

RECEIVED

By Alameda County Environmental Health at 4:18 pm, Jun 06, 2014



Well Destruction Report

Former Atlantic Richfield Company Station No. 6041
7249 Village Parkway
Dublin, California
ACEH Case No. RO0000452

ARCADIS U.S., Inc.
100 Montgomery Street
Suite 300
San Francisco
California 94104
Tel 415 432 6900
Fax 415 374 2745
www.arcadis-us.com

ENVIRONMENT

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

Submitted by:

ARCADIS U.S., Inc

A handwritten signature in blue ink that reads "HE Phillips".

Hollis E. Phillips, PG
Project Manager

Date:

May 5, 2014

Contact:

Hollis E. Phillips

Phone:

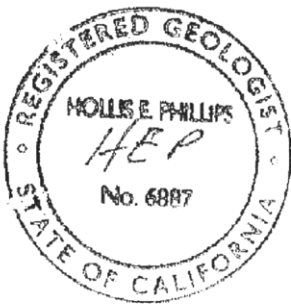
415 432.6903

Email:

Hollis.phillips@arcadis-us.com

Our ref:

GP09BPNA.C039



Imagine the result

Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA

Subject:

Well Destruction Report

Former Atlantic Richfield Company Station No. 6041
7249 Village Parkway
Dublin, California
ACEH Case No. RO0000452

Dear Mr. Wickham:

On behalf of Atlantic Richfield Company, a BP West Coast Products, LLC (BP West) affiliated company, ARCADIS U.S., Inc. (ARCADIS) is pleased to submit this Well Destruction Report which documents the destruction of 10 wells (seven groundwater monitoring wells, two vapor extraction wells, and one air sparge well), at the Atlantic Richfield Company (ARCO) Station No. 6041 (site) located at 7249 Village Parkway, Dublin, California (**Figure 1**).

Destruction of the site wells was requested in the *Recommendation for Case Closure* submitted to Alameda County Environmental Health Department (ACEH) on February 24, 2011. Closure was approved in *Well Decommissioning for Fuel Leak Case No. RO0000452 and GeoTracker Global ID T0600100109, Arco #6041, 7249 Village Parkway, Dublin, CA 94568*, dated March 12, 2014 (**Attachment A**).

Prior to conducting the field activities, ARCADIS obtained well destruction permit 2014142 from the Zone 7 Water Agency for wells MW-2 through MW-8, VW-3, VW-4, and AS-2 (**Figure 2**). A copy of the permit is included as **Attachment B**.

ARCADIS contracted Cascade Drilling, L.P. of Richmond, California to destroy the wells. Cascade is a California-licensed drilling contractor (C57 License No.938110). The monitoring wells were destroyed from April 8 and April 9, 2014.

Mr. Jeff Jones from the Zone 7 Water Agency provided inspection and oversight of the well destruction activities. The wells were destroyed in accordance with Zone 7 Water Agency permit requirements. Neat cement grout was placed in each well from the bottom of the well to ground surface and placed under 25 pounds per square inch (psi) of pressure for 5 minutes under the supervision of the Zone 7 Water Agency inspector. Pressure was not applied to the grout at MW-7 or VW-3 because of the proximity of the wells to pea gravel associated with the nearby underground storage tanks. Mr. Jones approved of this deviation. All well boxes were removed, except for the well boxes at MW-5 and MW-7 which were left in place and filled to grade with concrete, at

ARCADIS U.S., Inc.
100 Montgomery Street
Suite 300
San Francisco
California 94104
Tel 415.374.2744
Fax 415.374.2745
www.arcadis-us.com

ENVIRONMENTAL

Date:
May 5, 2014

Contact:
Hollis E. Phillips

Phone:
415.432.6903

Email:
hollis.phillips@arcadis-us.com

Our ref:
GP09BPNA.C039

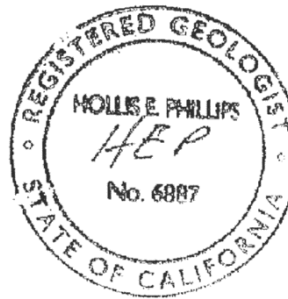
the request of the property owner and with approval from Mr. Jones.. All wells were completed to match the existing surrounding ground surface conditions.

Table 1 provides well destruction details. Copies of the Well Completion Reports submitted to the Department of Water Resources are included in **Attachment C**.

With the completion of the above mentioned well destruction activities, ARCADIS does not believe that there are any remaining issues associated with ACEH Case No. RO0000452; therefore, this site should be considered closed with regard to the previous environmental issues associated with this site. If you have any questions or need additional information regarding this site please contact Hollis Phillips at 415.432.6903. Thank you for your assistance with closing ARCO Station No. 6041.

Sincerely,

ARCADIS U.S., Inc.



Hollis E. Phillips, PG (No. 6887)
Project Manager/Principal Geologist

Attachments

Figure 1 – Site Location Map

Figure 2 – Site Plan

Table 1 – Well Destruction Details

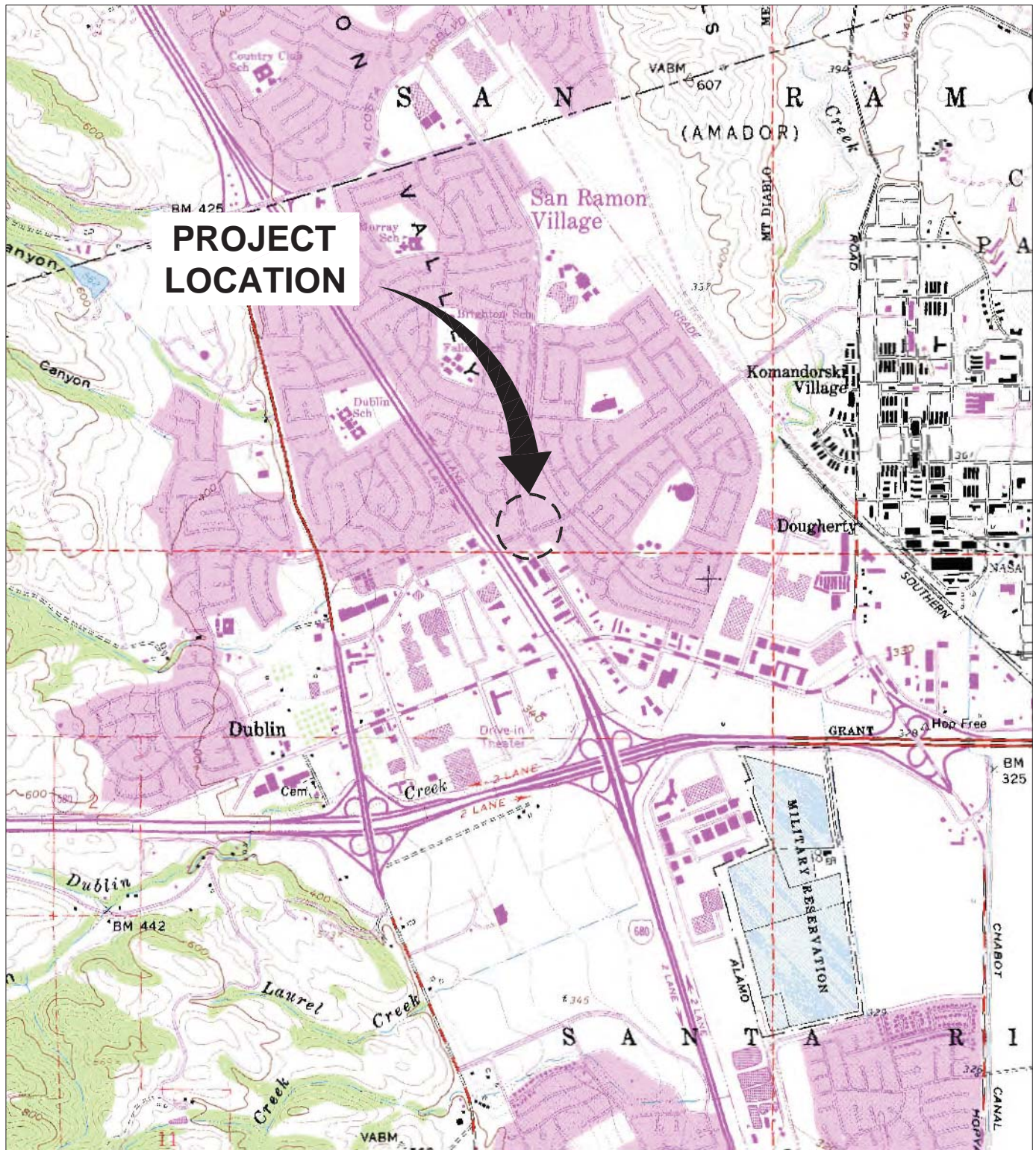
Attachment A – *Well Decommissioning for Fuel Leak Case No. RO0000452 and GeoTracker Global ID T0600100109, Arco #6041, 7249 Village Parkway, Dublin, CA 94568*

Attachment B – Well Destruction Permit

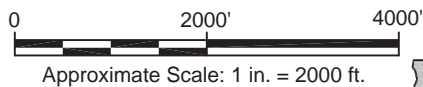
Attachment C – Well Completion Reports

Copies:

Geotracker upload/ACEH upload



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

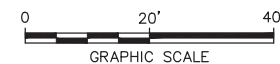
1



- MW-4**  MONITORING WELL
- VW-4**  VAPOR EXTRACTION WELL
- AS-2**  AIR SPARGE WELL
- MW-1**  ABANDONED WELL
- SW-6**  HISTORICAL SOIL SAMPLE AND DEPTH (FT BGS)
[CAMBRIA, 2001]
- B-11**  HISTORICAL SOIL BORING (RESNA, AUGUST 1993)
- CPT-1**  CPT BORING (ARCADIS, 2010)
- SB-2**  SOIL BORING (ARCADIS, 2010)
-  EXCAVATION AND DEPTH (FT BGS)
-  REMEDIATION PIPING TRENCH
-  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 GEOTECHNICAL REASONS 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



FIGURE
2

Table 1
Well Destruction Details
CA-6041
7249 Village Parkway, Dublin , CA

Well ID	Total Depth (feet btoc)	Casing Diameter (inches)	Boring Diameter (inches)	Neat Cement Grout Estimated Volume (gallons)	Neat Cement Grout Approximate Actual Volume (gallons)	Vault (Y/N)	Completion Type
MW-2	9.5	4	10	8.05	10	N	conc. dyed black
MW-3	14	4	10	11.87	20	N	conc. dyed black
MW-4	14.6	4	12	12.37	25	N	conc. dyed black
MW-5	18	4	12	15.26	25	N	concrete
MW-6	13	4	12	11.02	15	N	conc. dyed black
MW-7	8.5	4	10	7.20	15	N	concrete
MW-8	12.6	4	10	10.68	25	N	conc. dyed black
VW-3	9.5	4	12	8.05	22	N	conc. dyed black
VW-4	9.5	4	12	2.01	20	N	conc. dyed black
AS-2	18.5	2	8	3.92	10	N	conc. dyed black



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

March 12, 2014

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

Janet Wager
BP Remediation Management
201 Helios Way, 6th Floor
Houston, TX 77079
(Sent via E-mail to: 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)

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

Narra, Inc.
c/o Jimmy and Yvonne Tiu
11098 Inspiration Circle
Dublin, CA 94568-5530

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

Dear Responsible Parties:

Alameda County Environmental Health (ACEH) staff have reviewed the fuel leak case file for the above-referenced site and concur that no further action related to the underground storage tank fuel release is required at this time. No comments were received on the proposed case closure during a public comment period that ended March 11, 2014. Please decommission the monitoring wells and provide documentation of the well decommissioning and waste disposal to this office no later than June 30, 2014. Remedial action completion certification will be issued following receipt of the documentation.

Well destruction permits may be obtained from the Zone 7 Water Agency (<http://www.zone7water.com>). If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at jerry.wickham@acgov.org.

TECHNICAL REPORT REQUEST

Please upload technical reports to the ACEH ftp site (Attention: Jerry Wickham), and to the State Water Resources Control Board's GeoTracker website according to the following schedule and file-naming convention:

- **June 30, 2014** – Well Destruction Report
File to be named: WDR_R_yyyy-mm-dd RO452

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

Site Management Requirements

This case is expected to be closed with the following site management requirements:

"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.

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. Due to the potential for vapor intrusion to indoor air for future buildings, ACEH will re-evaluate the case upon receipt of approved development/construction plans.

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."

If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at jerry.wickham@acgov.org. Online case files are available for review at the following website: <http://www.acgov.org/aceh/index.htm>. If your email address does not appear on the cover page of this notification, ACEH is requesting you provide your email address so that we can correspond with you quickly and efficiently regarding your case.

Sincerely,

Jerry Wickham, California PG 3766, CEG 1177, and CHG 297
Senior Hazardous Materials Specialist

Attachments: Responsible Party(ies) Legal Requirements/Obligations

Enclosure: ACEH Electronic Report Upload (ftp) Instructions

Responsible Parties
RO0000452
March 12, 2014, Page 3

cc: Colleen Winey (QIC 8021), Zone 7 Water Agency, 100 North Canyons Pkwy, Livermore, CA 94551 (*Sent via E-mail to: 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*)

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

Jerry Wickham, ACEH (*Sent via E-mail to: jerry.wickham@acgov.org*)
GeoTracker, eFile

Attachment 1

Responsible Party(ies) Legal Requirements/Obligations

REPORT/DATA REQUESTS

These reports/data are being requested pursuant to Division 7 of the California Water Code (Water Quality), Chapter 6.7 of Division 20 of the California Health and Safety Code (Underground Storage of Hazardous Substances), and Chapter 16 of Division 3 of Title 23 of the California Code of Regulations (Underground Storage Tank Regulations).

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (Local Oversight Program [LOP] for unauthorized releases from petroleum Underground Storage Tanks [USTs], and Site Cleanup Program [SCP] for unauthorized releases of non-petroleum hazardous substances) require submission of reports in electronic format pursuant to Chapter 3 of Division 7, Sections 13195 and 13197.5 of the California Water Code, and Chapter 30, Articles 1 and 2, Sections 3890 to 3895 of Division 3 of Title 23 of the California Code of Regulations (23 CCR). Instructions for submission of electronic documents to the ACEH FTP site are provided on the attached "Electronic Report Upload Instructions."

Submission of reports to the ACEH FTP site is in addition to requirements for electronic submittal of information (ESI) to the State Water Resources Control Board's (SWRCB) Geotracker website. In April 2001, the SWRCB adopted 23 CCR, Division 3, Chapter 16, Article 12, Sections 2729 and 2729.1 (Electronic Submission of Laboratory Data for UST Reports). Article 12 required electronic submittal of analytical laboratory data submitted in a report to a regulatory agency (effective September 1, 2001), and surveyed locations (latitude, longitude and elevation) of groundwater monitoring wells (effective January 1, 2002) in Electronic Deliverable Format (EDF) to Geotracker. Article 12 was subsequently repealed in 2004 and replaced with Article 30 (Electronic Submittal of Information) which expanded the ESI requirements to include electronic submittal of any report or data required by a regulatory agency from a cleanup site. The expanded ESI submittal requirements for petroleum UST sites subject to the requirements of 23 CCR, Division, 3, Chapter 16, Article 11, became effective December 16, 2004. All other electronic submittals required pursuant to Chapter 30 became effective January 1, 2005. Please visit the SWRCB website for more information on these requirements. (http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/)

PERJURY STATEMENT

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

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 7835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

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

AGENCY OVERSIGHT

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

Alameda County Environmental Cleanup Oversight Programs (LOP and SCP)	REVISION DATE: July 25, 2012
	ISSUE DATE: July 5, 2005
	PREVIOUS REVISIONS: October 31, 2005; December 16, 2005; March 27, 2009; July 8, 2010
SECTION: Miscellaneous Administrative Topics & Procedures	SUBJECT: Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (petroleum UST and SCP) require submission of all reports in electronic form to the county's FTP site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

REQUIREMENTS

- **Please do not submit reports as attachments to electronic mail.**
- Entire report including cover letter must be submitted to the ftp site as **a single Portable Document Format (PDF) with no password protection.**
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- **Signature pages and perjury statements must be included and have either original or electronic signature.**
- **Do not password protect the document.** Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

Submission Instructions

- 1) Obtain User Name and Password
 - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
 - i) Send an e-mail to loptoxic@acgov.org
 - b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for.**
- 2) Upload Files to the ftp Site
 - a) Using Internet Explorer (IE4+), go to [://alcoftp1.acgov.org](http://alcoftp1.acgov.org)
 - (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
 - b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
 - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
 - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
 - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
 - a) Send email to loptoxic@acgov.org notify us that you have placed a report on our ftp site.
 - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
 - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO#, use the street address instead.
 - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.



ZONE 7 WATER AGENCY

100 NORTH CANYONS PARKWAY, LIVERMORE, CALIFORNIA 94551 VOICE (925) 454-5000 FAX (925) 245-9306

E-MAIL whong@zone7water.com

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT

7249 Village Parkway
Dublin, CA 94568

Coordinates Source WGS 84 ft. Accuracy ± 15 ft.
LAT: 37°42'38.29" N ft. LONG: 121°55'36.21" W ft.
APN 941-197-79-4

CLIENT

Name ARCADIS (for B0)
Address 2000 Powell St. 7th Floor Phone 510-652-9602
City Emeryville, CA Zip 94608

APPLICANT

Name Barbara Jessup
Email barbara.jessup@arcadis-us.com
Address 2000 Powell St. 7th Floor Phone 510-652-9602
City Emeryville, CA Zip 94608

TYPE OF PROJECT:

Well Construction ☐ Geotechnical Investigation ☐
Well Destruction ☒ Contamination Investigation ☐
Cathodic Protection ☐ Other ☐

PROPOSED WELL USE:

Domestic ☐ Irrigation ☐
Municipal ☐ Remediation ☐
Industrial ☐ Groundwater Monitoring ☒
Dewatering ☐ Other ☐

DRILLING METHOD:

Mud Rotary ☐ Air Rotary ☐ Hollow Stem Auger ☒
Cable Tool ☐ Direct Push ☐ Other ☐

DRILLING COMPANY Cascade Drilling L.P.

DRILLER'S LICENSE NO. C-57 # 938110

WELL SPECIFICATIONS:

Drill Hole Diameter 8.12 in. Maximum 21 ft.
Casing Diameter 2.4 in. Depth 21 ft.
Surface Seal Depth 4-16.5 ft. Number 10

SOIL BORINGS:

Number of Borings Maximum
Hole Diameter in. Depth ft.

ESTIMATED STARTING DATE March 31, 2014
ESTIMATED COMPLETION DATE April 4, 2014

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Barbara Jessup Date 3/19/14

ATTACH SITE PLAN OR SKETCH

PERMIT NUMBER 2014042
WELL NUMBER see attached
APN 941-0197-079-04

PERMIT CONDITIONS (Circled Permit Requirements Apply)

- A. GENERAL**
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to your proposed starting date.
 2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report (DWR Form 188), signed by the driller.
 3. Permit is void if project not begun within 90 days of approval date.
 4. Notify Zone 7 at least 24 hours before the start of work.
- B. WATER SUPPLY WELLS**
1. Minimum surface seal diameter is four inches greater than the well casing diameter.
 2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.
 3. Grout placed by tremie.
 4. An access port at least 0.5 inches in diameter is required on the wellhead for water level measurements.
 5. A sample port is required on the discharge pipe near the wellhead.
- C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS**
1. Minimum surface seal diameter is four inches greater than the well or piezometer casing diameter.
 2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
 3. Grout placed by tremie.
- D. GEOTECHNICAL.** Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.
- E. CATHODIC.** Fill hole above anode zone with concrete placed by tremie.
- F. WELL DESTRUCTION.** See attached.
- G. SPECIAL CONDITIONS.** Submit to Zone 7 within 60 days after completion of permitted work the well installation report including all soil and water laboratory analysis results.

Approved Wyman Hong Date 3/24/14
Wyman Hong

March 24, 2014

Zone 7
Water Resources Engineering
Groundwater Protection Ordinance

ARCO Service Station #6041
7429 Village Parkway
Dublin

Wells 2S/1W-36P23 to 2S/1W-36P27 (MW-2 to MW-6), 2S/1W-36P30 (VW-3),
2S/1W-36P31 (VW-4), 2S/1W-36P33 (AS-2), 2S/1W-36P38 (MW-7) and 2S/1W-
36P39 (MW-8)
Permit 2014042

Destruction Requirements:

1. Remove from the well any pump, appurtenances, debris, or other materials.
2. Sound the well as deeply as practicable and record for your report.
3. Fill casing with neat cement or cement grout sealing material to two feet below the finished grade and pressurize to 25 psi and maintain for 5 minutes, forcing the sealing material through the existing perforations and into the surrounding formation.
4. Release the pressure and refill the empty portion of the casing with grouting material allowing it to spill over the top of the casing to form a cap.
5. Cut and remove any casing(s) to two feet below the finished grade or original ground, whichever is the lower elevation (optional).
6. After the seal has set, backfill the remaining hole with compacted material.

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

Depth of boring: 16-1/2 feet Diameter of boring: 10 inches Date drilled: 09/13/91
 Well depth: 14 feet Material type: Sch 40 PVC Casing diameter: 4 inches
 Screen interval: 10-1/2 to 14 feet Slot size: 0.020-inch
 Drilling Company: Kvilhaug Drilling Driller: Rod and Brian
 Method Used: Hollow-Stem Auger Field Geologist: Barbara Sieminski
 Signature of Registered Professional: Aime M. Barclay
 Registration No.: CEG 1366 State: CA

Depth	Sample No.	Blows	P.I.D.	USCS Code	Description	Well Const.
0					Concrete slab.	
				CH	Concrete (4 inches).	
				CL	Clay, black, damp, high plasticity, stiff.	
2					Sandy clay, dark brown, damp, medium plasticity, hard.	
4	S-4.5	10 24 32	160			
6				SP	Sand, medium-grained, gray, damp, very dense; obvious product odor.	
8				CL	Silty clay, with fine gravel, dark gray, damp, medium plasticity, very stiff; obvious product odor.	
10	S-9.5	7 9 13	66		Change to black, moist.	
12	S-11	3 5 5 3 4 6 8 10 18 10 24 30	137	SC	Clayey sand, fine-grained, dark gray, wet, loose; obvious product odor.	
14	S-12.5		7			
16	S-14		0	CL	Sandy clay, with gravel, brownish-gray, wet, medium plasticity, stiff.	
18	S-15.5		0		Less sand and gravel, damp.	
20					Hard.	
					Total depth = 16-1/2 feet.	

RESNA

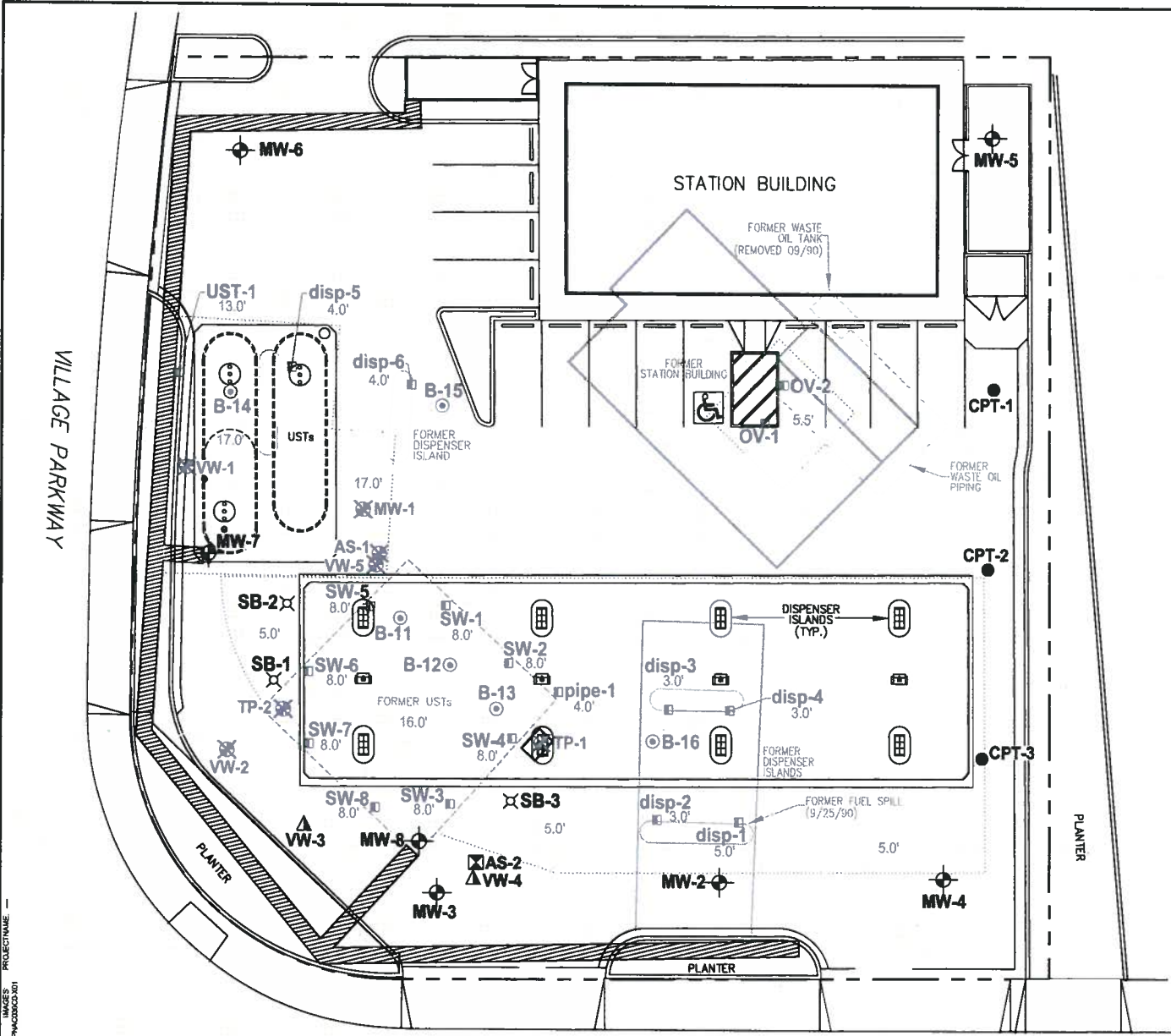
PROJECT: 60006.02

LOG OF BORING B-2/MW-2
 ARCO Service Station 6041
 7249 Village Parkway
 Dublin, California

PLATE

6

CITY OF DUBLIN, CA. PROJECT: BP 6041 CLOSURE REPORT. DATE: 10/21/09. BY: J. HARRIS. PROJECT: BP 6041 CLOSURE REPORT. DATE: 10/21/09. BY: J. HARRIS. PROJECT: BP 6041 CLOSURE REPORT. DATE: 10/21/09. BY: J. HARRIS.



LEGEND

- MW-4 MONITORING WELL
- VW-4 VAPOR EXTRACTION WELL
- AS-2 AIR SPARGE WELL
- MW-1 ABANDONED WELL
- SW-6 HISTORICAL SOIL SAMPLE AND DEPTH (FT BGS)
- B-11 HISTORICAL SOIL BORING (RESNA, AUGUST 1993)
- CPT-1 CPT BORING (ARCADIS, 2010)
- SB-2x SOIL BORING (ARCADIS, 2010)
- 5.0' 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 GEOTECHNICAL REASONS DURING THE UST REMOVAL ACTIVITIES IN 2001.



STATION #6041
7248 VILLAGE PARKWAY
DUBLIN, CALIFORNIA
BP 6041 CLOSURE REPORT

SITE PLAN WITH
HISTORICAL EXCAVATION LIMITS
AND SOIL SAMPLE LOCATIONS

ARCADIS

FIGURE
2

CONFIDENTIAL

**STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)**

REMOVED

Depth of boring: 20-1/2 feet Diameter of boring: 10 inches Date drilled: 09/12/91
 Well depth: 15 feet Material type: Sch 40 PVC Casing diameter: 4 inches
 Screen interval: 12 to 15 feet Slot size: 0.020-inch
 Drilling Company: Kvilhaug Drilling Driller: Rod and Brian
 Method Used: Hollow-Stem Auger Field Geologist: Barbara Sieminski
 Signature of Registered Professional: *Diane M. Barclay*
 Registration No.: CEG 1366 State: CA

Depth	Sample No.	Blogs	P.I.D.	USCS Code	Description	Well Const.
0					Paved area.	
				GP	Asphalt (6 inches).	
				CL	Gravel with sand and clay, brown, damp, medium dense; baserock.	
2					Sandy clay, dark gray, damp, medium plasticity, hard.	
4	S-4.5	7 12 30	3			
6				SM	Silty sand, dark gray, damp, medium dense.	
8						
10	S-9.5	9 11 15	515	CL	Silty clay, black, damp, medium plasticity, hard; obvious product odor.	
12				SC	Clayey sand, fine-grained, dark gray, wet, loose; obvious product odor.	
14	S-13.5	3 6 8 4 6	75			
16	S-15	10	25	CL	Sandy clay, with gravel, brownish-gray, wet, medium plasticity, stiff; noticeable product odor. Moist at 16 feet.	
18						
20	S-19.5	8 12 20	5		Less gravel and sand, damp, very stiff.	
					Total depth = 20-1/2 feet.	

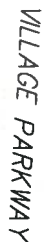
RESNA

PROJECT: 60006.02

LOG OF BORING B-3/MW-3
 ARCO Service Station 6041
 7249 Village Parkway
 Dublin, California

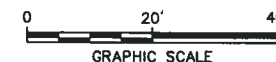
PLATE

7



FT BGS FEET BELOW GROUND SURFACE

1. BASE MAP PROVIDED BY BROADBENT & ASSOCIATES, INC. DATED 12/09 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 GEOTECHNICAL REASONS 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



FIGURE
2

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

Depth of boring: 18 feet Diameter of boring: 12 inches Date drilled: 10/26/92
 Well depth: 15 feet Material type: Sch 40 PVC Casing diameter: 4 inches
 Screen interval: 8-1/2 to 15 feet Filter pack: #3 Sand Slot size: 0.020-inch
 Drilling Company: Exploration GeoServices Driller: John, Mike, and Dan
 Method Used: Hollow-Stem Auger Field Geologist: Barbara Sieminski

Signature of Registered Professional [Signature]

Registration No.: RCE 044600 State: CA

Depth	Sample No.	Blows	P.I.D.	USCS Code	Description	Well Const.
0					Asphalt-covered surface.	
					Asphalt (4 inches).	
				GP	Sandy gravel, gray, damp, dense; baserock.	
				CL	Sandy clay, brown, damp, medium plasticity, stiff.	
2				SP	Sand, fine- to medium-grained, light brown, damp, medium dense; with roots.	
4						
6	S-5.5	6	NM			
		6		CL	Sandy clay, brown, damp, medium plasticity, stiff.	
8						
10	S-9.5	4	NM	SC	Clayey sand, fine- to coarse-grained, dark gray mottled white, moist to wet, medium dense; sand composed of gypsum crystals.	
	S-11	7	NM			
12		8				
14	S-13.5	5	NM		Decreasing clay.	
		4				
16	S-15.5	5	NM	CL	Sandy clay, trace gravel, brownish-gray, damp, medium plasticity, stiff.	
		7	NM			
18		8				
		11				
20					Total depth = 18 feet.	
					NM = Not measured due to OVM failure	

RESNA
Working to Restore Nature

PROJECT 60006.04

LOG OF BORING B-4/MW-4
 ARCO Service Station 6041
 7249 Village Parkway
 Dublin, California

PLATE
4



MW-4 MONITORING WELL

VW-4 ▲ VAPOR EXTRACTION WELL

AS-2 ☒ AIR SPARGE WELLMW-1  ABANDONED WELL

SW-6 3.0' HISTORICAL SOIL SAMPLE AND DEPTH (FT BGS)
[CAMBRIA, 2001]

B-11© HISTORICAL SOIL BORING (RESNA, AUGUST 1993)

CPT-1● CPT BORING (ARCADIS, 2010)

SB-2X SOIL BORING (ARCADIS, 2010)

5.0' EXCAVATION AND DEPTH (FT BGS)

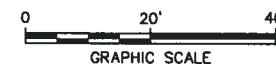
 REMEDIATION PIPING TRENCH

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 GEOTECHNICAL REASONS 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



FIGURE
2

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

Depth of boring: 20-1/2 feet Diameter of boring: 12 inches Date drilled: 10/26/92
 Well depth: 18 feet Material type: Sch 40 PVC Casing diameter: 4 inches
 Screen interval: 11 to 18 feet Filter pack: #3 Sand Slot size: 0.020-inch
 Drilling Company: Exploration GeoServices Driller: John, Mike and Dan
 Method Used: Hollow-Stem Auger Field Geologist: Barbara Sieminski
 Signature of Registered Professional: [Signature]
 Registration No.: RCE 044600 State: CA

Depth	Sample No.	Blows	P.I.D.	USCS Code	Description	Well Const.
0					Asphalt-covered surface.	
				GP	Asphalt (4 inches).	
				CL	Sandy gravel, gray, damp, dense; baserock.	
2					Sandy clay, dark brown, damp, medium plasticity, hard.	
4						
6	S-5.5	8 18 25	NM		Increasing sand.	
				SC	Clayey sand, fine-grained, dark gray, damp to moist, dense.	
8	S-8.5	8 10 13	NM		Moist.	
				CL	Silty clay, black, damp, medium plasticity, very stiff.	
10	S-10	8 10 11	NM			
					Moist, with gypsum crystals.	
12	S-11.5	8 10 15	NM		Color change to dark gray.	
				SC/CL	Clayey sand, fine- to medium-grained, trace gravel, brown, wet, dense; interbedded with sandy clay, brown, moist, medium plasticity, very stiff.	
14	S-13.5	8 10 20	NM			
16	S-15	7 8 13	NM			
18				CL	Sandy clay, trace gravel, damp, brownish-gray, medium plasticity, very stiff.	
20	S-19.5	5 9 15	NM			
					Total depth = 20-1/2 feet.	
					NM = Not measured due to OVM failure	

RESNA
 Working to Restore Nature

PROJECT

60006.04

LOG OF BORING B-5/MW-5
 ARCO Service Station 6041
 7249 Village Parkway
 Dublin, California

PLATE

5



MW-4 MONITORING WELL

VW-4 Δ VAPOR EXTRACTION WELL

AS-2 ☒ AIR SPARGE WELLMW-1 ~~IS~~ ABANDONED WELL

SW-6 8.0' □ HISTORICAL SOIL SAMPLE AND DEPTH (FT BGS)
[CAMBRIA, 2001]

B-11© HISTORICAL SOIL BORING (RESNA, AUGUST 1993)

CPT-1 • CPT BORING (ARCADIS, 2010)

SB-2X SOIL BORING (ARCADIS, 2D1D)

5.0' EXCAVATION AND DEPTH (FT BGS)

 REMEDIATION PIPING TRENCH

CPT CONE PENETROMETER TEST

FT BGS FEET BELOW GROUND SURFACE

NOTES:

1. BASE MAP PROVIDED BY BROADBENT & ASSOCIATES, 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 GEOTECHNICAL REASONS 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



FIGURE

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

Depth of boring: 19-1/2 feet Diameter of boring: 12 inches Date drilled: 10/26/92
 Well depth: 16 feet Material type: Sch 40 PVC Casing diameter: 4 inches
 Screen interval: 10 to 16 feet Filter pack: #3 Sand Slot size: 0.020-inch
 Drilling Company: Exploration GeoServices Driller: John, Mike, and Dan
 Method Used: Hollow-Stem Auger Field Geologist: Barbara Sieminski
 Signature of Registered Professional: [Signature]
 Registration No.: RCE 044600 State: CA

Depth	Sample No.	Blows	P.I.D.	USCS Code	Description	Well Const.
0					Asphalt-covered surface.	
				GP	Asphalt (4 inches).	
				CL	Sandy gravel, gray, damp, dense; baserock.	
2					Sandy clay, dark gray, damp, medium plasticity, stiff.	
4				SM	Silty sand, fine- to medium-grained, gray, damp, medium dense.	
6	S-5.5	6	NM			
		6		CL	Silty clay, black, damp, medium plasticity, very stiff; with gypsum crystals.	
8						
10	S-10.5	9	NM		With sand.	
		12			Moist.	
		18		SC/CL	Clayey sand, fine- to medium-grained, brownish-gray, wet, medium dense, interbedded with sandy clay, brownish-gray, moist, medium plasticity, stiff.	
12	S-12.5	4	NM			
		5				
		6				
14						
16	S-15.5	8	NM			
		9		CL	Sandy clay, trace fine gravel, brownish-gray, damp, medium plasticity, very stiff.	
		15				
18	S-18.5	6	NM			
		12				
		13				
20					Total depth = 19-1/2 feet.	
					NM = Not measured due to OVM failure	

RESNA
 Working to Restore Nature

PROJECT 60006.04

LOG OF BORING B-6/MW-6
 ARCO Service Station 6041
 7249 Village Parkway
 Dublin, California

PLATE
 6



MW-4 MONITORING WELL

VW-4 ▲ VAPOR EXTRACTION WELL

AS-2 ☒ AIR SPARGE WELLMW-1 ~~RE~~ ABANDONED WELL

SW-6 8.0' H HISTORICAL SOIL SAMPLE AND DEPTH (FT BGS)
[CAMBRIA, 2001]

B-11© HISTORICAL SOIL BORING (RESNA, AUGUST 1993)

CPT-1 • CPT BORING (ARCADIS, 2010)

SB-2X SOIL BORING (ARCADIS, 2010)

EXCAVATION AND DEPTH (FT BGS)

 REMEDIATION PIPING TRENCH

CPT CONE PENETROMETER TEST

FT BGS FEET BELOW GROUND SURFACE

NOTES:

1. BASE MAP PROVIDED BY BROADBENT & ASSOCIATES, INC. DATED 10/21/89, 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 GEOTECHNICAL REASONS 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



FIGURE
2

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED



MW-4 MONITORING WELL

VW-4 ▲ VAPOR EXTRACTION WELL

AS-2 ☒ AIR SPARGE WELLMW-1 ABANDONED WELL

SW-6 3.0' ID HISTORICAL SOIL SAMPLE AND DEPTH (FT BGS)
[CAMBRIA, 2001]

B-11© HISTORICAL SOIL BORING (RESNA, AUGUST 1993)

CPT-1● CPT BORING (ARCADIS, 2010)

SB-2X SOIL BORING (ARCADIS, 2010)

5.0' EXCAVATION AND DEPTH (FT BGS)

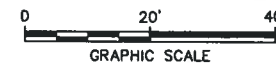
 REMEDIATION PIPING TRENCH

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 CAMBERIA, 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 GEOTECHNICAL REASONS 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

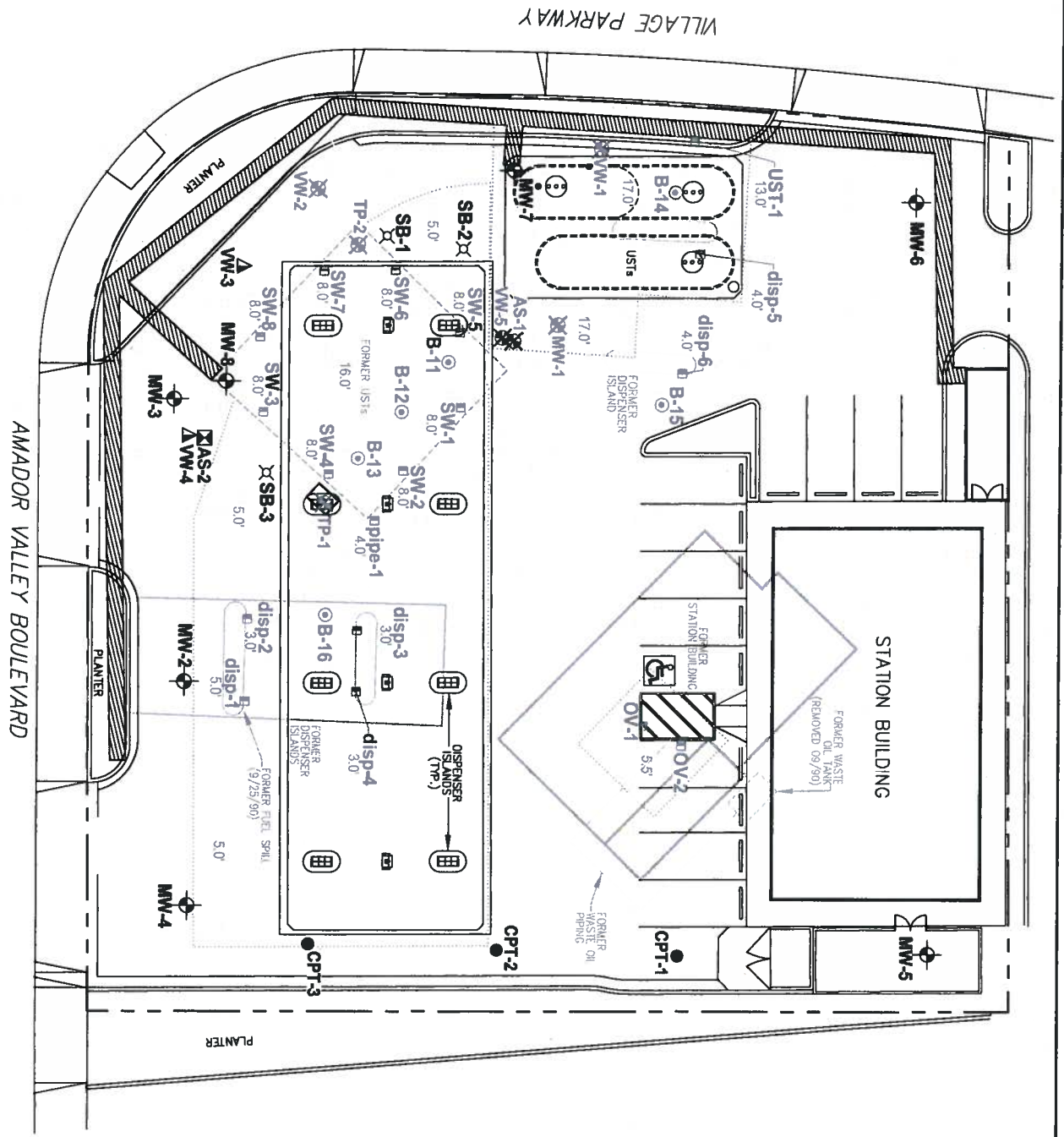


FIGURE

CONFIDENTIAL

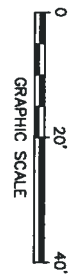
STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED



- LEGEND
- MW-4- ϕ MONITORING WELL
 - VW-4- Δ VAPOR EXTRACTION WELL
 - AS-2- \square AIR SPARGE WELL
 - MW-1- \square ABANDONED WELL
 - SB-5- \square HISTORICAL SOIL SAMPLE AND DEPTH (FT BGS) [CAMBRIA, 2001]
 - B-11- \odot HISTORICAL SOIL BORING (RESNA, AUGUST 1993)
 - CPT-1- \bullet CPT BORING (ARCADIS, 2010)
 - SB-2- \times SOIL BORING (ARCADIS, 2010)
 - 5.0' EXCAVATION AND DEPTH (FT BGS)
 - 5.0' REMEDIATION 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. PRE-2 SAMPLE LOCATION IS UNKNOWN AND NOT SHOWN ON MAP.
 3. ENTIRE SITE WAS EXCAVATED TO 2.5 FT BGS DUE TO GEOTECHNICAL REASONS DURING THE UST REMOVAL ACTIVITIES IN 2001.



STATION 86041
 7249 VILLAGE PARKWAY
 BP 6041 CLOSURE REPORT

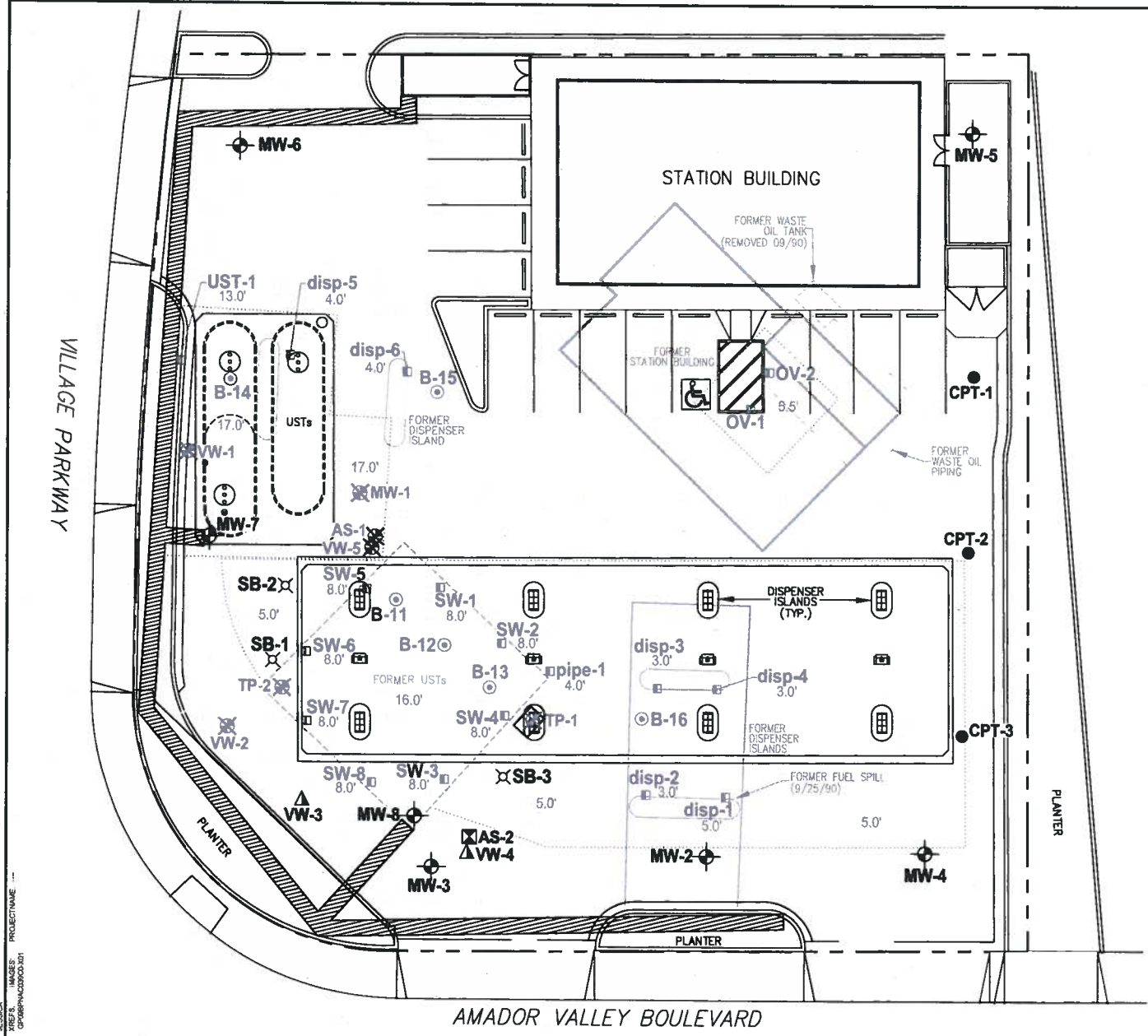
**SITE PLAN WITH
 HISTORICAL EXCAVATION LIMITS
 AND SOIL SAMPLE LOCATIONS**

CONFIDENTIAL

**STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)**

REMOVED

CITY OF PITTALUMA, CA. D:\PROJECTS\BP 6041\BP 6041_01.dwg PLOT: 2/10/2011 3:15 PM ACADVER: 18.05 (LMS TECH) PAGES: 10/10 PLOTTED: 2/24/2011 11:02 AM BY: HARRIS

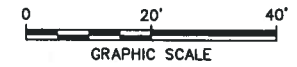


LEGEND

- MW-4 MONITORING WELL
- VW-4 VAPOR EXTRACTION WELL
- AS-2 AIR SPARGE WELL
- MW-1 ABANDONED WELL
- SW-6 HISTORICAL SOIL SAMPLE AND DEPTH (FT BGS)
[CAMBRIA, 2001]
- B-11 HISTORICAL SOIL BORING (RESNA, AUGUST 1993)
- CPT-1 CPT BORING (ARCADIS, 2010)
- SB-2X SOIL BORING (ARCADIS, 2010)
- EXCAVATION AND DEPTH (FT BGS)
- REMEDIATION PIPING TRENCH
- CPT 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 GEOTECHNICAL REASONS 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

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

Depth of boring: 11 feet Diameter of boring: 12 inches Date drilled: 10/27/92
 Well depth: 9-1/2 feet Material type: Sch 40 PVC Casing diameter: 4 inches
 Screen interval: 4 to 9-1/2 feet Filter pack: 3/8" Pea Gravel Slot size: 0.100-inch
 Drilling Company: Exploration GeoServices Driller: John and Mike
 Method Used: Hollow-Stem Auger Field Geologist: Barbara Sieminski
 Signature of Registered Professional: [Signature]
 Registration No.: RCE 044600 State: CA

Depth	Sample No.	Blows	P.I.D.	USCS Code	Description	Well Const.
0					Asphalt-covered surface.	
					Asphalt (4 inches).	
				GP	Sandy gravel, gray, damp, dense: baserock.	
2				CL	Sandy clay, brownish-gray, damp, medium plasticity, stiff.	
4				SC	Clayey sand, fine-grained, dark gray, damp, medium dense; obvious product odor.	
6	S-5.5	4 7 11	329			
8				CL	Silty clay, dark gray, damp, medium plasticity, very stiff; noticeable product odor.	
10	S-10	8 9 12	55			
12					With gypsum crystals, moist.	
14					Total depth = 11 feet.	
16						
18						
20						

RESNA
 Working to Restore Nature

PROJECT 60006.04

LOG OF BORING B-9/VW-3
 ARCO Service Station 6041
 7249 Village Parkway
 Dublin, California

PLATE
 9



MW-4 MONITORING WELL

VW-4 ▲ VAPOR EXTRACTION WELL

A8-2 AIR SPARGE WELLMW-1 ☒ ABANDONED WELL

SW-6 8.0" H HISTORICAL SOIL SAMPLE AND DEPTH (FT BGS)
[CAMBRIA, 2001]

B-11© HISTORICAL SOIL BORING (RESNA, AUGUST 1993)

CPT-1 • CPT BORING (ARCADIS, 2D10)

SB-2X SOIL BORING (ARCADIS, 2010)

5.0' EXCAVATION AND DEPTH (FT BGS)

 REMEDIATION PIPING TRENCH

CPT CONE PENETROMETER TEST

FT BGS FEET BELOW GROUND SURFACE

NOTES:

1. BASE MAP PROVIDED BY BROADBENT & ASSOCIATES, INC. DATED 10/21/08 AT A SCALE OF 1"=40'. HIS ORIGINAL SOIL SAMPLE AND EXCAVATION AREA, DATA OBTAINED 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 GEOTECHNICAL REASONS 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



FIGURE 2

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

Depth of boring: 11 feet Diameter of boring: 12 inches Date drilled: 10/27/92
 Well depth: 9-1/2 feet Material type: Sch 40 PVC Casing diameter: 4 inches
 Screen interval: 4 to 9-1/2 feet Filter pack: 3/8" Pea Gravel Slot size: 0.100-inch
 Drilling Company: Exploration GeoServices Driller: John and Mike
 Method Used: Hollow-Stem Auger Field Geologist: Barbara Sieminski

Signature of Registered Professional: [Signature]

Registration No.: RCE 044600 State: CA

Depth	Sample No.	Blows	P.I.D.	USCS Code	Description	Well Const.
0					Asphalt-covered surface.	
					Asphalt (4 inches).	
				GP	Sandy gravel, gray, damp, dense; baserock.	
2				CL	Sandy clay, dark gray, damp, medium plasticity, stiff.	
4						
6	S-5.5	5 6 10	880	SC	Clayey sand, dark gray, damp, medium dense; obvious product odor.	
8						
10	S-10	8 10 11	556	CL	Sandy clay with gypsum crystals, dark gray, damp, low plasticity, very stiff; obvious product odor. Increasing gypsum crystals, moist.	
12					Total depth = 11 feet.	
14						
16						
18						
20						













RESNA
Working to Restore Nature

PROJECT 60006.04

LOG OF BORING B-10/VW-4
 ARCO Service Station 6041
 7249 Village Parkway
 Dublin, California

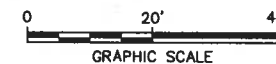
PLATE
10



- MW-4**  MONITORING WELL
VW-4  VAPOR EXTRACTION WELL
AS-2  AIR SPARGE WELL
MW-1  ABANDONED WELL
SW-6  HISTORICAL SOIL SAMPLE AND DEPTH (FT BGS)
 8.0' [CAMBRIA, 2001]
B-11  HISTORICAL SOIL BORING (RESNA, AUGUST 1993)
CPT-1  CPT BORING (ARCADIS, 2010)
SB-2X  SOIL BORING (ARCADIS, 2010)
 EXCAVATION AND DEPTH (FT BGS)
 REMEDIATION 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 GEOTECHNICAL REASONS 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



FIGURE
2