environmental Services, Inc. has prepared this *Groundwater Monitoring Report – Third Quarter 2006*. The report describes groundwater monitoring, sampling, and other site activities.

Sincerely,
Pangea Environmental Services, Inc.

A handwritten signature in blue ink that reads "Bob Clark-Riddell".

Bob Clark-Riddell, P.E.
Principal Engineer

Attachment: *Groundwater Monitoring Report –Third Quarter 2006*

cc: Mr. Hooshang Hadjian, 2108 San Ramon Valley Blvd, San Ramon, CA 94583
cc: Mr. Jim Lange, 6500 Dublin Blvd., Suite 202, Dublin, CA 94568

PANGEA Environmental Services, Inc.

1710 Franklin Street, Suite 200, Oakland, California 94612 Telephone 510.836.3700 Facsimile 510.836.3709 www.pangeaenv.com



GROUNDWATER MONITORING REPORT – THIRD QUARTER 2006

**Dublin Auto Wash
7240 Dublin Boulevard
Dublin, California**

November 2, 2006

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

PANGEA Environmental Services, Inc.

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). 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 with residential land use further from the site.

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 at the site. SOMA 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 2003 investigation, Pangea proposed installing additional monitoring wells with shorter screen lengths in identified water-bearing zones.

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 seams 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 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 MW-3A well screen is shallower than the other A zone wells to intercept the SPH previously observed in abandoned well MW-3. The shallower

water-bearing zones (zones AA, A and B) primarily consist of thin seams of clayey sand within sandy clay, with higher permeability silty sand and clayey sand in 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, upper shallow seasonal water-bearing zone, which appears to be a perched zone above the upper shallow zone. In late March and early April 2006, wells EA-1, EA-2, EA-3 and MW-3 were abandoned to reduce the risk of vertical contaminant migration and improve the data quality for contaminant concentrations and groundwater elevations. Well construction details are presented in Table 2. To compare the elevation of surface water in the flood control channel with site groundwater, point C-1 was surveyed on the overpass of the channel.

GROUNDWATER MONITORING AND SAMPLING

On August 17 through August 20, groundwater monitoring and sampling was conducted at the site. Site monitoring wells were initially gauged for depth to water and inspected for SPH on August 17. Groundwater samples were obtained from sixteen (MW-1, MW-2, MW-3A, MW-6A, MW-6B, MW-6C, MW-7AA, MW-7A, MW-7B, MW-7C, MW-8A, MW-9A, MW-9C, MW-10A, MW-10C and MW-11C) of the eighteen groundwater monitoring wells and one of the three vapor wells (VW-3). Sampling of the three vapor wells was initially requested by the February 9, 2006 letter from Alameda County Environmental Health (ACEH). VW-1 and VW-2 were dewatered during purging and did not recharge sufficiently to sample. Monitoring wells MW-4 and MW-5 are sampled annually during the first quarter. The depth to water at survey point C-1 above the flood control channel was measured.

Before well purging, the dissolved oxygen (DO) concentration was measured in each 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. Vapor wells VW-1 through VW-3 dewatered during purging. Only VW-3 recharged sufficiently to provide a sample. 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° 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 A.

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, ethylene, xylenes (BTEX), and methyl tertiary butyl ether (MTBE) by EPA Method 8021B. If MTBE was detected by the laboratory, a confirmation analysis was conducted by EPA Method 8260B. Samples were analyzed by McCampbell Analytical, Inc. of Pacheco, California, a State-certified laboratory. The laboratory analytical report is included in Appendix B. DO concentrations ranged from 0.07 mg/L (well VW-1) to 0.53 mg/L (well MW-9A).

Groundwater Flow Direction

The inferred groundwater flow direction in shallower and deeper zones based on depth-to-water data collected August 17, 2006, is shown on Figures 2 and 3, respectively. Groundwater in the shallow (A) zone, within the western portion of the site, appears to be flowing in the southwest direction towards the flood control channel (Figure 2). (The shallow (A) zone is defined by monitoring wells MW-1, MW-2, MW-3A, MW-4, MW-6A, MW-7A, MW-8A, MW-9A and MW-10A, and survey point C-1 in the flood control channel). Groundwater in the A zone, at the central portion of the site, appears to be mounded beneath the car wash based on elevations in new wells MW-6A and MW-8A. Water infiltration (if occurring) beneath the car wash could also explain the higher groundwater elevation in the shallower vapor wells (VW-1 through VW-3), and the apparent downward vertical hydraulic gradient between the AA zone (and the shallower perched zone) and the deeper A zone. The irrigation water entering the cap at VW-3 (where water was approximately four feet higher than in other nearby wells) could also be effecting groundwater elevations. Any infiltrating water could be collecting and mounding within the permeable material surrounding the site USTs, which are adjacent to wells MW-6A and MW-8A. Finally, the more permeable backfill around the sanitary sewer line (present down to approximately 17 ft depth) beneath Dublin Boulevard could be affecting the groundwater elevation in nearby wells MW-3A, MW-6A, and MW-9A.

In the deep zone (C), groundwater appears to flow towards the west (Figure 3). (The C zone is defined by monitoring wells MW-6C, MW-7C, MW-9C, MW-10C, and MW-11C). As with the A zone, groundwater may be mounded near the central portion of the site and near well MW-6C. Comparison of groundwater elevation data from A zone and C zone wells suggests an upward vertical hydraulic gradient.

The water elevation at flood control channel survey point C-1 is very similar to the groundwater elevation at well MW-2, which is the closest well to the channel and located about 50 feet from the channel. The groundwater elevation contours on Figure 2 suggest that site groundwater is migrating into the flood control channel. The upward hydraulic gradient from the deep C zone and the downward gradient from the upper

shallow AA zone provides additional information that groundwater in the A zone (located vertically between these other units) may be leaching into the flood control channel. Groundwater elevation data are presented in Table 1.

Hydrocarbon Distribution in Groundwater

No separate-phase hydrocarbons (SPH) were detected in site wells this quarter. The lack of SPH in well MW-3, where SPH were detected in May 2006 shortly after well installation, may be due to the higher groundwater elevation this quarter that may have submerged the SPH-impacted materials. The lack of SPH could be due to the brief interim remedial action on July 7, 2006, where approximately 40 gallons of impacted liquid was removed from well MW-3 with a vacuum truck.

Petroleum hydrocarbons were detected in six of the seventeen sampled wells (MW-3A, MW-6A, MW-7AA, MW-7A, MW-9A, and VW-3), as shown on Table 1 and Figures 2 and 3. Well MW-7AA, located adjacent to the former release point, had the highest TPHg (25,000 µg/L) and benzene (2,200 µg/L) concentration for all site groundwater wells. The only sampled vapor well (VW-3) contained TPHg and benzene concentrations of 4,200 µg/L and 120 µg/L, respectively.

In general, hydrocarbon contamination is concentrated in the upper shallow (AA) and shallow (A) water-bearing zones. No petroleum hydrocarbons were detected above reporting limits for any of the middle (B) zone or deep (C) zone groundwater wells. These results suggest that the focus of future remediation should be in the upper shallow (AA) and shallow (A) water-bearing zones, near and downgradient of the dispenser islands where the release occurred. The hydrocarbon concentration in groundwater from the vapor well suggests that it may be useful as a remediation well in the future.

Fuel Oxygenate Distribution in Groundwater

MTBE was detected by EPA Method 8021 above reporting limits in nine of the sixteen groundwater wells. As confirmed by EPA Method 8260B, the four highest concentrations of MTBE were in wells MW-7AA (42,000 µg/L), MW-3A (34,000 µg/L), MW-1 (9,100 µg/L), and MW-6A (6,200 µg/L) (Table 1 and Figure 2). The MTBE concentration in well MW-1 is a historic high for the well and represents an apparent increasing trend.

OTHER SITE ACTIVITIES

Upcoming Monitoring and Proposed Frequency

Pangea will continue quarterly groundwater monitoring and sampling at the site. In accordance with the sampling frequency proposed in prior monitoring reports, Pangea will sample all site groundwater monitoring wells quarterly, except MW-4 and MW-5 which will be sampled annually during the first quarter. All wells will be gauged for depth to water and inspected for SPH. All groundwater samples will be analyzed for TPHg/BTEX/MTBE by EPA Method 8015Cm/8021B. Pangea will summarize groundwater monitoring activities and results in a groundwater monitoring report.

The upcoming monitoring will also include the following activities and cost control:

- To evaluate shallowest conditions at the site, Pangea will continue to gauge vapor wells VW-1 through VW-3 and to sample these wells if they contain sufficient water.
- To compare surface water and groundwater elevation and help evaluate if groundwater is impacting the flood control channel, Pangea will measure the depth to water at survey point C-1 at the overpass of the flood control channel.
- To control cost, MTBE confirmation by EPA Method 8260 will be discontinued since EPA Method 8021B has been providing similar results to EPA Method 8260 analytical results.

Additional Assessment and Remediation

On August 11, 2006, Pangea has submitted a *Site Investigation Report* documenting recent site assessment, well installation, and interim remediation activities. In the report, Pangea concluded that hydrocarbon and oxygenate contamination is only located in the shallower site subsurface, and is not present in groundwater in the middle (B) and deep (C) zones. Pangea also recommended additional groundwater monitoring of wells VW-1, VW-2, and VW-3 to further evaluate very shallow subsurface conditions.

In light of this third quarter monitoring data, Pangea reiterates these recommendations from the *Site Investigation Report*:

- Pangea recommends the installation of two wells (MW-12AA and MW-12A) to evaluate conditions in the upper shallow ‘AA’ zone and the shallow ‘A’ water-bearing zone. Wells MW-12AA and MW-12A would be screened from approximately 7 to 14 ft bgs and from 15 to 20 ft bgs, respectively. These wells would help evaluate if contaminants are migrating from the impacted former release area toward the flood control channel. The wells would also help explain the increasing MTBE concentration trend in well MW-1, and determine if MTBE is migrating within native materials or within the nearby sanitary sewer backfill in Dublin Boulevard.
- Pangea recommends *short-term feasibility testing/source removal* on key site wells (MW-3A, MW-7AA, MW-7A, MW-6A). Recent data suggesting that site groundwater may be impacting the flood control channel as well as the sanitary sewer backfill only increases the need for interim remediation or more aggressive active remediation. The testing/source removal would improve site conditions and provide site data for improved selection and design of longer-term remediation, if merited. The testing/removal would be conducted using a portable dual phase extraction (DPE) system for up to five days.

ATTACHMENTS

Figure 1 – Vicinity Map

Figure 2 – Groundwater Elevation Contour and Hydrocarbon Concentration Map – Shallow

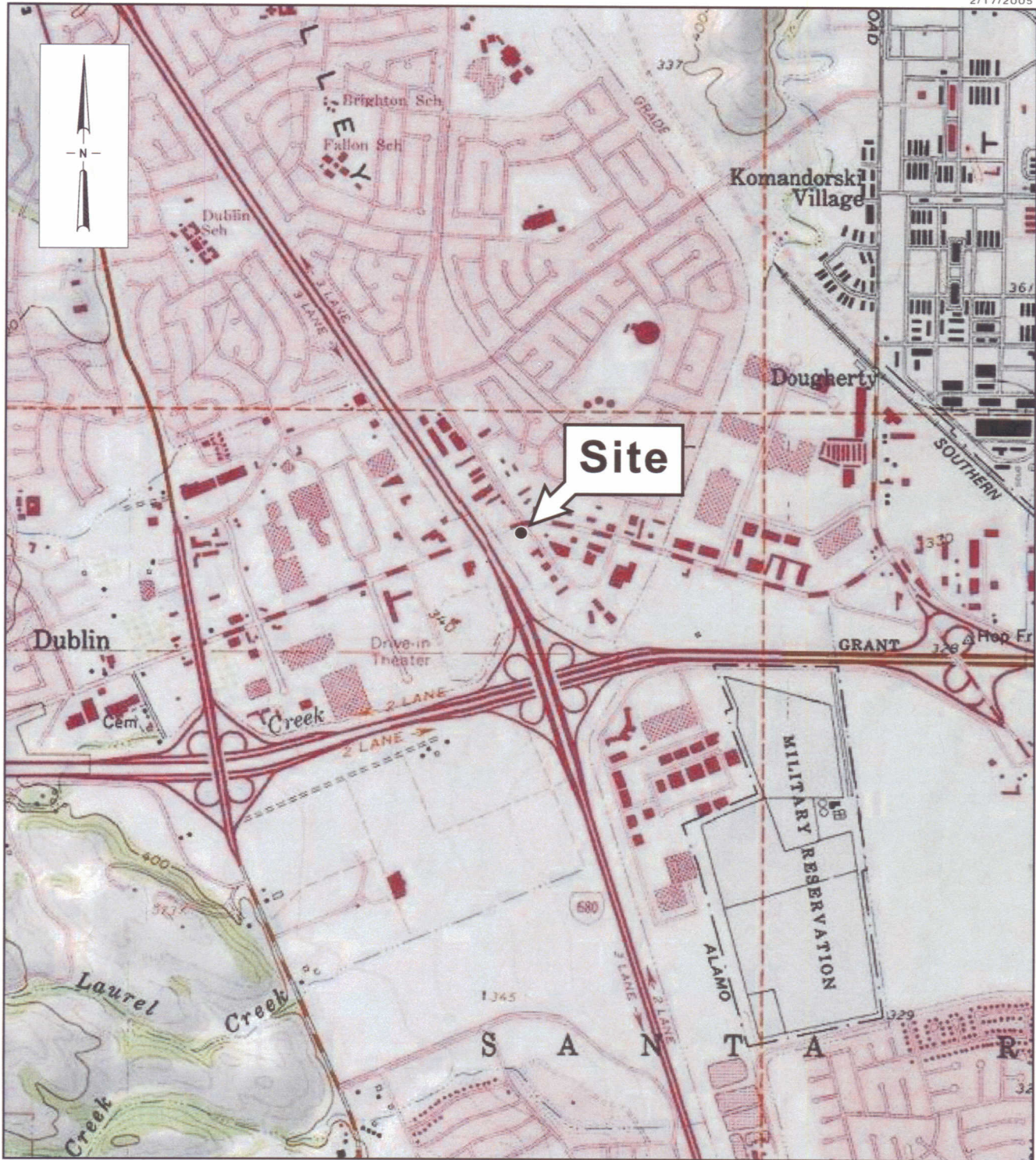
Figure 3 – Groundwater Elevation Contour and Hydrocarbon Concentration Map – Deep

Table 1 – Groundwater Elevation and Analytical Data

Table 2 – Well Construction Details

Appendix A – Groundwater Monitoring Field Data Sheets

Appendix B – Laboratory Analytical Report



SOURCE: TOPOI MAPS

0 1/8 1/4 1/2 1
 SCALE : 1" = 1/4 MILE

Figure

1

Site Location Map

Dublin Auto Wash
 7240 Dublin Boulevard
 Dublin, California

Pangea
 ENVIRONMENTAL SERVICES, INC.

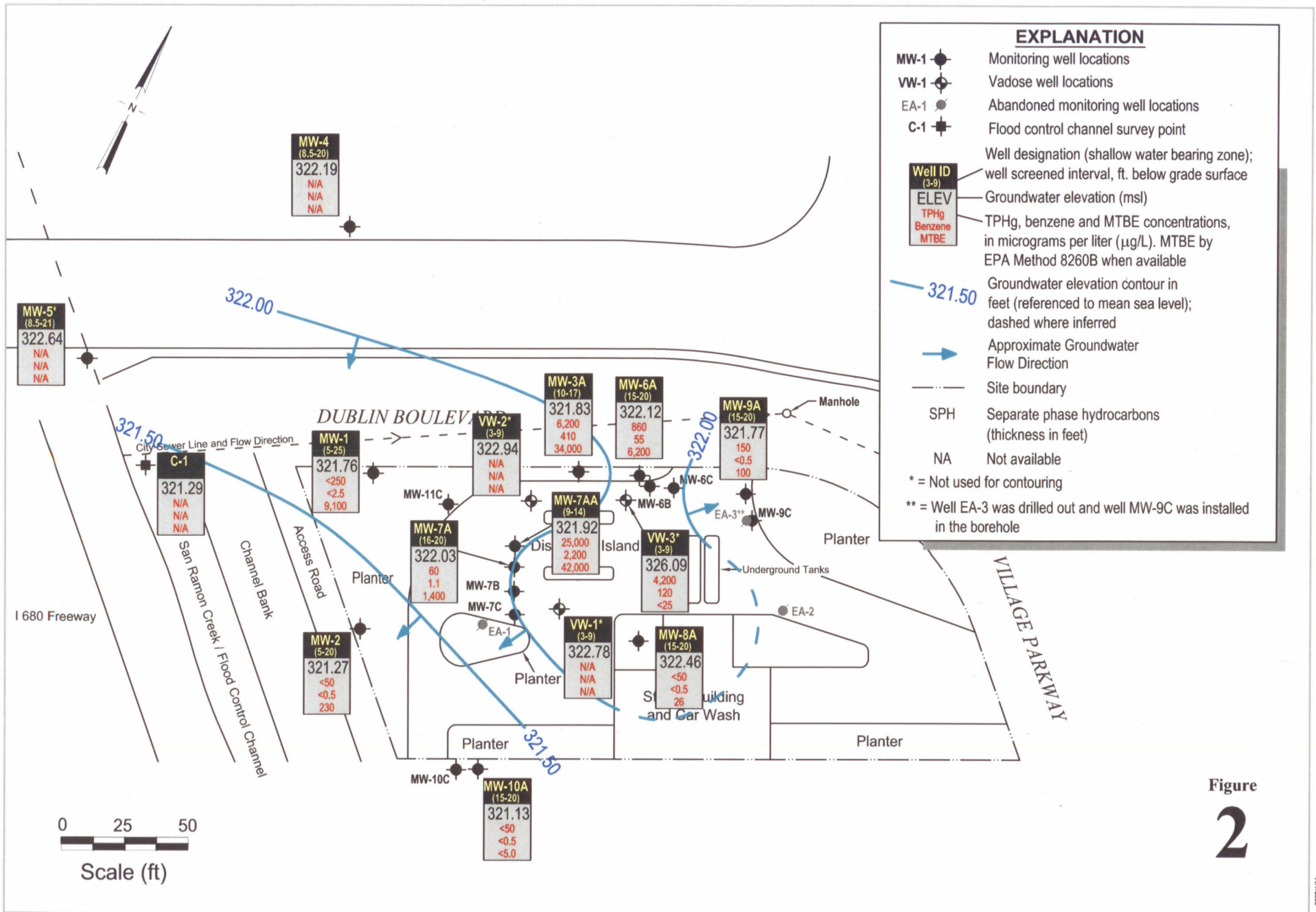


Figure
2

Dublin Auto Wash
 7240 Dublin Boulevard
 Dublin, California



**Groundwater Elevation and Hydrocarbon
 Concentration Map (Shallow)**
 August 17, 2006

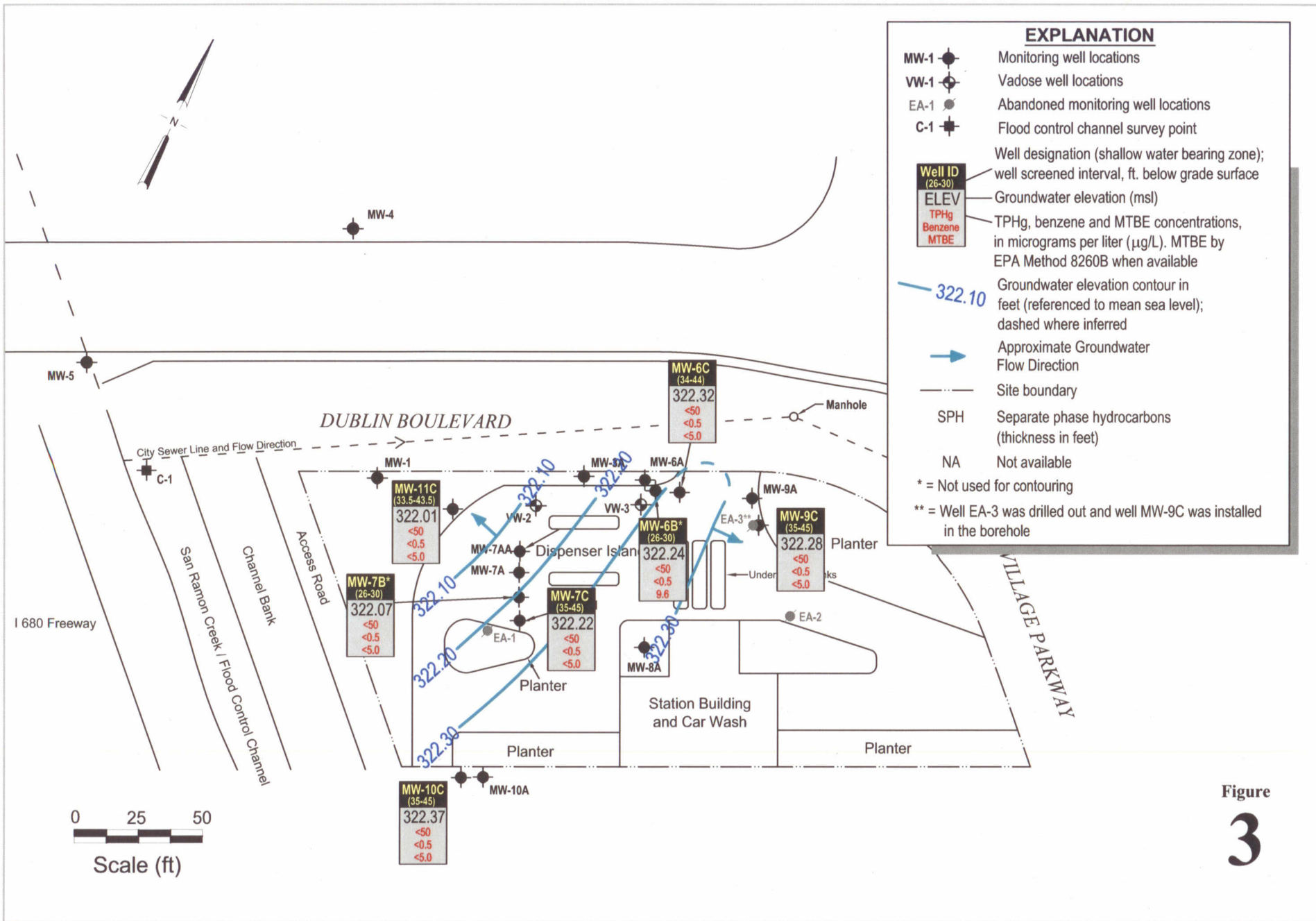


Figure
3

Dublin Auto Wash
 7240 Dublin Boulevard
 Dublin, California



Groundwater Elevation and Hydrocarbon Concentration Map (Deep)
 August 17, 2006

9/26/06

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)	←-----µg/L-----→						Dissolved Oxygen mg/L	Notes
				TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE		
EA-1 331.21	10/17/88	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	
	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	<0.5	--	
	03/28/89	9.87	323.54	<250	<0.5	<0.5	<0.5	<0.5	<0.5	--	
	08/02/89	10.34	323.07	<50	<0.1	<0.1	<0.1	<0.1	<0.1	--	
	11/06/89	10.65	322.76	<500	<3.0	<5.0	<5.0	<5.0	<5.0	--	
	01/25/90	10.6	322.81	<50	<0.5	<0.5	<0.5	<0.5	<0.5	--	
	04/23/90	10.58	322.83	71	2	5	3	8	8	--	
	08/01/90	10.88	322.53	300	86	21	10	33	33	--	
	10/24/91	11.12	322.29	280	69	13	11	16	16	--	
	01/31/91	11.16	322.25	460	160	11	17	17	17	--	
	08/21/91	10.8	322.61	2,400	400	220	44	120	120	--	
	08/21/91	10.8	322.61	2,300	390	210	42	120	120	--	Duplicate
	10/07/91	10.79	322.62	--	--	--	--	--	--	--	
	01/28/92	10.79	322.62	3,600	320	360	110	310	310	--	
	01/28/92	10.79	322.62	3,000	290	320	99	270	270	--	Duplicate
	06/05/92	10.84	322.57	1,700	290	89	61	130	130	--	
	09/30/92	11.06	322.35	2,100	160	260	80	350	350	--	
	12/30/92	10.15	323.26	3,200	240	180	110	310	310	--	
	03/29/93	9.42	323.99	23,000	700	3,000	610	3,000	3,000	--	
	06/25/93	10.42	322.99	2.7	130	590	130	590	590	--	
	09/16/93	10.66	322.75	3.9	410	830	220	890	890	--	
	12/20/93	10.6	322.81	27	1,200	2,600	1,100	4,200	4,200	--	
	03/29/94	10.41	323	6.3	250	700	200	830	830	--	
	06/22/94	10.4	323.01	4.1	71	240	110	460	460	<30	
	09/20/94	10.37	323.04	8,500	1,200	1,300	370	1,400	1,400	--	
	10/04/94	10.34	323.07	7,600	97	360	150	620	620	--	
	11/30/94	9.46	323.95	8,800	180	490	240	900	900	--	
	03/02/95	9.96	321.07	6.9	82	570	210	970	970	--	
	06/15/95	9.8	321.23	4.8	44	210	160	620	620	<25	
	09/26/95	10.48	320.55	13,000	150	620	370	1,400	1,400	<125	
	12/28/95	10.14	320.89	11,000	74	250	200	750	750	79	
02/29/96	8.74	322.29	17,000	59	480	350	1,600	1,600	<125		
06/27/96	10.21	320.82	3,600	22	130	130	49	46	46		
09/12/96	10.49	320.72	2,000	20	<10	18	44	44	<50		
03/31/97	10.19	321.02	17,000	87	230	330	1,200	1,200	310		
12/23/98	9.83	321.38	290	20	0.88	1.1	16	16	<2.5		
03/25/99	9.13	322.08	500	21	<0.5	21	<0.5	18	18		
02/03/00	9.05	322.16	2,310	35.7	90	21.8	147	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	31.8		
08/28/01	10.04	321.17	4,800	69	<25	50	140	160	160		
11/27/01	10.05	321.16	5,300	25	<5.0	30	120	120	<20		
02/28/02	--	--	--	--	--	--	--	--	--	Inaccessible	
05/22/02	9.05	322.16	110	<1.0	<0.50	1	<1.5	<2.5	<2.5		
08/20/02	9.21	322	410	2.6	<0.50	8.5	29	29	<5.0		
11/11/02	9.01	322.2	3,800	<0.50	1.3	17	47	47	<5.0		

Pangea

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							Dissolved Oxygen mg/L	Notes
			Elevation (ft, msl)	TPHg ←	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE		
EA-1 (Cont'd)	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 Abandoned	
EA-2 330.41	10/17/88	--	--	<50	<0.5	<0.5	<0.5	1.2	--		
	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)			

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

Well ID	Date	Depth	Groundwater	←----- μg/L -----→						Dissolved	Notes		
				TOC Elev (ft)	Sampled	to Water (ft)	Elevation (ft, msl)	TPHg	Benzene			Toluene	Ethylbenzene
EA-2 (Cont'd)	01/23/01	9.08	321.33										
	05/01/01	8.87	321.54										
	08/28/01	9.45	320.96										
	11/27/01	9.5	320.91										
	02/28/02	9.05	321.36	<50	<0.50	<0.50	<0.5	<1.5		74			
	05/22/02	9.04	321.37										
	08/20/02	9	321.41										
	11/11/02	9.03	321.38										
	05/08/03	7.26	323.15	<50	<0.5	<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	<0.5	<5.0			
	02/21/05	7.20	323.21	<50	<0.5	<0.5	<0.5	<0.5	<0.5	13 (11)	0.64		
	05/17/05	8.21	322.20								0.77		
	08/17/05	7.97	322.44								0.85		
	11/27/05	9.83	320.58								0.84		
	02/21/06	8.78	321.63	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	0.51/0.68		
	03/28/06	--	--	--	--	--	--	--	--	--	--	Well Abandoned	
	EA-3 331.5	10/17/88	--	--	<50	1.8	<0.5	<0.5	3	--	--		
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	--	--				
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	--				

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)	←————— μg/L —————→						Dissolved Oxygen mg/L	Notes
				TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE		
EA-3 (Cont'd)	12/28/95	9.82	321.48	<50	<0.5	<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 Abandoned	
MW-1 333.66	10/04/94	12.8	320.76	2,100	150	170	61	320	--		
	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)			

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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)	←————— μg/L —————→						Dissolved Oxygen mg/L	Notes	
				TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE			
MW-1 (Cont'd) 333.69	12/15/04	12.80	320.86	<50	<0.5	<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	<1.0	3,000 (3,800)	0.82	
	05/17/05	12.51	321.15	<120	<1.2	<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	<1.7	4,500 (4,900)	0.77	
	11/27/05	13.18	320.48	<170	<1.7	<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	<1.7	5,000 (5,400)	0.29/0.71	
	06/01/06	12.47	321.22	<250	<2.5	<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	<2.5	7,700 (9,100)	0.43	
MW-2 329.29	10/04/94	8.56	320.62	2300	160	280	96	480	--	--		
	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			
02/21/06	8.51	320.78	<50	<0.5	<0.5	<0.5	<0.5	240 (270)	0.33/0.46			
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		
MW-3 332.86	10/04/94	12.06	320.67	6,300	610	750	68	670	--			
	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			

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Well ID TOC Elev (ft)	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft. msl)	←----- μg/L -----→						Dissolved Oxygen mg/L	Notes
				TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE		
MW-3 (Cont'd)	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	<100	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	1,300	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 Abandoned
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	
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	

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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)	←————— μg/L —————→						Dissolved Oxygen mg/L	Notes
				TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE		
MW-4 (Cont'd) 332.64	05/17/05	10.20	322.43							1.29	
	08/17/05	10.50	322.13							1.10	
	11/27/05	11.07	321.56							1.01	
	02/21/06	10.53	322.10	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.14/0.90	
	05/29/06	10.33	322.31							--	
	07/07/06	10.52	322.12	--	--	--	--	--	--	--	
	08/17/06	10.45	322.19	--	--	--	--	--	--	--	
MW-5 333.47	03/01/96	10.62	322.58	<50	<0.5	<0.5	<0.5	<0.5	<2.5		
	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								
	08/28/01	10.44	322.6								
	11/27/01	10.17	322.87								
	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								
	08/20/02	10.36	322.68								
	11/11/02	10.03	323.01								
	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							1.47	
08/17/05	10.40	322.64							1.18		
11/27/05	10.43	322.61							1.19		
333.13	02/21/06	10.32	322.72	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.48/0.76	
	05/29/06	10.41	322.72							--	
	07/07/06	10.46	322.67	--	--	--	--	--	--	--	
	08/17/06	10.49	322.64	--	--	--	--	--	--	--	
MW-6A 331.81	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
	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	
MW-6B 330.9	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
	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)	0.4	

Pangea

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

Well ID <i>TOC Elev (ft)</i>	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft, msl)	←————— μg/L —————→						Dissolved Oxygen mg/L	Notes
				TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE		
MW-6C <i>330.88</i>	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
	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	
MW-7AA <i>330.67</i>	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
	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	
MW-7A <i>330.71</i>	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
	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	
MW-7B <i>330.69</i>	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
	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	
MW-7C <i>330.74</i>	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
	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	
MW-8A <i>331.19</i>	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
	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	
MW-9A <i>331.17</i>	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
	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	
MW-9C <i>331.48</i>	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
	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	
MW-10A <i>329.93</i>	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
	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	
MW-10C <i>329.66</i>	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
	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	
MW-11C <i>331.61</i>	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
	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	

Pangea

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

Well ID <i>TOC Elev</i> <i>(ft)</i>	Date Sampled	Depth to Water (ft)	Groundwater Elevation (ft, msl)	←----- μg/L -----→						Dissolved Oxygen mg/L	Notes
				TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE		
VW-1 330.43	02/21/06	7.95	322.48	860	120	1.4	32	4.4	390 (440)	1.97	
	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	
VW-2 330.17	02/21/06	6.01	324.16	1,600	150	2.7	55	20	1,700 (1,600)	1.97	
	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	
VW-3 330.49	02/21/06	6.10	324.39	8,900	390	29	490	650	<50	2.28	
	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	
C-1 332.89	08/17/06	11.60	321.29	--	--	--	--	--	--	--	Flood control channel location.

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 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 = Diisopropyl 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)
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 Field Data Sheets

Well Gauging Data Sheet

Project Task #: 1001.001 208			Project Name: Dublin Car Wash				
Address: 7420 Dublin Blvd. Dublin, CA			Date: 8-17-06				
Name: Sanjiv Gill			Signature: <i>[Signature]</i>				
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"	10:55			11.93	25.32	TOC
MW-2	2"	11:00			8.21	20.00	
MW-3A	4"	11:05			9.56	16.78	
MW-4	2"	9:30			10.45	19.78	
MW-5	2"	9:35			10.49	20.56	
MW-6A	2"	10:50			9.69	19.13	
MW-6B	2"	10:05			8.66	29.73	
MW-6C	2"	9:58			8.56	44.15	
MW-7A	4"	10:45			8.75	13.84	
MW-7A	4"	10:25			8.68	19.53	
MW-7B	2"	10:00			8.62	28.42	X

Comments:

Well Gauging Data Sheet

Project Task #: 1001.00/208			Project Name: Dublin Car Wash					
Address: 7420 Dublin Blvd. Dublin, CA			Date: 8-17-06					
Name: Sanjiv Gill			Signature: <i>[Signature]</i>					
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-7C	2"	9:55			8.52	44.45	TOC	
MW-8A	2"	10:20			8.73	19.01		
MW-9A	2"	10:15			9.40	19.66		
MW-9C	2"	9:50			9.20	44.16		
MW-10A	2"	10:10			8.80	19.51		
MW-10C	2"	9:40			7.29	44.60		
MW-11C	2"	9:45			9.60	42.95		
VW-1	2"	10:30			7.65	8.40		
VW-2	2"	10:35			7.23	8.30		
VW-3	2"	10:40			4.40	8.40		X
C-1	—	10:10			11.60	—		Survey Point

Comments:



MONITORING FIELD DATA SHEET

Well ID: MW-1

Project Task #: 1001.001 208 Project Name: Dublin Car Wash

Address: 7420 Dublin Boulevard, Dublin, CA

Date: 8/17/06 Weather: Sunny

Well Diameter: 2" Volume/ft.

1" = 0.04	3" = 0.37	6" = 1.47
2" = 0.16	4" = 0.65	radius ² * 0.163

Total Depth (TD): 25.32 Depth to Product:

Depth to Water (DTW): 11.93 Product Thickness:

Water Column Height: 13.39 1 Casing Volume: 2.14 gallons

Reference Point: TOC 3 Casing Volumes: 6.42 gallons

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

Sampling Device: Disposable Bailer

Time	Temp (°C)	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
9:25	17.1	7.17	638				2	
9:30	17.6	7.20	615				4	
9:35	17.8	7.21	627				6.5	

Comments: Oakton DO meter pre purge DO = 0.43 mg/l
 post purge DO = mg/l

turbid

Sample ID: <u>MW-1</u>	Sample Time: <u>9:40</u>
Laboratory: McCampbell Analytical, INC.	Sample Date: <u>8/19/06</u>
Containers/Preservative: <u>Voal/HCl</u>	
Analyzed for: <u>8015, 8021, 8260</u>	
Sampler Name: <u>Sanjiv Gill</u>	Signature: <u>[Signature]</u>

MONITORING FIELD DATA SHEET

Well ID: MU-2

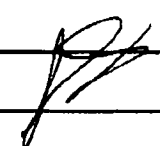
Project Task #: 1001.001 208	Project Name: Dublin Car Wash						
Address: 7420 Dublin Boulevard, Dublin, CA							
Date: 8/17/06	Weather: <u>Clear</u>						
Well Diameter: <u>2"</u>	Volume/ft. <table border="1"> <tr> <td>1" = 0.04</td> <td>3" = 0.37</td> <td>6" = 1.47</td> </tr> <tr> <td>2" = 0.16</td> <td>4" = 0.65</td> <td>radius² * 0.163</td> </tr> </table>	1" = 0.04	3" = 0.37	6" = 1.47	2" = 0.16	4" = 0.65	radius ² * 0.163
1" = 0.04	3" = 0.37	6" = 1.47					
2" = 0.16	4" = 0.65	radius ² * 0.163					
Total Depth (TD): <u>20.00</u>	Depth to Product:						
Depth to Water (DTW): <u>8.21</u>	Product Thickness:						
Water Column Height: <u>11.79</u>	1 Casing Volume: <u>1.88</u> gallons						
Reference Point: TOC	<u>3</u> Casing Volumes: <u>5.65</u> gallons						

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

Sampling Device: Disposable Bailer

Time	Temp (°C)	pH	Cond (µs)	NTU	DO (mg/L)	ORP (mV)	Vol (gal)	DTW
<u>7:45</u>	<u>17.5</u>	<u>7.07</u>	<u>492</u>				<u>2</u>	
<u>7:50</u>	<u>17.7</u>	<u>7.13</u>	<u>510</u>				<u>4</u>	
<u>7:55</u>	<u>17.8</u>	<u>7.19</u>	<u>514</u>				<u>5.5</u>	

Comments: Oakton DO meter pre purge DO = 0.30 mg/l
 post purge DO = mg/l
turbid

Sample ID: <u>MU-2</u>	Sample Time: <u>8:00</u>
Laboratory: McCampbell Analytical, INC.	Sample Date: <u>8/20/06</u>
Containers/Preservative: <u>Voac/HCl</u>	
Analyzed for: <u>8015, 8021, 8260</u>	
Sampler Name: <u>Sanjiv Gill</u>	Signature: 

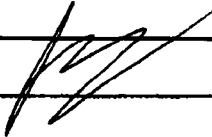


MONITORING FIELD DATA SHEET

Well ID: MW-3A

Project.Task #: 1001.001 208			Project Name: Dublin Car Wash								
Address: 7420 Dublin Boulevard, Dublin, CA											
Date: 8/17/06			Weather: <u>Sunny</u>								
Well Diameter: <u>4"</u>			Volume/ft. <table border="1" style="display: inline-table;"> <tr> <td>1" = 0.04</td> <td>3" = 0.37</td> <td>6" = 1.47</td> </tr> <tr> <td>2" = 0.16</td> <td>4" = 0.65</td> <td>radius²* 0.163</td> </tr> </table>			1" = 0.04	3" = 0.37	6" = 1.47	2" = 0.16	4" = 0.65	radius ² * 0.163
1" = 0.04	3" = 0.37	6" = 1.47									
2" = 0.16	4" = 0.65	radius ² * 0.163									
Total Depth (TD): <u>1678</u>			Depth to Product:								
Depth to Water (DTW): <u>9.56</u>			Product Thickness:								
Water Column Height: <u>7.22</u>			1 Casing Volume: <u>4.69</u> gallons								
Reference Point: TOC			3 Casing Volumes: <u>14.07</u> gallons								
Purging Device: Disposable Bailer (<u>3" PVC Bailer</u>), Whal Pump											
Sampling Device: <u>Disposable Bailer</u>											
Time	Temp (°C)	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW			
<u>8:25</u>	<u>17.9</u>	<u>7.05</u>	<u>520</u>				<u>5</u>				
<u>8:30</u>	<u>18.2</u>	<u>7.14</u>	<u>517</u>				<u>10</u>				
<u>8:35</u>	<u>18.6</u>	<u>7.17</u>	<u>531</u>				<u>14</u>				

Comments: Oakton DO meter pre purge DO = 0.19 mg/l
post purge DO = mg/l

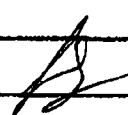
Sample ID: <u>MW-3A</u>	Sample Time: <u>8:40</u>
Laboratory: McCampbell Analytical, INC.	Sample Date: <u>8/20/06</u>
Containers/Preservative: <u>Voal/HClI</u>	
Analyzed for: <u>8015, 8021, 8260</u>	
Sampler Name: <u>Sanjiv Gill</u>	Signature: 

MONITORING FIELD DATA SHEET

Well ID: MW6A

Project Task #: 1001.001 208		Project Name: Dublin Car Wash						
Address: 7420 Dublin Boulevard, Dublin, CA								
Date: 8/17/06		Weather: <u>Clear</u>						
Well Diameter: <u>2"</u>	Volume/ft.	1" = 0.04	3" = 0.37					
		2" = 0.16	4" = 0.65					
		6" = 1.47	radius ² * 0.163					
Total Depth (TD): <u>19.13</u>	Depth to Product:							
Depth to Water (DTW): <u>9.69</u>	Product Thickness:							
Water Column Height: <u>9.44</u>	1 Casing Volume: <u>151</u>		gallons					
Reference Point: TOC	3 Casing Volumes: <u>4.53</u>		gallons					
Purging Device: <u>Disposable Bailer</u> , 3" PVC Bailer, Whal Pump								
Sampling Device: <u>Disposable Bailer</u>								
Time	Temp @	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<u>7:00</u>	<u>18.9</u>	<u>8.71</u>	<u>970</u>				<u>1.5</u>	
<u>7:03</u>	<u>18.5</u>	<u>8.55</u>	<u>1014</u>				<u>3</u>	
<u>7:07</u>	<u>18.3</u>	<u>8.57</u>	<u>1026</u>				<u>4.5</u>	

Comments: Oakton DO meter pre purge DO = 0.49 mg/l
 post purge DO = mg/l
very turbid, silty

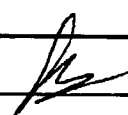
Sample ID: <u>MW6A</u>	Sample Time: <u>7:10</u>
Laboratory: McCampbell Analytical, INC.	Sample Date: <u>8/20/06</u>
Containers/Preservative: <u>Voa/HCl</u>	
Analyzed for: <u>8015, 8021, 8260</u>	
Sampler Name: <u>Sanjiv Gill</u>	Signature: 

MONITORING FIELD DATA SHEET

Well ID: MLJ-6B

Project.Task #: 1001.001 208		Project Name: Dublin Car Wash							
Address: 7420 Dublin Boulevard, Dublin, CA									
Date: 8/17/06		Weather: <u>Clear</u>							
Well Diameter: <u>2"</u>		Volume/ft. <table border="1" style="display: inline-table;"><tr><td>1" = 0.04</td><td>3" = 0.37</td><td>6" = 1.47</td></tr><tr><td>2" = 0.16</td><td>4" = 0.65</td><td>radius** 0.163</td></tr></table>		1" = 0.04	3" = 0.37	6" = 1.47	2" = 0.16	4" = 0.65	radius** 0.163
1" = 0.04	3" = 0.37	6" = 1.47							
2" = 0.16	4" = 0.65	radius** 0.163							
Total Depth (TD): <u>29.73</u>		Depth to Product:							
Depth to Water (DTW): <u>8.66</u>		Product Thickness:							
Water Column Height: <u>21.07</u>		1 Casing Volume: <u>3.37</u> gallons							
Reference Point: TOC		3 Casing Volumes: <u>10.11</u> gallons							
Purging Device: <u>Disposable Bailer</u> , 3" PVC Bailer, Whal Pump									
Sampling Device: <u>Disposable Bailer</u>									
Time	Temp @	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW	
<u>6:10</u>	<u>19.0</u>	<u>7.40</u>	<u>1146</u>				<u>3.5</u>		
<u>6:15</u>	<u>19.3</u>	<u>7.34</u>	<u>1190</u>				<u>7</u>		
<u>6:20</u>	<u>19.1</u>	<u>7.32</u>	<u>1175</u>				<u>10</u>		

Comments: Oakton DO meter pre purge DO = 0.40 mg/l
 post purge DO = mg/l
opaque

Sample ID: <u>MLJ-6B</u>	Sample Time: <u>6:25</u>
Laboratory: <u>McCampbell Analytical, INC.</u>	Sample Date: <u>8/20/06</u>
Containers/Preservative: <u>Voa/HCl</u>	
Analyzed for: <u>8015, 8021, 8260</u>	
Sampler Name: <u>Sanjiv Gill</u>	Signature: 



MONITORING FIELD DATA SHEET

Well ID: MW-6C

Project Task #: 1001.001 208		Project Name: Dublin Car Wash							
Address: 7420 Dublin Boulevard, Dublin, CA									
Date: 8/17/06		Weather: <u>Clear</u>							
Well Diameter: <u>2"</u>	Volume/ft. <table border="1"> <tr> <td>1" = 0.04</td> <td>3" = 0.37</td> <td>6" = 1.47</td> </tr> <tr> <td>2" = 0.16</td> <td>4" = 0.65</td> <td>radius² = 0.163</td> </tr> </table>			1" = 0.04	3" = 0.37	6" = 1.47	2" = 0.16	4" = 0.65	radius ² = 0.163
1" = 0.04	3" = 0.37	6" = 1.47							
2" = 0.16	4" = 0.65	radius ² = 0.163							
Total Depth (TD): <u>44.15</u>	Depth to Product:								
Depth to Water (DTW): <u>8.56</u>	Product Thickness:								
Water Column Height: <u>35.59</u>	1 Casing Volume: <u>5.69</u>		gallons						
Reference Point: TOC	3 Casing Volumes: <u>17.08</u>		gallons						
Purging Device: <u>Disposable Bailer</u> , 3" PVC Bailer, Whal Pump									
Sampling Device: <u>Disposable Bailer</u>									
Time	Temp @	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW	
<u>4:40</u>	<u>17.9</u>	<u>7.85</u>	<u>1310</u>				<u>5.5</u>		
<u>5:00</u>	<u>18.3</u>	<u>7.79</u>	<u>1284</u>				<u>11</u>		
<u>5:25</u>	<u>18.8</u>	<u>7.77</u>	<u>1270</u>				<u>17</u>		

Comments: Oakton DO meter pre purge DO = 0.2 mg/l
 post purge DO = mg/l

mgue

Sample ID: <u>MW-6C</u>	Sample Time: <u>5:30</u>
Laboratory: McCampbell Analytical, INC.	Sample Date: <u>8/20/06</u>
Containers/Preservative: <u>Voa/HCl</u>	
Analyzed for: <u>8015, 8021, 8260</u>	
Sampler Name: <u>Sanjiv Gill</u>	Signature:

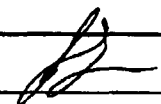
MONITORING FIELD DATA SHEET

Well ID: MU-7AA

Project Task #: 1001.001 208		Project Name: Dublin Car Wash						
Address: 7420 Dublin Boulevard, Dublin, CA								
Date: 8/17/06		Weather: <u>Clear</u>						
Well Diameter: <u>4"</u>		Volume/ft. <u>1" = 0.04</u> <u>3" = 0.37</u> <u>6" = 1.47</u> <u>2" = 0.16</u> <u>4" = 0.65</u> radius <u>0.163</u>						
Total Depth (TD): <u>13.84</u>		Depth to Product:						
Depth to Water (DTW): <u>8.75</u>		Product Thickness:						
Water Column Height: <u>5.09</u>		1 Casing Volume: 0.30 <u>3.30</u> gallons						
Reference Point: TOC		3 Casing Volumes: <u>9.90</u> gallons						
Purging Device: Disposable Bailer, <u>3" PVC Bailer</u> , Whal Pump								
Sampling Device: <u>Disposable Bailer</u>								
Time	Temp @	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<u>8:00</u>	<u>18.4</u>	<u>7.30</u>	<u>1210</u>				<u>3.5</u>	
<u>8:03</u>	<u>18.1</u>	<u>7.39</u>	<u>1245</u>				<u>7</u>	
<u>8:05</u>	<u>18.3</u>	<u>7.33</u>	<u>1261</u>				<u>10.0</u>	

Comments: Oakton DO meter pre purge DO = 0.24 mg/l
post purge DO = mg/l

turbid, ochre

Sample ID: <u>MU-7AA</u>	Sample Time: <u>8:10</u>
Laboratory: <u>McC Campbell Analytical, INC.</u>	Sample Date: <u>8/19/06</u>
Containers/Preservative: <u>Voa/HCl</u>	
Analyzed for: <u>8015, 8021, 8260</u>	
Sampler Name: <u>Sanjiv Gill</u>	Signature: 


MONITORING FIELD DATA SHEET

Well ID: MW-7A

Project.Task #: 1001.001 208		Project Name: Dublin Car Wash						
Address: 7420 Dublin Boulevard, Dublin, CA								
Date: 8/17/06		Weather: <u>Clear</u>						
Well Diameter: <u>4''</u>	Volume/ft.	1" = 0.04 2" = 0.16	3" = 0.37 4" = 0.65 6" = 1.47 radius ² * 0.163					
Total Depth (TD): <u>19.53</u>	Depth to Product:							
Depth to Water (DTW): <u>8.68</u>	Product Thickness:							
Water Column Height: <u>10.85</u>	1 Casing Volume: <u>7.05</u>		gallons					
Reference Point: TOC	3 Casing Volumes: <u>21.15</u>		gallons					
Purging Device: Disposable Bailer, <u>3" PVC Bailer</u> , What Pump								
Sampling Device: <u>Disposable Bailer</u>								
Time	Temp @	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
7:10	19.3	7.24	1310				7	
7:15	18.9	7.30	1344				14	
7:20	19.1	7.29	1297				21	

Comments: Oakton DO meter pre purge DO = 0.29 mg/l
post purge DO = _____ mg/l

very turbid, silty

Sample ID: <u>MW-7A</u>	Sample Time: <u>7:25</u>
Laboratory: McCampbell Analytical, INC.	Sample Date: <u>8/19/06</u>
Containers/Preservative: <u>Voal/HCl</u>	
Analyzed for: <u>8015, 8021, 8260</u>	
Sampler Name: <u>Sanjiv Gill</u>	Signature: 



MONITORING FIELD DATA SHEET

Well ID: MW-7B

Project Task #: 1001.001 208		Project Name: Dublin Car Wash							
Address: 7420 Dublin Boulevard, Dublin, CA									
Date: 8/17/06		Weather: <u>Clear</u>							
Well Diameter: <u>2"</u>		Volume/ft.	<table border="1"> <tr> <td>1" = 0.04</td> <td>3" = 0.37</td> <td>6" = 1.47</td> </tr> <tr> <td>2" = 0.16</td> <td>4" = 0.65</td> <td>radius² = 0.163</td> </tr> </table>	1" = 0.04	3" = 0.37	6" = 1.47	2" = 0.16	4" = 0.65	radius ² = 0.163
1" = 0.04	3" = 0.37	6" = 1.47							
2" = 0.16	4" = 0.65	radius ² = 0.163							
Total Depth (TD): <u>28.42</u>		Depth to Product:							
Depth to Water (DTW): <u>8.62</u>		Product Thickness:							
Water Column Height: <u>19.8</u>		1 Casing Volume: <u>3.16</u> gallons							
Reference Point: TOC		3 Casing Volumes: <u>9.50</u> gallons							

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

Sampling Device: Disposable Bailer

Time	Temp @	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<u>6:15</u>	<u>19.9</u>	<u>7.30</u>	<u>1110</u>				<u>3.5</u>	
<u>6:25</u>	<u>19.4</u>	<u>7.26</u>	<u>1145</u>				<u>7</u>	
<u>6:35</u>	<u>19.6</u>	<u>7.20</u>	<u>1168</u>				<u>9.5</u>	

Comments: Oakton DO meter pre purge DO = 0.22 mg/l
 post purge DO = mg/l

opague

Sample ID: <u>MW-7B</u>		Sample Time: <u>6:40</u>	
Laboratory: McCampbell Analytical, INC.		Sample Date: <u>8/19/06</u>	
Containers/Preservative: <u>Voa/HCl</u>			
Analyzed for: <u>8015, 8021, 8260</u>			
Sampler Name: <u>Sanjiv Gill</u>		Signature: <u>[Signature]</u>	

MONITORING FIELD DATA SHEET

Well ID: MW-7C

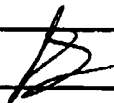
Project.Task #: 1001.001 208		Project Name: Dublin Car Wash	
Address: 7420 Dublin Boulevard, Dublin, CA			
Date: 8/17/06		Weather: <u>Clear</u>	
Well Diameter: <u>2"</u>	Volume/ft.	1" = 0.04 2" = 0.16	3" = 0.37 4" = 0.65 6" = 1.47 radius ² * 0.163
Total Depth (TD): <u>44.45</u>	Depth to Product:		
Depth to Water (DTW): <u>8.52</u>	Product Thickness:		
Water Column Height: <u>35.93</u>	1 Casing Volume: <u>5.74</u>	gallons	
Reference Point: TOC	3 Casing Volumes: <u>17.24</u>	gallons	

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

Sampling Device: Disposable Bailer

Time	Temp (°C)	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<u>4:30</u>	<u>19.1</u>	<u>7.10</u>	<u>840</u>				<u>6</u>	
<u>5:00</u>	<u>18.7</u>	<u>7.04</u>	<u>813</u>				<u>12</u>	
<u>5:25</u>	<u>18.5</u>	<u>7.07</u>	<u>829</u>				<u>17</u>	

Comments: Oakton DO meter pre purge DO = 0.17 mg/l
 post purge DO = mg/l
Slightly turbid

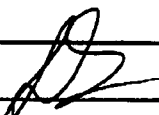
Sample ID: <u>MW-7C</u>	Sample Time: <u>5:30</u>
Laboratory: McCampbell Analytical, INC.	Sample Date: <u>8/19/06</u>
Containers/Preservative: <u>Voa/HCl</u>	
Analyzed for: <u>8015, 8021, 8260</u>	
Sampler Name: Sanjiv Gill	Signature: 

MONITORING FIELD DATA SHEET

Well ID: MW-8A

Project.Task #: 1001.001 208		Project Name: Dublin Car Wash	
Address: 7420 Dublin Boulevard, Dublin, CA			
Date: 8/17/06		Weather: <u>Sunny</u>	
Well Diameter: <u>2"</u>	Volume/ft.	1" = 0.04	3" = 0.37
		2" = 0.16	4" = 0.65
Total Depth (TD): <u>19.0'</u>		Depth to Product:	
Depth to Water (DTW): <u>8.73</u>		Product Thickness:	
Water Column Height: <u>10.28</u>		1 Casing Volume: <u>1.64</u> gallons	
Reference Point: TOC		3 Casing Volumes: <u>4.93</u> gallons	
Purging Device: <u>Disposable Bailer</u> , 3" PVC Bailer, Whal Pump			
Sampling Device: <u>Disposable Bailer</u>			
Time	Temp @	pH	Cond (us)
<u>12:35</u>	<u>20.3</u>	<u>7.29</u>	<u>936</u>
<u>12:40</u>	<u>19.2</u>	<u>7.40</u>	<u>933</u>
<u>12:45</u>	<u>18.9</u>	<u>7.55</u>	<u>943</u>

Comments: Oakton DO meter pre purge DO = 0.26 mg/l
 post purge DO = mg/l
very turbid, silty

Sample ID: <u>MW-8A</u>	Sample Time: <u>12:50</u>
Laboratory: <u>McC Campbell Analytical, INC.</u>	Sample Date: <u>8/17/06</u>
Containers/Preservative: <u>Voa/HCl</u>	
Analyzed for: <u>8015, 8021, 8260</u>	
Sampler Name: <u>Sanjiv Gill</u>	Signature: 

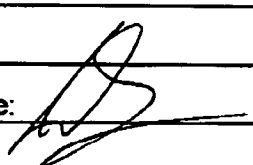
MONITORING FIELD DATA SHEET

Well ID: *MW-9A*

Project.Task #: 1001.001 208		Project Name: Dublin Car Wash						
Address: 7420 Dublin Boulevard, Dublin, CA								
Date: 8/17/06		Weather: <i>Sunny</i>						
Well Diameter: <i>2"</i>		Volume/ft. <i>1" = 0.04</i> <i>3" = 0.37</i> <i>6" = 1.47</i> <i>2" = 0.16</i> <i>4" = 0.65</i> <i>radius = 0.163</i>						
Total Depth (TD): <i>19.66</i>		Depth to Product:						
Depth to Water (DTW): <i>9.40</i>		Product Thickness:						
Water Column Height: <i>10.26</i>		1 Casing Volume: <i>1.64</i> gallons						
Reference Point: TOC		3 Casing Volumes: <i>4.92</i> gallons						
Purging Device: <u>Disposable Bailer</u> , 3" PVC Bailer, Whal Pump								
Sampling Device: Disposable Bailer								
Time	Temp @	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<i>12:00</i>	<i>21.6</i>	<i>7.21</i>	<i>860</i>				<i>1.5</i>	
<i>12:05</i>	<i>20.9</i>	<i>7.25</i>	<i>747</i>				<i>3</i>	
<i>12:10</i>	<i>20.9</i>	<i>7.29</i>	<i>694</i>				<i>5</i>	

Comments: Oakton DO meter pre purge DO = *0.53* mg/l
post purge DO = mg/l

very turbid, silty

Sample ID: <i>MW-9A</i>	Sample Time: <i>12:15</i>
Laboratory: McCampbell Analytical, INC.	Sample Date: <i>8/17/06</i>
Containers/Preservative: <i>Voa/HCl</i>	
Analyzed for: 8015, 8021, 8260	
Sampler Name: Sanjiv Gill	Signature: 



MONITORING FIELD DATA SHEET

Well ID: MW-9C

Project Task #: 1001.001 208		Project Name: Dublin Car Wash	
Address: 7420 Dublin Boulevard, Dublin, CA			
Date: 8/17/06		Weather: <u>Sunny</u>	
Well Diameter: <u>2"</u>		Volume/ft. <u>1" = 0.04</u> <u>3" = 0.37</u> <u>6" = 1.47</u> <u>2" = 0.16</u> <u>4" = 0.65</u> <u>radius² = 0.163</u>	
Total Depth (TD): <u>44.16</u>		Depth to Product:	
Depth to Water (DTW): <u>9.20</u>		Product Thickness:	
Water Column Height: <u>34.96</u>		1 Casing Volume: <u>5.59</u> gallons	
Reference Point: TOC		3 Casing Volumes: <u>16.78</u> gallons	
Purging Device: <u>Disposable Bailer</u> , 3" PVC Bailer, Whal Pump			

Sampling Device: Disposable Bailer

Time	Temp (°C)	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<u>11:15</u>	<u>20.8</u>	<u>6.49</u>	<u>831</u>				<u>5.5</u>	
<u>11:25</u>	<u>20.1</u>	<u>7.24</u>	<u>1789</u>				<u>11</u>	
<u>11:35</u>	<u>20.1</u>	<u>7.20</u>	<u>1793</u>				<u>17</u>	

Comments: Oakton DO meter pre purge DO = 0.21 mg/l
 post purge DO = mg/l

very turbid, silty

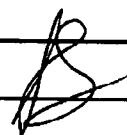
Sample ID: <u>MW-9C</u>	Sample Time: <u>11:40</u>
Laboratory: <u>McCampbell Analytical, INC.</u>	Sample Date: <u>8/17/06</u>
Containers/Preservative: <u>Voa/HCl</u>	
Analyzed for: <u>8015, 8021, 8260</u>	
Sampler Name: <u>Sanjiv Gill</u>	Signature: <u>[Signature]</u>

MONITORING FIELD DATA SHEET

Well ID: MW-10A

Project Task #: 1001.001 208		Project Name: Dublin Car Wash						
Address: 7420 Dublin Boulevard, Dublin, CA								
Date: 8/17/06		Weather: Sunny						
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): 19.51	Depth to Product:							
Depth to Water (DTW): 8.80	Product Thickness:							
Water Column Height: 10.71	1 Casing Volume: 1.71	gallons						
Reference Point: TOC	3 Casing Volumes: 5.14	gallons						
Purging Device: Disposable Bailer, 3" PVC Bailer, Whal Pump								
Sampling Device: Disposable Bailer								
Time	Temp @	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
2:00	20.6	7.40	979				1.5	
2:03	20.9	7.48	933				3	
2:05	20.7	7.46	920				5	

Comments: Oakton DO meter pre purge DO = 0.47mg/l
 post purge DO = mg/l
 Very turbid

Sample ID: MW-10A	Sample Time: 2:10
Laboratory: McCampbell Analytical, INC.	Sample Date: 8/17/06
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021, 8260	
Sampler Name: Sanjiv Gill	Signature: 

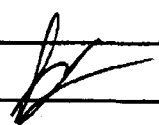
MONITORING FIELD DATA SHEET

Well ID: MW-10C

Project Task #: 1001.001 208		Project Name: Dublin Car Wash							
Address: 7420 Dublin Boulevard, Dublin, CA									
Date: 8/17/06		Weather: <u>Sunny</u>							
Well Diameter: <u>2"</u>		Volume/ft. <table border="1"> <tr> <td>1" = 0.04</td> <td>3" = 0.37</td> <td>6" = 1.47</td> </tr> <tr> <td>2" = 0.16</td> <td>4" = 0.65</td> <td>radius² * 0.163</td> </tr> </table>		1" = 0.04	3" = 0.37	6" = 1.47	2" = 0.16	4" = 0.65	radius ² * 0.163
1" = 0.04	3" = 0.37	6" = 1.47							
2" = 0.16	4" = 0.65	radius ² * 0.163							
Total Depth (TD): <u>44.60</u>		Depth to Product:							
Depth to Water (DTW): <u>7.29</u>		Product Thickness:							
Water Column Height: <u>37.31</u>		1 Casing Volume: <u>5.96</u> gallons							
Reference Point: TOC		3 Casing Volumes: <u>17.90</u> gallons							
Purging Device: <u>Disposable Bailer</u> , 3" PVC Bailer, Whal Pump									
Sampling Device: <u>Disposable Bailer</u>									
Time	Temp @	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW	
<u>1:10</u>	<u>20.4</u>	<u>7.48</u>	<u>796</u>				<u>6</u>		
<u>1:20</u>	<u>19.3</u>	<u>7.50</u>	<u>788</u>				<u>12</u>		
<u>1:30</u>	<u>19.2</u>	<u>7.54</u>	<u>750</u>				<u>18</u>		

Comments: Oakton DO meter pre purge DO = 0.22 mg/l
 post purge DO = mg/l

very turbid, silty

Sample ID: <u>MW-10C</u>	Sample Time: <u>1:35</u>
Laboratory: McCampbell Analytical, INC.	Sample Date: <u>8/17/06</u>
Containers/Preservative: <u>Voa/HCl</u>	
Analyzed for: <u>8015, 8021, 8260</u>	
Sampler Name: <u>Sanjiv Gill</u>	Signature: 



MONITORING FIELD DATA SHEET

Well ID: *MW-11C*

Project Task #: 1001.001 208 Project Name: Dublin Car Wash

Address: 7420 Dublin Boulevard, Dublin, CA

Date: 8/17/06

Weather: *Sunny*

Well Diameter: *2''*

Volume/ft.	1" = 0.04	3" = 0.37	6" = 1.47
	2" = 0.16	4" = 0.65	radius ² = 0.163

Total Depth (TD): *42.95*

Depth to Product:

Depth to Water (DTW): *960*

Product Thickness:

Water Column Height: *33.35*

1 Casing Volume: *5.33* gallons

Reference Point: TOC

3 Casing Volumes: *15.99* gallons

Purging Device: Disposable Bailer, 3" PVC Bailer, What Pump

Sampling Device: Disposable Bailer

Time	Temp (°C)	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<i>8:40</i>	<i>18.9</i>	<i>7.58</i>	<i>895</i>				<i>5.5</i>	
<i>8:50</i>	<i>19.3</i>	<i>7.61</i>	<i>917</i>				<i>11</i>	
<i>9:00</i>	<i>19.6</i>	<i>7.67</i>	<i>925</i>				<i>16</i>	

Comments: Oakton DO meter pre purge DO = *0.27* mg/l
 post purge DO = mg/l
opaque

Sample ID: <i>MW-11C</i>	Sample Time: <i>9:05</i>
Laboratory: McCampbell Analytical, INC.	Sample Date: <i>8/19/06</i>
Containers/Preservative: <i>Voa/HCl</i>	
Analyzed for: <i>8015, 8021, 8260</i>	
Sampler Name: <i>Sanjiv Gill</i>	Signature: <i>[Signature]</i>



MONITORING FIELD DATA SHEET

Well ID: VW-1

Project.Task #: 1001.001 208				Project Name: Dublin Car Wash				
Address: 7420 Dublin Boulevard, Dublin, CA								
Date: 8/17/06				Weather: <u>Sunny</u>				
Well Diameter: <u>2''</u>				Volume/ft.		radius ² * 0.163		
				1" = 0.04	3" = 0.37	6" = 1.47		
				2" = 0.16	4" = 0.65			
Total Depth (TD): <u>8.40</u>				Depth to Product:				
Depth to Water (DTW): <u>7.65</u>				Product Thickness:				
Water Column Height: <u>0.75</u>				1 Casing Volume: <u>0.12</u>		gallons		
Reference Point: TOC				3 Casing Volumes: <u>0.36</u>		gallons		
Purging Device: <u>Disposable Bailer</u> , 3" PVC Bailer, Whal Pump								
Sampling Device: Disposable Bailer								
Time	Temp @	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<u>8-17-06</u> 2:50								
	<u>Decontaminated after removing 1/2 filled bailer</u>							
<u>8-20-06</u> 8:50	<u>no recharge</u>							

Comments: Oakton DO meter pre purge DO = 0.07 mg/l
post purge DO = mg/l

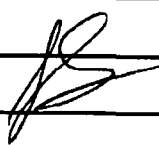
Sample ID:	Sample Time:
Laboratory: McCampbell Analytical, INC.	Sample Date: 8/ /06
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021, 8260	
Sampler Name: Sanjiv Gill	Signature:

MONITORING FIELD DATA SHEET

Well ID: VW-2

Project.Task #: 1001.001 208				Project Name: Dublin Car Wash					
Address: 7420 Dublin Boulevard, Dublin, CA									
Date: 8/17/06				Weather: <u>Sunny</u>					
Well Diameter: <u>2"</u>				Volume/ft.		radius ² * 0.163			
				1" = 0.04		3" = 0.37			
				2" = 0.16		4" = 0.65			
Total Depth (TD): <u>8.30</u>				Depth to Product:					
Depth to Water (DTW): <u>7.23</u>				Product Thickness:					
Water Column Height: <u>1.07</u>				1 Casing Volume: <u>0.17</u>		gallons			
Reference Point: TOC				3 Casing Volumes: <u>0.51</u>		gallons			
Purging Device: <u>Disposable Bailer</u> , 3" PVC Bailer, Whal Pump									
Sampling Device: <u>Disposable Bailer</u>									
Time	Temp @	pH	Cond (us)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW	
8-17-06 3:15			deuterated after 1/2 bailer was purged						
8-20-06 9:00			no recharge						

Comments: Oakton DO meter pre purge DO = 0.14 mg/l
 post purge DO = mg/l

Sample ID:	Sample Time:
Laboratory: McCampbell Analytical, INC.	Sample Date: 8/ /06
Containers/Preservative: Voal/HClI	
Analyzed for: 8015, 8021, 8260	
Sampler Name: Sanjiv Gill	Signature: 



MONITORING FIELD DATA SHEET

Well ID: *VU-3*

Project Task #: 1001.001 208 **Project Name:** Dublin Car Wash

Address: 7420 Dublin Boulevard, Dublin, CA

Date: 8/17/06 **Weather:** *Sunny*

Well Diameter: *2"* **Volume/ft.**

1" = 0.04	3" = 0.37	6" = 1.47
2" = 0.16	4" = 0.65	radius ² * 0.163

Total Depth (TD): *8.40* **Depth to Product:**

Depth to Water (DTW): *4.40* **Product Thickness:**

Water Column Height: *4.00* **1 Casing Volume:** *0.64* gallons

Reference Point: TOC **3 Casing Volumes:** *1.92* gallons

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

Sampling Device: Disposable Bailer

8-17-06

Time	Temp (°C)	pH	Cond (µs)	NTU	DO(mg/L)	ORP (mV)	Vol(gal)	DTW
<i>3:30</i>	<i>17.9</i>	<i>7.40</i>	<i>810</i>				<i>.5</i>	
<i>3:25</i>		<i>Deaerated</i>					<i>.7</i>	
<i>9:07</i>	<i>DTW =</i>	<i>7.49</i>						<i>7.49</i>

8-20-06

Comments: Oakton DO meter **pre purge DO =** *0.10* mg/l
post purge DO = mg/l
turbid

Sample ID: <i>VU-3</i>	Sample Time: <i>9:10</i>
Laboratory: McCampbell Analytical, INC.	Sample Date: <i>8/20/06</i>
Containers/Preservative: Voa/HCl	
Analyzed for: 8015, 8021, 8260	
Sampler Name: Sanjiv Gill	Signature:

APPENDIX B

Laboratory Analytical Report

**McC Campbell Analytical, Inc.**

"When Quality Counts"

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

Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #1001.001; Dublin Car Wash	Date Sampled: 08/17/06
		Date Received: 08/21/06
	Client Contact: Bob Clark-Riddell	Date Reported: 08/28/06
	Client P.O.:	Date Completed: 08/28/06

WorkOrder: 0608440

August 28, 2006

Dear Bob:

Enclosed are:

- 1). the results of 17 analyzed samples from your **#1001.001; Dublin Car Wash project**,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

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

If you have any questions please contact me. McC Campbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Best regards,

Angela Rydelius, Lab Manager



McC Campbell Analytical, Inc.

"When Quality Counts"

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Web: www.mcccampbell.com E-mail: main@mcccampbell.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 Wash	Date Sampled: 08/17/06-08/20/06
		Date Received: 08/21/06
	Client Contact: Bob Clark-Riddell	Date Extracted 08/24/06-08/28/06
	Client P.O.:	Date Analyzed: 08/24/06-08/28/06

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Cm

Work Order: 0608440

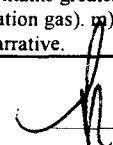
Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-1	W	ND<250	7700	ND<2.5	ND<2.5	ND<2.5	ND<2.5	5	103
002A	MW-2	W	ND	230	ND	ND	ND	ND	1	109
003A	MW-3A	W	6200,a,i	28,000	410	68	100	650	20	115
004A	MW-6A	W	860,a	5300	55	3.1	31	41	5	102
005A	MW-6B	W	ND	8.5	ND	ND	ND	ND	1	101
006A	MW-6C	W	ND	ND	ND	ND	ND	ND	1	94
007A	MW-7AA	W	25,000,a	36,000	2200	210	780	1400	100	106
008A	MW-7A	W	60,a	930	1.1	ND	ND	1.1	1	92
009A	MW-7B	W	ND	ND	ND	ND	ND	ND	1	93
010A	MW-7C	W	ND	ND	ND	ND	ND	ND	1	92
011A	MW-8A	W	ND	19	ND	ND	ND	ND	1	103
012A	MW-9A	W	150,b	79	ND	1.3	ND	ND	1	107
013A	MW-9C	W	ND,i	ND	ND	ND	ND	ND	1	111
014A	MW-10A	W	ND	ND	ND	ND	ND	ND	1	105
015A	MW-10C	W	ND,i	ND	ND	ND	ND	ND	1	107
016A	MW-11C	W	ND	ND	ND	ND	ND	ND	1	93

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	0.5	1	µg/L
	S	NA	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request; p) see attached narrative.

 Angela Rydelius, Lab Manager



McC Campbell Analytical, Inc.

"When Quality Counts"

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

Pangea Environmental Svcs., Inc. 1710 Franklin Street, Ste. 200 Oakland, CA 94612	Client Project ID: #1001.001; Dublin Car Wash	Date Sampled: 08/17/06-08/20/06
		Date Received: 08/21/06
	Client Contact: Bob Clark-Riddell	Date Extracted 08/24/06-08/28/06
	Client P.O.:	Date Analyzed: 08/24/06-08/28/06

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Cm

Work Order: 0608440

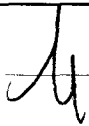
Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
017A	VW-3	W	4200,a	ND<25	120	1.7	39	30	2	111

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	0.5	1	µg/L
	S	NA	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request; p) see attached narrative.

 Angela Rydelius, Lab Manager



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Web: www.mcccampbell.com E-mail: main@mcccampbell.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 Wash	Date Sampled: 08/17/06-08/20/06
		Date Received: 08/21/06
	Client Contact: Bob Clark-Riddell	Date Extracted 08/29/06-08/31/06
	Client P.O.:	Date Analyzed 08/29/06-08/31/06

Methyl tert-Butyl Ether*

Extraction method: SW5030B

Analytical methods: SW8260B

Work Order: 0608440

Lab ID	Client ID	Matrix	Methyl-t-butyl ether (MTBE)	DF	% SS
001A	MW-1	W	9100	330	95
002A	MW-2	W	230	10	101
003A	MW-3A	W	34,000,i	1000	96
004A	MW-6A	W	6200	200	95
005A	MW-6B	W	9.6	1	104
007A	MW-7AA	W	42,000	2000	93
008A	MW-7A	W	1400	33	99
011A	MW-8A	W	26	1	105
012A	MW-9A	W	100	3.3	104

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	0.5	µg/L
	S	NA	NA

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

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

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

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content/matrix interference; k) reporting limit near, but not identical to our standard reporting limit due to variable Encore sample weight; m) reporting limit raised due to insufficient sample amount; n) results are reported on a dry weight basis; p) see attached narrative.



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0608440

Table with columns: EPA Method: SW8021B/8015Cm, Extraction: SW5030B, BatchID: 23279, Spiked Sample ID: 0608418-005A. Rows include analytes like TPH(btex), MTBE, Benzene, Toluene, Ethylbenzene, Xylenes, and %SS with various metrics like Sample, Spiked, MS, MSD, MS-MSD, LCS, LCSD, LCS-LCSD, and Acceptance Criteria.

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

BATCH 23279 SUMMARY

Summary table with columns: Sample ID, Date Sampled, Date Extracted, Date Analyzed. It lists 12 sample IDs and their corresponding dates and times for sampling, extraction, and analysis.

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 applicable or not enough sample to perform matrix spike and matrix spike duplicate.

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



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0608440

EPA Method: SW8021B/8015Cm		Extraction: SW5030B			BatchID: 23300			Spiked Sample ID: 0608439-004A		
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	LCS / LCSD
TPH(bt _{ex}) [£]	ND	60	100	102	1.44	102	104	1.98	70 - 130	70 - 130
MTBE	ND	10	112	109	3.22	110	104	6.09	70 - 130	70 - 130
Benzene	ND	10	103	99.9	3.44	96.4	94.5	2.02	70 - 130	70 - 130
Toluene	ND	10	97	96.5	0.520	97.4	91.1	6.62	70 - 130	70 - 130
Ethylbenzene	ND	10	103	100	2.36	98	97.9	0.100	70 - 130	70 - 130
Xylenes	ND	30	95	91.3	3.94	90.7	90.3	0.368	70 - 130	70 - 130
%SS:	99	10	104	102	2.05	100	100	0	70 - 130	70 - 130

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

NONE

BATCH 23300 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0608440-013A	8/17/06 11:40 AM	8/24/06	8/24/06 7:52 AM	0608440-014A	8/17/06 2:10 PM	8/24/06	8/24/06 8:51 AM
0608440-015A	8/17/06 1:35 PM	8/24/06	8/24/06 8:22 AM	0608440-016A	8/19/06 9:05 AM	8/24/06	8/24/06 9:19 PM
0608440-017A	8/20/06 9:10 AM	8/28/06	8/28/06 1:52 PM				

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).

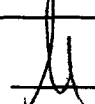
MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the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

£ TPH(bt_{ex}) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

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

 QA/QC Officer



McC Campbell Analytical, Inc.

"When Quality Counts"

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Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0608440

EPA Method: SW8260B		Extraction: SW5030B			BatchID: 23430			Spiked Sample ID: 0608601-004C		
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	LCS / LCSD
Methyl-t-butyl ether (MTBE)	ND	10	118	117	0.677	113	116	2.80	70 - 130	70 - 130
%SS1:	110	10	106	104	1.78	102	101	1.03	70 - 130	70 - 130

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

BATCH 23430 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0608440-001A	8/19/06 9:40 AM	8/29/06	8/29/06 11:07 PM	0608440-002A	8/20/06 8:00 AM	8/29/06	8/29/06 11:53 PM
0608440-003A	8/20/06 8:40 AM	8/30/06	8/30/06 12:38 AM	0608440-004A	8/20/06 7:10 AM	8/30/06	8/30/06 1:24 AM
0608440-005A	8/20/06 6:25 AM	8/30/06	8/30/06 9:52 PM	0608440-007A	8/19/06 8:10 AM	8/30/06	8/30/06 2:09 AM
0608440-008A	8/19/06 7:25 AM	8/30/06	8/30/06 10:37 PM	0608440-011A	8/17/06 12:50 PM	8/30/06	8/30/06 11:21 PM
0608440-012A	8/17/06 12:15 PM	8/31/06	8/31/06 12:05 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.

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

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

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

McC Campbell Analytical, Inc.

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0608440

ClientID: PEO

EDF: YES

Report to:

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

Email: bcr@pangeaenv.com
TEL: (510) 836-3700 FAX: (510) 836-3709
ProjectNo: #1001.001; Dublin Car Wash
PO:

Bill to:

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

Requested TAT:

5 days

Date Received: 08/21/2006

Date Printed: 08/29/2006

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0608440-001	MW-1	Water	8/19/06 9:40:00 AM	<input type="checkbox"/>	A	A	A										
0608440-002	MW-2	Water	8/20/06 8:00:00 AM	<input type="checkbox"/>	A	A											
0608440-003	MW-3A	Water	8/20/06 8:40:00 AM	<input type="checkbox"/>	A	A											
0608440-004	MW-6A	Water	8/20/06 7:10:00 AM	<input type="checkbox"/>	A	A											
0608440-005	MW-6B	Water	8/20/06 6:25:00 AM	<input type="checkbox"/>	A	A											
0608440-006	MW-6C	Water	8/20/06 5:30:00 AM	<input type="checkbox"/>	A												
0608440-007	MW-7AA	Water	8/19/06 8:10:00 AM	<input type="checkbox"/>	A	A											
0608440-008	MW-7A	Water	8/19/06 7:25:00 AM	<input type="checkbox"/>	A	A											
0608440-009	MW-7B	Water	8/19/06 6:40:00 AM	<input type="checkbox"/>	A												
0608440-010	MW-7C	Water	8/19/06 5:30:00 AM	<input type="checkbox"/>	A												
0608440-011	MW-8A	Water	8/17/06 12:50:00	<input type="checkbox"/>	A	A											
0608440-012	MW-9A	Water	8/17/06 12:15:00	<input type="checkbox"/>	A	A											
0608440-013	MW-9C	Water	8/17/06 11:40:00	<input type="checkbox"/>	A												
0608440-014	MW-10A	Water	8/17/06 2:10:00 PM	<input type="checkbox"/>	A												
0608440-015	MW-10C	Water	8/17/06 1:35:00 PM	<input type="checkbox"/>	A												

Test Legend:

1	G-MBTX_W	2	MTBE_W	3	PREFD REPORT	4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

Comments: Mtbe confirmation added 8/28/06 per note on coc

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

McCampbell Analytical, Inc.

CHAIN-OF-CUSTODY RECORD

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

WorkOrder: 0608440

ClientID: PEO

EDF: YES

Report to:

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

Email: bcr@pangeaenv.com
TEL: (510) 836-3700 FAX: (510) 836-3709
ProjectNo: #1001.001; Dublin Car Wash
PO:

Bill to:

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

Requested TAT:

5 days

Date Received: 08/21/2006

Date Printed: 08/29/2006

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)														
					1	2	3	4	5	6	7	8	9	10	11	12			
0608440-016	MW-11C	Water	8/19/06 9:05:00 AM	<input type="checkbox"/>	A														
0608440-017	VW-3	Water	8/20/06 9:10:00 AM	<input type="checkbox"/>	A														

Test Legend:

1	G-MBTX_W	2	MTBE_W	3	PREF REPORT	4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

Comments: Mtbe confirmation added 8/28/06 per note on coc

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

McCAMPBELL ANALYTICAL, INC.

110 2ND AVENUE SOUTH, #D7
PACHECO, CA 94553-5560

Website: www.mccampbell.com Email: mniu@mccampbell.com
Telephone: (925) 798-1620 Fax: (925) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HR 48 HR 72 HR 5 DAY

EDF Required? Yes No

Report To: Bob Clark-Riddel Bill To: Pangea Environmental
Company: Pangea Environmental Services Inc.
1710 Franklin Street Suite 200
Oakland, CA 94612 E-Mail: bcr@pangenenv.com

Tele: 510-836-3702 Fax: 510-836-3709
Project #: 1001.001 Project Name: Dublin Car Wash
Project Location: 7420 Dublin Blvd, Dublin, CA
Sampler Signature: Muskan Environmental Sampling

Analysis Request

Other

Comments

MIBE / BTEX & TPH as Gas (802 / 8021 + 8015)
MIBS / BTEX ONLY (EPA 802 / 8021)
TPH as Diesel (8015)
Total Petroleum Oil & Grease (1604 / 5520 E/B&F)
Total Petroleum Hydrocarbons (418.1)
EPA 502.2 / 601 / 8010 / 8021 (HVOCs)
EPA 505 / 608 / 8081 (CI Pesticides)
EPA 808 / 8082 PCB's ONLY; Aroclors / Congeners
EPA 507 / 8101 (NP Pesticides)
EPA 515 / 8151 (Acidic CI Herbicides)
EPA 534.2 / 624 / 8268 (VOCs)
Fuel Additives (MIBE, ETBE, TAME, DIPE, TBA, 1,2-DCA, 1,2-EDB, Ethesyl) by 8260B
MIBS is detected by 8021 confirm by 8260B
MIBS confirm 8-28-06
MIBS confirm 8-28-06

Filter Samples for Metals analysis: Yes / No

SAMPLE ID (Field Point Name)	LOCATION	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED			
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO ₃	Other

+ MW-1		8-19-06	9:40	3	VOC	X						X	X	X			
+ MW-2		8-20-06	8:00														
+ MW-3A			8:40														
+ MW-6A			7:10														
+ MW-6B			6:25														
+ MW-6C		*	5:30														
+ MW-7AA		8-19-06	8:10														
+ MW-7A			7:25														
+ MW-7B			6:40														
+ MW-7C		*	5:30														
+ MW-8A		8-17-06	12:50														
+ MW-9A		8-17-06	12:15														
+ MW-9C		8-17-06	11:40														
+ MW-10A		8-17-06	2:10														
+ MW-10C		8-17-06	1:35	*						X	X	X	X	X			

Relinquished By: *[Signature]* Date: 8/21/06 Time: 1:20
Relinquished By: *[Signature]* Date: 8/21/06 Time: 5:00

Received By: *[Signature]*
Received By: *[Signature]*

ICE/°
GOOD CONDITION
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS
PRESERVED IN LAB
PRESERVATION VOAS O&G METALS OTHER