

# Atlantic Richfield Company

**Shannon Couch**  
Operations Project Manager

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San Ramon, CA 94583  
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December 20, 2012

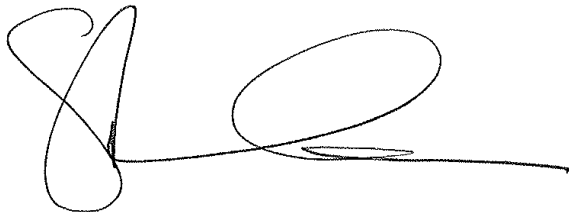
**RECEIVED**

*By Alameda County Environmental Health at 1:40 pm, Jan 02, 2013*

Re: Monitoring/Remediation Well Destruction Report  
Atlantic Richfield Company Station #608  
17601 Hesperian Boulevard, San Lorenzo, California  
ACEH Case #RO0000255

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,



Shannon Couch  
Operations Project Manager

Attachment



**BROADBENT**

1324 Mangrove Ave., Suite 212, Chico, CA 95926

[T] 530-566-1400 [F] 530-566-1401

[broadbentinc.com](http://broadbentinc.com)

*Creating Solutions. Building Trust.*

December 20, 2012

J#06-88-606

Atlantic Richfield Company  
P.O. Box 1257  
San Ramon, CA 94583  
Submitted via ENFOS

Attn.: Ms. Shannon Couch

RE: Monitoring/Remediation Well Destruction Report, Atlantic Richfield Company Station #608, 17601 Hesperian Boulevard, San Lorenzo, Alameda County, California; GeoTracker Global ID T0600100085, ACEH Case No.R0000255

Dear Ms. Couch,

Broadbent & Associates, Inc. (Broadbent) is pleased to present this report confirming that the monitoring and remediation wells formerly associated with Atlantic Richfield Company (a BP affiliated company) Station #608 have been formally destroyed. Broadbent prepared this report in response to the October 27, 2011 letter from Mr. Paresh Khatri of Alameda County Environmental Health Services (ACEH) stating that the monitoring wells associated with the site must be properly destroyed in accordance with the California Water Code prior to issuance of a remedial action completion certificate.

Atlantic Richfield Company Station #608 is located at 17601 Hesperian Boulevard in San Lorenzo, Alameda County, California. A Site Location Map is provided as Drawing 1. A petroleum fuel release was documented in June 1988 when the underground storage tanks (USTs) were removed and replaced. The leaking UST case was subsequently recognized by ACEH as Case No. R0000255, and by the State Water Resources Control Board/San Francisco Bay Regional Water Quality Control Board as GeoTracker Global ID T0600100085. During the ensuing years, a total of 28 monitoring and remediation wells were installed within 26 borings on the Site and within the surrounding vicinity. Seven wells were destroyed between 1988-1996, leaving 21 wells remaining. Table 1 provides a summary of original construction and subsequent destruction information for the wells associated with this case, including construction date, casing material and diameter, boring depth, well depth/screen interval, and date destroyed. A Site Layout Plan is provided as Drawing 2. Boring/Well Construction Logs for the remaining 21 wells are provided within Attachment A.

In accordance with the request from ACEH, Broadbent performed a well records search and secured permits from the Alameda County Public Works Agency (ACPWA) Water Resources Section to appropriately destroy the remaining monitoring and remediation wells associated with the case. The original Well Permit Application 1332262226862 was approved by ACPWA Water Resources on April 11, 2012. Three wells identified on the well permit application as V-1, V-2, and V-3 (Permit Number W2012-0232) actually were not wells associated with the past petroleum release case but in fact were facilities installed within the backfill of the UST pits as early leak-detection monitoring points. These monitoring points are still in use by and/or of value to the retail station operations and therefore were not destroyed. This use and method of original construction explained why ACPWA had no records of these three wells. A copy of the approved ACPWA Water Resources Well Permit Application (Permit Numbers W2012-0213 to W2012-0232) is provided within Attachment B.

During July 9-13, 2012 Broadbent observed Cascade Drilling, LLC (C-57 license #938110) perform destruction of most of the wells under permit. One hold-out well onsite (MW-13) was later destroyed under permit by Gregg Drilling & Testing, Inc. (C-57 license #485165) on November 20, 2012. For the monitoring and remediation well locations associated with this case within the Alameda County street right-of-ways (ROWs), the well vaults were removed and the top five feet of the wells over-drilled (typical) following grouting with neat cement through a tremie pipe. These wells in the street ROWs were then backfilled with quick-set concrete to approximately six inches below grade, then subsequently prepped and paved under separate contract by Calvac Paving, Inc. with hot-mix bituminous asphalt to match existing road conditions. For the remaining locations, the wells were destroyed by grouting with neat cement through a tremie pipe followed by removal of the monitoring well vaults. After the grout seals had set, the remaining voids were backfilled with concrete or compacted material to match existing conditions.

Well destruction activities were performed under the oversight and approval of the ACPWA Water Resources Section Field Inspector. Following completion of field work, California Department of Water Resources (DWR) Form 188 Well Completion Reports were prepared and signed by the drilling companies. Copies of the signed Well Completion Reports were submitted to ACPWA and the DWR in accordance with the California Water Code. Copies of Broadbent field notes are provided within Attachment C. Copies of the signed DWR Well Completion Reports are provided within Attachment D.

With the evidence provided herein, Broadbent and BP have satisfied the request from ACEH to properly destroy the wells associated with this former petroleum release case. Therefore, following submittal of this report to ACEH, BP and Broadbent shall look forward to receipt of a remedial action completion certificate for the case at Atlantic Richfield Company Station #608.

Should you have any questions or require additional information, please do not hesitate to contact me at (530) 566-1400.

Sincerely,  
BROADBENT & ASSOCIATES, INC.



Thomas A. Venus, PE  
Senior Engineer



Attachments:

- Drawing 1 – Site Location Map
- Drawing 2 – Site Map
- Table 1 – Summary of Well Construction and Destruction Information
- Attachment A – Boring/Well Construction Logs
- Attachment B – ACPWA Well Permit Application
- Attachment C – Broadbent Field Notes
- Attachment D – DWR Well Completion Reports

cc: Ms. Dilan Roe, PE, Alameda County Environmental Health (submitted via ACEH ftp site)  
Mr. Robert L. Webster, David Bohannon Organization, Sixty 31<sup>st</sup> Avenue, San Mateo, CA 94403  
Electronic copy uploaded to GeoTracker



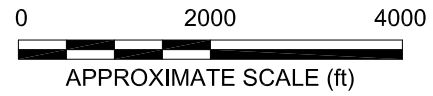
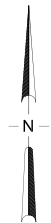
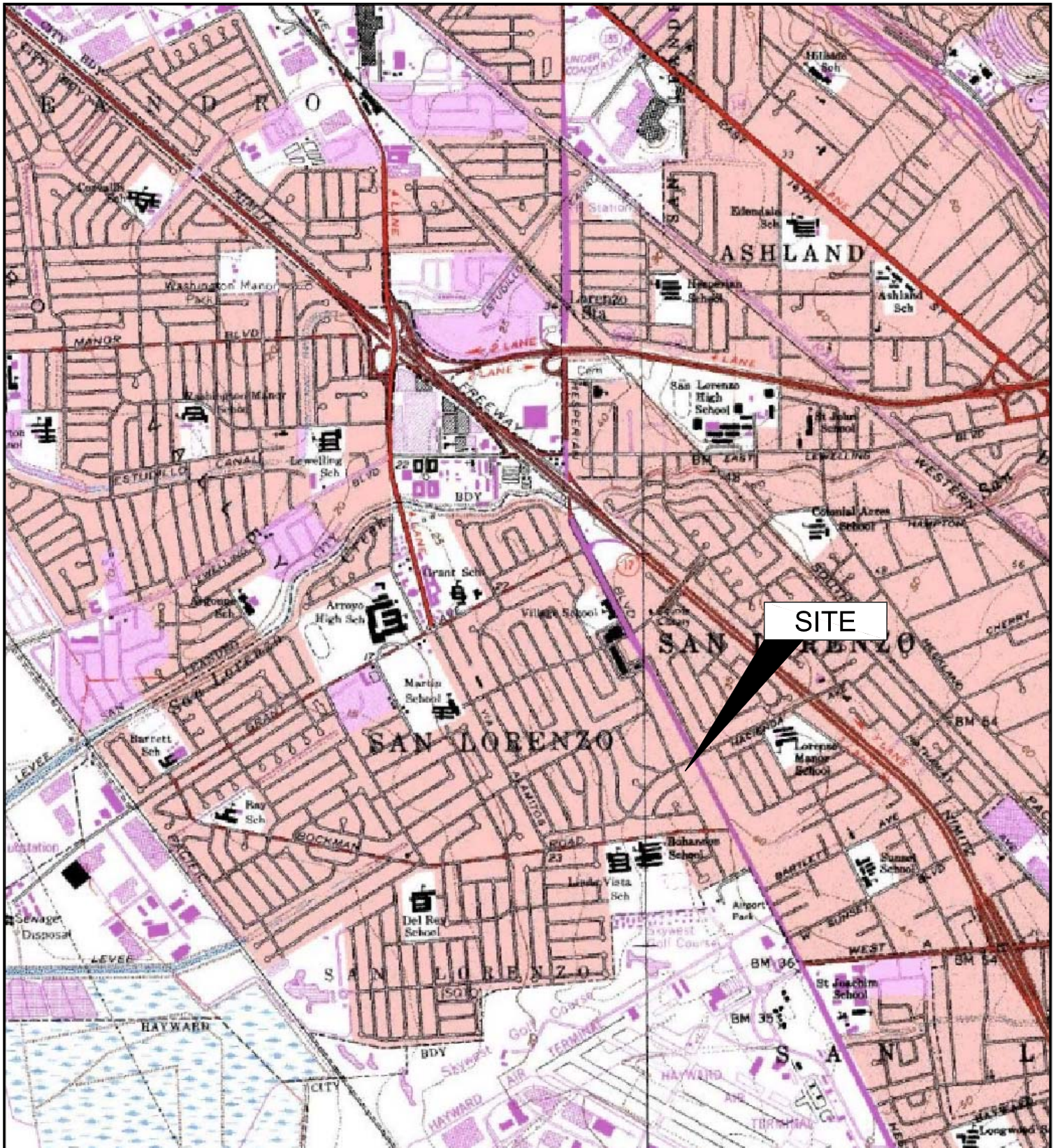
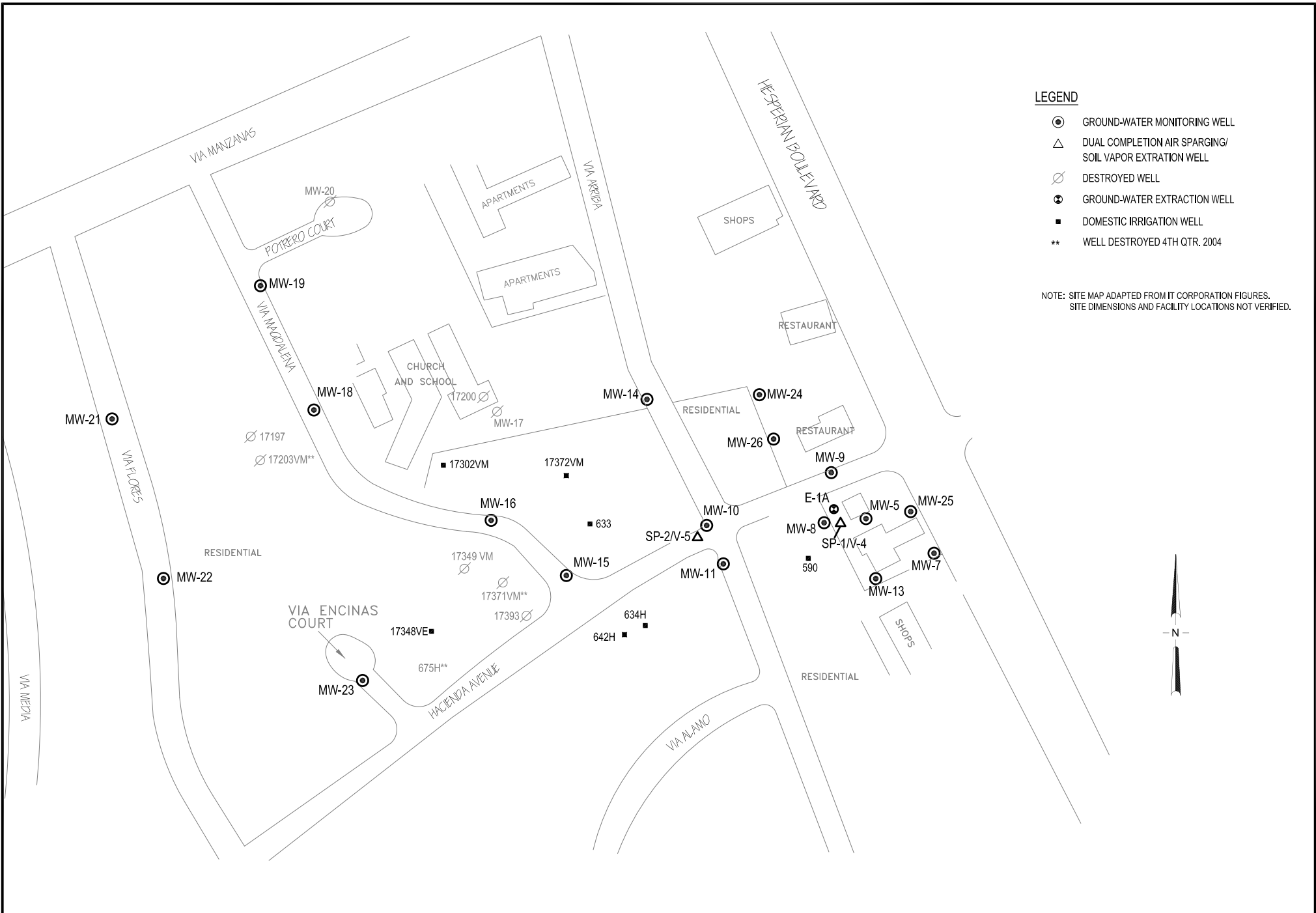


IMAGE SOURCE: USGS





**LEGEND**

- ⊙ GROUND-WATER MONITORING WELL
- △ DUAL COMPLETION AIR SPARGING/  
SOIL VAPOR EXTRACTION WELL
- ⊘ DESTROYED WELL
- ⊕ GROUND-WATER EXTRACTION WELL
- DOMESTIC IRRIGATION WELL
- \*\* WELL DESTROYED 4TH QTR. 2004

NOTE: SITE MAP ADAPTED FROM IT CORPORATION FIGURES.  
SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.



**BROADBENT & ASSOCIATES, INC.**  
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL  
1324 Mangrove Ave. Suite 212, Chico, California 95926  
Project No.: 06-08-606 Date: 4/6/12

ARCO Service Station #608  
17601 Hesperian Boulevard  
San Lorenzo, California

Site Layout Plan

Drawing

2

**Table 1. Summary of Well Construction and Destruction Information  
Atlantic Richfield Company Station #608, 17601 Hesperian Boulevard, San Lorenzo, California**

<b>Well ID</b>	<b>Location (APN or ROW)</b>	<b>Date Constructed</b>	<b>Casing Diameter (in)</b>	<b>Casing Material</b>	<b>Boring Depth (ft)</b>	<b>Screen Interval (ft)</b>	<b>Date of Destruction</b>
MW-1	412-71-2-3	1/19/1988	4.0	PVC	29.0	4.0-29.0	6/14/1988
MW-2/A-1	412-71-2-3	10/7/1985	3.0	PVC	24.0	11.0-24.0	6/14/1988
MW-3	412-71-2-3	unknown	8.0	Steel	14.0	unknown	7/18/1990
MW-4	412-71-2-3	unknown	8.0	Steel	11.6	unknown	7/18/1990
<b>MW-5</b>	412-71-2-3	1/19/1988	4.0	PVC	14.5	4.0-14.5	7/12/2012
MW-6/E-1	412-71-2-3	unknown	8.0	Steel	unknown	unknown	7/18/1990
<b>MW-7</b>	412-71-2-3	3/29/1990	3.0	PVC	22.0	6.0-19.0	7/12/2012
<b>MW-8</b>	412-71-3-36	3/29/1990	3.0	PVC	21.5	6.5-21.5	7/12/2012
<b>MW-9</b>	County ROW	4/5/1990	3.0	PVC	22.0	6.0-19.5	7/12/2012
<b>MW-10</b>	County ROW	4/5/1990	3.0	PVC	25.5	6.0-23.0	7/11/2012
<b>MW-11</b>	County ROW	4/5/1990	3.0	PVC	20.5	6.0-19.5	7/11/2012
<b>MW-12/E-1A</b>	412-71-2-3	7/18/1990	6.0	PVC	27.0	6.0-26.0	7/13/2012
<b>MW-13</b>	412-71-2-3	6/25/2001	3.0	PVC	25.5	8.0-23.0	11/20/2012
<b>MW-14</b>	County ROW	6/25/1991	3.0	PVC	24.5	8.0-23.0	7/9/2012
<b>MW-15</b>	County ROW	6/25/1991	3.0	PVC	24.5	8.0-23.0	7/10/2012
<b>MW-16</b>	County ROW	6/25/1991	2.0	PVC	24.0	8.0-23.0	7/10/2012
MW-17	412-55-76-2	6/25/1991	2.0	PVC	23.0	8.0-23.0	3/13/1996
<b>MW-18</b>	County ROW	10/3/1991	3.0	PVC	24.5	6.5-22.0	7/10/2012
<b>MW-19</b>	County ROW	10/3/1991	3.0	PVC	24.5	7.0-22.0	7/11/2012
MW-20	County ROW	10/3/1991	3.0	PVC	22.0	7.0-22.0	10/11/1993
<b>MW-21</b>	County ROW	10/2/1991	3.0	PVC	25.0	7.0-22.0	7/9/2012
<b>MW-22</b>	County ROW	10/2/1991	3.0	PVC	23.5	7.0-22.0	7/9/2012
<b>MW-23</b>	County ROW	10/2/1991	3.0	PVC	23.5	7.0-22.0	7/13/2012
<b>MW-24</b>	412-58-7-5	3/17/1993	2.0	PVC	21.0	6.0-21.0	7/12/2012
<b>MW-25</b>	412-71-2-3	3/17/1993	2.0	PVC	21.0	6.0-21.0	7/12/2012
<b>MW-26</b>	412-58-7-5	3/19/1993	2.0	PVC	21.5	6.0-21.0	7/12/2012
<b>SP-1/V-4</b>	412-71-2-3	3/18/1993	2.0/2.0	PVC	22.5	20.0-21.0/ 6.0-15.0	7/12/2012
<b>SP-2/V-5</b>	County ROW	3/18/1993	2.0/2.0	PVC	19.0	18.0-19.0/ 6.0-11.0	7/11/2012

Note: Destruction/decommissioning information for Well ID's in **Bold** font are contained within this report.

Attachment A

Boring/Well Construction Logs

Blows/ Ft.	Sample No.	USCS	DESCRIPTION	WELL CONST.
0				
10	S-1	CH	Silty clay, black, damp, high plasticity, stiff.	
2				
15	S-4	CL	Silty clay, trace of coarse-grained sand and gravel, brown, damp, low plasticity, stiff.	
4				
14	S-6.5		Low to medium plasticity.	
6				
11	S-9	SC	Clayey sand, fine- to coarse-grained sand, trace of silt, green-gray, very moist, no plasticity, medium dense.	
10				
6	S-12			
12		CH	Silty clay, green-brown, moist, high plasticity, medium stiff.	
14	S-14	CL	Silty clay, trace of medium-grained gravel, green-gray, moist, high plasticity, stiff.	
16				
18		CH	Silty clay, brown, moist, high plasticity, medium stiff.	
7	S-20			
20				
22		SP	Sand, medium- to coarse-grained, trace of gravel, brown, wet, no plasticity, medium dense.	
13	S-25			
24				
26				Caved
28				
9	S-30			
30			Total Depth = 30 feet. Boring terminated at sufficient depth to evaluate contamination above and below water table.	
32				



Applied GeoSystems  
41255 Mission Blvd. Suite B Torrance, CA 90509-4151-1906

## LOG OF BORING B-2/MW-5

ARCO Station No. 608

17601 Hesperian Boulevard

San Lorenzo, California

PLATE

P - 8

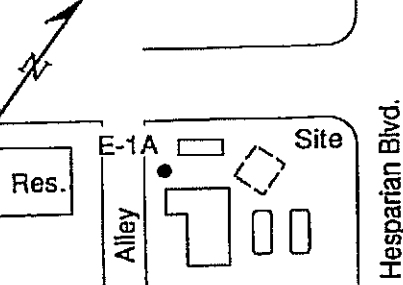
PROJECT NO. 87131-1



**PACIFIC ENVIRONMENTAL GROUP, INC.**

WELL / E-1A  
BORING NO.  
PAGE 1 OF 1

LOCATION MAP

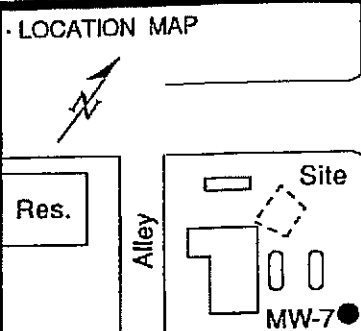


PROJECT NO. 330-06.08  
LOGGED BY: JC  
DRILLING METHOD: HSA  
SAMPLING METHOD: CAL MOD  
CASING TYPE: Sch 40 PVC  
SLOT SIZE: 0.020"  
GRAVEL PACK: 12 X 2 SAND

CLIENT: ARCO  
DATE DRILLED: 7-18-90  
LOCATION: San Lorenzo  
HOLE DIAMETER: 12"  
HOLE DEPTH: 27'  
WELL DEPTH: 26'  
WELL DIAMETER: 6"

WELL COMPLETION	MOISTURE CONTENT	H-NU READING (PPM)	PENETRATION RESISTANCE (BLOWS/FT)	DEPTH (FEET)	SAMPLE	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
				2			CL	CLAY; black; moderate plasticity; 10-15% silt and fine sand; trace coarse sand; very stiff; no product odor.
				4				@3': brown.
				6				@5': medium brown; 10-20% silt and fine sand; light gray
			37	8				
	Mst	1		10			SM	SILTY SAND; light bluish gray; 15-20% silt; fine sand; trace coarse sand; 5-10% gravel; medium dense; no product odor.
			28	12				
	Mst	18		14				
				16			CL-CH	CLAY; bluish gray; moderate to high plasticity; 10-15% silt and fine sand; gray mottling; very stiff; faint product odor.
	V Mst	160	18	18				
				20			SM-ML	SILTY SAND; medium brown; some clay; 30-40% silt; very fine sands; medium dense; no product odor.
	Wt	0	15	22				
	Mst	0	24	24			CL	CLAY; grayish brown; moderate plasticity; 10-20% silt and fine sand; iron oxide mottling; manganese oxide; stiff; no product odor.
				26				@25.5': light grayish brown; moderate plasticity; 20-25% silt and fine sand.
	V Mst	0	PUSH	28				
				30				
	V Mst	0		32				
				34				
	V Mst	0		36				
				38				
				40				
				42				
				44				

BOTTOM OF BORING AT 27'



PACIFIC ENVIRONMENTAL GROUP, INC.

WELL / MW-7  
BORING NO.  
PAGE 1 OF 1

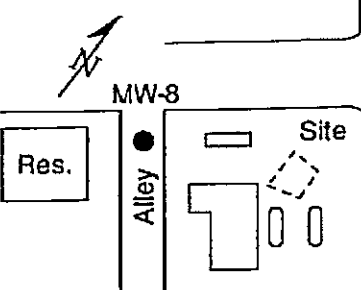
PROJECT NO. 330-06.06  
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 DRILLING METHOD: HSA  
 SAMPLING METHOD: CAL MOD  
 CASING TYPE: Sch 40 PVC  
 SLOT SIZE: 0.020"  
 GRAVEL PACK: 12 X 20 SAND

CLIENT: ARCO  
 DATE DRILLED: 3-29-90  
 LOCATION: San Lorenzo  
 HOLE DIAMETER: 8"  
 HOLE DEPTH: 22'  
 WELL DEPTH: 19'  
 WELL DIAMETER: 3"

WELL COMPLETION	MOISTURE CONTENT	H-NU H-READING (PPM)	PENETRATION RESISTANCE (BLOWS/FT)	DEPTH (FEET)	SAMPLE	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
CEMENT SAND BENTONITE NATURAL CLAY				2			SC	FILL; asphalt. CLAYEY SAND - FILL; medium to light brown; 20-30% fines; 20-40% sub-angular gravel; iron oxide staining; dense; no product odor. CLAY; dark brown; 5-10% fine sand altered; very stiff; no product odor. @5.5': light yellowish brown; 10-20% fine sand; platy; shell fragments; very stiff; no product odor. SILT; dark greenish gray; firm; no product odor. CLAY; yellowish brown; 20-40% fines sand; iron oxide black specks; mottled; rootholes; stiff; no product odor. SILT; as above. SILTY SAND; medium brownish yellow; poorly graded; low to moderate plasticity; loose; no product odor.
				4			CH	
	Dp	29.0	21	6				
				8			ML	
	Mst	15.0	7	10				
				12				
	Mst	13.0	12	14			CL	
				16				
	Dp	12.0	20	20			ML	
	Wt	-	9	22			SM	
				24				
				26				
				28				
				30				
				32				
				34				
				36				
				38				
				40				
				42				
				44				

BOTTOM OF BORING AT 22'  
 WELL ELEVATION 34.40' - MSL

LOCATION MAP



PACIFIC ENVIRONMENTAL GROUP, INC.

WELL / MW-8  
BORING NO.  
PAGE 1 OF 1

PROJECT NO. 330-06.06  
LOGGED BY: DKU/JC  
DRILLING METHOD: HSA  
SAMPLING METHOD: CAL MOD  
CASING TYPE: Sch 40 PVC  
SLOT SIZE: 0.020"  
GRAVEL PACK: 12 X 20 SAND

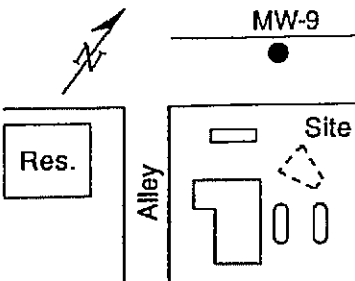
CLIENT: ARCO  
DATE DRILLED: 3-29-90  
LOCATION: San Lorenzo  
HOLE DIAMETER: 8"  
HOLE DEPTH: 21.5'  
WELL DEPTH: 21.5'  
WELL DIAMETER: 3"

WELL COMPLETION	MOISTURE CONTENT	H-NU READING (PPM)	PENETRATION RESISTANCE (BLOWS/FT)	DEPTH (FEET)	SAMPLE	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
<p>CEMENT SAND BENTONITE</p>	Dp	16.0	14	2		SC		FILL; asphalt.
				4		CL		CLAYEY SAND - FILL; light brown; 30-45% gravel.
				4		CH		CLAY; dark brown.
				6				CLAY; yellowish brown to very dark brown; concretions; roots; .25" bed clayey sand;
				6				@4.5': shell fragments; light gray patches (3-5 mm); stiff; no product odor.
				8				
				10			SM	@10': 1/2" to 1" organic layers.
				10				SILTY SAND; medium greenish gray; 40% silt and clay; 50% fine sand; 10% medium sand; loose; no product odor.
				12				
				14				
	V. Mst	2.0	12	16		CL	CLAY; greenish gray with brown clay; moderate plasticity; 30-40% fine sand; black specks; iron oxide stains; stiff; no product odor.	
	V. Mst	12.0	17	20			@20': yellowish brown; moderate to high plasticity; 10-15% fine sand; black 3-5 mm specks; shell fragments; very stiff; no product odor.	
				22				
				24				
				26				
				28				
				30				
				32				
				34				
				36				
				38				
				40				
				42				
				44				

BOTTOM OF BORING AT 21.5'  
WELL ELEVATION 32.79' - MSL



LOCATION MAP



PACIFIC ENVIRONMENTAL GROUP, INC.

WELL / MW-9  
BORING NO.  
PAGE 1 OF 1

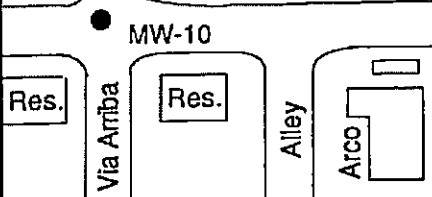
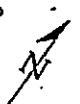
PROJECT NO. 330-06.06  
 LOGGED BY: JC/DKU  
 DRILLING METHOD: HSA  
 SAMPLING METHOD: CAL MOD  
 CASING TYPE: Sch 40 PVC  
 SLOT SIZE: 0.020"  
 GRAVEL PACK: 12 X 20 SAND

CLIENT: ARCO  
 DATE DRILLED: 4-5-90  
 LOCATION: San Lorenzo  
 HOLE DIAMETER: 8"  
 HOLE DEPTH: 22.0'  
 WELL DEPTH: 19.5'  
 WELL DIAMETER: 3"

WELL COMPLETION	MOISTURE CONTENT	H-NU READING (PPM)	PENETRATION RESISTANCE (BLOWS/FT)	DEPTH (FEET)	SAMPLE GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
CEMENT SAND BENTONITE NATURAL CLAY	Mst	4.0	PUSH	2	[Hatched]	CL	FILL; asphalt; very compacted gravel at 6".
	Mst	3.0	6	4	[Hatched]	CH	CLAY; very dark gray to black; moderate plasticity; 10-15% gravel; 15-30% fine to medium sand; stiff; no product odor.
	Wt	0.0	8	6	[Dotted]	SM	CLAY; dark yellowish brown; moderate to high plasticity; 20% fine sand; weak platy structure; vertical gray alteration; interbedded with black clay.
	Wt	0.0	20	8	[Dotted]	SM	SILTY SAND; dark greenish gray; 10-20% silt and clay; loose; faint product odor.
	Wt	0.0		10	[Hatched]	CL	CLAY; yellowish brown; low to moderate plasticity; 20-40% fine sand and silt; 0.5-1.5 cm rootholes; wet with gray coating; black specks; firm; no product odor.
	Wt	0.0		12	[Hatched]	CL	
	Wt	0.0		14	[Hatched]	CL	
	Wt	0.0		16	[Hatched]	CL	
	Wt	0.0		18	[Hatched]	CL	@19': rootholes smaller; iron and manganese oxide; trace of coarse sand; stiff; no product odor.
	Wt	0.0		20	[Dotted]	SM	SILTY SAND; yellowish brown.
				22			
				24			
				26			
				28			
				30			
				32			
				34			
				36			
				38			
				40			
				42			
				44			

BOTTOM OF BORING AT 22'  
 WELL ELEVATION 32.11' - MSL

LOCATION MAP



PACIFIC ENVIRONMENTAL GROUP, INC.

WELL / MW-10  
BORING NO.  
PAGE 1 OF 1

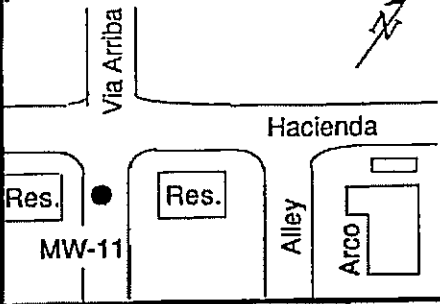
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SLOT SIZE: 0.020"  
GRAVEL PACK: 12 X 20 SAND

CLIENT: ARCO  
DATE DRILLED: 4-5-90  
LOCATION: San Lorenzo  
HOLE DIAMETER: 8"  
HOLE DEPTH: 25.5'  
WELL DEPTH: 23.0'  
WELL DIAMETER: 3"

WELL COMPLETION	MOISTURE CONTENT	H-NU READING (PPM)	PENETRATION RESISTANCE (BLOWS/FT)	DEPTH (FEET)	SAMPLE	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
	Mst	0.0	PUSH	2			CL	FILL; asphalt.
				4				CLAY; dark brown to brown; moderate plasticity; 10-20% fine sand; trace of coarse sand; weak platy structure; rootholes; firm; no product odor.
				6				
				8				
	Mst	0.0	10	10				@9': fine to medium grained poorly graded sand; 6" sand layer; 10-20% silt; clay in sand layer.
				12			SM-ML	SILTY SAND to SILT; dark greenish gray; extensive iron oxide stain; rootholes.
	Wt	8.0	12	14			ML	SILT; dark greenish gray; some clay; 30-40% fine sand; stiff; no product odor.
				16				
				18				
	Wt	1.0	6	20			CH	CLAY; medium brown to gray; high plasticity; 30-40% fine sand; vertical veins of gray silt - clay; firm; no product odor.
				22				
	Wt	0.0	12	24			SM	@24': firm; black oxidation on sand grains; light brown colored zones.
				26				SILTY SAND; brown; interbedded with clay; 10-20% silt and clay; iron oxide; medium dense; no product odor.
			28					
			30					
			32					
			34					
			36					
			38					
			40					
			42					
			44					

BOTTOM OF BORING AT 25.5'  
WELL ELEVATION 31.67' - MSL

LOCATION MAP



PACIFIC ENVIRONMENTAL GROUP, INC.

WELL / MW-11  
BORING NO.  
PAGE 1 OF 1

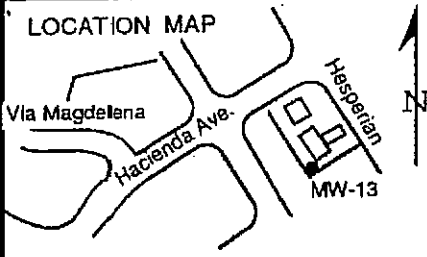
PROJECT NO. 330-06.06  
LOGGED BY: JC  
DRILLING METHOD: HSA  
SAMPLING METHOD: CAL MOD  
CASING TYPE: Sch 40 PVC  
SLOT SIZE: 0.020"  
GRAVEL PACK: 12 X 20 SAND

CLIENT: ARCO  
DATE DRILLED: 4-5-90  
LOCATION: San Lorenzo  
HOLE DIAMETER: 8"  
HOLE DEPTH: 20.5'  
WELL DEPTH: 19.5'  
WELL DIAMETER: 3"

WELL COMPLETION	MOISTURE CONTENT	H-NU READING (PPM)	PENETRATION RESISTANCE (BLOWS/FT)	DEPTH (FEET)	SAMPLE	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
				2			CL	FILL; asphalt.
			PUSH	4			CL	CLAY; yellowish brown; moderate plasticity; 10-25% fine sand; roots present; platy structure; trace coarse sand and gravel; scarce iron oxide alteration; firm; no product odor.
				6				
			7	8				
				10			SM	SILTY SAND; yellowish brown; 15-25% clay, silt and fine sand; trace oxidized black coarse sand; loose; no product odor.
				12				
			3	14			CL	CLAY; very dark grayish brown; 30-40% silt and fine sand; moderate plasticity; very soft; no product odor.
				16			ML	SILT; light brown; 10-25% clay; 20-30% fine sand; very stiff; no product odor.
				18				
			19	20			CL	CLAY; brown; moderate plasticity; 10-15% silt and fine sand; 1-3 millimeter black specks; very stiff; no product odor.
				22				
				24				
				26				
				28				
				30				
				32				
				34				
				36				
				38				
				40				
				42				
				44				

BOTTOM OF BORING AT 20.5'  
WELL ELEVATION 32.54' - MSL





NORTHING EASTING ELEVATION  
 995.09 893.02 35.42 (TOB)

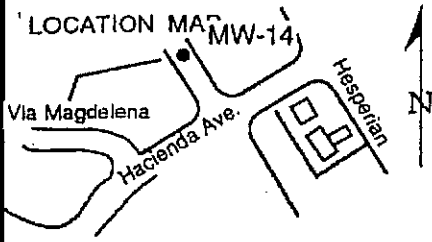
**PACIFIC ENVIRONMENTAL GROUP, INC.**

WELL NO. MW-13  
 PAGE 1 OF 1

PROJECT NO. 330-06.11  
 LOGGED BY: JC  
 DRILLER: WHM  
 DRILLING METHOD: HSA  
 SAMPLING METHOD: CAL MOD  
 CASING TYPE: Sch 40 PVC  
 SLOT SIZE: 0.020"  
 GRAVEL PACK: 2 x 12

CLIENT: ARCO  
 DATE DRILLED: 06/25/91  
 LOCATION: 17601 Hesperian  
 HOLE DIAMETER: 8"  
 HOLE DEPTH: 25 1/2'  
 WELL DIAMETER: 3"  
 WELL DEPTH: 23'  
 CASING STICKUP: N/A

WELL COMPLETION	MOISTURE CONTENT	PID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY SAMPLE INTERVAL	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS	
GROUT           SAND           BENTONITE           Native Soil				2				ASPHALT - FILL; road base very dense	
			35	4			CL	CLAY; dark brown; low plasticity 10-15% fine to coarse sand; very stiff; no product odor.	
		Mst	-		6				
				32	8			SC	CLAYEY SAND; medium brown; 35-45% clayey fines; fine sand; dense; no product odor.
		Mst	0		10				
				26	12			CL	CLAY; grayish brown; moderate plasticity; 10-15% fine sand; trace medium sand; trace coarse sand; very stiff; no product odor.
		V. Mst	0		14				
				16	16				@19': clay medium gray; low plasticity; iron oxide; very stiff; no product odor.
		V. Mst	0		18				
				26	20				@24': as above; very stiff; no product odor.
	V. Mst	0		22					
				24					
				26				BOTTOM OF BORING AT 25 1/2'	
				28					
				30					
				32					
				34					
				36					
				38					
				40					
				42					
				44					



**PACIFIC ENVIRONMENTAL GROUP, INC.**

WELL NO. MW-14  
PAGE 1 OF 1

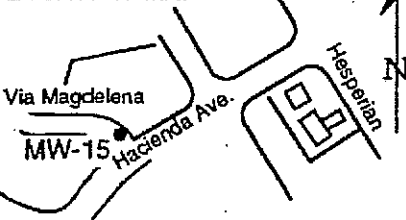
PROJECT NO. 330-06.11  
 LOGGED BY: JC  
 DRILLER: WHM  
 DRILLING METHOD: HSA  
 SAMPLING METHOD: CAL MOD  
 CASING TYPE: Sch 40 PVC  
 SLOT SIZE: 0.020"  
 GRAVEL PACK: 2 x 12

CLIENT: ARCO  
 DATE DRILLED: 06/25/91  
 LOCATION: Via Arriba San Lorenzo  
 HOLE DIAMETER: 8"  
 HOLE DEPTH: 24 1/2'  
 WELL DIAMETER: 3"  
 WELL DEPTH: 23'  
 CASING STICKUP: N/A

NORTHING EASTING ELEVATION  
 1390.95 708.71 30.46 (TOB)

WELL COMPLETION	MOISTURE CONTENT	PID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY SAMPLE INTERVAL	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
GROUT  SAND  BENTONITE  Native Soil	V. Mst	0	push	2		[Solid black bar]		ASPHALT - FILL
				4		[Diagonal hatching]	CL	CLAY; dark grayish brown; low plasticity; 10-15% fine sand; trace medium to coarse sand; soft; no product odor.
				6		[Diagonal hatching]		
				8		[Diagonal hatching]		
				10		[Diagonal hatching]		@9': as above with organic matter; weak paty; structure stiff; faint product odor.
				12		[Diagonal hatching]		
				14		[Diagonal hatching]		@14': as above with maganese oxide.
				16		[Diagonal hatching]		
				18		[Diagonal hatching]		
				20		[Diagonal hatching]		@19': medium brown; moderate plasticity; 10-20% silt and very fine sand; very stiff; no product odor.
			22		[Diagonal hatching]			
	V. Mst	0	28	20		[Diagonal hatching]		@23': very stiff; no product odor.
	V. Mst	0	33	14		[Diagonal hatching]		
	V. Mst	0	17	10		[Diagonal hatching]		
	V. Mst	0	push	4		[Diagonal hatching]		
				2		[Diagonal hatching]		
				24		[Diagonal hatching]		BOTTOM OF BORING AT 24 1/2'
				26		[Diagonal hatching]		
				28		[Diagonal hatching]		
				30		[Diagonal hatching]		
				32		[Diagonal hatching]		
				34		[Diagonal hatching]		
				36		[Diagonal hatching]		
				38		[Diagonal hatching]		
				40		[Diagonal hatching]		
				42		[Diagonal hatching]		
				44		[Diagonal hatching]		

LOCATION MAP



PACIFIC ENVIRONMENTAL GROUP, INC.

WELL NO. MW-15  
PAGE 1 OF 1

PROJECT NO. 330-06.11  
 LOGGED BY: JC  
 DRILLER: WHM  
 DRILLING METHOD: HSA  
 SAMPLING METHOD: CAL MOD  
 CASING TYPE: Sch 40 PVC  
 SLOT SIZE: 0.020"  
 GRAVEL PACK: 2 x 12

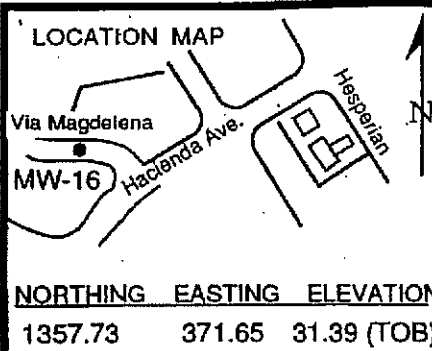
CLIENT: ARCO  
 DATE DRILLED: 06/25/91  
 LOCATION: Via Magdalena  
 HOLE DIAMETER: 8"  
 HOLE DEPTH: 24 1/2"  
 WELL DIAMETER: 3"  
 WELL DEPTH: 23"  
 CASING STICKUP: N/A

NORTHING EASTING ELEVATION  
 1224.65 471.07 31.39 (TOB)

WELL COMPLETION	MOISTURE CONTENT	PID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY SAMPLE INTERVAL	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
				2				ASPHALT - FILL; road base
				4			CL	CLAY; strong brown; low plasticity; 20-30% silt; very fine sand; weak platy structure; stiff; no product odor.
	Mst	0	push	6				
	Mst	0	18	10			SM	SILTY SAND; strong brown; 20-25% silty fines; some clay; medium dense; no product odor.
				12			CL	CLAY; medium grayish brown; moderate plasticity; 15-20% silt; very fine sand; blue mottling; very stiff; moderate product odor.
	V. Mst	35	24	14				
	V. Mst	0	31	18				
	V. Mst	0	21	20				@19': as above without blue mottling; very stiff; no product odor.
	V. Mst	0	21	22				@23': as above; very stiff; no product odor.
				24				
				26				
				28				
				30				
				32				
				34				
				36				
				38				
				40				
				42				
				44				

BOTTOM OF BORING AT 24 1/2'





**PACIFIC ENVIRONMENTAL GROUP, INC.**

WELL NO. MW-16  
PAGE 1 OF 1

PROJECT NO. 330-06.11  
 LOGGED BY: JC  
 DRILLER: WHM  
 DRILLING METHOD: HSA  
 SAMPLING METHOD: CAL MOD  
 CASING TYPE: Sch 40 PVC  
 SLOT SIZE: 0.020"  
 GRAVEL PACK: 2 x 12

CLIENT: ARCO  
 DATE DRILLED: 06/25/91  
 LOCATION: Via Magdalena  
 HOLE DIAMETER: 8"  
 HOLE DEPTH: 24'  
 WELL DIAMETER: 2"  
 WELL DEPTH: 23'  
 CASING STICKUP: N/A

WELL COMPLETION	MOISTURE CONTENT	PID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY SAMPLE INTERVAL	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
GROUT SAND BENTONITE				2				ASPHALT - FILL
				4			SC	CLAYEY SAND; 30-35% clayey fines; fine sand.
		Mst	0	6				
				8			CL	CLAY; medium brown; moderate plasticity; 10-15% fine to coarse sand.
		Mst	0	10				
				12				
		V. Mst	10	14				@13.5': moderate product odor; blue mottling; very stiff; faint product odor.
				16				
		V. Mst	0	20				@20': as above without blue mottling; very stiff; no product odor.
				22				
		V. Mst	0	24				@23-24': as above; no product odor.
				26				
			28					
			30					
			32					
			34					
			36					
			38					
			40					
			42					
			44					
								BOTTOM OF BORING AT 24 1/2'

LOCATION MAP

PACIFIC ENVIRONMENTAL GROUP, INC.

WELL NO. MW-18

PAGE 1 OF 1

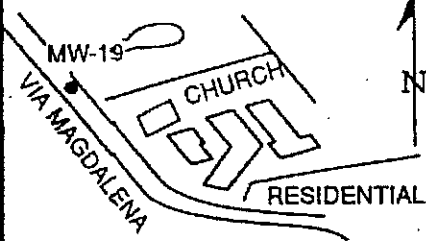
PROJECT NO. 330-06.13  
 LOGGED BY: JC  
 DRILLER: Baylands  
 DRILLING METHOD: HSA  
 SAMPLING METHOD: STD PCU MOD  
 CASING TYPE: Sch 40 PVC  
 SLOT SIZE: 0.020"  
 GRAVEL PACK: 2 x 12 SAND

CLIENT: ARCO  
 DATE DRILLED: 10-3-91  
 LOCATION: 17200 Magdalena  
 HOLE DIAMETER: 8"  
 HOLE DEPTH: 24.5'  
 WELL DIAMETER: 3"  
 WELL DEPTH: 22'  
 CASING STICKUP:

NORTHING EASTING ELEVATION  
 1604.14 235.37 29.70 (TOB)

WELL COMPLETION	MOISTURE CONTENT	PID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY SAMPLE INTERVAL	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
GROUT SOLID CASING BENTONITE SAND	Mst		push	2			CL	ASPHALT; FILL
				4				CLAY; very dark gray; low plasticity; 10-15% silt and fine sand; firm; no product odor. @5': color change to yellowish brown; rootholes; caliche.
SAND BENTONITE NATIVE SOIL	Mst		push	6				
				8				@9': 25-35% silt and fine sand; firm; no product odor.
	V. Mst Sat		5	14				@14': saturated; stiff; no product odor.
	V. Mst Sat		7	20			CH	CLAY; very pale brown; high plasticity; 10-15% silt and fine sand; trace mud sand; iron oxide mottling; firm; no product odor.
			5	24				@23': color change to strong brown.
				26				BOTTOM OF BORING AT 24.5'
				28				
				30				
				32				
				34				
				36				
				38				
				40				
				42				
				44				

LOCATION MAP



PACIFIC ENVIRONMENTAL GROUP, INC.

WELL NO. MW-19  
PAGE 1 OF 1

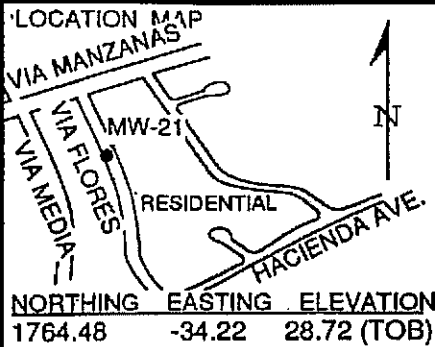
PROJECT NO. 330-06.13  
 LOGGED BY: JC  
 DRILLER: Baylands  
 DRILLING METHOD: HSA  
 SAMPLING METHOD: STD PCU MOD  
 CASING TYPE: Sch 40 PVC  
 SLOT SIZE: 0.020"  
 GRAVEL PACK: 2 x 12 SAND

CLIENT: ARCO  
 DATE DRILLED: 10-3-91  
 LOCATION: 17105 Magdalena  
 HOLE DIAMETER: 8"  
 HOLE DEPTH: 24.5'  
 WELL DIAMETER: 3"  
 WELL DEPTH: 22'  
 CASING STICKUP:

NORTHING EASTING ELEVATION  
 1798.26 235.49 29.02 (TOB)

WELL COMPLETION	MOISTURE CONTENT	PID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY SAMPLE INTERVAL	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
GROUT SOLID CASING SAND BENTONITE NATIVE SOIL				2			CL	ASPHALT; fill
				4				CLAY; very dark gray; low plasticity; 15-20% fine sand and silt; firm; no product odor.
	Mst	0	push	6				@5': color change to yellowish brown; firm; rootholes with roots; no product odor.
				8				
	Mst	0	push	10				@9-10': firm; no product odor.
				12				
	V. Mst Sat	0	14	14				@12': dark grayish brown; 5-15% silt and fine sand; trace coarse sand; stiff; no product odor.
				16				
	V. Mst	0	11	18				@17': very pale brown; moderate to high plasticity; 5-10% fine sand; trace medium to coarse sand; iron oxide; slight mottling; very stiff; no product odor.
				20				
	V. Mst	0	12	22				@22': color change to yellowish brown; stiff; no product odor.
				24				
				26				BOTTOM OF BORING AT 24.5'
				28				
				30				
				32				
				34				
				36				
				38				
				40				
				42				
				44				





**PACIFIC ENVIRONMENTAL GROUP, INC.**

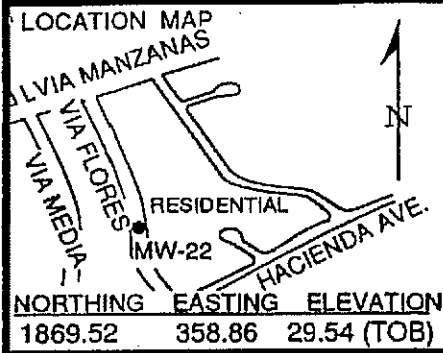
WELL NO. MW-21  
PAGE 1 OF 1

PROJECT NO. 330-06.13  
 LOGGED BY: JC  
 DRILLER: Baylands  
 DRILLING METHOD: HSA  
 SAMPLING METHOD: STD PCU MOD  
 CASING TYPE: Sch 40 PVC  
 SLOT SIZE: 0.020"  
 GRAVEL PACK: 2 x 12 SAND

CLIENT: ARCO  
 DATE DRILLED: 10-2-91  
 LOCATION: 17127 VIA FLORES  
 HOLE DIAMETER: 8"  
 HOLE DEPTH: 25'  
 WELL DIAMETER: 3"  
 WELL DEPTH: 22'  
 CASING STICKUP:

WELL COMPLETION	MOISTURE CONTENT	PID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY SAMPLE INTERVAL	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS	
GROUT SOLID CASING SAND BENTONITE NATIVE SOIL		Mst Mst V. Mst	push 300 PSI push 6 5 14	2			CL	ASPHALT; fill	
				4			CL	CLAY; very dark gray; low plasticity; 10-20% fine sand; stiff; no product odor.	
				6				@5.5': color change to yellowish brown; caliche.	
				8					
				10				@9-10.5': stiff; no product odor.	
				12					
				14				@14': firm; no product odor.	
				16					
				18					
				20				@19': very pale brown; 0-5% sand; calcium carbonate; soft; no product odor.	
				22				SP	SAND; yellowish brown; 0-5% silt and clay; fine sand; medium dense; no product odor.
				24					
				26					
				28					
				30					
				32					
				34					
				36					
				38					
				40					
				42					
				44					

BOTTOM OF BORING AT 25'



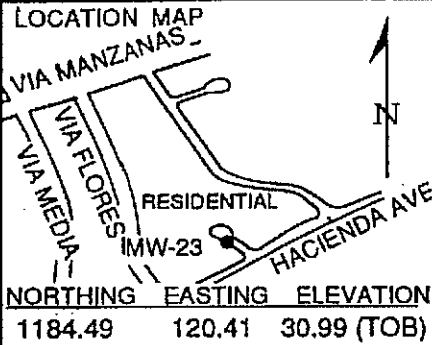
**PACIFIC ENVIRONMENTAL GROUP, INC.**

WELL NO. MW-22  
PAGE 1 OF 1

PROJECT NO. 330-06.13  
 LOGGED BY: JC  
 DRILLER: Baylands  
 DRILLING METHOD: HSA  
 SAMPLING METHOD: STD PCU MOD  
 CASING TYPE: Sch 40 PVC  
 SLOT SIZE: 0.020"  
 GRAVEL PACK: 2 x 12 SAND

CLIENT: ARCO  
 DATE DRILLED: 10-2-91  
 LOCATION: 17238 VIA FLORES  
 HOLE DIAMETER: 8"  
 HOLE DEPTH: 23.5'  
 WELL DIAMETER: 3"  
 WELL DEPTH: 22'  
 CASING STICKUP:

WELL COMPLETION	MOISTURE CONTENT	PID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY SAMPLE INTERVAL	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS	
GROUT SOLID CASING SAND BENTONITE NATIVE SOIL				2			SP	ASPHALT; fill.	
				4			CL	SAND; yellowish brown; 5-10% clayey fines; fine sand; medium dense; no product odor.	
	Mst	0	push	6			CL	CLAY; dark yellowish brown; low plasticity; 15-20% fine sand; trace medium to coarse sand; firm; no product odor.	
	Mst	0	push	10			SC	CLAYEY SAND; yellowish brown; 25-30% clayey fines; fine sand; medium dense; no product odor.	
	V. Mst	0	8	14			CH	CLAY; yellowish brown; moderate to high plasticity; 10-15% fine sand; firm; no product odor.	
	V. Mst	0	11	20			CL	CLAY; very pale brown; moderate plasticity; 10-15% fine sand; calcium carbonate; stiff; no product odor.	
	V. Mst	0	11	22			CL	@22-23': stiff; rare iron oxide; some silt.	
				24					
				26					
				28					
			30						
			32						
			34						
			36						
			38						
			40						
			42						
			44						
								BOTTOM OF BORING AT 23.5'	



**PACIFIC ENVIRONMENTAL GROUP, INC.**

WELL NO. MW-23  
PAGE 1 OF 1

PROJECT NO. 330-06.13  
 LOGGED BY: JC  
 DRILLER: Baylands  
 DRILLING METHOD: HSA  
 SAMPLING METHOD: STD PCU MOD  
 CASING TYPE: Sch 40 PVC  
 SLOT SIZE: 0.020"  
 GRAVEL PACK: 2 x 12 SAND

CLIENT: ARCO  
 DATE DRILLED: 10-2-91  
 LOCATION: 17347 VIA MEDIA  
 HOLE DIAMETER: 8"  
 HOLE DEPTH: 23.5'  
 WELL DIAMETER: 3"  
 WELL DEPTH: 22'  
 CASING STICKUP:

WELL COMPLETION	MOISTURE CONTENT	PID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY SAMPLE INTERVAL	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS	
GROUT SOLID CASING SAND BENTONITE NATIVE SOIL				2				ASPHALT; fill.	
				4			SC	CLAYEY SAND; yellowish brown; 15-20% clay and silt.	
	Mst	0	push	6			CL	CLAY; strong brown; low plasticity; 20-25% silt and fine sand; iron oxide; no product odor.	
				8					
	Mst	0	push	10				@9': firm; no product odor.	
				12					
	V. Mst	1		14				@14': firm; no product odor.	
				16					
	V. Mst	0		18					
				20				CH	CLAY; very pale brown; high plasticity; 5-10% fine sand; trace medium to coarse sand; calcium carbonate; firm; no product odor.
				22					
	V. Mst			24				@22.5': as above.	
				26					
				28					
				30					
			32						
			34						
			36						
			38						
			40						
			42						
			44						
BOTTOM OF BORING AT 23.5'									

LOCATION MAP

MW-24



Hacienda Avenue

Site

Hesperian Boulevard

NORTHING EASTING ELEVATION



PACIFIC ENVIRONMENTAL GROUP, INC.

WELL NO. MW-24  
PAGE 1 OF 1

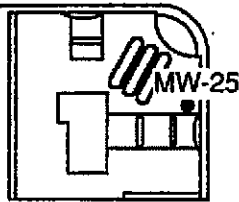
PROJECT NO. 330-06.20  
LOGGED BY: RH  
DRILLER: WEST HAZMAT  
DRILLING METHOD: HSA  
SAMPLING METHOD: CAL MOD  
CASING TYPE: Sch 40 PVC  
SLOT SIZE: 0.020"  
GRAVEL PACK: 2 X 12 SAND

CLIENT: ARCO  
DATE DRILLED: 3-17-93  
LOCATION: Hacienda Avenue  
HOLE DIAMETER: 10"  
HOLE DEPTH: 21'  
WELL DIAMETER: 2"  
WELL DEPTH: 21'  
CASING STICKUP: NA

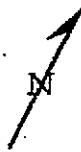
WELL COMPLETION	MOISTURE CONTENT	PID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY SAMPLE INTERVAL	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS	
				1			SM	SILTY SAND - FILL: 10% clay; 10% silt; fine to coarse sand; subrounded to angular gravel to 3" diameter; dense; no product odor.	
	Dp			2			CL	CLAY: black; moderate plasticity; 5% medium sand; stiff; no product odor.	
				3					
				4					
				5					
	Dp	0		6				@5.5': trace medium sand.	
				7				@7': dark yellowish brown; low plasticity; 10% fine sand; stiff; no product odor.	
	Sat	0		8					
				9					
	Dp			10				@10-10.5': as above; no product odor.	
				11				SC	CLAYEY SAND: dark yellowish brown; 10% clay; fine sand; loose; no product odor.
	Sat	3	8	12				SP	SAND: dark yellowish brown; fine sand; loose; no product odor.
				13				ML	CLAYEY SILT: yellowish brown; low plasticity; trace fine sand; firm; no product odor.
	Sat	0		14				CH	CLAY: olive brown; high plasticity; stiff; no product odor.
				15					
				32					
				17					
	Sat	0		18					
				19					
				27					
				20					
				21					
			22						

BOTTOM OF BORING AT 21'

LOCATION MAP  
Hacienda Avenue



Hesperian Boulevard



NORTHING EASTING ELEVATION

**PACIFIC ENVIRONMENTAL GROUP, INC.**

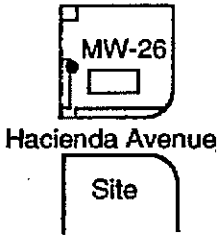
WELL NO. MW-25  
PAGE 1 OF 1

PROJECT NO. 330-06.20  
LOGGED BY: RH  
DRILLER: WEST HAZMAT  
DRILLING METHOD: HSA  
SAMPLING METHOD: CAL MOD  
CASING TYPE: Sch 40 PVC  
SLOT SIZE: 0.020"  
GRAVEL PACK: 2 X 12 SAND

CLIENT: ARCO  
DATE DRILLED: 3-17-93  
LOCATION: 17601 Hesperian  
HOLE DIAMETER: 10"  
HOLE DEPTH: 21'  
WELL DIAMETER: 2"  
WELL DEPTH: 21'  
CASING STICKUP: NA

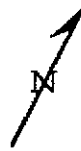
WELL COMPLETION	MOISTURE CONTENT	PID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY SAMPLE INTERVAL	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
				1			FL	ASPHALT FILL: baserock; clayey; angular gravel with debris; dense; no product odor.
				2			CL	SANDY CLAY: black; low plasticity; 10-20% fine to coarse sand; stiff; no product odor.
				3			CL	SANDY CLAY: black; low plasticity; 10-20% fine to coarse sand; stiff; no product odor.
				4			CL	SANDY CLAY: black; low plasticity; 10-20% fine to coarse sand; stiff; no product odor.
				5			CL	SANDY CLAY: black; low plasticity; 10-20% fine to coarse sand; stiff; no product odor.
				6	1		SP	SAND: dark greenish grey; fine sand; medium dense; no product odor.
				7			CL	SANDY CLAY: dark greenish grey; low plasticity; 10% fine to coarse sand; stiff; no product odor.
				8			CL	SANDY CLAY: dark greenish grey; low plasticity; 10% fine to coarse sand; stiff; no product odor.
				9			CL	SANDY CLAY: dark greenish grey; low plasticity; 10% fine to coarse sand; stiff; no product odor.
				10	2		SC	CLAYEY SAND: dark greenish grey; fine sand; 30% clay; medium dense; very faint product odor.
				11			SP	SAND: dark green grey; fine sand; loose; no product odor.
				12	16		ML	CLAYEY SILT: yellowish brown; low plasticity; trace fine sand; firm; faint product odor.
				13			CH	CLAY: very dark grey; high plasticity; trace fine sand; stiff; no product odor.
				14	2		CL	CLAY: dark greyish brown; moderate plasticity; trace fine sand; stiff; no product odor.
				15			CL	CLAY: dark greyish brown; moderate plasticity; trace fine sand; stiff; no product odor.
				16			CL	CLAY: dark greyish brown; moderate plasticity; trace fine sand; stiff; no product odor.
				17			CL	CLAY: dark greyish brown; moderate plasticity; trace fine sand; stiff; no product odor.
				18	24		CL	CLAY: dark greyish brown; moderate plasticity; trace fine sand; stiff; no product odor.
				19			CL	CLAY: dark greyish brown; moderate plasticity; trace fine sand; stiff; no product odor.
				20			CL	CLAY: dark greyish brown; moderate plasticity; trace fine sand; stiff; no product odor.
				21	0			

LOCATION MAP



NORTHING EASTING ELEVATION

Hesperian Boulevard



PACIFIC ENVIRONMENTAL GROUP, INC.

WELL NO. MW-26

PAGE 1 OF 1

PROJECT NO. 330-06.20  
 LOGGED BY: RH  
 DRILLER: WEST HAZMAT  
 DRILLING METHOD: HSA  
 SAMPLING METHOD: CAL MOD  
 CASING TYPE: Sch 40 PVC  
 SLOT SIZE: 0.020"  
 GRAVEL PACK: 2 X 12 SAND

CLIENT: ARCO  
 DATE DRILLED: 3-19-93  
 LOCATION: Hacienda Avenue  
 HOLE DIAMETER: 8"  
 HOLE DEPTH: 21.5'  
 WELL DIAMETER: 2"  
 WELL DEPTH: 21'  
 CASING STICKUP: NA

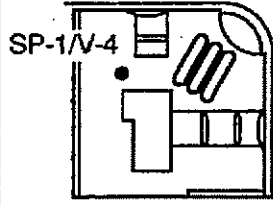
WELL COMPLETION	MOISTURE CONTENT	PID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY SAMPLE INTERVAL	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS	
				1			CL	CLAY - FILL: reddish black; low plasticity; firm; no product odor.	
				2			SP	SAND: <5% clay and silt; fine to coarse sand; subrounded to angular gravel to 3" diameter; dense; no product odor.	
				3			CL	SANDY CLAY: black; low plasticity; 10-20% fine sand; trace medium sand; stiff; no product odor.	
				4				@5-6.5': very stiff; no product odor.	
				5					
				6	0	29			
				7					
				8					
				9					
				10	0	36			@10-10.5': rootholes; trace fine gravel; no product odor. @10.5-11': brown; organic material; caliche present; very stiff; no product odor.
				11			SP	SAND: olive brown; fine sand; dense; no product odor.	
				12					
				13					
				14					
				15					
				16	0	22		CL	CLAY: light olive brown; low plasticity; 10% fine sand; mottled with yellowish brown and black speckles along rootholes; very stiff; no product odor.
				17			SC	CLAYEY SAND: silty; yellowish brown; medium dense; no product odor.	
				18					
				19					
				20	0	18		CL	CLAY: yellowish brown; moderate plasticity; trace fine sand; very stiff; no product odor.
				21					
				22					

@21.5': increased silt and fine sand.

BOTTOM OF BORING AT 21.5'



LOCATION MAP  
Hacienda Avenue



**PACIFIC ENVIRONMENTAL GROUP, INC.**

WELL NO. SP-1/V-4  
PAGE 1 OF 1

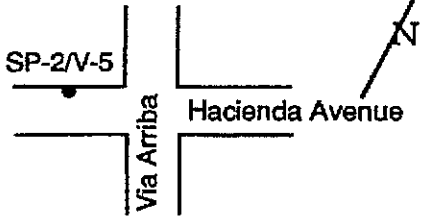
PROJECT NO. 330-06.20  
LOGGED BY: RH  
DRILLER: WEST HAZMAT  
DRILLING METHOD: HSA  
SAMPLING METHOD: CAL MOD  
CASING TYPE: Sch 40 PVC  
SLOT SIZE: 0.020"/0.040"  
GRAVEL PACK: 2 X 12 SAND/Aquarium Sand

CLIENT: ARCO  
DATE DRILLED: 3-18-93  
LOCATION: 17601 Hesperian  
HOLE DIAMETER: 10"  
HOLE DEPTH: 22.5'  
WELL DIAMETER: 2 1/2"  
WELL DEPTH: 21' 15"  
CASING STICKUP: NA

NORTHING EASTING ELEVATION

WELL COMPLETION	MOISTURE CONTENT	PID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY SAMPLE INTERVAL	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
	Dp	0		1				ASPHALT AND BASEROCK: clayey gravel (fill to 2')
				2		CL	CLAY: black; low plasticity; hard to very stiff; no product odor.	
	Dp	0		3				
				4		CL	SANDY CLAY: dark yellowish brown; low plasticity; stiff; no product odor.	
	Mst	16		5				@8.5-9': greenish grey; faint product odor. SAND: dark greenish grey; faint product odor.
				6		SC	CLAYEY SAND: dark greenish grey; fine sand; medium dense; faint product odor.	
	Wt	190		7				
				8	30			
	Sat	85		9				
				10		CL	CLAY: very dark grey; moderate plasticity; 10% fine sand; sheen in blebs along rootholes; stiff; strong product odor.	
				11				
				12				@14': greenish grey mottled with bluish gray; strong product odor.
				13				
				14				
				15				
				16				SC CLAYEY SAND: light olive brown; medium dense; faint product odor.
				17				
				18				
				19				
				20				CL CLAY: yellowish brown; moderate plasticity; trace fine sand; very stiff; no product odor.
				21				
				22				
			26					BOTTOM OF BORING AT 22.5'

LOCATION MAP



PACIFIC ENVIRONMENTAL GROUP, INC.

WELL NO. SP-2/V-5  
PAGE 1 OF 1

PROJECT NO. 330-06.20  
LOGGED BY: RH  
DRILLER: WEST HAZMAT  
DRILLING METHOD: HSA  
SAMPLING METHOD: CAL MOD  
CASING TYPE: Sch 40 PVC  
SLOT SIZE: 0.020"/0.040"  
GRAVEL PACK: 2 X 12 SAND/Aquarlum Sand

CLIENT: ARCO  
DATE DRILLED: 3-18-93  
LOCATION: Hacienda and Via Arriba  
HOLE DIAMETER: 10"  
HOLE DEPTH: 19'  
WELL DIAMETER: 2 1/2"  
WELL DEPTH: 19'/11'  
CASING STICKUP: NA

NORTHING EASTING ELEVATION

WELL COMPLETION	MOISTURE CONTENT	PID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY SAMPLE INTERVAL	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
	<p>Dp 0</p> <p>Dp 0</p> <p>Mst 0</p> <p>Sat 12</p> <p>0</p> <p>0</p>	<p>0</p> <p>0</p> <p>0</p> <p>12</p> <p>14</p> <p>22</p> <p>20</p>	<p>1</p> <p>2</p> <p>3</p> <p>4</p> <p>5</p> <p>6</p> <p>7</p> <p>8</p> <p>9</p> <p>10</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p>				CL	ASPHALT AND BASEROCK.
							CL	SANDY CLAY: black; low plasticity; 10-20% fine sand; trace coarse sand; stiff; no product odor. @2': dark yellowish brown.
							SM	SILTY SAND: dark yellowish brown; fine sand; no product odor.
							SP	SAND: dark yellowish brown; fine sand; no product odor.
							ML	CLAYEY SILT: dark yellowish brown; 10% fine sand; firm; no product odor.
							SC	CLAYEY SAND: yellowish brown; 30-40% fines; fine sand; faint product odor.
							CL	CLAY: dark grey; low to moderate plasticity; rootholes; stiff; faint product odor.
								@13': olive brown with grey mottling along fine sand filled rootholes; caliche; faint product odor.
								@15': mottling lessening with depth; no product odor.
								@18.5': increased fine sand and silt; no product odor.
								BOTTOM OF BORING AT 19'

Attachment B

ACPWA Well Permit Application

# Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street  
Hayward, CA 94544-1395  
Telephone: (510)670-6633 Fax:(510)782-1939

**Application Approved on: 04/11/2012 By jamesy**

**Permit Numbers: W2012-0213 to W2012-0232**  
**Permits Valid from 11/20/2012 to 11/20/2012**

**Application Id:** 1332262226862  
**Site Location:** 17601 Hesperian Boulevard

**City of Project Site:** San Lorenzo

**Project Start Date:** San Lorenzo, CA  
05/21/2012  
**Assigned Inspector:** Contact Vicky Hamlin at (510) 670-5443 or vickyh@acpwa.org  
**Extension Start Date:** 11/20/2012  
**Extension Count:** 2

**Completion Date:** 05/25/2012  
**Extension End Date:** 11/20/2012  
**Extended By:** vickyh1

**Applicant:** Broadbent & Associates, Inc. - Jason Duda  
1324 Mangrove Ave., Suite 212, Chico, CA 95926  
**Property Owner:** BP West Coast Products, LLC  
P.O. Box 5015, Buena Park, CA 90622  
**Client:** \*\* same as Property Owner \*\*  
**Contact:** Jason Duda

**Phone:** 530-566-1400  
**Phone:** 925-275-3804  
**Phone:** 530-566-1400  
**Cell:** 530-592-6822

**Total Due:** \$7808.00  
**Total Amount Paid:** \$7808.00  
**Receipt Number: WR2012-0101**      **Payer Name : Jason Duda**      **Paid By: MC**      **PAID IN FULL**

**Works Requesting Permits:**

Well Destruction-Monitoring - 19 Wells

Driller: Cascade Drilling [Gregg Drilling & Testing, Inc 485165 c57] - Lic #: 938110

**Work Total: \$7543.00**

- Method: press

**Specifications**

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth	State Well #	Orig. Permit #	DWR #
W2012-0213	04/11/2012	08/19/2012	MW-10	8.00 in.	3.00 in.	5.00 ft	23.00 ft	3S/2W18G1 0	90048	319828
W2012-0214	04/11/2012	08/19/2012	MW-11	8.00 in.	3.00 in.	5.00 ft	19.50 ft	3S/2W18G1 1	90048	319847
W2012-0215	04/11/2012	08/19/2012	MW-12/E-1A	12.00 in.	6.00 in.	5.00 ft	26.00 ft	3S/2W18G1 2	90419	328490
W2012-0216	04/11/2012	08/19/2012	MW-13	8.00 in.	3.00 in.	6.00 ft	23.00 ft	3S/2W18G1 3	91198	383461
W2012-0217	04/11/2012	08/19/2012	MW-14	8.00 in.	3.00 in.	5.00 ft	23.00 ft	3S/2W18G1 9	91198	298641
W2012-0218	04/11/2012	08/19/2012	MW-15	8.00 in.	3.00 in.	5.00 ft	23.00 ft	3S/2W18G1 5	91198	298637
W2012-0219	04/11/2012	08/19/2012	MW-16	8.00 in.	2.00 in.	5.00 ft	23.00 ft	3S/2W18G1 6	91198	298638
W2012-0220	04/11/2012	08/19/2012	MW-18	8.00 in.	3.00 in.	5.00 ft	22.00 ft	3S/2W18F0 5	91518	298680
W2012-0221	04/11/2012	08/19/2012	MW-19	8.00 in.	3.00 in.	5.00 ft	22.00 ft	3S/2W18C0 2	91518	298679
W2012-0222	04/11/2012	08/19/2012	MW-21	8.00 in.	3.00 in.	5.00 ft	22.00 ft	3S/2W18C0 4	91518	298678
W2012-0223	04/11/2012	08/19/2012	MW-22	8.00 in.	3.00 in.	5.00 ft	22.00 ft	3S/2W18F0 6	91518	298676
W2012-0224	04/11/2012	08/19/2012	MW-23	8.00 in.	3.00 in.	5.00 ft	22.00 ft	3S/2W18F0 7	91518	298675

## Alameda County Public Works Agency - Water Resources Well Permit

W2012-0225	04/11/2012	08/19/2012	MW-24	10.00 in.	2.00 in.	5.00 ft	21.00 ft	3S/2W18G1 8	No Records	No Records
W2012-0226	04/11/2012	08/19/2012	MW-25	10.00 in.	2.00 in.	5.00 ft	21.00 ft	3S/2W18G2 1	93091	464306
W2012-0227	04/11/2012	08/19/2012	MW-26	8.00 in.	2.00 in.	5.00 ft	21.00 ft	3S/2W18G2 2	93091	464306
W2012-0228	04/11/2012	08/19/2012	MW-5	10.00 in.	4.00 in.	3.00 ft	14.50 ft	No Records	No Records	No Records
W2012-0229	04/11/2012	08/19/2012	MW-7	8.00 in.	3.00 in.	5.00 ft	19.00 ft	3S/2W18G7	90048	328451
W2012-0230	04/11/2012	08/19/2012	MW-8	8.00 in.	3.00 in.	5.00 ft	21.50 ft	3S/2W18G8	90048	332625
W2012-0231	04/11/2012	08/19/2012	MW-9	8.00 in.	3.00 in.	5.00 ft	19.50 ft	3S/2W18G9	90048	332624

### Specific Work Permit Conditions

1. Drilling Permit(s) can be voided/ cancelled only in writing. It is the applicant's responsibility to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.
  
2. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.
  
3. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Include permit number and site map.
  
4. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.
  
5. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost and liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.
  
6. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
  
7. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.
  
8. Remove the Christy box or similar structure. Destroy wells by overdrilling the upper 5ft. BGS & then Tremie Grouting

## Alameda County Public Works Agency - Water Resources Well Permit

with Cement. After the seal has set, backfill the remaining hole with concrete or compacted material to match existing. (MW-8, MW-9, MW-10, MW-11, MW-14, MW-15, MW-16, MW-18, MW-19, MW-21, MW-22, MW-23, MW-24, MW-26).

9. Remove the Christy box or similar structure. Destroy wells MW-5, MW-7, MW-12/E-1A, MW-13 and MW-25 by grouting neat cement with a tremie pipe or pressure grouting (25 psi for 5min.) to the bottom of the well and by filling with neat cement to three (3-5) feet below surface grade. Allow the sealing material to spill over the top of the casing to fill any annular space between casing and soil. After the seal has set, backfill the remaining hole with concrete or compacted material to match existing conditions.

10. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.

### Remediation Well Destruction-Extraction - 5 Wells

Driller: Cascade Drilling - Lic #: 93810 - Method: other

**Work Total: \$265.00**

#### Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth	State Well #	Orig. Permit #	DWR #
W2012-0232	04/11/2012	08/19/2012	SP-1/V-4	10.00 in.	2.00 in.	5.00 ft	21.00 ft	3S/2W18G19	93091	424907
W2012-0232	04/11/2012	08/19/2012	SP-2/V-5	10.00 in.	2.00 in.	5.00 ft	19.00 ft	3S/2W18G20	93091	424907
W2012-0232	04/11/2012	08/19/2012	V-1	8.00 in.	2.00 in.	5.00 ft	15.00 ft	No Records	No Records	No Records
W2012-0232	04/11/2012	08/19/2012	V-2	8.00 in.	2.00 in.	5.00 ft	15.00 ft	No Records	No Records	No Records
W2012-0232	04/11/2012	08/19/2012	V-3	8.00 in.	2.00 in.	5.00 ft	15.00 ft	No Records	No Records	No Records

#### Specific Work Permit Conditions

1. Drilling Permit(s) can be voided/ cancelled only in writing. It is the applicant's responsibility to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.

2. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Include permit number and site map.

3. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.

4. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

5. Remove the Christy box or similar structure. Destroy well by overdrilling & Tremie Grouting with Cement. After the seal has set, backfill the remaining hole with concrete or compacted material to match existing.

6. Remove the Christy box or similar structure. Pressure Grout with Cement (Less than 30 ft in depth). After the seal has



## Alameda County Public Works Agency - Water Resources Well Permit

set, backfill the remaining hole with concrete or compacted material to match existing.

7. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.

8. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

9. Remove the Christy box or similar structure. Destroy wells SP-1/V-4, SP-2/V-5, by overdrilling to total depth & then Tremie Grouting with Cement. After the seal has set, backfill the remaining hole with concrete or compacted material to match existing.

10. Remove the Christy box or similar structure. Pressure Grout or Tremie grout with Cement (Less than 30 ft in depth)wells V-1, V-2 and V-3 on-site wells. After the seal has set, backfill the remaining hole with concrete or compacted material to match existing.

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Attachment C

Broadbent Field Notes



Project: JP 608 Project No.: 06-88-606

Field Representative(s): Taylor Lancelot / James Ramos Day: Monday Date: 7/9/12

Time Onsite: From: 0900 To: \_\_\_\_\_; From: \_\_\_\_\_ To: \_\_\_\_\_; From: \_\_\_\_\_ To: \_\_\_\_\_

- Signed HASP  Safety Glasses  Hard Hat  Steel Toe Boots  Safety Vest
- UST Emergency System Shut-off Switches Located  Proper Gloves
- Proper Level of Barricading \_\_\_\_\_ Other PPE (describe) \_\_\_\_\_

Weather: overcast, cold

Equipment In Use: Air knife / pressure grout rig

Visitors: \_\_\_\_\_

**TIME:**

**WORK DESCRIPTION:**

0915	Onsite, Cascade onsite
	Safety meeting
1030	EBMUD onsite, instructed us to be careful and backfill w/ native
1030	EBMUD offsite
1040	Vikki Hamlin w/ Alameda Co. onsite
	Do not over drill SP-2/V-5, too risky w/ gas line, core w/ MW-23 -
	remove Air ring, break off casing.
	Wells near utilities, air knife to above utilities, remove ring and box
	large vaults onsite, may may not overdrill, will discuss w/ TU
1140	Set up on MW-14
1236	Finished grout, begin box removal
1300	Vikki Hamlin offsite
1405	Break for lunch
1435	Return from lunch
1450	Done w/ MW-14, set up on MW-21
1736	MW-21 completed, clean up
1800	Offsite

Signature: [Signature]



DAILY REPORT

Page 1 of 1

Project: BP 608 Project No.: 06-88-606

Field Representative(s): Taylor Lancelot Day: Tue Date: 7/10/12

Time Onsite: From: 0700 To: ; From: To: ; From: To:

- + Signed HASP + Safety Glasses + Hard Hat + Steel Toe Boots + Safety Vest
+ UST Emergency System Shut-off Switches Located + Proper Gloves
+ Proper Level of Barricading Other PPE (describe)

Weather: overcast, warm

Equipment In Use: Vac Truck, air knife rig, asphalt rig

Visitors:

TIME:

WORK DESCRIPTION:

0700 Onsite, meet w/ Lew Fowler of Cornerstone, JR is doing safety meeting w/ Cornerstone & CVac, TL safety briefing w/ Cascade
0800 TL & Cascade set up on MW-22
1020 Concrete in place and drying, clean up MW-22 for asphalt crew
1030 Fill water tank onsite
1050 Set up on MW-15
1244 MW-15 complete, clean up for asphalt crew
1300 Break for lunch
1330 Return from lunch, Set up on MW-16
1335 PPE onsite
Gave ok to cut asphalt out 3x3' square down 3" and repave for 2 wells in close proximity to gas line, will go no deeper than removing vaults per Vikki Hamlin.
1345 PPE offsite
1537 MW-16 complete w/ cold patch
1542 Set up on MW-18
1700 Offsite, need to air knife MW-18 tomorrow

Signature: [Handwritten Signature]

Project: BP 608 Project No.: 06-88-606Field Representative(s): Taylor Lancelot, James Romo Day: Wed Date: 7/11/12Time Onsite: From: 0700 To: \_\_\_\_\_; From: \_\_\_\_\_ To: \_\_\_\_\_; From: \_\_\_\_\_ To: \_\_\_\_\_ Signed HASP  Safety Glasses  Hard Hat  Steel Toe Boots  Safety Vest UST Emergency System Shut-off Switches Located  Proper Gloves Proper Level of Barricading  Other PPE (describe) \_\_\_\_\_Weather: sunny, warmEquipment In Use: Air knife/Vac truck

Visitors: \_\_\_\_\_

**TIME:****WORK DESCRIPTION:**

TIME:	WORK DESCRIPTION:
<u>0700</u>	<u>Onsite, safety meeting</u>
<u>0730</u>	<u>Statewide set up on MW-9</u>
<u>0745</u>	<u>Fill water tank on vac truck onsite</u>
<u>0800</u>	<u>Set up on MW-9</u>
<u>0919</u>	<u>About 2' bgs, seeing evidence of fill on <del>site</del> south side of boring. Water main marked by EBMUD about 1' away will stop @ 2' for safety reasons.</u>
	<u>No pea gravel or backfill, but very loose soil w/a gradual decrease of roadbase, north side of boring still road base</u>
	<u>EBMUD line marked @ <math>\approx</math> 3' diameter.</u>
<u>0944</u>	<u>MW-9 completed, clean up for asphalt crew</u>
<u>1000</u>	<u>Begin setup on MW-10 and SP-2/V-5</u>
<u>1305</u>	<u>MW-10 and SP-2/V-5 completed</u>
<u>1310</u>	<u>Break for lunch</u>
<u>1340</u>	<u>Return from lunch, fill <del>the</del> water tank on vac truck onsite</u>
<u>1355</u>	<u>Set up on MW-18</u>
<u>1600</u>	<u>Statewide offside; completed MW-18 w/cold patch for asphalt crew tomorrow</u>

Signature: [Signature]



DAILY REPORT

Page 2 of 2

Project: BP 608 Project No.: 06-88-606

Field Representative(s): TL, JR Day: Wed. Date: 7/11/12

Time Onsite: From: To: ; From: To: ; From: To:

- Signed HASP Safety Glasses Hard Hat Steel Toe Boots Safety Vest
UST Emergency System Shut-off Switches Located Proper Gloves
Proper Level of Barricading Other PPE (describe)

Weather:

Equipment In Use:

Visitors:

TIME:

WORK DESCRIPTION:

1605 Set up on MW-19
1621 MW-19 grouting complete, check MW-23 for room
1633 Street too crowded, will complete MW-23 in the morning
Set up on MW-11
1700 Grouting MW-11 completed, will air knife tomorrow
Go onsite to move trailer and offload full drums from support truck
1730 Offsite

Signature: [Handwritten Signature]





DAILY REPORT

Page 1 of 2

Project: BP 608 Project No.: 06-88-606

Field Representative(s): Taylor Lancelot, James Day: Thor. Date: 7/12/12

Time Onsite: From: 0730 To: ; From: <sup>Flamos</sup> To: ; From: To:

- + Signed HASP + Safety Glasses + Hard Hat + Steel Toe Boots + Safety Vest
+ UST Emergency System Shut-off Switches Located + Proper Gloves
+ Proper Level of Barricading Other PPE (describe)

Weather: sunny, warm

Equipment In Use: Voe truck air knife rig

Visitors:

TIME:

WORK DESCRIPTION:

0730 Onsite, Safety meeting
0800 Set up on MW-23
0916 MW-23 completed, ready for asphalt crew
0920 Set up on MW-19 to air knife to 5'
MW-23 concrete vault and ring removed, close proximity to 2" plastic gas line. ~ 2' away, unknown depth, stopped due to safety concerns.
1030 Horizontal 4" pipe ~ 1" from concrete around well, steel, 30" deep took picture, sent to TV, spoke w/TV told us to stop and grout, confirmed decision w/ Vikki Hamlin. Pipe perpendicular to street
1120 MW-19 completed, ready for asphalt crew
1125 Set up on MW-11
1300 MW-11 completed
1305 Break for lunch
1335 Return from lunch
1348 Set up on MW-8 saw cut square around lid.
1450 MW-8 completed
1500 Set up on MW-26

Signature:

AL W



DAILY REPORT

Page 2 of 2

Project: BP 608 Project No.: 06-88-606

Field Representative(s): TL, JR Day: Thur. Date: 7/12/12

Time Onsite: From: To: ; From: To: ; From: To:

- Signed HASP Safety Glasses Hard Hat Steel Toe Boots Safety Vest
UST Emergency System Shut-off Switches Located Proper Gloves
Proper Level of Barricading Other PPE (describe)

Weather:

Equipment In Use:

Visitors:

Table with 2 columns: TIME and WORK DESCRIPTION. Contains handwritten entries for various well completions and grouting activities.

Signature: [Handwritten Signature]



Project: BP 608 Project No.: 06-88-606

Field Representative(s): Taylor Lancelot, James Day: Friday Date: 7/13/12

Time Onsite: From: 0700 To: ; From: ; To: ; From: To: ;

- Signed HASP Safety Glasses Hard Hat Steel Toe Boots Safety Vest
UST Emergency System Shut-off Switches Located Proper Gloves
Proper Level of Barricading Other PPE (describe)

Weather: overcast, cool

Equipment In Use: Vac Truck/air knife rig

Visitors:

TIME:

WORK DESCRIPTION:

0700 Onsite, safety meeting

0735 set up on MW-13

0745 Does not seem like monitor well, 4" but steel thread cap, within trenching to tank show on "as-built" for shop, slots in casing verticle almost up to surface and 1/4" wide. Will call TV for direction

0802 Set up on MW-5, saw cut and remove box, surface complete w/concrete

0845 Spoke w/TV, well previously thought was MW-13 was 13 not monitor well, but associated w/UST. Cannot find MW-13, may be below large, unmoveable storage container

0847 MW-5 complete, empty tank on Vac Truck

0920 Set up on MW-25

1000 MW-25 complete

1013 Set up on MW-7

1035 MW-7 completed, waiting for Vikki Hamlin to continue w/large vaults

1100 Vikki Hamlin onsite, set up on MW-12/E-1A

1230 Grouting well MW-12/E-1A complete, grout vault, VH offsite

Signature: [Handwritten Signature]



DAILY REPORT

Page 2 of 2

Project: BP 608 Project No.: 06-88-606

Field Representative(s): TL, JR Day: Fri Date: 7/13/12

Time Onsite: From: To: ; From: To: ; From: To:

- Signed HASP Safety Glasses Hard Hat Steel Toe Boots Safety Vest
UST Emergency System Shut-off Switches Located Proper Gloves
Proper Level of Barricading Other PPE (describe)

Weather:

Equipment In Use:

Visitors:

TIME:

WORK DESCRIPTION:

1300 MW-12/E-1A complete, vault cemented ~ 3" hgs.
Set up on SP-1/V-4
1327 SP-1/V-4 well destruction by grout completed, vault still needs
to get filled. Set up on V-3? possible junction? no well,
only horizontal piping, all cut, 4x4" pipe, 4x1" pipe,
1x2" pipe, 2 4" pipes marked "1" and "3"
2" pipe marked "4".
1335 Set up on V-2? All horizontal piping, no wells, same as before
1x2", 2x1", 2x4" marked "13" and "14"
1340 SP-1/V-4 'return to' to fill vault w/grout
1415 Concrete of SP-1/V-4 complete
Clean up site
1500 Offsite

Signature: [Handwritten Signature]

# STATEWIDE TRAFFIC SAFETY & SIGNS

501491

7T2660

- Poway    Anaheim    Long Beach    San Jose  
 Nipomo    Sacramento    Fairfield    Fresno    Bakersfield

## TRAFFIC CONTROL WORK ORDER REPORT

CONTRACTOR: <u>BROADBENT</u>	CONTACT:	PHONE:	DATE: <u>7-11-12</u>
LOCATION:	CONTRACT#	JOB #	

Work Description:

1 MAN

06-08-606

DATE 7-11-12

CUSTOMER BROADBENT

CITY SAN LORANZO

CLOSURE LOCATION/STREET 17601 HESPERIAN BLVD

JOBSITE CONTACT JAMES RAMOS

FWY	ST	HWY/STREET LANE CLOSURES	Length/ Qty	TCSC Work Window			Contractor Work Window			Notes
				Start Time	End Time	Total Hours	Start Time	End Time	Total Hours	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	1 Lane 1 Direction (T-10) <u>1 MAN</u>					<u>7:00</u>	<u>4:00</u>	<u>9</u>	<u>FLAGGED</u>
<input type="checkbox"/>	<input type="checkbox"/>	2 Lanes 1 Direction (T-10)								<u>9 SLOTTED</u>
<input type="checkbox"/>	<input type="checkbox"/>	3 Lanes 1 Direction (T-10)								<u>9 SLOTTED</u>
<input type="checkbox"/>	<input type="checkbox"/>	Additional 1 Lane Different Location (T-10)								<u>6 BARR W/SIGNS</u>
<input type="checkbox"/>	<input type="checkbox"/>	Additional 2 Lanes Different Location (T-10)								<u>50 TOWERS</u>
<input type="checkbox"/>	<input type="checkbox"/>	Additional 3 Lanes Different Location (T-10)								
<input type="checkbox"/>	<input type="checkbox"/>	Connector Closure Only (T-14 Mod)								
<input type="checkbox"/>	<input type="checkbox"/>	Off-Ramp Closure during Lane/Street Closure (T-14 Mod)								
<input type="checkbox"/>	<input type="checkbox"/>	On-Ramp Closure during Lane/Street Closure (T-14)								
<input type="checkbox"/>	<input type="checkbox"/>	Connector Closure during Lane Closure (T-14 Mod)								
<input type="checkbox"/>	<input type="checkbox"/>	Complete Freeway/Street Closure (T-14A)								
<input type="checkbox"/>	<input type="checkbox"/>	Flagging (T-13)								
<input type="checkbox"/>	<input type="checkbox"/>	Movin Lane Closure (T-15, T-16)								
<input type="checkbox"/>	<input type="checkbox"/>									
<input type="checkbox"/>	<input type="checkbox"/>									

	QTY	Asset #	Start Time	End Time	Total Hours	Notes
Impact Attenuator Vehicle TL-3 & Driver <u>TRUCK 0993</u>	<u>1</u>		<u>7:00</u>	<u>4:00</u>	<u>9</u>	
Pilot Car						
Additional Man						
Additional Lanes						
Portable Changeable Message Sign						
Portable Light Towers						
Arrow Boards						

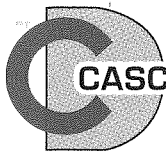
EMPLOYEE	Reg Hrs	OT	DT
<u>JEFF ALLEN</u>	<u>8</u>	<u>1</u>	

DRIVE  
CLOSURE

Foreman [Signature]

Contractor [Signature]

R/E Inspector \_\_\_\_\_



**CASCADe DRILLING, L.P.**  
LEADERS IN SAFETY

**CASCADe DRILLING DAILY WORK REPORT**

PO Box 1184 - Woodinville, WA 98072 - 425-485-8908 # CASCADL91508  
13600 SE Ambler Road - Clackamas, OR 97015 - 503-775-4118 #CCB-187984  
555 S. Harbor Blvd. - La Habra, CA 90631 - 562-929-8176 #C57-938110  
3632 Omece Circle - Rancho Cordova, CA 95742 - 916-638-1169 #C57-938110

CLIENT <b>BROADBENT &amp; ASSOCI.</b>		PROJECT NO <b>06-88-606</b>		DATE <b>7-9-2012</b>		DAY <b>Monday</b>					
JOB LOCATION <b>17601 Hesperian Blvd.</b>				DIG ALERT #		CD-LP# <b>S12187.01</b>					
Well # Bore #	Depth Drilled	DESCRIPTION OF WORK				HOURS		Total Hrs	Charge Hrs		
		Please explain reasons for Down Time and Standby Time and Shop Time				Start	Stop				
		AM Shop Time				5:30	5:45	0.25			
		Travel to Site				5:45	8:45	3.0			
		<b>H &amp; S</b>				8:45	10:30	1.75			
		Walk the site				10:30	11:30	1.0			
		move equipment & set up				11:30	12:00	0.5			
<b>MW-19</b>		grout the 3" well 23' remove the well box				12:00					
		air knife 2' around the well cut the pipe									
		top off concret & asphalt					2:00	2.0			
		lunch				2:00	2:30	0.5			
		move the next location & set up				2:30	3:00	0.5			
<b>MW-21</b>		grout the well 3" 21' remove well box air knife				3:00					
		5' around the well cut the pipe & top off concret &									
		asphalt					5:30	2.5			
		cleanup				5:30	6:00	0.5			
		Travel to Shop									
		PM Shop Time									
Total Ft.		<b>TOTAL CHARGEABLE RIG HOURS</b>									
<b>RIG ENGINE HOURS:</b>		START	<b>1318.3</b>	STOP	<b>1321.5</b>	TOTAL					
EQUIPMENT				CASING				MATERIALS			
DRILL RIG #		COMPRESSOR/JACKHAMMER		TYPE	SLOT			ITEM	QTY	ITEM	QTY
	<b>5-175</b>		<b>2</b>			2	4	SAND		WELL COVER 8"	
	<b>569</b>	SNOW FENCE RENTAL	<b>Yes</b>	20' SCREEN				READYMIX		WELL COVER 12"	
		CONTINUOUS SAMPLER		10' SCREEN				QUICKSET	<b>3</b>	MONUMENT CASING	
	<b>8-24C</b>	CONTINUOUS SAMPLER FOOTAGE		5' SCREEN				PORTLAND	<b>16</b>	BOLLARDS	
		# OF CORE CUTS		20' BLANK				ASPHALT	<b>4</b>	DRUMS	<b>1</b>
		# OF BULLDOG CUTS		10' BLANK				BENTONITE GROUT		HOLE COVER PLATES	
		# OF SERVICE RUNS		5' BLANK				BENTONITE CHIPS		PLASTIC SHEETING	<b>Yes</b>
		# OF SAW CUTS		5' PP SCREEN				BENTONITE POWDER		TRAFFIC CONTROL	
		PORTABLE RESTROOM		10' PP SCREEN				BENTONITE PELLETS		CORE BOXES	
				SLIP CAP				BENTONITE GRANULAR		PLYWOOD	
				THREADED CAPS				SAMPLER TUBES		WATER SAMPLES	
				LOCKING CAPS				SHELBY TUBES		HYDRO PUNCH SAMPLES	
CREW WITH PER DIEM	<b>1</b>	CHARGEABLE EXTRA LABOR HRS						PROBE POINTS		AUGER PLUGS	
NAME		SIGNATURE	SHOP	DRILL	TOTAL HRS	DRIVE SHOE		GW PROBE POINTS		DRILL OUT BITS	
<b>G. Beas</b>					<b>12</b>	CENTRALIZERS		MACRO LINERS			
<b>J. Larson</b>					<b>12</b>	LOCKS		SAMPLER SHOE			
<b>UTILITIES FOUND OR HIT</b>											
<b>REMARKS</b>											

Client Signature *MW*

Operator Signature *Larson Beas*





**CASCADe DRILLING, L.P.**  
LEADERS IN SAFETY

# CASCADe DRILLING DAILY WORK REPORT

PO Box 1184 - Woodinville, WA 98072 - 425-485-8908 # CASCADL91508  
13600 SE Ambler Road - Clackamas, OR 97015 - 503-775-4118 #CCB-187984  
555 S. Harbor Blvd. - La Habra, CA 90631 - 562-929-8176 #C57-938110  
3632 Omece Circle - Rancho Cordova, CA 95742 - 916-638-1169 #C57-938110

CLIENT <b>BAT</b>		PROJECT NO <b>06-88-606</b>		DATE <b>7-10-2012</b>		DAY <b>tuesday</b>					
JOB LOCATION <b>17601 Hesperian Blvd</b>				DIG ALERT #		CD-LP# <b>S12187.01</b>					
Well # Bore #	Depth Drilled	DESCRIPTION OF WORK				HOURS		Total Hrs	Charge Hrs		
		Please explain reasons for Down Time and Standby Time and Shop Time				Start	Stop				
		AM Shop Time									
		Travel to Site									
		<b>H&amp;S</b>									
		move equipment & set up				7:00	7:30	.5			
MW-12		grout 3" well 21' Jackhammer remove the well box air knife				7:30	8:00	.5			
		5' around the well cut the pipe top off & concret				8:00					
MW-15		grout 3" well 23' Jackhammer remove the well box air knife					10:30	2.5			
		3' around the well cut pipe top off & concret					1:00	2.5			
		lunch				1:00	1:30	.5			
MW-16		grout the well 3" x 23' Jackhammer remove the well				1:30					
		box air knife 3' around the well top off concret & asphalt					4:00	2.5			
MW-13		grout the well 3" x 21'				4:00	4:30	.5			
		cleanup & move the equipment				4:30	5:30	1.0			
		Travel to Shop									
		PM Shop Time									
Total Ft.		<b>TOTAL CHARGEABLE RIG HOURS</b>									
<b>RIG ENGINE HOURS:</b>		START	1321.5		STOP	1325.5		TOTAL			
EQUIPMENT				CASING				MATERIALS			
DRILL RIG #	COMPRESSOR/JACKHAMMER	TYPE	SLOT	2	4	ITEM	QTY	ITEM	QTY		
S-175	3					SAND		WELL COVER 8"			
S-246	Yes					READYMIX		WELL COVER 12"			
						QUICKSET	6	MONUMENT CASING			
						PORTLAND	25	BOLLARDS			
						ASPHALT	2	DRUMS	1		
						BENTONITE GROUT		HOLE COVER PLATES			
						BENTONITE CHIPS		PLASTIC SHEETING	Yes		
						BENTONITE POWDER		TRAFFIC CONTROL			
						BENTONITE PELLETS		CORE BOXES			
						BENTONITE GRANULAR		PLYWOOD			
						SAMPLER TUBES		WATER SAMPLES			
						LOCKING CAPS		HYDROPUNCH SAMPLES			
						DRIVE SHOE		AUGER PLUGS			
						CENTRALIZERS		DRILL OUT BITS			
						LOCKS					
						MACRO LINERS					
						SAMPLER SHOE					
<b>UTILITIES FOUND OR HIT</b>											
<b>REMARKS</b>											

Client Signature

*MLW*

Operator Signature

*C. Beas*





**CASCADe DRILLING, L.P.**  
LEADERS IN SAFETY

# CASCADe DRILLING DAILY WORK REPORT

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3632 Omece Circle - Rancho Cordova, CA 95742 - 916-638-1169 #C57-938110

CLIENT <b>BAI</b>		PROJECT NO <b>06-88-606</b>		DATE <b>7-12-2012</b>		DAY <b>Thursday</b>					
JOB LOCATION <b>17601 Hesperian Blvd.</b>				DIG ALERT #		CD-LP# <b>S12187.01</b>					
Well # Bore #	Depth Drilled	DESCRIPTION OF WORK				HOURS		Total Hrs	Charge Hrs		
		Please explain reasons for Down Time and Standby Time and Shop Time				Start	Stop				
		AM Shop Time									
		Travel to Site <b>take the truck get fuel &amp; water</b>				<b>7:00</b>	<b>7:30</b>	<b>0.5</b>			
		<b>H &amp; S</b>				<b>7:30</b>	<b>8:00</b>	<b>0.5</b>			
		grout 3"x21' well remove the well box top off concret				<b>8:00</b>					
		asphalt					<b>9:30</b>	<b>1.5</b>			
		remove the well box air knife 3' around the well				<b>9:30</b>					
		cut the pipe top off concret & asphalt					<b>11:30</b>	<b>2.5</b>			
		remove the well box air knife 3' around the well				<b>11:30</b>					
		cut the pipe top off concret					<b>1:00</b>	<b>1.5</b>			
		lunch				<b>1:00</b>	<b>1:30</b>	<b>0.5</b>			
		saw cutter 18"x18" remove the well box grout 3"x22'				<b>1:30</b>					
		well top off & concret					<b>2:30</b>	<b>1.5</b>			
		grout 2 2"x22' wells remove the boxes				<b>2:30</b>	<b>4:00</b>	<b>1.5</b>			
		grout 3 wells 4"x14", 2"x20', 3"x18"				<b>4:00</b>	<b>5:30</b>	<b>1.5</b>			
		cleanup				<b>5:30</b>	<b>6:00</b>	<b>0.5</b>			
		Travel to Shop									
		PM Shop Time									
Total Ft.		<b>TOTAL CHARGEABLE RIG HOURS</b>									
<b>RIG ENGINE HOURS:</b>		START	<b>1329.7</b>	STOP	<b>1332.4</b>	TOTAL					
EQUIPMENT				CASING				MATERIALS			
DRILL RIG #		COMPRESSOR/JACKHAMMER		TYPE	SLOT	2	4	ITEM	QTY	ITEM	QTY
S-175			<b>3</b>					SAND		WELL COVER 8"	
SUPPORT TRUCK #		SNOW FENCE RENTAL	<b>Yes</b>	20' SCREEN				READYMIX	<b>2</b>	WELL COVER 12"	
S-569		CONTINUOUS SAMPLER		10' SCREEN				QUICKSET	<b>4</b>	MONUMENT CASING	
S-246		CONTINUOUS SAMPLER FOOTAGE		5' SCREEN				PORTLAND	<b>30</b>	BOLLARDS	
		# OF CORE CUTS		20' BLANK				ASPHALT	<b>3</b>	DRUMS	
		# OF BULLDOG CUTS		10' BLANK				BENTONITE GROUT		HOLE COVER PLATES	
		# OF SERVICE RUNS		5' BLANK				BENTONITE CHIPS		PLASTIC SHEETING	<b>Yes</b>
		# OF SAW CUTS	<b>1</b>	5' PP SCREEN				BENTONITE POWDER		TRAFFIC CONTROL	
		PORTABLE RESTROOM		10' PP SCREEN				BENTONITE PELLETS		CORE BOXES	
				SLIP CAP				BENTONITE GRANULAR		PLYWOOD	
				THREADED CAPS				SAMPLER TUBES		WATER SAMPLES	
				LOCKING CAPS				SHELBY TUBES		HYDRO PUNCH SAMPLES	
				DRIVE SHOE				PROBE POINTS		AUGER PLUGS	
				CENTRALIZERS				GW PROBE POINTS		DRILL OUT BITS	
				LOCKS				MACRO LINERS			
								SAMPLER SHOE			
<b>UTILITIES FOUND OR HIT</b>											
<b>REMARKS</b>											

Client Signature *[Signature]*

Operator Signature *[Signature]*



**CASCAD DRILLING, L.P.**  
LEADERS IN SAFETY

# CASCAD DRILLING DAILY WORK REPORT

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3632 Omece Circle - Rancho Cordova, CA 95742 - 916-638-1169 #C57-938110

CLIENT <b>BAT</b>		PROJECT NO <b>06-88-606</b>		DATE <b>7-13-2012</b>		DAY <b>Friday</b>					
JOB LOCATION <b>17601 Hesperian Blvd.</b>				DIG ALERT #		CD-LP# <b>S12187.01</b>					
Well # Bore #	Depth Drilled	DESCRIPTION OF WORK				HOURS		Total Hrs	Charge Hrs		
		Please explain reasons for Down Time and Standby Time and Shop Time				Start	Stop				
		AM Shop Time									
		Travel to Site									
		<b>H &amp; S</b>				<b>7:00</b>	<b>7:30</b>	<b>.5</b>			
		unloaded tools & set up				<b>7:30</b>	<b>8:00</b>	<b>.5</b>			
		saw cutter remove the well box & concret				<b>8:00</b>	<b>9:00</b>	<b>1.-</b>			
		saw cutter remove the well box & pack w/ concret				<b>9:00</b>	<b>10:00</b>	<b>1.-</b>			
		remove the well box & pack w/ concret				<b>10:00</b>	<b>11:00</b>	<b>1.-</b>			
		grout 6" x 24' well & box 3' x 3' x 2'				<b>11:00</b>	<b>1:00</b>	<b>2.-</b>			
		grout 2'-2" well 2" x 20' & 2" x 10' fill 3' x 3'				<b>1:00</b>	<b>2:30</b>	<b>1.5</b>			
		Cleanup loaded tools security				<b>2:30</b>	<b>3:00</b>	<b>.5</b>			
		lunch				<b>3:00</b>	<b>3:30</b>	<b>.5</b>			
		Travel to Shop				<b>3:30</b>	<b>6:30</b>	<b>3.-</b>			
		PM Shop Time				<b>6:30</b>	<b>7:00</b>	<b>.5</b>			
Total Ft.		<b>TOTAL CHARGEABLE RIG HOURS</b>									
<b>RIG ENGINE HOURS:</b>		START	<b>1332.4</b>	STOP	<b>1334.4</b>	TOTAL					
EQUIPMENT				CASING				MATERIALS			
DRILL RIG #		COMPRESSOR/JACKHAMMER		TYPE	SLOT			ITEM	QTY	ITEM	QTY
SUPPORT TRUCK #	<b>S-175</b>		<b>1</b>			<b>2</b>	<b>4</b>	SAND		WELL COVER 8"	
SUPPORT TRUCK #		SNOW FENCE RENTAL	<b>Yes</b>	20' SCREEN				READYMIX	<b>3</b>	WELL COVER 12"	
SUPPORT TRUCK #	<b>S-569</b>	CONTINUOUS SAMPLER		10' SCREEN				QUICKSET	<b>3</b>	MONUMENT CASING	
TRAILER #	<b>S-246</b>	CONTINUOUS SAMPLER FOOTAGE		5' SCREEN				PORTLAND	<b>50</b>	BOLLARDS	
BOBCAT		# OF CORE CUTS		20' BLANK				ASPHALT		DRUMS	<b>10</b>
AUTO HAMMER		# OF BULLDOG CUTS		10' BLANK				BENTONITE GROUT		HOLE COVER PLATES	
GROUT MIXER		# OF SERVICE RUNS		5' BLANK				BENTONITE CHIPS		PLASTIC SHEETING	<b>Yes</b>
GROUT PUMP		# OF SAW CUTS	<b>2</b>	5' PP SCREEN				BENTONITE POWDER		TRAFFIC CONTROL	
PERISTALTIC PUMP		PORTABLE RESTROOM		10' PP SCREEN				BENTONITE PELLETS		CORE BOXES	
FORKLIFT/HOPPER				SLIP CAP				BENTONITE GRANULAR		PLYWOOD	
LABOR				UTILITIES FOUND OR HIT							
CREW WITH PER DIEM		CHARGEABLE EXTRA LABOR HRS		LOCKING CAPS				SAMPLER TUBES		WATER SAMPLES	
NAME	SIGNATURE	SHOP	DRILL	TOTAL HRS	DRIVE SHOE			SHELBY TUBES		HYDRO PUNCH SAMPLES	
<b>C. Beas</b>				<b>11.5</b>	PROBE POINTS			"		AUGER PLUGS	
<b>J. Larson</b>				<b>11</b>	CENTRALIZERS			GW PROBE POINTS		DRILL OUT BITS	
					LOCKS			MACRO LINERS			
					SAMPLER SHOE						
<b>REMARKS</b>											

Client Signature

*[Handwritten Signature]*

Operator Signature

*[Handwritten Signature]*



DAILY REPORT

Page 1 of 1

Project: BP 608 Project No.: 06-88-600

Field Representative(s): JR Day: Tuesday Date: 11/20/12

Time Onsite: From: 1000 To: 1200 ; From: To: ; From: To:

- Signed HASP
- Safety Glasses
- Hard Hat
- Steel Toe Boots
- Safety Vest
- UST Emergency System Shut-off Switches Located
- Proper Gloves
- Proper Level of Barricading
- Other PPE (describe)

Weather: Overcast 270°F

Equipment In Use:

Visitors: Vicky H.

TIME:

WORK DESCRIPTION:

1000 Arrived onsite; started paper work & safety meetings

1100 Completed safety meeting & proceeded to mob onsite

1105 Setup exclusion zone & proceeded to break well ring & grout

1135 Vicky H arrived onsite; brief safety meeting

1145 Vicky H left site

1150 Applying concrete to well box

1200 Signed out & left site

\* advised shop to allow concrete to dry before replacing container atop

Signature:

2354



# GREGG DRILLING & TESTING

950 Howe Road, Martinez, CA 94553  
Ph: (925) 313-5800 Fax: (925) 313-0302  
www.greggdrilling.com

Project Field Bill Today's Date: 11/20/12

**Company Name:** Broadbent & Associates, Inc.  
**Site Name:** ARCO #608 - MW-13 Decommissioning  
**Address Line 1:** 17601 Hesperian Blvd  
**Address Line 2:** Hacienda Blvd  
**Cross Street:**  
**City:** San Lorenzo  
**State:** CA  
**Thomas Coordinate:**  
**Thomas Page:**  
**Field Rep:** James Ramos

**GDT Job Number:** D2120536  
**Reference Number:** GD2120494  
**Job Start Date:** 11/20/2012  
**Job End Date:** 11/20/2012  
**Start Time:** 10:00  
**Equipments:** S24  
**Driller/Staff Safety:** Sean  
**Field Staff 2:** Antonio  
**Field Staff 3:**  
**Nights Out:**

ITEM	UNITS	QUANTITY
RIG NO./TYPE <u>P.L</u>	hour	<u>2.0</u>
MOB-DEMOB-TRAVEL	hour	<u>23.0</u>
PER DIEM	MAN/NGT	
PREMIUM TIME	MAN/HR	
ADDITIONAL TECHNICIAN	hour	
STANDBY/MOVE TIME	hour	
STEAM CLEANING AT YARD	DAY	
GROUT PUMP/STEAM CLEANER	DAY	
MUD SYSTEM	DAY	
FORKLIFT/BOBCAT/LOADER	DAY	
WATER TRUCK TENDER	DAY	
SERVICE TRUCK	DAY	<u>1</u>
SERVICE RUNS	hour	
CONST./HAND AUGER CREW (2 men)	hour	
CONCRETE CORING DIA.	EACH	
P.P.E. UPGRADE TIME	hour	

ITEMS	UNITS	QUANTITY
SEISMIC CPT (Interval Test)	TEST	
UVOST RENTAL	DAY	
RESISTIVITY RENTAL	DAY	
BACKFILL TEST LOCATIONS	FOOT	
BENTONITE CHIPS	BAG	
BENTONITE PELLETS	PAIL	
BENTONITE DRILL MUD	BAG	
BENTONITE GROUT	BAG	
FILTER SAND	BAG	
ASPHALT PATCH	BAG	
READY-MIX CONCRETE	BAG	<u>1</u>
PORTLAND CEMENT/QUICK SET	BAG	<u>3/1</u>
WOOD PLUGS	EACH	
DISPOSABLE BAILERS	EACH	
PVC CASING 3/4" 2" 4" OTHER	FOOT	
PVC SCREEN 3/4" 2" 4" OTHER	FOOT	
THREADED FITTINGS 3/4" 2" 4" OTHER	EACH	
SLIP FITTINGS 3/4" 2" 4" OTHER	EACH	
LOCKING CAPS 2" 4" OTHER	EACH	
MONITORING WELL BOX (WATERTIGHT)	EACH	
ANODIZED STAND PIPE	EACH	
GROUNDWATER SAMPLE CONSUMABLES	EACH	
1/4", 1/2" TUBING	FOOT	
DISPOSABLE TIPS	EACH	
SAMPLE RINGS & CAPS	EACH	
55-GALLON DRUM	EACH	
CORE BOX	EACH	

BORING #	DEPTH	INTERVAL/TYPE OF SAMPLING	SIZE OF WELL
<u>P.6.</u>	<u>1-13'</u>	<u>3" well Remove Box</u>	
		<u>concrete cap</u>	

Time Leave Yard: 8:30 am Time Arrive Site: 10:00 am  
Time Return Yard: 1:30 Time Leave Site: 2:00  
Lunch Start: — Lunch Finish: —  
SUBCONTRACTOR - ADDITIONAL EQUIPMENT: \_\_\_\_\_  
EQUIPMENT DAMAGE: \_\_\_\_\_

Section 13751 through 13754 of the California Water Code requires that a report be filed for every groundwater well installation or abandonment. If the client does not elect to submit this report, Gregg Drilling & Testing, Inc. will complete the appropriate paperwork for a \$20 fee per well.

Client to complete  GDT to complete   
The named parties are hereby notified that if charges for above labor, services, equipment or materials furnished or to be furnished are not paid for in full, the improved property referred to above may be subject to mechanics lien (per Section 1181, et. seq. to the California Code of Civil Procedure) and construction funds are subject to "Stop notice" action (per Section 1190.1, California Code of Civil Procedure).  
TERMS: NET 30 days. A 3% Reduction of total price if paid within 10 days. 1.5% per month finance charge on accounts 30 days past due. The undersigned accepts the terms as stated above for services rendered.

WE CAN ASSUME NO RESPONSIBILITY FOR DAMAGE OF UNDERGROUND UTILITIES. In the event of adverse and/or hazardous dilling conditions, client will be informed if rate changes and/or responsibility for replacement of lost of damaged equipment. Minimum call out \$1200. Also applicable to cancellations within 24 hrs. of scheduled start. **USA Clearance No.** \_\_\_\_\_

Project Name: \_\_\_\_\_ P.O./Task # \_\_\_\_\_  
Signature of Field Representative [Signature]  
Printed Name \_\_\_\_\_ Date \_\_\_\_\_

Attachment D

DWR Well Completion Reports



**CONFIDENTIAL**

STATE OF CALIFORNIA DWR  
WELL COMPLETION REPORT  
(WELL LOGS)

**REMOVED**

**CONFIDENTIAL**

STATE OF CALIFORNIA DWR  
WELL COMPLETION REPORT  
(WELL LOGS)

**REMOVED**

**CONFIDENTIAL**

**STATE OF CALIFORNIA DWR  
WELL COMPLETION REPORT  
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**REMOVED**

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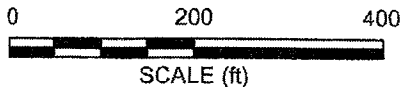
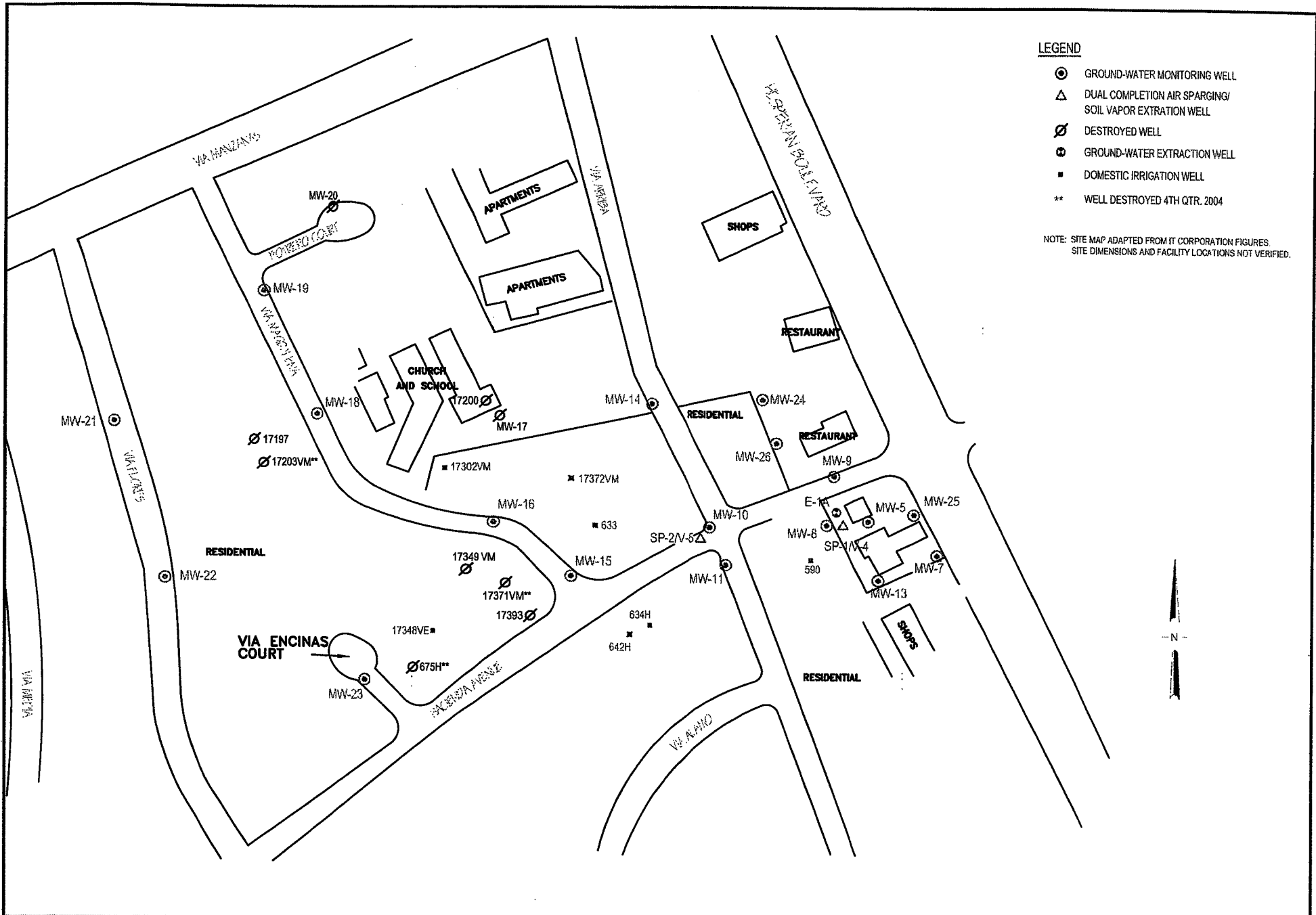
STATE OF CALIFORNIA DWR  
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(WELL LOGS)

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**BROADBENT & ASSOCIATES, INC.**  
ENGINEERING, WATER RESOURCES & ENVIRONMENTAL  
1324 Mangrove Ave. Suite 212, Chico, California 95926  
Project No.: 06-08-606 Date: 12/13/06

ARCO Service Station #608  
17601 Hesperian Boulevard  
San Lorenzo, California

Site Map

Drawing

1

**CONFIDENTIAL**

STATE OF CALIFORNIA DWR  
WELL COMPLETION REPORT  
(WELL LOGS)

**REMOVED**