



AEGIS ENVIRONMENTAL, INC.

LETTER OF TRANSMITTAL

Check Return Address Block:

1050 Melody Lane, Suite 160  
Roseville, Ca. 95678

8196 S W Hall Blvd, Suite 300  
Beaverton, Oregon 97005

1175 Fair View, Suite H  
Carson City, Nevada 89701

Date: July 22, 1992 Project # 90-007

Subject/Title:

Quarterly Groundwater  
Monitoring Letter Report

(Dated June 10, 1992 - Final Copy)

TO: E.C. Buehrer Associates, Inc.  
ATTENTION: Mr. Neil Hamre  
1061 Eastshore Highway  
Albany, California 94710

We Are Sending:  Enclosed  Under Separate Cover Via \_\_\_\_\_

The Following:  Draft Report / Letter  Regulatory Correspondance  Figures/Maps/Tables  
 Final Report / Letter  Laboratory Analytical Results  Statement of Qualifications  
 Cost Estimate  Contract  \_\_\_\_\_

These Are Transmitted As Checked Below:

For Approval  For Review And Comment  For Your Information  
 As Requested  Per Our Telephone Conversation  As Executed  
 For Your Use  Approved As Submitted  \_\_\_\_\_

Copies Were Sent To:  None  The Following:

- 1) Region Water Quality Control Board, San Francisco Bay Region,
- 2) Alameda County Coordinator
- 3) S. Hugo, Alameda County Department of Environmental Health
- 4) \_\_\_\_\_
- 5) \_\_\_\_\_

This Document Was Sent Via:

First Class Mail  Federal Express/ Priority Overnight  Certified/Return Receipt  
 Federal Express/ Standard Overnight  Express Mail  Registered Mail  
 Federal Express/ 2nd Day Delivery  Airborne Express  Priority Mail

Comments: The enclosed is a final copy QMR, final copy, for the referenced site. If you have any questions please call (916) 782-2110. Thank you.

18 JUL 23 1992

Signed: Michael Kitzko

(1) Original, (2) Central File ( Correspondence ), (3) Project Manager



# AEGIS ENVIRONMENTAL, INC.

1050 Melody Lane, Suite 160, Roseville, CA 95678



916 • 782-2110 / 916 • 969-2110 / FAX 916 • 786-7830

---

July 27, 1992

Mr. Neil Hamre  
E.C. Buehrer Associates, Inc.  
1061 Eastshore Highway  
Albany, California 94710

Subject: **Quarterly Groundwater Monitoring Letter Report**  
E.C. Buehrer & Associates, Inc.  
1061 Eastshore Highway, Albany, California

Dear Mr. Hamre:

Aegis Environmental, Inc. (Aegis), is pleased to provide E.C. Buehrer Associates, Inc. (E.C. Buehrer), this letter report documenting the results of quarterly groundwater monitoring, conducted June 10, 1992, at the subject site (Figure 1). The monitoring included collection of depth-to-groundwater measurements and water samples from four wells (MW-5 through MW-9) located on site (Figure 2). This letter report is based, in part, on information obtained by Aegis from E.C. Buehrer and is subject to modification as newly acquired information may warrant.

## SITE DESCRIPTION

The E.C. Buehrer site is an active equipment rental and repair shop consisting of two buildings. The larger building, along the western boundary of the site, contains office space and work bays for equipment repair. The small building, along the southern boundary, is utilized as a welding and machine shop and a spray painting booth. Details of the site's current facilities, including underground storage tanks and utilities, were reported to E.C. Buehrer by Aegis in a "Problem Assessment Report," dated August 1, 1991. The project site is located in an industrial area of Albany.

## **BACKGROUND**

In April 1990, Aegis installed four groundwater monitoring wells MW-1 through MW-4. The results of the investigation were reported to E.C. Buehrer by Aegis in a "Hydrogeological Investigation Results Report," dated June 12, 1990.

During April 1991, nine additional soil borings were drilled. Four of the borings were completed as groundwater monitoring wells MW-5 through MW-8 (Figure 2). Results were reported to E.C. Buehrer by Aegis in a "Problem Assessment Report," dated July 9, 1991.

Subsequent to the April 1990 well installations, Aegis performed monthly depth-to-groundwater measurements and quarterly groundwater sampling. Monitoring was expanded to include the four additional wells in April 1991.

Wells MW-1 through MW-4 were abandoned in August 1991 in anticipation of soil excavation activities.

In May 1992, approximately 1,000 cubic yards of soil containing petroleum hydrocarbons and a 1,000-gallon gasoline tank were removed from the site. During the excavation, groundwater monitoring well MW-8 was inadvertently destroyed. In June 1992, groundwater monitoring well MW-8 was reinstalled, and MW-9 was installed downgradient of former underground storage tanks (Figure 2). Soil excavation and well installation results were reported to E.C. Buehrer by Aegis in a "Excavation Results Report," dated June 12, 1992.

## **GROUNDWATER MONITORING**

### **Groundwater**

On June 10, 1992, Aegis personnel collected depth-to-groundwater measurements in wells MW-5 through MW-9. Since February 1992, groundwater levels have risen in all wells, except well MW-6, (Figure 3) an average of approximately 0.72-feet; ranging from 0.36 to 1.05 feet (Table 1). The depth of groundwater in well MW-6 fell 0.07-feet. On the basis of the June 10, 1992, measurements, groundwater is estimated to flow to the west at an average gradient between approximately 0.013 to 0.004 ft/ft (Figure 4).

Previous groundwater levels are summarized in Table 1. All groundwater elevation measurements were conducted according to the Aegis standard operating procedures (SOP) included as Attachment 1.

## **Water Sampling and Analysis**

On June 10, 1992, Aegis personnel collected groundwater samples from wells MW-5 through MW-9. The samples were collected according to the Aegis SOP included in Attachment 1, and delivered under chain-of-custody to Excel Chem Environmental Labs of Citrus Heights, California, a state-certified analytical laboratory. The samples were analyzed for concentrations of:

- total (volatile) petroleum hydrocarbons (TPH), as gasoline, by GC/FID Method 5030;
- benzene, toluene, ethylbenzene, and total xylenes by EPA Method 8020;
- TPH, as diesel, by GC/FID Method 3510; and,
- oil & grease, by Gravimetric Method 5520.

The analytical results are summarized in Table 2. The analytical reports and chain-of-custody form are included in Attachment 2. Concentrations of TPH, as gasoline, and benzene reported in Table 2 are also shown on Figure 5.

**REMARKS/SIGNATURES**

The interpretations and conclusions contained within this letter report represent our professional opinions. These opinions are based on currently available information, and were developed in accordance with currently accepted geologic, hydrogeologic, and engineering practices at this time and for this specific site. Other than this, no warranty is implied or intended.

This letter report has been prepared solely for the use of E.C. Buehrer. Any reliance on this letter report by third parties shall be at such parties' own risk. The work described herein was performed under the direct supervision of the professional geologist, registered with the State of California, whose signature appears below.

We appreciate the opportunity to provide E.C. Buehrer with geologic, engineering, and environmental consulting services, and trust this letter report meets your needs. If you have any questions or concerns, please call us at (916) 782-2110.

Sincerely,

**AEGIS ENVIRONMENTAL, INC.**

*Michael Kitko*

Michael Kitko  
Staff Geologist

*Douglas I. Sheeks*

Douglas I. Sheeks  
Senior Geologist  
CRG No. 5211



7-27-92

Date

MK/DIS/law

cc: San Francisco Bay Regional Water Quality Control Board  
S. Hugo, Alameda County Department of Health Services

**FIGURES:**

FIGURE 1 ..... SITE LOCATION MAP

FIGURE 2 ..... SITE MAP

FIGURE 3 ..... GROUNDWATER ELEVATION HYDROGRAPH

FIGURE 4 ..... POTENTIOMETRIC SURFACE MAP:  
JUNE 10, 1992

FIGURE 5 ..... DISTRIBUTION MAP TPH, AS GASOLINE,  
AND BENZENE IN GROUNDWATER: JUNE 10, 1992

**TABLES:**

TABLE 1 ..... WATER LEVEL DATA

TABLE 2 ..... ANALYTICAL RESULTS: GROUNDWATER

**ATTACHMENTS:**

ATTACHMENT 1 ..... STANDARD OPERATING PROCEDURES

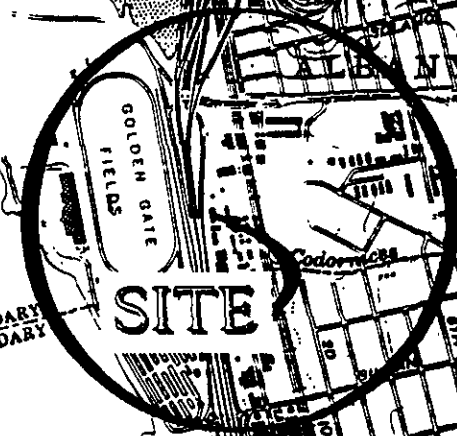
ATTACHMENT 2 .. LABORATORY ANALYTICAL REPORTS AND  
CHAIN-OF-CUSTODY FORM

## FIGURES

BM 30A  
sabe

Towers

Swampy  
Hollow



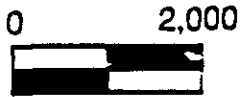
Fleming  
Point

CITY CITY  
BOUNDARY  
BOUNDARY

SITE

GOLDEN GATE  
FIELDS

SCALE: 1" = 2,000'



GENERAL NOTES:

BASE MAP FROM USGS  
7.5 MINUTE  
TOPOGRAPHIC  
RICHMOND & OAKLAND  
WEST, CA.



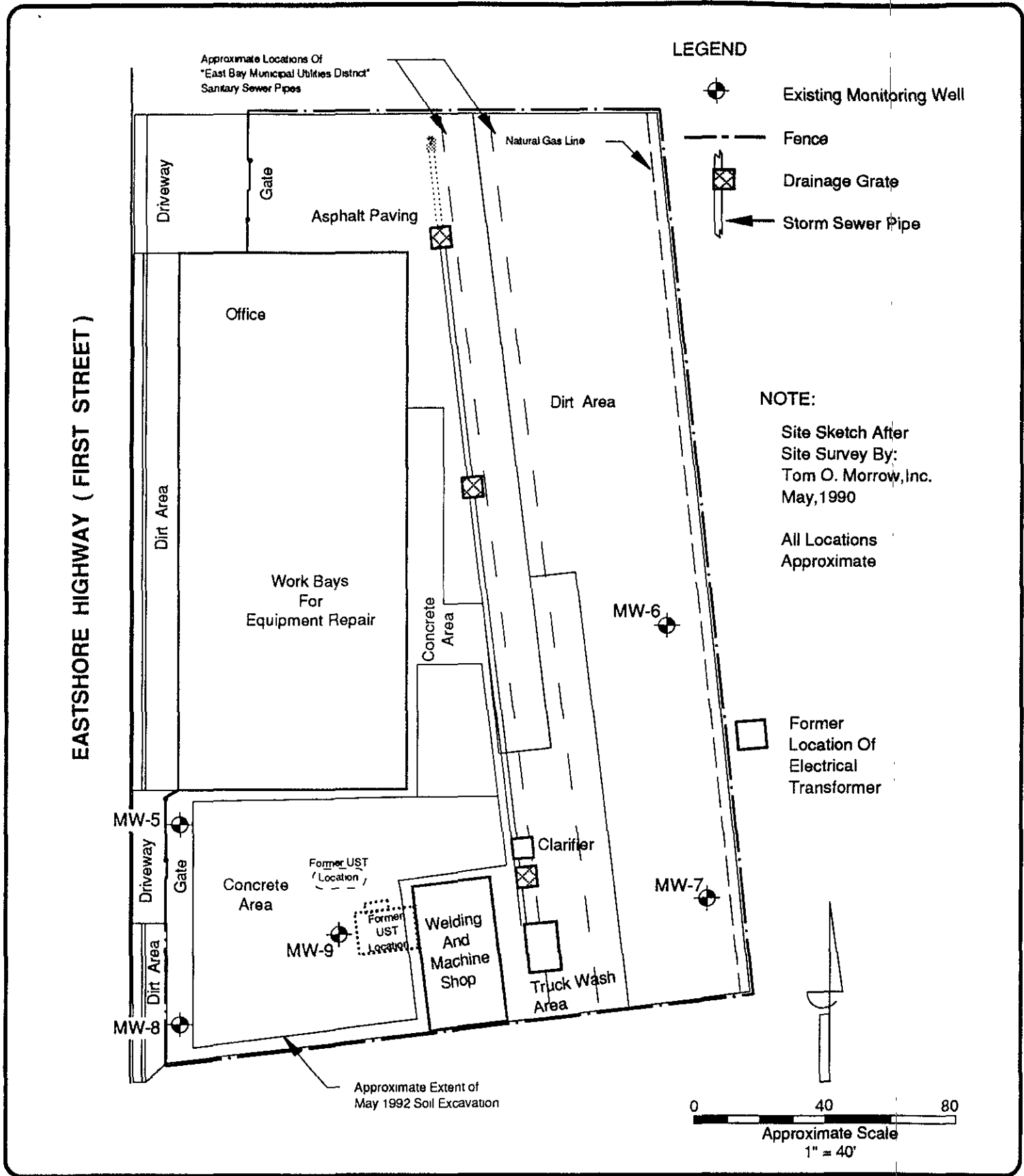
**FIGURE 1**  
**SITE LOCATION MAP**  
**E. C. Buehrer Associates, Inc.**  
**1061 Eastshore Highway**  
**Albany, Ca.**

**AEGIS Job Number 90-007**

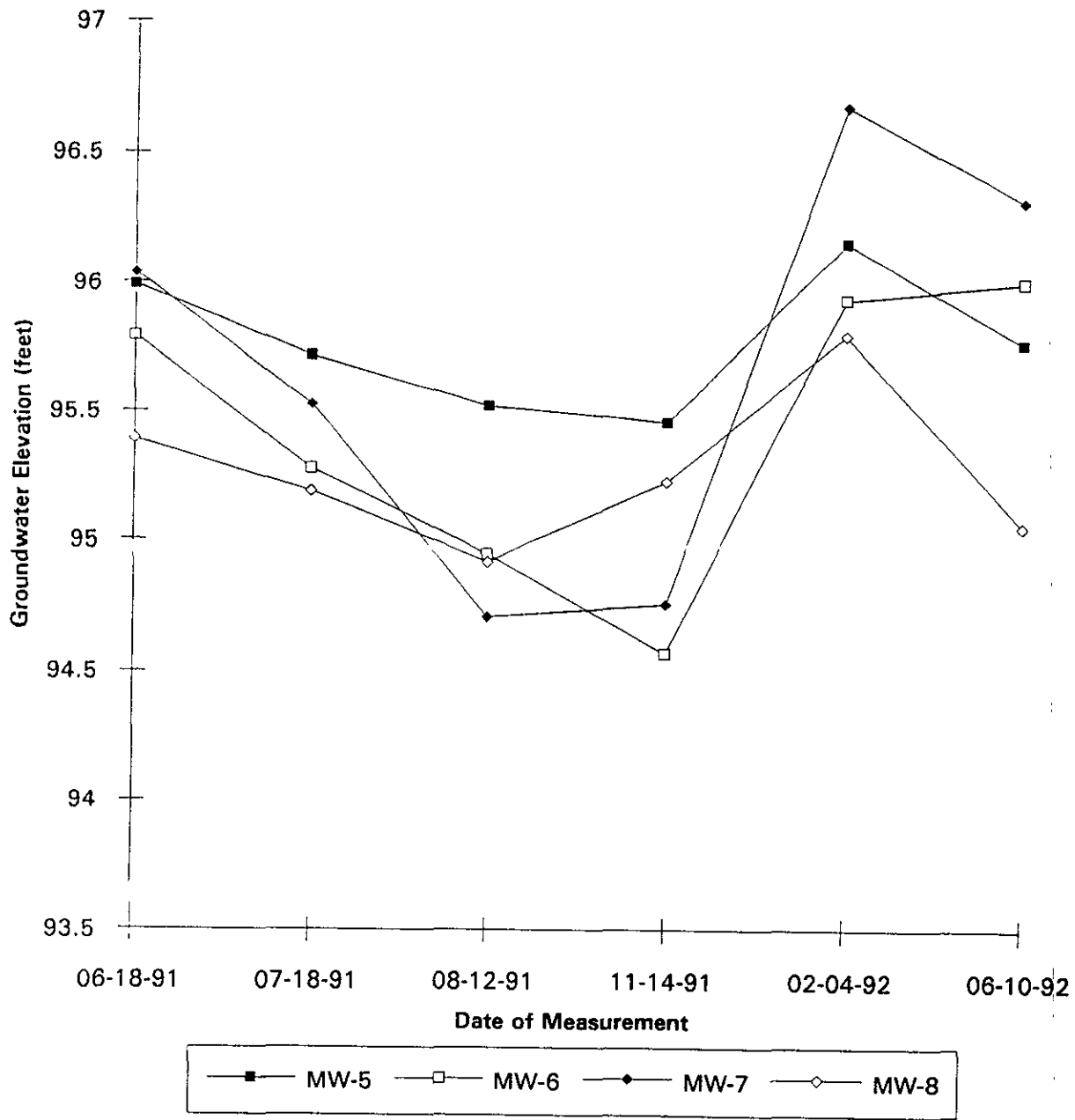
**DRAWN BY: Ed Bernard**  
**REVIEWED BY: L Braybrooks**


**DATE: April 8, 1991**  
**DATE: April 14, 1991**

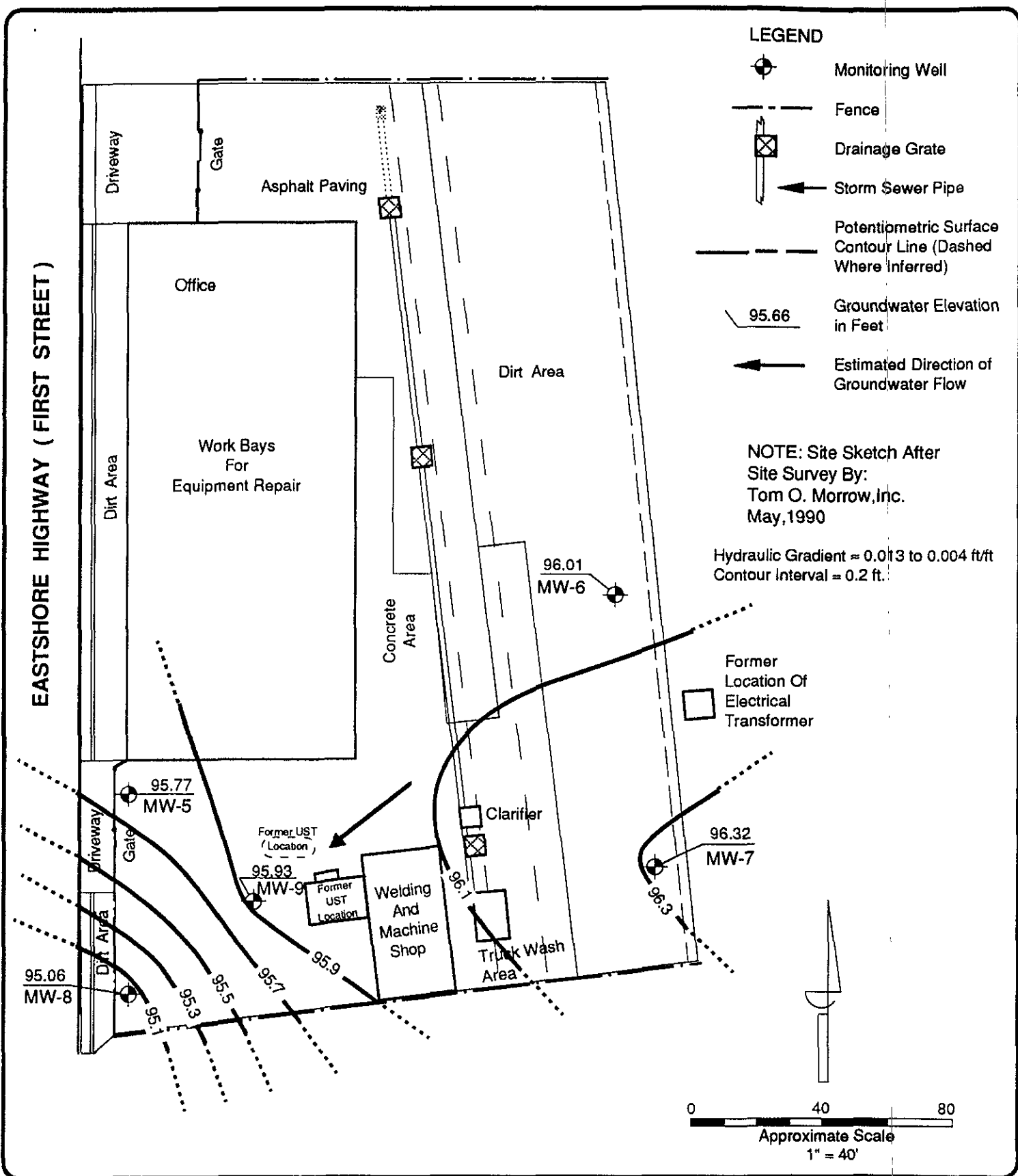




		<b>SITE MAP</b>		<b>FIGURE 2</b>
DRAWN BY: Ed Bernard	DATE: June 24, 1992	E.C. Buehrer Associates, Inc. 1061 Eastshore Highway Albany, CA		
REVISED BY:	DATE:			
REVIEWED BY: <i>mk</i>	DATE: <i>July 13, 1992</i>			PROJECT NUMBER: <b>10-90007</b>



 <b>AEGIS ENVIRONMENTAL, INC.</b>		<b>GROUNDWATER ELEVATION HYDROGRAPH</b>		<b>FIGURE</b> <b>3</b>
DRAWN BY: Ed Bernard	DATE June 24, 1992	E.C. Buehrer Associates, Inc. 1061 Eastshore Highway Albany, CA		
REVISOR BY: <i>mk</i>	DATE <i>July 13, 1992</i>			



		<b>POTENTIOMETRIC SURFACE MAP</b> June 10, 1992		<b>FIGURE</b>  <b>4</b>
DRAWN BY: <b>Ed Bernard</b>	DATE: June 24, 1992	E.C. Buehrer Associates, Inc. 1061 Eastshore Highway Albany, CA		
REVISED BY: <b>Ed Bernard</b>	DATE: July 13, 1992			PROJECT NUMBER: <b>10-90007</b>
REVIEWED BY: <i>mk</i>	DATE: <i>July 13, 1992</i>			

**LEGEND**



Monitoring Well

82  
BDL

TPH - Gasoline in parts-per-billion  
Benzene in parts-per-billion

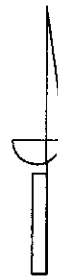
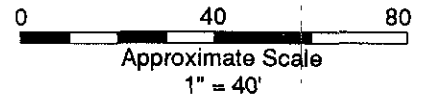
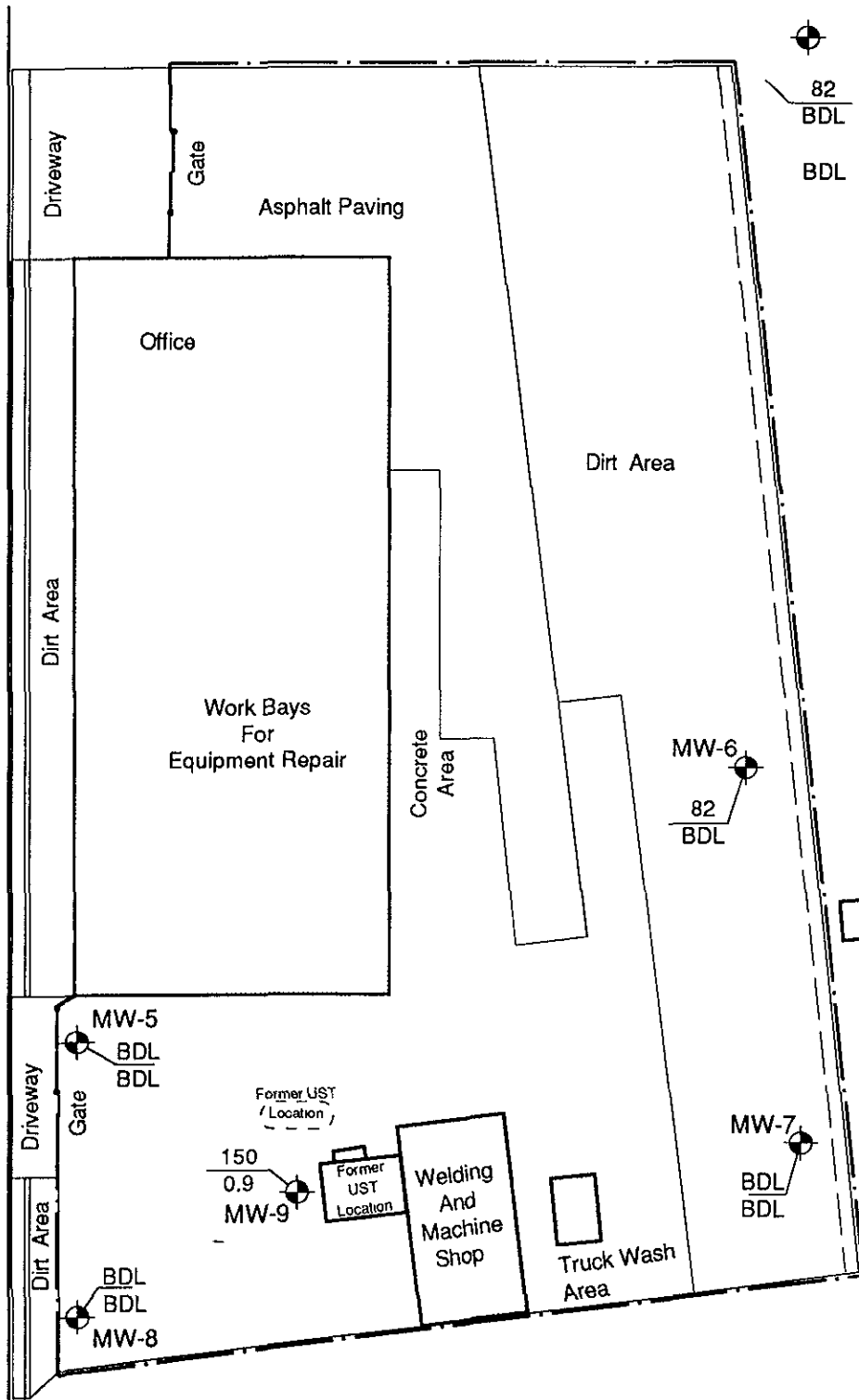
BDL Below Detection Limits

**NOTE:**

Site Sketch After  
Site Survey By:  
Tom O. Morrow, Inc.  
May, 1990

All Locations Approximate

**EASTSHORE HIGHWAY ( FIRST STREET )**



DRAWN BY Ed Bernard	DATE June 24, 1992
REVISED BY	DATE
REVIEWED BY: <i>MB</i>	DATE: <i>July 13, 1992</i>

**DISTRIBUTION MAP OF TPH - GASOLINE AND BENZENE IN GROUNDWATER** June 10, 1992

E.C. Buehrer Associates, Inc.  
1061 Eastshore Highway  
Albany, CA

**FIGURE 5**

PROJECT NUMBER:  
**10-90007**

## TABLES

**TABLE 1**

**WATER LEVEL DATA**

**1061 EASTSHORE HIGHWAY, ALBANY, CALIFORNIA**  
**(All measurements in feet)**

Monitoring Well	Date	Reference Elevation <sup>1</sup>	Depth to Groundwater <sup>1</sup>	Groundwater Elevation <sup>2</sup>	Well Depth
MW-5	04/05/91	99.14	2.79	96.35	11.53
	04/08/91		2.52	96.62	11.53
	05/08/91		2.62	96.52	11.53
	06/18/91		3.15	95.99	11.64
	07/18/91		3.42	95.72	11.62
	08/12/91		3.62	95.52	11.60
	09/26/91		3.87	95.27	11.59
	11/14/91		3.68	95.46	11.60
	02/04/92		2.98	96.16	11.59
	06/10/92		3.37	95.77	11.57
MW-6	04/05/91	100.76	2.22	98.54	12.06
	04/08/91		2.53	98.23	12.05
	05/08/91		3.99	96.77	12.15
	06/18/91		4.97	95.79	12.12
	07/18/91		5.48	95.28	12.13
	08/12/91		5.81	94.95	12.17
	11/14/91		6.19	94.57	12.15
	02/04/92		4.82	95.94	12.10
	06/10/92		4.75	96.01	12.16

- NOTES:
- 1 = Measurement from reference elevation at notch/mark on top north side of well casing.
  - 2 = Reference elevations surveyed by Tom O. Morrow, a surveyor licensed by the State of California, and referenced to a temporary bench mark with an assumed elevation of 100.00 feet.
  - Well Depth = Measurement from top of casing to bottom of well.
- MW-1 through MW-4 were abandoned on August 15, 1991.

**TABLE 1 (CONTINUED)**

**WATER LEVEL DATA**

**1061 EASTSHORE HIGHWAY, ALBANY, CALIFORNIA  
(All measurements in feet)**

Well No.	Date	Reference Elevation	Depth to Groundwater <sup>1</sup>	Groundwater Elevation <sup>2</sup>	Well Depth
MW-7	04/05/91	101.52	2.30	99.22	12.15
	04/08/91		2.63	98.89	12.15
	05/08/91		4.39	97.13	12.20
	06/18/91		5.48	96.04	12.20
	07/18/91		5.99	95.53	12.22
	08/12/91		6.81	94.71	12.13
	11/14/91		6.76	94.76	12.19
	02/04/92		4.84	96.68	12.11
	06/10/92		5.20	96.32	12.18
MW-8	04/05/91	99.64	6.13	93.51	11.70
	04/08/91		4.46	95.18	11.70
	05/08/91		3.82	95.82	12.20
	06/18/91		4.25	95.39	11.79
	07/18/91		4.45	95.19	11.75
	08/12/91		4.72	94.92	11.80
	11/14/91		4.41	95.23	11.83
	02/04/92		3.84	95.80	11.81
	06/10/92	99.63 <sup>3</sup>	4.57	95.06	12.71
MW-9	06/10/92	99.81	3.88	95.93	10.56

NOTES:

- 1 = Measurement from reference elevation at notch/mark on top north side of well casing.
- 2 = Reference elevations surveyed by Tom O. Morrow, a surveyor licensed by the State of California, and referenced to a temporary bench mark with an assumed elevation of 100.00 feet.
- 3 = Well reinstalled and resurveyed, June 1992.
- Well Depth = Measurement from top of casing to bottom of well.

**TABLE 2**  
**ANALYTICAL RESULTS: GROUNDWATER**  
 1061 EASTSHORE HIGHWAY, ALBANY, CALIFORNIA  
 (All results in parts-per-billion)

Sample ID	Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Total Petroleum Hydrocarbons		Total Oil & Grease	Total Petroleum Hydrocarbons	
						Gasoline	Diesel		Motor Oil	Mineral Spirits
MW-5	04/08/91	<	1.8	0.6	1.0	<	220	<	<<500	<<50
	08/12/91	<	<	<	<	<	140	<	<<500	<<50
	11/14/91	<	<	<	<	<	290	---	<<500	<<50
	02/04/92	<	<	<	<	<	620	---	<<500	<<50
	06/10/92	<	<	0.6	0.7	<	<<100	<<1,000	—	—
MW-6	04/08/91	<	1.8	1.8	1.0	<	210	<	<<500	150
	08/12/91	<	<	<	<	<	160	<	<<500	<<50
	11/14/91	<	<	<	<	<	150	---	<<500	<<50
	02/04/92	<	<	<	<	<	310	---	<<500	<<50
	06/10/92	<	<	0.8	4.3	82	<<100	<<1,000	---	---
MW-7	04/08/91	<	1.4	1.4	0.8	<	<	<	<<500	<<50
	08/12/91	<	<	<	<	<	70	<	<<500	<<50
	11/14/91	<	<	<	<	<	<	---	<<500	<<50
	02/04/92	<	<	<	<	<	<	---	<<500	<<50
	06/10/92	<	<	0.9	2.3	<	<	<<1,000	---	---
MW-8	04/08/91	<	<	1.6	0.1	<	<	<	<<500	<<50
	08/12/91	<	<	<	<	<	<	<	<<500	<<50
	11/14/91	<	<	<	<	<	120	---	<<500	<<50
	02/04/92	<	<	<	<	<	160	---	<<500	<<50
	06/10/92	<	<	0.6	0.7	<	<<100	<<1,000	—	—
MW-9	06/10/92	0.9	0.6	0.9	1.8	150	<<100	<<1,000	—	—

NOTES: < = Below Practical Quantitation Reporting Limits per "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites" (August 10 1990) (PQL for BTEX = 0.5 ppb, TPH, as gasoline and diesel = 50 ppb total oil & grease = 1,000 ppb )  
 << = Below the indicated detection limit  
 --- = Not analyzed.  
 MW-1 through MW-4 were abandoned on August 15, 1991



**ATTACHMENT 1**  
**STANDARD OPERATING PROCEDURES**

**AEGIS ENVIRONMENTAL, INC.**  
**STANDARD OPERATING PROCEDURES**  
**RE: SAMPLE IDENTIFICATION AND CHAIN-OF-CUSTODY PROCEDURES**  
**SOP-4**

Sample identification and chain-of-custody procedures ensure sample integrity, and document sample possession from the time of collection to its ultimate disposal. Each sample container submitted for analysis is labeled to identify the job number, date, time of sample collection, a sample number unique to the sample, any in-field measurements made, sampling methodology, name(s) of on site personnel and any other pertinent field observations also recorded on the field excavation or boring log.

Chain-of-custody forms are used to record possession of the sample from time of collection to its arrival at the laboratory. During shipment, the person with custody of the samples will relinquish them to the next person by signing the chain-of-custody form(s) and noting the date and time. The sample-control officer at the laboratory will verify sample integrity, correct preservation, confirm collection in the proper container(s) and ensure adequate volume for analysis.

If these conditions are met, the samples will be assigned unique laboratory log numbers for identification throughout analysis and reporting. The log numbers will be recorded on the chain-of-custody forms and in the legally-required log book maintained in the laboratory. The sample description, date received, client's name, and any other relevant information will also be recorded.

**AEGIS ENVIRONMENTAL, INC.**  
**STANDARD OPERATING PROCEDURES**  
**RE: LABORATORY ANALYTICAL QUALITY ASSURANCE AND CONTROL**  
**SOP-5**

In addition to routine instrument calibration, replicates, spikes, blanks, spiked blanks, and certified reference materials are routinely analyzed at methods specific frequencies to monitor precision and bias. Additional components of the laboratory Quality Assurance/Quality Control program include:

1. Participation in state and federal laboratory accreditation/certification programs;
2. Participation in both U.S. EPA Performance Evaluation studies (WS and WP studies) and inter-laboratory performance evaluation programs;
3. Standard operating procedures describing routine and period instrument maintenance;
4. "Out-of-Control"/Corrective Action documentation procedures; and,
5. Multi-level review of raw data and client reports.

**AEGIS ENVIRONMENTAL, INC.**  
**STANDARD OPERATING PROCEDURE**  
**RE: GROUNDWATER PURGING AND SAMPLING**  
**SOP-7**

Prior to water sampling, each well is purged by evacuating a minimum of three well-bore volumes of groundwater. When required, purging will continue until either the discharge water temperature, conductivity or pH stabilize, a maximum of ten well-bore volumes of groundwater have been recovered or the well is bailed dry. When practical, the groundwater sample should be taken when the water level in the well recovers to at least 80 percent of its static level.

The sampling equipment consists of either a Teflon bailer, PVC bailer, or stainless steel bladder pump with a Teflon bladder. If the sampling system is dedicated to the well, then the bailer is usually Teflon, but the bladder pump is PVC with a polypropylene bladder. In general and depending on the intended laboratory analysis, 40-milliliter glass, volatile organic analyzer (VOA) vials, with Teflon septa, are used as sample containers.

The groundwater sample is decanted into each VOA vial in such a manner that there is no meniscus at the top of the vial. A cap is quickly secured to the top of the vial. The vial is then inverted and gently tapped to see if air bubbles are present. If none are present, the vial is labeled and refrigerated for delivery, under strict chain-of-custody, to the analytical laboratory. Label information should include a unique sample identification number, job identification number, date, time, type of analysis requested, and the sampler's name.

For quality control purposes, a duplicate water sample is collected from each well. This sample is put on hold at the laboratory. When required, a trip blank is prepared at the laboratory and placed in the transport cooler. It is labeled similar to the well samples, remains in the cooler during transport, and is analyzed by the laboratory along with the groundwater samples. In addition, a field blank may be prepared in the field when sampling equipment is not dedicated. The field blank is prepared after a pump or bailer has been either steam-cleaned or properly washed, prior to use in the next well, and is analyzed along with the other samples. The field blank analysis demonstrates the effectiveness of the in-field cleaning procedures to prevent cross-contamination.

To minimize the potential for cross-contamination between wells, all well development and water sampling equipment not dedicated to a well is either steam-cleaned or properly washed between use. As a second precautionary measure, wells are sampled in order of least to highest concentrations as established by available previous analyses.

**AEGIS ENVIRONMENTAL, INC.**  
**STANDARD OPERATING PROCEDURE**  
**RE: MEASURING LIQUID LEVELS USING WATER LEVEL OR INTERFACE PROBE**  
**SOP-12**

Field equipment used for liquid-level gauging typically includes the measuring probe (water-level or interface), light filter(s), and product bailer(s). The field kit also includes cleaning supplies (buckets, TSP, spray bottles, and deionized water) to be used in cleaning the equipment between wells.

Prior to measurement, the probe tip is lowered into the well until it touches bottom. Using the previously established top-of-casing or top-of-box (i.e., wellhead vault) point, the probe cord (or halyard) is marked and a measuring tape (graduated in hundredths of a foot) is used to determine the distance between the probe end and the marking on the cord. This measurement is then recorded on the liquid-level data sheet as the "depth to water" (DTW).

When necessary in using the interface probe to measure liquid levels, the probe is first electrically grounded to either the metal stove pipe or another metal object nearby. When no ground is available, reproducible measurements can be obtained by clipping the ground lead to the handle of the interface probe case. After grounding the probe, the top of the well casing is fitted with a light filter to insure that sunlight does not interfere with the operation of the probe's optical mechanisms.

The probe tip is then lowered into the well and submerged in the groundwater. An oscillating (beeping) tone indicates the probe is in water. The probe is slowly raised until either the oscillating tone ceases or becomes a steady tone. In either case, this is the depth-to-water indicator and the DTW measurement is made accordingly. The steady tone indicates floating hydrocarbons. In this case, the probe is slowly raised until the steady tone ceases. This is the depth-to-product (DTP) indicator and the DTP measurement is made accordingly.

The process of lowering and raising the probe must be repeated several times to ensure accurate measurements. The DTW and DTP measurements are recorded on the liquid-level data sheet. When floating product is indicated by the probe's response, a product bailer is lowered partially through the product-water interface to confirm the product on the water surface, and as further indication of product thickness, particularly in cases where the product layer is quite thin. This measurement is recorded on the data sheet as "product thickness."

In order to avoid cross-contamination of wells during the liquid-level measurement process, wells are measured in the order of "clean" to "dirty" (where such information is available). In addition, all measurement equipment is cleaned with TSP solution and thoroughly rinsed with deionized water before use, between measurements in respective wells, and at the completion of the day's use.

**ATTACHMENT 2**

**LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY FORM**

**Excelchem**  
**Environmental Labs**  
 8112 Patton Avenue  
 Citrus Heights, CA 95610  
 (916) 729-5313



PKG

ANALYSIS REPORT

Attention: Mr. Paul Graff  
 AEGIS Environmental  
 1050 Melody Lane, Suite 160  
 Roseville, Ca. 95678

Date Sampled : 6-10-92  
 Date Received: 6-11-92  
 BTEX Analyzed: 6-11-92  
 TPHg Analyzed: 6-11-92  
 TPHd Analyzed: 6-13-92  
 Matrix: Water

Project: 90007

	Benzene PPB	Toluene PPB	Ethyl- benzene PPB	Total Xylenes PPB	TPHg PPB	TPHd PPB
Detection Limit:	0.5	0.5	0.5	0.5	50	100

**SAMPLE**  
**Laboratory Identification**

MW-5 W0692021	ND	ND	0.6	0.7	ND	ND
MW-6 W0692022	ND	ND	0.8	4.3	82	ND
MW-7 W0692023	ND	ND	0.9	2.3	ND	ND
MW-8 W0692024	ND	ND	0.6	0.7	ND	ND
MW-9 W0692025	0.9	0.6	0.9	1.8	150	ND

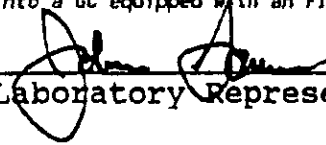
ppb = parts per billion = ug/L = micrograms per Liter  
 ND = Not detected. Compound(s) may be present at concentrations below the detection limit.  
 NR = Analysis not requested.

**ANALYTICAL PROCEDURES**

**BTEX--** Benzene, toluene, ethylbenzene, and total xylene isomers (BTEX) are measured by extraction using EPA Method 5030 followed by analysis using EPA Method 8020 which utilizes a gas chromatograph (GC) equipped with a photoionization detector (PID) and a flame-ionization detector (FID) in series.

**TPHg--**Total petroleum hydrocarbons as gasoline (low-to-medium boiling points) are measured by extraction using EPA Method 5030, followed by analysis using modified EPA Method 8015, which utilizes a GC equipped with an FID.

**TPHd--**Total petroleum hydrocarbons as diesel (high boiling points) are measured by extraction using EPA Method 3550 for soils and EPA Method 3510 for water, followed by modified EPA Method 8015 with direct sample injection into a GC equipped with an FID.

  
 Laboratory Representative

6-16-1992  
 Date Reported

**Excelchem**  
**Environmental Labs**  
8112 Patton Avenue  
Citrus Heights, CA 95610  
(916) 729-5313



**ANALYSIS REPORT**

Attention: Mr. Paul Graff  
AEGIS Environmental  
1050 Melody Lane, Suite 160  
Roseville, Ca. 95678  
Project: 90007

Date Sampled : 6-10-92  
Date Received: 6-11-92  
O & G Analyzed: 6-11-92  
Matrix: Water

Oil & Grease  
PPM  
Detection Limit: 1.0

**SAMPLE**  
**Laboratory Identification**

MW-5 W0692021	ND
MW-6 W0692022	ND
MW-7 W0692023	ND
MW-8 W0692024	ND
MW-9 W0692025	ND

ppm = parts per million = mg/L = milligrams per Liter

ND = Not detected. Compound(s) may be present at concentrations below the detection limit.

NR = Analysis not requested.

**ANALYTICAL PROCEDURES**

O & G - oil and grease is analyzed using standard gravimetric method 5520.

  
\_\_\_\_\_  
Laboratory Representative

6-16-1992  
\_\_\_\_\_  
Date Reported



Phone (916) 782 2110  
FAX (916) 786-7830

# AEGIS Environmental Consultants, Inc.

## Sample Identification/Field Chain of Custody Record

Send results to:  
Aegis Environmental  
1050 Melody Lane, Suite 160  
Roseville, CA 95678

40-w-1  
PKG

Site Address: 1061 E. SHORE HWY ALBANY, CA.  
AEGIS Project #: 90007  
Shipped By: AEGIS ENV INC  
Shipped To: EXCEL CHEM  
Project Manager: PAUL GRAFF

~~For Shell Projects Only  
WIC: \_\_\_\_\_  
AFE: \_\_\_\_\_  
CT/DL: \_\_\_\_\_  
Shell Engineer: \_\_\_\_\_  
Hazardous Materials Suspected? (yes/no) \_\_\_\_\_~~

Sampling Point	Location	Field ID#	Date	Sample Type	No. of Containers	Analysis Required
MW-5	1061 E. SHORE HWY ALBANY, CA.	MW-5	6/10/92	WATER	4	TPH, Hg, BTEX
MW-6	↓	MW-6	↓	↓	↓	TPH, Hg, TOTAL O&G
MW-7		MW-7				ALL WELLS
MW-8		MW-8				
MW-9		MW-9				

Sampler(s) (signature) TRACE RANKIN

Field ID	Relinquished By (signature)	Received By (signature)	Date/Time	Comments
MW'S 5 THRU 9	<u>Trace Rankin</u>		6/11/92 <del>9:00 AM</del>	

Sealed for shipment by: (signature) Trace Rankin

Date/Time: 6/11/92 9:00 AM Shipment Method: EXCEL CHEM COURIER

Received for Lab by: (signature) Mindy Somers 10:30 A.M.

Date/Time: 6/11/92 10:30 A.M. Comments: 5-DAY TAT

Receiving Laboratory: Please return original form after signing for receipt of samples.

White/Original      Yellow/Lab Copy      Pink/File Copy