



AEGIS ENVIRONMENTAL, INC.

# LETTER OF TRANSMITTAL

### Check Return Address Block:

1050 Melody Lane, Suite 160  
Roseville, Ca. 95678

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Date: 5/6/92 Project # 90-007  
Subject/Title: Quarterly Monitoring  
Report, ~~for~~ E.C. Buehner,  
1061 Eastshore Highway,  
Berkeley, CA 94710

TO: Alameda Co. Dept of Health Services  
ATTENTION: Susan Huger

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) Neil Hamme, E. C. Buehner  
2) Program Coordinator, Regional Water Quality Control Board, S.F. Bay Region  
3) \_\_\_\_\_  
4) \_\_\_\_\_  
5) \_\_\_\_\_

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Comments:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signed: \_\_\_\_\_



## AEGIS ENVIRONMENTAL, INC.

1050 Melody Lane, Suite 160, Roseville, CA 95678



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

May 6, 1992

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

Subject: **Quarterly Groundwater Monitoring 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 in February 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-8) located on site (Figure 2). This 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 auto 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 measurements of depths to and quarterly sampling of groundwater. Monitoring was expanded to include the four additional wells in April 1991.

Wells MW-1 through MW-4 were abandoned in August 1991 under the supervision of Aegis personnel. *why?*

## **GROUNDWATER MONITORING**

### **Groundwater**

On February 4, 1992, Aegis personnel collected measurements of the depths to groundwater in wells MW-5 through MW-8. Over the past 3 months, since November 14, 1991, groundwater levels have risen in all wells (Figure 3) an average of approximately 1.14 feet; ranging from 0.57 to 1.92 feet (Table 1). On the basis of the February 4, 1992, measurements, groundwater is estimated to flow to the west at an average gradient of approximately 0.0038 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 February 4, 1992, Aegis personnel collected groundwater samples from wells MW-5 through MW-8. The samples were collected according to the Aegis SOP included in Attachment 1, and delivered under chain-of-custody to NET Pacific, Inc. (NET), of Santa Rosa, California, a state-certified analytical laboratory. The samples were analyzed for concentrations of:

- total (volatile) petroleum hydrocarbons (TPH), as gasoline and mineral spirits, by GC/FID Method 5030;

- benzene, toluene, ethylbenzene, and total xylenes by EPA Method 8020; and,
- TPH, as diesel and motor oil, by GC/FID Method 3510.

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 diesel, and benzene reported in Table 2 are also shown on Figure 5.

## REMARKS/SIGNATURES

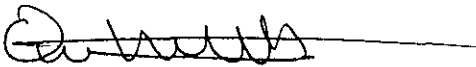
The interpretations and conclusions contained within this report represent our professional opinions. These opinions are based on currently available information, and were developed in accordance with currently accepted geologic, hydrogeologic, and engineering practices at this time and for this specific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

This report has been prepared solely for the use of E.C. Buehrer. Any reliance on this 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.

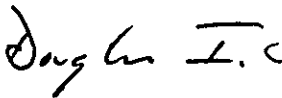
We appreciate the opportunity to provide E.C. Buehrer with geologic, engineering, and environmental consulting services, and trust this report meets your needs. If you have any questions or concerns, please call us at (916) 782-2110.

Sincerely,

**AEGIS ENVIRONMENTAL, INC.**



Owen M. Kittredge  
Staff Geologist



Douglas I. Sheeks  
Senior Geologist  
CRG No. 5211



5-6-92

Date

OMK/DIS/law

cc: L. Feldman, 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:  
FEBRUARY, 4, 1992

FIGURE 5 ..... DISTRIBUTION MAP BENZENE AND TPH,  
AS DIESEL, IN GROUNDWATER: FEBRUARY, 4 1992

**TABLES:**

TABLE 1 ..... WATER LEVEL DATA

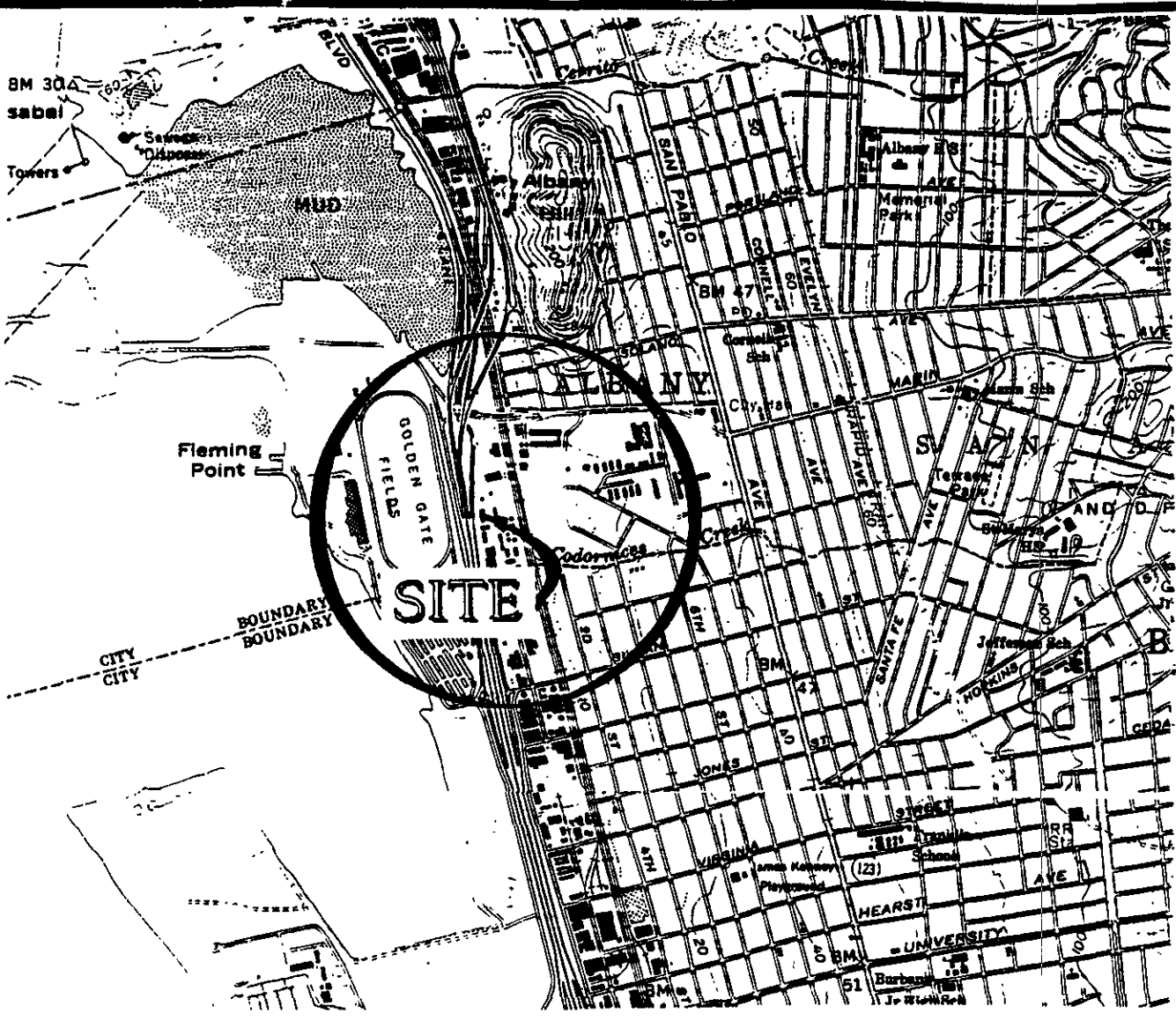
TABLE 2 ..... ANALYTICAL RESULTS: GROUNDWATER

**ATTACHMENTS:**

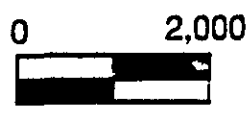
ATTACHMENT 1 ..... STANDARD OPERATING PROCEDURES

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

## FIGURES



SCALE: 1" = 2,000'



**GENERAL NOTES:**

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

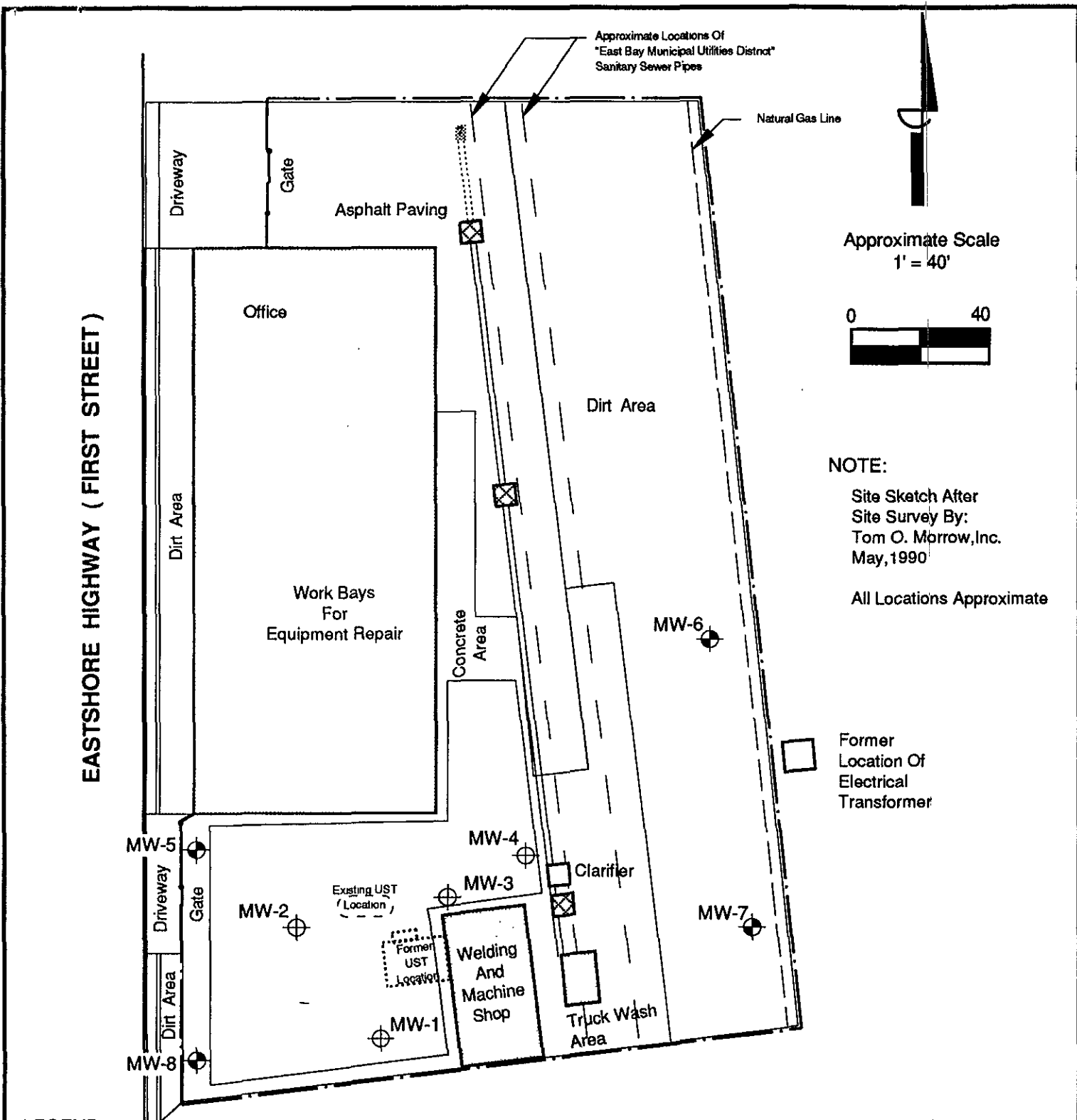


**FIGURE 1**  
**SITE LOCATION MAP**  
**E. C. Buehrer Associates, Inc.**  
**1061 Eastshore Highway**  
**Albany, Ca.**

**AEGIS Job Number 90-007**

**DRAWN BY: Ed Bernard**      **DATE: April 8, 1991**  
**REVIEWED BY: L Braybrooks**      **DATE: April 14, 1991**





Approximate Locations Of  
"East Bay Municipal Utilities District"  
Sanitary Sewer Pipes

Natural Gas Line

Approximate Scale  
1" = 40'



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

All Locations Approximate

Former  
Location Of  
Electrical  
Transformer

LEGEND

- Existing Monitoring Well
- Abandoned Monitoring Well
- Fence
- Drainage Grate
- Storm Sewer Pipe

**FIGURE 2  
SITE MAP**

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

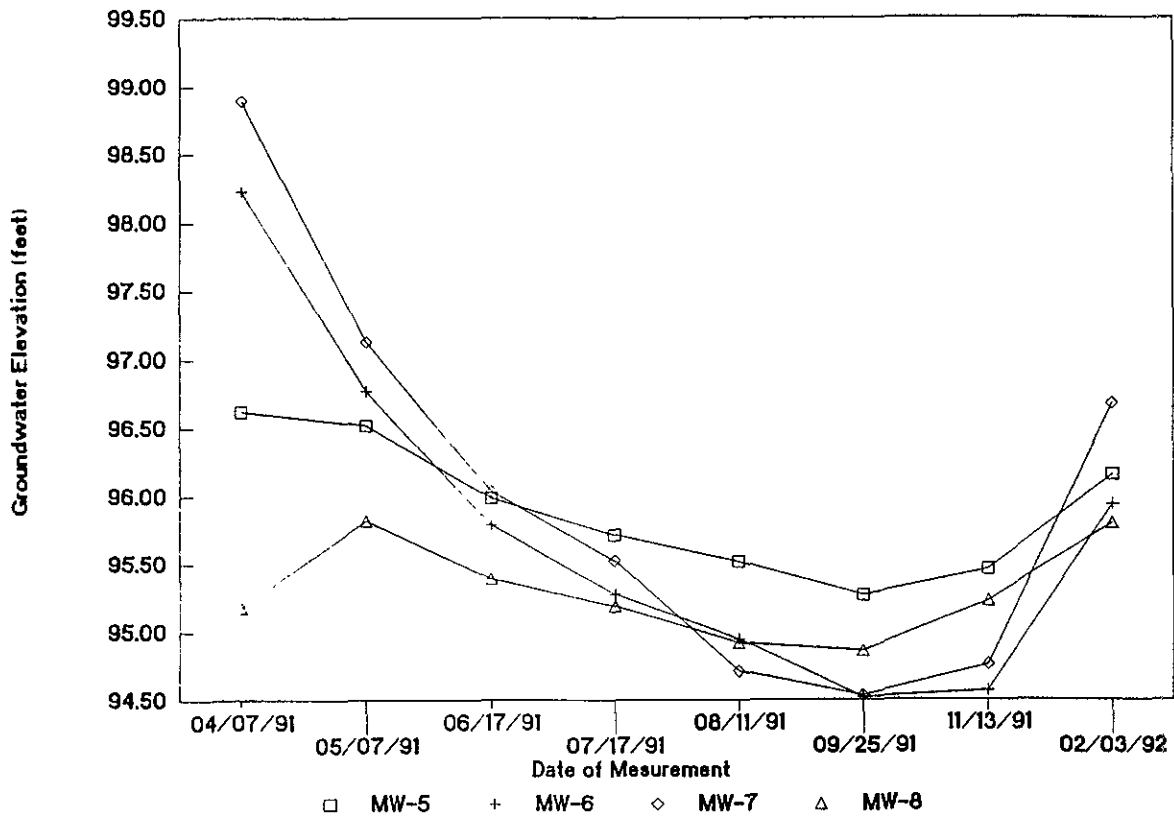
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**AEGIS Job Number 90-007**

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**DRAWN BY:** Dennis Hada      **DATE:** July 26, 1991

**REVIEWED BY:**      **DATE:** 3/13/92



Note: MW-1 Through MW-4 Were Abandoned August 15, 1991

Elevations Referenced To Datum Point On The South East Corner Of The Main Building And Assigned 100' Elevation

FIGURE 3  
 GROUNDWATER ELEVATION HYDROGRAPH  
 E. C. Buehrer Associates, Inc.  
 1061 Eastshore Highway  
 Albany, Ca.

AEGIS Job Number 90-007

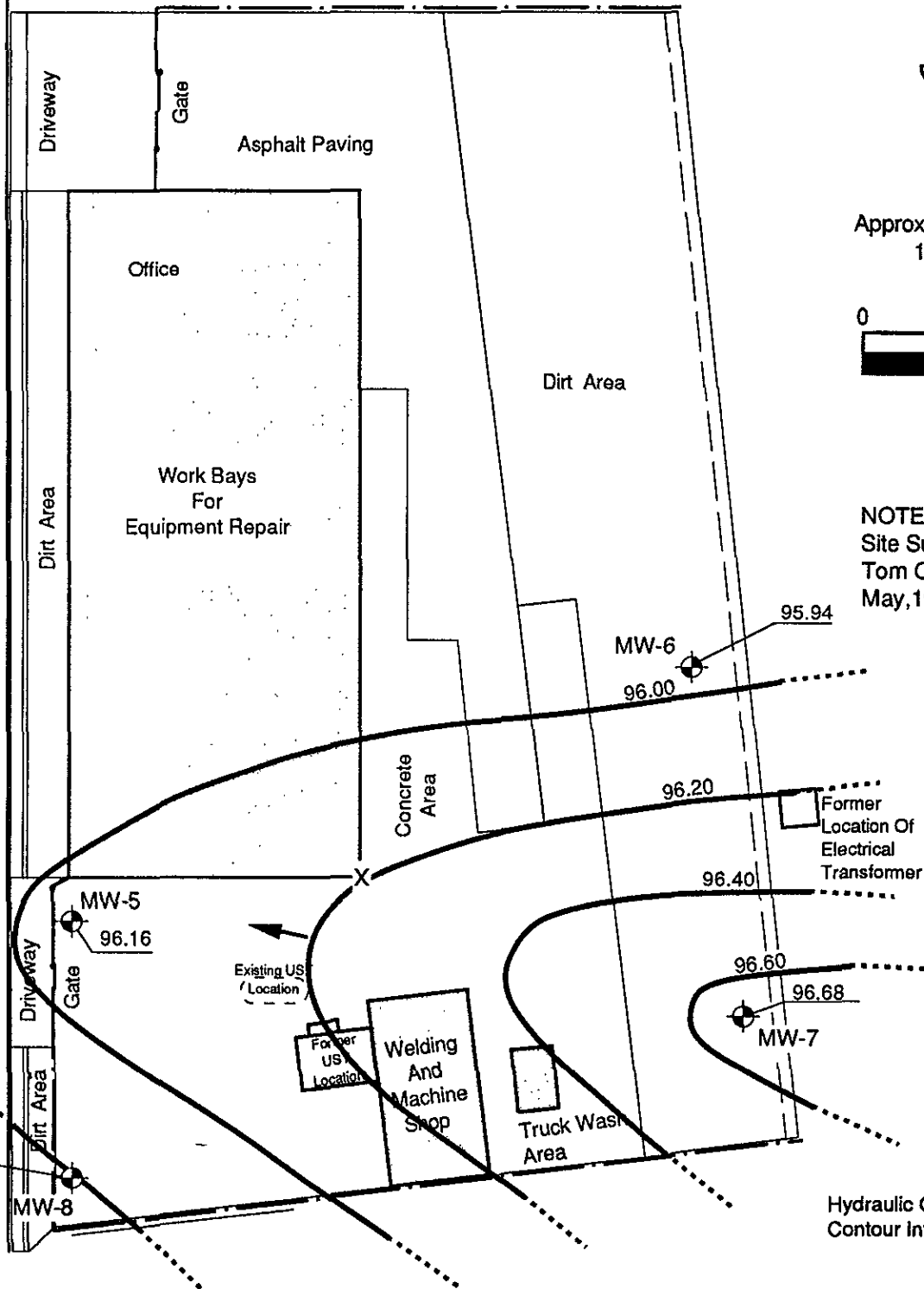
DRAWN BY: Ed Bernard

DATE: February 17, 1992

REVIEWED BY: *[Signature]*

DATE: 3/13/92

EASTSHORE HIGHWAY ( FIRST STREET )



Approximate Scale  
1' = 40'



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

Hydraulic Gradient = 0.0038 ft/ft  
Contour Interval = 0.2 ft.

LEGEND

- Monitoring Well
- Potentiometric Surface Contour Line (Dashed Where Inferred)
- 95.66 Groundwater Elevation in Feet
- Estimated Direction of Groundwater Flow
- X Datum Point Assigned 100' Elevation

FIGURE 4  
POTENTIOMETRIC SURFACE MAP  
(February 4, 1992)  
E. C. Buehrer Associates, Inc.  
1061 Eastshore Highway  
Albany, Ca.

AEGIS Job Number 90-007

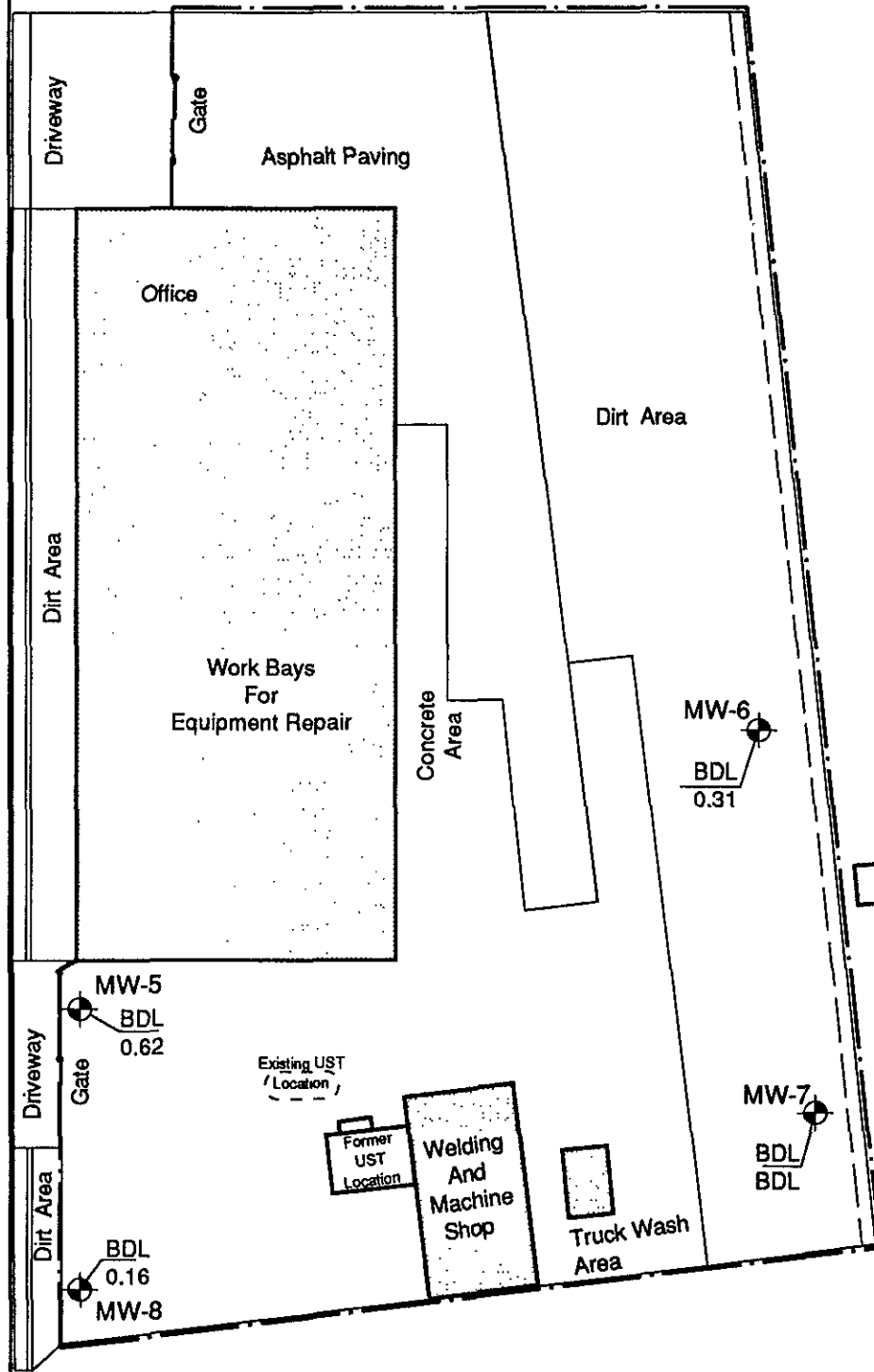
DRAWN BY: Ed Bernard

DATE: February 17, 1992

REVIEWED BY:

DATE: 3/13/92

EASTSHORE HIGHWAY ( FIRST STREET )



Approximate Scale  
1' = 40'



NOTE:

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

All Locations Approximate

LEGEND



-  Monitoring Well
-  0.05 Benzene in parts-per-million  
0.12 TPH as Diesel in parts-per-million
- BDL Below Detection Limits

FIGURE 5  
DISTRIBUTION MAP OF BENZENE AND TPH AS DIESEL  
IN GROUNDWATER (February 4, 1992)  
E. C. Buehrer Associates, Inc.  
1061 Eastshore Highway  
Albany, CA

AEGIS Job Number 90-007

DRAWN BY: Ed Bernard

DATE: March 16, 1992

REVIEWED BY: 

DATE: 4/14/92

## TABLES

**TABLE 1**

**WATER LEVEL DATA**

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

Well No.	Date	Reference Elevation <sup>1</sup>	Depth-to-Groundwater <sup>1</sup>	Groundwater Elevation <sup>2</sup>	Well Depth
MW-1	02/08/91	99.51	3.73	95.78	13.95
	03/18/91		3.31	96.20	13.95
	03/18/91		3.30	96.21	13.95
	05/08/91		3.35	96.16	13.91
	06/18/91		3.57	95.94	13.89
	07/18/91		3.95	95.56	13.90
	08/12/91*		3.85	95.66	13.90
MW-2	02/08/91	99.52	3.73	95.79	14.51
	03/18/91		3.29	96.23	14.51
	03/18/91		3.27	96.25	14.51
	05/08/91		3.68	95.84	14.44
	06/18/91		3.58	95.94	14.44
	07/18/91		3.77	95.75	14.46
	08/12/91*		3.99	95.53	14.50

- NOTES:
- <sup>1</sup> = Measurement from reference elevation at notch/mark on top north side of well casing.
  - <sup>2</sup> = 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.
  - \* = MW-1 through MW-4 were abandoned on August 15, 1991.
  - Well Depth = Measurement from top of casing to bottom of well.

**TABLE 1 (CONTINUED)**

**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-3	02/08/91	99.60	3.81	95.79	13.43
	03/18/91		3.37	96.23	13.40
	03/18/91		3.35	96.25	13.40
	05/08/91		3.47	96.13	13.41
	06/18/91		3.69	95.91	13.40
	07/18/91		3.81	95.79	13.40
	08/12/91*		3.97	95.63	13.46
MW-4	02/08/91	99.20	3.32	95.88	13.90
	03/18/91		2.94	96.26	13.94
	03/18/91		2.87	96.33	13.94
	05/08/91		3.10	96.10	13.97
	06/18/91		3.33	95.87	13.99
	07/18/91		3.51	95.69	13.99
	08/12/91*		3.59	95.61	13.89
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		

- NOTES:
- <sup>1</sup> = Measurement from reference elevation at notch/mark on top north side of well casing.
  - <sup>2</sup> = 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.
  - \* = MW-1 through MW-4 were abandoned on August 15, 1991.
  - Well Depth = Measurement from top of casing to bottom of well.

**TABLE 1 (CONTINUED)**

**WATER LEVEL DATA**

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

Well No.	Date	Reference Elevation	Depth-to-Groundwater	Groundwater Elevation	Well Depth
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
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
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

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.



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
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
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
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

NOTES: < = Below detection limits per "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites" (August 10, 1990) Practical Quantitation Reporting Limits. (PQL for BTEX = 0.5 ppb, TPH, as gasoline and diesel = 50 ppb, total oil & grease = 5,000 ppb.)

<< = Below the indicated detection limit labelled in the analytical laboratory results reports.

-- = Not analyzed.

\*\* = Positive response for petroleum hydrocarbons as diesel appears to be due to the presence of heavier hydrocarbons, rather than diesel.

MW-1 through MW-4 were abandoned on August 13, 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 point, the probe cord (or halyard) is marked and an 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 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 that 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 FORMS**



®

NATIONAL  
ENVIRONMENTAL  
TESTING, INC.

NET Pacific, Inc.  
435 Tesconi Circle  
Santa Rosa, CA 95401  
Tel: (707) 526-7200  
Fax: (707) 526-9623

RECEIVED  
FEB 26 1992  
L.M.H.

Larry Braybrooks  
Aegis Environmental Inc.  
1050 Melody Lane, Ste 160  
Roseville, CA 95678

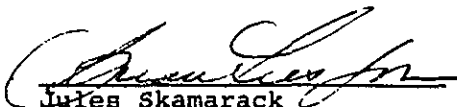
Date: 02/24/1992  
NET Client Acct No: 65400  
NET Pacific Log No: 92.0607  
Received: 02/05/1992

Client Reference Information

1061 Eastshore Hwy. Albany, CA., Project: 90-007

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

  
Jules Skamarack  
Laboratory Manager

JS:rct  
Enclosure(s)





NET Pacific, Inc

Client No: 65400  
Client Name: Aegis Environmental Inc.  
NET Log No: 92.0607

Date: 02/24/1992  
Page: 2

Ref: 1061 Eastshore Hwy. Albany, CA., Project: 90-007

Descriptor, Lab No. and Results

Parameter	Method	Reporting Limit	MW-5	MW-6	Units
			02/04/1992 113031	02/04/1992 113032	
TPH (Gas/BTXE,Liquid)			--	--	
METHOD 5030 (GC,FID)					
DATE ANALYZED			02-10-92	02-10-92	
DILUTION FACTOR*			1	1	
as Gasoline	5030	0.05	ND	ND	mg/L
as Mineral Spirits	5030	0.05	ND	ND	mg/L
METHOD 8020 (GC,Liquid)			--	--	
DATE ANALYZED			02-10-92	02-10-92	
DILUTION FACTOR*			1	1	
Benzene	8020	0.5	ND	ND	ug/L
Ethylbenzene	8020	0.5	ND	ND	ug/L
Toluene	8020	0.5	ND	ND	ug/L
Xylenes (Total)	8020	0.5	ND	ND	ug/L
SURROGATE RESULTS			--	--	
Bromofluorobenzene	5030		96	91	% Rec.
METHOD 3510 (GC,FID)					
DILUTION FACTOR*			1	1	
DATE EXTRACTED			02-07-92	02-07-92	
DATE ANALYZED			02-16-92	02-16-92	
as Diesel	3510	0.05	0.62**	0.31	mg/L
as Motor Oil	3510	0.5	ND	ND	mg/L

\*\* Positive response for Petroleum Hydrocarbons as Diesel appears to be due to the presence of heavier hydrocarbons, rather than Diesel.



NET Pacific, Inc

Client No: 65400
Client Name: Aegis Environmental Inc.
NET Log No: 92.0607

Date: 02/24/1992
Page: 3

Ref: 1061 Eastshore Hwy. Albany, CA., Project: 90-007

Descriptor, Lab No. and Results

Table with columns: Parameter, Method, Reporting Limit, MW-7 (02/04/1992, 113033), MW-8 (02/04/1992, 113034), Units. Rows include TPH (Gas/BTXE, Liquid), METHOD 5030 (GC, FID), METHOD 8020 (GC, Liquid), SURROGATE RESULTS, and METHOD 3510 (GC, FID).

\*\* Positive response for Petroleum Hydrocarbons as Diesel appears to be due to the presence of heavier hydrocarbons, rather than Diesel.



NET Pacific, Inc

Client No: 65400  
Client Name: Aegis Environmental Inc.  
NET Log No: 92.0607

Date: 02/24/1992  
Page: 4

Ref: 1061 Eastshore Hwy. Albany, CA., Project: 90-007

QUALITY CONTROL DATA

<u>Parameter</u>	<u>Reporting Limits</u>	<u>Units</u>	<u>Cal Verif Stand % Recovery</u>	<u>Blank Data</u>	<u>Spike % Recovery</u>	<u>Duplicate Spike % Recovery</u>	<u>RPD</u>
Gasoline	0.05	mg/L	112	ND	103	95	7.5
Benzene	0.5	ug/L	77	ND	91	86	5.2
Toluene	0.5	ug/L	88	ND	90	84	7.7
Diesel	0.05	mg/L	115	ND	88	88	<1
Motor Oil	0.5	mg/L	113	ND	N/A	N/A	N/A

COMMENT: Blank Results were ND on other analytes tested.



NET Pacific, Inc

KEY TO ABBREVIATIONS and METHOD REFERENCES

- < : Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
- \* : Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).
- ICVS : Initial Calibration Verification Standard (External Standard).
- mean : Average; sum of measurements divided by number of measurements.
- mg/Kg (ppm) : Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
- mg/L : Concentration in units of milligrams of analyte per liter of sample.
- mL/L/hr : Milliliters per liter per hour.
- MPN/100 mL : Most probable number of bacteria per one hundred milliliters of sample.
- N/A : Not applicable.
- NA : Not analyzed.
- ND : Not detected; the analyte concentration is less than applicable listed reporting limit.
- NTU : Nephelometric turbidity units.
- RPD : Relative percent difference,  $100 \text{ [Value 1 - Value 2] / mean value}$ .
- SNA : Standard not available.
- ug/Kg (ppb) : Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
- ug/L : Concentration in units of micrograms of analyte per liter of sample.
- umhos/cm : Micromhos per centimeter.

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

SM: see "Standard Methods for the Examination of Water & Wastewater, 16th Edition, APHA, 1985.

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

3760

Site Address: 1061 EASTSHORE HWY. ALBANY CA  
AEGIS Project #: 90-007  
Shipped By: AEGIS  
Shipped To: NET  
Project Manager: LARRY BOYBROOKS

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
MONITORWELL-5	1061 E. SHORE HWY	MW-5	2-4-92	WATER	5	* SEE COMMENTS
6	↓	MW-6	↓	↓	↓	
7	↓	MW-7	↓	↓	↓	
8	↓	MW-8	↓	↓	↓	

Sampler(s) (signature) Brian Henderson "BRIAN HENDERSON"

Field ID	Relinquished By (signature)	Received By (signature)	Date/Time	Comments
MW-5 678	<u>Brian Henderson</u>	<u>[Signature]</u>	2/5/92	
	<u>[Signature]</u>	<u>[Signature]</u>	2-5-92 1420	
	<u>[Signature]</u>	<u>[Signature]</u>	2-5-92 1520	

Scaled for shipment by: (signature) [Signature] Date/Time: 2-4-92 Shipment Method: CAB TO PICK UP

Received for Lab by: (signature) [Signature] Date/Time: 2/5/92 1420 Comments: \* TPH GAS BTEX, + MINERAL SPIRITS, 6CC / 6LFID 5030/8015, TPH DIESEL MOTOR OIL 6C FID 3510/8015