AEGIS ENVIRONMENTAL, INC.

801 Riverside Avenue, Suite C, Roseville, CA 95678 ✦ 916 • 782-2110 / 916 • 969-2110 / FAX 916 • 786-7830

91 APR 15 AM 10:04

April 11, 1991

Mr. Gilbert Wistar
Alameda County Health Care Services
Department of Environmental Health
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, CA 94621

Subject: **Results of Quarterly Monitoring**
E.C. Buehrer & Associates, Inc.
1061 Eastshore Highway, Albany, California

Dear Mr. Wistar:

Aegis Environmental, Inc. (Aegis) is pleased to present the results of ground water well monitoring for the final quarter of 1990. Quarterly monitoring has consisted of the following:

- Collection of ground water elevation data from the four on-site monitoring wells;
- Preparation of a ground water elevation contour map;
- Collecting ground water samples from the four monitoring wells;
- Laboratory analysis of ground water samples by a state-certified laboratory; and
- Lawful disposal of monitoring well purge water generated by the sampling.

GROUND WATER ELEVATION DATA

Ground water elevation data was collected from the four wells on a monthly basis since August 10, 1990, according to the Aegis' Standard Operating Procedure number 12 (Attachment A). Ground water elevation data was collected using a Slope™ water level indicator (Attachment B). Ground water elevations were determined from the depth-to-water data and referenced to an arbitrary site elevation benchmark of 100 feet above mean sea level.

Based on ground water elevations for the final, 1990 quarter, the ground water elevation surface gradient is approximately 0.0017 ft/ft. The data also indicate that the gradient trends to the north-east. However, topographic features, especially the proximity of San Francisco Bay, may affect the ground water gradient. There are two factors that are likely to be affecting water levels at the site; the presence of a large sewer pipe that runs north-south beneath the site, east of the monitoring wells, and tidal influence from the bay, to the west. A ground water elevation contour map is presented in Figure 1 (Attachment C).

WATER WELL SAMPLING

The wells were purged and sampled on April 27, August 10, and November 15, 1990, according to Aegis' Standard Operating Procedure number 7 (Attachment A). The purging and sampling was performed using Voss, polyethylene SingleSample™ disposable bailers. The wells were purged until clear and sediment free. At least three wetted casing volumes of water was removed from each well. The water samples were contained in 40-ml volatile organic analysis (VOA) vials and one liter amber glass jars. The samples were placed on ice in a cooler and transported to the laboratory under chain-of-custody. Analyses were performed by a state-certified laboratory. Purged water was contained in DOT registered drums and stored on site for later removal.

LABORATORY ANALYSIS OF WATER SAMPLES

Water samples were analyzed on May 16, August 24, and December 5, 1990, by NET Pacific, Inc., a state-certified analytical laboratory located in Santa Rosa, California. The analyses performed were methods 5520 for oil and grease, GC FID/5030 for total purgeable petroleum hydrocarbons (TPPH) characterized as gasoline, EPA Method 602 for purgeable aromatics - benzene, ethyl benzene, toluene, and xylenes (BTEX), GC FID/3510 for diesel and motor oil, and EPA Method 601 for purgeable halocarbons. Laboratory analytical results are presented in Tables 1, 2 and 3 (Attachment D). Copies of the laboratory analytical reports are presented in Attachment E.

REMARKS/SIGNATURES

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

AEGIS ENVIRONMENTAL, INC.

This report was prepared by:

Larry Braybrooks
Staff Geologist

Date: 4-12-91

This report was reviewed by:

Mark A. Richards
Senior Geologist

Date: 4-12-91

The work described herein was performed under the direct supervision of a State of California registered professional geologist:

Pat Wright
Registered Geologist #529

Date: 4-12-91

REGISTERED GEOLOGIST
PAT WRIGHT
No. 529
STATE OF CALIFORNIA

cc: Lester Feldman, RWQCB
Clayton Johnson, E.C. Buehrer, Inc.

ATTACHMENT A

AEGIS STANDARD OPERATING PROCEDURES

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% 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, forty-milliliter (ml) 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 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-casting (TOC) 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 (PT).

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 B

GROUND WATER ELEVATION DATA

AEGIS ENVIRONMENTAL CONSULTANTS
GROUND WATER LEVEL DATA

Project: E.C. Buehrer, Inc. 1061 Eastshore Highway, Albany Project No.: 90-007
Date: 11\15\90 Recorded By: Trace Rankin Measuring Device: Slope Indicator

Well No.	Time	Reference Point Elevation	Depth To G.W.	G.W. Elevation	Total Well Depth	Physical Observations/Comments
MW-1	11:00	99.51	3.96	95.55	14.0	Slight gasoline odor
MW-2	10:55	99.52	4.03	95.49	14.5	Slight gasoline odor
MW-3	11:05	99.60	4.10	95.50	13.4	moderate gasoline odor
MW-4	11:10	99.20	3.76	95.44	13.8	moderate gasoline odor

AEGIS ENVIRONMENTAL CONSULTANTS
GROUND WATER LEVEL DATA

Project: E.C. Buehrer, Inc. 1061 Eastshore Highway, Albany Project No.: 90-007
Date: 10\19\90 Recorded By: Trace Rankin Measuring Device: Slope Indicator

Well No.	Time	Reference Point Elevation	Depth To G.W.	G.W. Elevation	Total Well Depth	Physical Observations/Comments
MW-1	10:10	99.51	3.93	95.58	14.0	Gasoline odor
MW-2	09:50	99.52	3.93	95.59	14.5	Gasoline odor
MW-3	10:00	99.60	4.03	95.57	13.4	Gasoline odor
MW-4	12:00	99.2	3.73	95.47	13.8	

AEGIS ENVIRONMENTAL CONSULTANTS
GROUND WATER LEVEL DATA

Project: E.C. Buehrer, Inc. 1061 Eastshore Highway, Albany Project No.: 90-007
Date: 9\04\90 Recorded By: Brian Henderson Measuring Device: Slope Indicator

Well No.	Time	Reference Point Elevation	Depth To G.W.	G.W. Elevation	Total Well Depth	Physical Observations/Comments
MW-1	1:05	99.51	3.75	95.76	14.0	
MW-2	1:20	99.52	3.88	95.64	14.5	
MW-3	1:10	99.60	3.56	96.04	13.4	
MW-4	1:15	99.20	3.52	95.68	13.8	

AEGIS ENVIRONMENTAL CONSULTANTS
GROUND WATER LEVEL DATA

Project: E.C. Buehrer, Inc. 1061 Eastshore Highway, Albany Project No.: 90-007
Date: 8\10\90 Recorded By: Trace Rankin Measuring Device: Slope Indicator

Well No.	Time	Reference Point Elevation	Depth To G.W.	G.W. Elevation	Total Well Depth	Physical Observations/Comments
MW-1	10:05	99.51	3.65	95.86	14.0	
MW-2	10:20	99.52	3.80	95.72	14.5	
MW-3	10:10	99.60	3.72	95.88	13.4	
MW-4	10:15	99.20	3.37	95.83	13.8	

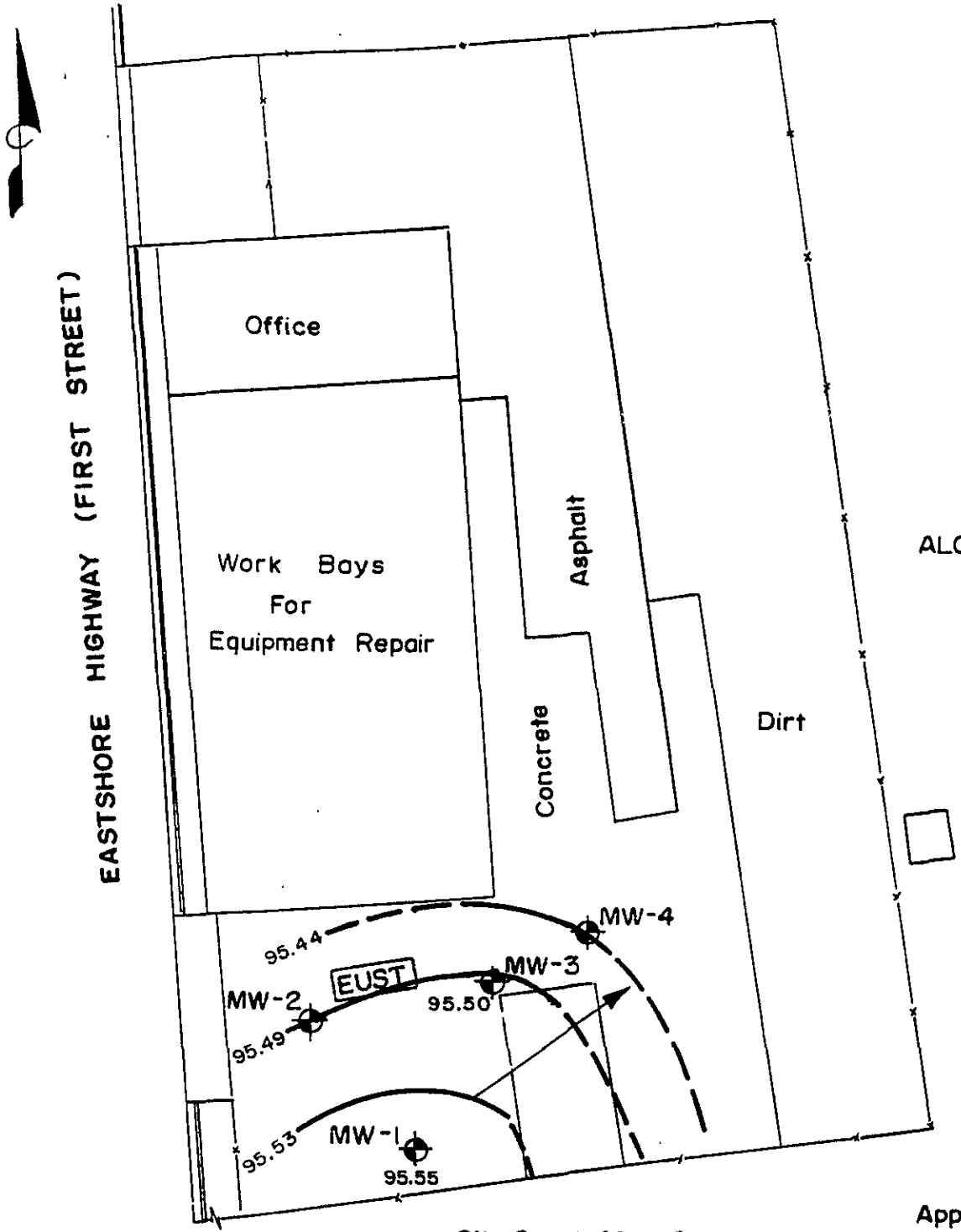
AEGIS ENVIRONMENTAL CONSULTANTS
GROUND WATER LEVEL DATA

Project: E.C. Buehrer, Inc. 1061 Eastshore Highway, Albany Project No.: 90-007
Date: 6\07\90 Recorded By: Rodney Moore Measuring Device: Slope Indicator

Well No.	Time	Reference Point Elevation	Depth To G.W.	G.W. Elevation	Total Well Depth	Physical Observations/Comments
MW-1	1:25	99.51	3.35	96.16	14.0	
MW-2	1:20	99.52	3.52	96.0	14.5	
MW-3	1:15	99.60	3.43	96.17	13.4	
MW-4	1:10	99.20	2.90	96.30	13.8	This dual monitoring event establishes fluctuations in the water table due to tidal influence.
MW-1	5:00	99.51	3.32	96.19	14.0	
MW-2	4:55	99.52	3.24	96.28	14.5	
MW-3	4:50	99.60	3.42	96.18	13.4	
MW-4	4:45	99.20	3.01	96.19	13.8	

ATTACHMENT C

FIGURE



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

Approximate Scale
1" = 40'
0 40

LEGEND

- Monitoring Well
- 95.44 —— Ground Water Elevation Contour
- ←—— Estimated Direction Of Ground Water Flow

NOTE

PTE = Previous Tank Excavation
EUST = Existing Underground Storage Tanks

FIGURE 1
GROUND WATER ELEVATION CONTOUR MAP 11/15/90
E.C. Buehrer Associates, Inc.
1061 Eastshore Highway
Albany, Ca.

AEGIS Job No. 90-007

DRAWN BY: Dennis Hada **DATE:** December 21, 1990
REVIEWED BY: **DATE:**

ATTACHMENT D

TABULATED ANALYTICAL RESULTS

TABLE 1

WATER SAMPLE LABORATORY ANALYTICAL RESULTS
E.C. Buehrer, Inc.
1061 Eastshore Highway, Albany, California

Sample Date - November 15, 1990
Results Given in ppb (ug/L)

SampleID	O & G	TPH(G)	TPH(D)	TPH(MO)	B	T	E	X
MW-1	ND	600	330	ND	1.5	ND	ND	2.0
MW-2	ND	410	210	ND	ND	ND	ND	ND
MW-3	ND	570	260	ND	0.9	ND	ND	ND
MW-4	ND	580	360	ND	2.5	ND	ND	ND

ND = not detected
TPH = total petroleum fuel hydrocarbons
O&G = total oil and grease
G = gasoline
D = diesel
MO = motor oil

B = benzene
T = toluene
E = ethyl benzene
X = xylene

Please see laboratory reports for detection limits

TABLE 2

WATER SAMPLE LABORATORY ANALYTICAL RESULTS

E.C. Buehrer, Inc.
1061 Eastshore Highway, Albany, California

Sample Date - August 10, 1990
Results Given in ppb (ug/L)

Sample ID	O & G	TPH(G)	TPH(D)	TPH(MO)	B	T	E	X
MW-1	ND	80	680	NA	ND	ND	ND	0.5
MW-2	ND	ND	640	NA	ND	ND	ND	ND
MW-3	ND	100	690	NA	ND	ND	ND	ND
MW-4	ND	80	700	NA	1.7	ND	ND	ND

NA = not analyzed
ND = not detected
TPH = total petroleum fuel hydrocarbons
O&G = total oil and grease
G = gasoline
D = diesel
MO = motor oil

B = benzene
T = toluene
E = ethyl benzene
X = xylenes

Note: Method 601 analysis for purgeable halogenated hydrocarbons revealed all compounds below detection limits

Please see laboratory reports for detection limits

TABLE 3

WATER SAMPLE LABORATORY ANALYTICAL RESULTS

E.C. Buehrer, Inc.
1061 Eastshore Highway, Albany, California

Sample Date - April 27, 1990
Results Given in ppb (ug/L)

Sample ID	O & G	TPH(G)	TPH(D)	TPH(MO)	B	T	E	X
MW-1	NA	260	240	ND	3.5	3.4	1.0	5.8
MW-2	NA	210	220	ND	ND	ND	ND	ND
MW-3	NA	330	230	ND	29.0	0.6	ND	1.3
MW-4	NA	220	260	870	2.1	ND	0.9	3.9

NA = not analyzed
ND = not detected
TPH = total petroleum fuel hydrocarbons
O&G = total oil and grease
G = gasoline
D = diesel
MO = motor oil

B = benzene
T = toluene
E = ethyl benzene
X = xylenes

See laboratory reports for detection limits

Note: Method 601 analysis for purgeable halogenated hydrocarbons revealed Chloroethane in MW-4 at 0.90 ppb and 1,1 Dichloroethane at 0.49 ppb in MW-4.

Please see laboratory reports for detection limits

ATTACHMENT E

ANALYTICAL LABORATORY REPORTS

NATIONAL ENVIRONMENTAL TESTING, INC.

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

RECEIVED 5/21/90

Pat Wright
Aegis Environmental Cons.
801 Riverside Ave., Ste C
Roseville, CA

Date: 05-16-90
NET Client Acct No: 654
NET Pacific Log No: 1738
Received: 04-27-90 1600

Client Reference Information

EC Buehrer, 1061 Eastshore Highway; 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)

Client No: 654 Date: 05-16-90
Client Name: Aegis Environmental Cons.
NET Log No: 1738 Page: 9

Ref: EC Buehrer, 1061 Eastshore Highway; Project: 90-007

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results MW-1 04-27-90 52018	MW-2 04-27-90 52019	Units
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (WATER)			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			05-04-90	05-04-90	
METHOD GC FID/5030			--	--	
as Gasoline		0.05	0.26	0.21	mg/L
METHOD 602			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			05-04-90	05-04-90	
Benzene		0.5	3.5	ND	ug/L
Ethylbenzene		0.5	1.0	ND	ug/L
Toluene		0.5	3.4	ND	ug/L
Xylenes, total		0.5	5.8	ND	ug/L
PETROLEUM HYDROCARBONS			--	--	
EXTRACTABLE (WATER)			--	--	
DILUTION FACTOR *			1	1	
DATE EXTRACTED			05-03-90	05-03-90	
DATE ANALYZED			05-03-90	05-03-90	
METHOD GC FID/3510			--	--	
as Diesel		0.05	0.24	0.22	mg/L
as Motor Oil		0.5	ND	ND	mg/L

Client No: 654 Date: 05-16-90
Client Name: Aegis Environmental Cons.
NET Log No: 1738 Page: 11

Ref: EC Buehrer, 1061 Eastshore Highway; Project: 90-007

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results MW-3 04-27-90 52020	MW-4 04-27-90 52021	Units
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (WATER)			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			05-04-90	05-04-90	
METHOD GC FID/5030			--	--	
as Gasoline		0.05	0.33	0.22	mg/L
METHOD 602			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			05-04-90	05-04-90	
Benzene		0.5	29	2.1	ug/L
Ethylbenzene		0.5	ND	0.9	ug/L
Toluene		0.5	0.6	ND	ug/L
Xylenes, total		0.5	1.3	3.9	ug/L
PETROLEUM HYDROCARBONS			--	--	
EXTRACTABLE (WATER)			--	--	
DILUTION FACTOR *			1	1	
DATE EXTRACTED			05-03-90	05-03-90	
DATE ANALYZED			05-03-90	05-03-90	
METHOD GC FID/3510			--	--	
as Diesel		0.05	0.23	0.26	mg/L
as Motor Oil		0.5	ND	0.87	mg/L

Ref: EC Buehrer, 1061 Eastshore Highway; Project: 90-007

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results MW-1 04-27-90 52018	MW-2 04-27-90 52019	Units
METHOD 601					
DATE ANALYZED			05-07-90	05-07-90	
DILUTION FACTOR*			1	1	
Bromodichloromethane		0.4	ND	ND	ug/L
Bromoform		0.4	ND	ND	ug/L
Bromomethane		0.4	ND	ND	ug/L
Carbon tetrachloride		0.4	ND	ND	ug/L
Chlorobenzene		0.4	ND	ND	ug/L
Chloroethane		0.4	ND	ND	ug/L
2-Chloroethylvinyl ether		1.0	ND	ND	ug/L
Chloroform		0.4	ND	ND	ug/L
Chloromethane		0.4	ND	ND	ug/L
Dibromochloromethane		0.4	ND	ND	ug/L
1,2-Dichlorobenzene		0.4	ND	ND	ug/L
1,3-Dichlorobenzene		0.4	ND	ND	ug/L
1,4-Dichlorobenzene		0.4	ND	ND	ug/L
Dichlorodifluoromethane		0.4	ND	ND	ug/L
1,1-Dichloroethane		0.4	ND	ND	ug/L
1,2-Dichloroethane		0.4	ND	ND	ug/L
1,1-Dichloroethene		0.4	ND	ND	ug/L
trans-1,2-Dichloroethene		0.4	ND	ND	ug/L
1,2-Dichloropropane		0.4	ND	ND	ug/L
cis-1,3-Dichloropropene		0.4	ND	ND	ug/L
trans-1,3-Dichloropropene		0.4	ND	ND	ug/L
Methylene Chloride		10	ND	ND	ug/L
1,1,2,2-Tetrachloroethane		0.4	ND	ND	ug/L
Tetrachloroethene		0.4	ND	ND	ug/L
1,1,1-Trichloroethane		0.4	ND	ND	ug/L
1,1,2-Trichloroethane		0.4	ND	ND	ug/L
Trichloroethene		0.4	ND	ND	ug/L
Trichlorofluoromethane		0.4	ND	ND	ug/L
Vinyl chloride		2.0	ND	ND	ug/L

Client No: 654
Client Name: Aegis Environmental Cons.
NET Log No: 1738

Date: 05-16-90

Page: 10

Ref: EC Buehrer, 1061 Eastshore Highway; Project: 90-007

			Descriptor, Lab No. and Results		
			MW-3 04-27-90	MW-4 04-27-90	Water
Parameter	Method	Reporting Limit	52020	52021	Units
METHOD 601					
DATE ANALYZED			05-07-90	05-07-90	
DILUTION FACTOR*			1	1	
Bromodichloromethane		0.4	ND	ND	ug/L
Bromoform		0.4	ND	ND	ug/L
Bromomethane		0.4	ND	ND	ug/L
Carbon tetrachloride		0.4	ND	ND	ug/L
Chlorobenzene		0.4	ND	ND	ug/L
Chloroethane		0.4	ND	0.90	ug/L
2-Chloroethylvinyl ether		1.0	ND	ND	ug/L
Chloroform		0.4	ND	ND	ug/L
Chloromethane		0.4	ND	ND	ug/L
Dibromochloromethane		0.4	ND	ND	ug/L
1,2-Dichlorobenzene		0.4	ND	ND	ug/L
1,3-Dichlorobenzene		0.4	ND	ND	ug/L
1,4-Dichlorobenzene		0.4	ND	ND	ug/L
Dichlorodifluoromethane		0.4	ND	ND	ug/L
1,1-Dichloroethane		0.4	ND	0.49	ug/L
1,2-Dichloroethane		0.4	ND	ND	ug/L
1,1-Dichloroethene		0.4	ND	ND	ug/L
trans-1,2-Dichloroethene		0.4	ND	ND	ug/L
1,2-Dichloropropane		0.4	ND	ND	ug/L
cis-1,3-Dichloropropene		0.4	ND	ND	ug/L
trans-1,3-Dichloropropene		0.4	ND	ND	ug/L
Methylene Chloride		10	ND	ND	ug/L
1,1,2,2-Tetrachloroethane		0.4	ND	ND	ug/L
Tetrachloroethene		0.4	ND	ND	ug/L
1,1,1-Trichloroethane		0.4	ND	ND	ug/L
1,1,2-Trichloroethane		0.4	ND	ND	ug/L
Trichloroethene		0.4	ND	ND	ug/L
Trichlorofluoromethane		0.4	ND	ND	ug/L
Vinyl chloride		2.0	ND	ND	ug/L

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

AEGIS Environmental Consultants, Inc.

Sample Identification/Field Chain of Custody Record

1738

Send results to:
Aegis Environmental
801 Riverside, Suite C
Roseville, CA 95678

Site Address: E.C. Buehrer 1061 Eastshore Hwy
AEGIS Project #: 90-007
Shipped By: 2.B - Aegis Environmental Consultants
Shipped To: NET
Project Manager Pat Wright

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
MW1	MW1-A	MW1-A	4/27/90	soil/Brass	2	wait for instructions
MW1	MW-1	MW1-B			1	
MW2	MW-2	MW2-A			2	
MW2	MW-2	MW2-B			1	
MW3	MW-3	MW3-A			2	
MW3	MW-3	MW3-B			1	
MW2	MW-2	MW2-C			1	
MW4	MW-4	MW4-T			2	

Sampler(s) (signature)

Field ID	Relinquished By (signature)	Received By (signature)	Date/Time		Comments
all of above					

Sealed for shipment by: (signature) Date/Time: 4/27/90 14:15 Shipment Method:

Received for Lab by: (signature) Date/Time: 4/27/90 1600 Comments:

Hold for instructions

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

White/Original Yellow/Lab Copy Pink/File Copy

TA ROSA, CA 95401
TEL: 707-526-7200
FAX: 707-526-9623

CHAIN OF CUSTODY RECORD

2 of 2 1738

PROJ. NO. | PROJECT NAME

MPLERS: (Signature)

A. NO	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CON-TAINERS		REMARKS
~~BH-4~~	4/27/90				~~BH-4~~			
W-4					MW4-A	1		soil / BRASS
W-4					MW4-B	1		
W-4					MW4-C	1		
-1					S-1	1	NB-634	sent to Coast to Coast 8260 full SCAN PP
-2					S-2	1	NB-635 3	
-3					S-3	1		
W-1					MW-1	3		aqueous
W-2					MW-2	3		
W-3					MW-3	3		
W-4					MW-4	3		
								wait for instructions

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
nquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
nquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
			4/27/90 1600	wait for analysis instructions	

NATIONAL ENVIRONMENTAL TESTING, INC.

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

8/28/90

Pat Wright
Aegis Environmental Cons.
801 Riverside Ave., Ste C
Roseville, CA

Date: 08-27-90
NET Client Acct No: 654
NET Pacific Log No: 3295
Received: 08-10-90 2300

Client Reference Information

1061 Eastshore Highway, Albany; 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

Enclosure(s)

Ref: 1061 Eastshore Highway, Albany; Project: 90-007

		Descriptor, Lab No. and Results		
		MW-1 08-10-90	MW-2 08-10-90	
Parameter	Reporting Limit	60304	60305	Units
DATE ANALYZED		08-22-90	08-22-90	
Benzene	0.5	ND	ND	ug/L
Ethylbenzene	0.5	ND	ND	ug/L
Toluene	0.5	ND	ND	ug/L
Xylenes, total	0.5	0.5	ND	ug/L
PETROLEUM HYDROCARBONS		--	--	
EXTRACTABLE (WATER)		--	--	
DILUTION FACTOR *		1	1	
DATE EXTRACTED		08-17-90	08-17-90	
DATE ANALYZED		08-19-90	08-19-90	
METHOD GC FID/3510		--	--	
as Diesel	0.05	0.68	0.64	mg/L

Ref: 1061 Eastshore Highway, Albany; Project: 90-007

Parameter	Reporting Limit	Descriptor, Lab No. and Results MW-3 08-10-90 60306	 MW-4 08-10-90 60307	Units
DATE ANALYZED		08-22-90	08-22-90	
Benzene	0.5	ND	1.7	ug/L
Ethylbenzene	0.5	ND	ND	ug/L
Toluene	0.5	ND	ND	ug/L
Xylenes, total	0.5	ND	ND	ug/L
PETROLEUM HYDROCARBONS		--	--	
EXTRACTABLE (WATER)		--	--	
DILUTION FACTOR *		1	1	
DATE EXTRACTED		08-17-90	08-17-90	
DATE ANALYZED		08-19-90	08-19-90	
METHOD GC FID/3510		--	--	
as Diesel	0.05	0.69	0.70	mg/L

Ref: 1061 Eastshore Highway, Albany; Project: 90-007

Parameter	Reporting Limit	Descriptor, Lab No. and Results MW-1 08-10-90 60304	 MW-2 08-10-90 60305	Units
Oil & Grease(Total)	5	ND	ND	mg/L
Oil & Grease(Non-Polar)	10	ND	ND	mg/L
METHOD 601				
DATE ANALYZED		08-22-90	08-22-90	
DILUTION FACTOR*		1	1	
Bromodichloromethane	0.4	ND	ND	ug/L
Bromoform	0.4	ND	ND	ug/L
Bromomethane	0.4	ND	ND	ug/L
Carbon tetrachloride	0.4	ND	ND	ug/L
Chlorobenzene	0.4	ND	ND	ug/L
Chloroethane	0.4	ND	ND	ug/L
2-Chloroethylvinyl ether	1.0	ND	ND	ug/L
Chloroform	0.4	ND	ND	ug/L
Chloromethane	0.4	ND	ND	ug/L
Dibromochloromethane	0.4	ND	ND	ug/L
1,2-Dichlorobenzene	0.4	ND	ND	ug/L
1,3-Dichlorobenzene	0.4	ND	ND	ug/L
1,4-Dichlorobenzene	0.4	ND	ND	ug/L
Dichlorodifluoromethane	0.4	ND	ND	ug/L
1,1-Dichloroethane	0.4	ND	ND	ug/L
1,2-Dichloroethane	0.4	ND	ND	ug/L
1,1-Dichloroethene	0.4	ND	ND	ug/L
trans-1,2-Dichloroethene	0.4	ND	ND	ug/L
1,2-Dichloropropane	0.4	ND	ND	ug/L
cis-1,3-Dichloropropene	0.4	ND	ND	ug/L
trans-1,3-Dichloropropene	0.4	ND	ND	ug/L
Methylene Chloride	10	ND	ND	ug/L
1,1,2,2-Tetrachloroethane	0.4	ND	ND	ug/L
Tetrachloroethene	0.4	ND	ND	ug/L
1,1,1-Trichloroethane	0.4	ND	ND	ug/L
1,1,2-Trichloroethane	0.4	ND	ND	ug/L
Trichloroethene	0.4	ND	ND	ug/L
Trichlorofluoromethane	0.4	ND	ND	ug/L
Vinyl chloride	2.0	ND	ND	ug/L
PETROLEUM HYDROCARBONS		--	--	
VOLATILE (WATER)		--	--	
DILUTION FACTOR *		1	1	
DATE ANALYZED		08-22-90	08-22-90	
METHOD GC FID/5030		--	--	
as Gasoline	0.05	0.08	ND	mg/L
METHOD 602		--	--	
DILUTION FACTOR *		1	1	

Ref: 1061 Eastshore Highway, Albany; Project: 90-007

Parameter	Reporting Limit	Descriptor, Lab No. and Results MW-3 08-10-90 60306	MW-4 08-10-90 60307	Units
Oil & Grease(Total)	5	ND	ND	mg/L
Oil & Grease(Non-Polar)	10	ND	ND	mg/L
METHOD 601				
DATE ANALYZED		08-22-90	08-22-90	
DILUTION FACTOR*		1	1	
Bromodichloromethane	0.4	ND	ND	ug/L
Bromoform	0.4	ND	ND	ug/L
Bromomethane	0.4	ND	ND	ug/L
Carbon tetrachloride	0.4	ND	ND	ug/L
Chlorobenzene	0.4	ND	ND	ug/L
Chloroethane	0.4	ND	ND	ug/L
2-Chloroethylvinyl ether	1.0	ND	ND	ug/L
Chloroform	0.4	ND	ND	ug/L
Chloromethane	0.4	ND	ND	ug/L
Dibromochloromethane	0.4	ND	ND	ug/L
1,2-Dichlorobenzene	0.4	ND	ND	ug/L
1,3-Dichlorobenzene	0.4	ND	ND	ug/L
1,4-Dichlorobenzene	0.4	ND	ND	ug/L
Dichlorodifluoromethane	0.4	ND	ND	ug/L
1,1-Dichloroethane	0.4	ND	ND	ug/L
1,2-Dichloroethane	0.4	ND	ND	ug/L
1,1-Dichloroethene	0.4	ND	ND	ug/L
trans-1,2-Dichloroethene	0.4	ND	ND	ug/L
1,2-Dichloropropane	0.4	ND	ND	ug/L
cis-1,3-Dichloropropene	0.4	ND	ND	ug/L
trans-1,3-Dichloropropene	0.4	ND	ND	ug/L
Methylene Chloride	10	ND	ND	ug/L
1,1,2,2-Tetrachloroethane	0.4	ND	ND	ug/L
Tetrachloroethene	0.4	ND	ND	ug/L
1,1,1-Trichloroethane	0.4	ND	ND	ug/L
1,1,2-Trichloroethane	0.4	ND	ND	ug/L
Trichloroethene	0.4	ND	ND	ug/L
Trichlorofluoromethane	0.4	ND	ND	ug/L
Vinyl chloride	2.0	ND	ND	ug/L
PETROLEUM HYDROCARBONS		--	--	
VOLATILE (WATER)		--	--	
DILUTION FACTOR *		1	1	
DATE ANALYZED		08-22-90	08-22-90	
METHOD GC FID/5030		--	--	
as Gasoline	0.05	0.10	0.08	mg/L
METHOD 602		--	--	
DILUTION FACTOR *		1	1	

Ref: 1061 Eastshore Highway, Albany; Project: 90-007

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Diesel	0.05	mg/L	110	ND	N/A	N/A	14

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Chlorobenzene	0.4	ug/L	N/A	ND	104	96	8.5
1,1-Dichloroethene	0.4	ug/L	N/A	ND	85	87	1.7
Trichloroethene	0.4	ug/L	N/A	ND	100	104	2.9

COMMENT: Blank Results were ND on other analytes tested.

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Benzene	0.5	ug/L	101	ND	97	97	< 1
Toluene	0.5	ug/L	100	ND	99	99	< 1

COMMENT: Blank Results were ND on other analytes tested.

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Oil & Grease(Total)	5	mg/L	92	ND	90	92	2.4
Oil & Grease(Non-Polar)	10	mg/L	86	ND	N/A	N/A	N/A

they will resample for VOCs

(5295)

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

AEGIS Environmental Consultants, Inc.

Sample Identification/Field Chain of Custody Record

Send results to:
Aegis Environmental
801 Riverside, Suite C
Roseville, CA 95678

Site Address: 1061 Eastshore Hwy, Albany, CA. 94710
AEGIS Project #: 90-007
Shipped By: Aegis Environmental Consultants Inc.
Shipped To: NET Pacific
Project Manager: Pat Wright

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-1	MW-1	MW-1	8/10/90	Aqueous	5	TPH as gasoline & diesel, BTEX, TPH as oil & grease, total O&G
MW-2	MW-2	MW-2			5	
MW-3	MW-3	MW-3			5	
MW-4	MW-4	MW-4			5	
Drain in front	of shop	Drain 1			2	

Sampler(s) (signature) Grace Park

Field ID	Relinquished By (signature)	Received By (signature)	Date/Time		Comments
MW's 1,2,3,4 DRAIN-1	Grace Park	Janet Green	8/10/90	3:3pPM	SEALED UPON RECEIPT.
	Janet Green				cool intact

Sealed for shipment by: (signature) Grace Park Date/Time: 8/10/90 3:30PM Shipment Method: COURIER

Received for Lab by: (signature) [signature] Date/Time: 8/10/90 2500 Comments: STANDARD TURNAROUND

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

NET NATIONAL ENVIRONMENTAL TESTING, INC.

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

Pat Wright
Aegis Environmental Inc.
801 Riverside Ave., Ste C
Roseville, CA

Date: 12-05-90
NET Client Acct No: 654
NET Pacific Log No: 5006
Received: 11-16-90 2300

Client Reference Information

1061 E. Shore Highway, Albany; 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.

RECEIVED
DEC 0 7 1990
Ans'd.....

Approved by:

Jules Skamarack
Laboratory Manager

JS:rct
Enclosure(s)

NET Pacific, Inc.

Client No: 654 Date: 12-05-90
Client Name: Aegis Environmental Inc.
NET Log No: 5006 Page: 2

Ref: 1061 E. Shore Highway, Albany; Project: 90-007

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results MW-1 11-15-90 68796	MW-2 11-15-90 68797	Units
Oil & Grease(Total)		5	ND	ND	mg/L
Oil & Grease(Non-Polar)		10	ND	ND	mg/L
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (WATER)			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			11-28-90	11-28-90	
METHOD GC FID/5030			--	--	
as Gasoline		0.05	0.6	0.41	mg/L
METHOD 602			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			11-28-90	11-28-90	
Benzene		0.5	1.5	ND	ug/L
Ethylbenzene		0.5	ND	ND	ug/L
Toluene		0.5	ND	ND	ug/L
Xylenes, total		0.5	2.0	ND	ug/L
PETROLEUM HYDROCARBONS			--	--	
EXTRACTABLE (WATER)			--	--	
DILUTION FACTOR *			1	1	
DATE EXTRACTED			11-21-90	11-21-90	
DATE ANALYZED			11-26-90	11-26-90	
METHOD GC FID/3510			--	--	
as Diesel		0.05	0.33	0.21	mg/L
as Motor Oil		0.5	ND	ND	mg/L

NET

NET Pacific, Inc.

Client No: 654 Date: 12-05-90
Client Name: Aegis Environmental Inc.
NET Log No: 5006 Page: 3

Ref: 1061 E. Shore Highway, Albany; Project: 90-007

			Descriptor, Lab No. and Results		
			MW-3 11-15-90	MW-4 11-15-90	
Parameter	Method	Reporting Limit	68798	68799	Units
Oil & Grease(Total)		5	ND	ND	mg/L
Oil & Grease(Non-Polar)		10	ND	ND	mg/L
PETROLEUM HYDROCARBONS			--	--	
VOLATILE (WATER)			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			11-28-90	11-28-90	
METHOD GC FID/5030			--	--	
as Gasoline		0.05	0.57	0.58	mg/L
METHOD 602			--	--	
DILUTION FACTOR *			1	1	
DATE ANALYZED			11-28-90	11-28-90	
Benzene		0.5	0.9	2.5	ug/L
Ethylbenzene		0.5	ND	ND	ug/L
Toluene		0.5	ND	ND	ug/L
Xylenes, total		0.5	ND	ND	ug/L
PETROLEUM HYDROCARBONS			--	--	
EXTRACTABLE (WATER)			--	--	
DILUTION FACTOR *			1	1	
DATE EXTRACTED			11-21-90	11-21-90	
DATE ANALYZED			11-26-90	11-26-90	
METHOD GC FID/3510			--	--	
as Diesel		0.05	0.26	0.36	mg/L
as Motor Oil		0.5	ND	ND	mg/L

Ref: 1061 E. Shore Highway, Albany; Project: 90-007

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Diesel	0.05	mg/L	122	ND	108	114	5.4
Motor Oil	0.5	mg/L	119	ND	N/A	N/A	N/A

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Gasoline	0.05	mg/L	101	ND	107	111	3.7
Benzene	0.5	ug/L	90	ND	104	108	3.8
Toluene	0.5	ug/L	96	ND	101	107	5.8

COMMENT: Blank Results were ND on other analytes tested.

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
O&G(total)	5	mg/L	100	ND	99	100	< 1
O&G(non-polar)	10	mg/L	100	ND	N/A	N/A	N/A

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

AEGIS Environmental Consultants, Inc.

Sample Identification/Field Chain of Custody Record

5006

Send results to:
Aegis Environmental
801 Riverside, Suite C
Roseville, CA 95678

Site Address: 1061 E. SHORE HWY ALBANY, CA.
AEGIS Project #: 90-007
Shipped By: AEGIS ENVIRONMENTAL INC.
Shipped To: NET PACIFIC SANTA ROSA, CA
Project Manager PAT WRIGHT

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-1	1061 E. SHORE HWY ALBANY, CA	MW-1	11/15/90	WATER	5	LIGHT HC w/BTEX, EXTR HC OIL & GREASE
MW-2	↓	MW-2	↓	↓	↓	↓
MW-3		MW-3				
MW-4		MW-4				

TPH GAS w/BTEX, TPH DIESEL, HOT OIL & GREASE

Sampler(s) (signature) Grace Parker

Field ID	Relinquished By (signature)	Received By (signature)	Date/Time		Comments
MW's 1,2,3&4	Grace Parker	Mike Tunnell	11/16/90	9:30AM	
	Mike Tunnell	(via NCS)	11/16/90		seals intact

Sealed for shipment by: (signature) Grace Parker Date/Time: 11/16/90 9:30AM Shipment Method: NET COURIER

Received for Lab by: (signature) Kemple Date/Time: 11/16/90 2300 Comments: STANDARD TURNAROUND

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

NET

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 [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.