GROUNDWATER MONITORING REPORT

4919 Tidewater St., Oakland, CA

11/27/00

Prepared
for
Alameda County Health Care Services Agency
Environmental Health Services Division
1131 Harbor Bay Parkway, #250
Alameda, CA 94502

Attn: Barney Chan

Prepared
by
PIERS Environmental Services Inc.
1330 South Bascom Ave. #F
San Jose, CA 95128

PIERS
Environmental Services, Inc.

1330 S. Bascom Ave., Suite F
San Jose, CA 95128

Tel. (408) 559-1248 Fax (408) 559-1224

Alameda County Health Care Services
Department of Environmental Health
1131 Harbor Bay Parkway, Second Floor
Alameda, CA 94502

November 27, 2000

Attn: Mr. Barney Chan; Haz Mat. Specialist for : DiSalvo Trucking
4919 Tidewater Ave., Oakland

Re: Groundwater Monitoring Event, Free Product Removal System Performance

Dear Mr. Chan,

This report has been prepared by PIERS Environmental Services, (PIERS) to address requirements by the Alameda County Department of Environmental Health (ACDEH) to investigate the performance of a free product extraction system, analyze the groundwater from existing monitoring wells for contaminate level and to determine the groundwater gradient direction, at a Leaking Underground Fuel Tank (LUST) site, 4919 Tidewater Ave., Oakland, California.

This report first reviews the known site history, describes the site vicinity, and presents existing chemical data. Then, the findings of the investigation are presented including the recovery of existing free phase diesel product, groundwater sampling and gradient determination.

1.2 Site Location

The site is located in a light industrial district of Oakland, California on property at 4919 Tidewater Ave.(Figure 1).

1.3 Previous Subsurface Work at Site

Previous subsurface work at the site includes soil excavation and bio remediation, groundwater disposal, soil borings and sampling, monitor well construction and sampling. Description and chemical results from all work conducted to date are given in reports by Geo Environmental Technology (GTE) of San Jose dated April, 1989, June 1989 and February 1991 and in reports by Gen-Tech Environmental, Inc., (GTE) dated May 1994 and November 1994 and in a report by Environmental Restoration Services (ERS) dated August 1995.

2.0 SITE DESCRIPTION

2.1 Site Description and Hydrogeologic Setting

The site is located on the west side of Tidewater Ave.. A 8000 square foot metal building is located on the northwest portion of the approximate one acre parcel. The majority of the remaining property is paved with asphalt.

The site is located at the fringe of the San Francisco Bay on soil that appears to have been imported to fill the location to approximately four feet above the mean high tide elevation. The imported fill caps the entire site and contains sands, gravels, concrete and asphalt. Native silty clay, silt, clayey sand and peat underlie this fill.

2.2 Vicinity Map

A vicinity map is given in Figure 1 which includes the location of any known hydraulic influences. The San Francisco Bay lies approximately 100 feet southeast of the site. A site map is given in Figure 2 which includes information on adjacent streets, site building locations, locations of existing wells and former tanks.

2.3 Existing Analytical Results

In April of 1994, three monitoring wells and eleven soil boring were installed at on-site locations. Groundwater samples were recovered from each boring and well and tested for TPH/g, TPH/d and BTEX.

2.3.2 Depth to Groundwater

Depth to groundwater based on the monitor well sampling is approximately two to three feet below ground surface.

2.3.3 Soil Profile

The boring logs for the monitor wells show predominantly import sands and gravels underlain with peat.

3.0 FREE PHASE DIESEL PRODUCT REMOVAL

3.1 Introduction

In 1991, GTE installed a groundwater recovery trench along the former location of a 2" diesel product line which culminated at a 48" diameter recovery sump. This sump has an approximate quarter inch layer of free phase diesel product floating on the surface of the shallow groundwater. In May of 1999, PIERS proved the effectiveness of this recovery trench and sump by measuring the groundwater draw down at several locations along the trench while pumping groundwater from the sump. PIERS removed approximately 50 gallons of free phase diesel product from the recovery sump on a semi-monthly basis (six occasions) over the quarter from May to August of 1999.

What about 8/99 – 11/00 ?

3.2 Product Removal

On October 16th, November 8th and November 22, 2000, free phase diesel product was removed from the extraction sump if the following manner;

Utilizing a wet vacuum pump, the average 3/8 inch layer of free phase diesel product was completely removed from the surface of the groundwater within the sump. Care was taken to remove as little groundwater as possible. An average of approximately nine gallons of diesel was recovered from each removal session.

A submersible water pump was then placed into the recovery sump. A 1½ inch discharge line was run from the pump to a 5000 gallon above ground tank located on site. An average of approximately 500 gallons of groundwater was recovered after each removal session.

The approximate 50 gallons of diesel product recovered from the sump in 1999 along with the approximate 25 gallons of diesel product recovered from the sump in 2000, was removed from the site by Artesian Oil Recovery of Oakland , CA under bulk manifest number 20421056 and disposed of at Evergreen Environmental, Fremont, CA.. A copy of the disposal Bill of Lading is included in the appendix of this Report.

Approximately 4500 gallons of diesel impacted groundwater remains on-site within a 5000 gallon above ground tank.

4.0 MONITORING WELL SAMPLING

On October 16, 2000 a single round of groundwater samples were obtained from monitoring wells MW1 through MW4.

Groundwater samples were collected from the wells by bailing each well until the volume of water withdrawn was equal to at least four casing volumes. To assure that a representative groundwater sample was collected, periodic measurements of the temperature, pH and specific conductance were made. The sample was collected only when the temperature, pH, and specific conductance reached relatively constant values.

A hand operated bailer was used for evacuating the well casing (purging) of each monitor well. Water samples were collected using a new disposable bailer. An effort was made to minimize exposure of the sample to air.

Subsequent to collection, the samples were immediately stored on ice in an appropriate ice chest. Samples were transported under Chain-of-Custody procedures to Entech Analytical Labs (Entech) of Sunnyvale, CA.

Sampling equipment was cleaned after its use at each sampling location. Thermometers, pH electrodes, and conductivity probes were also cleaned after sampling of each well. Cleaning procedures were accomplished by scrubbing with a detergent-potable water solution and rinsing with potable water.

Care was taken to collect all excess water resulting from the sampling and cleaning procedures. The excess water is contained in the 5000 gallon on-site tank.

4.1 Laboratory Analyses

The following analyses were performed by Entech on groundwater samples obtained from the monitor wells:

TPH-gasoline TPH-diesel (EPA Method 8015M); BTEX, (EPA Method 602)

The results of the analysis were as follows;

Results in Parts Per Billion (PPB)

Sample#	TPH/g	Benzene	Toluene	EthylBenzene	Xylenes	TPH/d
MW1	ND	ND	ND	ND	ND	160
MW2	570	ND	ND	ND	ND	3400
MW3	130	0.52	ND	ND	ND	42000
MW4	890	ND	ND	ND	11	75000

Note; TPH-diesel analysis was performed without treatment with silica gel. ← need to ~~filter &~~ treat w/ silica gel prior to analysis. *

Chains-of-Custody and laboratory results are contained in the appendix.

42Determination of Horizontal Groundwater Gradient

On October 16, 2000 the water levels in monitor wells MW1, MW2, and MW3 were measured within a one hour period. The water surface elevations in the wells were calculated using the survey data. Then, the horizontal hydraulic gradient was calculated based on accurately determined well locations.

The gradient calculated indicated a west northwestern direction at a magnitude of approximately 0.16%. These groundwater elevation contours are depicted in Figure 2.

5.0 CONCLUSIONS and RECCOMENDATIONS

It appears that free-phase diesel product continues to be generated through the recovery trench and sump system. Approximately 75 gallons of diesel has been recovered from the groundwater.

PIERS recommends the groundwater generated during sump drawdown be treated and discharged as dust control under a discharge waiver from the Bay Area Regional Water Quality Control Board and that free-product removal continue through the recovery trench and sump system on a monthly basis. PIERS recommends that quarterly monitoring continue at the site. ✓

PIERS further recommends that an additional soil and groundwater investigation be conducted to further define the extent of soil and groundwater contamination.

need to Spike water in tank @ surface & in middle of tank

LIMITATIONS

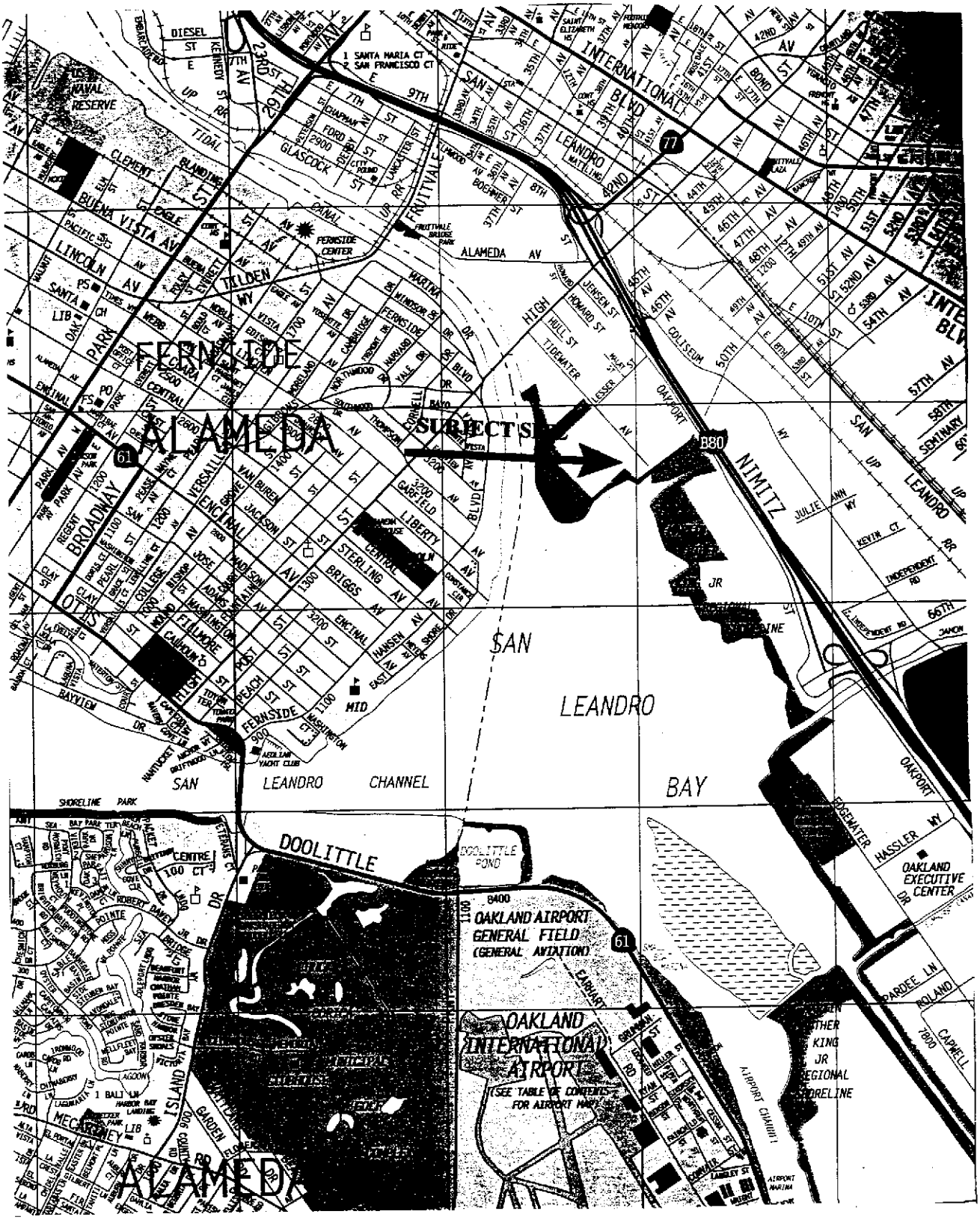
The observations and conclusions presented in this report are professional opinions based on the scope of work outlined herein. This report was prepared in accordance with generally accepted standards of environmental geological practice in California at the time this investigation was performed. The opinions presented apply to site conditions existing at the time of our study and cannot apply to site conditions or changes of which we are not aware or have not had the opportunity to evaluate. This investigation was conducted solely to evaluate environmental conditions of the soil and groundwater with respect to hydrocarbons identified during previous work. Evaluation of the geologic conditions at the site for the purpose of this investigation is made from a limited number of observation points. Subsurface conditions may vary away from the data points available. Additional work, including subsurface investigation, can reduce the inherent uncertainties associated with this type of investigation. It must be recognized that any conclusions drawn from these data rely on the integrity of the information available at the time of investigation and that a full and complete determination of environmental contamination and risks cannot be made.

Respectfully submitted this 27th day of November, 2000,

Bennett T Halsted
Project Manager

Samuel H Halsted P.E.
CE 14095

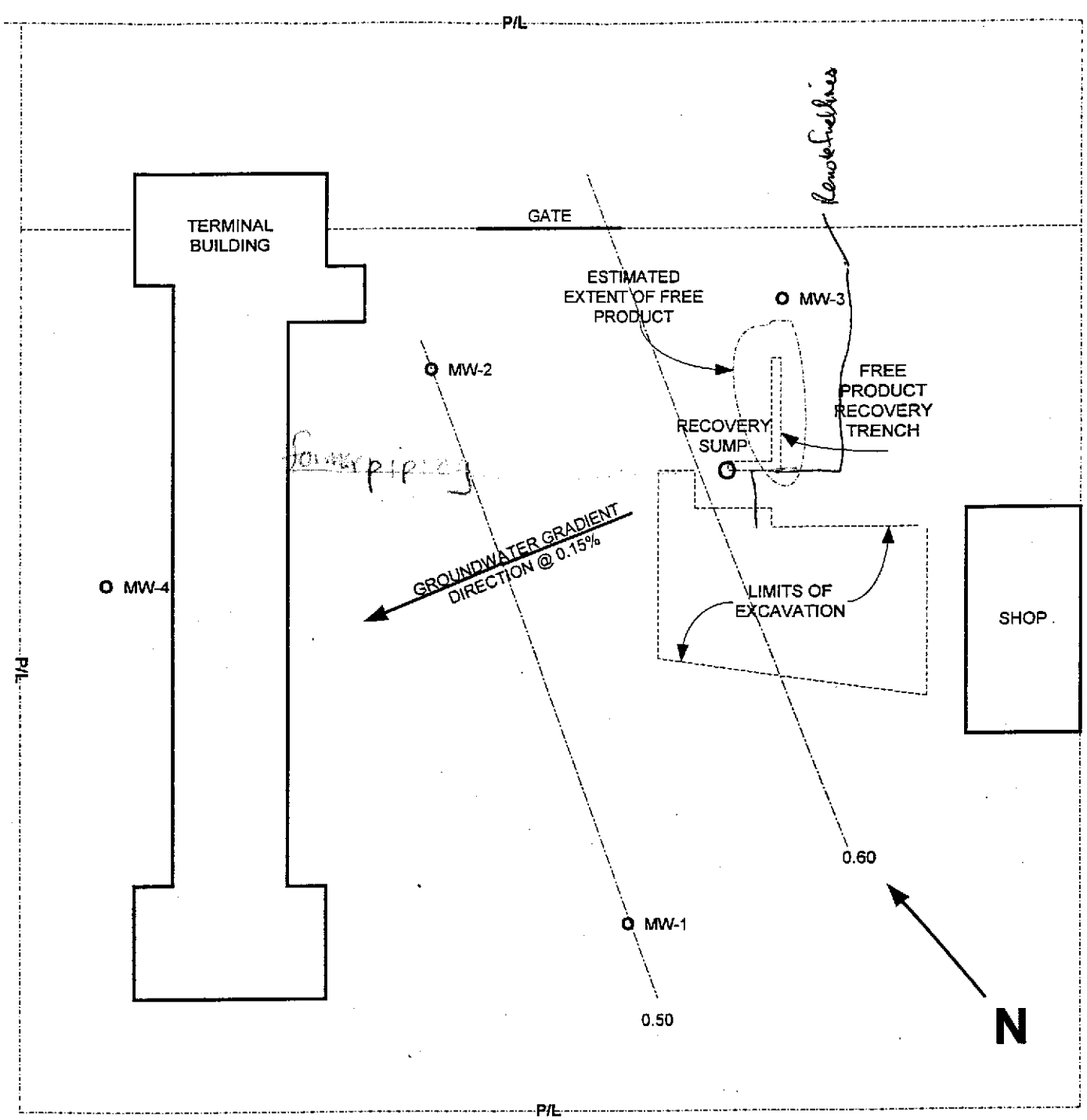
FIGURES



VICINITY MAP

4919 Tidewater Ave., Oakland, CA

DATE 11/15/00	SCALE : NTS	BY:
PIERS Environmental Services Inc. *1330 S. Bascom Ave., # F, San Jose, CA 95128*		**FIGURE 1**



WELL#	Casing Elev.	Depth to Grndwtr.	Grndwtr Elev.
MW1	2.68	2.18	0.50
MW2	3.50	2.99	0.51
MW3	2.90	2.23	0.67

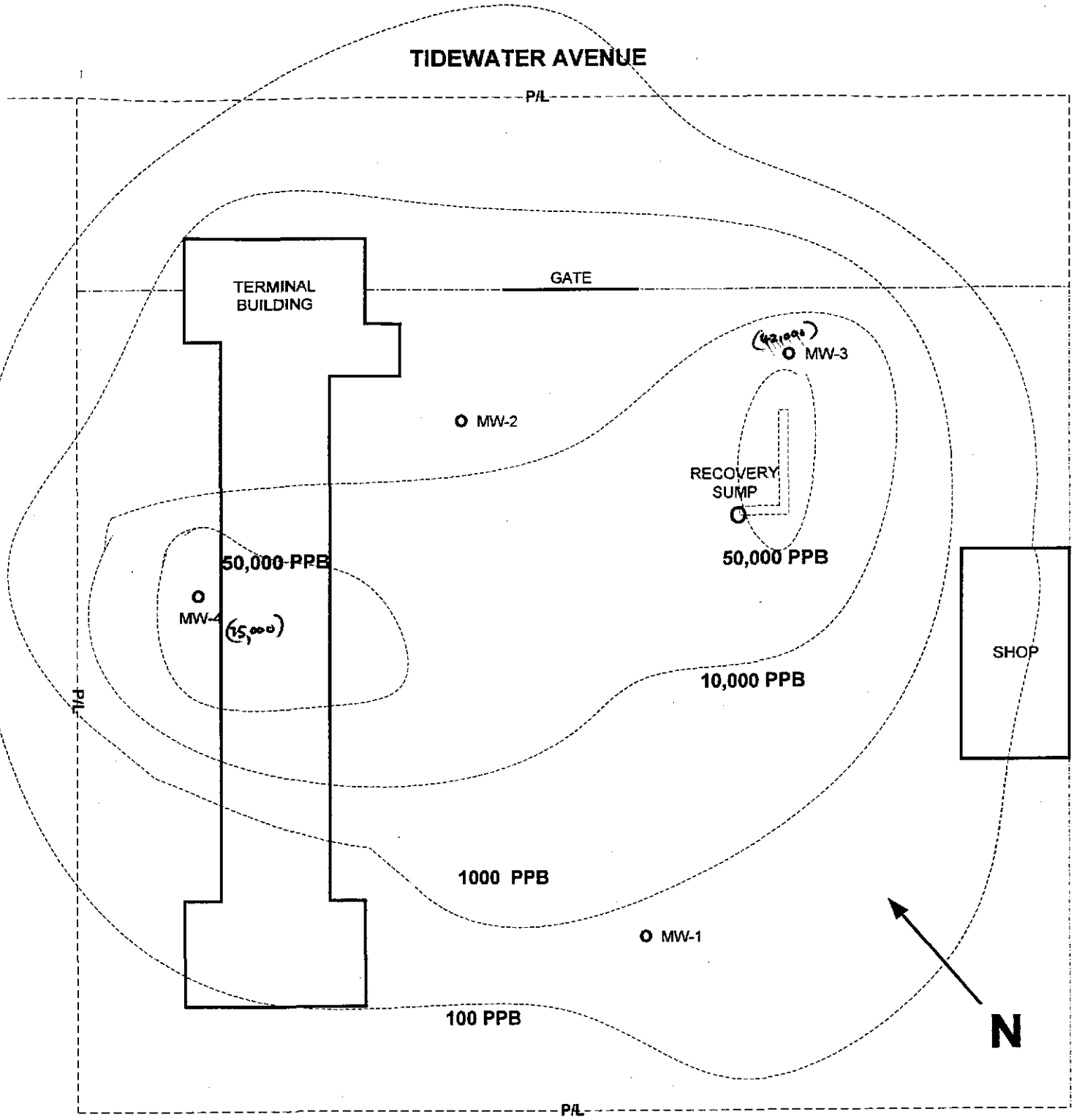
SITE PLAN

4919 Tidewater Ave., Oakland, CA

DATE 11/15/00	SCALE : NTS	BY:

***PIERS** Environmental Services Inc.*
1330 S. Bascom Ave., # F, San Jose, CA 95128

FIGURE 2

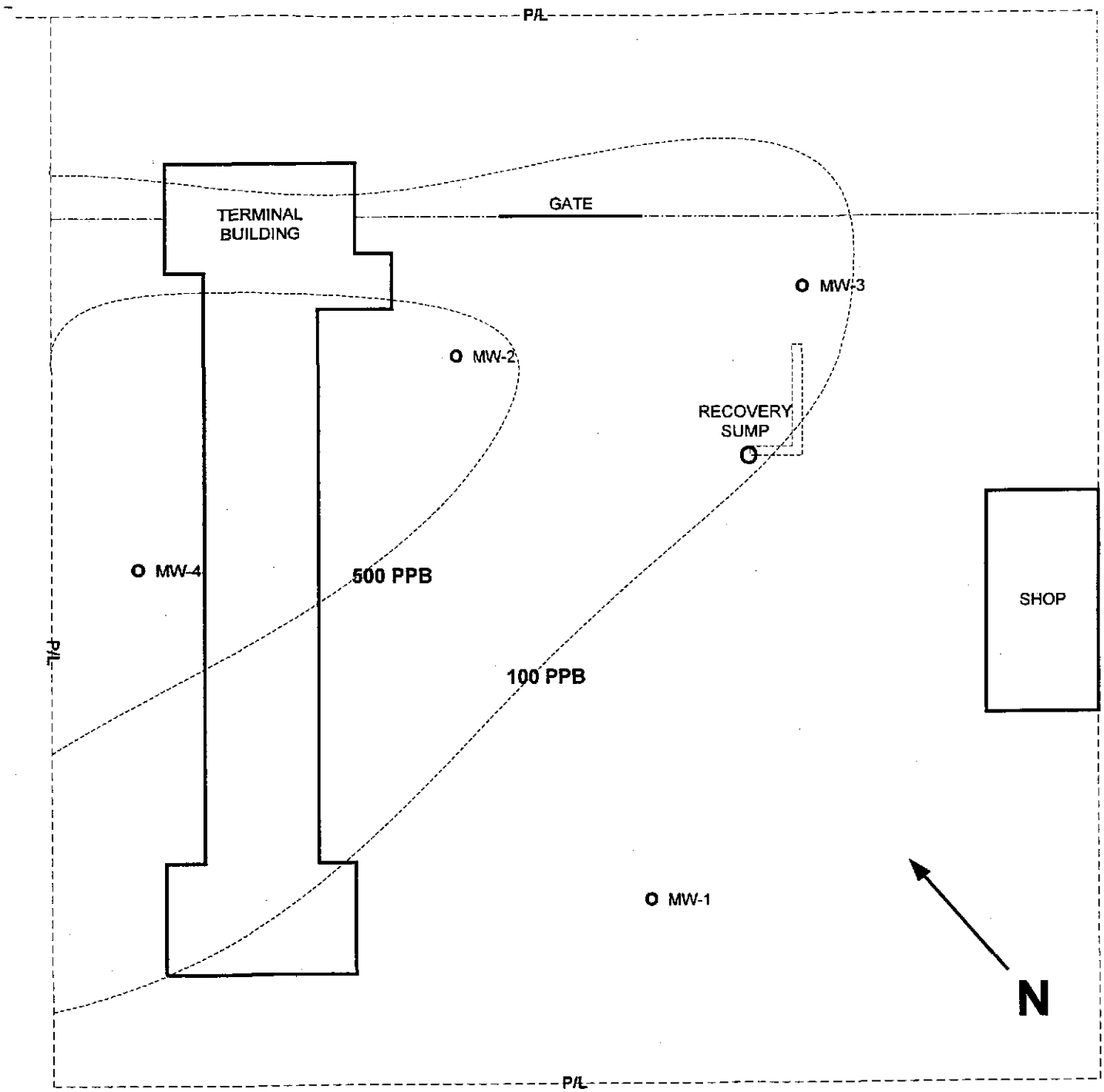


GROUNDWATER ISO-CONSENTRATION MAP

Total Petroleum Hydrocarbons as Diesel

4919 Tidewater Ave., Oakland, CA

DATE 11/15/00	SCALE : NTS	BY:
PIERS Environmental Services Inc. *1330 S. Bascom Ave., # F, San Jose, CA 95128*		**FIGURE 3**

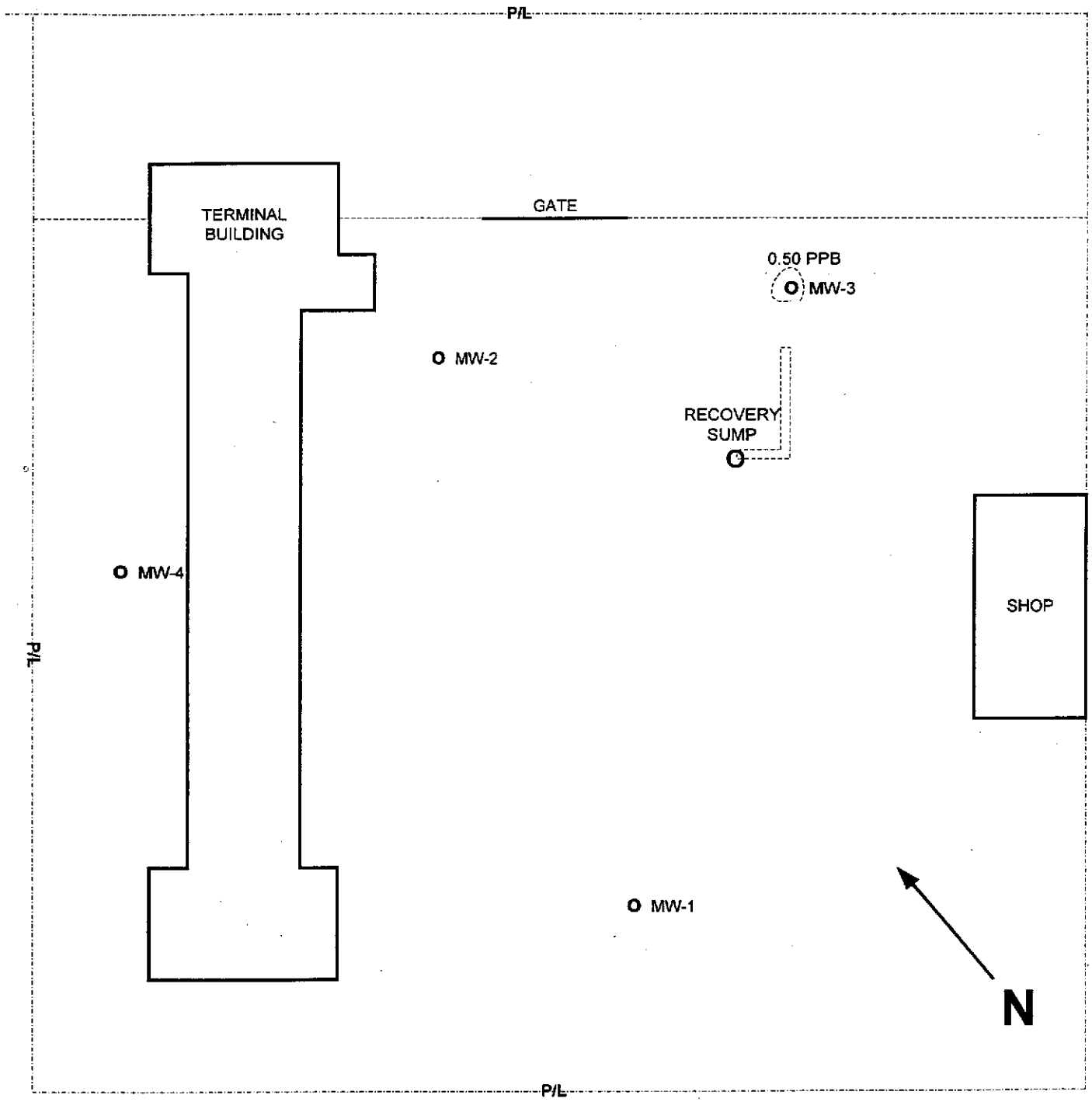


GROUNDWATER ISO-CONSENTRATION MAP

Total Petroleum Hydrocarbons as Gasoline

4919 Tidewater Ave., Oakland, CA

DATE 11/15/00	SCALE : NTS	BY:
PIERS Environmental Services Inc. *1330 S. Bascom Ave., # F, San Jose, CA 95128*		**FIGURE 4**



GROUNDWATER ISO-CONSENTRATION MAP

Benzene

4919 Tidewater Ave., Oakland, CA

DATE 11/15/00	SCALE : NTS	BY:
PIERS Environmental Services Inc. *1330 S. Bascom Ave., # F, San Jose, CA 95128*		**FIGURE 5**

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Piers Environmental Services
1330 South Bascom Avenue, Suite F
San Jose, CA 95128
Attn: Ben Haisted

Date: 10/31/00
Date Received: 10/17/00
Project Name: D. Salvo
Project Number:
P.O. Number:
Sampled By: Client

Certified Analytical Report

Order ID: 22765 **Lab Sample ID:** 22765-001 **Client Sample ID:** MW-1
Sample Time: 8:42 AM **Sample Date:** 10/16/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel	150	x	1	50	50	µg/L	10/17/00	10/18/00	DW001003	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
Hexacosane	98	65 - 135

Order ID: 22765 **Lab Sample ID:** 22765-002 **Client Sample ID:** MW-2
Sample Time: 12:15 PM **Sample Date:** 10/16/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel	3400		1	50	50	µg/L	10/17/00	10/18/00	DW001003	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
Hexacosane	92	65 - 135

Order ID: 22765 **Lab Sample ID:** 22765-003 **Client Sample ID:** MW-3
Sample Time: 1:30 PM **Sample Date:** 10/16/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel	42000		200	50	10000	µg/L	10/17/00	10/18/00	DW001003	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
Hexacosane	115	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

WELL PURGE LOGS

PIERS Environmental Services, Inc.
1330 S. Bascom Avenue, Suite F
San Jose, CA 95128
(408)559-1248

WATER-QUALITY SAMPLING INFORMATION

Project Name: DiSalvo Project No.: _____

Date: 10-16-00 Sample No.: _____

Samplers Name: B. Halsted

Sampling Location: 4919 Tidewater, Oakland

Sampling Method: Disp. Bailer

Analyses Requested: TPH/d, TPH/g, BTEX

Number and Types of Sample Bottles Used: 1 liter Amber
(2) 40ml VOAs

Method of Shipment: on ice

GROUND WATER

Well No.: mw-1

Well Diameter (in.) 2

Depth to Water, Static (ft) 21

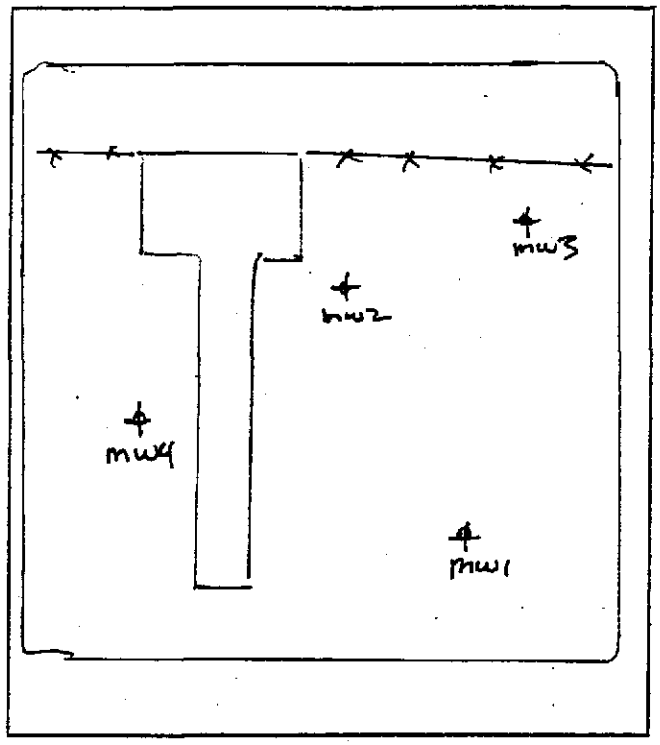
Water in Well Box no

Well Depth (ft) ±8'

Height of Water Column in Well ±5.82

Water Volume in Well 0.9

2-inch casing = 0.16 gal/ft
4-inch casing = 0.65 gal/ft
5-inch casing = 1.02 gal/ft
6-inch casing = 1.47 gal/ft



LOCATION MAP

TIME	DEPTH TO WATER (feet)	VOLUME WITHDRAWN (gallons)	TEMP (F)	pH (S.U.)	COND (mhos/cm)	OTHER	REMARKS
805		1	68.1	7.51	8.16		Turbid
817		2	69.3	7.15	8.26		
829		3	69.7	7.05	8.30		cloudy
839		4	70.0	6.96	8.46		sampled

Suggested Method for Purging Well _____

PIERS Environmental Services, Inc.
1330 S. Bascom Avenue, Suite F
San Jose, CA 95128
(408)559-1248

WATER-QUALITY SAMPLING INFORMATION

Project Name: DiSalvo Project No.: _____

Date: 10-16-00 Sample No.: _____

Samplers Name: B. Halsted

Sampling Location: 4919 Tidewater, Oakland

Sampling Method: Disp. Bailer

Analyses Requested: TPH/d, TPH/g, BTEX

Number and Types of Sample Bottles Used: 1 liter Amber
(2) 40ml VOAs

Method of Shipment: on ice

GROUND WATER

Well No.: mw-2

Well Diameter (in.) 2

Depth to Water, Static (ft) 2.99

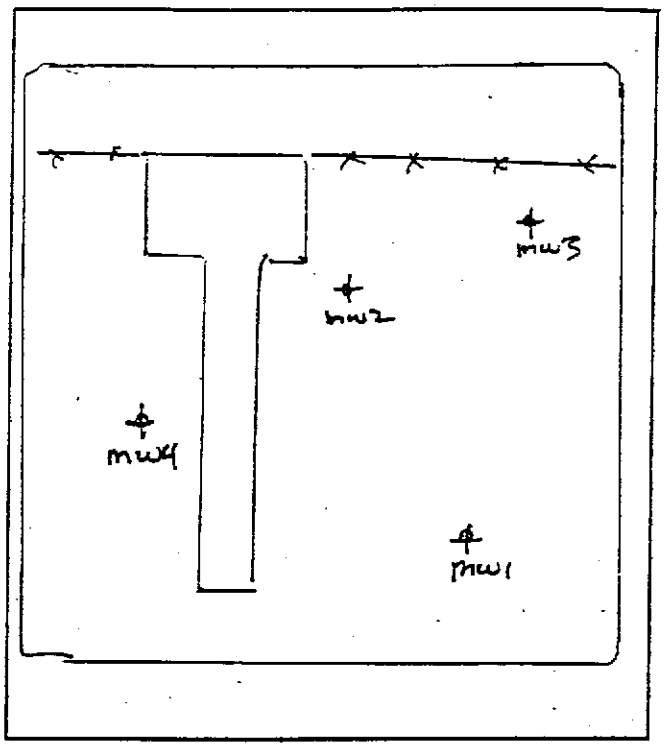
Water in Well Box no

Well Depth (ft) ±8'

Height of Water Column in Well ±5'

Water Volume in Well 0.80

2-inch casing = 0.16 gal/ft
4-inch casing = 0.65 gal/ft
5-inch casing = 1.02 gal/ft
6-inch casing = 1.47 gal/ft



LOCATION MAP

TIME	DEPTH TO WATER (feet)	VOLUME WITHDRAWN (gallons)	TEMP (F)	pH (S.U.)	COND (mhos/cm)	OTHER	REMARKS
1132		1	71.6	733	413		slight odor
1146		2	72.1	721	391		cloudy
1157		3	723	709	381		
1207		4	723	713	383		sampled

Suggested Method for Purging Well _____

PIERS Environmental Services, Inc.
1330 S. Bascom Avenue, Suite F
San Jose, CA 95128
(408)559-1248

WATER-QUALITY SAMPLING INFORMATION

Project Name: DiSalvo Project No.: _____

Date: 10-16-00 Sample No.: _____

Samplers Name: B. Halsted

Sampling Location: 4919 Tidewater, Oakland

Sampling Method: Disp. Bailer

Analyses Requested: TPH/d, TPH/g, BTEX

Number and Types of Sample Bottles Used: 1 liter Amber (2) 40ml VOAs

Method of Shipment: on ice

GROUND WATER

Well No.: mw-3

Well Diameter (in.) 2

Depth to Water, Static (ft) 2.23

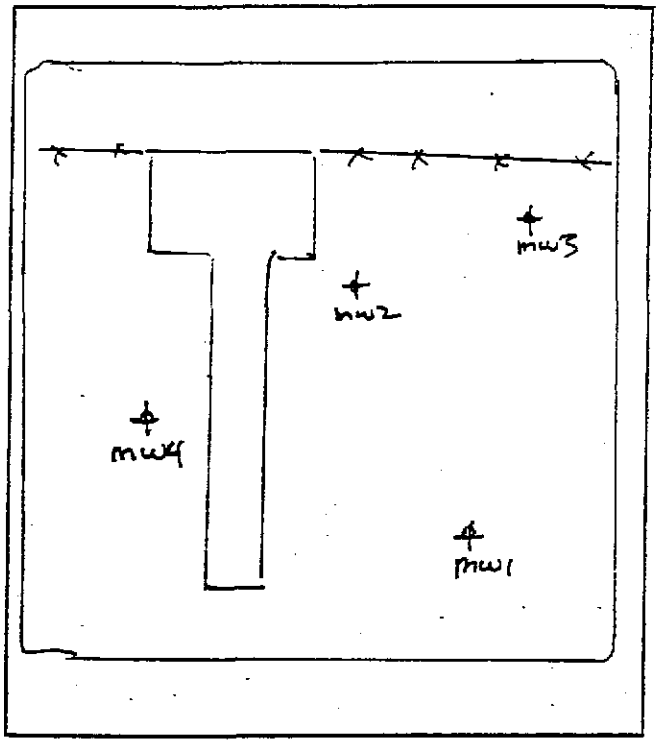
Water in Well Box no

Well Depth (ft) ±8'

Height of Water Column in Well ±5.77

Water Volume in Well 0.85

2-inch casing = 0.16 gal/ft
4-inch casing = 0.65 gal/ft
5-inch casing = 1.02 gal/ft
6-inch casing = 1.47 gal/ft



LOCATION MAP

TIME	DEPTH TO WATER (feet)	VOLUME WITHDRAWN (gallons)	TEMP (F)	pH (S.U.)	COND (mhos/cm)	OTHER	REMARKS
1241		1	71.9	6.81	312		Diesel Odor
1256		2	71.3	6.67	347		
113		3	71.0	6.71	353		cloudy
121		4	71.2	6.59	341		sampled
							Strong Diesel odor

Suggested Method for Purging Well _____

PIERS Environmental Services, Inc.
1330 S. Bascom Avenue, Suite F
San Jose, CA 95128
(408)559-1248

WATER-QUALITY SAMPLING INFORMATION

Project Name: DiSalvo Project No.: _____

Date: 10-16-00 Sample No.: _____

Samplers Name: B. Halsted

Sampling Location: 4919 Telegraph, Oakland

Sampling Method: Disp. Bailer

Analyses Requested: TPH/d, TPH/g, BTEX

Number and Types of Sample Bottles Used: 1 liter Amber (2) 40ml VOAs

Method of Shipment: on ice

GROUND WATER

Well No.: mw-4

Well Diameter (in.) 2

Depth to Water, Static (ft) 5.10

Water in Well Box no

Well Depth (ft) ±8'

Height of Water Column in Well ±4.90

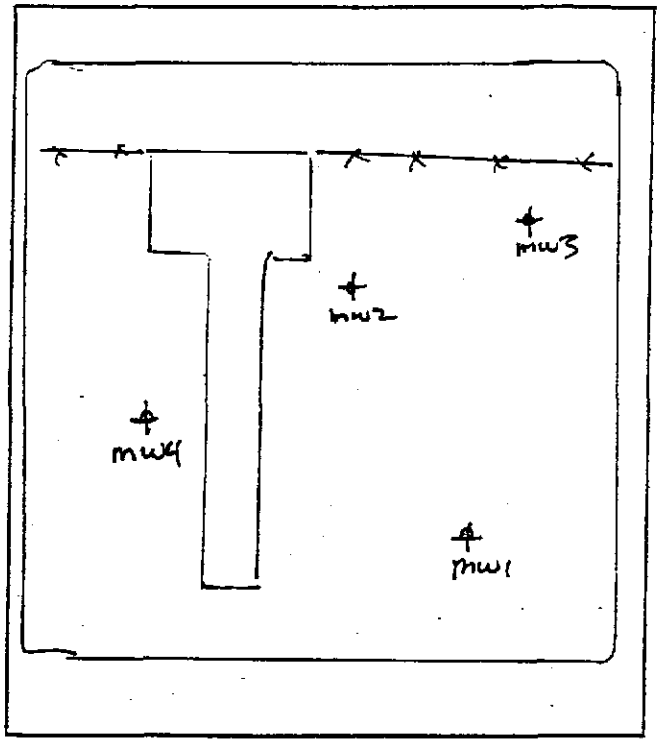
Water Volume in Well ±0.75

2-inch casing = 0.16 gal/ft

4-inch casing = 0.65 gal/ft

5-inch casing = 1.02 gal/ft

6-inch casing = 1.47 gal/ft



LOCATION MAP

TIME	DEPTH TO WATER (feet)	VOLUME WITHDRAWN (gallons)	TEMP (F)	p H (S.U.)	COND (mhos/cm)	OTHER	REMARKS
1440		1	71.6	6.67	375		Diesel odor
1445		2	71.8	6.81	391		
1450		3	72.3	6.97	407		Cloudy
2000		4	71.9	7.13	416		Sampled
							Strong diesel odor

Suggested Method for Purging Well _____

CHAIN-OF-CUSTODY
ANALYTICAL RESULTS

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • Telephone: (408) 735-1550 (800) 287-1799 • Fax: (408) 735-1554

Chain of Custody/Analysis Work Order

Client: PIERS
Address: 1330 S. Bascom #F
San Jose, Ca
Contact: B. Hallsted
Telephone #: 408-559-1248
Date Received: 10-17-00
Turn Around: Normal

Project ID: D. Salvo
Purchase Order #:

Sampler/Company: PIERS B. Hallsted Telephone #: 408 559-1248

Special Instructions/Comments

LAB USE ONLY

Samples arrived chilled and intact: Yes No

Notes:

Sample Information								Requested Analysis							
Lab #	Sample ID	Grab/ Composite	Matrix	Date Collected	Time Collected	Pres.	Sample Container	TPHg TPHd BTEX							
22765-001	MW1		water	10-16-00	842		2-40-ml VOA 1-liter Amb.	X							
002	MW2				1215			X							
003	MW3				130			X							
004	MW4				204			X							

Relinq. By:	Received By:	Date 10-17-00	Time 1150
Relinq. By:	Received By:	Date 10/17/00	Time 1220
Relinq. By:	Received By:	Date	Time

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Piers Environmental Services
1330 South Bascom Avenue, Suite F
San Jose, CA 95128
Attn: Ben Halsted

Date: 10/31/00
Date Received: 10/17/00
Project Name: D. Salvo
Project Number:
P.O. Number:
Sampled By: Client

Certified Analytical Report

Order ID: 22765 Lab Sample ID: 22765-001 Client Sample ID: MW-1
Sample Time: 8:42 AM Sample Date: 10/16/00 Matrix: Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel	150	x	1	50	50	µg/L	10/17/00	10/18/00	DW001003	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
Hexacosane	98	65 - 135

Order ID: 22765 Lab Sample ID: 22765-002 Client Sample ID: MW-2
Sample Time: 12:15 PM Sample Date: 10/16/00 Matrix: Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel	3400		1	50	50	µg/L	10/17/00	10/18/00	DW001003	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
Hexacosane	92	65 - 135

Order ID: 22765 Lab Sample ID: 22765-003 Client Sample ID: MW-3
Sample Time: 1:30 PM Sample Date: 10/16/00 Matrix: Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel	42000		200	50	10000	µg/L	10/17/00	10/18/00	DW001003	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
Hexacosane	115	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Piers Environmental Services
1330 South Bascom Avenue, Suite F
San Jose, CA 95128
Attn: Ben Halsted

Date: 10/31/00
Date Received: 10/17/00
Project Name: D. Salvo
Project Number:
P.O. Number:
Sampled By: Client

Certified Analytical Report

Order ID: 22765 **Lab Sample ID:** 22765-004 **Client Sample ID:** MW-4

Sample Time: 2:04 PM **Sample Date:** 10/16/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel	75000		200	50	10000	µg/L	10/17/00	10/18/00	DW001003	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
Hexacosane	100	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Piers Environmental Services
1330 South Bascom Avenue, Suite F
San Jose, CA 95128
Attn: Ben Halsted

Date: 10/31/00
Date Received: 10/17/00
Project Name: D. Salvo
Project Number:
P.O. Number:
Sampled By: Client

Certified Analytical Report

Order ID: 22765 **Lab Sample ID:** 22765-001 **Client Sample ID:** MW-1

Sample Time: 8:42 AM **Sample Date:** 10/16/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.5	0.5	µg/L	N/A	10/18/00	WGC4001017	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L	N/A	10/18/00	WGC4001017	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L	N/A	10/18/00	WGC4001017	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L	N/A	10/18/00	WGC4001017	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	100	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	50	50	µg/L	N/A	10/18/00	WGC4001017	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	113	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Piers Environmental Services
1330 South Bascom Avenue, Suite F
San Jose, CA 95128
Attn: Ben Halsted

Date: 10/31/00
Date Received: 10/17/00
Project Name: D. Salvo
Project Number:
P.O. Number:
Sampled By: Client

Certified Analytical Report

Order ID: 22765 **Lab Sample ID:** 22765-002 **Client Sample ID:** MW-2

Sample Time: 12:15 PM **Sample Date:** 10/16/00 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.5	0.5	µg/L	N/A	10/18/00	WGC4001017	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L	N/A	10/18/00	WGC4001017	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L	N/A	10/18/00	WGC4001017	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L	N/A	10/18/00	WGC4001017	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	95	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	570	x	1	50	50	µg/L	N/A	10/18/00	WGC4001017	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	99	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2146)

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Piers Environmental Services
1330 South Bascom Avenue, Suite F
San Jose, CA 95128
Attn: Ben Halsted

Date: 10/31/00
Date Received: 10/17/00
Project Name: D. Salvo
Project Number:
P.O. Number:
Sampled By: Client

Certified Analytical Report

Order ID: 22765 Lab Sample ID: 22765-003 Client Sample ID: MW-3

Sample Time: 1:30 PM Sample Date: 10/16/00 Matrix: Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	0.52		1	0.5	0.5	µg/L	N/A	10/18/00	WGC4001017	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L	N/A	10/18/00	WGC4001017	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L	N/A	10/18/00	WGC4001017	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L	N/A	10/18/00	WGC4001017	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	86	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	130	x	1	50	50	µg/L	N/A	10/18/00	WGC4001017	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	85	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Piers Environmental Services
1330 South Bascom Avenue, Suite F
San Jose, CA 95128
Attn: Ben Halsted

Date: 10/31/00
Date Received: 10/17/00
Project Name: D. Salvo
Project Number:
P.O. Number:
Sampled By: Client

Certified Analytical Report

Order ID: 22765 Lab Sample ID: 22765-004 Client Sample ID: MW-4

Sample Time: 2:04 PM Sample Date: 10/16/00 Matrix: Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.5	0.5	µg/L	N/A	10/18/00	WGC4001017	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L	N/A	10/18/00	WGC4001017	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L	N/A	10/18/00	WGC4001017	EPA 8020
Xylenes, Total	11		1	0.5	0.5	µg/L	N/A	10/18/00	WGC4001017	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	95	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	890	x	1	50	50	µg/L	N/A	10/18/00	WGC4001017	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	75	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

DIESEL DISPOSAL
BILL OF LADING

Artesian Oil Recovery, Inc.

Waste Disposal Solutions

2306 Magnolia Street
Oakland, CA 94607-2309
(510) 839-4234 FAX (510) 839-2291

FOR SERVICE CALL:
800-524-3957

INVOICE / BILL OF LADING

Nº 26052

DATE 11/22/00

BILLING INFORMATION	JOB LOCATION
Name Piers Environmental Svc	Name D. I Salvo Trucking
Address 1330 S Bascom #1=	Address 4919 Tidewater
City San Jose State - Zip 95128	City Oakland State Zip
PH # 408 559-1248	PH #
EPA ID #	EPA ID #

P.O. #	TERMS	REP	PROJECT	CONTACT
	NET 30	KS		

DESCRIPTION		CODE	MANIFEST#	QTY	RATE	AMOUNT
Used Oil, Non-RCRA Hazardous Waste, Liquid	Lubricating	CA 221				
	Industrial	CA 221		(diesel)		
Used Oil and Water, Non-RCRA Hazardous Waste, Liquid		CA 221	2042056	75	125	9375
Water & Oil, Non-RCRA Hazardous Waste, Liquid		CA 223				
Used Antifreeze, Non-RCRA Hazardous Waste, Liquid		CA 134				
Drum Waste						
Drum Waste						
Truck Charge						
Absorbent						
Non-Hazardous Disposal						
Empty Drum - pickup / delivery / new / used / recon				OK # 6161		
Halogen Test			pass fail			
Sales Tax						

Coll. Sta. ☒ Indust. ☐ Marine ☐ Agricul. ☐ Gov't. ☐ PF: Y ☒ N ☐ New ☐

TOTAL DUE: $ 9375

I hereby certify that all the information submitted in this and all attached documents contain true and accurate descriptions of the waste. All relevant information regarding known or suspected hazards associated with the waste has been disclosed. A service charge of 11/2% per month shall be charged on all past due accounts. Collections costs, including attorney's fees, will be added to past due accounts placed for collection.

PLEASE PAY FROM THIS INVOICE
NET DUE 30 DAYS

CASH		ON ACCT	
CHECK	X	OTHER	

Brad Wisked
PRINT NAME

CUSTOMER / GENERATOR SIGNATURE

DRIVER SIGNATURE For AOR

FACILITY: ARTESIAN OIL RECOVERY, INC. 2306 MAGNOLIA ST., OAKLAND, CA 94607
EPA ID# CAL000161741

WHITE COPY:AOR ACCOUNTING YELLOW COPY:AOR FACILITY PINK COPY:CUSTOMER ACCOUNTING GOLD COPY:CUSTOMER WASTE FILE