

ALAMEDA COUNTY  
HEALTH CARE SERVICES



AGENCY  
DAVID J. KEARS, Agency Director

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

November 7, 2008

Mr. J. Gilbert Moore  
New West Stations, Inc.  
1831 16<sup>th</sup> Street  
Sacramento, CA 95814

Subject: Fuel Leak Case No. RO0002440 and Geotracker Global ID T0600148042, Bernard's Gas, 1051 Airway Blvd., Livermore, CA 94550 – Case Closure

Dear Mr. Moore:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Environmental Health (ACEH) is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed. This case closure letter and the case closure summary can also be viewed on the State Water Resources Control Board's Geotracker website (<http://geotracker.swrcb.ca.gov>) and the Alameda County Environmental Health website (<http://www.acgov.org/aceh/index.htm>).

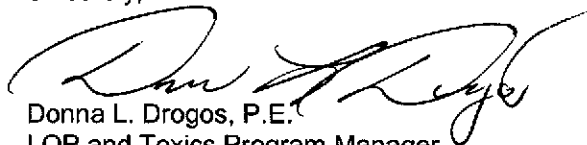
SITE INVESTIGATION AND CLEANUP SUMMARY

Please be advised that the following conditions exist at the site:

- MTBE remains in shallow groundwater at concentrations up to 33 ppb.
- Benzene remains in shallow groundwater at concentrations up to 7 ppb.

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

Sincerely,



Donna L. Drogos, P.E.  
LOP and Toxics Program Manager

Enclosures:

1. Remedial Action Completion Certification
2. Case Closure Summary

cc:

Ms. Cherie McCaulou (w/ enc)  
SF- Regional Water Quality Control Board  
1515 Clay Street, Suite 1400  
Oakland, CA 94612

Closure Unit (w/enc)  
State Water Resources Control Board  
UST Cleanup Fund  
P.O. Box 944212  
Sacramento, CA 94244-2120

Danielle Stefani (w/enc)  
Livermore-Pleasanton Fire Department  
3560 Nevada Street  
Pleasanton, CA 94566

Cheryl Dizon, QIC 80201 (w/enc)  
Zone 7 Water Agency  
100 North Canyons Parkway  
Livermore, CA 94551

City of Livermore Planning Department (w/enc)  
1052 South Livermore Avenue  
Livermore, CA 94550

Roger Hoffmore (w/o enc)  
Closure Solutions, Inc.  
1243 Oak Knoll Drive  
Concord, CA 94521

Jerry Wickham (w/orig enc), D. Drogos (w/enc), R. Garcia (w/enc)



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**REMEDIAL ACTION COMPLETION CERTIFICATION**

November 7, 2008

Mr. J. Gilbert Moore  
New West Stations, Inc.  
1831 16<sup>th</sup> Street  
Sacramento, CA 95814

Subject: Fuel Leak Case No. RO0002440 and Geotracker Global ID T0600148042, Bernard's Gas, 1051 Airway Blvd., Livermore, CA 94550

Dear Mr. Moore:

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

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

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

Sincerely,

Ariu Levi  
Director  
Alameda County Environmental Health

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

**I. AGENCY INFORMATION**

Date: July 8, 2008

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

**II. CASE INFORMATION**

<b>Site Facility Name:</b> Bernard's		
<b>Site Facility Address:</b> 1051 Airway Blvd. Livermore, CA 94550		
<b>RB Case No.:</b> ---	<b>Local Case No.:</b> ---	<b>LOP Case No.:</b> RO0002440
<b>URF Filing Date:</b> 1/3/02	<b>Global ID No.:</b> T0600148042	<b>APN:</b> 905-9-45
<b>Responsible Parties</b>	<b>Addresses</b>	<b>Phone Numbers</b>
Gil Moore, New West Stations Inc.	1831 16 <sup>th</sup> Street Sacramento, CA 95814	916-443-0890

Tank I.D. No	Size in Gallons	Contents	Closed In Place/Removed?	Date
---	---	---	---	---
---	---	---	---	---
---	---	---	---	---
---	---	---	---	---
---	---	---	---	---
---	---	---	---	---
Piping			Removed	1/3/02

**III. RELEASE AND SITE CHARACTERIZATION INFORMATION**

<b>Cause and Type of Release:</b> Unknown. Six fuel dispensers and associated piping were removed in 2001. Stained soil and odor were observed beneath the southwestern dispenser, two northernmost dispensers, and product line couplings that supplied the northernmost and middles rows of fuel dispensers.		
<b>Site characterization complete?</b> Yes	<b>Date Approved By Oversight Agency:</b> ---	
<b>Monitoring wells installed?</b> Yes	<b>Number:</b> 5	<b>Proper screened interval?</b> Yes
<b>Highest GW Depth Below Ground Surface:</b> 20.18 feet bgs	<b>Lowest Depth:</b> 25.57 feet bgs	<b>Flow Direction:</b> Southwest
<b>Most Sensitive Current Use:</b> Drinking water source		

<b>Summary of Production Wells in Vicinity:</b> One well of unknown use (3S/1E 1G1) is located approximately 1,300 feet southeast (crossgradient) from the site. Based on the crossgradient location and distance from the site, well 3S/1E 1G1 is not expected to be a receptor for the site. No other water supply wells are located within 2,000 feet of the site.	
<b>Are drinking water wells affected?</b> No	<b>Aquifer Name:</b> Camp Subbasin of Livermore-Amador Basin
<b>Is surface water affected?</b> No	<b>Nearest SW Name:</b> Cottonwood Creek is 0.3 miles west of site.
<b>Off-Site Beneficial Use Impacts (Addresses/Locations):</b> None	
<b>Reports on file?</b> Yes	<b>Where are reports filed?</b> Alameda County Environmental Health and Livermore-Pleasanton Fire Department

<b>TREATMENT AND DISPOSAL OF AFFECTED MATERIAL</b>			
<b>Material</b>	<b>Amount (Include Units)</b>	<b>Action (Treatment or Disposal w/ Destination)</b>	<b>Date</b>
Tank	---	---	---
Piping	Not reported	Not reported	6/19/01
Free Product	--	---	---
Soil	190.7 tons	Approximately 190.7 tons of impacted soil was reported as transported to Forward Landfill in Stockton, CA for disposal. It appears that 255.6 tons of soil was classified as non-hazardous material and was disposed of in June 2002. The disposal location of the 255.6 tons of non-hazardous soil was not reported.	6/01
Groundwater	---	---	---

**MAXIMUM DOCUMENTED CONTAMINANT CONCENTRATIONS** No information available from tank removals IONS  
**BEFORE AND AFTER CLEANUP**

(Please see Attachments 1 through 6 for additional information on contaminant locations and concentrations)

Contaminant	Soil (ppm)		Water (ppb)	
	Before	After	Before	After
TPH (Gas)	2,800	<1	<50	<50
TPH (Diesel)	9,500	10	<50	<50
TPH (Motor Oil)	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed
Oil & Grease	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed
Benzene	0.59	<0.025	14	6.7
Toluene	29	<0.005	<0.5	<0.5
Ethylbenzene	32	<0.005	<0.5	<0.5
Xylenes	190	<0.005	<0.5	<0.5
Lead	7.6(1)	Not Analyzed	Not Analyzed	Not Analyzed
MTBE	7.5(2)	0.025(3)	280(4)	33(5,6)
Other (8240/8270)	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed

(1) Total lead = 7.6 ppm in stockpile soil sample. No other metals were analyzed.

(2) Soil sample S-4PL1 collected beneath product line in 2001; no other fuel oxygenates analyzed.

(3) TBA, DIPE, ETBE, TAME, 1,2-DCA, and EDB <0.005 ppm; ethanol <0.01 ppm; and methanol <0.2 ppm in soil.

(4) Grab groundwater sample GP-3 collected on 06/12/2002; MTBE = 280 ppb; DIPE, ETBE, and 1,2-DCA <5 ppb; TAME = 6.5 ppb; TBA <50 ppb in groundwater.

(5) Groundwater sample collected from well MW-5 on 02/19/2008; MTBE = 33 ppb.

(6) DIPE, ETBE, TAME, 1,2-DCA, and EDB <0.5 ppb; TBA <5 ppb in groundwater; ethanol = 22 ppb; and methanol <50 ppb in groundwater.

### **Site History and Description of Corrective Actions:**

The site is occupied by Bernard's, a fueling station and convenience market. There is a lube bay and car wash connected to Bernard's on the south side of the building. Previously, the site was used for retail sales and administrative offices. The site contains six USTs consisting of four gasoline and two diesel tanks with associated fuel dispensers and piping. On June 19, 2001, six fuel dispensers and associated underground piping were removed by Walton Engineering, Inc. A water line was broken during the excavation, resulting in some water in the trenches. Soil was sampled and analyzed beneath each dispenser and along the piping approximately every 20 feet. Stained soil and odor were observed beneath the southwestern dispenser, two northernmost dispensers, and product line couplings that supplied the northernmost and middle rows of fuel dispensers. Total petroleum hydrocarbons as gasoline and MTBE were detected in soil samples collected beneath the dispensers and product lines at concentrations up to 2,800 and 56 ppm, respectively.

Four soil borings (GP-1, GP-2, GP-3, and GP-4) were advanced on June 12, 2002 to define the extent of contamination. Soil and grab groundwater samples from the soil borings were analyzed for fuel range hydrocarbons, aromatic volatile organics, and fuel oxygenates. The soil samples collected at a depth of 24 feet below ground surface (bgs) did not contain detectable concentrations of any of the analytes. The grab groundwater samples, which were collected from open boreholes, contained MTBE at concentrations up to 280 ppb (found in GP-3 near the product line in the center of the site). No TPH as gasoline or BTEX were detected in the grab groundwater samples.

Five monitoring wells (MW-1 through MW-5) and one soil boring (B-5D) were advanced between February 14 and February 16, 2007. Soil boring B-5D was advanced to a depth of 85 feet to evaluate the vertical extent of contamination. Soils were continuously cored for logging purposes and soil samples were collected at five-foot intervals to the total depth of the boring. Installation of a monitoring well within a lower water-bearing zone was planned following evaluation of soil conditions in boring B-5D. However, silty clay and clayey silt soils were the only soil types observed between 35 and 85 feet bgs. Due to the absence of a lower water-bearing layer, a monitoring well was not installed adjacent to boring B-5D. The fine-grained soils encountered in boring B-5D were assumed to represent an aquitard that would prevent downward migration of fuel hydrocarbons and oxygenates. MTBE was detected in 2 of the 25 soil samples collected in boring B-5D at a maximum concentration of 0.025 ppm. MTBE was not detected in soil below a depth of 24 feet bgs in boring B-5D. Soil samples collected during the installation of monitoring wells MW-1 through MW-5 did not contain detectable concentrations of TPH as gasoline, BTEX, or fuel oxygenates. TPH as diesel was detected in two soil samples collected during monitoring well installation at a maximum concentration of 10 ppm.

Groundwater monitoring of the five monitoring wells has been conducted at the site since the second quarter of 2007. The maximum concentration of MTBE and benzene detected in groundwater samples collected from the five monitoring wells are 42 and 7 ppb, respectively. No other BTEX compounds or fuel oxygenates have been detected in groundwater samples. Fuel hydrocarbons and oxygenates were not detected in groundwater samples from wells MW-2, MW-3, and MW-4 during the most recent sampling event on February 19, 2008. During the most recent groundwater sampling event, MTBE was detected at a maximum concentration of 33 ppb in well MW-5, which is located downgradient from the fuel dispensers.

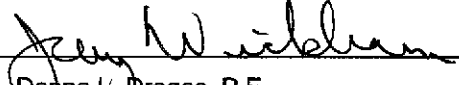
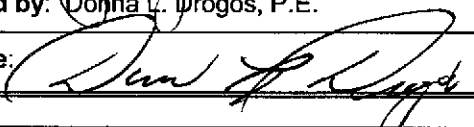
**IV. CLOSURE**

<b>Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Yes</b>		
<b>Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? Yes</b>		
<p><b>Does corrective action protect public health for current land use?</b> Alameda County Environmental Health staff does not make specific determinations concerning public health risk. However, based upon the information available in our files to date, it does not appear that the release would present a significant risk to human health based upon current land use and conditions.</p>		
<b>Site Management Requirements:</b> None.		
<b>Should corrective action be reviewed if land use changes?</b> No		
<b>Was a deed restriction or deed notification filed?</b> No		<b>Date Recorded:</b> --
<b>Monitoring Wells Decommissioned:</b> No	<b>Number Decommissioned:</b> 0	<b>Number Retained:</b> 5
<b>List Enforcement Actions Taken:</b> None.		
<b>List Enforcement Actions Rescinded:</b> None.		

**V. ADDITIONAL COMMENTS, DATA, ETC.**

<p><b>Considerations and/or Variances:</b></p> <p>The concentration of MTBE detected in groundwater collected from well MW-5 during the most recent groundwater sampling event on February 19, 2008 (33 ppb), exceeds the concentration of MTBE detected in groundwater from well MW-5 during the first sampling event on March 16, 2007 (14 ppb). The higher concentration of MTBE observed during the most recent sampling event is likely within the expected range of variability due to sampling and seasonal effects and does not appear to indicate significant expansion of an MTBE plume.</p> <p><b>Conclusion:</b></p> <p>Alameda County Environmental Health staff considers that the levels of residual contamination do not pose a significant threat to water resources, public health and safety, and the environment based upon the information available in our files to date. No further investigation or cleanup is necessary. ACEH staff recommends case closure for this site based on the current commercial use of the site.</p>
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**VI. LOCAL AGENCY REPRESENTATIVE DATA**

<b>Prepared by:</b> Jerry Wickham	<b>Title:</b> Senior Hazardous Materials Specialist
<b>Signature:</b> 	<b>Date:</b> 07/22/08
<b>Approved by:</b> Donna L. Drogos, P.E.	<b>Title:</b> Supervising Hazardous Materials Specialist
<b>Signature:</b> 	<b>Date:</b> 07/22/08

<p>This closure approval is based upon the available information and with the provision that the information provided to this agency was accurate and representative of site conditions.</p>
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**VII. REGIONAL BOARD NOTIFICATION**

<b>Regional Board Staff Name:</b> Cherle McCaulou	<b>Title:</b> Engineering Geologist
<b>RB Response:</b> Concur, based solely upon information contained in this case closure summary.	<b>Date Submitted to RB:</b>
<b>Signature:</b> <i>Cherle McCaulou</i>	<b>Date:</b> 7/29/08

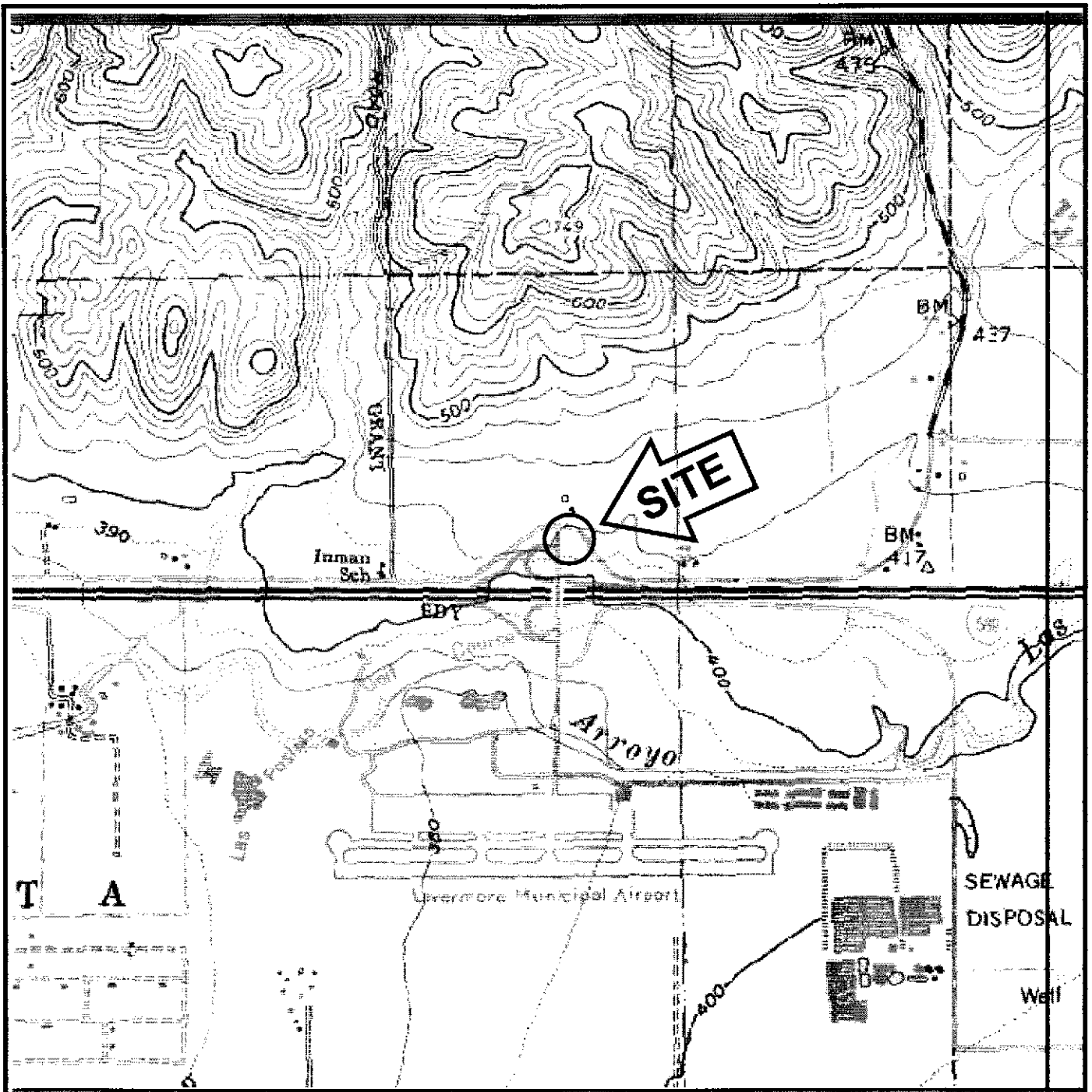
**VIII. MONITORING WELL DECOMMISSIONING**

<b>Date Requested by ACEH:</b>	<b>Date of Well Decommissioning Report:</b>	
<b>All Monitoring Wells Decommissioned:</b>	<b>Number Decommissioned:</b>	<b>Number Retained:</b>
<b>Reason Wells Retained:</b>		
<b>Additional requirements for submittal of groundwater data from retained wells:</b>		
<b>ACEH Concurrence - Signature:</b>		<b>Date:</b>

**Attachments:**

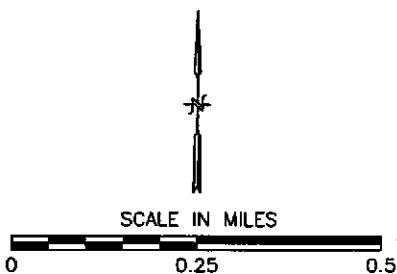
1. Site Location Map (1 page)
2. Well Location Map and Soil Boring Location Map (2 pages)
3. First Quarter 2008 Groundwater Monitoring Event and Sampling Event (1 page)
4. Soil Analytical Data (4 pages)
5. Groundwater Analytical Data (5 pages)
6. Boring Logs (11 pages)

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



**FIGURE 1**  
**SITE LOCATION MAP**

NEW WEST STATIONS, INC.  
1051 AIRWAY BOULEVARD  
LIVERMORE, CALIFORNIA



**NOTES:**

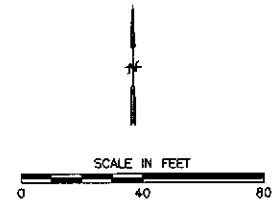
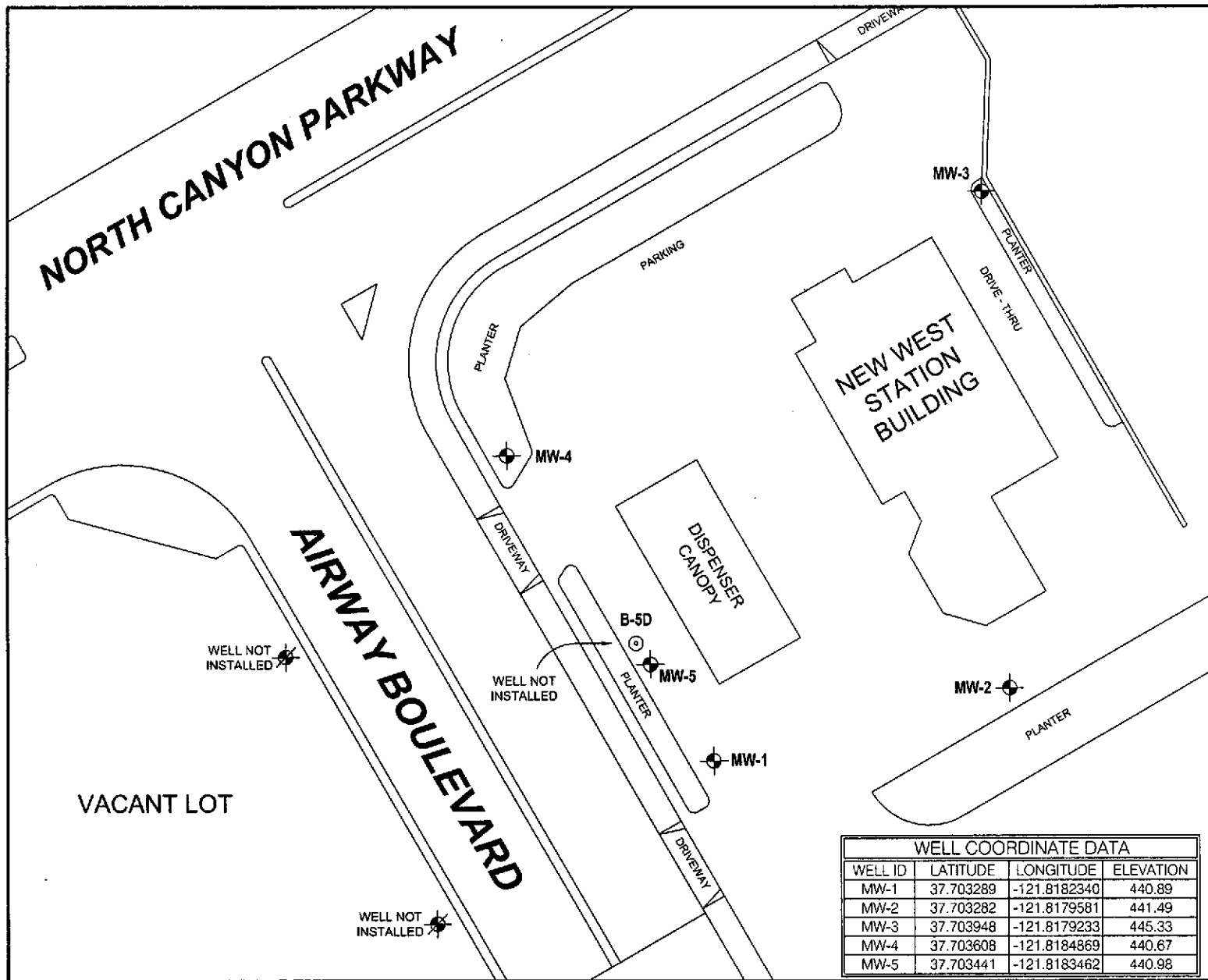
1. BASEMAP SOURCE: USGS TOPOGRAPHIC MAP  
ALBION, CALIFORNIA QUADRANGLE, 1:24,000 SERIES



**CLOSURE SOLUTIONS, INC.**

Phc

**ATTACHMENT 1**



- LEGEND:**
- GROUNDWATER MONITORING WELL
  - SOIL BORING (WELL NOT INSTALLED)
  - WELL NOT INSTALLED

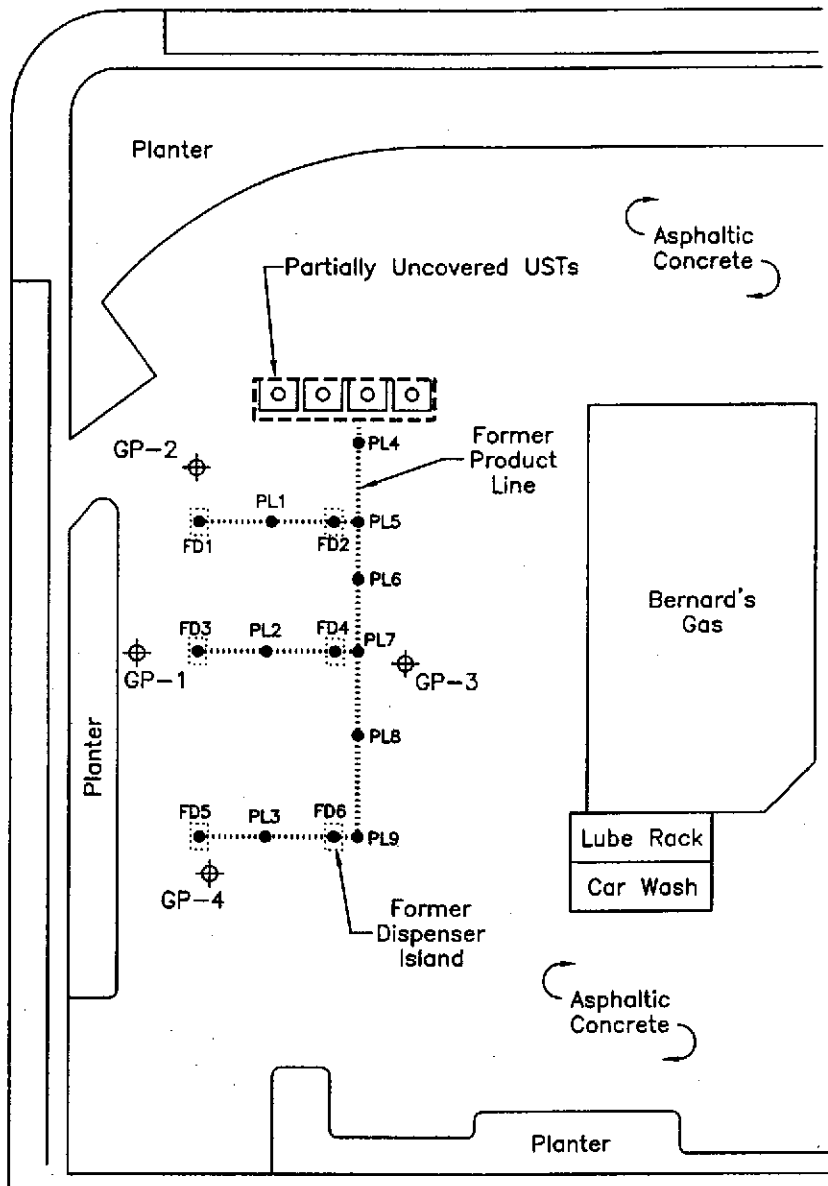
- NOTES:**
1. BASEMAP SOURCE: GOOGLE EARTH
  2. WELL COORDINATE DATA: VIRGIL CHAVEZ LAND SURVEYING, 3/19/07

**FIGURE 2**  
**WELL LOCATION MAP**  
 March 2007  
 NEW WEST STATIONS, INC.  
 1051 AIRWAY BLVD  
 LIVERMORE, CA

**CLOSURE SOLUTIONS, INC.**  
 1243 Oak Knoll Drive • Concord  
 California • 94521  
 Phone: (925) 348-0656 • Fax: (925) 459-5602

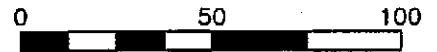
**NORTH CANYON PARKWAY**

**AIRWAY BOULEVARD**

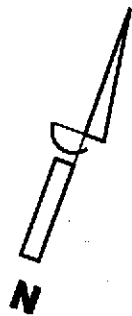


**LEGEND**

- Soil Sample Location
- ⊕ Soil Boring Location



Approximate Scale  
1 inch = 50 feet



DRAWN BY: D. Alston  
DATE: 07/17/02

REVISIONS

**SOIL BORING LOCATION MAP**

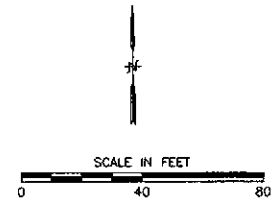
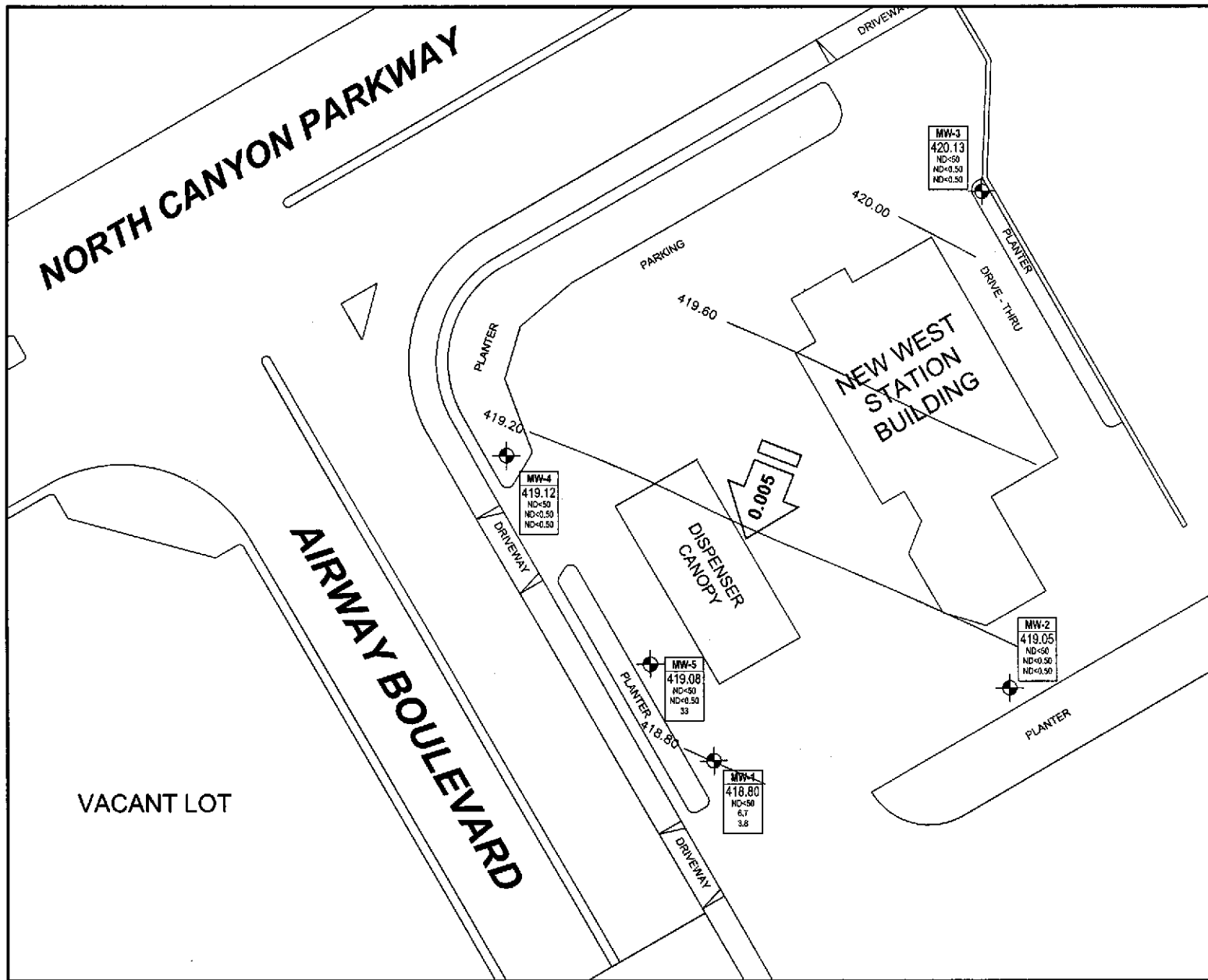
Bernard's Gas  
1051 Airway Boulevard  
Livermore, California

FIGURE

**3**

PROJECT NUMBER:

NWP01.001



**LEGEND:**

- GROUNDWATER MONITORING WELL
- WELL** WELL DESIGNATION
- TPHC** GRO. BENZENE, and MTBE CONCENTRATIONS (µg/L)
- BENZ**
- MTBE**
- ND<** NOT DETECTED AT OR ABOVE LABORATORY REPORTING LIMITS
- ISOCONCENTRATION CONTOUR INTERVAL (µg/L) OR GROUNDWATER ELEVATION CONTOUR (FT MSL)

**NOTES:**

1. BASEMAP SOURCE: GOOGLE EARTH
2. WELL COORDINATE DATA: VIRGIL CHAVEZ LAND SURVEYING, 3/19/07

**FIGURE 2**  
**FIRST QUARTER 2008**  
**GROUNDWATER MONITORING**  
**AND SAMPLING EVENT**  
  
 FEBRUARY 19, 2008  
  
 NEW WEST STATIONS, INC.  
 1051 AIRWAY BLVD  
 LIVERMORE, CA

**CLOSURE SOLUTIONS, INC.**  
 1243 Oak Knoll Drive • Concord  
 California • 94521  
 Phone: (925) 429-5555 • Fax: (925) 459-5602

**TABLE 1**  
**SOIL ANALYTICAL DATA**  
 New West Petroleum  
 1051 Airway Blvd  
 Livermore, California

Sample ID	Date	Sample Depth (feet bgs)	TPH as Diesel (mg/kgg)	TPH as Gasoline (mg/kgg)	Benzene (mg/kgg)	Toluene (mg/kgg)	Ethyl benzene (mg/kgg)	Total Xylenes (mg/kgg)	EPA Method 8260					Total Lead (mg/kg)
									DIPE (ug/kg)	ETBE (ug/kg)	MTBE (ug/kg)	TAME (ug/kg)	TBA (ug/kg)	
GP-1	06/12/2002	24	<1.0	<1.0	<0.005	<0.005	<0.005	<0.01	<5.0	<5.0	<5.0	<5.0	<50	---
GP-2	06/12/2002	24	<1.0	<1.0	<0.005	<0.005	<0.005	<0.01	<5.0	<5.0	<5.0	<5.0	<50	---
GP-3	06/12/2002	24	<1.0	<1.0	<0.005	<0.005	<0.005	<0.01	<5.0	<5.0	<5.0	<5.0	<50	---
GP-4	06/12/2002	24	<1.0	<1.0	<0.005	<0.005	<0.005	<0.01	<5.0	<5.0	<5.0	<5.0	<50	---
SP-1	06/12/2002	NA	<1.0	<1.0	<0.005	<0.005	<0.005	<0.01	<5.0	<5.0	<5.0	<5.0	<50	7.6

NOTES:

TPH - Total Petroleum Hydrocarbons  
 DIPE - Di-isopropyl ether  
 ETBE - Ethyl Tertiary Butyl Ether  
 MTBE - Methyl Tertiary Butyl Ether

TAME - Tertiary Amyl Methyl Ether  
 TBA - Tertiary Butyl Alcohol  
 ug/kgg - micrograms per kilogram

**Table 1**  
**Soil Analytical Data**

New West Station's Inc. -Bernard's Gas  
1051 Airway Boulevard  
Livermore, California

Sample ID	Date Sampled	Sample Depth (feet bgs)	TPH-g (mg/kg)	TPH-d (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)	Ethanol (mg/kg)	Methanol (mg/kg)
MW1-15	02/16/07	15	ND<1.0	ND<1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	ND<0.20
MW-1-20	02/16/07	20	ND<1.0	ND<1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	ND<0.20
MW-1-24	02/16/07	24	ND<1.0	ND<1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	ND<0.20
MW-1-35	02/16/07	35	ND<1.0	3.9	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	ND<0.20
MW-2-15	02/16/07	15	ND<1.0	ND<1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	ND<0.20
MW-2-20	02/16/07	20	ND<1.0	ND<1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	ND<0.20
MW-2-24	02/16/07	24	ND<1.0	10	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	ND<0.20
MW-2-34	02/16/07	34	ND<1.0	ND<1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	ND<0.20
MW-3-15	02/15/07	15	ND<1.0	ND<1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	ND<0.20
MW-3-20	02/15/07	20	ND<1.0	ND<1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	ND<0.20
MW-3-25	02/15/07	25	ND<1.0	ND<1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	ND<0.20
MW-3-35	02/15/07	35	ND<1.0	ND<1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	ND<0.20
MW-4-15	02/16/07	15	ND<1.0	1.4	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	ND<0.20
MW-4-20	02/16/07	20	ND<1.0	ND<1.0	ND<0.025	ND<0.025	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	ND<0.20
MW-4-24	02/16/07	24	ND<1.0	ND<1.0	ND<0.050	ND<0.050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	ND<0.20
MW-4-34	02/16/07	34	ND<1.0	2.4	ND<0.050	ND<0.050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	ND<0.20
B-5D-15	02/14/07	15	ND<1.0	ND<1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	0.014	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	ND<0.20
B-5D-20	02/14/07	20	ND<1.0	ND<1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	ND<0.20
B-5D-24	02/14/07	24	ND<1.0	ND<1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	0.025	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	ND<0.20
B-5D-40	02/14/07	40	ND<1.0	ND<1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	ND<0.20
B-5D-45	02/14/07	45	ND<1.0	ND<1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	ND<0.20
B-5D-55	02/14/07	55	ND<1.0	ND<1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	ND<0.20
B-5D-65	02/14/07	65	ND<1.0	ND<1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	ND<0.20

**Table 1**  
**Soil Analytical Data**

New West Station's Inc. -Bernard's Gas  
1051 Airway Boulevard  
Livermore, California

Sample ID	Date Sampled	Sample Depth (feet bgs)	TPH-g (mg/kg)	TPH-d (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	TAME (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)	Ethanol (mg/kg)	Methanol (mg/kg)
B-5D-75	02/14/07	75	ND<1.0	ND<1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	ND<0.20
B-5D-80	02/14/07	80	ND<1.0	1.4	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	ND<0.20
B-5D-85	02/14/07	85	ND<1.0	ND<1.0	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.010	ND<0.20

Notes:

Analysis performed by Kiff Analytical, Davis, California

Hydrocarbons reported as TPH-d do not exhibit typical diesel chromatographic pattern for samples MW-1-35, MW-2-24, MW-4-15, MW-4-34, and B-5D-80. These hydrocarbons are higher boiling than typical diesel fuel.

- TPH-g = Total Petroleum Hydrocarbons as gasoline analyzed by EPA Method 8260B
- BTEX = Benzene, toluene, ethylbenzene, and total xylenes, EPA Method 8260B
- MTBE = Methyl tert-butyl ether by EPA Method 8260B
- TBA = Tert butyl alcohol, by EPA Method 8260B
- DIPE = Di-isopropyl ether, by EPA Method 8260B
- ETBE = Ethyl tert-butyl ether, by EPA Method 8260B
- TAME = Tert-Amyl methyl ether, by EPA Method 8260B
- 1,2-DCA = 1,2-Dichloroethane, by EPA Method 8260B
- EDB = 1,2-Dibromoethane, by EPA Method 8260B
- Ethanol = Ethanol, by EPA Method 8260B
- Methanol = Methanol, by EPA Method 8260B
- ND< = Not detected at or above specified laboratory reporting limit
- NA = Not analyzed
- mg/kg = milligrams per kilogram



Mr. Michael Walton  
 Walton Engineering, Inc.  
 August 10, 2001

Laboratory results of the soil sample analyses indicated that elevated concentrations of TPHg, TPHd and BTEX compounds were present in the soil samples collected from the site (Table 1). The fuel oxygenate MtBE was detected in all of the soil samples except for one (S-5-PL5), which was reported at a significantly higher minimum reporting limit (0.25 parts per million) than the standard reporting limit of 0.005 parts per million (Table 1). The highest concentrations of TPHd were found in soil samples collected beneath the northeastern most former fuel dispenser (FD2) and the associated product line coupling (PL5) at the site (Table 1). The highest concentrations of TPHg were found in soil samples collected beneath the southwestern most former fuel dispenser (FD5) and the product line coupling (PL7) that supplied the middle row of former fuel dispensers at the site (Table 1). The laboratory report for these soil sample analyses is presented in Appendix A of this report.

**TABLE 1  
 LABORATORY RESULTS OF SOIL SAMPLE ANALYSES  
 FUEL DISPENSER AND PRODUCT LINE REMOVAL  
 1051 AIRWAY BOULEVARD, LIVERMORE, CALIFORNIA**

Sample Number	TPHg	B	T	E	X	TPHd	MtBE	Total Lead
<b>Soil Samples</b>								
S-3-FD1	760	0.13	<0.10	3.9	28	830	5.6	na
S-4-FD2	890	<0.25	<0.25	2.9	4.0	6,800	1.8	na
S-3-FD3	28	<0.050	0.36	0.24	2.7	na	0.97	na
S-3-FD4	3.5	0.0061	<0.005	0.032	0.11	na	0.81	na
S-1-FD5	2,800	0.59	29	32	190	na	3.6	na
S-2-FD6	29	<0.010	<0.010	0.11	0.021	na	0.066	na
S-4-PL1	<5.0	<0.050	<0.050	<0.050	<0.10	10	7.5	na
S-3-PL2	2.9	<0.050	0.052	0.036	0.40	na	2.7	na
S-3-PL3	<1.0	<0.005	0.016	0.014	0.10	na	0.092	na
S-5-PL4	<1.0	<0.005	<0.005	<0.005	<0.005	<1.0	0.0076	na
S-5-PL5	270	<0.25	0.31	0.80	4.1	9,500	<0.25	na
S-4-PL6	<1.0	<0.005	<0.005	<0.005	0.024	na	0.14	na
S-4-PL7	1,100	<0.10	<0.10	7.8	44	na	1.4	na
S-3-PL8	<1.0	<0.005	<0.005	<0.005	<0.005	na	0.017	na
S-3-PL9	<1.0	<0.005	<0.005	<0.005	0.0083	na	0.39	na
SP1a-d	70	<0.005	<0.005	0.0061	1.0	320	1.4	<2.5
SP2a-d	<1.0	<0.005	<0.005	<0.005	0.011	na	0.068	<2.5

Laboratory results of soil samples are reported in milligrams/kilogram (parts per million)  
 TPHg = Total Petroleum Hydrocarbons in the range of gasoline  
 B = Benzene T = Toluene E = Ethylbenzene X = Total Xylenes  
 TPHd = Total Petroleum Hydrocarbons in the range of diesel fuel  
 MtBE = Methyl t-Butyl Ether  
 < = Less than the laboratory method reporting limits  
 na = not analyzed

**Table 1**  
Groundwater Elevation and Analytical Data

Bernard's Gas  
1051 Airway Boulevard  
Livermore, California

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (Feet)	TPHg (ug/L)	TPHd (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	LAB
MW-1	3/16/2007	440.89	22.04	418.85	ND<50	ND<50	3.8	ND<0.50	ND<0.50	ND<0.50	KIFF
	4/17/2007		22.58	418.31	ND<50	ND<50	3.0	ND<0.50	ND<0.50	ND<0.50	KIFF
	7/3/2007		21.54	419.35	ND<50	ND<50	14	ND<0.50	ND<0.50	ND<0.50	KIFF
	10/26/2007		20.49	420.40	ND<50	ND<50	11	ND<0.50	ND<0.50	ND<0.50	KIFF
	2/19/2008		22.09	418.80	ND<50	ND<50	6.7	ND<0.50	ND<0.50	ND<0.50	KIFF
MW-2	3/16/2007	441.49	22.50	418.99	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	4/17/2007		23.05	418.44	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	7/3/2007		21.78	419.71	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	10/26/2007		20.81	420.68	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	2/19/2008		22.44	419.05	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
MW-3	3/16/2007	445.33	24.90	420.43	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	4/17/2007		25.57	419.76	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	7/3/2007		24.26	421.07	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	10/26/2007		23.74	421.59	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	2/19/2008		25.20	420.13	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
MW-4	3/16/2007	440.67	21.10	419.57	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	4/17/2007		21.96	418.71	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	7/3/2007		20.66	420.01	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	10/26/2007		20.18	420.49	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	2/19/2008		21.55	419.12	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
MW-5	3/16/2007	440.98	21.67	419.31	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	4/17/2007		22.41	418.57	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	7/3/2007		21.17	419.81	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	10/26/2007		20.43	420.55	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	2/19/2008		21.90	419.08	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF

**Table 1**  
Groundwater Elevation and Analytical Data

Bernard's Gas  
1051 Airway Boulevard  
Livermore, California

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ABBREVIATIONS:

TPHg	Total Petroleum Hydrocarbons as Gasoline
TPHd	Total Petroleum Hydrocarbons as Diesel
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
ug/L	Micrograms per liter (parts per billion [ppb])
---	Not analyzed/measured/applicable
ND<	Not detected at or above specified laboratory reporting limit
KIFF	Kiff Analytical LLC, Davis, Ca
NA	Not Accessible / Not Available
NS	Not Sampled
<b>BOLD</b>	Detection

LIMITATIONS:

Background information, including but not limited to previous field measurements, analytical results, Site plans, and other data have been obtained from previous consultants, and/or third parties, in the preparation of this report. Closure Solutions has relied on this information as furnished. Closure Solutions is not responsible for, nor has it confirmed the accuracy of data collected or generated by others.

**Table 2**  
**Fuel Oxygenate & Lead Scavenger Analytical Data**

Bernard's Gas  
 1051 Airway Boulevard  
 Livermore, California

Well Number	Date Sampled	MTBE (ug/L)	Ethanol (ug/L)	Methanol (ug/L)	TBA (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	1,2-DCA (ug/L)	EDB (ug/L)	LAB
MW-1	3/16/2007	2.8	ND<5.0	ND<50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	4/17/2007	3.6	ND<5.0	ND<50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	7/3/2007	5.5	ND<5.0	ND<50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	10/26/2007	5.0	ND<5.0	ND<50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	2/19/2008	3.8	ND<5.0	ND<50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
MW-2	3/16/2007	1.5	ND<5.0	ND<50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	4/17/2007	1.1	ND<5.0	ND<50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	7/3/2007	0.86	ND<5.0	ND<50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	10/26/2007	0.57	22	ND<50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	2/19/2008	ND<0.50	ND<5.0	ND<50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
MW-3	3/16/2007	ND<0.50	ND<5.0	ND<50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	4/17/2007	ND<0.50	ND<5.0	ND<50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	7/3/2007	ND<0.50	ND<5.0	ND<50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	10/26/2007	ND<0.50	ND<5.0	ND<50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	2/19/2008	ND<0.50	ND<5.0	ND<50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
MW-4	3/16/2007	5.9	ND<5.0	ND<50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	4/17/2007	8.7	ND<5.0	ND<50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	7/3/2007	3.8	ND<5.0	ND<50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	10/26/2007	1.7	ND<5.0	ND<50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	2/19/2008	ND<0.50	ND<5.0	ND<50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
MW-5	3/16/2007	14	ND<5.0	ND<50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	4/17/2007	7.3	ND<5.0	ND<50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	7/3/2007	22	ND<5.0	ND<50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	10/26/2007	42	5.5	ND<50	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF
	2/19/2008	33	ND<5.0	ND<80	ND<5.0	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	KIFF

**Table 2**  
Fuel Oxygenate & Lead Scavenger Analytical Data

Bernard's Gas  
1051 Airway Boulevard  
Livermore, California

---

**ABBREVIATIONS:**

MTBE	Methyl Tertiary Butyl Ether
TBA	Tertiary Butyl Alcohol
DIPE	Diisopropyl Ether
ETBE	Ethyl Tertiary Butyl ether
TAME	Tertiary Amyl Methyl Ether
1,2-DCA	1,2-Dichloroethane
EDB	1,2-Dibromoethane
ug/L	Micrograms per liter (parts per billion [ppb])
---	Not analyzed/measured/applicable
ND*	Not detected at or above raised laboratory detection limits
ND<	Not detected at or above specified laboratory reporting limit
NA	Not Accessible / Not Available
NS	Not Sampled
KIFF	Kiff Analytical LLC, Davis, Ca
<b>BOLD</b>	Detection

**Note:** The detection limit for Methanol has been increased due to the presence of an interfering compound for well MW-5.

**LIMITATIONS:**

Background information, including but not limited to previous field measurements, analytical results, Site plans, and other data have been obtained from previous consultants, and/or third parties, in the preparation of this report. Closure Solutions has relied on this information as furnished. Closure Solutions is not responsible for, nor has it confirmed the accuracy of data collected or generated by others.

**TABLE 2**  
**GROUNDWATER ANALYTICAL DATA**  
**New West Petroleum**  
**1051 Airway Blvd**  
**Livermore, California**

Sample ID	Date	TPH as Diesel (ug/L)	TPH as Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl benzene (ug/L)	Total Xylenes (ug/L)	EPA Method 8260					
								DIPE (ug/L)	ETBE (ug/L)	MTBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2 DCA (ug/L)
GP-1	06/12/2002	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5.0	110	<5.0	<50	<5.0
GP-2	06/12/2002	<50	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5.0	100	<5.0	<50	<5.0
GP-3	06/12/2002	NA	<50	<0.50	<0.50	<0.50	<1.0	<5.0	<5.0	280	6.5	<50	<5.0
GP-4	06/12/2002	NA	<50	<0.50	<0.50	<0.50	<1.0	<2.0	<2.0	4.3	<2.0	<30	<2.0

NOTES:

TPH - Total Petroleum Hydrocarbons  
 DIPE - Di-isopropyl ether  
 ETBE - Ethyl Tertiary Butyl Ether  
 MTBE - Methyl Tertiary Butyl Ether

TAME - Tertiary Amyl Methyl Ether  
 TBA - Tertiary Butyl Alcohol  
 1,2 DCA 1,2 -Dichloroethane  
 ug/kg - micrograms per kilogram



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Concord, CA 94521

# BORING NUMBER MW-1

PAGE 1 OF 1

<b>CLIENT</b> <u>New West Petroleum</u>	<b>PROJECT NAME</b> <u>New West Petroleum Facility- Livermore- Bernard's Gas</u>
<b>PROJECT NUMBER</b> _____	<b>PROJECT LOCATION</b> <u>1051 Airway Boulevard, Livermore, California</u>
<b>DATE STARTED</b> <u>2/16/07</u> <b>COMPLETED</b> <u>2/16/07</u>	<b>GROUND ELEVATION</b> <u>440.89 ft</u> <b>HOLE SIZE</b> <u>8</u>
<b>DRILLING CONTRACTOR</b> <u>Gregg Drilling</u>	<b>GROUND WATER LEVELS:</b>
<b>DRILLING METHOD</b> <u>Hollow-Stem Auger</u>	▽ <b>AT TIME OF DRILLING</b> <u>24.8 ft / Elev 416.1 ft</u>
<b>LOGGED BY</b> <u>Shannon Couch</u> <b>CHECKED BY</b> <u>RC</u>	▼ <b>AT END OF DRILLING</b> <u>24.0 ft / Elev 416.9 ft</u>
<b>NOTES</b> <u>Located southwest of the dispenser island next to the planter</u>	<b>AFTER DRILLING</b> <u>—</u>

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	PID (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0						
0.8					CONCRETE-Surface	440.1
					Clayey SILT- 30% clay, 65% silt, 5% sand, 10YR/4/3, brown, dry, soft, loose, dry, fine grained sand	
5	SS		0		5.0	435.9
					Clayey SILT- 35% clay, 60% silt, 5% sand, 10YR/4/3, brown, dry, soft, loose, dry, fine grained sand	
10	SS		0		7.5	433.4
					Clayey Sandy SILT- 30% clay, 60% silt, 10% sand, 10YR/4/3, brown, dry, medium stiff, medium dense, dry, fine grained sand	
					Same as above	
15	SS MW-1-15		6.0			
					Same as above	
20	SS MW-1-20		1.8		20.0	420.9
					Sandy Clayey SILT-20% clay, 55% silt, 25% sand, 10YR/4/3, brown, dry, medium stiff, medium dense, moist, fine grained sand	
25	SS MW-1-24		1.7		25.0	415.9
					Sandy Clayey SILT- 10% clay, 55% silt, 35% sand, 10YR/4/3, brown, moist to wet, medium stiff, medium dense, fine grained sands	
30	SS		1.2		30.0	410.9
					Clayey Sandy SILT- 20% clay, 70% silt, 10% sand, 10YR/4/3, brown, wet, medium stiff, medium dense, fine grained sand	
35	SS MW-1-35		0		35.0	405.9
					Bottom of hole at 35.0 feet.	

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**ATTACHMENT 6**



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# BORING NUMBER MW-2

PAGE 1 OF 1

CLIENT <u>New West Petroleum</u>	PROJECT NAME <u>New West Petroleum Facility- Livermore- Bernard's Gas</u>
PROJECT NUMBER _____	PROJECT LOCATION <u>1051 Airway Boulevard, Livermore, California</u>
DATE STARTED <u>2/16/07</u> COMPLETED <u>2/16/07</u>	GROUND ELEVATION <u>449.49 ft</u> HOLE SIZE <u>8</u>
DRILLING CONTRACTOR <u>Gregg Drilling</u>	GROUND WATER LEVELS:
DRILLING METHOD <u>Hollow-Stem Auger</u>	▽ AT TIME OF DRILLING <u>24.0 ft / Elev 425.5 ft</u>
LOGGED BY <u>Shannon Couch</u> CHECKED BY <u>RC</u>	▼ AT END OF DRILLING <u>23.0 ft / Elev 426.5 ft</u>
NOTES <u>Located south of the dispenser island near the planter</u>	AFTER DRILLING <u>---</u>

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	PID (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0					0.8 CONCRETE-Surface 448.7	<p>Locking Cap Traffic Rated Well Vault</p> <p>Portand I/II Cement Grout</p> <p>2" Schedule 40 PVC Blank Casing</p> <p>Bentonite Seal (16-18' bgs)</p> <p>2/12 graded sand (18-35' bgs)</p> <p>2" 0.010 Schedule 40 PVC (20-35' bgs)</p> <p>Bottom Plug</p>
5	SS	0			5.0 Clayey SILT- 30% clay, 65% silt, 5% sand, 10YR/4/3, brown, dry, soft, loose, dry, fine grained sand 444.5	
7.5					7.5 Clayey Sandy SILT- 30% clay, 60% silt, 10% sand, 10YR/4/3, brown, dry, medium stiff, medium dense, dry, fine grained sand 442.0	
10	SS	0			10.0 Sandy Clayey SILT- 15% clay, 50% silt, 35% sand, 10YR/4/3, brown, dry, medium stiff, loose, fine grained sand 439.5	
15	SS MW-2-15	0			15.0 Sandy Clayey SILT- 15% clay, 50% silt, 35% sand, 10YR/4/3, brown, moist, medium stiff, loose, fine grained sand 434.5	
20	SS MW-2-10	0			20.0 Sandy SILT with trace gravel- 20% clay, 40% silt, 35% sand, 5% gravel, 10YR/4/3, brown, moist to wet, medium stiff, loose, fine grained sands, subangular gravels 429.5	
25	SS MW-2-24	0			25.0 Sandy Clayey SILT- 15% clay, 45% silt, 40% sand, 10YR/4/3, brown, wet, medium stiff, loose, fine grained sands 424.5	
30	SS	0			30.0 Clayey Sandy SILT- 30% clay, 55% silt, 15% sand, 10YR/4/3, brown, wet, medium stiff, loose, fine grained sand 419.5	
34	SS MW-2-34	0			34.0 Bottom of hole at 34.0 feet. 415.5	

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# BORING NUMBER MW-3

PAGE 1 OF 1

CLIENT <u>New West Petroleum</u>	PROJECT NAME <u>New West Petroleum Facility- Livermore- Bernard's Gas</u>
PROJECT NUMBER _____	PROJECT LOCATION <u>1051 Alrway Boulevard, Livermore, California</u>
DATE STARTED <u>2/15/07</u> COMPLETED <u>2/15/07</u>	GROUND ELEVATION <u>445.33 ft</u> HOLE SIZE <u>8</u>
DRILLING CONTRACTOR <u>Gregg Drilling</u>	GROUND WATER LEVELS:
DRILLING METHOD <u>Hollow-Stem Auger</u>	▽ AT TIME OF DRILLING <u>24.7 ft / Elev 420.6 ft</u>
LOGGED BY <u>Shannon Couch</u> CHECKED BY <u>RC</u>	▼ AT END OF DRILLING <u>24.0 ft / Elev 421.3 ft</u>
NOTES <u>Located near the northern-most corner of the station building</u>	AFTER DRILLING <u>—</u>

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	PID (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM	
0					0.8 CONCRETE-Surface	444.6	<p>Locking Cap Traffic Rated Well Vault</p> <p>Portland I/II Cement Grout</p> <p>2" Schedule 40 PVC Blank Casing</p> <p>Bentonite Seal (16-18' bgs)</p> <p>2/12 graded sand (18-35' bgs)</p> <p>2" 0.010 Schedule 40 PVC (20-35' bgs)</p> <p>Bottom Plug</p>
5	SS	0			Clayey Sandy SILT- 15% clay, 75% silt, 10% sand, 10YR/4/3, brown, dry, soft, loose, dry, fine grained sand	440.3	
10	SS	0			Clayey SILT- 10% clay, 85% silt, 5% sand, 10YR/4/3, brown, dry, soft, loose, dry, fine grained sand Same as above	435.3	
15	SS MW-3-15	0			Clayey SILT- 10% clay, 85% silt, 5% sand, 10YR/4/3, brown, dry, medium stiff, loose, damp, fine grained sand	430.3	
20	SS MW-3-20	0			Sandy SILT- 55% silt, 45% sand, 10YR/4/3, brown, moist, loose, soft, fine grained sand	425.3	
25	SS MW-3-25	0			Clayey Sandy SILT- 20% clay, 60% silt, 15% sand, 10YR/4/3, brown, dry, medium stiff, loose, moist, fine grained sand	420.3	
30	SS	0			Sandy SILT- 55% silt, 45% sand, 10YR/4/3, brown, wet, loose, soft, fine grained sand	415.3	
35	SS MW-3-35	0			Sandy SILT- 55% silt, 45% sand, 10YR/4/3, brown, wet, loose, soft, fine grained sand	410.3	
					Bottom of hole at 35.0 feet.		

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# BORING NUMBER MW-4

PAGE 1 OF 1

CLIENT New West Petroleum PROJECT NAME New West Petroleum Facility- Livermore- Bernard's Gas  
 PROJECT NUMBER \_\_\_\_\_ PROJECT LOCATION 1051 Alway Boulevard, Livermore, California  
 DATE STARTED 2/16/07 COMPLETED 2/16/07 GROUND ELEVATION 440.67 ft HOLE SIZE 8  
 DRILLING CONTRACTOR Gregg Drilling GROUND WATER LEVELS:  
 DRILLING METHOD Hollow-Stem Auger ∇ AT TIME OF DRILLING 24.0 ft / Elev 416.7 ft  
 LOGGED BY Shannon Couch CHECKED BY RC ∇ AT END OF DRILLING 23.0 ft / Elev 417.7 ft  
 NOTES Located just north of the dispenser island and west of the USTs AFTER DRILLING —

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	PID (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0						
0.8					CONCRETE-Surface	439.9
					Clayey SILT- 30% clay, 65% silt, 5% sand, 10YR/4/3, brown, dry, soft, loose, dry, fine grained sand	Locking Cap Traffic Rated Well Vault
5.0	SS	0	0		Clayey Sandy SILT- 35% clay, 55% silt, 10% sand, 10YR/4/3, brown, dry, soft, loose, dry, fine grained sand	435.7
7.5					Clayey Sandy SILT- 30% clay, 60% silt, 10% sand, 10YR/4/3, brown, dry, medium stiff, medium dense, dry, fine grained sand	433.2
10.0	SS	0	0		Clayey Sandy SILT- 30% clay, 55% silt, 15% sand, 10YR/4/3, brown, dry, medium stiff, loose, fine grained sand	430.7
15.0	SS MW-4-15	0	0		Clayey Sandy SILT- 30% clay, 60% silt, 10% sand, 10YR/4/3, brown, dry, medium dense, medium stiff dry, fine grained sand	425.7
20.0	SS MW-4-20	0	0		Clayey Sandy Gravelly SILT- 15% clay, 60% silt, 15% sand, 10% gravel, 10YR/4/3, brown, moist, soft, loose, fine grained sands, subangular gravels	420.7
25.0	SS MW-4-24	0	0		Same as above-wet	2" Schedule 40 PVC Blank Casing
30.0	SS	0	0		Clayey Sandy SILT- 30% clay, 58% silt, 10% sand, 2% gravel, 10YR/4/3, brown, wet, medium stiff, loose, fine grained sand	410.7
34.0	SS MW-4-34	0	0		Bottom of hole at 34.0 feet.	406.7
						Bottom Plug

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# BORING NUMBER MW-5

PAGE 1 OF 1

CLIENT <u>New West Petroleum</u>	PROJECT NAME <u>New West Petroleum Facility- Livermore- Bernard's Gas</u>
PROJECT NUMBER _____	PROJECT LOCATION <u>1051 Alrway Boulevard, Livermore, California</u>
DATE STARTED <u>2/15/07</u> COMPLETED <u>2/15/07</u>	GROUND ELEVATION <u>440.98 ft</u> HOLE SIZE <u>8</u>
DRILLING CONTRACTOR <u>Gregg Drilling</u>	GROUND WATER LEVELS:
DRILLING METHOD <u>Hollow-Stem Auger</u>	▽ AT TIME OF DRILLING <u>25.0 ft / Elev 416.0 ft</u>
LOGGED BY <u>Shannon Couch</u> CHECKED BY <u>RC</u>	▽ AT END OF DRILLING <u>24.0 ft / Elev 417.0 ft</u>
NOTES <u>Located just west of the dispenser island</u>	AFTER DRILLING <u>---</u>

DEPTH (ft)	SAMPLE TYPE NUMBER	BLOW COUNTS (N VALUE)	PID (ppm)	GRAPHIC LOG	MATERIAL DESCRIPTION	WELL DIAGRAM
0					Same as Boring B-5D- Well was installed approximately one foot away from B-5D.	
5						
10						
15						
20						
25				▽ ▽		
30						
35					35.0	406.0
					Bottom of hole at 35.0 feet.	

ENVIRONMENTAL BH NEWWEST LIVERMORE.GPJ GINT US.GDT 3/26/07



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# BORING NUMBER B-5D

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CLIENT <u>New West Petroleum</u>	PROJECT NAME <u>New West Petroleum Facility- Livermore- Bernard's Gas</u>
PROJECT NUMBER _____	PROJECT LOCATION <u>1051 Alrway Boulevard, Livermore, California</u>
DATE STARTED <u>2/14/07</u> COMPLETED <u>2/14/07</u>	GROUND ELEVATION _____ HOLE SIZE <u>8</u>
DRILLING CONTRACTOR <u>Gregg Drilling</u>	GROUND WATER LEVELS:
DRILLING METHOD <u>Hollow-Stem Auger</u>	▽ AT TIME OF DRILLING <u>25.0 ft</u>
LOGGED BY <u>Shannon Couch</u> CHECKED BY <u>RC</u>	▼ AT END OF DRILLING <u>25.0 ft</u>
NOTES <u>Located just west of the dispenser island</u>	AFTER DRILLING <u>---</u>

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PID (ppm)
0						CONCRETE-Surface	
0.8				ML		Clayey SILT- 25% clay, 70 % silt, 5% sand, 10 YR/4/4, brown, dry, low plasticity, fine grained sand, soft	
5	SS		4-9-16 (25)	ML		Clayey SILT- 15 % clay, 80% silt, 5% sand, 10YR/4/3, brown, dry , low plasticity, fine grained sand, soft	0
7.5						Clayey SILT- 15 % clay, 80% silt, 5% sand, 10YR/4/3, brown, dry , low plasticity, fine grained sand, soft	
10	SS		10-13-18 (31)	ML			0
15	SS B-5D-15	33	9-11-26 (37)	ML		SILT -5% clay, 80 % silt, 5% sand, 10YR/4/3, brown, dry, low plasticity, fine grained sand, medium stiff, medium dense.	0
20	SS B-5D-20	33	9-10-13 (23)	ML		Sandy Clayey SILT- 15% clay, 70% silt, 15% sand, 10YR/4/3, brown, damp, low plasticity, fine grained sand, medium stiff, medium dense	0
25	SS B-5D-24	33	9-16-21 (37)	ML		Same as above	0
25.0				SM		Silty Gravelly SAND- 25% silt, 65% sand, 10% gravel, 10YR/3/2, very dark grayish brown, moist, fine grained sand, medium subangular gravel, soft, loose	
30	SS		9-15-20 (35)	ML		Clayey Sandy SILT- 25% clay, 65% silt, 10 % sand, 10YR/5/2, grayish brown, wet, low plasticity, fine grained sand, soft, loose	0
35	SS		9-11-13 (24)	ML			0
40	SS B-5D-40		10-12-14 (26)	ML		Same as above	0
40	SS		9-8-15 (23)	ML			0
40	SS		10-8-12 (20)	ML		Clayey SILT- 40% clay, 55% silt, 5% sand, 10YR/5/2, grayish brown, wet, medium plasticity, fine grained sand, stiff, dense	0
41.5	SS		9-13-17 (30)	ML		Clayey Sandy SILT- 30% clay, 55% silt, 15% sand, 10YR/4/3, grayish brown, wet, medium plasticity, fine grained sand, stiff, medium dense	0
43.0	SS		9-11-19 (30)	ML		Clayey SILT- 40% clay, 55% silt, 5% sand, 10YR/5/2, grayish brown, medium plasticity, fine grained sand, stiff, dense	0
44.5	SS		9-18-20 (38)	ML		same as above- moisture decreases	0

GENERAL BH / TP / WELL NEWWEST LIVERMORE.GPJ GINT US.GDT 3/28/07

(Continued Next Page)



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# BORING NUMBER B-5D

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CLIENT New West Petroleum

PROJECT NAME New West Petroleum Facility- Livermore- Bernard's Gas

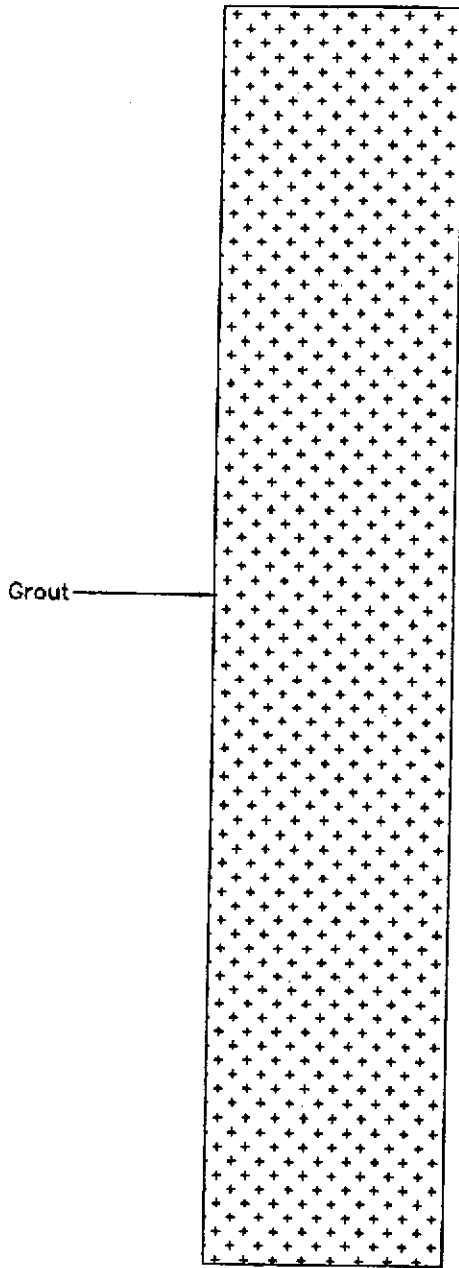
PROJECT NUMBER

PROJECT LOCATION 1051 Alrway Boulevard, Livermore, California

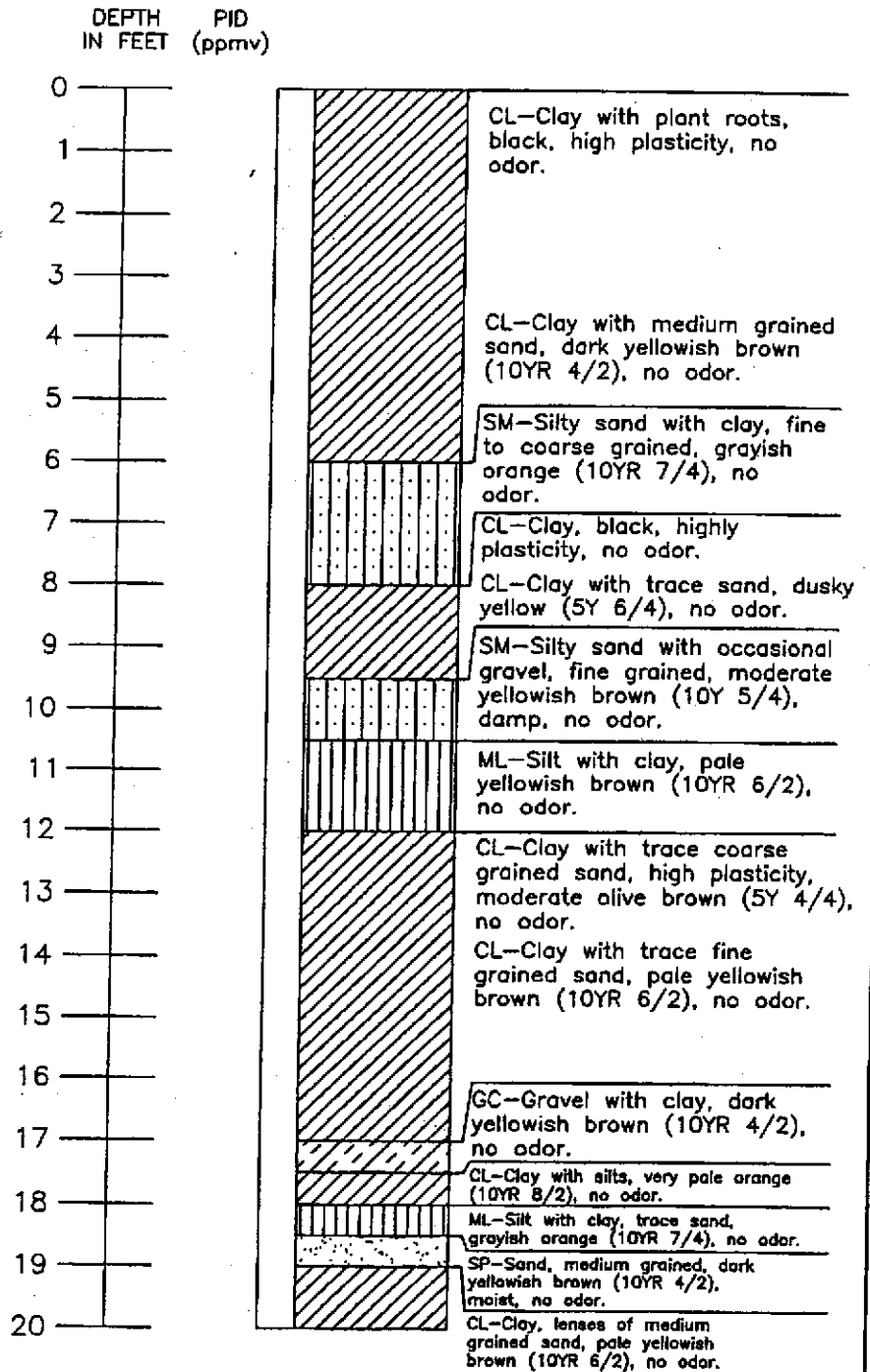
DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY %	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	PI/D (ppm)	
45								
	B-5D-45		10-14-19 (33)	ML		Clayey SILT- 35% clay, 55% silt, 10 % sand, 10YR/4/3, brown, dry, fine grained sand, medium plasticity, stiff, dense ( <i>continued</i> )	0	
			11-18-23 (41)	ML		47.5	Same as above	0
			13-15-19 (34)	ML		49.0	Clayey SILT- 40% clay, 55% silt, 5% sand, 10YR/4/3, brown, medium plasticity, dry, fine grained sand, stiff, dense	0
50			13-16-20 (36)	ML		50.5	Clayey Sandy SILT- 35% clay, 55% silt, 10% sand, 10YR/4/3, brown, dry, fine grained sand, medium plasticity, very stiff, dense	0
			8-13-17 (30)	ML			Clayey Sandy SILT- 35% clay, 50% silt, 15% sand, 10YR/4/3, brown, dry, fine grained sand, medium plasticity, very stiff, dense	0
			16-17-17 (34)	ML		53.5	Same as above	0
55			16-22-29 (51)	ML			Silty Sandy CLAY- 50% clay, 40% silt, 10% sand, 10YR/4/3, brown, dry, fine grained sand, medium plasticity, very stiff, dense	0
	B-5D-55		17-23-30 (53)	CL		56.5	Same as above	0
			9-9-9 (18)	ML			Clayey Sandy SILT- 40% clay, 50% silt, 10% sand, 10YR/4/3, brown, medium plasticity, dry, fine grained sand, very stiff, dense	0
			16-28-30 (58)	ML			Same as above	0
60			18-19-21 (40)	ML				0
			13-16-19 (35)	ML		62.5	Clayey SILT- 45% clay, 50% silt, 5% sand, 10 YR/4/3, brown, medium plasticity, dry, fine grained sand, very stiff, dense	0
			14-16-20 (36)	ML			Same as above	0
65			15-17-20 (37)	CL		65.5	Silty Sandy CLAY- 55% clay, 35% silt, 10% sand, 10YR/4/3, brown, medium plasticity, dry, fine grained sand, very stiff, dense	0
			10-16-22 (38)	CL				0
			8-13-20 (33)	CL			Same as above	0
70			6-13-19 (32)	CL		70.0	Silty CLAY- 55% clay, 35% silt, 5% sand, 10YR/4/3, brown, medium plasticity, dry, fine grained sand, very stiff, dense	0
			7-16-18 (34)	CL			Same as above	0
			8-14-19 (33)	CL				0
75			9-11-14 (25)	CL				0
	B-5D-75		9-11-13 (24)	CL		77.5		0
			8-12-20 (32)	CL			Silty CLAY- 60% clay, 35% silt, 5% sand, 10YR/4/3, brown, high plasticity, dry, fine grained sand, very stiff, dense	0
80			9-12-18 (30)	CL			Same as above	0
			9-13-20 (33)	CL				0
			10-12-19 (31)	CL				0
85			9-15-20 (35)	CL	85.0		0	
Bottom of hole at 85.0 feet.								

GENERAL BH/TP / WELL NEWWEST LIVERMORE.GPJ GINT US.GDT 3/27/07

# BORING/WELL CONSTRUCTION DETAIL



# GRAPHIC LOG DESCRIPTION



### EXPLANATION:

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- Sieve sample
- Grab sample
- est K Estimated permeability (hydraulic conductivity)  
1K=primary, 2K=secondary
- NR No recovery

### CONTACTS:

- Solid where certain
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational

## APEX ENVIROTECH, INC.

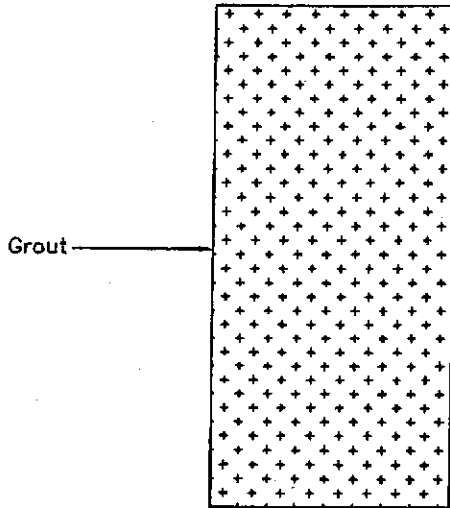
Boring/Well Log  
Details GP-1

Bernard's Gas  
1051 Airway Boulevard  
Livermore, California  
06/12/02

Job No.  
NWP01.001

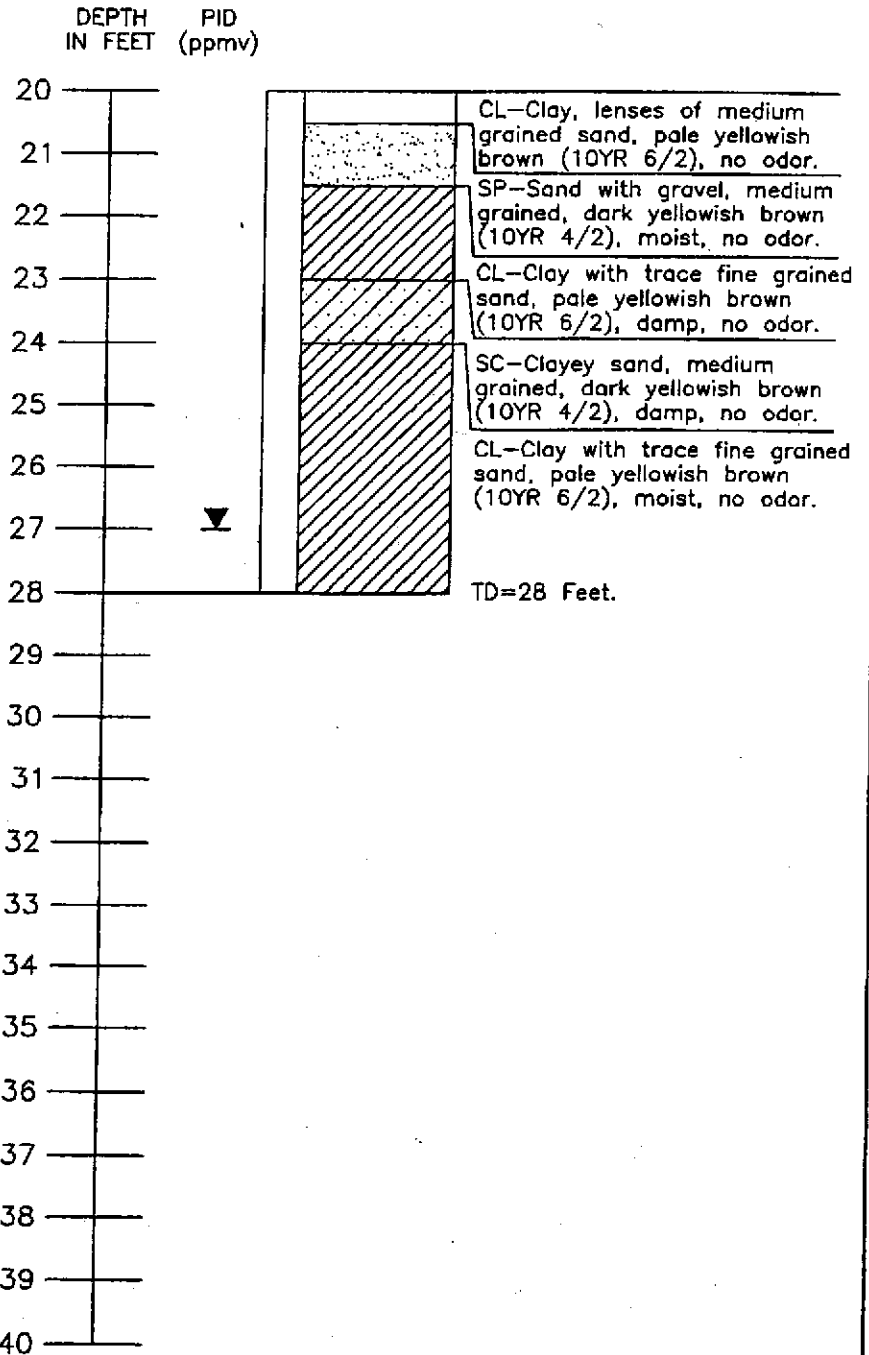
BORING/  
WELL  
GP-1

### BORING/WELL CONSTRUCTION DETAIL



### GRAPHIC LOG

### DESCRIPTION



#### EXPLANATION:

- ▼ Water level during drilling
- ▽ Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- Sieve sample
- Grab sample
- est K Estimated permeability (hydraulic conductivity)  
1K=primary, 2K=secondary
- NR No recovery

#### CONTACTS:

- Solid where certain
- ..... Dotted where approximate
- Dashed where uncertain
- Hachured where gradational

#### APEX ENVIROTECH, INC.

Boring/Well Log  
Details GP-1

Job No.  
NWP01.001

Bernard's Gas  
1051 Airway Boulevard  
Livermore, California

BORING/  
WELL

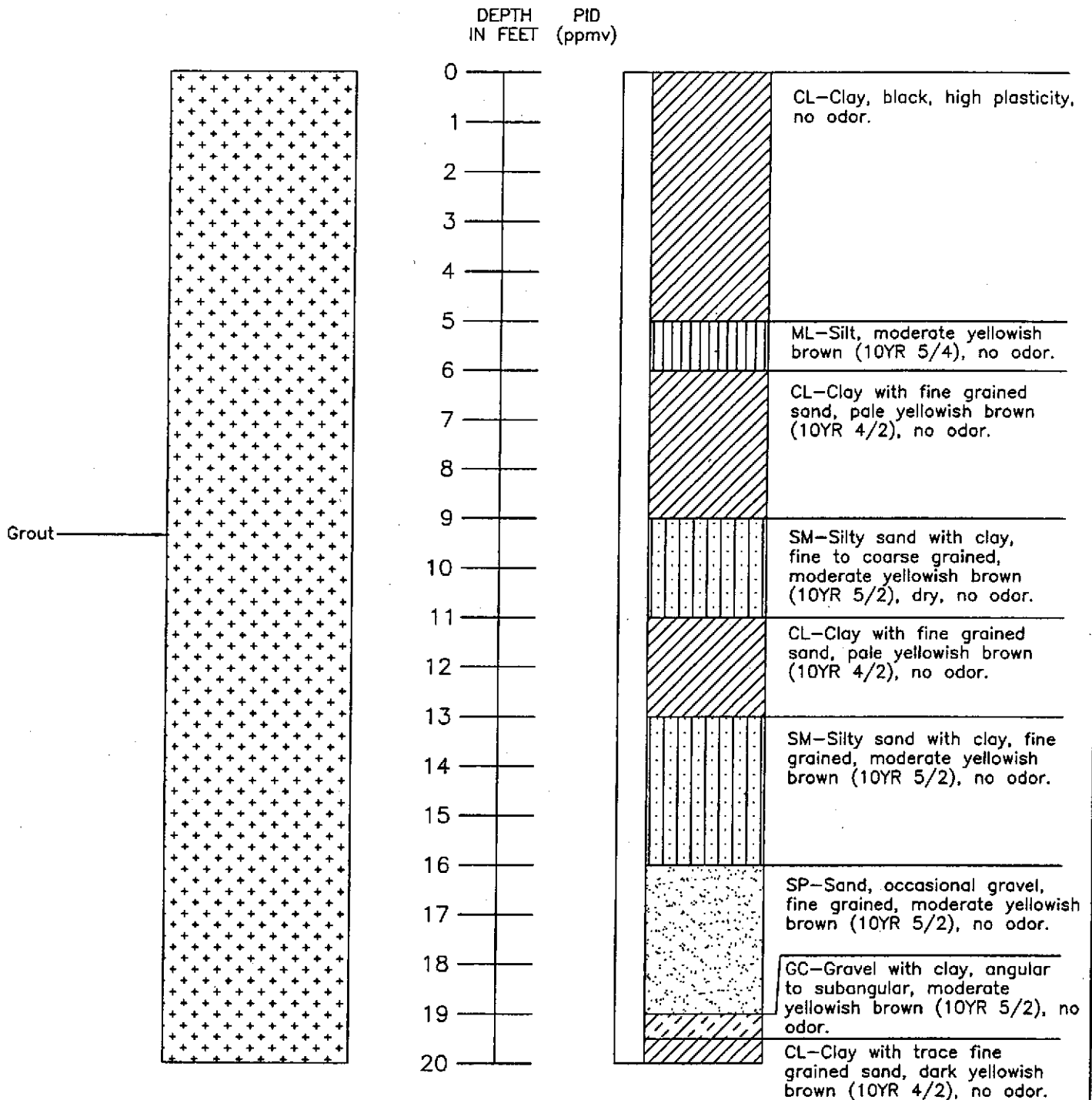
06/12/02

GP-1

# BORING/WELL CONSTRUCTION DETAIL

# GRAPHIC LOG

# DESCRIPTION



### EXPLANATION:

- Water level during drilling
- Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- Sieve sample
- Grab sample
- est K Estimated permeability (hydraulic conductivity)  
1K=primary, 2K=secondary
- NR No recovery

### CONTACTS:

- Solid where certain
- Dotted where approximate
- Dashed where uncertain
- Hachured where gradational

## APEX ENVIROTECH, INC.

Boring/Well Log  
Details GP-2

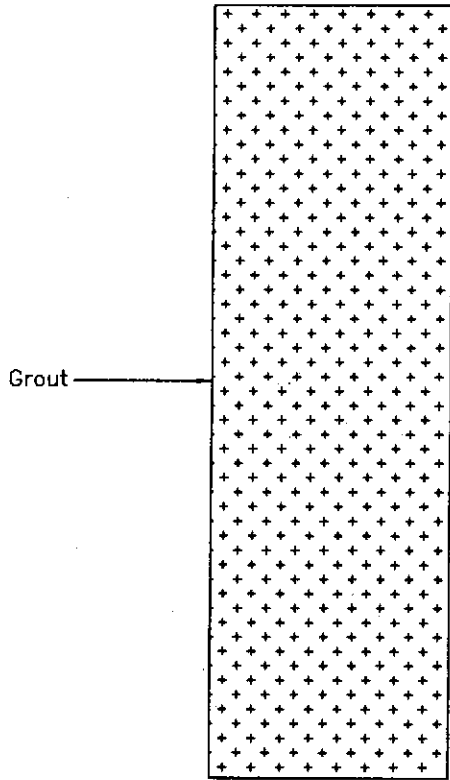
Job No.  
NWP01.001

Bernard's Gas  
1051 Airway Boulevard  
Livermore, California  
06/12/02

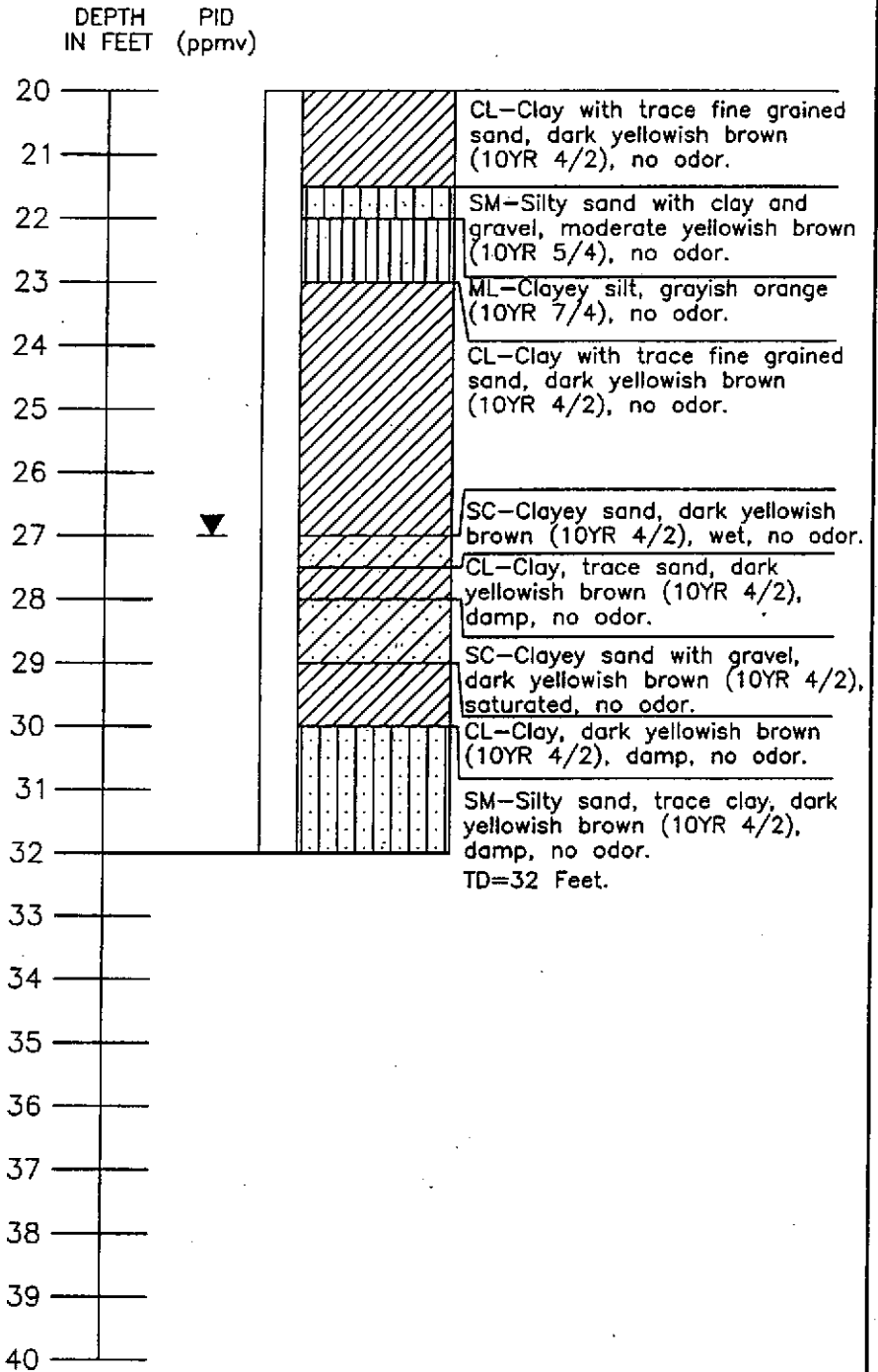
BORING/  
WELL  
**GP-2**



### BORING/WELL CONSTRUCTION DETAIL



### GRAPHIC LOG DESCRIPTION



#### EXPLANATION:

- ▼ Water level during drilling
- ▽ Water level in completed well
- Location of recovered drill sample
- Location of sample sealed for chemical analysis
- Sieve sample
- Grab sample
- est K Estimated permeability (hydraulic conductivity)  
1K=primary, 2K=secondary
- NR No recovery

#### CONTACTS:

- Solid where certain
- ..... Dotted where approximate
- - - Dashed where uncertain
- Hachured where gradational

#### APEX ENVIROTECH, INC.

Boring/Well Log Details GP-2	Job No. NWP01.001
Bernard's Gas 1051 Airway Boulevard Livermore, California 06/12/02	BORING/ WELL <b>GP-2</b>