AEGIS ENVIRONMENTAL, INC.
1050 Melody Lane, Suite 160, Roseville, California 95678
(916) 782 2110 Fax (916) 786 7830

93 SEP -3 AM 11:50

August 30, 1993

Ms. Juliet Shin
Alameda County Health Care Services Agency
Department of Environmental Health
80 Swan Way, Room 200
Oakland, California 94621

Subject: E.C. Buehrer Associates
1061 Eastshore Highway
Albany, California

Dear Ms. Shin:

Aegis Environmental, Inc. (Aegis) is pleased to submit this final quarterly monitoring report for the subject site. As requested in your letter dated March 17, 1993 (attached), the site has been monitored and sampled for two additional quarters.

Analytical results for the two quarters are presented in Table 2 of the "Quarterly Groundwater Monitoring Report" dated August 25, 1993 (see Enclosure). Gasoline levels have decreased in groundwater monitoring wells MW-6 and MW-9. We shall assume that until notification otherwise from your office that this site will be closed as stipulated in the March 17, 1993 letter.

If you have any questions or comments please feel free to contact us at (916) 782-2110.

Sincerely,

AEGIS ENVIRONMENTAL, INC.

Laura J. Odenthal
Project Geologist

LJO/sdh

Enclosure

cc: Neal Hamre, E.C. Buehrer Associates

90-007FF.LTR

AEGIS ENVIRONMENTAL, INC.
1050 Melody Lane, Suite 160, Roseville, California 95678
(916) 782 2110 Fax (916) 786 7830

August 25, 1993

Mr. Neil Hamre
E. C. Buehrer Associates, Inc.
1061 Eastshore Highway
Albany, 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 report documenting the results of quarterly groundwater monitoring conducted on June 16, 1993, at the subject site (Figure 1). The monitoring included collection of depth-to-groundwater measurements and water samples from five wells (MW-5 through MW-9) 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 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 smaller 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 (UST) 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 groundwater monitoring wells MW-1 through MW-4 on site. 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 conducted 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 UST were removed from the site. During the excavation, MW-8 was inadvertently destroyed. In June 1992, MW-8 was reinstalled and MW-9 was installed downgradient of the former UST (Figure 2). Soil excavation and well installation results were reported to E. C. Buehrer by Aegis in the "Soil Excavation Results Report," dated July 1, 1992.

GROUNDWATER MONITORING

Groundwater Levels

On June 16, 1993, Aegis personnel collected depth-to-groundwater measurements from MW-5 through MW-9. Since March 15, 1993, groundwater levels beneath the site have decreased an average of 1.29 feet (Figure 3). The decrease in groundwater elevations ranged between -0.13 feet, measured in MW-5, and 2.99 feet, measured in MW-7 (Table 1). On the basis of the June 16, 1993, measurements, groundwater is estimated to flow to the north-northwest in the area north of MW-5 and MW-7 and to the southwest in the area south of MW-8 and MW-9. The calculated average hydraulic gradient across the site is approximately 0.01 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 in Attachment 1.

Groundwater Sampling and Analysis

On June 16, 1993, 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 submitted under chain-of-custody to Pace Incorporated of Novato, California, a state-certified analytical laboratory. The samples were analyzed for concentrations of:

- Total petroleum hydrocarbons (TPH), as gasoline, by modified EPA Method 8015.
- Benzene, toluene, ethylbenzene, and total xylenes by modified EPA Method 8020.
- TPH, as diesel, by EPA Method 3510/8015.
- Oil & grease, by Standard 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 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.

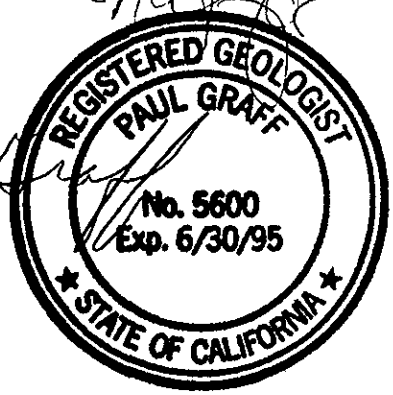
This report has been prepared solely for the use of E. C. Buehrer Associates, Inc. Any reliance on this report by third parties shall be at such parties' own risk. The work described herein was performed under the review and supervision of the professional geologist, registered with the State of California,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

We appreciate the opportunity to provide E. C. Buehrer Associates, Inc., 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
Project Geologist



Paul Graff
Senior Geologist
CRG No. 5600

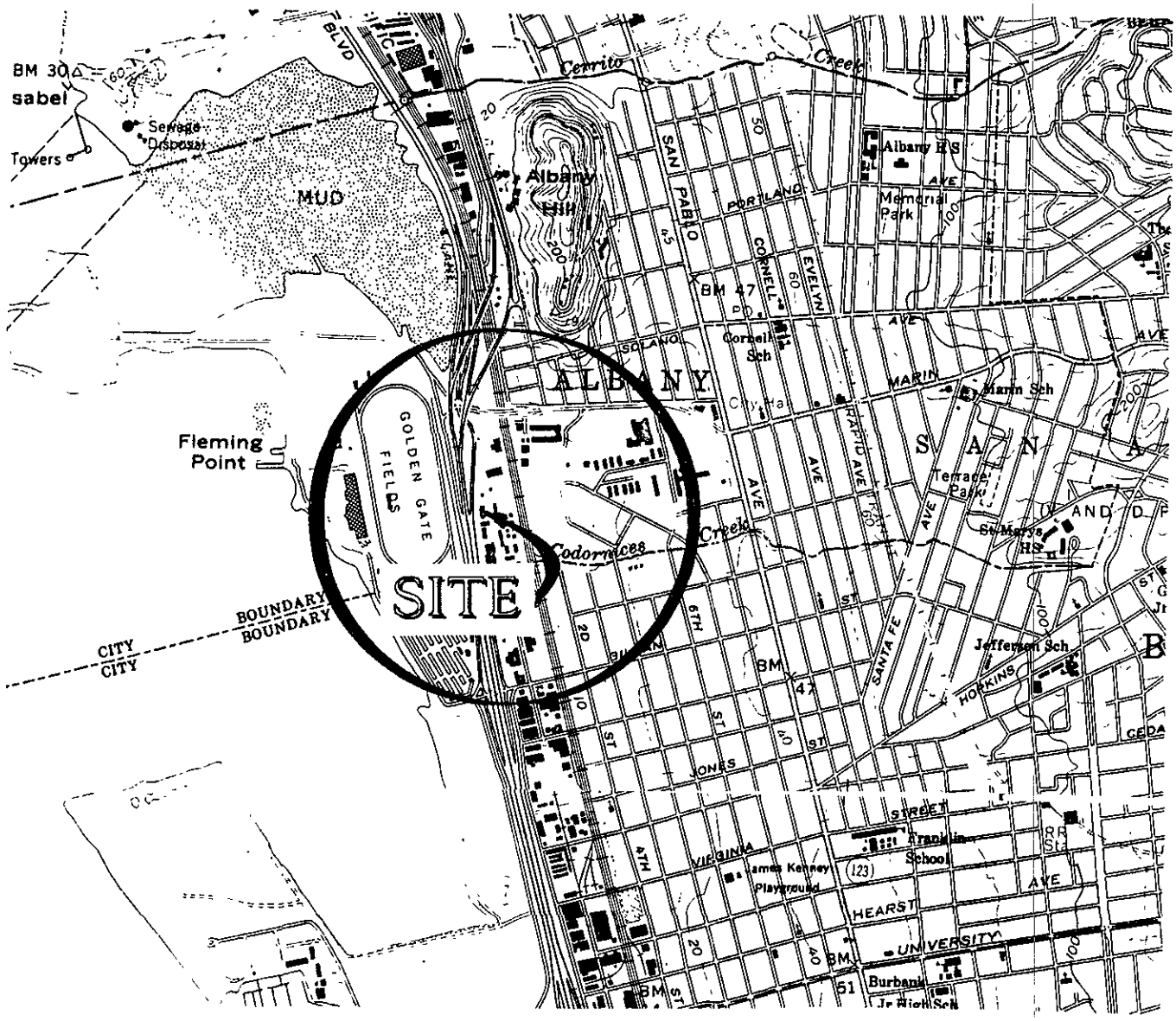
8/25/93
Date

OMK/PKG/sdh

Attachments

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

FIGURES

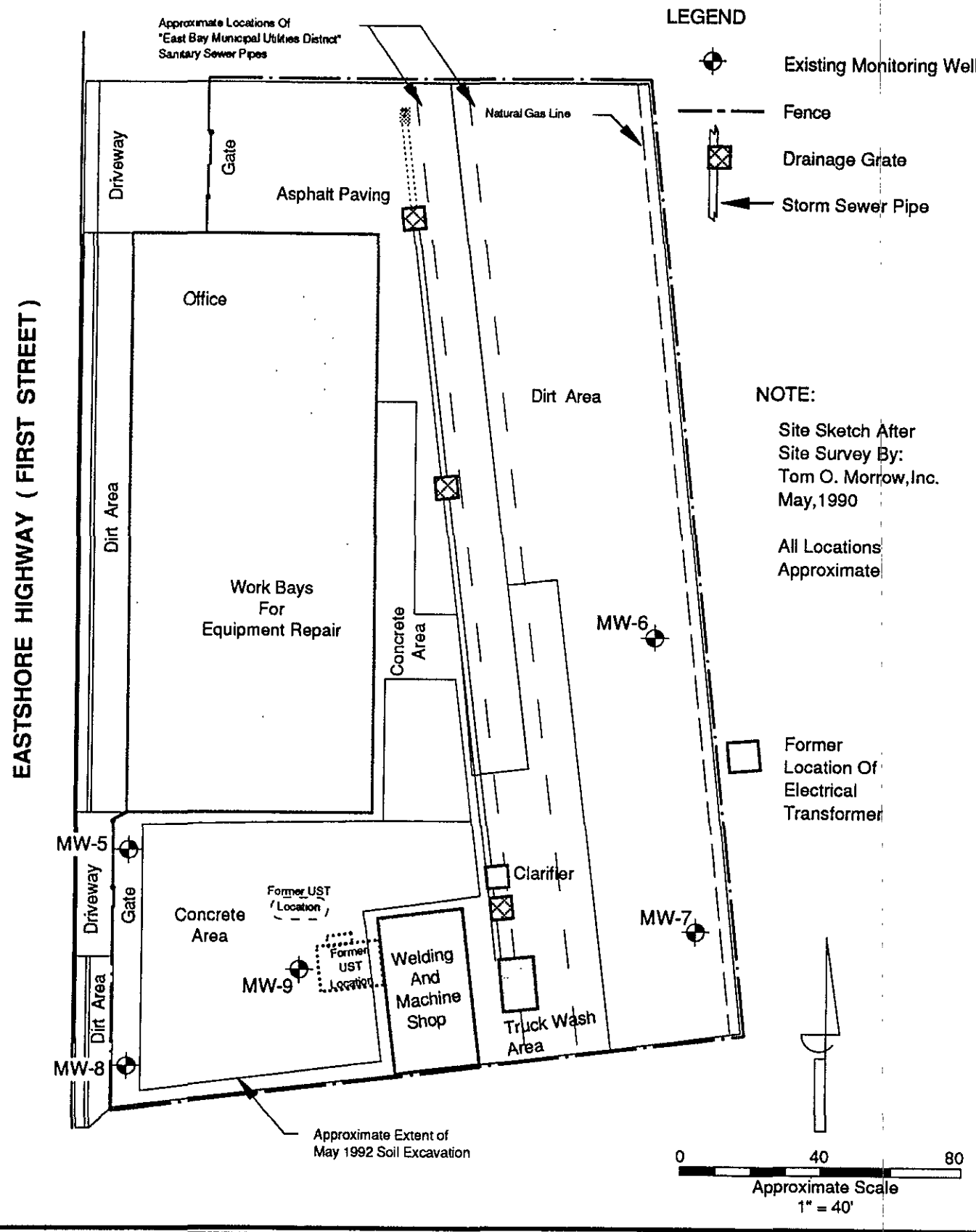


GENERAL NOTES:

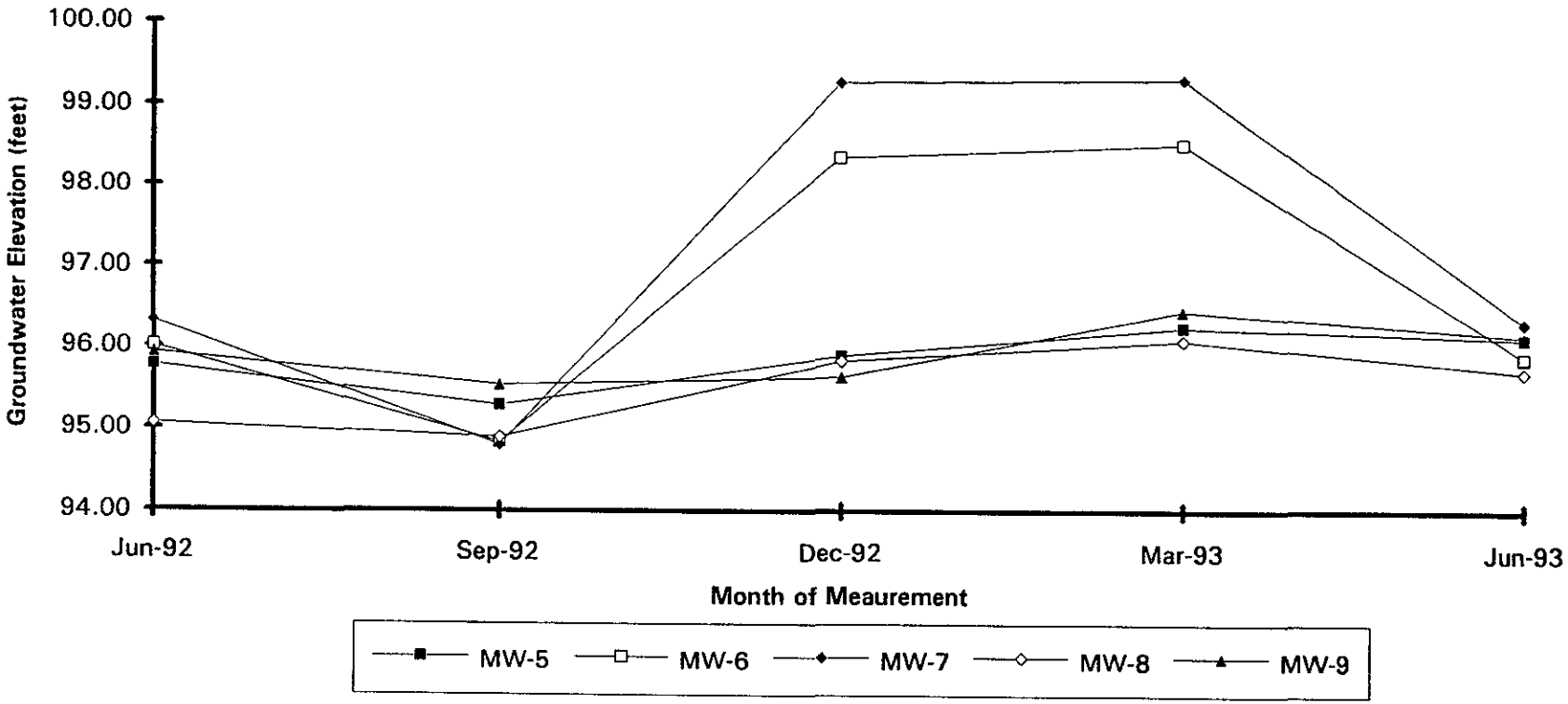
BASE MAP FROM USGS
7.5 MINUTE TOPOGRAPHIC
RICHMOND & OAKLAND WEST, CALIF.

0 2000 4000
Approximate Scale
1" = 2000'

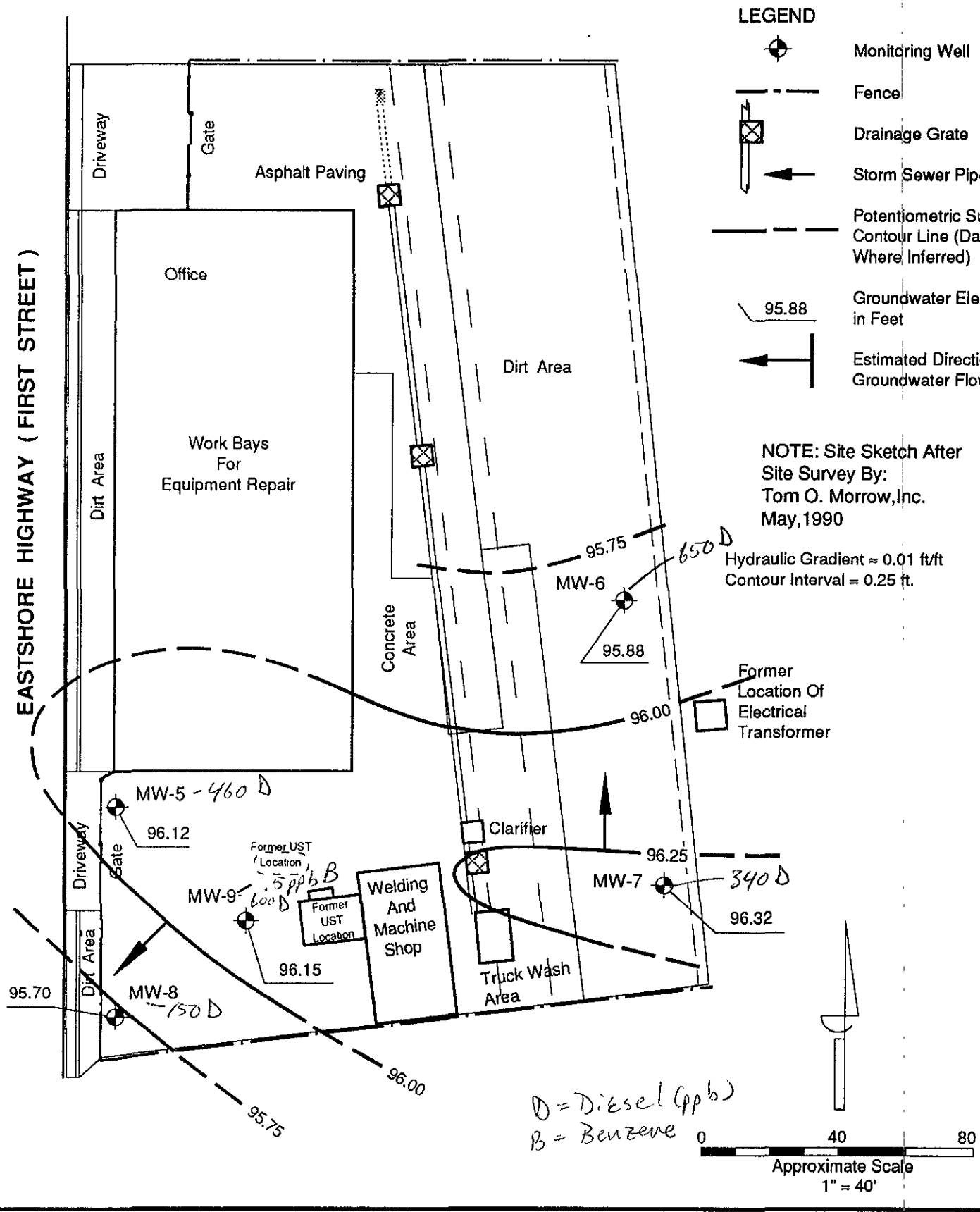
AEGIS ENVIRONMENTAL, INC.		SITE LOCATION MAP	FIGURE 1
DRAWN BY: Ed Bernard	DATE: May 15, 1992	E.C. Buehrer Associates, Inc. 1061 Eastshore Highway Albany, CA	PROJECT NUMBER: 10-90007
REVISED BY:	DATE:		
REVIEWED BY:	DATE:		



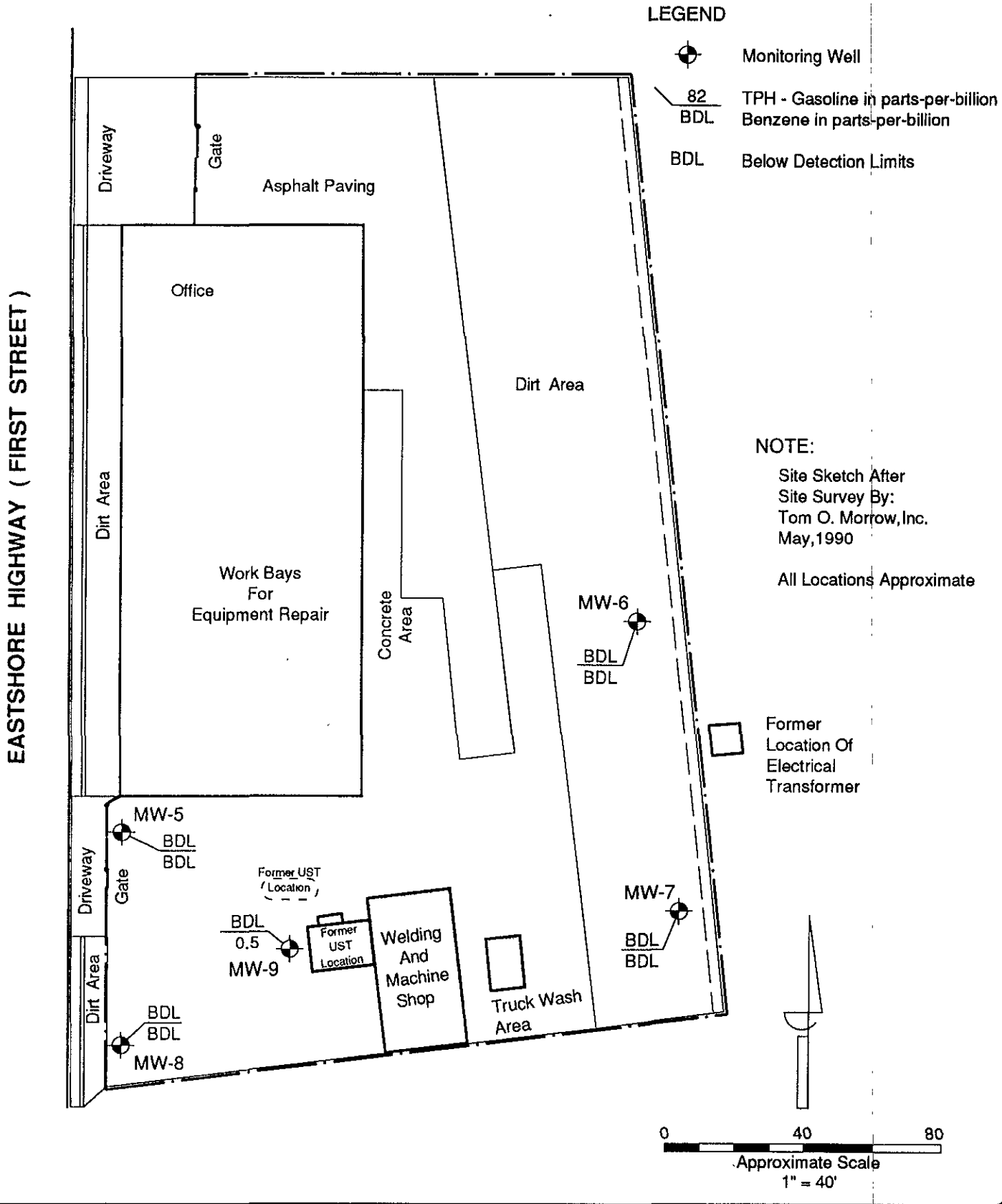
AEGIS ENVIRONMENTAL, INC.		SITE MAP	FIGURE 2
DRAWN BY: Ed Bernard	DATE: June 24, 1992	E.C. Buehrer Associates, Inc. 1061 Eastshore Highway Albany, CA	PROJECT NUMBER: 10-90007
REVISED BY:	DATE.		
REVIEWED BY:	DATE		



AEGIS ENVIRONMENTAL, INC.		GROUNDWATER ELEVATION HYDROGRAPH	FIGURE 3
DRAWN BY: D. Hada	DATE: August 17, 1993	E.C. Buehrer Associates, Inc. 1061 Eastshore Highway Albany, CA	PROJECT NUMBER 10-90007
REVISED BY:	DATE:		
REVIEWED BY	DATE		



AEGIS ENVIRONMENTAL, INC.		POTENTIOMETRIC SURFACE MAP June 16, 1993	FIGURE 4
DRAWN BY D. Hada	DATE August 17, 1993	E.C. Buehrer Associates, Inc. 1061 Eastshore Highway Albany, CA	PROJECT NUMBER: 10-90007
REVISED BY	DATE		
REVIEWED BY	DATE.		



AEGIS ENVIRONMENTAL, INC.

DISTRIBUTION MAP OF TPH, AS GASOLINE, AND BENZENE IN GROUNDWATER June 16, 1993

FIGURE 5

DRAWN BY	DATE
D. Hada	April 16, 1993
REVISED BY	DATE.
REVIEWED BY	DATE

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

PROJECT NUMBER
10-90007

TABLES

TABLE 1

WATER LEVEL DATA

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

Monitoring Well	Date	Reference Elevation[1]	Depth to Groundwater[1]	Groundwater Elevation[2]	Well Depth
MW-5	11/14/91	99.14	3.68	95.46	11.60
	02/04/92		2.98	96.16	11.59
	06/10/92		3.37	95.77	11.57
	09/16/92		3.85	95.29	11.57
	12/30/92		3.24	95.90	11.54
	03/15/93		2.89	96.25	11.56
	06/16/93		3.02	96.12	11.51
MW-6	11/14/91	100.76	6.19	94.57	12.15
	02/04/92		4.82	95.94	12.10
	06/10/92		4.75	96.01	12.16
	09/16/92		5.92	94.84	12.17
	12/30/92		2.42	98.34	12.15
	03/15/93		2.25	98.51	12.15
	06/16/93		4.88	95.88	12.17
MW-7	11/14/91	101.52	6.76	94.76	12.19
	02/04/92		4.84	96.68	12.11
	06/10/92		5.20	96.32	12.18
	09/16/92		6.72	94.80	12.20
	12/30/92		2.25	99.27	12.20
	03/15/93		2.21	99.31	12.20
	06/16/93		5.20	96.32	12.15

MW-1 through MW-4 were abandoned on August 15, 1991.

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 1 (CONTINUED)

WATER LEVEL DATA

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

Well No.	Date	Reference Elevation[1]	Depth to Groundwater[1]	Groundwater Elevation[2]	Well Depth
MW-8	11/14/91	99.64	4.41	95.23	11.83
	02/04/92		3.84	95.80	11.81
	06/10/92	99.63[3]	4.57	95.06	12.71
	09/16/92		4.73	94.90	12.77
	12/30/92		3.80	95.83	12.76
	03/15/93		3.54	96.09	12.72
	06/16/93		3.93	95.70	12.73
MW-9	06/10/92	99.81	3.88	95.93	10.56
	09/16/92		4.27	95.54	10.56
	12/30/92		4.18	95.63	10.53
	03/15/93		3.35	96.46	10.53
	06/16/93		3.66	96.15	10.53

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-million)

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	<	0.0018	0.0006	0.0010	<	0.22	<	<<0.5	<<0.05
	08/12/91	<	<	<	<	<	0.14	<	<<0.5	<<0.05
	11/14/91	<	<	<	<	<	0.29	---	<<0.5	<<0.05
	02/04/92	<	<	<	<	<	0.62	---	<<0.5	<<0.05
	06/10/92	<	<	0.0006	0.0007	<	<<0.10	<<1.0	---	---
	09/16/92	<	<	<	<	<	<<0.10	<<0.5	---	---
	12/30/92	<	<	<	<	<	<<0.10	<<0.5	---	---
	03/15/93	<	<	<	<	<	0.45	<	---	---
	06/16/93	<	<	<	<	<	0.46	<		
MW-6	04/08/91	<	0.0018	0.0018	0.0010	<	0.21	<	<<0.5	0.15
	08/12/91	<	<	<	<	<	0.16	<	<<0.5	<<0.05
	11/14/91	<	<	<	<	<	0.15	---	<<0.5	<<0.05
	02/04/92	<	<	<	<	<	0.31	---	<<0.5	<<0.05
	06/10/92	<	<	0.0008	0.0043	0.082	<<0.10	<<1.0	---	---
	09/16/92	<	<	<	<	0.065	<<0.10	<<0.5	---	---
	12/30/92	<	<	<	<	0.012	<<0.10	<<0.5	---	---
	03/15/93	<	<	<	0.0006	0.082	0.13[1]	<	---	---
	06/16/93	<	<	<	<	<	0.65	<	---	---
MW-7	04/08/91	<	0.0014	0.0014	0.0008	<	<	<	<<0.5	<<0.05
	08/12/91	<	<	<	<	<	0.07	<	<<0.5	<<0.05
	11/14/91	<	<	<	<	<	<	---	<<0.5	<<0.05
	02/04/92	<	<	<	<	<	<	---	<<0.5	<<0.05
	06/10/92	<	<	0.0009	0.0023	<	<	<<1.0	---	---
	09/16/92	<	<	<	<	<	<<0.10	<<0.5	---	---
	12/30/92	<	<	<	<	<	<<0.10	<<0.5	---	---
	03/15/93	<	<	<	<	<	0.22[1]	<	---	---
	06/16/93	<	<	<	<	<	0.34	<	---	---

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 = 0.005 ppm, TPH, as gasoline and diesel = 0.05 ppm, total oil & grease = 5.0 ppm.)
<< = Below the indicated detection limit.
--- = Not analyzed.
MW-1 through MW-4 were abandoned on August 15, 1991.
1 = Lab reported "Peaks were observed in the diesel range. However, the peaks were not consistent with a diesel pattern.

TABLE 2 (CONTINUED)

ANALYTICAL RESULTS: GROUNDWATER

1061 EASTSHORE HIGHWAY, ALBANY, CALIFORNIA
(All results in parts-per-million)

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-8	04/08/91	<	<	0.0016	0.0001	<	<	<	<<0.5	<<0.05
	08/12/91	<	<	<	<	<	<	<	<<0.5	<<0.05
	11/14/91	<	<	<	<	<	0.12	---	<<0.5	<<0.05
	02/04/92	<	<	<	<	<	0.16	---	<<0.5	<<0.05
	06/10/92	<	<	0.0006	0.0007	<	<<0.10	<<1.0	---	---
	09/16/92	<	<	<	<	<	<<0.10	<<0.5	---	---
	12/30/92	<	<	<	<	<	<<0.10	<<0.5	---	---
	03/15/93	<	<	<	<	<	0.20[1]	<	---	---
	06/16/93		<	<	<	<	0.15	<	---	---
MW-9	06/10/92	0.0009	0.0006	0.0009	0.0018	0.15	<<0.10	<<1.0	---	---
	09/16/92	0.0005	<	<	0.0006	0.33	<<0.10	<<0.5	---	---
	12/30/92	<	<	<	<	0.25	<<0.10	<<0.5	---	---
	03/15/93	<	<	<	<	0.11	0.23[1]	<	---	---
	06/16/93	0.0005	<	<	<	<	0.60	<	---	---

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 = 0.0005 ppm, TPH, as gasoline and diesel =0.5 ppm, total oil & grease = 5.0 ppm.)
<< = Below the indicated detection limit.
--- = Not analyzed.
MW-1 through MW-4 were abandoned on August 15, 1991.
[1] = Lab reported "Peaks were observed in the diesel range. However, the peaks were not consistent with a diesel pattern.

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 method-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 periodic 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 wetted well-casing 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 collected 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 analysis (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 analytical data.

In the event the water samples cannot be submitted to the analytical laboratory on the same day they are collected (e.g., due to weekends or holidays), the samples are temporarily stored until the first opportunity for submittal either on ice in a cooler, such

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) 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 "Measured Total Depth" of the well.

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.

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 (DTW) 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 or similar 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

pace
INCORPORATED
THE ASSURANCE OF QUALITY

REPORT OF LABORATORY ANALYSIS

90-007

July 01, 1993

Ms. Laura Odenthal
Aegis Environmental
1050 Melody Lane, Suite 160
Roseville, CA 95678

RE: PACE Project No. 430617.501
Client Reference: 1601 Eastshore, Albany/83Z-481

Dear Ms. Odenthal:

Enclosed is the report of laboratory analyses for samples received June 17, 1993.

Footnotes are given at the end of the report.

If you have any questions concerning this report, please feel free to contact us.

Sincerely,

Ronald M. Chew
Project Manager

Enclosures

11 Digital Drive
Novato, CA 94949
TEL: 415-883-6100
FAX: 415-883-2673

pace INCORPORATED
THE ASSURANCE OF QUALITY

REPORT OF LABORATORY ANALYSIS

Aegis Environmental
1050 Melody Lane, Suite 160
Roseville, CA 95678

July 01, 1993
PACE Project Number: 430617501

Attn: Ms. Laura Odenthal

Client Reference: 1601 Eastshore, Albany/83Z-481

PACE Sample Number:			70 0094658	
Date Collected:			06/16/93	
Date Received:			06/17/93	
			MW-5	
Parameter	Units	MDL		DATE ANALYZED
ORGANIC ANALYSIS				
PURGEABLE FUELS AND AROMATICS				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	06/24/93
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	ND	06/24/93
PURGEABLE AROMATICS (BTXE BY EPA 8020M):			-	06/24/93
Benzene	ug/L	0.5	ND	06/24/93
Toluene	ug/L	0.5	ND	06/24/93
Ethylbenzene	ug/L	0.5	ND	06/24/93
Xylenes, Total	ug/L	0.5	ND	06/24/93
EXTRACTABLE FUELS EPA 3510/8015				
Extractable Fuels, as Diesel	mg/L	0.05	0.46	06/18/93
Date Extracted			06/18/93	
(Diesel Range: C12-C28)				
OIL AND GREASE, SILICA GEL (LUFT)				
Oil and Grease, Gravimetric (SM5520)	mg/L	5.0	ND	06/18/93
Date Extracted			06/18/93	

Ms. Laura Odenthal
Page 2

July 01, 1993
PACE Project Number: 430617501

Client Reference: 1601 Eastshore, Albany/83Z-481

PACE Sample Number:			70 0094666	
Date Collected:			06/16/93	
Date Received:			06/17/93	
Client Sample ID:			MW-6	
Parameter	Units	MDL		DATE ANALYZED
ORGANIC ANALYSIS				
PURGEABLE FUELS AND AROMATICS				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	06/24/93
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	ND	06/24/93
PURGEABLE AROMATICS (BTXE BY EPA 8020M):			-	06/24/93
Benzene	ug/L	0.5	ND	06/24/93
Toluene	ug/L	0.5	ND	06/24/93
Ethylbenzene	ug/L	0.5	ND	06/24/93
Xylenes, Total	ug/L	0.5	ND	06/24/93
EXTRACTABLE FUELS EPA 3510/8015				
Extractable Fuels, as Diesel	mg/L	0.05	0.65	06/18/93
Date Extracted			06/18/93	
(Diesel Range: C10-C25)				
OIL AND GREASE, SILICA GEL (LUFT)				
Oil and Grease, Gravimetric (SM5520)	mg/L	5.0	ND	06/18/93
Date Extracted			06/18/93	

REPORT OF LABORATORY ANALYSIS

July 01, 1993
PACE Project Number: 430617501

Client Reference: 1601 Eastshore, Albany/83Z-481

PACE Sample Number:			70 0094674	
Date Collected:			06/16/93	
Date Received:			06/17/93	
Client Sample ID:			MW-7	
Parameter	Units	MDL		DATE ANALYZED
ORGANIC ANALYSIS				
PURGEABLE FUELS AND AROMATICS				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	06/24/93
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	ND	06/24/93
PURGEABLE AROMATICS (BTXE BY EPA 8020M):			-	06/24/93
Benzene	ug/L	0.5	ND	06/24/93
Toluene	ug/L	0.5	ND	06/24/93
Ethylbenzene	ug/L	0.5	ND	06/24/93
Xylenes, Total	ug/L	0.5	ND	06/24/93
EXTRACTABLE FUELS EPA 3510/8015				
Extractable Fuels, as Diesel	mg/L	0.05	0.34	06/18/93
Date Extracted			06/18/93	
(Diesel Range: C14-C25)				
OIL AND GREASE, SILICA GEL (LUFT)				
Oil and Grease, Gravimetric (SM5520)	mg/L	5.0	ND	06/18/93
Date Extracted			06/18/93	

REPORT OF LABORATORY ANALYSIS

Ms. Laura Odenthal
Page 4

July 01, 1993
PACE Project Number: 430617501

Client Reference: 1601 Eastshore, Albany/83Z-481

Parameter	Units	MDL		DATE ANALYZED
PACE Sample Number:			70 0094682	
Date Collected:			06/16/93	
Date Received:			06/17/93	
Client Sample ID:			MW-8	
ORGANIC ANALYSIS				
PURGEABLE FUELS AND AROMATICS				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	06/25/93
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	ND	06/25/93
PURGEABLE AROMATICS (BTXE BY EPA 8020M):			-	06/25/93
Benzene	ug/L	0.5	ND	06/25/93
Toluene	ug/L	0.5	ND	06/25/93
Ethylbenzene	ug/L	0.5	ND	06/25/93
Xylenes, Total	ug/L	0.5	ND	06/25/93
EXTRACTABLE FUELS EPA 3510/8015				
Extractable Fuels, as Diesel	mg/L	0.05	0.15	06/21/93
Date Extracted			06/18/93	
(Diesel Range: C14-C28)				
OIL AND GREASE, SILICA GEL (LUFT)				
Oil and Grease, Gravimetric (SM5520)	mg/L	5.0	ND	06/18/93
Date Extracted			06/18/93	

REPORT OF LABORATORY ANALYSIS

Ms. Laura Odenthal
Page 5

July 01, 1993
PACE Project Number: 430617501

Client Reference: 1601 Eastshore, Albany/83Z-481

Parameter	Units	MDL		DATE ANALYZED
PACE Sample Number:			70 0094690	
Date Collected:			06/16/93	
Date Received:			06/17/93	
Client Sample ID:			MW-9	
ORGANIC ANALYSIS				
PURGEABLE FUELS AND AROMATICS				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	06/25/93
Purgeable Fuels, as Gasoline (EPA 8015M)	ug/L	50	ND	06/25/93
PURGEABLE AROMATICS (BTXE BY EPA 8020M):			-	06/25/93
Benzene	ug/L	0.5	0.5	06/25/93
Toluene	ug/L	0.5	ND	06/25/93
Ethylbenzene	ug/L	0.5	ND	06/25/93
Xylenes, Total	ug/L	0.5	ND	06/25/93
EXTRACTABLE FUELS EPA 3510/8015				
Extractable Fuels, as Diesel	mg/L	0.05	0.60	06/21/93
Date Extracted			06/18/93	
(Diesel Range: C10-C25)				
OIL AND GREASE, SILICA GEL (LUFT)				
Oil and Grease, Gravimetric (SM5520)	mg/L	5.0	ND	06/18/93
Date Extracted			06/18/93	

These data have been reviewed and are approved for release.

Darrell C. Cain
Regional Director

11 Digital Drive
Novato, CA 94949
TEL: 415-883-6100
FAX: 415-883-2673

Ms. Laura Odenthal
Page 6

FOOTNOTES
for pages 1 through 5

July 01, 1993
PACE Project Number: 430617501

Client Reference: 1601 Eastshore, Albany/83Z-481

MDL Method Detection Limit
ND Not detected at or above the MDL.

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REPORT OF LABORATORY ANALYSIS

Ms. Laura Odenthal
Page 7

QUALITY CONTROL DATA

July 01, 1993
PACE Project Number: 430617501

Client Reference: 1601 Eastshore, Albany/83Z-481

EXTRACTABLE FUELS EPA 3510/8015
Batch: 70 22088
Samples: 70 0094658, 70 0094666, 70 0094674, 70 0094682, 70 0094690

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Extractable Fuels, as Diesel	mg/L	0.05	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Extractable Fuels, as Diesel	mg/L	0.05	1.00	83%	85%	2%

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Ms. Laura Odenthal
Page 8

QUALITY CONTROL DATA

July 01, 1993
PACE Project Number: 430617501

Client Reference: 1601 Eastshore, Albany/83Z-481

OIL AND GREASE, SILICA GEL (LUFT)
Batch: 70 22107
Samples: 70 0094658, 70 0094666, 70 0094674, 70 0094682, 70 0094690

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Oil and Grease, Gravimetric (SM5520)	mg/L	5.0	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Oil and Grease, Gravimetric (SM5520)	mg/L	5.0	20.0	95%	95%	0%

Ms. Laura Odenthal
Page 9

QUALITY CONTROL DATA

July 01, 1993
PACE Project Number: 430617501

Client Reference: 1601 Eastshore, Albany/83Z-481

PURGEABLE FUELS AND AROMATICS
Batch: 70 22260
Samples: 70 0094658, 70 0094666, 70 0094674, 70 0094682, 70 0094690

METHOD BLANK:

Parameter	Units	MDL	Method Blank
TOTAL FUEL HYDROCARBONS, (LIGHT):			-
Purgeable Fuels, as Gasoline (EPA 8015M	ug/L	50	ND
PURGEABLE AROMATICS (BTXE BY EPA 8020M)			-
Benzene	ug/L	0.5	ND
Toluene	ug/L	0.5	ND
Ethylbenzene	ug/L	0.5	ND
Xylenes, Total	ug/L	0.5	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Recv	Dupl Recv	RPD
Purgeable Fuels, as Gasoline (EPA 8015M	ug/L	50	1000	81%	87%	7%
Benzene	ug/L	0.5	100	106%	96%	9%
Toluene	ug/L	0.5	100	108%	97%	10%
Ethylbenzene	ug/L	0.5	100	108%	98%	9%
Xylenes, Total	ug/L	0.5	300	106%	96%	9%

Ms. Laura Odenthal
Page 10

FOOTNOTES
for pages 7 through 9

July 01, 1993
PACE Project Number: 430617501

Client Reference: 1601 Eastshore, Albany/83Z-481

MDL	Method Detection Limit
ND	Not detected at or above the MDL.
RPD	Relative Percent Difference

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FEDERATED INSURANCE

P.O. Box 586, Citrus Heights, CA 95611

CHAIN OF CUSTODY

430617 501

PACE INCORPORATED — THE ASSURANCE OF QUALITY

Novato, CA, 11 Digital Drive, 94949
Phone: (415) 883-6100 Fax: (415) 883-2673

Consultant's Name:	Aegis Environmental, Inc.	Name of Insured: E. C. Buehrer	Page 1 of 1
Address:	1050 Melody Lane, Suite 160, Roseville, California 95678	Federated Site Location: 1601 Eastshore, ~~Albany~~	
Project Contact:	Laura Odenthal	Phone #(916)782-2110 Fax #:(916)786-7830	Federated Contact: Gail Clark
Sampled by (print):	TRACE RANKIN	Sampler's Signature: Trace Rankin	Phone #(916)729-2122 Fax #:(916)729-2129
Shipment Method:	PACE COURIER	Consultant Project #: 90-007	Federated Claim #: 837-481

TAT: ☐ 24 hr ☐ 48 hr ☐ 72 hr ☒ Standard (10 day)

ANALYSIS REQUIRED

Sample Condition as Received
Temperature ° C: _____
Cooler #: _____
Inbound Seal Yes No
Outbound Seal Yes No

Sample Description	Collection Date/Time	Matrix Soil (Water)	Prsv	# of Cont	PACE Sample #	TPH/GAS/BTEX EPA 8015/8020	TPH/Diesel EPA 8015	OIL & GREASE	EPA 625	COMMENTS
MW-5	6/16 11:00	H_2O	HCL	7	9465.8	X	X	X	X	
MW-6	11:30	"	"	"	66.6	"	"	"	"	
MW-7	10:45	"	"	"	67.4	"	"	"	"	
MW-8	11:20	"	"	"	68.2	"	"	"	"	
MW-9	11:45	"	"	"	69.0	"	"	"	"	

NTOE: HOLD SAMPLES FOR EPA 625 ANALYSIS, UNTIL VERBAL REPORT OF DEISEL ANALYSIS IS PROVIDED TOPROJECT CONTACT. DEISEL ANALYSIS WILL DETERMINE THE NEED TO RUN EPA 625 ANALYSIS

5/2, 6/1

Relinquished by/Affiliation	Date	Time	Accepted by/Affiliation	Date	Time
Trace Rankin / AEGIS	6/17/93	1:00	Donald Johanski Pace	1300	6/17/93
Donald Johanski / Pace Inc	6/17/93	1455	[signature] / Pace	6/17/93	1455

Additional Comments:
VOAS PRESERVED PER CONTAINERS - cc 6/17