

ALAMEDA COUNTY  
HEALTH CARE SERVICES  
AGENCY  
ALEX BRISCOE, Director



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

June 3, 2014

Charles Carmel  
Atlantic Richfield Company  
P.O. Box 1257  
San Ramon CA 94583  
(Sent via E-mail to: [charles.carmel@bp.com](mailto:charles.carmel@bp.com))

Janet Wager  
BP Remediation Management  
201 Helios Way, 6<sup>th</sup> Floor  
Houston, TX 77079  
(Sent via E-mail to: [janet.wager@bp.com](mailto:janet.wager@bp.com))

Hollis Phillips  
ARCADIS-US, Inc.  
100 Montgomery Street, Suite 300  
San Francisco, CA 94104  
(Sent via E-mail to: [Hollis.phillips@arcadis-us.com](mailto:Hollis.phillips@arcadis-us.com))

Aamir, Inc.  
c/o Mohd Karim Sayani  
5206 Pacheco Blvd.  
Martinez, CA 94553-5104  
(Sent via E-mail to: [KSayani1@gmail.com](mailto:KSayani1@gmail.com))

Narra, Inc.  
Address Unknown

Subject: Case Closure for Fuel Leak Case No. RO0000452 and GeoTracker Global ID T0600100109, ARCO #6041, 7249 Village Parkway, Dublin, CA 94568

Dear Responsible Parties:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25296.10[g]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Environmental Health (ACEH) is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed. This case closure letter and the case closure summary can also be viewed on the State Water Resources Control Board's Geotracker website (<http://geotracker.swrcb.ca.gov>) and the Alameda County Environmental Health website (<http://www.acgov.org/aceh/index.htm>).

Due to residual contamination, the site was closed with Site Management Requirements that limit future land use to the current commercial land use. Site Management Requirements are further described in section IV of the attached Case Closure Summary.

If you have any questions, please call Jerry Wickham at (510) 567-6791. Thank you.

Sincerely,

Dilan Roe, P.E.  
LOP and SCP Program Manager

Enclosures: 1. Remedial Action Completion Certification  
2. Case Closure Summary

Responsible Parties  
RO0000452  
June 3, 2014  
Page 2

Cc w/enc.:

Colleen Winey (QIC 8021), Zone 7 Water Agency, 100 North Canyons Pkwy, Livermore, CA 94551  
(Sent via E-mail to: [cwiney@zone7water.com](mailto:cwiney@zone7water.com))

Ben McKenna, ARCADIS-US, Inc., 2033 North Main Street, Suite 340, Walnut Creek, CA 94596  
(Sent via E-mail to: [Ben.Mckenna@arcadis-us.com](mailto:Ben.Mckenna@arcadis-us.com))

Aamir, Inc., c/o Mohd Karim Sayani, 7249 Village Parkway, Dublin, CA 94568

Jeff Baker, Planning Division, City of Dublin, 100 Civic Plaza, Dublin, CA 94568

Jerry Wickham, ACEH (Sent via E-mail to: [jerry.wickham@acgov.org](mailto:jerry.wickham@acgov.org))

GeoTracker, eFile



ALAMEDA COUNTY  
**HEALTH CARE SERVICES**  
AGENCY  
ALEX BRISCOE, Agency Director

DEPARTMENT OF ENVIRONMENTAL HEALTH  
OFFICE OF THE DIRECTOR  
1131 HARBOR BAY PARKWAY  
ALAMEDA, CA 94502  
(510) 567-6777  
FAX (510) 337-9135

**REMEDIAL ACTION COMPLETION CERTIFICATION**

June 3, 2014

Charles Carmel  
Atlantic Richfield Company  
P.O. Box 1257  
San Ramon CA 94583  
(Sent via E-mail to: [charles.carmel@bp.com](mailto:charles.carmel@bp.com))

Janet Wager  
BP Remediation Management  
201 Helios Way, 6<sup>th</sup> Floor  
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Martinez, CA 94553-5104  
(Sent via E-mail to: [KSayani1@gmail.com](mailto:KSayani1@gmail.com))

Narra, Inc.  
Address Unknown

Subject: Case Closure for Fuel Leak Case No. RO0000452 and GeoTracker Global ID T0600100109, ARCO #6041, 7249 Village Parkway, Dublin, CA 94568

Dear Responsible Parties:

This letter confirms the completion of a site investigation and remedial action for the underground storage tanks formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tank(s) are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank(s) site is in compliance with the requirements of subdivisions (a) and (b) of Section 25296.10 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.3 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

Please be aware that claims for reimbursement of corrective action costs submitted to the Underground Storage Tank Cleanup Fund more than 365 days after the date of this letter or issuance or activation of the Fund's Letter of Commitment, whichever occurs later, will not be reimbursed unless one of the following exceptions applies:

- Claims are submitted pursuant to Section 25299.57, subdivision (k) (reopened UST case); or
- Submission within the timeframe was beyond the claimant's reasonable control, ongoing work is required for closure that will result in the submission of claims beyond that time period, or that under the circumstances of the case, it would be unreasonable or inequitable to impose the 365-day time period.

This notice is issued pursuant to subdivision (g) of Section 25296.10 of the Health and Safety Code. Please contact our office if you have any questions regarding this matter.

Sincerely,

  
Ariu Levi  
Director

**CASE CLOSURE SUMMARY  
LEAKING UNDERGROUND FUEL STORAGE TANK - LOCAL OVERSIGHT PROGRAM**

**I. AGENCY INFORMATION**

Date: December 31, 2013

Agency Name: Alameda County Environmental Health	Address: 1131 Harbor Bay Parkway
City/State/Zip: Alameda, CA 94502-6577	Phone: (510) 567-6791
Responsible Staff Person: Jerry Wickham	Title: Senior Hazardous Materials Specialist

**II. CASE INFORMATION**

Site Facility Name: ARCO #6041		
Site Facility Address: 7249 Village Parkway, Dublin, California 94568		
RB Case No.: 01-0117	STiD No.: 1053	LOP Case No.: RO0000452
URF Filing Date: 02/23/1990	Geotracker ID: T0600100109	APN: 941-197-79-4
Current Land Use: Active Fueling Station		

Responsible Parties	Addresses	Phone Numbers
Charles Carmel	5590 B Havana Street Denver, CO 80239	No phone number
Aamir, Inc.	5206 Pacheco Blvd., Pacheco, CA 94553	No phone number
Narra, Inc., Attn: Jimmy and Yvonne Tiu	11098 Inspiration Circle Dublin, CA 94568-5530	No phone number

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
----	10,000	Gasoline	Removed	07/07/2001
---	10,000	Gasoline	Removed	07/07/2001
----	10,000	Gasoline	Removed	07/07/2001
----	550	Waste Oil	Removed	06/1990
Piping			Removed	07/07/2001



**III. RELEASE AND SITE CHARACTERIZATION INFORMATION**

Cause and Type of Release: Release from underground storage tank (UST) system.		
Site characterization complete? Yes		
Monitoring wells installed? Yes	Number: 8	Proper screened interval? ----
Highest GW Depth Below Ground Surface: 3.15 feet bgs	Lowest Depth: 11.80 feet bgs	Flow Direction: Regional groundwater flow direction is south southeast. See discussion of flow direction in Section V. Additional Comments and Conclusion.
Most Sensitive Current Groundwater Use: Drinking water source.		

Summary of Production Wells in Vicinity: No active water supply wells were identified within 2,000 feet of the site.	
Are drinking water wells affected? No	Aquifer Name: Dublin Subbasin of Livermore-Amador Basin
Is surface water affected? No	Nearest Surface Water Name: An open drainage canal that flows into Alamo Canal is approximately 740 feet west of the site.
Off-Site Beneficial Use Impacts (Addresses/Locations): None identified.	
Reports on file? Yes	Where are reports filed? Alameda County Environmental Health

TREATMENT AND DISPOSAL OF AFFECTED MATERIAL			
Material	Amount (Include Units)	Action (Treatment or Disposal w/Destination)	Date
Free Product	----	----	----
Soil	4,150 tons	Transported to Republic Landfill in Livermore, CA for disposal	August 2001
Groundwater	25,600 gallons	Transported to InStrat, Inc. in Rio Vista, CA for disposal	August 2001

**LTCP GROUNDWATER SPECIFIC CRITERIA**

LTCP Groundwater Specific Scenario under which case was closed: Scenario 1

Site Data		LTCP Scenario 1 Criteria (ppb)	LTCP Scenario 2 Criteria (ppb)	LTCP Scenario 3 Criteria (ppb)	LTCP Scenario 4 Criteria (ppb)
Plume Length	<100 feet*	<100 feet	<250 feet	<250 feet	<1,000 feet
Free Product	No free product	No free product	No free product	Removed to maximum extent practicable	No free product
Plume Stable or Decreasing	Stable*	Stable or decreasing	Stable or decreasing	Stable or decreasing for minimum of 5 Years	Stable or decreasing
Distance to Nearest Water Supply Well	>2,000 feet	>250 feet	>1,000 feet	>1,000 feet	>1,000 feet
Distance to Nearest Surface Water and Direction	740 feet crossgradient	>250 feet	>1,000 feet	>1,000 feet	>1,000 feet
Property Owner Willing to Accept a Land Use Restriction?	Not applicable	Not applicable	Not applicable	Yes	Not applicable

**GROUNDWATER CONCENTRATIONS**

Constituent	Historic Site Maximum (ppb)	Current Site Maximum (ppb)	LTCP Scenario 1 Criteria (ppb)	LTCP Scenario 2 Criteria (ppb)	LTCP Scenario 3 Criteria (ppb)	LTCP Scenario 4 Criteria (ppb)
Benzene	2,590	8.6	No criteria	3,000	No criteria	1,000
MTBE	85,500	5.1	No criteria	1,000	No criteria	1,000

Scenario 5: If the site does not meet scenarios 1 through 4, has a determination been made that under current and reasonably expected future scenarios, the contaminant plume poses a low threat to human health and safety and to the environment and water quality objectives will be achieved within a reasonable time frame?

----

\* Plume length and stability are based on review of both on-site results and data from three other service stations on opposite corners of the intersection of Village Parkway and Amador Valley Boulevard. See Section V. Additional Comments and Conclusion.

**LTCP VAPOR SPECIFIC CRITERIA**

LTCP Vapor Specific Scenario under which case was closed: Active fueling station exempt from vapor specific criteria

Active Fueling Station      Active as of 10/03/2013.

Site Data		LTCP Scenario 1 Criteria	LTCP Scenario 2 Criteria	LTCP Scenario 3A Criteria	LTCP Scenario 3B Criteria	LTCP Scenario 3C Criteria	LTCP Scenario 4 Criteria
Unweathered NAPL	No NAPL	LNAPL in groundwater	LNAPL in soil	No NAPL	No NAPL	No NAPL	No criteria
Thickness of Bioattenuation Zone Beneath Foundation	4 feet	≥30 feet	≥30 feet	≥5 feet	≥10 feet	≥5 feet	≥5 feet
Total TPH in Bioattenuation Zone	<100 ppm	<100 ppm	<100 ppm	<100 ppm	<100 ppm	<100 ppm	<100 ppm
Maximum Current Benzene Concentration in Groundwater	8.6 ppb	No criteria	No criteria	<100 ppb	≥100 and <1,000 ppb	<1,000 ppb	No criteria
Oxygen Data within Bioattenuation Zone	No oxygen data	No criteria	No criteria	No oxygen data or <4%	No oxygen data or <4%	≥4% at lower end of zone	≥4% at lower end of zone
Depth of soil vapor measurement beneath foundation	----	No criteria	No criteria	No criteria	No criteria	No criteria	≥5 feet

**SCENARIO 4 DIRECT MEASUREMENT OF SOIL VAPOR CONCENTRATIONS**

Site Soil Vapor Data			No Bioattenuation Zone		Bioattenuation Zone	
Constituent	Historic Maximum (µg/m <sup>3</sup> )	Current Maximum (µg/m <sup>3</sup> )	Residential	Commercial	Residential	Commercial
Benzene	----	----	<85	<280	<85,000	<280,000
Ethylbenzene	----	----	<1,100	<3,600	<1,100,000	<3,600,000
Naphthalene	----	----	<93	<310	<93,000	<310,000

If the site does not meet scenarios 1 through 4, does a site-specific risk assessment for the vapor intrusion pathway demonstrate that human health is protected?

----

If the site does not meet scenarios 1 through 4, has a determination been made that petroleum vapors from soil or groundwater will have no significant risk of adversely affecting human health as a result of controlling exposure through the use of mitigation measures or through the use of institutional controls?

----



**LTCP DIRECT CONTACT AND OUTDOOR AIR EXPOSURE CRITERIA**

LTCP Direct Contact and Outdoor Air Exposure Specific Scenario under which case was closed: A determination been made that the concentrations of petroleum in soil will have no significant risk of adversely affecting human health as a result of controlling exposure through the use of mitigation measures or through the use of institutional controls

Are maximum concentrations less than those in Table 1 below?

No

Constituent		Residential		Commercial/Industrial		Utility Worker
		0 to 5 feet bgs (ppm)	Volatilization to outdoor air (5 to 10 feet bgs) ppm	0 to 5 feet bgs (ppm)	Volatilization to outdoor air (5 to 10 feet bgs) ppm	0 to 10 feet bgs (ppm)
Site Maximum	Benzene	3.2	64	3.2	64	64
LTCP Criteria	Benzene	≤1.9	≤2.8	≤8.2	≤12	≤14
Site Maximum	Ethylbenzene	11	180	11	180	180
LTCP Criteria	Ethylbenzene	≤21	≤32	≤89	≤134	≤314
Site Maximum	Naphthalene	----	----	----	----	----
LTCP Criteria	Naphthalene	≤9.7	≤9.7	≤45	≤45	≤219
Site Maximum	PAHs	----	----	----	----	----
LTCP Criteria	PAHs	≤0.063	NA	≤0.68	NA	≤4.5

If maximum concentrations are greater than those in Table 1, are they less than levels from a site-specific risk assessment?

----

If maximum concentrations are greater than those in Table 1, has a determination been made that the concentrations of petroleum in soil will have no significant risk of adversely affecting human health as a result of controlling exposure through the use of mitigation measures or through the use of institutional controls?

Yes

#### IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes		
Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes		
Does corrective action protect public health for current land use? Alameda County Environmental Health staff does not make specific determinations concerning public health risk. However, based upon the information available in our files to date, closure of this site appears to be consistent with the policies established by the State Water Resources Control Board Low-Threat Underground Storage Tank Closure Policy which became effective on August 17, 2012.		
<p>Site Management Requirements:</p> <p>This fuel leak case has been evaluated for closure consistent with the State Water Resources Control Board Low-Threat Underground Storage Tank Closure Policy (LTCP). Benzene and ethylbenzene concentrations in shallow soil exceed the numerical criteria for direct contact and outdoor air exposure prescribed in the LTCP for residential and commercial land use. Under the current land use as an active fueling station, most of the site is paved with minor landscaped areas near the site boundaries resulting in a low potential for direct exposure under the current land use. Therefore, case closure is granted for the current commercial land use.</p> <p>If a change in land use to any residential or other conservative land use, or if any redevelopment occurs, Alameda County Environmental Health (ACEH) must be notified as required by Government Code Section 65850.2.2. ACEH will re-evaluate the case upon receipt of approved development/construction plans.</p> <p>Excavation or construction activities in areas of residual contamination require planning and implementation of appropriate health and safety procedures by the responsible party prior to and during excavation and construction activities.</p>		
Should corrective action be reviewed if land use changes? Yes		
Was a deed restriction or deed notification filed? No		Date Recorded: ----
Monitoring Wells Decommissioned: No	Number Decommissioned: 1	Number Retained: 7
List Enforcement Actions Taken: None		
List Enforcement Actions Rescinded: ----		

#### V. ADDITIONAL COMMENTS AND CONCLUSION

<p>Additional Comments:</p> <p>The direction of groundwater flow measured at the site has been variable over time. Several factors appear to have contributed to the high degree of variability in the data including the following</p> <ol style="list-style-type: none"> <li>1. The monitoring wells are screened over different depths and there appears to be a generally downward vertical gradient. In addition, several of the well screens are continuously or frequently submerged. As a result, the water levels measured in monitoring wells throughout the site may not accurately represent hydraulic heads within the same water-bearing interval.</li> <li>2. The top of casing elevations were re-surveyed in 2003. However, top of casing elevations and hydraulic gradients prior to 2003 do not appear to have been corrected for the new survey data.</li> </ol> <p>A review of regional groundwater flow directions and results from groundwater monitoring conducted for three other fuel leak cases located on opposite corners of the intersection of Village Parkway and Amador Valley Boulevard indicate that the predominant groundwater flow direction in the area is to the south southeast.</p>
---

During the most recent groundwater sampling event on July 30, 2010, TBA was detected at a concentration of 2,700 ppb in groundwater from well MWV-3. No off-site sampling has been conducted to delineate the TBA plume. However, a review of groundwater monitoring data from 1990 to 1998 for the former fuel leak case at 7149 Village Parkway on the south side of Amador Boulevard indicates that an MTBE plume did not appear to consistently extend from the 7249 Village Parkway site to the 7149 Village Parkway site. No data for TBA in groundwater are available from the 7149 Village Parkway site to the south. Based on the presumed length of the former MTBE plume, plume length for the TBA plume is estimated to be less than 100 feet. MTBE concentrations in groundwater on site have decreased over time and TBA concentrations are also expected to decrease over time.

**Conclusion:**

Alameda County Environmental Health staff believe that the site meets the conditions for case closure under the State Water Resources Control Board Low-Threat Underground Storage Tank Closure Policy. Based upon the information available in our files to date, no further investigation or cleanup for the fuel leak case is necessary at this time. However, as specified in the Site Management Requirements, re-evaluation of this case is required if land uses changes to any residential or other conservative land use, or any redevelopment occurs.

**VI. LOCAL AGENCY REPRESENTATIVE DATA**

Prepared by: Jerry Wickham, P.G.	Title: Senior Hazardous Materials Specialist
Signature: <i>Jerry Wickham</i>	Date: <i>1/2/2014</i>
Approved by: Dilan Roe	Title: LOP and SCP Program Manager
Signature: <i>Dilan Roe</i>	Date: <i>1/2/2014</i>

This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.

**VII. REGIONAL BOARD AND PUBLIC NOTIFICATION**

Regional Board Staff Name: Cherie McCaulou	Title: Engineering Geologist
Regional Board Notification Date: <i>01/07/14</i>	
Public Notification Date: <i>01/07/14</i>	



### VIII. MONITORING WELL DECOMMISSIONING

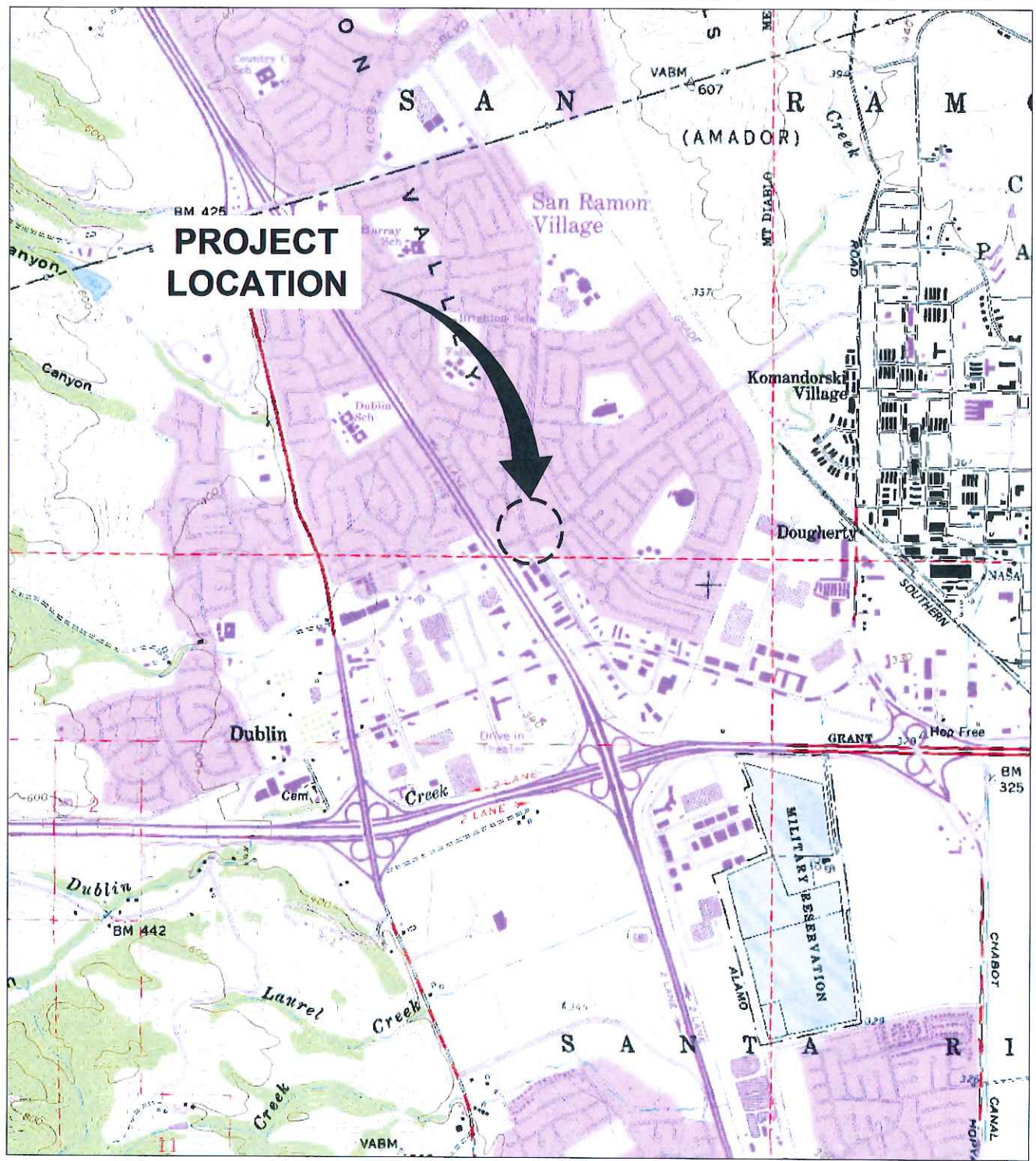
Date Requested by ACEH: 03/12/14	Date of Well Decommissioning Report: 05/05/14	
All Monitoring Wells Decommissioned: <input checked="" type="radio"/> Yes <input type="radio"/> No	Number Decommissioned: 10	Number Retained: 0
Reason Wells Retained: NA		
Additional requirements for submittal of groundwater data from retained wells: None		
ACEH Concurrence - Signature: <i>Jerry Wickham</i>		Date: 06/03/14

Attachments:

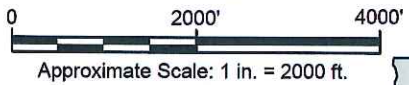
1. Site Vicinity Map (1 p)
2. Site Plans (2 pp)
3. Groundwater Contour and Chemical Concentration Maps and Historical Groundwater Flow Directions (6 pp)
4. Soil Analytical Data and Most Recent Maximum Concentrations in Soil and Groundwater (5 pp)
5. Groundwater Analytical Data (16 pp)
6. Cross Sections (2 pp)
7. Concentration Graphs (7 pp)

This document and the related CASE CLOSURE LETTER & REMEDIAL ACTION COMPLETION CERTIFICATE shall be retained by the lead agency as part of the official site file.

CITY: PETAUMA, CA DIV/GROUP: ENV. DE: J. HARRIS LD.: PIC: PM: H. PHILLIPS TM: L. NEARY LYR: (OPTION)-OFF-REF. C:\Documents and Settings\jpharris\Desktop\ENV\CA\0339.00000\Closure Report\DWG\GP058P\NAC039-N01.dwg LAYOUT: 1SAVED: 2/29/2011 1:40 PM ACADVER: 18.0S (LMS TECH) PAGESETUP: SETUP1.PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 2/29/2011 1:40 PM BY: HARRIS, JESSICA



REFERENCE: BASE MAP USGS 7.5. MIN. TOPO. QUAD., DUBLIN, CALIFORNIA, 1961, PHOTOREVISED 1980.



STATION #6041  
7249 VILLAGE PARKWAY  
DUBLIN, CALIFORNIA  
**BP 6041 CLOSURE REPORT**

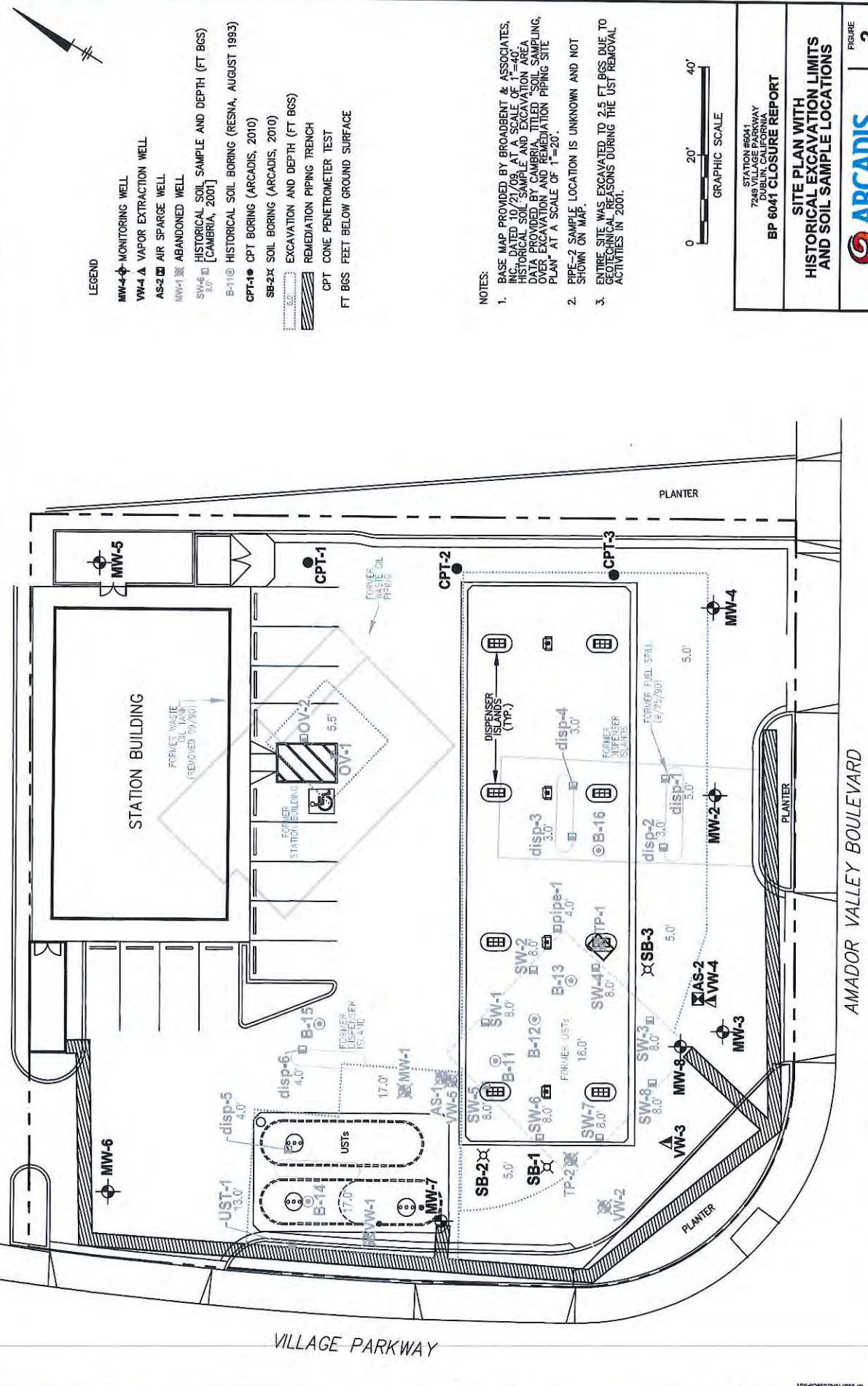
**SITE LOCATION MAP**



FIGURE  
**1**

**ATTACHMENT 1**





**LEGEND**

- MW-4  $\blacklozenge$  MONITORING WELL
- VM-4  $\blacktriangle$  VAPOR EXTRACTION WELL
- AS-2  $\square$  AIR SPARGE WELL
- MMW-1  $\square$  ABANDONED WELL
- SW-5  $\square$  HISTORICAL SOIL SAMPLE AND DEPTH (FT BGS) [CAMBRIA, 2001]
- B-11  $\textcircled{\text{B}}$  HISTORICAL SOIL BORING (RESNA, AUGUST 1993)
- CPT-1  $\bullet$  CPT BORING (ARCADIS, 2010)
- SB-2  $\times$  SOIL BORING (ARCADIS, 2010)
- EXCAVATION AND DEPTH (FT BGS)
- REMEDATION PIPING TRENCH
- CPT CONE PENETROMETER TEST
- FT BGS FEET BELOW GROUND SURFACE

**NOTES:**

1. BASE MAP PROVIDED BY BROADBENT & ASSOCIATES, INC. DATED 10/21/09. AT A SCALE OF 1"=40'. HISTORICAL SOIL SAMPLE AND EXCAVATION AREA DATA PROVIDED BY CAMBRIA, TITLED "SOIL SAMPLING OVER EXCAVATION AND REMEDIATION PIPING SITE PLAN" AT A SCALE OF 1"=20'.
2. PIPE-2 SAMPLE LOCATION IS UNKNOWN AND NOT SHOWN ON MAP.
3. ENTIRE SITE WAS EXCAVATED TO 2.5 FT BGS DUE TO ACTIVATIONS OF REASON 2.5 DURING THE UST REMOVAL ACTIVITIES IN 2001.



STATION #6041  
 7249 VILLAGE PARKWAY  
 DUBLIN, CALIFORNIA  
**BP 6041 CLOSURE REPORT**

**SITE PLAN WITH  
 HISTORICAL EXCAVATION LIMITS  
 AND SOIL SAMPLE LOCATIONS**

**ARCADIS** | FIGURE 2

**ATTACHMENT 2**



**Soil Sampling, Over Excavation and Remediation Piping Site Plan**

CAMBRIA



7249 Village Parkway  
Dublin, California

ARCO Service Station 6041

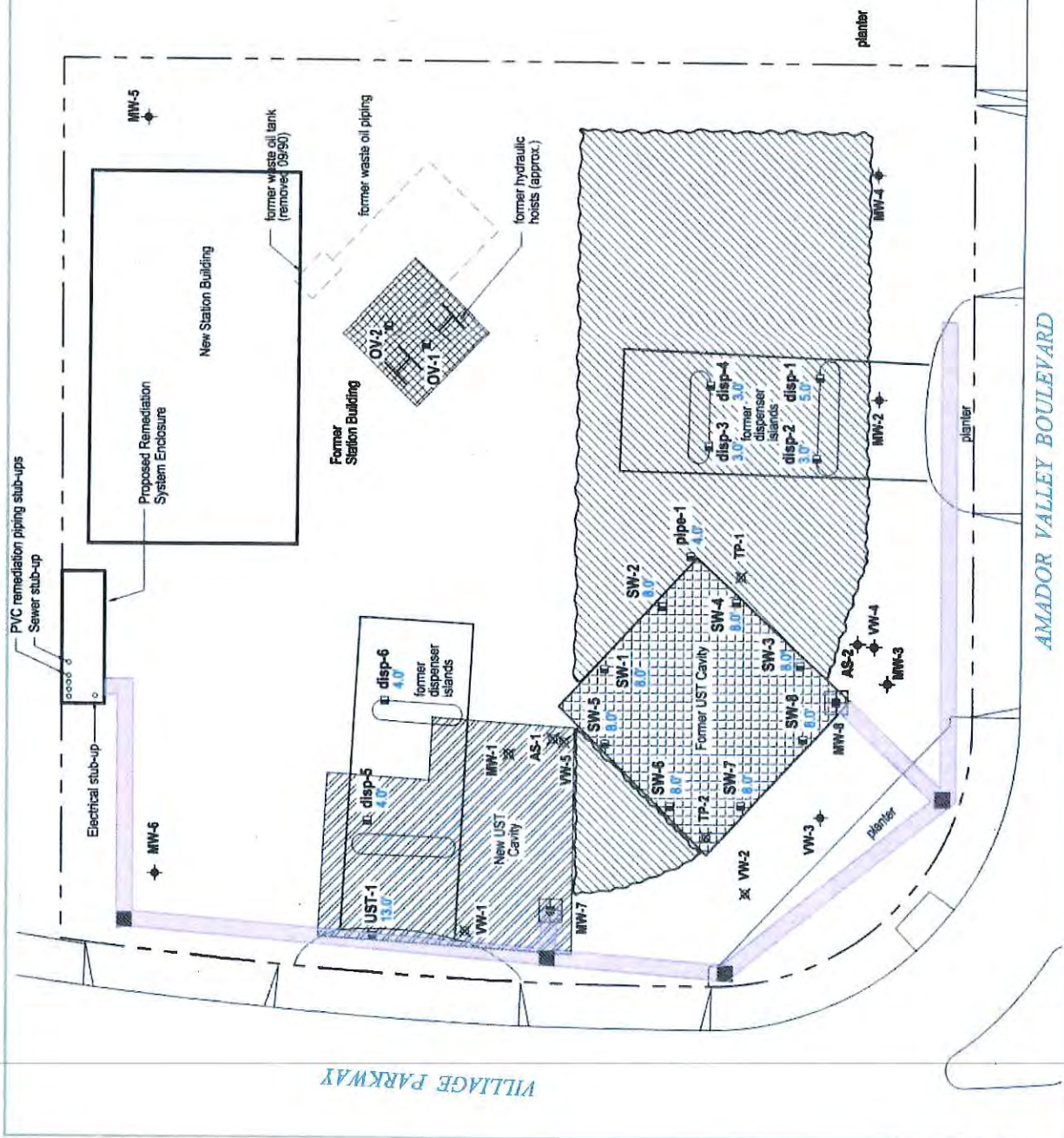
11/06/01

EXPLANATION	
MW-6	Monitoring well location
MW-1	Abandoned well location
UST-1	Soil sample location and depth
13.0'	
[Hatched Box]	New Dispenser Island Area Over excavated to 5.0 feet below grade (ftg).
[Cross-hatched Box]	Waste Oil and Hydraulic Oil Area Over excavated to 5.5 ftg.
[Grid Box]	Former UST Area Over excavated to 16.0 ftg.
[Diagonal Hatched Box]	New UST Area Over excavated to 17.0 ftg.
[Solid Black Box]	Junction Box
[Dotted Box]	Remediation Piping Trench (with two 4-inch dia. PVC conduits and two 2-inch dia. PVC conduits)

Note: All non-shaded areas where over excavated to 2.5 ftg. over the entire site.

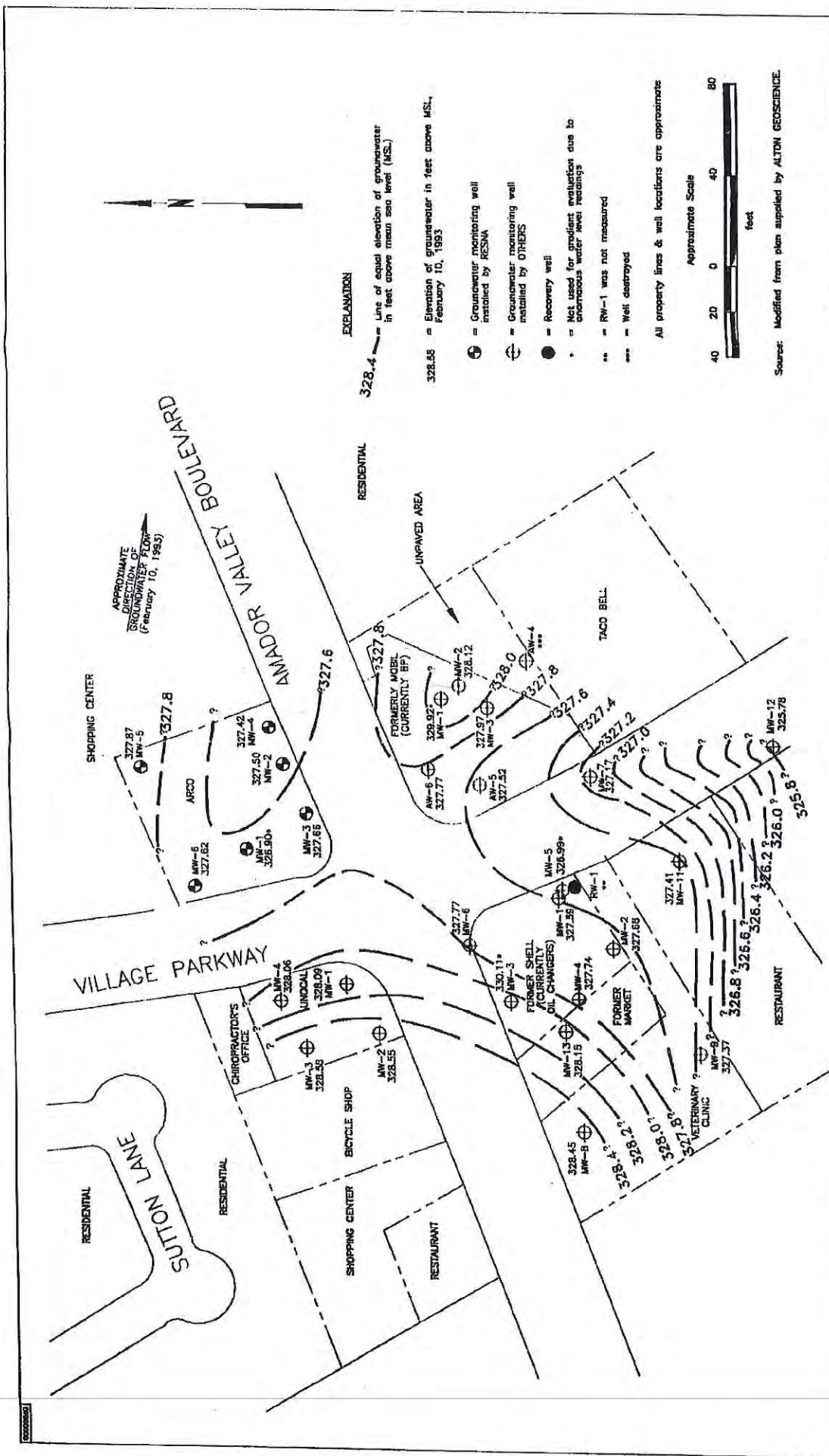


FIGURE 3



11/06/01





**EXPLANATION**

- 328.4 — Line of equal elevation of groundwater in feet above mean sea level (MSL)
- 328.58 = Elevation of groundwater in feet above MSL, February 10, 1983
- ⊕ = Groundwater monitoring well installed by RESNA
- ⊖ = Groundwater monitoring well installed by OTHERS
- = Recovery well
- = Not used for gradient evaluation due to erroneous water level readings
- .. = RW-1 was not measured
- \*\*\* = Well destroyed



Source: Modified from plan supplied by ALTON GEOSCIENCE.

PLATE 6

**AREAL GROUNDWATER GRADIENT MAP**  
 ARCO Service Station 6041  
 7249 Village Parkway  
 Dublin, California

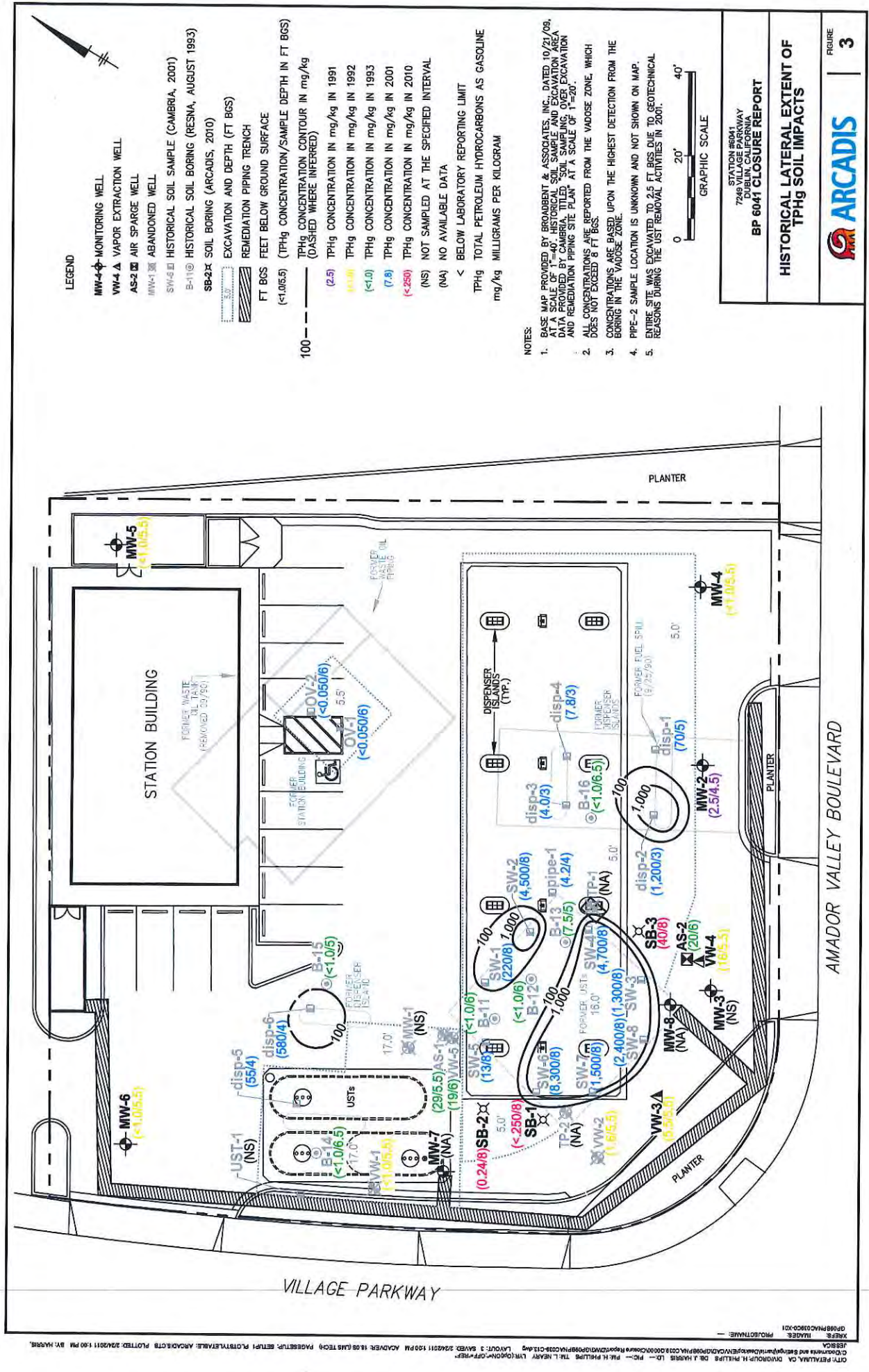
**RESNA**  
 Working to Restore Nature

PROJECT 60006.06

PROJECT

**ATTACHMENT 3**





**LEGEND**

- MW-4 ◯ MONITORING WELL
- VW-4 ▲ VAPOR EXTRACTION WELL
- AS-2 ◻ AIR SPARGE WELL
- MW-1 ◻ ABANDONED WELL
- SW-4 ◻ HISTORICAL SOIL SAMPLE (CAMBRIA, 2001)
- B-11 ◯ HISTORICAL SOIL BORING (RESNA, AUGUST 1993)
- SB-2 ◻ SOIL BORING (ARCADIS, 2010)
- 5.0' REMEDIATION PIPING TRENCH
- FT BGS FEET BELOW GROUND SURFACE

- (-1.0/6.5) TPHg CONCENTRATION/DEPTH IN FT BGS
- (2.5) TPHg CONCENTRATION IN mg/kg (DASHED WHERE INFERRRED)
- (1.0/6) TPHg CONCENTRATION IN mg/kg IN 1991
- (1.0) TPHg CONCENTRATION IN mg/kg IN 1992
- (7.8) TPHg CONCENTRATION IN mg/kg IN 2001
- (4.250) TPHg CONCENTRATION IN mg/kg IN 2010
- (NS) NOT SAMPLED AT THE SPECIFIED INTERVAL
- (NA) NO AVAILABLE DATA

TPHg TOTAL PETROLEUM HYDROCARBONS AS GASOLINE  
mg/kg MILLIGRAMS PER KILOGRAM

**NOTES:**

1. BASE MAP PROVIDED BY SROBENENT & ASSOCIATES, INC., DATED 10/21/09, AT A SCALE OF 1"=40'. HISTORICAL DATA FROM CAMBRIA AND RESNA ARE PROVIDED BY CAMBRIA, TITLED "SOIL SAMPLING OVER EXCAVATION AND REMEDIATION PIPING SITE PLAN" AT A SCALE OF 1"=20'. CONCENTRATIONS ARE REPORTED FROM THE VADOSE ZONE, WHICH DOES NOT EXCEED 8 FT BGS.
2. ALL CONCENTRATIONS ARE BASED UPON THE HIGHEST DETECTION FROM THE ENTIRE SITE. THIS WAS EXCAVATED TO 2.5 FT BGS DUE TO GEOTECHNICAL REASONS DURING THE UST REMOVAL ACTIVITIES IN 2001.
3. CONCENTRATIONS ARE BASED UPON THE HIGHEST DETECTION FROM THE BORING IN THE VADOSE ZONE.
4. PIPE-2 SAMPLE LOCATION IS UNKNOWN AND NOT SHOWN ON MAP.
5. ENTIRE SITE WAS EXCAVATED TO 2.5 FT BGS DUE TO GEOTECHNICAL REASONS DURING THE UST REMOVAL ACTIVITIES IN 2001.

STATION #9041  
7249 VILLAGE PARKWAY  
DUBLIN, CALIFORNIA

**BP 60041 CLOSURE REPORT**

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**HISTORICAL LATERAL EXTENT OF  
TPHg SOIL IMPACTS**

---

ARCADIS

FIGURE | **3**

PROJECT NAME:   
 DRAWING NUMBER:   
 DATE:   
 PROJECT NUMBER:   
 SHEET NUMBER:   
 DATE:   
 DRAWING NUMBER:   
 DATE:





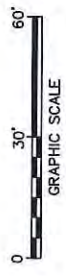


**LEGEND**

- MW-4 ◊ MONITORING WELL
- VW-4 ▲ VAPOR EXTRACTION WELL
- AS-2 ◻ AIR SPARGE WELL
- MW-7 ◻ ABANDONED WELL
- CPT-1 ● CPT BORING
- (-0.50) MTBE CONCENTRATION IN MICROGRAMS PER LITER (µg/L)
- 5- - - - MTBE CONCENTRATION CONTOUR IN µg/L (DASHED WHERE INFERRED)
- APPROXIMATE GROUNDWATER FLOW DIRECTION (<math>< 10</math> BELOW LABORATORY REPORTING LIMIT)
- CPT CONE PENETROMETER TEST
- NS NOT SAMPLED
- MTBE METHYL TERTIARY BUTYL ETHER

**NOTE**

BASE MAP PROVIDED BY BROADBENT & ASSOCIATES, INC., DATED 10/21/09, AT A SCALE OF 1"=40'. HISTORICAL CONCENTRATION AND EXCAVATION AREA DATA PROVIDED BY CONSULTING ENGINEER, "SUL SHAMUNG, OVER EXCAVATION AND REMEDIATION PIPING SITE PLAN" AT A SCALE OF 1"=20'.

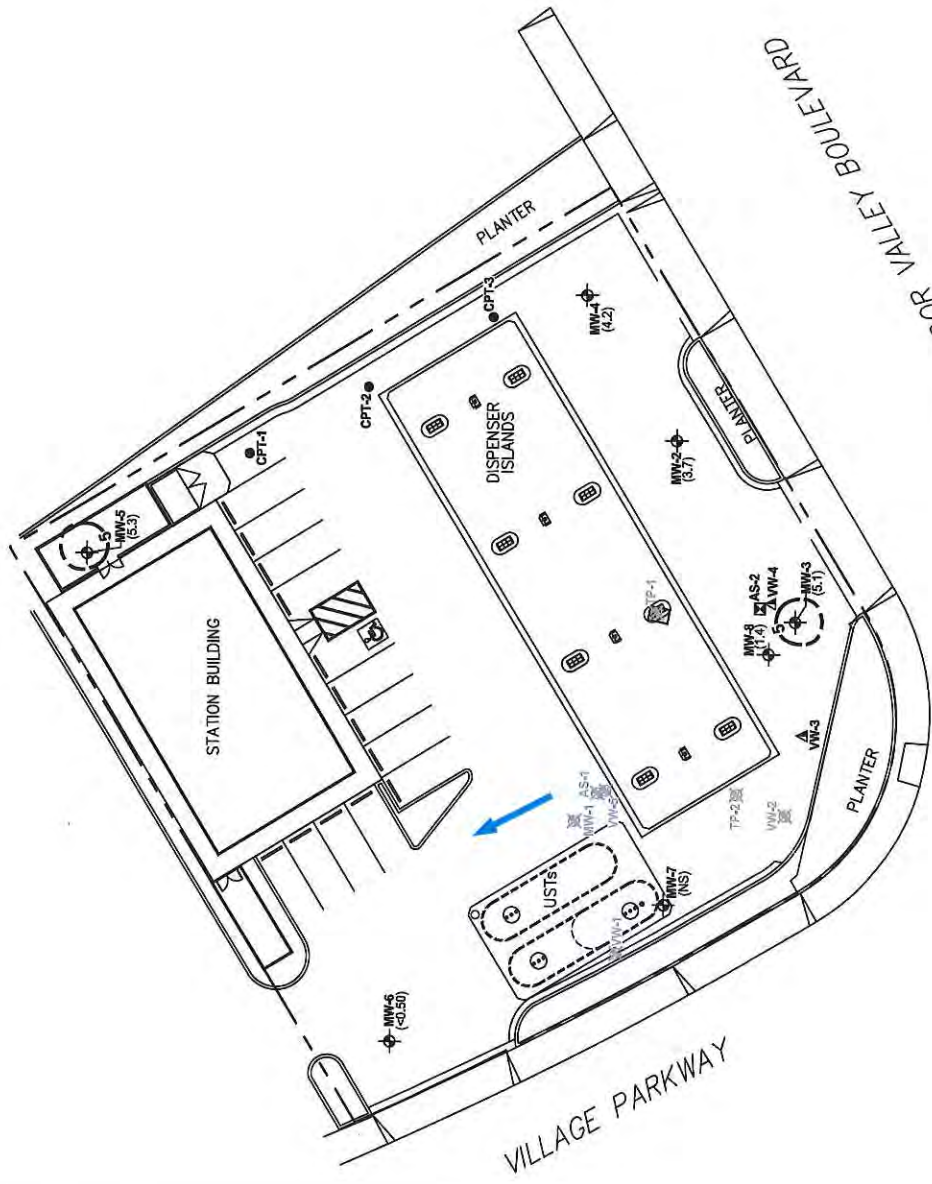


STATION #6041  
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 DUBLIN, CALIFORNIA  
**BP 6041 CLOSURE REPORT**

**EXTENT OF MTBE  
 GROUNDWATER IMPACTS  
 JULY 2010**

**ARCADIS**

FIGURE 8





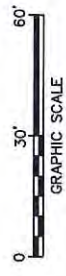


LEGEND

- MW-4 MONITORING WELL
- VW-4 VAPOR EXTRACTION WELL
- AS-2 AIR SPARGE WELL
- MW-1 ABANDONED WELL
- CPT-1 CPT BORING

- (<0.50) BENZENE CONCENTRATION IN MICROGRAMS PER LITER ( $\mu\text{g/L}$ )
- 5- - - - BENZENE CONCENTRATION CONTOUR IN  $\mu\text{g/L}$  (DASHED WHERE INFERRED)
- APPROXIMATE GROUNDWATER FLOW DIRECTION < BELOW LABORATORY REPORTING LIMIT
- CPT CONE PENETROMETER TEST
- NS NOT SAMPLED

NOTE:  
 BASE MAP PROVIDED BY BRODBENT & ASSOCIATES, INC., BASED TO 27' AND EXCAVATION AREA DATA PROVIDED BY SOIL SAMPLE AND EXCAVATION AREA DATA PROVIDED BY CAMBRIA, TITLED "SOIL SAMPLING, OVER EXCAVATION AND REMEDIATION PIPING SITE PLAN" AT A SCALE OF 1"=20'.



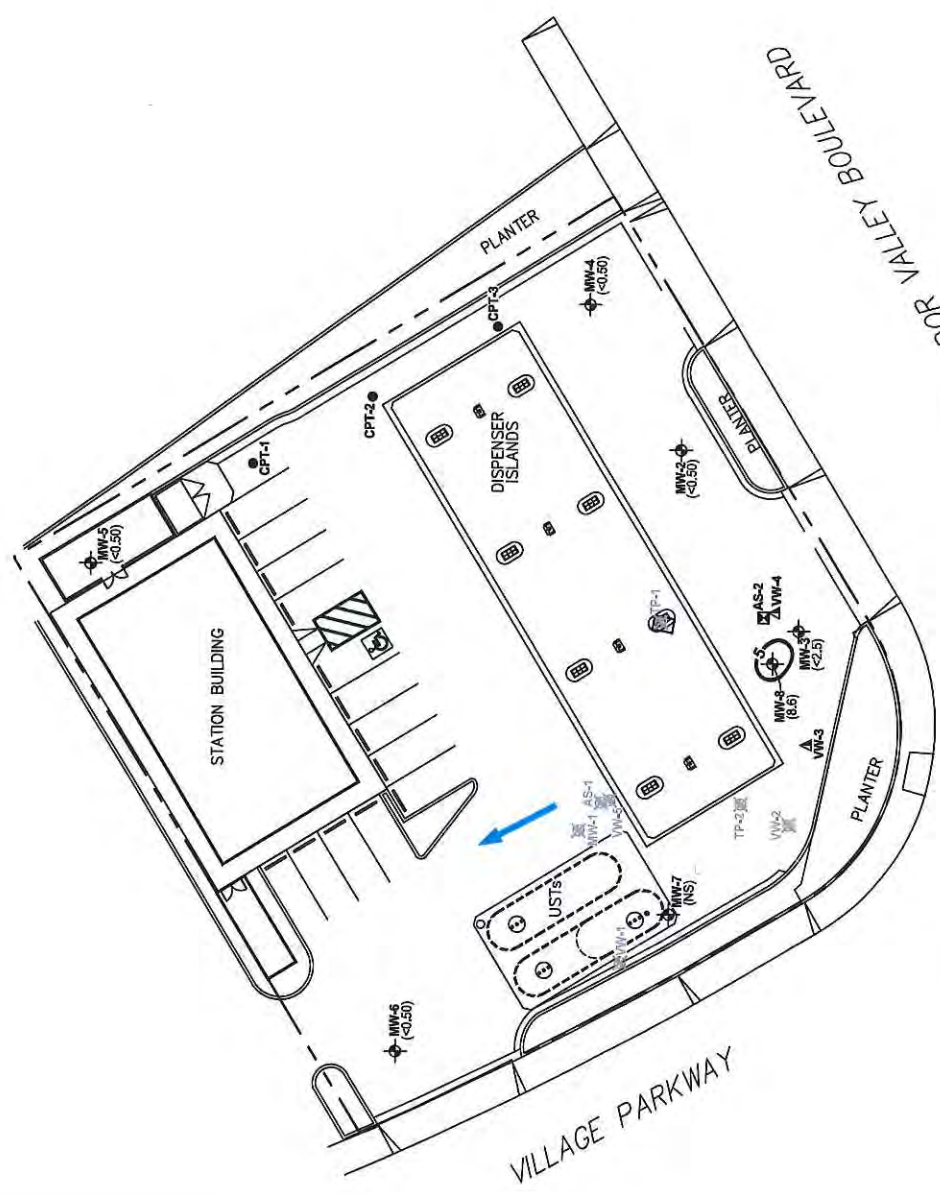
STATION #6041  
 7748 VILLAGE PARKWAY  
 PUEBLO, CALIFORNIA

**BP 6041 CLOSURE REPORT**

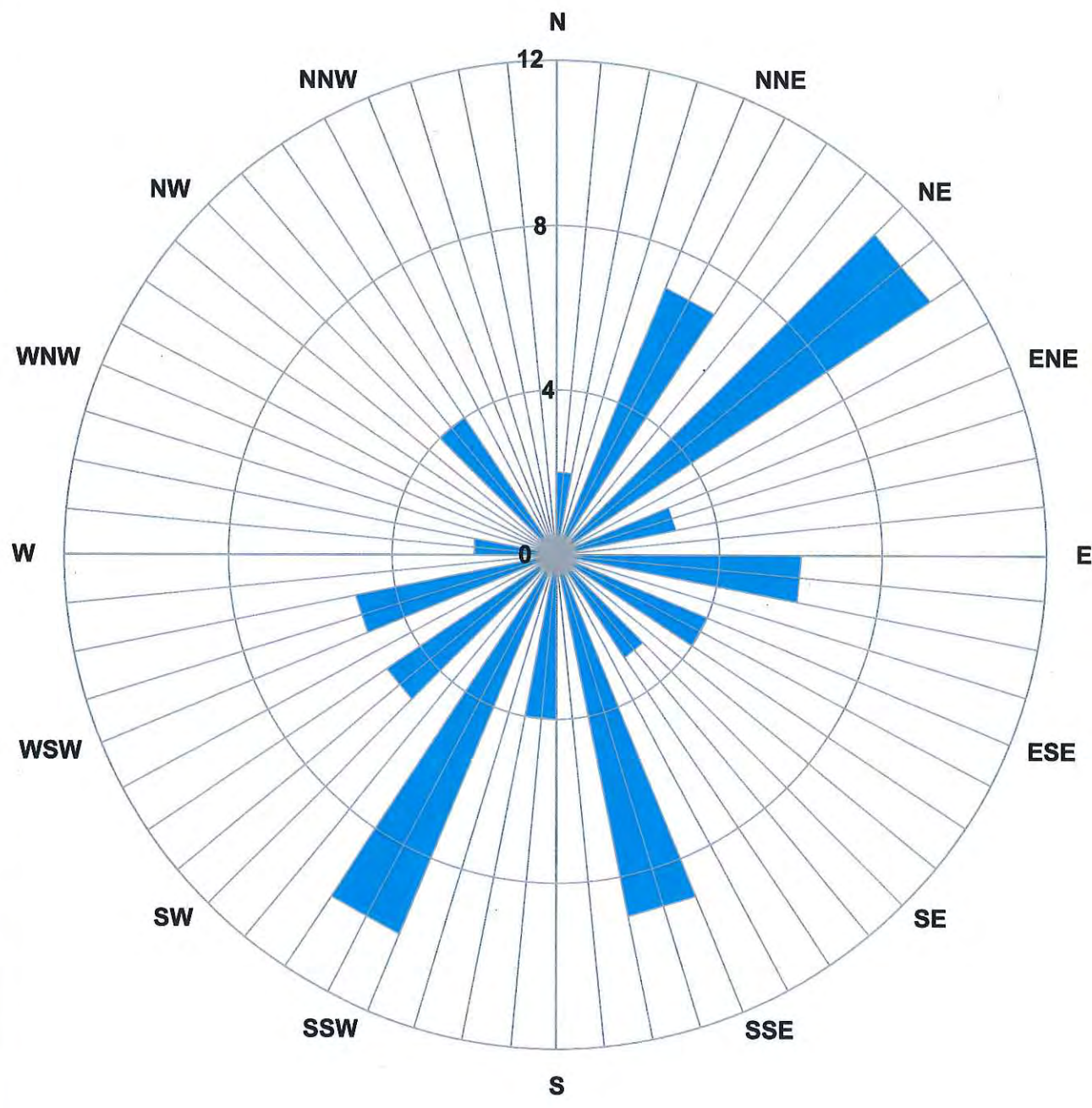
**EXTENT OF BENZENE  
 GROUNDWATER IMPACTS**  
 JULY 2010

**ARCADIS**

FIGURE **9**



CITY: PETALUMA, CA DIV/GROUP: H. PHILLIPS DB: J. HARRIS LD: PIC: PM: H. PHILLIPS TM: L. NEARY LVR:OptNON=OFF=REF  
 C:\Documents and Settings\jpharris\Desktop\ENV\CAD\G1909BPNA.C039.Q0000\Closure Report\DWG\G1909BPNA.C039.W01.dwg LAYOUT: 10 SAVED: 7/12/2010 8:44 AM ACADVER: 18.05 (LMS TECH) PAGESETUP: SETUP1 PLOTSTYLETABLE: PLOTTED: 2/24/2011 1:52 PM BY: HARRIS, JESSICA



**LEGEND**

CONCENTRIC CIRCLES REPRESENT 54 MONITORING EVENTS CONDUCTED BETWEEN 10/91 THROUGH 7/10.

 GROUNDWATER FLOW DIRECTION

STATION #6041  
 7249 VILLAGE PARKWAY  
 DUBLIN, CALIFORNIA  
**BP 6041 CLOSURE REPORT**

**HISTORIC GROUNDWATER FLOW DIRECTION ROSE DIAGRAM**



FIGURE  
**10**



Table 1: Historical Soil Results  
 ARCO Service Station No. 6041  
 7249 Village Parkway, Dublin, California  
 Local Case #RO452

Location	Sample Depth (ft. bgs)	Sample Date	TPHg	TPHd	B	T	E	X	MTBE	Total O & G	TBA	Ethano I	DIPE	ETBE	TAME	1,2-DCA	EDB	HVOC	Cadmium	Chromium	Lead	Nickel	Zinc
Commercial ESLs (mg/Kg) <sup>1</sup>																							
S-N9-WOA <sup>2</sup>	9	6/7/1990	450	450	0.27	210	5.0	100	65	<50	320,000	-	-	-	-	0.48	-	-	-	-	-	-	-
S-S9-WOA <sup>2</sup>	9	6/7/1990	-	-	-	-	-	-	-	<50	-	-	-	-	-	-	-	<0.005	-	-	-	-	-
S-E9-WOA <sup>2</sup>	9	6/7/1990	-	-	-	-	-	-	-	<50	-	-	-	-	-	-	-	<0.005	-	-	-	-	-
S-W9-WOA <sup>2</sup>	9	6/7/1990	-	-	-	-	-	-	-	<50	-	-	-	-	-	-	-	<0.005	-	-	-	-	-
S-C10-WOA <sup>2</sup>	10	6/7/1990	-	-	-	-	-	-	-	<50	-	-	-	-	-	-	-	<0.005	-	-	-	-	-
S-N9-WOB	9	6/7/1990	<2.0	<10	<0.050	<0.050	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-S9-WOB	9	6/7/1990	<2.0	<10	<0.050	<0.050	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-E9-WOB	9	6/7/1990	<2.0	<10	<0.050	<0.050	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-W9-WOB	9	6/7/1990	<2.0	<10	<0.050	<0.050	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-C10-WOB	10	6/7/1990	<2.0	<10	<0.050	<0.050	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-9.5-B1	9.5	9/12/1991	150	-	0.90	4.2	2.4	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-14.5-B1	14.5	9/12/1991	<1.0	-	0.0060	0.019	0.090	0.060	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-21.5-B1	21.5	9/12/1991	<1.0	-	<0.0050	<0.0050	<0.0050	<0.0050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-4.5-B2	4.5	9/13/1991	2.5	-	0.071	<0.0050	0.093	0.017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-9.5-B2	9.5	9/13/1991	6.3	-	0.30	0.011	0.30	0.060	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-15.5-B2	15.5	9/13/1991	<1.0	-	<0.0050	<0.0050	<0.0050	<0.0050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-9.5-B3	9.5	9/12/1991	52	-	1.2	2.5	1.4	8.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-19.5-B3	19.5	9/12/1991	<1.0	-	<0.0050	<0.0050	<0.0050	<0.0050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-5.5-B4	5.5	10/26/1992	<1.0	-	<0.0050	<0.0050	<0.0050	<0.0050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-9.5-B4	9.5	10/26/1992	<1.0	-	<0.0050	<0.0050	<0.0050	<0.0050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-15.5-B4	15.5	10/26/1992	<1.0	-	<0.0050	<0.0050	<0.0050	<0.0050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-5.5-B5	5.5	10/26/1992	<1.0	-	<0.0050	<0.0050	<0.0050	<0.0050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-10-B5	10	10/26/1992	<1.0	-	<0.0050	<0.0050	<0.0050	<0.0050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-19.5-B5	19.5	10/26/1992	<1.0	-	<0.0050	<0.0050	<0.0050	<0.0050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-5.5-B6	5.5	10/26/1992	<1.0	-	<0.0050	<0.0050	<0.0050	<0.0050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-10.5-B6	10.5	10/26/1992	<1.0	-	<0.0050	<0.0050	<0.0050	<0.0050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-18.5-B6	18.5	10/26/1992	<1.0	-	<0.0050	<0.0050	<0.0050	<0.0050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-5.5-B7	5.5	10/27/1992	<1.0	-	<0.0050	<0.0050	<0.0050	<0.0050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-10-B7	10	10/27/1992	<1.0	-	<0.0050	<0.0050	<0.0050	<0.0050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-5.5-B8	5.5	10/27/1992	1.6	-	0.091	<0.0050	0.060	0.14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-10-B8	10	10/27/1992	<1.0	-	<0.0050	<0.0050	<0.0050	<0.0050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-5.5-B9	5.5	10/27/1992	4.1	-	0.21	0.018	0.11	0.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-10-B9	10	10/27/1992	<1.0	-	<0.0050	<0.0050	<0.0050	<0.0050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-5.5-B10	5.5	10/27/1992	16	-	0.26	0.69	0.30	2.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-10.5-B10	10	10/27/1992	3,200	-	12	74	59	390	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Table 1: Historical Soil Results  
 ARCO Service Station No. 6041  
 7249 Village Parkway, Dublin, California  
 Local Case #RO452

Location	Sample Depth (ft. bgs)	Sample Date	TPHg	TPHd	B	T	E	X	MTBE	Total O & G	TBA	Ethano I	DIPE	ETBE	TAME	1,2-DCA	EDB	HVOC	Cadmium	Chromium	Lead	Nickel	Zinc
Commercial ESLs (mg/Kg) <sup>1</sup>																							
S-6-B11	6	8/11/1993	<1.0	450	0.27	210	5.0	100	65	-	320,000	-	-	-	-	0.48	-	-	-	-	-	-	-
S-11.5-B11	11.5	8/11/1993	5,300	-	0.10	<0.0050	<0.0050	<0.0050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-18.5-B11	18.5	8/11/1993	<1.0	-	9.0	<0.0050	8.3	210	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-6-B12	6	8/11/1993	<1.0	-	0.16	0.017	0.016	0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-12.5-B12	12.5	8/11/1993	580	-	4.0	2.0	13	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-18.5-B12	18.5	8/11/1993	<1.0	-	<0.0050	<0.0050	<0.0050	<0.0050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-5-B13	5	8/11/1993	7.5	-	0.054	<0.0050	0.20	0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-11-B13	11	8/11/1993	280	-	1.5	<0.0050	8.8	7.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-20-B13	20	8/11/1993	2.3	-	0.020	<0.0050	0.058	0.051	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-6.5-B14	6.5	8/11/1993	<1.0	-	<0.0050	<0.0050	<0.0050	<0.0050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-9.5-B14	9.5	8/11/1993	1.4	-	<0.0050	<0.0050	<0.0050	<0.0050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-5-B15	5	8/11/1993	<1.0	-	<0.0050	<0.0050	<0.0050	<0.0050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-9.5-B15	9.5	8/11/1993	<1.0	-	0.038	<0.0050	<0.0050	<0.0050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-6.5-B16	6.5	8/11/1993	<1.0	-	0.019	<0.0050	0.018	0.031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-9.5-B16	9.5	8/11/1993	410	-	1.9	1.9	9.4	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-18.5-B16	18.5	8/11/1993	<1.0	-	<0.0050	<0.0050	<0.0050	<0.0050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-6-B17	6	10/12/1993	19	-	0.80	0.043	1.1	0.64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-10.5-B17	10.5	10/12/1993	5,100	-	30	40	72	410	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-5.5-B18	5.5	10/12/1993	29	-	1.5	0.56	2.4	0.80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-10.5-B18	10.5	10/12/1993	4,400	-	20	77	69	450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-25-B18	25	10/12/1993	<1.0	-	<0.0050	0.0070	0.0060	0.053	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-6-B19	6	10/12/1993	20	-	0.22	0.39	0.24	1.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-10-B19	10	10/12/1993	2,900	-	13	55	41	290	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
S-20.5-B19	20.5	10/12/1993	<1.0	-	<0.0050	<0.0050	<0.0050	<0.0050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OV-1 <sup>2</sup>	6	7/26/2001	<0.050	<9.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00500	<49.5	-	-	-	-	-	-	-	-	0.182	12.3	2.96	15.4	15.8
OV-2 <sup>2</sup>	6	7/26/2001	<0.050	<9.9	<0.00200	<0.00200	<0.00200	<0.00200	<0.00500	<49.1	-	-	-	-	-	-	-	-	0.132	10.6	2.79	14.5	14.5
SW-1 <sup>2</sup>	8	7/27/2001	220	-	1.70	<0.500	<0.500	0.500	<0.500	-	-	-	-	-	-	-	-	-	-	-	<4.85	-	-
SW-2 <sup>2</sup>	8	7/27/2001	4,500	-	12.0	<10.0	63.0	<10.0	<10.0	-	-	-	-	-	-	-	-	-	-	-	<4.85	-	-
SW-3 <sup>2</sup>	8	7/27/2001	1,300	-	<2.50	<2.50	22.0	130	4.40	-	-	-	-	-	-	-	-	-	-	-	<4.85	-	-
SW-4 <sup>2</sup>	8	7/27/2001	4,700	-	11.0	<10.0	43.0	320	<10.0	-	-	-	-	-	-	-	-	-	-	-	5.16	-	-
SW-5 <sup>2</sup>	8	7/27/2001	13	-	0.093	<0.0250	1.00	0.180	1.90	-	-	-	-	-	-	-	-	-	-	-	<4.85	-	-
SW-6 <sup>2</sup>	8	7/27/2001	8,300	-	64.0	<25.0	180	<25.0	<5.00	-	-	-	-	-	-	-	-	-	-	-	<4.85	-	-
SW-7 <sup>2</sup>	8	7/27/2001	1,500	-	8.00	<5.00	26.0	22.0	<5.00	-	-	-	-	-	-	-	-	-	-	-	<5.00	-	-
SW-8 <sup>2</sup>	8	7/27/2001	2,400	-	7.40	<5.00	37.0	220	6.00	-	-	-	-	-	-	-	-	-	-	-	<5.00	-	-
UST-1 <sup>2</sup>	13	7/27/2001	0.21	-	<0.00500	<0.00500	<0.00500	<0.00500	0.0650	-	-	-	-	-	-	-	-	-	-	-	13.3	-	-





Table 1: Historical Soil Results  
 ARCO Service Station No. 6041  
 7249 Village Parkway, Dublin, California  
 Local Case #RO452

Location	Sample Depth (ft bgs)	Sample Date	TPHg	TPHd	B	T	E	X	MTBE	Total O & G	TBA	Ethano I	DIPE	ETBE	TAME	1,2-DCA	EDB	HVOC	Cadmium	Chromium	Lead	Nickel	Zinc
Commercial ESLs (mg/Kg) <sup>1</sup>			450	450	0.27	210	5.0	100	65	--	320,000	--	--	--	--	0.48	--	--	--	--	--	--	--

Notes:

Results are in parts per million unless otherwise noted

ft bgs = feet below ground surface

TPHg = Total Petroleum Hydrocarbons as Gasoline

TPHd = Total Petroleum Hydrocarbons as Diesel

B = Benzene

T = Toluene

E = Ethylbenzene

X = Total Xylenes

MTBE = Methyl tert-butyl ether

Total O & G = Total Oil and Gas

TBA = Tert-butyl Alcohol

DIPE = Di-isopropyl Ether

ETBE = Ethyl tert-butyl Ether

TAME = Tert-amyl Methyl Ether

1,2-DCA = 1,2-Dichloroethane

EDB = 1,2-Dibromoethane

HVOC = Halogenated Volatile Organic Compounds

VOCs = Volatile Organic Compounds

mg/kg = milligrams per kilogram

< = analyte not detected above laboratory detection limit

-- = not analyzed

<sup>1</sup> = Soil ESLs values are listed from Table K-2

<sup>2</sup> = Analytical results were reported in mg/kg

TPHg, BTEX analyzed by EPA Method 5030/8015/8020 between 1990 and 1993

TPHd analyzed by EPA Method 3550/8015 between 1990 and 1993

Total O & G analyzed by Standard Method 503D/E between 1990 and 1993

Metals analyzed by EPA Method 6010

TPHd and TPHg analyzed by EPA Method 8015M between 2001 and 2010

Total O & G analyzed by EPA Method 9071 between 2001 and 2010

BTEX and MTBE analyzed by EPA Method 8260 between 2001 and 2010



Table 4: Most Recent and Maximum Concentration of Contaminants Detected in Soil and Groundwater  
 ARCO Service Station No. 6041  
 7249 Village Parkway, Dublin, California  
 Local Case #RO452

Analyte	Soil <sup>1</sup>					Groundwater									
	Most Recent Concentration Observed (mg/kg)	Sample Depth (feet bgs)	Sample Date	Maximum Concentration Observed (mg/kg)	Sample Depth (feet bgs)	Sample Date	Commercial ESL <sup>2</sup> (mg/kg)	RWQCB Region 2 ESL for Shallow Soils (<3m bgs) <sup>3</sup> (µg/L)	Most Recent Concentration Observed (µg/L)	Sample Date	Maximum Concentration Observed (µg/L)	Sample Date	Commercial ESL for the Protection of the Vapor Intrusion Pathway <sup>4</sup> (µg/L)	State of California Maximum Contaminant Level (µg/L)	RWQCB Region 2 ESL for Shallow Soils (<3m bgs) <sup>3</sup> (µg/L)
TPH <sub>g</sub>	40 (SB-3-8)	8	11/22/2010	8,300 (SW-6)	8	7/27/2001	450	83	73 (MW-8)	7/30/2010	29,700 (MW-3)	12/27/2000	NA	NA	100
Benzene	0.170 (SB-3-8)	8	11/22/2010	64 (SW-6)	8	7/27/2001	0.27	0.044	8.8 (MW-8)	7/30/2010	2,590 (MW-3)	2/9/2001	1,800	1	1.0
Toluene	<0.024 (SB-3-8)	8	11/22/2010	9.30 (DISP-2)	3	7/27/2001	210	2.9	<2.5 (MW-3)	7/30/2010	3,530 (MW-3)	2/9/2001	530,000	150	40
Ethylbenzene	0.270 (SB-3-8)	8	11/22/2010	180 (SW-6)	8	7/27/2001	5	3.3	<2.5 (MW-3)	7/30/2010	1,100 (MW-3)	7/17/2001	175,000	300	30
Xylenes	0.048 (SB-3-8)	8	11/22/2010	320 (SW-4)	8	7/27/2001	100	2.3	<5 (MW-3)	7/30/2010	7,080 (MW-3)	2/9/2001	160,000	1750	20
MTBE	0.093 (SB-3-8)	8	11/22/2010	6 (SW-8)	8	7/27/2001	65	0.023	5.3 (MW-5)	7/30/2010	85,500 (MW-3)	2/9/2001	80,000	13	5.0
TPH <sub>d</sub>	-	-	-	<9.9 (OV-1)	6	7/26/2001	450	83	-	-	-	-	-	NA	NA

<sup>1</sup> Soil results are reported from the vadose zone, which does not exceed 8 feet bgs

<sup>2</sup> ESL for Direct Contact to a Commercial/Industrial Receptor (Table K-2)

<sup>3</sup> ESL for Shallow Soils (<3 meters) where groundwater is a current or potential source of drinking water-commercial/industrial land use (Table A)

<sup>4</sup> ESL for Groundwater for the Evaluation of Potential Vapor Intrusion Concerns (Table E-1)

**Bold** = exceedances of commercial ESL

ESL = Environmental Screening Levels

RWQCB = Regional Water Quality Control Board

MCL = Maximum Contaminant Level

TPH<sub>g</sub> = Total Petroleum Hydrocarbons as Gasoline

MTBE = methyl tert-butyl ether

TPH<sub>d</sub> = Total Petroleum Hydrocarbons as Diesel

mg/kg = milligrams per kilogram

µg/L = micrograms per liter

bgs = below ground surface

<- = not detected above laboratory detection limits

NA = not applicable

GRO Commercial ESL values are listed as TPH (gasolines) in Table A of Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater

DRO Commercial ESL values are listed as TPH (middle distillates) in Table A of Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater

Table 2: Historical Groundwater Results  
 ARCO Service Station No. 6041  
 7249 Village Parkway, Dublin, California  
 Local Case # RO452

Location	Sample Date	Notes	TOC Elevation (ft)	DTW (ft btoC)	Product Thickness (ft)	Water Level Elevation (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylene	MTBE	TBA
										µg/L			
MW-1	09/20/1991	-	336.56	11.20	-	325.36	410	28	36	4.3	89	-	-
MW-1	10/22/1991	-	336.56	11.48	-	325.08	-	-	-	-	-	-	-
MW-1	11/27/1991	-	336.56	11.27	-	325.29	-	-	-	-	-	-	-
MW-1	12/16/1991	-	336.56	11.55	-	325.01	840	50	50	3.9	12	-	-
MW-1	01/18/1992	-	336.56	11.37	-	325.19	-	-	-	-	-	-	-
MW-1	02/21/1992	-	336.56	9.13	-	327.43	-	-	-	-	-	-	-
MW-1	03/16/1992	-	336.56	9.70	-	326.86	780	22	12	45	22	-	-
MW-1	04/24/1992	-	336.56	10.20	-	326.36	-	-	-	-	-	-	-
MW-1	05/15/1992	-	336.56	10.46	-	326.10	-	-	-	-	-	-	-
MW-1	06/09/1992	-	336.56	10.73	-	325.83	700	8.8	15	16	18	-	-
MW-1	07/28/1992	-	336.56	11.04	-	325.52	-	-	-	-	-	-	-
MW-1	08/24/1992	-	336.56	11.32	-	325.24	-	-	-	-	-	-	-
MW-1	09/09/1992	-	336.56	11.54	-	325.02	400	5.4	8.4	4.6	6.7	-	-
MW-1	10/26/1992	-	336.56	11.80	-	324.76	-	-	-	-	-	-	-
MW-1	11/10/1992	-	336.56	11.74	-	324.82	2,800	93	56	190	390	-	-
MW-1	12/14/1992	-	336.56	10.77	-	325.79	-	-	-	-	-	-	-
MW-1	01/15/1993	-	336.56	8.88	-	327.68	-	-	-	-	-	-	-
MW-1	02/10/1993	-	336.56	9.66	-	326.90	9,700	180	100	450	740	-	-
MW-1	03/29/1993	-	336.56	8.31	-	328.25	-	-	-	-	-	-	-
MW-1	04/27/1993	-	336.56	9.03	-	327.53	-	-	-	-	-	-	-
MW-1	05/10/1993	-	336.56	9.50	-	327.06	6,400	120	12	410	300	-	-
MW-1	06/18/1993	-	336.56	10.16	-	326.40	-	-	-	-	-	-	-
MW-1	07/28/1993	-	336.56	10.68	-	325.88	-	-	-	-	-	-	-
MW-1	08/30/1993	-	336.56	10.59	-	325.97	2,000	2.5	<2.5	110	61	-	-
MW-1	09/28/1993	-	336.56	10.82	-	325.74	-	-	-	-	-	-	-
MW-1	10/31/1993	-	336.56	10.94	-	325.62	-	-	-	-	-	-	-
MW-1	11/11/1993	-	336.56	10.70	-	325.86	2,100	<2.5	<2.5	66	20	-	-
MW-1	12/15/1993	-	336.56	10.56	-	326.00	-	-	-	-	-	-	-
MW-1	02/11/1994	-	336.56	10.35	-	326.21	2,000	<2.5	<2.5	25	5.7	-	-
MW-1	03/13/1994	-	336.56	9.99	-	326.57	-	-	-	-	-	-	-
MW-1	02/15/1995	-	336.56	8.53	-	328.03	820	15	<1	5.2	1.4	-	-
MW-1	05/24/1995	-	336.56	9.00	-	327.56	640	12	<1	7.3	<1	-	-
MW-1	08/25/1995	-	336.56	10.30	-	326.26	780	2	<1	2	2	2,500	-
MW-1	11/28/1995	-	336.56	11.01	-	325.55	570	2.2	<0.5	1.4	0.9	-	-
MW-1	02/26/1996	-	336.56	7.35	-	329.21	1,100	28	<7	13	7	3,400	-



Table 2: Historical Groundwater Results  
 ARCO Service Station No. 6041  
 7249 Village Parkway, Dublin, California  
 Local Case # RO452

Location	Sample Date	Notes	TOC Elevation (ft)	DTW (ft btoe)	Product Thickness (ft)	Water Level Elevation (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylene	MTBE	TBA
MW-1	05/23/1996	-	336.56	8.73	-	327.83	560	8.5	<1	1.1	<1	3,900	-
MW-1	08/23/1996	-	336.56	10.25	-	326.31	860	<1	<1	<4	2	5,600	-
MW-1	03/21/1997	-	336.56	9.35	-	327.21	520	12	<0.5	2.7	1.5	6,200	-
MW-1	08/20/1997	-	336.56	10.75	-	325.81	<5,000	<50	<50	<50	<50	7,400	-
MW-1	11/21/1997	-	336.56	11.10	-	325.46	<5,000	<50	<50	<50	<50	8,500	-
MW-1	02/12/1998	P	336.56	7.05	-	329.51	210	<0.5	<0.5	<0.5	<0.5	8,900	-
MW-1	07/31/1998	P	336.56	10.04	-	326.52	<20,000	<200	<200	<200	<200	18,000	-
MW-1	02/17/1999	-	336.56	8.50	-	328.06	<20,000	<200	<200	<200	<200	16,000	-
MW-1	08/24/1999	P	336.56	10.40	-	326.16	190	<0.5	4.4	<0.5	1.1	15,000	-
MW-1	03/01/2000	P	336.56	8.85	-	327.71	310	20	0.5	7.6	4.0	80,000	-
MW-1	08/18/2000	P	336.56	9.35	-	327.21	<10,000	<100	<100	<100	<100	18,400/63,700	-
MW-1	12/27/2000	P	336.56	10.81	-	325.75	<10,000	309	<100	<100	289	44,400	-
MW-1	02/09/2001	-	336.56	-	-	-	3,490	432	9.56	146	235	31,800	-
MW-1	02/09/2001	P	336.56	10.65	-	325.91	2,820	368	<25.0	116	176	23,300	-
MW-1	04/17/2001	-	336.56	-	-	-	2,600	70.1	<20.0	32.7	30.6	45,400	-
MW-1	04/17/2001	P	336.56	11.09	-	325.47	2,900	66.0	<10.0	33.2	25.1	46,500	-
MW-1	07/17/2001	P	336.56	11.07	-	325.49	<10,000	<100	<100	130	520	42,000	-
MW-2	09/20/1991	-	334.80	9.22	-	325.58	130	6.6	0.96	1.4	1.5	-	-
MW-2	10/22/1991	-	334.80	9.66	-	325.14	-	-	-	-	-	-	-
MW-2	11/27/1991	-	334.80	9.48	-	325.32	-	-	-	-	-	-	-
MW-2	12/16/1991	-	334.80	9.76	-	325.04	83	0.96	<0.30	<0.30	<0.30	-	-
MW-2	01/18/1992	-	334.80	9.47	-	325.33	-	-	-	-	-	-	-
MW-2	02/21/1992	-	334.80	7.62	-	327.18	-	-	-	-	-	-	-
MW-2	03/16/1992	-	334.80	7.84	-	326.96	430	130	<2.5	37	5.0	-	-
MW-2	04/24/1992	-	334.80	8.34	-	326.46	-	-	-	-	-	-	-
MW-2	05/15/1992	-	334.80	8.62	-	326.18	-	-	-	-	-	-	-
MW-2	06/09/1992	-	334.80	8.88	-	325.92	120	3.7	<0.5	5.7	<0.5	-	-
MW-2	07/28/1992	-	334.80	9.38	-	325.42	-	-	-	-	-	-	-
MW-2	08/24/1992	-	334.80	9.81	-	324.99	-	-	-	-	-	-	-
MW-2	09/09/1992	-	334.80	9.92	-	324.88	<50	<0.5	<0.5	<0.5	<0.5	-	-
MW-2	10/26/1992	-	334.80	10.13	-	324.67	-	-	-	-	-	-	-
MW-2	11/10/1992	-	334.80	10.12	-	324.68	<50	<0.5	<0.5	<0.5	<0.5	-	-
MW-2	12/14/1992	-	334.80	8.99	-	325.81	-	-	-	-	-	-	-
MW-2	01/15/1993	-	334.80	7.20	-	327.60	-	-	-	-	-	-	-
MW-2	02/10/1993	-	334.80	7.30	-	327.50	740	110	<5	35	<5	-	-



Table 2: Historical Groundwater Results  
 ARCO Service Station No. 6041  
 7249 Village Parkway, Dublin, California  
 Local Case # RO452

Location	Sample Date	Notes	TOC Elevation (ft)	DTW (ft btoc)	Product Thickness (ft)	Water Level Elevation (ft)	µg/L						TBA	
							TPHg	Benzene	Toluene	Ethylbenzene	Xylene	MTBE		
MW-2	03/29/1993	-	334.80	6.60	-	328.20	-	-	-	-	-	-	-	-
MW-2	04/27/1993	-	334.80	7.10	-	327.70	-	-	-	-	-	-	-	-
MW-2	05/10/1993	-	334.80	7.40	-	327.40	2,000	-	14	86	28	-	-	-
MW-2	06/18/1993	-	334.80	8.02	-	326.78	-	-	-	-	-	-	-	-
MW-2	07/28/1993	-	334.80	8.47	-	326.33	-	-	-	-	-	-	-	-
MW-2	08/30/1993	-	334.80	8.80	-	326.00	170	1.4	7.9	1.6	15	-	-	-
MW-2	09/28/1993	-	334.80	9.19	-	325.61	-	-	-	-	-	-	-	-
MW-2	10/31/1993	-	334.80	9.12	-	325.68	-	-	-	-	-	-	-	-
MW-2	11/11/1993	-	334.80	9.02	-	325.78	78	<0.5	2.8	0.7	5.9	-	-	-
MW-2	12/15/1993	-	334.80	8.82	-	325.98	-	-	-	-	-	-	-	-
MW-2	02/11/1994	-	334.80	8.59	-	326.21	<50	2.4	0.7	<0.5	<0.5	-	-	-
MW-2	03/13/1994	-	334.80	8.09	-	326.71	-	-	-	-	-	-	-	-
MW-2	02/15/1995	-	334.80	6.75	-	328.05	730	110	1.7	25	66	-	-	-
MW-2	05/24/1995	-	334.80	6.88	-	327.92	370	110	<1	17	1.9	-	-	-
MW-2	08/25/1995	-	334.80	7.91	-	326.89	150	6	<1	<1	<1	-	-	-
MW-2	11/28/1995	-	334.80	9.06	-	325.74	<50	<0.5	<0.5	<0.5	0.8	-	-	-
MW-2	02/26/1996	-	334.80	6.65	-	328.15	350	66	<0.5	11	1.7	-	-	-
MW-2	05/23/1996	-	334.80	6.90	-	327.90	540	140	<2.5	13	<2.5	-	-	-
MW-2	08/23/1996	-	334.80	8.45	-	326.35	180	0.8	2	0.7	2.6	-	-	-
MW-2	03/21/1997	-	334.80	7.28	-	327.52	410	90	<1	14	4	-	-	-
MW-2	08/20/1997	-	334.80	8.87	-	325.93	<5,000	<50	<50	<50	<50	-	-	-
MW-2	11/21/1997	-	334.80	9.28	-	325.52	<2,000	<20	<20	<20	<20	-	-	-
MW-2	02/12/1998	P	334.80	5.90	-	328.90	310	54	<0.5	6.2	1.1	-	-	-
MW-2	07/31/1998	P	334.80	8.12	-	326.68	6,100	52	220	110	1,100	-	-	-
MW-2	02/17/1999	P	334.80	7.18	-	327.62	<5,000	<50	<50	<50	<50	-	-	-
MW-2	08/24/1999	P	334.80	8.68	-	326.12	200	1.8	16	3.0	32	-	-	-
MW-2	03/01/2000	P	334.80	7.02	-	327.78	760	24	12	13	59	-	-	-
MW-2	08/18/2000	P	334.80	7.75	-	327.05	<500	<5.00	<5.00	<5.00	<5.00	-	-	-
MW-2	12/27/2000	-	334.80	8.85	-	325.95	-	-	-	-	-	-	-	-
MW-2	02/09/2001	P	334.80	8.50	-	326.30	<50.0	<0.500	<0.500	<0.500	<0.500	-	-	-
MW-2	04/17/2001	-	334.80	9.12	-	325.68	-	-	-	-	-	-	-	-
MW-2	07/17/2001	-	334.80	-	-	-	3,500	<10	<10	<10	<10	-	-	-
MW-2	07/17/2001	P	334.80	8.99	-	325.81	1,200	<10	<10	<10	<10	-	-	-
MW-2	12/21/2001	NP	334.80	8.65	-	326.15	65	<0.50	1.2	0.61	6.7	-	-	-
MW-2	03/06/2002	NP	334.80	8.61	-	326.19	<50	<0.50	<0.50	<0.50	1.8	-	-	-



Table 2: Historical Groundwater Results  
 ARCO Service Station No. 6041  
 7249 Village Parkway, Dublin, California  
 Local Case # RO452

Location	Sample Date	Notes	TOC Elevation (ft)	DTW (ft btoc)	Product Thickness (ft)	Water Level Elevation (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylene	MTBE	TBA
MW-2	04/26/2002	NP	334.80	8.20	-	326.60	92	<0.5	<0.50	<0.50	0.64	98/180	-
MW-2	09/23/2002	P	334.80	8.50	-	326.30	250	<1.2	<1.2	<1.2	<1.2	1,500	-
MW-2	12/27/2002	P	334.80	7.15	-	327.65	440	<2.5	<2.5	<2.5	<2.5	790	<10,000
MW-2	03/12/2003	P	334.80	7.33	-	327.47	<50	1.6	<0.50	<0.50	1.2	11	540
MW-2	06/28/2003	P	337.29	7.49	-	329.80	<50	<0.50	<0.50	<0.50	<0.50	1.2	<20
MW-2	09/30/2003	P	337.29	8.20	-	329.09	<50	<0.50	<0.50	<0.50	<0.50	5.2	290
MW-2	12/05/2003	NP	337.29	7.73	-	329.56	<50	<0.50	<0.50	<0.50	<0.50	2.6	730
MW-2	03/10/2004	P	337.29	6.70	-	330.59	<500	<5.0	<5.0	<5.0	<5.0	5.6	13,000
MW-2	06/21/2004	P	337.29	7.71	-	329.58	160	<1.0	<1.0	<1.0	<1.0	1.5	2,900
MW-2	09/17/2004	P	337.29	7.45	-	329.84	<100	<1.0	<1.0	<1.0	<1.0	1.0	2,100
MW-2	12/13/2004	P	337.29	7.04	-	330.25	<50	<0.50	<0.50	<0.50	<0.50	0.54	860
MW-2	03/03/2005	P	337.29	6.18	-	331.11	<500	<5.0	<5.0	<5.0	<5.0	<5.0	5,000
MW-2	06/23/2005	P	337.29	6.51	-	330.78	<50	<0.50	<0.50	<0.50	<0.50	4.3	1,900
MW-2	09/16/2005	P	337.29	7.65	-	329.64	<100	<1.0	<1.0	<1.0	<1.0	2.0	3,600
MW-2	12/27/2005	P	337.29	7.29	-	330.00	<250	<2.5	<2.5	<2.5	<2.5	<2.5	3,800
MW-2	03/02/2006	P	337.29	6.51	-	330.78	<250	<2.5	<2.5	<2.5	<2.5	5.8	3,300
MW-2	6/23/2006	P	337.29	6.75	-	330.54	<250	<2.5	<2.5	<2.5	<2.5	4.2	650
MW-2	9/19/2006	P	337.29	7.30	-	329.99	<50	<0.50	<0.50	<0.50	<0.50	4.0	340
MW-2	12/19/2006	P	337.29	6.93	-	330.36	<50	<0.50	<0.50	<0.50	<0.50	0.70	1,300
MW-2	3/29/2007	P	337.29	6.61	-	330.68	<50	<0.50	<0.50	<0.50	<0.50	1.3	1,300
MW-2	6/5/2007	P	337.29	7.12	-	330.17	<50	<0.50	<0.50	<0.50	<0.50	0.94	1,400
MW-2	9/25/2007	P	337.29	7.77	-	329.52	<50	<0.50	<0.50	<0.50	<0.50	0.56	930
MW-2	12/26/2007	P	337.29	7.40	-	329.89	<50	<0.50	<0.50	<0.50	<0.50	0.64	380
MW-2	3/25/2008	P	337.29	6.45	-	330.84	<50	<0.50	<0.50	<0.50	<0.50	7.1	2,100
MW-2	6/10/2008	P	337.29	7.22	-	330.07	<50	<0.50	<0.50	<0.50	<0.50	3.2	430
MW-2	9/9/2008	P	337.29	7.69	-	329.60	<50	<0.50	<0.50	<0.50	<0.50	1.5	57
MW-2	12/4/2008	P	337.29	7.74	-	329.55	<50	<0.50	<0.50	<0.50	<0.50	0.53	300
MW-2	3/5/2009	P	337.29	6.16	-	331.13	<50	<1.0	<1.0	<1.0	<1.0	2.7	1,200
MW-2	6/2/2009	P	337.29	7.11	-	330.18	<50	<1.0	<1.0	<1.0	<1.0	1.3	350
MW-2	10/26/2009	P	337.29	7.37	-	329.92	<50	<0.50	<0.50	<0.50	<0.50	0.90	6.6
MW-2	3/16/2010	P	337.29	6.05	-	331.24	<50	<0.50	<0.50	<0.50	<0.50	3.5	420
MW-2	7/30/2010	NP	337.29	7.10	-	330.19	<50	<0.50	<0.50	<0.50	<0.50	3.7	<4.0
MW-3	09/20/1991	-	335.53	10.16	-	325.37	990	50	100	11	200	-	-
MW-3	10/22/1991	-	335.53	10.48	-	325.05	-	-	-	-	-	-	-
MW-3	1/27/1991	-	335.53	10.17	-	325.36	-	-	-	-	-	-	-



Table 2: Historical Groundwater Results  
 ARCO Service Station No. 6041  
 7249 Village Parkway, Dublin, California  
 Local Case # RO452

Location	Sample Date	Notes	TOC Elevation (ft)	DTW (ft btoc)	Product Thickness (ft)	Water Level Elevation (ft)	µg/L						TBA
							TPHg	Benzene	Toluene	Ethylbenzene	Xylene	MTBE	
MW-3	12/16/1991	-	335.53	10.25	-	325.28	1,000	180	5.1	23	4.3	-	-
MW-3	01/18/1992	-	335.53	10.71	-	324.82	-	-	-	-	-	-	-
MW-3	02/21/1992	-	335.53	8.68	-	326.85	-	-	-	-	-	-	-
MW-3	03/16/1992	-	335.53	8.91	-	326.62	430	86	<1.0	22	3.4	-	-
MW-3	04/24/1992	-	335.53	9.14	-	326.39	-	-	-	-	-	-	-
MW-3	05/15/1992	-	335.53	9.54	-	325.99	-	-	-	-	-	-	-
MW-3	06/09/1992	-	335.53	9.72	-	325.81	1,800	290	2.4	49	17	-	-
MW-3	07/28/1992	-	335.53	10.15	-	325.38	-	-	-	-	-	-	-
MW-3	08/24/1992	-	335.53	10.42	-	325.11	-	-	-	-	-	-	-
MW-3	09/09/1992	-	335.53	10.53	-	325.00	2,600	550	<5	120	12	-	-
MW-3	10/26/1992	-	335.53	10.92	-	324.61	-	-	-	-	-	-	-
MW-3	11/10/1992	-	335.53	10.72	-	324.81	1,100	280	<5	100	<5	-	-
MW-3	12/14/1992	-	335.53	9.78	-	325.75	-	-	-	-	-	-	-
MW-3	01/15/1993	-	335.53	7.66	-	327.87	-	-	-	-	-	-	-
MW-3	02/10/1993	-	335.53	7.87	-	327.66	980	190	<5	52	<5	-	-
MW-3	03/29/1993	-	335.53	7.35	-	328.18	-	-	-	-	-	-	-
MW-3	04/27/1993	-	335.53	7.70	-	327.83	-	-	-	-	-	-	-
MW-3	05/10/1993	-	335.53	8.46	-	327.07	1,100	280	<2.5	70	<2.5	-	-
MW-3	06/18/1993	-	335.53	9.13	-	326.40	-	-	-	-	-	-	-
MW-3	07/28/1993	-	335.53	9.49	-	326.04	-	-	-	-	-	-	-
MW-3	08/30/1993	-	335.53	9.62	-	325.91	470	120	<1	22	<1	-	-
MW-3	09/28/1993	-	335.53	9.80	-	325.73	-	-	-	-	-	-	-
MW-3	10/31/1993	-	335.53	9.84	-	325.69	-	-	-	-	-	-	-
MW-3	11/11/1993	-	335.53	9.81	-	325.72	830	96	<2.5	25	<2.5	-	-
MW-3	12/15/1993	-	335.53	10.23	-	325.30	-	-	-	-	-	-	-
MW-3	02/11/1994	-	335.53	9.60	-	325.93	220	42	<1.0	84	<1.0	-	-
MW-3	03/13/1994	-	335.53	9.03	-	326.50	-	-	-	-	-	-	-
MW-3	02/15/1995	-	335.53	8.55	-	326.98	100	14	<0.5	6.3	<0.5	-	-
MW-3	05/24/1995	-	335.53	8.17	-	327.36	110	8	<0.5	2.7	<0.5	-	-
MW-3	08/25/1995	-	335.53	9.27	-	326.26	210	3.6	<0.5	2.9	0.6	20,000	-
MW-3	11/28/1995	-	335.53	9.91	-	325.62	81	1.5	<0.5	1.4	<0.5	15,000	-
MW-3	02/26/1996	-	335.53	8.42	-	327.11	16,000	1,600	1,200	300	2,000	9,500	-
MW-3	05/23/1996	-	335.53	7.70	-	327.83	6,500	690	<10	120	14	8,600	-
MW-3	08/23/1996	-	335.53	9.25	-	326.28	1,700	85	2.1	61	5.3	11,000	-
MW-3	03/21/1997	-	335.53	8.72	-	326.81	100	2	<1	1	<1	6,600	-



**Table 2: Historical Groundwater Results**  
**ARCO Service Station No. 6041**  
**7249 Village Parkway, Dublin, California**  
**Local Case # RO452**

Location	Sample Date	Notes	TOC Elevation (ft)	DTW (ft btoc)	Product Thickness (ft)	Water Level Elevation (ft)	µg/L						TBA	
							TPHg	Benzene	Toluene	Ethylbenzene	Xylene	MTBE		
MW-3	08/20/1997	-	335.53	9.73	-	325.80	<5,000	<50	<50	<50	<50	<50	7,700	-
MW-3	11/21/1997	-	335.53	10.10	-	325.43	<5,000	<50	<50	<50	<50	<50	9,700	-
MW-3	02/12/1998	P	335.53	6.68	-	328.85	110	11	<0.5	<100	<100	<100	10,000	-
MW-3	07/31/1998	P	335.53	7.98	-	327.55	<10,000	<100	<100	<100	<100	<100	13,000	-
MW-3	02/17/1999	P	335.53	8.40	-	327.13	<20,000	<200	<200	<200	<200	<200	23,000	-
MW-3	08/24/1999	P	335.53	9.45	-	326.08	200	0.6	5.6	0.6	1.7	22,000	22,000	-
MW-3	03/01/2000	P	335.53	8.32	-	327.21	320	32	1	6.1	4	58,000	58,000	-
MW-3	08/18/2000	P	335.53	8.35	-	327.18	<10,000	<100	<100	<100	<100	46200/55600	46200/55600	-
MW-3	12/27/2000	P	335.53	9.75	-	325.78	29,700	1,620	1,730	<250	6,230	62,600	62,600	-
MW-3	02/09/2001	P	335.53	9.61	-	325.92	29,300	2,590	3,530	440	7,080	85,500	85,500	-
MW-3	04/17/2001	P	335.53	9.94	-	325.59	16,400	1,680	<25.0	310	2,290	48,700	48,700	-
MW-3	07/17/2001	P	335.53	9.93	-	325.60	21,000	1,500	<100	1,100	690	82,000	82,000	-
MW-3	12/21/2001	P	335.53	9.40	-	326.13	<5,000	<50	<50	<50	<50	4,300/3,800	4,300/3,800	-
MW-3	03/06/2002	P	335.53	9.33	-	326.20	<50	1.2	<0.50	1.1	13	880	880	-
MW-3	04/26/2002	P	335.53	9.19	-	326.34	260	3.7	<1.0	1.1	1.8	460/940	460/940	-
MW-3	09/23/2002	P	335.53	9.30	-	326.23	1,500	41	2.4	9.8	14	980	980	-
MW-3	12/27/2002	P	335.53	7.30	-	328.23	1,500	300	100	21	66	1,100	1,100	-
MW-3	03/12/2003	P	335.53	8.06	-	327.47	<1,000	<10	<10	<10	<10	45	45	<20,000
MW-3	06/28/2003	P	338.18	8.60	-	329.58	1,500	20	27	12	45	140	140	29,000
MW-3	09/30/2003	P	338.18	9.04	-	329.14	<2,500	<25	<25	<25	<25	650	650	39,000
MW-3	12/05/2003	P	338.18	8.57	-	329.61	<2,500	<25	<25	<25	<25	480	480	39,000
MW-3	03/10/2004	P	338.18	7.58	-	330.60	180	7.4	<1.0	<1.0	<1.0	75	75	590
MW-3	06/21/2004	P	338.18	8.51	-	329.67	<2,500	<25	<25	<25	<25	370	370	34,000
MW-3	09/17/2004	P	338.18	8.38	-	329.80	<5,000	<50	<50	<50	<50	280	280	53,000
MW-3	12/13/2004	P	338.18	8.04	-	330.14	520	89	4.6	3.9	5.8	460	460	5,300
MW-3	03/03/2005	P	338.18	6.89	-	331.29	300	23	<2.5	<2.5	<2.5	130	130	940
MW-3	06/23/2005	P	338.18	8.27	-	329.91	260	6.1	1.1	0.65	2.8	40	40	9,400
MW-3	09/16/2005	P	338.18	8.47	-	329.71	850	52	<5.0	<5.0	<5.0	270	270	20,000
MW-3	12/27/2005	P	338.18	7.77	-	330.41	300	56	<2.5	<2.5	<2.5	230	230	1,700
MW-3	03/02/2006	P	338.18	7.33	-	330.85	<250	4.0	<2.5	<2.5	<2.5	24	24	400
MW-3	6/23/2006	P	338.18	7.64	-	330.54	340	1.5	<0.50	<0.50	<0.50	47	47	13,000
MW-3	9/19/2006	P	338.18	8.17	-	330.01	<50	<0.50	<0.50	<0.50	<0.50	14	14	1,500
MW-3	12/19/2006	P	338.18	7.85	-	330.33	530	120	<5.0	<5.0	<5.0	270	270	4,900
MW-3	3/29/2007	P	338.18	7.15	-	331.03	750	180	<5.0	<5.0	<5.0	420	420	6,000
MW-3	6/5/2007	P	338.18	8.10	-	330.08	1,200	330	<5.0	<5.0	<5.0	610	610	8,800



Table 2: Historical Groundwater Results  
 ARCO Service Station No. 6041  
 7249 Village Parkway, Dublin, California  
 Local Case # RO452

Location	Sample Date	Notes	TOC Elevation (ft)	DTW (ft btoc)	Product Thickness (ft)	Water Level Elevation (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylene	MTBE	TBA
MW-3	9/25/2007	P	338.18	8.73	-	329.45	230	<5.0	<5.0	<5.0	<5.0	54	7,600
MW-3	12/26/2007	P	338.18	8.50	-	329.68	190	21	<0.50	0.69	<0.50	71	1,800
MW-3	3/25/2008	P	338.18	7.23	-	330.95	170	41	<10	<10	<10	77	4,900
MW-3	6/10/2008	P	338.18	8.15	-	330.03	110	<25	<25	<25	<25	<25	6,000
MW-3	9/9/2008	P	338.18	8.57	-	329.61	73	<20	<20	<20	<20	<20	6,400
MW-3	12/4/2008	P	338.18	8.67	-	329.51	91	<20	<20	<20	<20	<20	5,700
MW-3	3/5/2009	P	338.18	6.75	-	331.43	64	11	<0.50	<0.50	<0.50	19	150
MW-3	6/2/2009	P	338.18	7.99	-	330.19	<50	<1.0	<1.0	<1.0	<1.0	4.0	340
MW-3	10/26/2009	P	338.18	8.18	-	330.00	330	11	3.5	<2.5	<5.0	38	1,600
MW-3	3/16/2010	P	338.18	6.83	-	331.35	340	180	<2.5	2.5	6.4	240	5,400
MW-3	7/30/2010	P	338.18	8.02	-	330.16	<250	<2.5	<2.5	<2.5	<5.0	5.1	2,700
MW-4	11/10/1992	-	334.22	9.58	-	324.64	<50	<0.5	<0.5	<0.5	<0.5	-	-
MW-4	12/14/1992	-	334.22	8.72	-	325.50	-	-	-	-	-	-	-
MW-4	01/15/1993	-	334.22	7.27	-	326.95	-	-	-	-	-	-	-
MW-4	02/10/1993	-	334.22	6.80	-	327.42	<50	<0.5	<0.5	<0.5	<0.5	-	-
MW-4	03/29/1993	-	334.22	6.29	-	327.93	-	-	-	-	-	-	-
MW-4	04/27/1993	-	334.22	6.33	-	327.89	-	-	-	-	-	-	-
MW-4	05/10/1993	-	334.22	6.68	-	327.54	<50	<0.5	<0.5	<0.5	<0.5	-	-
MW-4	06/18/1993	-	334.22	7.05	-	327.17	-	-	-	-	-	-	-
MW-4	07/28/1993	-	334.22	7.77	-	326.45	-	-	-	-	-	-	-
MW-4	08/30/1993	-	334.22	8.09	-	326.13	<50	<0.5	<0.5	<0.5	<0.5	-	-
MW-4	09/28/1993	-	334.22	8.40	-	325.82	-	-	-	-	-	-	-
MW-4	10/31/1993	-	334.22	8.56	-	325.66	-	-	-	-	-	-	-
MW-4	11/11/1993	-	334.22	8.48	-	325.74	<50	<0.5	<0.5	<0.5	<0.5	-	-
MW-4	12/15/1993	-	334.22	8.38	-	325.84	-	-	-	-	-	-	-
MW-4	02/11/1994	-	334.22	8.15	-	326.07	<50	<0.5	<0.5	<0.5	<0.5	-	-
MW-4	03/13/1994	-	334.22	7.57	-	326.65	-	-	-	-	-	-	-
MW-4	02/15/1995	-	334.22	7.85	-	326.37	<50	<0.5	<0.5	<0.5	<0.5	-	-
MW-4	05/24/1995	-	334.22	6.68	-	327.54	-	-	-	-	-	-	-
MW-4	08/25/1995	-	334.22	6.93	-	327.29	<50	<0.5	<0.5	<0.5	<0.5	<3	-
MW-4	11/28/1995	-	334.22	8.21	-	326.01	-	-	-	-	-	-	-
MW-4	02/26/1996	-	334.22	6.65	-	327.57	<50	<0.5	<0.5	<0.5	<0.5	<3	-
MW-4	05/23/1996	-	334.22	6.47	-	327.75	-	-	-	-	-	-	-
MW-4	08/23/1996	-	334.22	7.66	-	326.56	-	-	-	-	-	-	-
MW-4	03/21/1997	-	334.22	6.84	-	327.38	-	-	-	-	-	-	-







Table 2: Historical Groundwater Results  
 ARCO Service Station No. 6041  
 7249 Village Parkway, Dublin, California  
 Local Case # RO452

Location	Sample Date	Notes	TOC Elevation (ft)	DTW (ft btoc)	Product Thickness (ft)	Water Level Elevation (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylene	MTBE	TBA
MW-4	9/25/2007	P	336.87	7.53	-	329.34	<50	<0.50	<0.50	<0.50	<0.50	3.0	<20
MW-4	12/26/2007	-	336.87	7.25	-	329.62	-	-	-	-	-	-	-
MW-4	3/25/2008	-	336.87	6.18	-	330.69	-	-	-	-	-	-	-
MW-4	6/10/2008	-	336.87	6.90	-	329.97	-	-	-	-	-	-	-
MW-4	9/9/2008	P	336.87	7.38	-	329.49	<50	<0.50	<0.50	<0.50	<0.50	5.3	<10
MW-4	12/4/2008	-	336.87	7.47	-	329.40	-	-	-	-	-	-	-
MW-4	3/5/2009	-	336.87	6.35	-	330.52	-	-	-	-	-	-	-
MW-4	6/2/2009	-	336.87	6.62	-	330.25	-	-	-	-	-	-	-
MW-4	10/26/2009	P	336.87	7.12	-	329.75	<50	<0.50	0.57	<0.50	<1.0	4.4	<5.0
MW-4	3/16/2010	-	336.87	5.85	-	331.02	-	-	-	-	-	-	-
MW-4	7/30/2010	P	336.87	6.70	-	330.17	<50	<0.50	<0.50	<0.50	<1.0	4.2	<4.0
MW-5	11/10/1992	-	335.87	11.02	-	324.85	<50	<0.5	<0.5	<0.5	<0.5	-	-
MW-5	12/14/1992	-	335.87	10.17	-	325.70	-	-	-	-	-	-	-
MW-5	01/15/1993	-	335.87	8.14	-	327.73	-	-	-	-	-	-	-
MW-5	02/10/1993	-	335.87	8.00	-	327.87	<50	<0.5	<0.5	<0.5	<0.5	-	-
MW-5	03/29/1993	-	335.87	7.52	-	328.35	-	-	-	-	-	-	-
MW-5	04/27/1993	-	335.87	8.26	-	327.61	-	-	-	-	-	-	-
MW-5	05/10/1993	-	335.87	8.64	-	327.23	<50	<0.5	<0.5	<0.5	<0.5	-	-
MW-5	06/18/1993	-	335.87	9.26	-	326.61	-	-	-	-	-	-	-
MW-5	07/28/1993	-	335.87	9.65	-	326.22	-	-	-	-	-	-	-
MW-5	08/30/1993	-	335.87	9.81	-	326.06	<50	<0.5	<0.5	<0.5	<0.5	-	-
MW-5	09/28/1993	-	335.87	9.99	-	325.88	-	-	-	-	-	-	-
MW-5	10/31/1993	-	335.87	10.02	-	325.85	-	-	-	-	-	-	-
MW-5	11/11/1993	-	335.87	10.09	-	325.78	<50	<0.5	<0.5	<0.5	<0.5	-	-
MW-5	12/15/1993	-	335.87	10.08	-	325.79	-	-	-	-	-	-	-
MW-5	02/11/1994	-	335.87	9.63	-	326.24	<50	<0.5	<0.5	<0.5	<0.5	-	-
MW-5	03/13/1994	-	335.87	9.26	-	326.61	-	-	-	-	-	-	-
MW-5	02/15/1995	-	335.87	7.80	-	328.07	<50	<0.5	<0.5	<0.5	<0.5	-	-
MW-5	05/24/1995	-	335.87	8.10	-	327.77	-	-	-	-	-	-	-
MW-5	08/25/1995	-	335.87	9.43	-	326.44	-	-	-	-	-	-	-
MW-5	11/28/1995	-	335.87	10.12	-	325.75	-	-	-	-	-	-	-
MW-5	02/26/1996	-	335.87	6.73	-	329.14	-	-	-	-	-	-	-
MW-5	05/23/1996	-	335.87	7.87	-	328.00	-	<0.5	<0.5	<0.5	<0.5	<3	-
MW-5	08/23/1996	-	335.87	9.46	-	326.41	-	-	-	-	-	-	-
MW-5	03/21/1997	-	335.87	8.23	-	327.64	-	-	-	-	-	-	-



Table 2: Historical Groundwater Results  
 ARCO Service Station No. 6041  
 7249 Village Parkway, Dublin, California  
 Local Case # RO452

Location	Sample Date	Notes	TOC Elevation (ft)	DTW (ft btoe)	Product Thickness (ft)	Water Level Elevation (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylene	MTBE	TBA
MW-5	08/20/1997	-	335.87	9.92	-	325.95	-	-	-	-	-	-	-
MW-5	11/21/1997	-	335.87	10.18	-	325.69	-	-	-	-	-	-	-
MW-5	02/12/1998	-	335.87	6.45	-	329.42	-	-	-	-	-	-	-
MW-5	07/31/1998	-	335.87	8.98	-	326.89	-	-	-	-	-	-	-
MW-5	02/17/1999	-	335.87	7.65	-	328.22	-	-	-	-	-	-	-
MW-5	08/24/1999	-	335.87	8.10	-	327.77	-	-	-	-	-	-	-
MW-5	03/01/2000	-	335.87	7.31	-	328.56	-	-	-	-	-	-	-
MW-5	08/18/2000	-	335.87	8.65	-	327.22	-	-	-	-	-	-	-
MW-5	12/27/2000	-	335.87	9.80	-	326.07	-	-	-	-	-	-	-
MW-5	02/09/2001	-	335.87	9.65	-	326.22	-	-	-	-	-	-	-
MW-5	04/17/2001	-	335.87	9.92	-	325.95	-	-	-	-	-	-	-
MW-5	07/17/2001	-	335.87	9.95	-	325.92	-	-	-	-	-	-	-
MW-5	12/21/2001	-	335.87	-	-	-	-	-	-	-	-	-	-
MW-5	03/06/2002	-	335.87	-	-	-	-	-	-	-	-	-	-
MW-5	04/26/2002	-	335.87	-	-	-	-	-	-	-	-	-	-
MW-5	09/23/2002	-	335.87	7.94	-	327.93	-	-	-	-	-	-	-
MW-5	12/27/2002	-	335.87	7.57	-	328.30	<50	<0.50	<0.50	<0.50	0.76	15	<20
MW-5	03/12/2003	-	335.87	8.32	-	327.55	-	-	-	-	-	-	-
MW-5	06/28/2003	-	338.59	8.58	-	330.01	-	-	-	-	-	-	-
MW-5	09/30/2003	-	338.59	9.28	-	329.31	-	-	-	-	-	-	-
MW-5	12/05/2003	P	338.59	9.11	-	329.48	<50	<0.50	<0.50	<0.50	<0.50	22	<20
MW-5	03/10/2004	-	338.59	7.57	-	331.02	-	-	-	-	-	-	-
MW-5	06/21/2004	-	338.59	8.68	-	329.91	-	-	-	-	-	-	-
MW-5	09/17/2004	-	338.59	-	-	-	-	-	-	-	-	-	-
MW-5	09/24/2004	P	338.59	8.53	-	330.06	<50	<0.50	<0.50	<0.50	<0.50	17	<20
MW-5	12/13/2004	-	338.59	8.28	-	330.31	-	-	-	-	-	-	-
MW-5	03/03/2005	-	338.59	6.78	-	331.81	-	-	-	-	-	-	-
MW-5	06/23/2005	-	338.59	8.27	-	330.32	-	-	-	-	-	-	-
MW-5	09/16/2005	P	338.59	9.57	-	329.02	<50	<0.50	<0.50	<0.50	<0.50	69	<20
MW-5	12/27/2005	-	338.59	8.72	-	329.87	-	-	-	-	-	-	-
MW-5	03/02/2006	-	338.59	8.11	-	330.48	-	-	-	-	-	-	-
MW-5	6/23/2006	-	338.59	8.54	-	330.05	-	-	-	-	-	-	-
MW-5	9/19/2006	P	338.59	9.21	-	329.38	52	<0.50	<0.50	<0.50	<0.50	82	<20
MW-5	12/19/2006	-	338.59	9.00	-	329.59	-	-	-	-	-	-	-
MW-5	3/29/2007	-	338.59	8.53	-	330.06	-	-	-	-	-	-	-



Table 2: Historical Groundwater Results  
 ARCO Service Station No. 6041  
 7249 Village Parkway, Dublin, California  
 Local Case # RO452

Location	Sample Date	Notes	TOC Elevation (ft)	DTW (ft btoc)	Product Thickness (ft)	Water Level Elevation (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylene	MTBE	TBA
MW-5	6/5/2007	-	338.59	8.42	-	330.17	-	-	-	-	-	-	-
MW-5	9/25/2007	P	338.59	9.80	-	328.79	<50	<0.50	<0.50	<0.50	<0.50	18	<20
MW-5	12/26/2007	-	338.59	9.28	-	329.31	-	-	-	-	-	-	-
MW-5	3/25/2008	-	338.59	8.31	-	330.28	-	-	-	-	-	-	-
MW-5	6/10/2008	-	338.59	9.19	-	329.40	-	-	-	-	-	-	-
MW-5	9/9/2008	P	338.59	9.69	-	328.90	<50	<0.50	<0.50	<0.50	<0.50	27	<10
MW-5	12/4/2008	-	338.59	9.79	-	328.80	-	-	-	-	-	-	-
MW-5	3/5/2009	-	338.59	7.68	-	330.91	-	-	-	-	-	-	-
MW-5	6/2/2009	-	338.59	8.87	-	329.72	-	-	-	-	-	-	-
MW-5	10/26/2009	P	338.59	9.36	-	329.23	<50	<0.50	<0.50	<0.50	<1.0	8.6	<5.0
MW-5	3/16/2010	-	338.59	7.73	-	330.86	-	-	-	-	-	-	-
MW-5	7/30/2010	P	338.59	9.10	-	329.49	<50	<0.50	<0.50	<0.50	<1.0	5.3	<4.0
MW-6	11/10/1992	-	335.84	11.03	-	324.81	<50	<0.5	<0.5	<0.5	<0.5	-	-
MW-6	12/14/1992	-	335.84	10.03	-	325.81	-	-	-	-	-	-	-
MW-6	01/15/1993	-	335.84	7.64	-	328.20	-	-	-	-	-	-	-
MW-6	02/10/1993	-	335.84	8.22	-	327.62	<50	<0.5	<0.5	<0.5	<0.5	-	-
MW-6	03/29/1993	-	335.84	7.59	-	328.25	-	-	-	-	-	-	-
MW-6	04/27/1993	-	335.84	8.20	-	327.64	-	-	-	-	-	-	-
MW-6	05/10/1993	-	335.84	8.85	-	326.99	<50	<0.5	<0.5	<0.5	<0.5	-	-
MW-6	06/18/1993	-	335.84	9.26	-	326.58	-	-	-	-	-	-	-
MW-6	07/28/1993	-	335.84	9.83	-	326.01	-	-	-	-	-	-	-
MW-6	08/30/1993	-	335.84	10.15	-	325.69	<50	<0.5	<0.5	<0.5	<0.5	-	-
MW-6	09/28/1993	-	335.84	9.95	-	325.89	-	-	-	-	-	-	-
MW-6	10/31/1993	-	335.84	10.16	-	325.68	-	-	-	-	-	-	-
MW-6	11/11/1993	-	335.84	10.02	-	325.82	<50	<0.5	<0.5	<0.5	<0.5	-	-
MW-6	12/15/1993	-	335.84	10.28	-	325.56	-	-	-	-	-	-	-
MW-6	02/11/1994	-	335.84	9.66	-	326.18	<50	<0.5	<0.5	<0.5	<0.5	-	-
MW-6	03/13/1994	-	335.84	9.28	-	326.56	-	-	-	-	-	-	-
MW-6	02/15/1995	-	335.84	7.81	-	328.03	<50	<0.5	<0.5	<0.5	<0.5	-	-
MW-6	05/24/1995	-	335.84	8.35	-	327.49	-	-	-	-	-	-	-
MW-6	08/25/1995	-	335.84	9.71	-	326.13	-	-	-	-	-	-	-
MW-6	11/28/1995	-	335.84	10.28	-	325.56	-	-	-	-	-	-	-
MW-6	02/26/1996	-	335.84	6.60	-	329.24	<50	<0.5	<0.5	<0.5	<0.5	<3	-
MW-6	05/23/1996	-	335.84	8.05	-	327.79	-	-	-	-	-	-	-
MW-6	08/23/1996	-	335.84	9.58	-	326.26	-	-	-	-	-	-	-



Table 2: Historical Groundwater Results  
 ARCO Service Station No. 6041  
 7249 Village Parkway, Dublin, California  
 Local Case # RO452

Location	Sample Date	Notes	TOC Elevation (ft)	DTW (ft btoc)	Product Thickness (ft)	Water Level Elevation (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylene	MTBE	TBA
MW-6	03/21/1997	-	335.84	8.39	-	327.45	-	-	-	-	-	-	-
MW-6	08/20/1997	-	335.84	9.98	-	325.86	-	-	-	-	-	-	-
MW-6	11/21/1997	-	335.84	10.31	-	325.53	-	-	-	-	-	-	-
MW-6	02/12/1998	-	335.84	3.15	-	332.69	-	-	-	-	-	-	-
MW-6	07/31/1998	-	335.84	9.29	-	326.55	-	-	-	-	-	-	-
MW-6	02/17/1999	-	335.84	7.72	-	328.12	-	-	-	-	-	-	-
MW-6	08/24/1999	-	335.84	9.65	-	326.19	-	-	-	-	-	-	-
MW-6	03/01/2000	-	335.84	7.35	-	328.49	-	-	-	-	-	-	-
MW-6	08/18/2000	-	335.84	8.65	-	327.19	-	-	-	-	-	-	-
MW-6	12/27/2000	-	335.84	9.83	-	326.01	-	-	-	-	-	-	-
MW-6	02/09/2001	-	335.84	9.62	-	326.22	-	-	-	-	-	-	-
MW-6	04/17/2001	-	335.84	10.03	-	325.81	-	-	-	-	-	-	-
MW-6	07/17/2001	-	335.84	9.95	-	325.89	-	-	-	-	-	-	-
MW-6	12/21/2001	NP	335.84	9.47	-	326.37	<50	<0.50	<0.50	<0.50	0.57	<2.5	<20
MW-6	03/06/2002	P	335.84	9.31	-	326.53	<50	<0.50	<0.50	<0.50	<0.50	<5.0	<20
MW-6	04/26/2002	P	335.84	9.09	-	326.75	<50	<0.50	<0.50	<0.50	0.7	<2.5	<20
MW-6	09/23/2002	P	335.84	9.14	-	326.70	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<100
MW-6	12/27/2002	-	335.84	7.26	-	328.58	<50	<0.50	<0.50	<0.50	0.63	0.91	<20
MW-6	03/12/2003	P	335.84	8.41	-	327.43	<50	<0.50	<0.50	<0.50	<0.50	0.64	<20
MW-6	06/28/2003	P	338.37	8.56	-	329.81	<50	<0.50	<0.50	<0.50	<0.50	0.62	<20
MW-6	09/30/2003	-	338.37	9.32	-	329.05	<250	<2.5	<2.5	<2.5	<2.5	3.9	<100
MW-6	12/05/2003	-	338.37	8.96	-	329.41	-	-	-	-	-	-	-
MW-6	03/10/2004	-	338.37	7.65	-	330.72	-	-	-	-	-	-	-
MW-6	06/21/2004	-	338.37	8.58	-	329.79	-	-	-	-	-	-	-
MW-6	09/17/2004	P	338.37	8.47	-	329.90	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<20
MW-6	12/13/2004	-	338.37	8.04	-	330.33	-	-	-	-	-	-	-
MW-6	03/03/2005	-	338.37	6.60	-	331.77	-	-	-	-	-	-	-
MW-6	06/23/2005	-	338.37	8.14	-	330.23	-	-	-	-	-	-	-
MW-6	09/16/2005	P	338.37	8.66	-	329.71	<50	<0.50	<0.50	<0.50	<0.50	<0.50	42
MW-6	12/27/2005	-	338.37	7.79	-	330.58	-	-	-	-	-	-	-
MW-6	03/02/2006	-	338.37	7.15	-	331.22	-	-	-	-	-	-	-
MW-6	6/23/2006	-	338.37	7.70	-	330.67	-	-	-	-	-	-	-
MW-6	9/19/2006	P	338.37	8.30	-	330.07	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<20
MW-6	12/19/2006	-	338.37	7.90	-	330.47	-	-	-	-	-	-	-
MW-6	3/29/2007	-	338.37	7.72	-	330.65	-	-	-	-	-	-	-







**Table 2: Historical Groundwater Results**  
**ARCO Service Station No. 6041**  
**7249 Village Parkway, Dublin, California**  
**Local Case # RO452**

Location	Sample Date	Notes	TOC Elevation (ft)	DTW (ft btoc)	Product Thickness (ft)	Water Level Elevation (ft)	µg/L							TBA		
							TPHg	Benzene	Toluene	Ethylbenzene	Xylene	MTBE				
MW-7	9/25/2007	-	338.62	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-7	12/26/2007	-	338.62	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-7	3/25/2008	-	338.62	7.51	-	331.11	-	-	-	-	-	-	-	-	-	-
MW-7	6/10/2008	-	338.62	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-7	9/9/2008	-	338.62	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-7	12/4/2008	-	338.62	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-7	3/5/2009	-	338.62	6.70	-	331.92	-	-	-	-	-	-	-	-	-	-
MW-7	6/2/2009	-	338.62	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-7	10/26/2009	-	338.62	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-7	3/16/2010	-	338.62	6.90	-	331.72	-	-	-	-	-	-	-	-	-	-
MW-7	7/30/2010	-	338.62	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-8	12/21/2001	NP	-	8.70	-	-	-	<5,000	67	<50	<50	<50	<50	2,400/1,300	-	-
MW-8	03/06/2002	-	-	-	-	-	-	170	37	0.67	0.7	0.79	1.9	740	-	-
MW-8	03/06/2002	P	-	8.63	-	-	-	210	41	0.64	0.79	11	2.0	940	-	-
MW-8	04/26/2002	-	-	-	-	-	-	480	74	3.5	11	14	<1.0	640	-	-
MW-8	04/26/2002	P	-	8.15	-	-	-	680	95	<1.0	14	57	2.5	490	-	-
MW-8	09/30/2002	P	-	9.37	-	-	-	1,100	120	<5.0	2.4	2.2	8.7	1,100	-	-
MW-8	12/27/2002	P	-	7.55	-	-	-	350	13	<0.50	2.4	7.3	2.2	73	260	2,200
MW-8	03/12/2003	P	-	8.25	-	-	-	<2,500	89	<25	<25	<25	<25	740	2,200	12,000
MW-8	06/28/2003	P	338.27	8.38	-	329.89	-	7,000	680	<25	110	180	180	2,900	12,000	28,000
MW-8	09/30/2003	P	338.27	9.09	-	329.18	-	1,500	240	18	45	150	150	180	500	420
MW-8	12/05/2003	P	338.27	8.37	-	329.90	-	590	60	<2.5	15	7.4	4.2	150	9,200	83
MW-8	03/10/2004	P	338.27	7.41	-	330.86	-	690	50	<5.0	7.4	65	82	370	420	9,200
MW-8	06/21/2004	P	338.27	8.41	-	329.86	-	1,300	200	<5.0	65	1.9	5.8	22	83	540
MW-8	09/17/2004	P	338.27	8.25	-	330.02	-	580	17	<0.50	1.9	18	4.9	6.6	<20	440
MW-8	12/13/2004	P	338.27	7.78	-	330.49	-	380	24	<0.50	18	<0.50	<0.50	<0.50	26	5,000
MW-8	03/03/2005	P	338.27	6.48	-	331.79	-	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	49	200
MW-8	06/23/2005	P	338.27	7.91	-	330.36	-	160	10	<0.50	3.8	100	95	26	5,000	-
MW-8	09/16/2005	P	338.27	8.38	-	329.89	-	1,700	340	5.0	3.8	3.8	26	49	5,000	-
MW-8	12/27/2005	-	338.27	7.60	-	330.67	-	-	-	-	-	-	-	-	-	-
MW-8	03/02/2006	P	338.27	6.93	-	331.34	-	<250	10	<2.5	4.4	2.6	14	14	200	-
MW-8	6/23/2006	-	338.27	7.55	-	330.72	-	-	-	-	-	-	-	-	-	-
MW-8	9/19/2006	P	338.27	8.21	-	330.06	-	600	70	<2.5	24	3.2	89	89	5,200	-
MW-8	12/19/2006	-	338.27	7.89	-	330.38	-	-	-	-	-	-	-	-	-	-
MW-8	3/29/2007	P	338.27	7.55	-	330.72	-	95	3.1	<0.50	0.58	<0.50	5.1	5.1	400	-







**Table 2: Historical Groundwater Results**  
**ARCO Service Station No. 6041**  
**7249 Village Parkway, Dublin, California**  
**Local Case # RO452**

Location	Sample Date	Notes	TOC Elevation (ft)	DTW (ft btoc)	Product Thickness (ft)	Water Level Elevation (ft)	TPHg	Benzene	Toluene	Ethylbenzene	Xylene	MTBE	TBA
µg/L													

**Notes:**

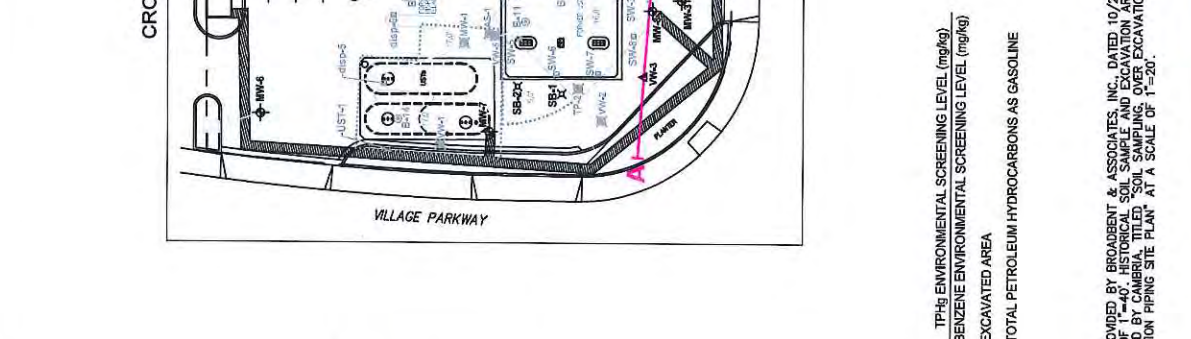
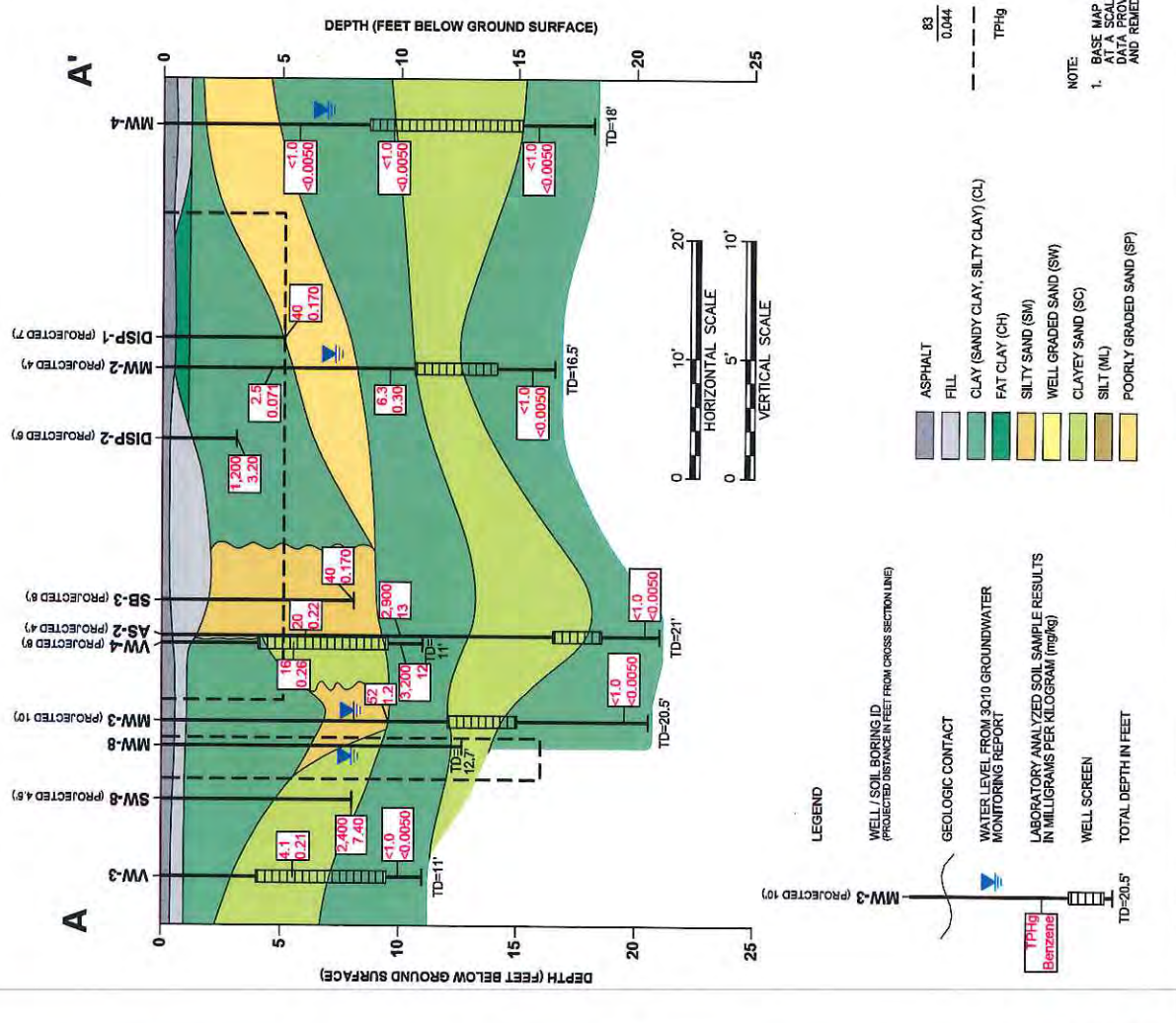
- TOC = Top of Casing
- DTW = Depth to Water
- ft = feet
- btoc = below top of casing
- TPHg = Total Petroleum Hydrocarbons as Gasoline
- MTBE = Methyl tert-butyl ether
- TBA = tert-Butyl alcohol
- µg/L = micrograms per liter
- P = well purged prior to sampling
- NP = well not purged prior to sampling
- = not analyzed
- < = analyte not detected above laboratory detection limit
- ppb = parts per billion

Analytical results collected between September 2, 1991 to February 11, 1994 were reported in ppb. TPHg and BTEX analyzed by EPA Method 5030/8020/DHS LUFT Meth BTEX, MTBE and oxygenates analytical results after February 11, 1994 were analyzed by EPA Method 8260B.

Beginning fourth quarter 2003, the laboratory modified the reported analyte list. TPHg was changed to GRO.

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

From April 2006 through February 4, 2008, GRO analysis was completed by EPA method 8260B. From February 5, 2008 through September 30, 2009, GRO analysis was completed by EPA Method 8015B. From October 1, 2009 to present, GRO analysis was completed by EPA Method 8260B.



**CROSS SECTION LOCATION**

STATION BUILDING  
 VILLAGE PARKWAY  
 AMADOR VALLEY BOULEVARD

GRAPHIC SCALE: 40'

STATION #6041  
 7249 VILLAGE PARKWAY  
 DUBLIN, CALIFORNIA  
**BP 6041 CLOSURE REPORT**

**VERTICAL EXTENT OF TPHg AND BENZENE SOIL IMPACTS (GEOLOGIC CROSS SECTION A-A')**

ARCADIS

FIGURE 5

TPHg ENVIRONMENTAL SCREENING LEVEL (mg/kg)  
 83  
 0.044  
 EXCAVATED AREA  
 TOTAL PETROLEUM HYDROCARBONS AS GASOLINE

NOTE:  
 1. BASE MAP PROVIDED BY BROADBENT & ASSOCIATES, INC., DATED 10/21/09, AT A SCALE OF 1"=40'. HISTORICAL SOIL SAMPLE AND EXCAVATION AREA DATA PROVIDED BY CAMBRIDGE, TITLED "SOIL SAMPLING OVER EXCAVATION AND REMEDIATION PIPING SITE PLAN" AT A SCALE OF 1"=20'.

**LEGEND**

WELL / SOIL BORING ID (PROJECTED DISTANCE IN FEET FROM CROSS SECTION LINE)

GEOLOGIC CONTACT

WATER LEVEL FROM 30x10 GROUNDWATER MONITORING REPORT

LABORATORY ANALYZED SOIL SAMPLE RESULTS IN MILLIGRAMS PER KILOGRAM (mg/kg)

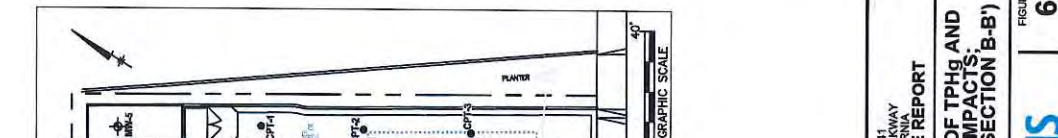
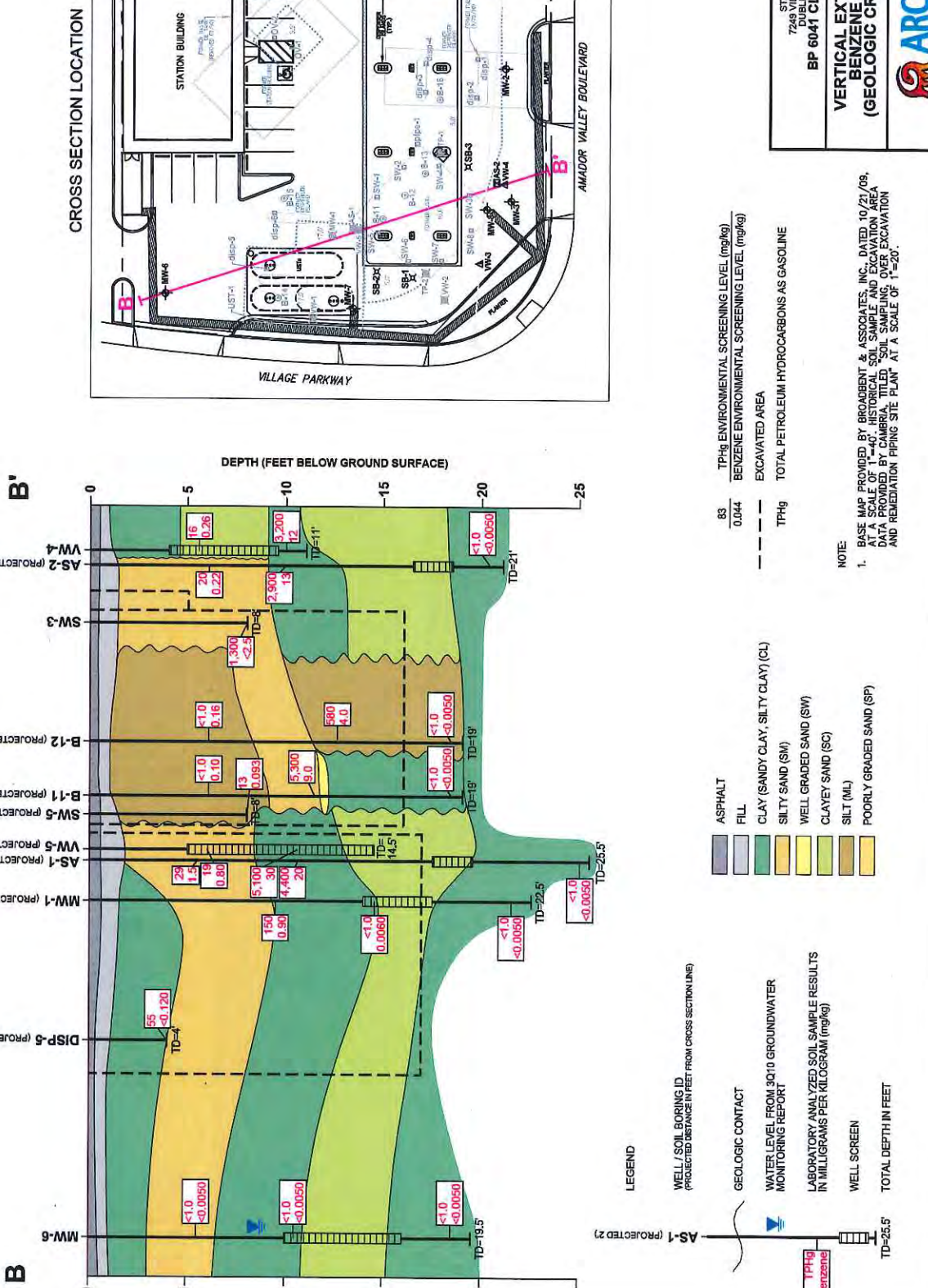
WELL SCREEN

TOTAL DEPTH IN FEET

ASPHALT  
 FILL  
 CLAY (SANDY CLAY, SILTY CLAY) (CL)  
 FAT CLAY (CH)  
 SILTY SAND (SM)  
 WELL GRADED SAND (SW)  
 CLAYEY SAND (SC)  
 SILTY (ML)  
 POORLY GRADED SAND (SP)

**ATTACHMENT 6**





STATION #6041  
 7289 VILLAGE PARKWAY  
 AND  
 6041 CLOSURE REPORT

**VERTICAL EXTENT OF TPHg AND BENZENE SOIL IMPACTS: (GEOLOGIC CROSS SECTION B-B')**

**ARCADIS** | **6**

NOTE:  
 1. BASE MAP PROVIDED BY BROADBENT & ASSOCIATES, INC., DATED 10/21/09, AT A SCALE OF 1"=40'. HISTORICAL SOIL SAMPLE AND EXCAVATION AREA DATA PROVIDED BY CAMBRIDGE, TITLED "SOIL SAMPLING OVER EXCAVATION AND REMEDIATION PIPING SITE PLAN" AT A SCALE OF 1"=20'.

**CHART 1: MW-2 Concentration Trends**

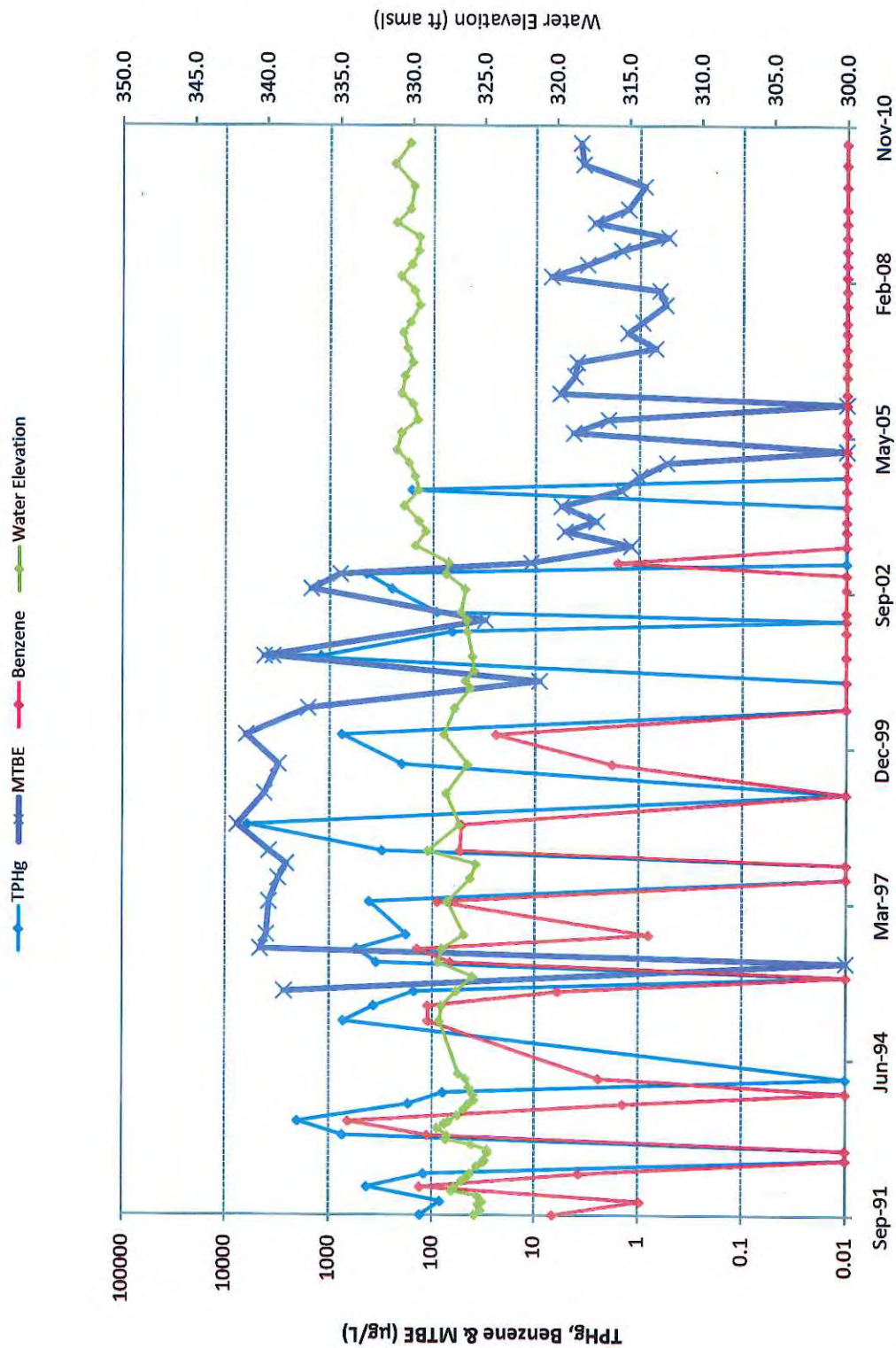
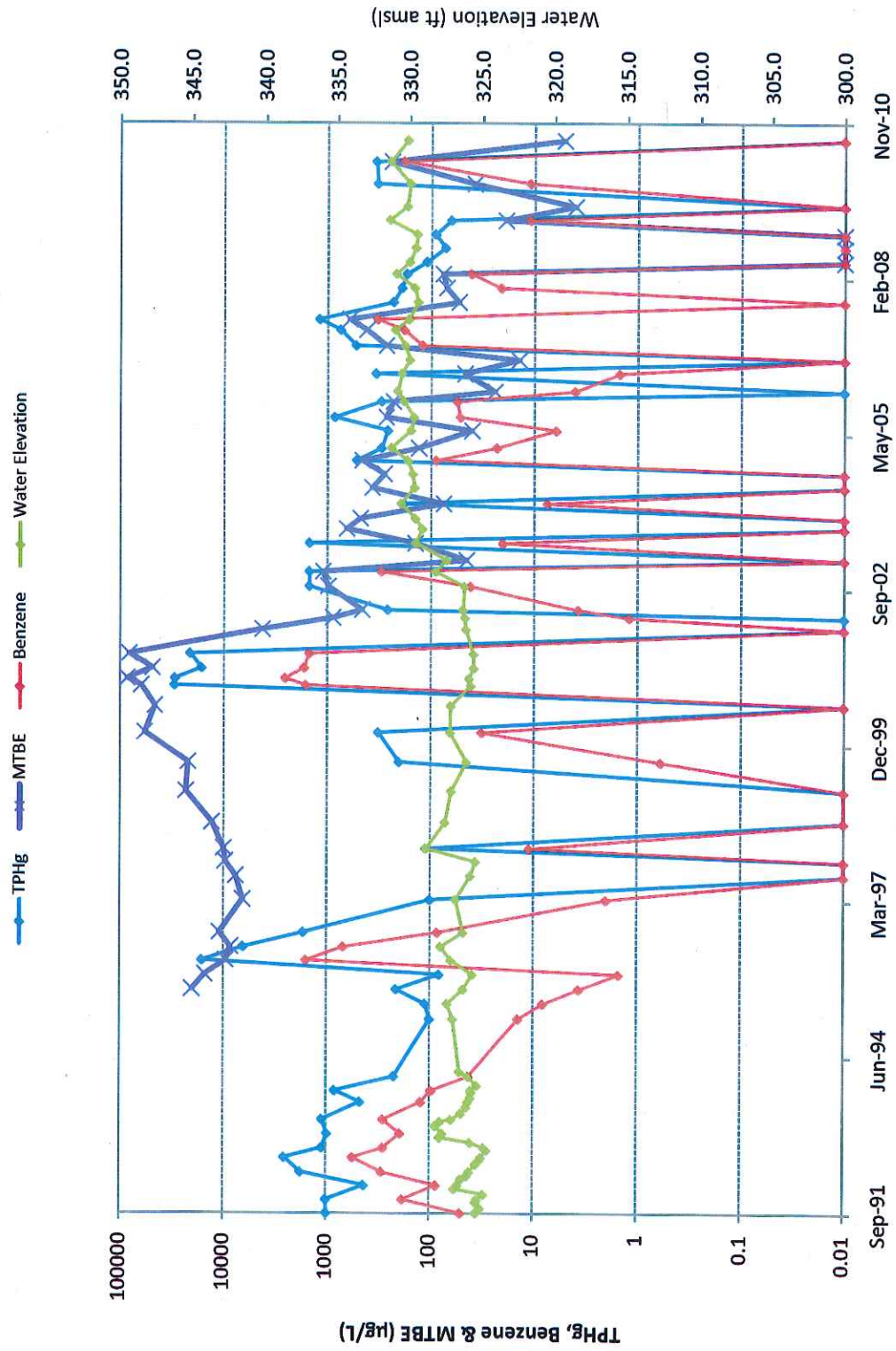


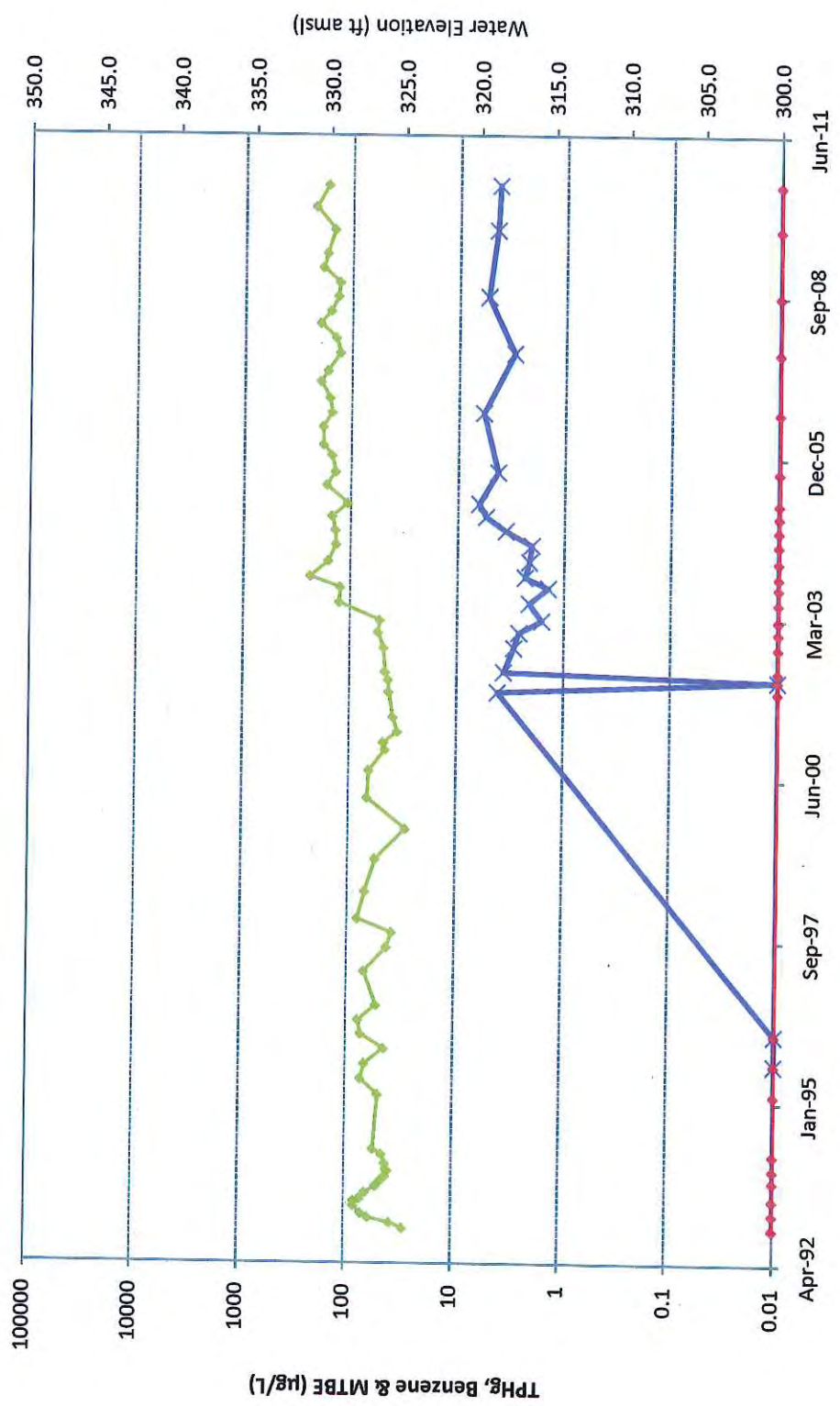


Chart 2: MW-3 Concentration Trends



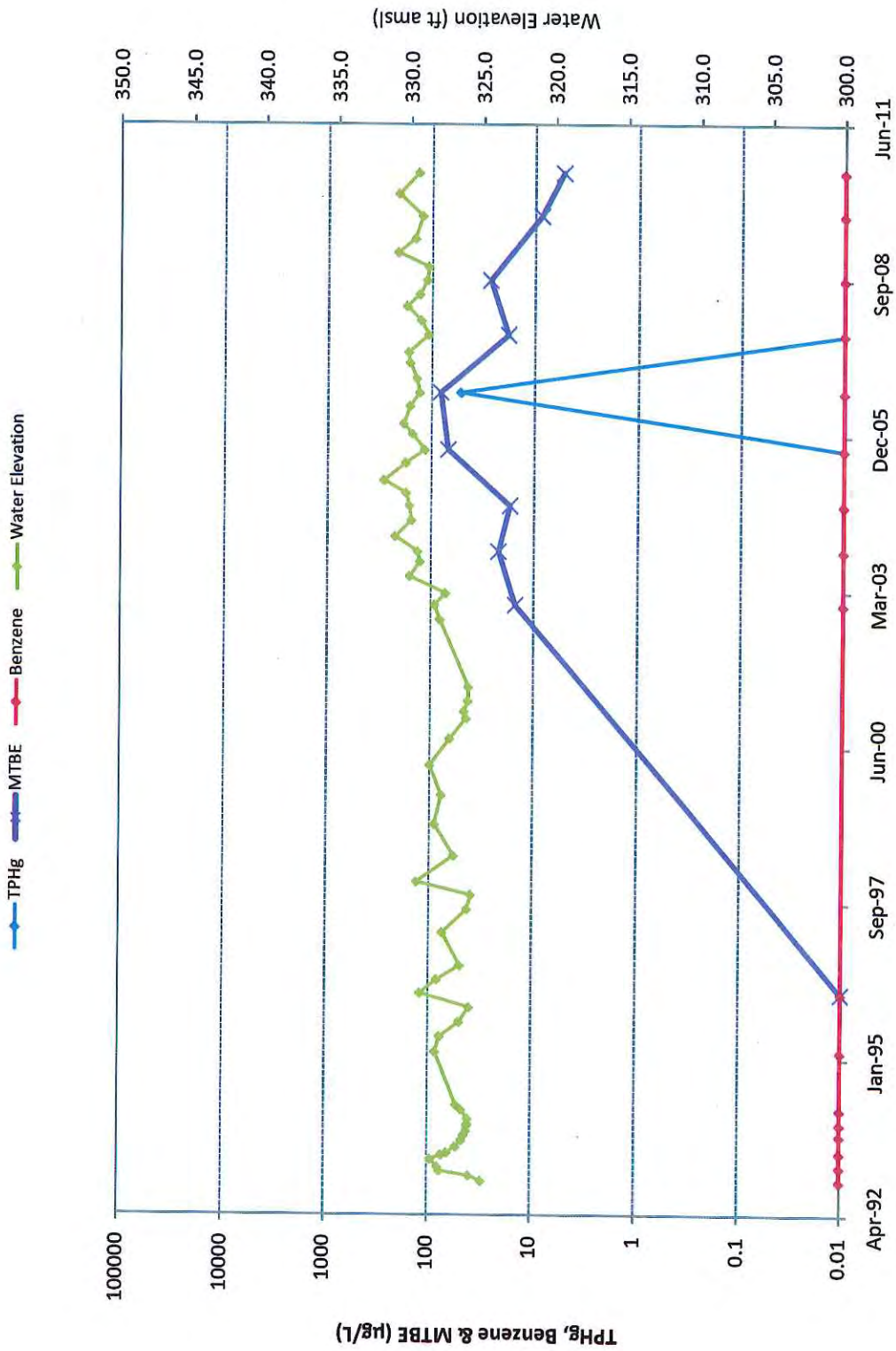
**CHART 3: MW-4 Concentration Trends**

TPHg — MTBE — Benzene — Water Elevation

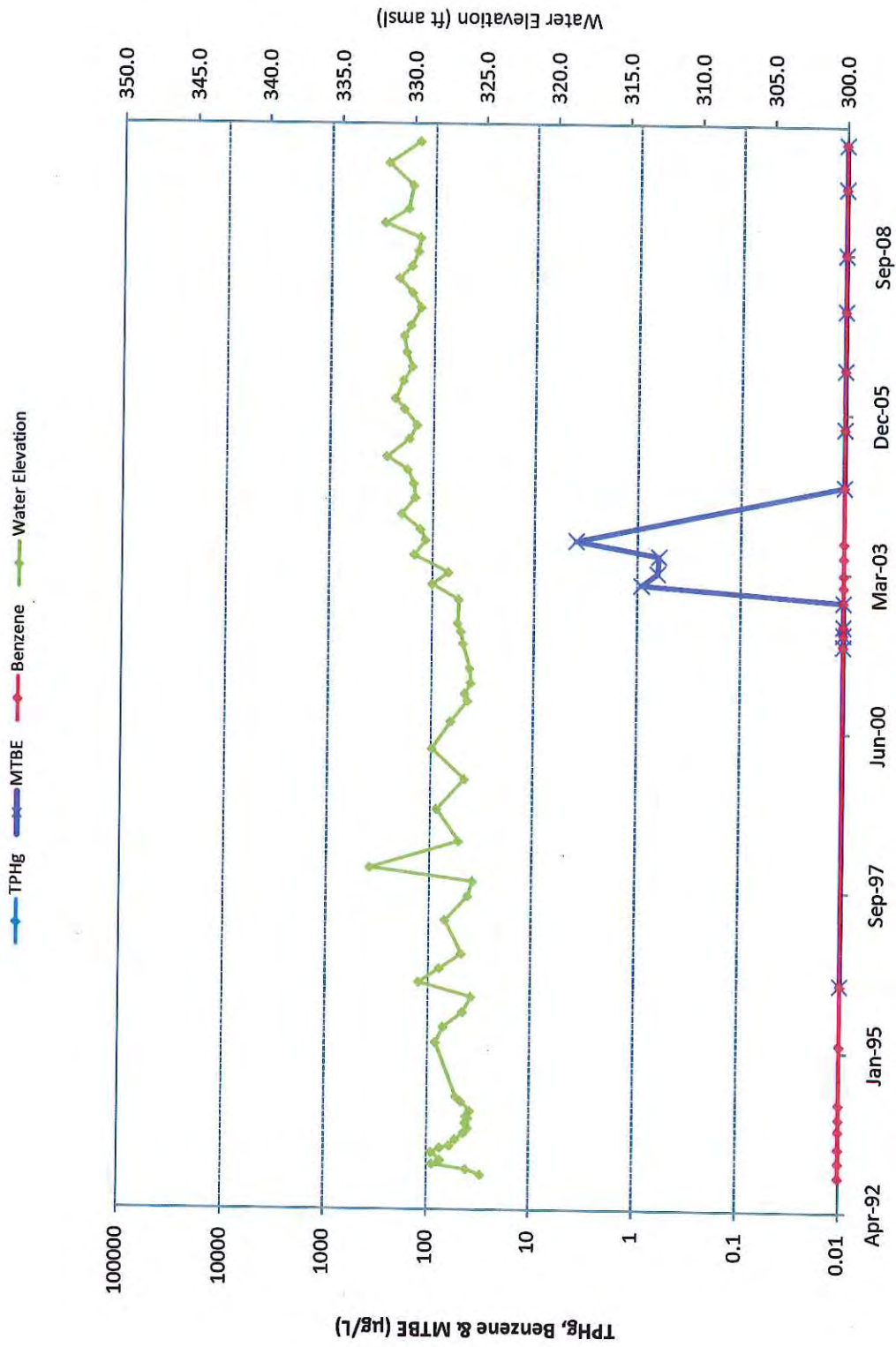




**CHART 4: MW-5 Concentration Trends**



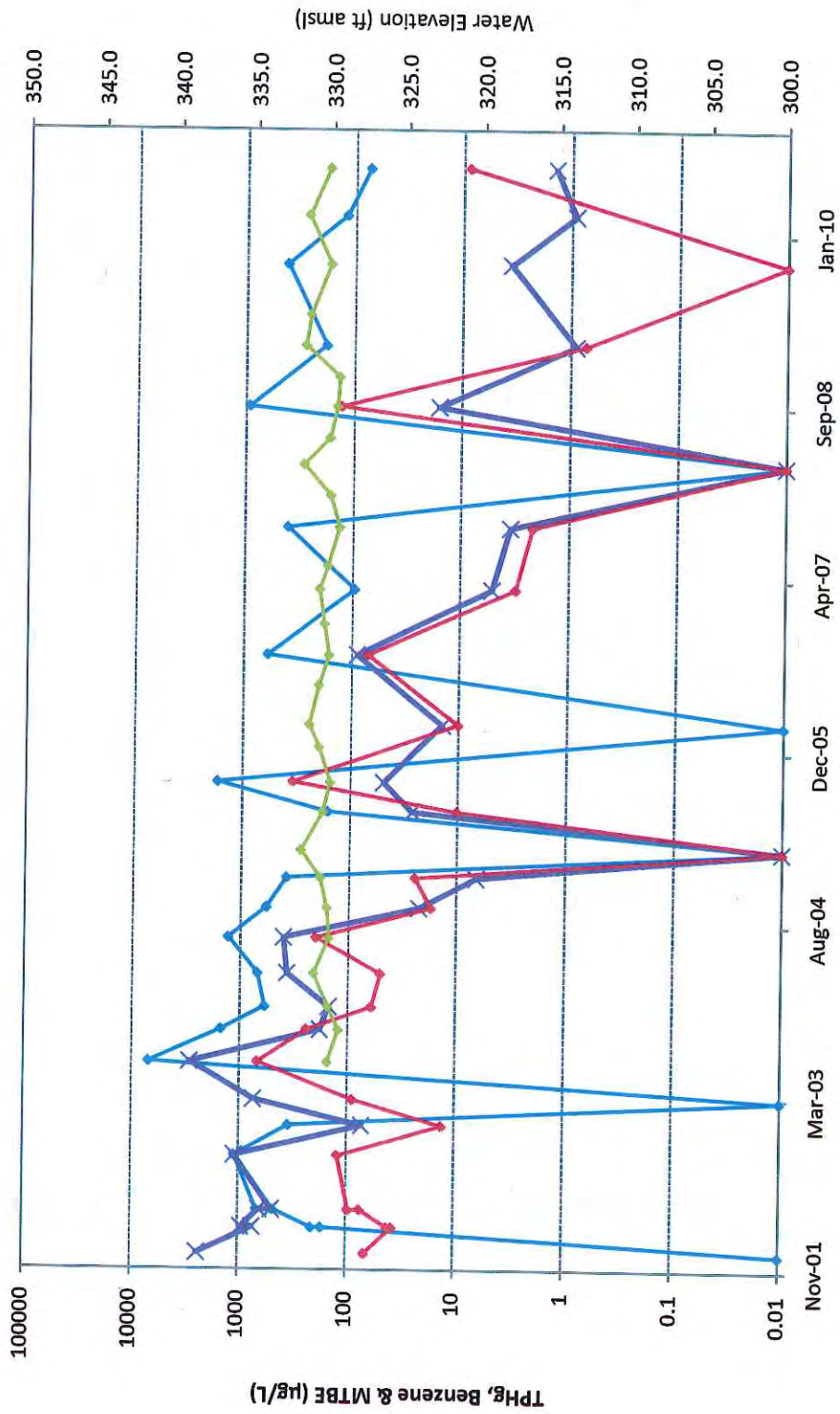
**CHART 5: MW-6 Concentration Trends**





**CHART 6: MW-8 Concentration Trends**

TPHg — MTBE — Benzene — Water Elevation



**CHART 7: VW-2 Concentration Trends**

TPHg — MTBE — Benzene — Water Elevation

