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ENVIRONMENTAL ENGINEERING

MARLA D. GUENSLER
ENVIRONMENTAL ENGINEER
(510) 246-8776

June 2, 1992

Exxon RAS 7-7003
349 Main Street
Pleasanton, California

Mr. Rick Mueller
City of Pleasanton Fire Department
4444 Railroad Street
Pleasanton, California 94566-0802

Dear Mr. Mueller:

Attached for your review and comment is the Letter Report, First Quarter 1992 Groundwater Monitoring for the above referenced Exxon station in Pleasanton. The report, prepared by RESNA, of Fremont, California, details the results of the first quarter 1992 monitoring event which occurred in March 1992.

Should you have any questions or comments, or require additional information, please do not hesitate to contact me at the above listed phone number.

Sincerely,
Marla D. Guensler

Attachment

c - w/attachment:

Mr. L. Feldman - San Francisco Bay Region Water Quality Control Board
2101 Webster Street, Suite 500
Oakland, California 94612

w/o attachment:

Mr. D. Lyons
Mr. M. Detterman - RESNA Industries
42501 Albrae St
Fremont, CA

MDG:sd
2450E/77003LTR



**LETTER REPORT
FIRST QUARTER 1992
GROUNDWATER MONITORING
at
Exxon Service Station 7-7003
349 Main Street
Pleasanton, California**

RESNA Job No. 19025-5

May 28, 1992
RESNA 19025-5

Ms. Marla D. Guensler
Exxon Company U.S.A.
2300 Clayton Road, Suite 1250
P.O. Box 4032
Concord, California 94520

Subject: Letter Report on First Quarter 1992 Groundwater Monitoring at Exxon Service Station 7-7003, 349 Main Street, Pleasanton, California

Dear Ms. Guensler:

This letter report summarizes the first quarter 1992 groundwater monitoring performed by RESNA Industries, Inc. (RESNA) at the subject site. The Exxon site is located at 349 Main Street on the southwest corner of Angela and Main Streets in Pleasanton, California (Plate 1). Pertinent site features include a service station building, two dispenser islands, two gasoline underground storage tanks (USTs) located northeast of the station building, and a waste-oil UST located northwest of the station building (Plate 2).

Background

In June 1989, Applied GeoSystems (AGS) conducted a soil-vapor survey at the site prior to the removal and replacement of four USTs. In July 1989, Exxon removed three 8,000-gallon gasoline USTs and a waste-oil UST, and new fiberglass tanks were installed in August 1989. The current and former USTs locations are shown on Plate 2. Soil samples collected in the northern part of the tank excavation by AGS indicated up to 150 parts per million (ppm) TPHg (AGS Report No. 19025-1, October 1, 1989).

Between January and June 1990, AGS drilled 13 boreholes around the former UST locations, installed groundwater monitoring wells MW-1 through MW-5 in five of the boreholes, and analyzed soil and groundwater samples. The results of soil analyses indicated TPHg concentrations greater than 100 ppm southwest of the former fuel UST excavation. Laboratory analytical results of groundwater samples also indicated that hydrocarbons were present in the groundwater beneath the site (AGS Report No. 19025-2, August 1, 1990). During February and March 1991, AGS drilled 6 boreholes north and northwest of the former USTs and installed groundwater monitoring wells MW-6 and MW-7 (AGS Report No. 19025-3, October 1991).

Field Activities and Laboratory Analysis

On March 12 and 13, 1992, a RESNA representative measured depth to water, subjectively evaluated groundwater from each of the monitoring wells for the presence of product, purged, and collected samples from each well for laboratory analysis.

Field activities were conducted in accordance with the attached Field Procedures (Attachment I). Well purge data sheets are included in Attachment II. No floating product or sheen was observed in the water samples from wells MW-1 through MW-7 during this quarter. Cumulative results of water level measurements and subjective evaluations are presented in Table 1.

Groundwater samples were submitted to Pace Incorporated (Hazardous Waste Testing Laboratory Certification No. 148) in Novato, California. The samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by Environmental Protection Agency (EPA) modified Method 8015; benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method 602; volatile organic compounds by EPA Method 601; and organic lead using the Leaking Underground Fuel Tank (LUFT) manual method (State of California, October 1989). In addition, groundwater from well MW-3 was analyzed for total petroleum hydrocarbons as oil and grease (TOG) by Standard Method 5520B/F. The chain of custody records and laboratory analysis reports are included in Attachment III.

Groundwater Gradient and Flow Direction

Groundwater elevations in each well were calculated from the water level measurements (Table 1). A plot of the groundwater surface elevation (Plate 2) data indicates that the groundwater below the site flows towards the northwest at a gradient of approximately 0.22. The gradient flattens to the southeast (approximately 0.03) in the vicinity of MW-2 and MW-5. The flow direction and gradient are consistent with previous data.

Water depth measurements from Table 1 were used to prepare a hydrograph for wells MW-1 through MW-7. The hydrograph shows groundwater elevation differences in each well and illustrates trends in the water level (Plate 3). The water level in wells MW-1 through MW-7 rose an average of 3.95 feet since the previous quarterly measurements.

Analytical Results

The lab analysis reports are included in Attachment III. Tables 2 and 3 present a summary of the cumulative results of analytical tests performed on samples from each well.

Water samples obtained this quarter yielded concentrations of TPHg ranging from below the detection limit to a maximum of 14,000 parts per billion (ppb). The maximum TPHg concentration was encountered in MW-1. Benzene concentrations in the groundwater samples ranged from below the detection limit to 87 ppb (MW-1). Concentrations of the

other BTEX compounds have fluctuated since last quarter. The distribution of TPHg and benzene concentrations from this quarterly sample analyses are presented on Plates 4 and 5 respectively.

The cumulative results of groundwater analysis for organic lead, TOG and VOC's are presented in Table 3. Organic lead was not detected in groundwater samples analyzed from each well. TOG was below the detection limit of analysis in the groundwater sample from the well closest to the former waste oil tank location, MW-3. VOC's were also not detected in groundwater samples from the wells, with the exception of well MW-1. Five organic compounds were detected in the sample from well MW-1; two (methylene chloride, trichloroethene) have not been detected in previous water samples analyzed from this site. The compound 1,2-Dichloroethane, detected at 1.2 ppb, is slightly above the 0.5 Primary MCL set by California DHS (Water Quality Goals, Sept. 1991).

RECOMMENDATIONS

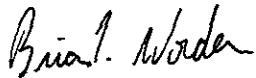
RESNA recommends that copies of this report be sent to:

- Mr Lester Feldman
California Regional Water Quality Control Board
San Francisco Bay Region
2101 Webster Street, Suite 500
Oakland, California 94612

- Mr. Rick Mueller
Pleasanton Fire Department
4444 Railroad Street
Pleasanton, California 94566

Should you have any questions, please call.

Sincerely,
RESNA Industries Inc.



Brian L. Worden
Project Geologist



Mark E. Dettman, R.G. 4799
Project Manager

Draft: April 17, 1992

References: Applied GeoSystems. October 1, 1989. Report on Limited Subsurface Environmental Investigation at Exxon Station No. 7-7003, 349 Main Street, Pleasanton, California. Job No. 19025-1.

Applied GeoSystems. August 1, 1990. Report on Supplemental Subsurface Environmental Investigation at Exxon Station No. 7-7003, 349 Main Street, Pleasanton, California. Job No. 19025-2.

Applied GeoSystems. October 24, 1991. Report on Supplemental Subsurface Environmental Investigation and Quarterly Monitoring at Exxon Station No. 7-7003, 349 Main Street, Pleasanton, California Job No. 19025-3.

State of California. October 1989. Leaking Underground Fuel Tank Field Manual. Leaking Underground Fuel Tank Task Force.

State of California. September 1991. A Compilation of Water Quality Goals. California Regional Water Quality Control Board; Central Valley Region.

Enclosures: Table 1: Cumulative Results of Groundwater Elevation Data and Subjective Evaluations of Groundwater
Table 2: Cumulative Results of Groundwater Analysis for Gasoline Hydrocarbon Compounds
Table 3: Cumulative Results of Groundwater Analysis for Lead, TOG, and VOCs
Plate 1: Site Vicinity Map
Plate 2: Generalized Site Plan and Groundwater Elevation Map (March 12, 1992)
Plate 3: Hydrograph
Plate 4: Concentration of TPHg in Groundwater (March, 1992)
Plate 5: Concentration of Benzene in Groundwater (March, 1992)

Attachment I: Field Procedures

Attachment II: Well Purge Data Sheets

Attachment III: Chain of Custody Records and Laboratory Analysis

TABLE 1
CUMULATIVE RESULTS OF GROUNDWATER ELEVATION DATA
AND SUBJECTIVE EVALUATIONS OF GROUNDWATER
(page 1 of 2)

Date	Depth to Water (ft)	Groundwater Elevation (ft)	Product Thickness (ft)	Sheen
MW-1 (Wellhead Elevation = 343.83 ft)				
02/90	26.08	317.75	None	None
06/90	26.49	317.34	None	None
08/90	26.47	317.36	None	None
12/90	28.00	315.83	None	None
03/19/91	23.63	320.20	None	None
06/27/91	22.11	321.72	None	None
09/26/91	27.75	316.08	None	None
01/10/92	25.61	318.22	None	None
03/12/92	22.52	321.31	None	None
MW-2 (Wellhead Elevation = 344.22 ft)				
02/90	26.31	317.31	None	None
06/90	26.25	317.97	None	None
08/90	26.15	318.07	None	None
12/90	27.94	316.28	None	None
03/19/91	23.41	320.81	None	None
06/27/91	21.63	322.59	None	None
09/26/91	27.19	317.03	None	None
01/10/92	25.67	318.55	None	None
03/12/92	22.28	321.94	None	None
MW-3 (Wellhead Elevation = 342.90 ft)				
02/90	24.78	318.12	None	None
06/90	25.29	317.61	None	None
08/90	25.40	317.50	None	None
12/90	26.84	316.06	None	None
03/19/91	22.13	320.77	None	None
06/27/91	21.04	322.86	None	None
09/26/91	26.63	316.27	None	None
01/10/92	24.26	318.64	None	None
03/12/92	21.60	321.30	None	None

See notes on page 2 of 2

TABLE 1
CUMULATIVE RESULTS OF GROUNDWATER ELEVATION DATA
AND SUBJECTIVE EVALUATIONS OF GROUNDWATER
(page 2 of 2)

Date	Depth to Water (ft)	Groundwater Elevation (ft)	Product Thickness (ft)	Sheen
MW-4 (Wellhead Elevation = 343.38 ft)				
06/90	30.94	312.44	None	None
08/90	31.21	312.17	None	None
12/90	32.86	310.52	None	None
03/19/91	26.76	316.62	None	None
06/27/91	25.91	317.47	None	None
09/26/91	32.29	311.09	None	None
01/10/92	29.06	314.32	None	None
03/12/92	24.25	319.13	None	None
MW-5 (Wellhead Elevation = 345.20 ft)				
06/90	26.94	318.26	None	None
08/90	26.90	318.30	None	None
12/90	28.31	316.89	None	None
03/19/91	23.98	321.22	None	None
06/27/91	22.41	322.79	None	None
09/26/91	27.77	317.43	None	None
01/10/92	26.38	318.82	None	None
03/12/92	22.08	323.12	None	None
MW-6 (Wellhead Elevation = 342.25 ft)				
03/19/91	34.42	307.83	None	None
06/27/91	35.01	307.24	None	None
09/26/91	40.34	301.91	None	None
01/10/92	36.20	306.05	None	None
03/12/92	31.95	310.30	None	None
MW-7 (Wellhead Elevation = 343.62 ft)				
03/19/91	24.68	318.94	None	None
06/27/91	23.10	320.52	None	None
09/26/91	Not accessible			
01/10/92	26.98	316.64	None	None
03/12/92	21.85	321.77	None	None

Elevations relative to mean sea level datum. (Surveyed by Ron Archer Civil Engineer, Inc.)

Depth to water measured from top of wellhead casing

TABLE 2
CUMULATIVE RESULTS OF GROUNDWATER ANALYSES
FOR GASOLINE HYDROCARBON COMPOUNDS
(Page 1 of 2)

Well/ Sample Number	Date	TPHg ppb	Benzene ppb	Toluene ppb	Ethyl- benzene ppb	Total Xylenes ppb
MW-1						
W-28-MW1	03/90	3,300	21	9.2	59	19
W-27-MW1	06/90	1,300	7.9	5.9	32	58
W-29-MW1	08/90	2,500	77	280	50	250
W-28-MW1	12/90	390	9	2	43	400
W-23-MW1	03/19/91	4,500	45	12	240	300
W-22-MW1	06/27/91	710	5.4	2.6	29	34
W-28-MW1	09/26/91	290	1.9	<0.5	0.6	0.6
W-25-MW1	01/10/92*	5,400	52	15	690	496
MW1	03/92	14,000	87	22	1200	1000
MW-2						
W-29-MW2	03/90	650	3	2	0.98	6.5
W-27-MW2	06/90	670	<0.5	2.6	<0.5	<0.5
W-28-MW2	08/90	1,300	24	130	37	170
W-28-MW2	12/90	470	<0.3	0.5	1	3
W-23-MW2	03/19/91	700	10	3.4	6.1	3.8
W-21-MW2	06/27/91	1,400	8.7	2.1	8.8	33
W-27-MW2	09/26/91	300	<0.5	0.6	0.6	3.9
W-25-MW2	01/10/92*	800	9.3	1.0	2.4	3.2
MW2	03/92	350	<0.5	0.6	3.0	1.0
MW-3						
W-27-MW3	03/90	<20	<0.5	<0.5	<0.5	<0.5
W-27-MW3	06/90	200	<0.5	<0.5	<0.5	<0.5
W-27-MW3	08/90	3,200	54	380	23	400
W-27-MW3	12/90	200	8	12	6	24
W-22-MW3	03/19/91	<50	<0.5	<0.5	<0.5	<0.5
W-21-MW3	06/27/91	<50	<0.5	<0.5	<0.5	<0.5
W-27-MW3	09/26/91	<50	<0.5	<0.5	<0.5	<0.5
W-24-MW3	01/10/92*	<50	<0.5	<0.5	<0.5	<0.5
MW3	03/92	<50	<0.5	<0.5	<0.5	<0.5
MW-4						
W-34-MW4	06/90	<20	<0.5	<0.5	<0.5	<0.5
W-33-MW4	08/90	120	5.2	5.4	5.4	9.9
W-33-MW4	12/90	50	7	1	<0.3	2
W-26-MW4	03/19/91	160	1.8	0.8	2.2	11
W-25-MW4	06/27/91	<50	<0.5	<0.5	<0.5	<0.5
W-32-MW4	09/26/91	<50	<0.5	<0.5	<0.5	<0.5
W-29-MW4	01/10/92*	98	0.9	<0.5	7.6	4.4
MW4	03/92	82	1.2	<0.5	5.3	4.3

See notes on page 2 of 2

TABLE 2
CUMULATIVE RESULTS OF GROUNDWATER ANALYSES
FOR GASOLINE HYDROCARBON COMPOUNDS
(Page 2 of 2)

Well/ Sample Number	Date	TPHg ppb	Benzene ppb	Toluene ppb	Ethyl- benzene ppb	Total Xylenes ppb
MW-5						
W-26-MW5	06/90	<20	<0.5	<0.5	<0.5	<0.5
W-28-MW5	08/90	210	9.7	12	7.6	17
W-28-MW5	12/90	190	2	3.5	2	8
W-23-MW5	03/19/91	<50	<0.5	<0.5	<0.5	<0.5
W-22-MW5	06/27/91	<50	<0.5	<0.5	<0.5	<0.5
W-28-MW5	09/26/91	<50	<0.5	<0.5	<0.5	<0.5
W-26-MW5	01/10/92*	<50	<0.5	<0.5	<0.5	0.6
MW5	03/92	<50	<0.5	<0.5	<0.5	<0.5
MW-6						
W-34-MW6	03/19/91	<50	<0.5	<0.5	<0.5	<0.5
W-35-MW6	06/27/91	<50	2.6	1.8	0.8	<0.30
W-40-MW6	09/26/91	<50	<0.5	<0.5	<0.5	<0.5
W-36-MW6	01/10/92*	<50	<0.5	<0.5	<0.5	<0.5
MW6	03/92	<50	<0.5	<0.5	<0.5	<0.5
MW-7						
W-24-MW7	03/19/91	140	<0.5	<0.5	<0.5	<0.5
W-23-MW7	06/27/91	100	5.2	5.6	3.9	16
	09/26/91	Inaccessible				
W-26-MW7	01/10/92*	<50	<0.5	<0.5	<0.5	<0.5
MW7	03/92	120	<0.5	<0.5	<0.5	<0.5

TPHg = total petroleum hydrocarbons.

ppb = parts per billion

< = below the detection limits of the analysis

(No. following < indicates applicable detection limit)

* = sample collected for fourth quarter 1991 monitoring

Sample designation = W-24-MW7

	Well number.
	Sample depth in feet.
	Water sample.

TABLE 3
CUMULATIVE RESULTS OF GROUNDWATER ANALYSIS FOR LEAD, TOG, AND VOCs
(Page 1 of 2)

Sample Number	Date	Lead ppm	TOG ppm	VOCs ppb
MW-1				
W-28-MW1	03/90	0.01	---	---
W-27-MW1	06/90	<0.05	---	---
W-29-MW1	08/90	<0.05	---	---
W-28-MW1	12/90	<0.1*	---	---
W-23-MW1	03/19/91	<0.1*	---	12.0 ¹
W-22-MW1	06/27/91	<0.1*	---	ND
W-28-MW1	09/26/91	<0.1*	---	ND
W-25-MW1	01/10/92	<0.1*	---	6.1 ¹
MW1	03/92			2.1 ⁵
				14 ¹
				1.2 ⁴
				0.5 ⁶
				0.8 ³
MW-2				
W-29-MW2	03/90	0.008	---	---
W-27-MW2	06/90	<0.05	---	---
W-28-MW2	08/90	<0.05	---	---
W-28-MW2	12/90	<0.1*	---	---
W-23-MW2	03/19/91	<0.1*	---	ND
W-21-MW2	06/27/91	<0.1*	---	ND
W-27-MW2	09/26/91	<0.1*	---	ND
W-25-MW2	01/10/92	<0.1*	---	ND
MW2	03/92			ND
MW-3				
W-27-MW3	03/90	0.01	---	---
W-27-MW3	06/90	<0.05	---	---
W-27-MW3	08/90	<0.05	---	---
W-27-MW3	12/90	<0.1*	<5.0	4.1 ³
W-22-MW3	03/19/91	<0.1*	<5.0	ND
W-21-MW3	06/27/91	<0.1*	<5.0	ND
W-27-MW3	09/26/91	<0.1*	<5.0	ND
W-24-MW3	01/10/92	<0.1*	5.1	ND
MW3	03/92			ND
MW-4				
W-34-MW4	06/90	<0.05	---	---
W-33-MW4	08/90	<0.05	---	---
W-33-MW4	12/90	<0.1*	---	---
W-26-MW4	03/19/91	<0.1*	---	ND
W-25-MW4	06/27/91	<0.1*	---	ND
W-32-MW4	09/26/91	<0.1*	---	1.0 ⁴
W-29-MW4	01/10/92	<0.1*	---	1.0 ⁴
MW4	03/92			ND
MW-5				
W-26-MW5	06/90	0.06	---	---
W-28-MW5	08/90	<0.05	---	---
W-28-MW5	12/90	<0.1*	---	---
W-23-MW5	03/19/91	<0.1*	---	0.5 ¹
				1.0 ²
W-22-MW5	06/27/91	<0.1*	---	ND
W-28-MW5	09/26/91	<0.1*	---	ND
W-26-MW5	01/10/92	<0.1*	---	ND
MW5	03/92			ND

See notes on page 2 of 2

TABLE 3
RESULTS OF GROUNDWATER ANALYSIS FOR LEAD, TOG, AND VOCs
(Page 2 of 2)

Sample Number	Date	Lead ppm	TOG ppb	VOCs ppb
MW-6				
W-34-MW6	03/19/91	<0.1*	---	ND
W-35-MW6	06/27/91	<0.1*	---	ND
W-40-MW6	09/26/91	<0.1*	---	ND
W-36-MW6	01/10/92	<0.1*	---	ND
MW6	03/92		---	ND
MW-7				
W-24-MW7	03/19/91	<0.1*	---	0.7 ¹ 0.8 ²
W-23-MW7	06/27/91	<0.1*	---	ND
	09/26/91 Inaccessible			
W-26-MW7	01/10/92	<0.1*	---	ND
MW7	03/92		---	ND

ppm = parts per million

ppb = parts per billion

TOG = Total oil and grease

VOCs = Volatile organic compounds (EPA Method 601)

* = Organic lead

1 = Chloroform

2 = Bromodichloromethane

3 = Tetrachloroethene

4 = 1,2-Dichloroethane

5 = Methylene Chloride

6 = Trichloroethene

ND = Compounds not detected; see laboratory report for method detection limit

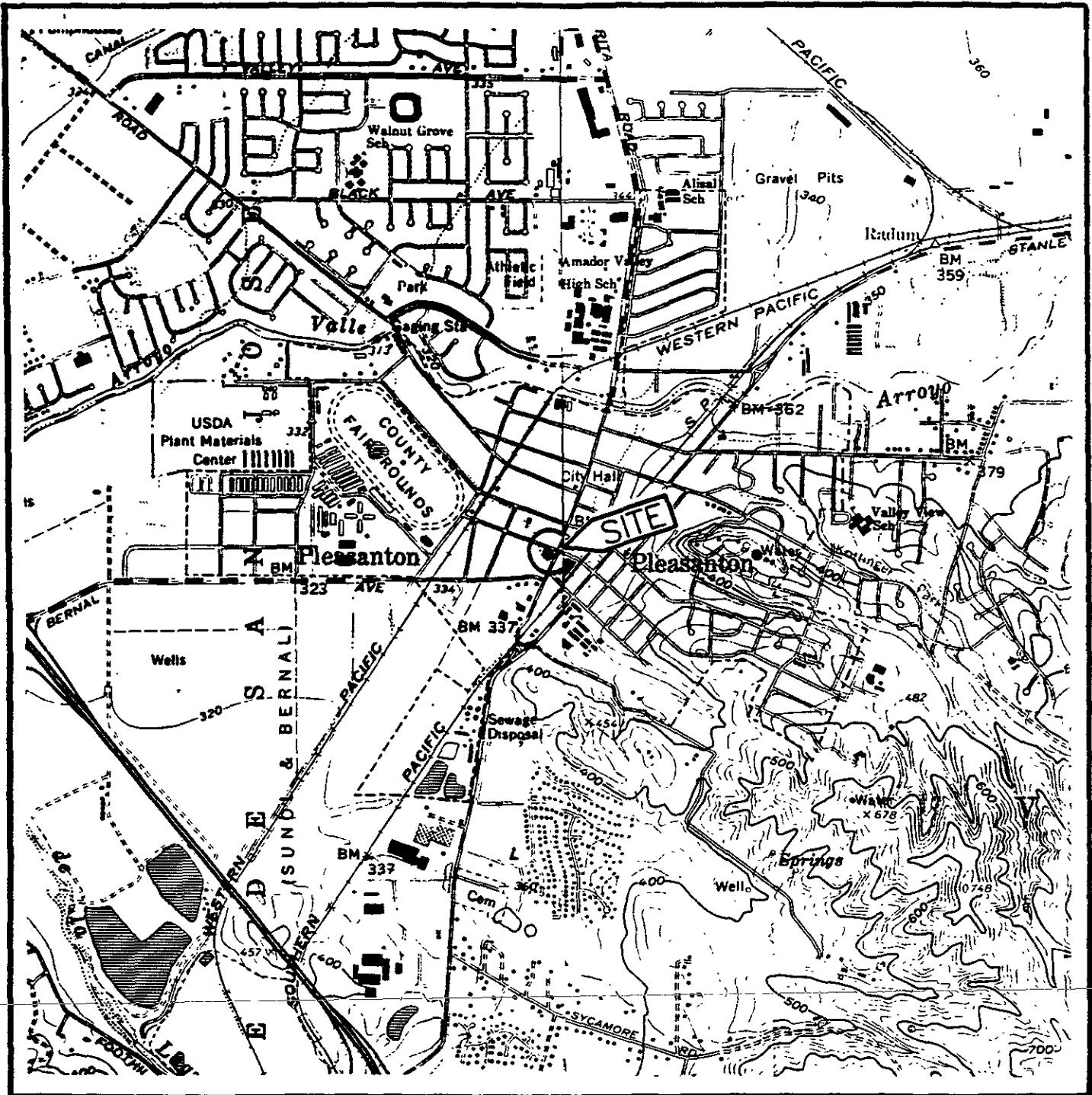
< = Below the detection limits of the analysis.

(No. following < indicates applicable detection limit)

--- = Not analyzed

Sample designation = W-24-MW7


 Well number.
 Sample depth in feet.
 Water sample.



Source: U.S. Geological Survey
 7.5-Minute Quadrangle
 Dublin/Livermore, California
 Photorevised 1980

Approximate Scale
 2000 1000 0 2000 4000
 feet

RESNA

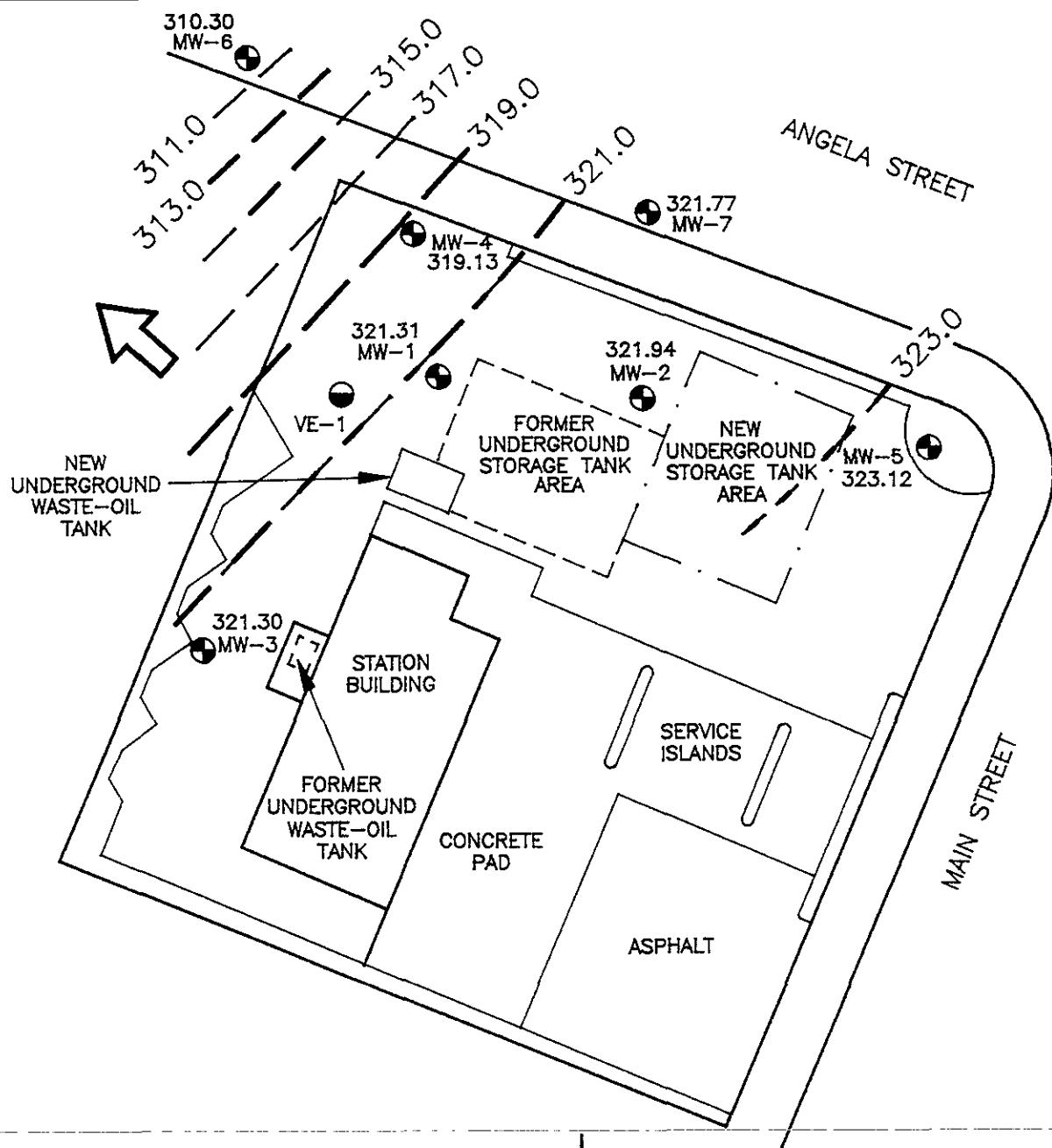
PROJECT NO.

19025-5

SITE VICINITY MAP
 Exxon Service Station 7-7003
 349 Main Street
 Pleasanton, California

PLATE

1



323.0 = Line of equal elevation of ground-water in shallow saturated zone in feet above mean sea level

≈ = Approximate direction of groundwater flow

MW-7 = Monitoring well

VE-1 = Vapor extraction well

NOTE: Contours based on interpretation of available data. Contours are not intended to imply certainty.

Approximate Scale



Source: Surveyed by Ron Archer
Civil Engineer, Inc.

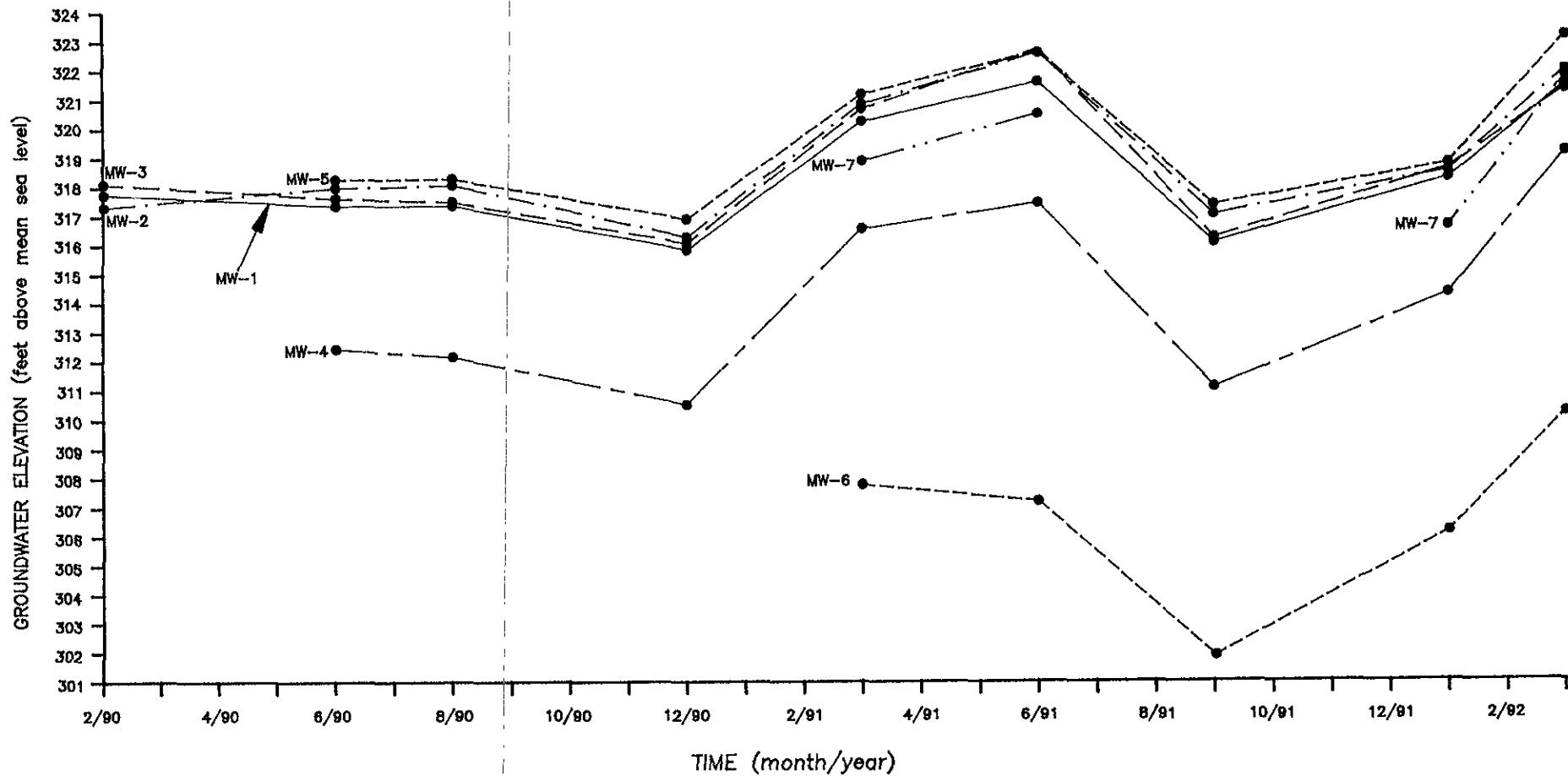
RESNA

PROJECT NO. 19025-5

GENERALIZED SITE PLAN AND
GROUNDWATER ELEVATION MAP
(March 12, 1992)
Exxon Service Station 7-7003
Pleasanton, California

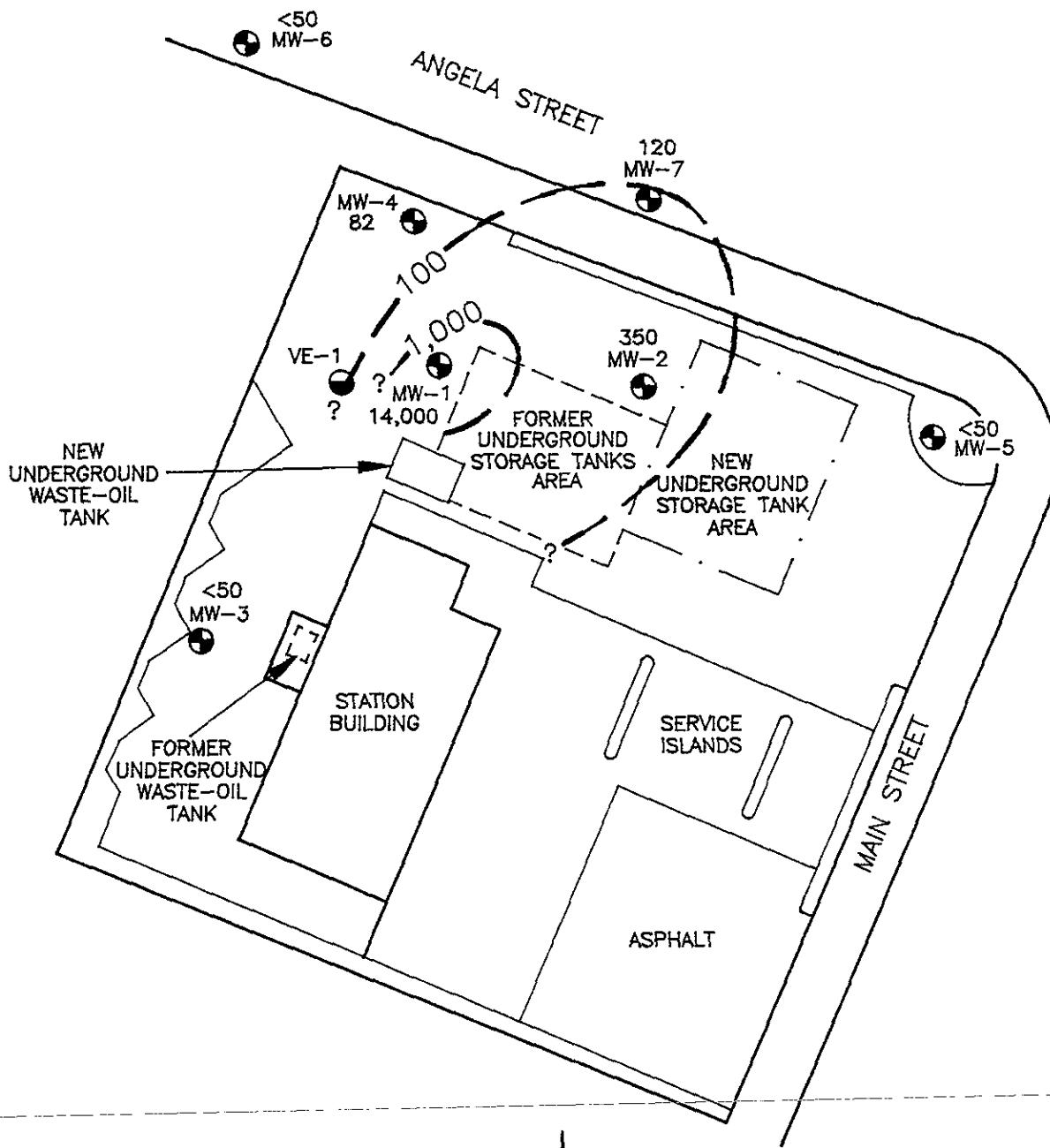
PLATE

2



NOTE: Well MW-7 not accessible when 4th Quarter measurements were obtained.

PLATE 3	HYDROGRAPH Exxon Service Station 7-7003 349 Main Street Pleasanton, California	RESNA
	PROJECT NO. 19025-5	



1,000 = Line of equal concentration
in parts per billion

14,000 = Concentration in parts per billion

MW-5 (●) = Groundwater monitoring well

VE-1 (●) = Vapor extraction well

TPHg = Total Petroleum Hydrocarbons
as gasoline

NOTE: Contours based on interpretation
of available data. Contours are not
intended to imply certainty.

Approximate Scale



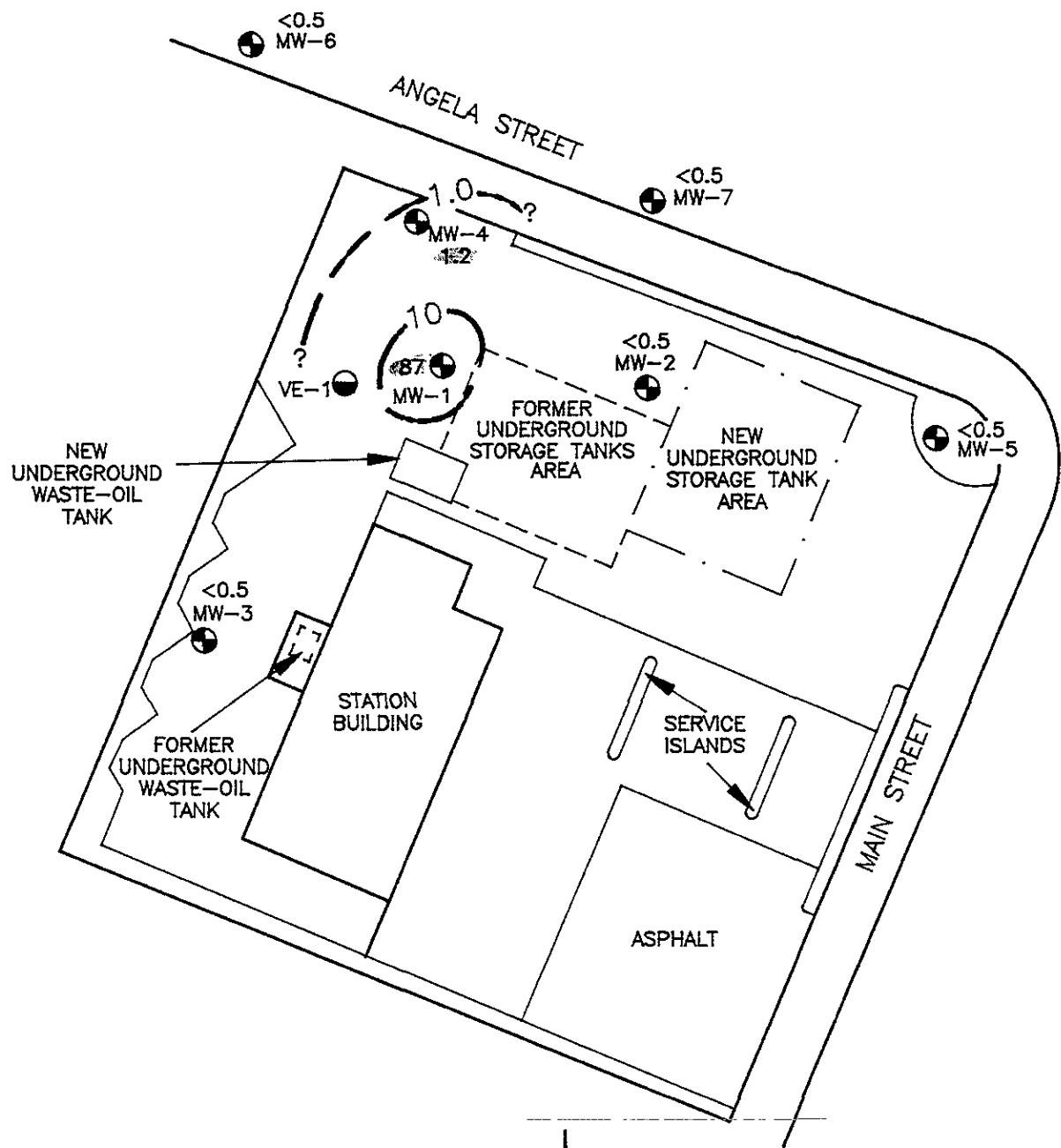
Source: Surveyed by Ron Archer
Civil Engineer, Inc.,
1990 and 1991

RESNA

PROJECT NO. 19025-5

**CONCENTRATION OF TPHg IN
GROUNDWATER (March 1992)**
Exxon Service Station 7-7003
349 Main Street
Pleasanton, California

PLATE
4



$_{10}$ = Line of equal concentration
in parts per billion

87 = Concentration in parts per billion

MW-7 = Groundwater monitoring well

VE-1 = Vapor extraction well

NOTE: Contours based on interpretation
of available data. Contours are not
intended to imply certainty.

Approximate Scale
30 15 0 30 60
feet

Source: Surveyed by Ron Archer
Civil Engineer, Inc.,
1990 and 1991

RESNA

PROJECT NO. 19025-5

**CONCENTRATION OF BENZENE IN
GROUNDWATER (March 1992)**
Exxon Service Station 7-7003
349 Main Street
Pleasanton, California

PLATE

5

RESNA

ATTACHMENT I
FIELD PROCEDURES

FIELD PROCEDURES

Subjective Evaluations

Before water samples were collected for subjective evaluations, the depth to static water level was measured in each well to the nearest 0.01 foot with a Solinst electronic water-level indicator. The groundwater samples were then collected from each well by gently lowering approximately half the length of a Teflon bailer past the air-water interface. The bailer was cleansed with Alconox, a commercial biodegradable detergent, and rinsed with distilled water prior to each use. The samples were retrieved and examined for evidence of floating product or sheen.

Groundwater Sampling

Prior to collecting groundwater samples, each well was purged of approximately 3 to 4 well volumes of water with a Teflon bailer that was cleansed with Alconox and rinsed with distilled water prior to each use. A water sample was collected from each well after the well had recharged to more than 80 percent of the static level. Half the length of the bailer was lowered past the air-water interface to retrieve the sample. The bailer was retrieved and water samples were slowly decanted into laboratory-cleaned sample containers. For TPHg, BTEX, and VOC analyses, 40-milliliter, volatile organic analysis glass vials with Teflon-lined caps were used. Hydrochloric acid was added to the samples as a preservative. For organic lead and TOG analyses, the groundwater samples were collected in 1-liter glass bottles and sulfuric acid was added to the TOG sample until pH was less than 2. The sample containers were promptly capped, labeled, and placed in iced storage for transport to state certified analytical laboratories for analysis.

Purged Water

Purged water from the wells were stored onsite in 17E 55-gallon steel drums approved for this use by the Department of Transportation. The water is scheduled to be removed from the site by Erickson, Inc. of Richmond, California, in April 1992.



ATTACHMENT II
WELL PURGE DATA SHEETS

JOB NAME: Exxon, Main St., Pleasanton
JOB NO.: 19025-3
PHASE: Chrtx.
TASK: Sampling
SUBTASK: _____

DATE: 3-12-13 92

SAMPLED BY: B. Adkison

LABORATORY: Pace

DRUMS AT SITE: FULL ✓
EMPTY



ATTACHMENT III

CHAIN OF CUSTODY RECORDS AND ANALYSIS REPORTS

2/3
10/3

Novato, CA
11 Digital Drive, 94949
(415) 883-6100

Irvine, CA
Alton Business Park
30 Hughes St., Suite 206, 92718
(714) 380-9559

Consultant Name: *Kesm*

Address: *12501 Albrae, Fremont, CA*

Project Contact: *Brian Warden*

Project #: *19025-3*

Phone #: *510-659-0404*

Fax #:

Consultant Work Release #:

Exxon Contact: *Mark Gurnster*

Phone #:

Site RAS #: *7-3982 7003*

Site Location: *Main St. Pleasanton*

Laboratory Work Release #:

Sampled by (please print)				SOIL		WATER		TPH EPA 418.1	Total Oil & Grease SM 5520	601/8010	Remarks
Sampler Signature	Date Sampled	TPH/GAS/TEX EPA 8015/8020	TPH/Diesel EPA 8015	Organic Lead DIS Method	TPH/GAS/TEX EPA 8015/802	TPH/Diesel EPA 8015	Organic Lead DIS Method				
<i>Robin A. Adam</i>	<i>3-12-92</i>										
MW1	3-13-92 2:45	HCl	3	X							
		None	3								
		None	1L	A000.0							
MW2	3-13-92 2:15	HCl	3	X							
		None	3								
		None	1L	A001.9							
MW3	3-12-92 4:30	HCl	3	X							
		None	3								
		None	1L	A002.1							
		red 3x									
Cooler No. <i>G11, 101</i>	Relinquished by/Affiliation				Accepted by/Affiliation				Date	Time	
Cooler Seal Intact	<i>Robin A. Adam</i>				<i>John Resin</i>				<i>3-16-92</i>	<i>7:45</i>	
<input type="checkbox"/> Yes											
<input type="checkbox"/> No											
Turnaround Time (circle choice)	<i>Edathy Poe</i>				<i>Edathy Poe</i>				<i>3/16/92</i>	<i>1510</i>	
24 hr.											
48 hr.											
72 hr.											
96 hr.											
<input checked="" type="checkbox"/> WORKDAY (standard)											
<i>Standard</i>											
Shipment Method	Additional Comments: <i>all org-Pb's reid in plastic containers</i>										
Shipment Date											
Distribution:	White - Original	Yellow - Exxon	Pink - Lab	Goldenrod - Consultant Field Staff							

Novato, CA
11 Digital Drive, 94949
(415) 883-6100

Irvine, CA
Alton Business Park
30 Hughes St., Suite 206, 92718
(714) 380-9559

Consultant Name: *Riana*
Address: *42501 Alvarae St., Suite 100, Elment*
Project Contact: *Brian Warden* Project #: *19025.3*
Phone #: *(510) 659-0404* Fax #:

Consultant Work Release #: *90066059*

Exxon Contact: _____ Phone #: _____

Site RAS #: *7-7003*

Site Location: *Main St. Pleasanton*

Laboratory Work Release #: _____

Sampled by (please print)					SOIL		WATER		Remarks			
Sampler Signature		Date Sampled			TPH/GAS/TEX EPA 8015/8020	TPH/Diesel EPA 8015	Organic Lead DHS Method	TPH/GAS/TEX EPA 8015/802	TPH/Diesel EPA 8015	Organic Lead DHS Method	Total Oil & Grease SM 5520	
Sample Description	Collection Date/Time	Matrix	Prsv.	# of Cont.								
MW1	3-13-92	W	1					X		X	5314.5	AKA 4000.0
MW2	3-13-92	W	1					X		X	15.3	AKA 4001.9
MW3	3-12-92	W	1					X		X	16.1	AKA 4002.7
MW4	3-13-92	W	1					X		X	17.0	AKA 4003.5
MW5	3-12-92	W	1					X		X	18.8	AKA 4004.3
MW6	3-12-92	W	1					X		X	19.6	AKA 4005.1
MW7	3-12-92	W	1					X		X	20.0	AKA 4006.0

Cooler No: <i>G/1101</i>	Relinquished by/Affiliation	Accepted by/Affiliation	Date	Time
Cooler Seal Intact				
<input type="checkbox"/> Yes				
<input type="checkbox"/> No				
Turnaround Time (circle choice)				
24 hr.				
48 hr.				
72 hr.				
96 hr.				
5 workday (standard)				

Shipment Method	Additional Comments: <i>Originally logged in under project # 420316 511 all org Pb's received in plastic container</i>
Shipment Date	

Distribution:

White - Original

Yellow - Exxon

Pink - Lab

Goldenrod - Consultant Field Staff

April 03, 1992

Mr. Brian Worden
Resna/Applied Geosystems
42501 Albrae St., Suite 100
Fremont, CA 94538

RE: PACE Project No. 420316.511
Client Reference: Exxon 7-7003

Dear Mr. McVicker:

Enclosed is the report of laboratory analyses for samples received March 16, 1992.

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

Sincerely,

Carol Reid
Carol Reid
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

Resna/Applied Geosystems
4201 Albrae St., Suite 100
Fremont, CA 94538

April 03, 1992
PACE Project Number: 420316511

Mr. Brian Worden

Client Reference: Exxon 7-7003

PACE Sample Number:

70 0040000

Date Collected:

03/13/92

Date Received:

03/16/92

Client Sample ID:

MW 1

Parameter

Units

MDL

(3/12)

DATE ANALYZED

ORGANIC ANALYSIS

TPH GASOLINE/BTEX

TOTAL FUEL HYDROCARBONS, (LIGHT):

Purgeable Fuels, as Gasoline (EPA 8015) ug/L 1200 14000 - 03/17/92

PURGEABLE AROMATICS (BTXE BY EPA 8020):

Benzene ug/L 12 87 - 03/17/92

Toluene ug/L 12 22 - 03/17/92

Ethylbenzene ug/L 12 1200 - 03/17/92

Xylenes, Total ug/L 12 1000 - 03/17/92

PURGEABLE HALOCARBONS, EPA METHOD 601

Dichlorodifluoromethane ug/L 2.0 ND 03/17/92

Chloromethane ug/L 2.0 ND 03/17/92

Vinyl Chloride ug/L 2.0 ND 03/17/92

Bromomethane ug/L 2.0 ND 03/17/92

Chloroethane ug/L 2.0 ND 03/17/92

Trichlorofluoromethane (Freon 11) ug/L 2.0 ND 03/17/92

1,1-Dichloroethene ug/L 0.5 ND 03/17/92

Methylene Chloride ug/L 2.0 2.1 03/17/92

trans-1,2-Dichloroethene ug/L 0.5 ND 03/17/92

cis-1,2-Dichloroethene ug/L 0.5 ND 03/17/92

1,1-Dichloroethane ug/L 0.5 ND 03/17/92

Chloroform ug/L 0.5 14 03/17/92

1,1,1-Trichloroethane (TCA) ug/L 0.5 ND 03/17/92

Carbon Tetrachloride ug/L 0.5 ND 03/17/92

1,2-Dichloroethane (EDC) ug/L 0.5 1.2 03/17/92

Trichloroethene (TCE) ug/L 0.5 0.5 03/17/92

1,2-Dichloropropane ug/L 0.5 ND 03/17/92

Bromodichloromethane ug/L 0.5 ND 03/17/92

2-Chloroethylvinyl ether ug/L 0.5 ND 03/17/92

MDL Method Detection Limit

ND Not detected at or above the MDL.

Mr. Brian Worden
Page 2

April 03, 1992
PACE Project Number: 420316511

Client Reference: Exxon 7-7003

PACE Sample Number:
Date Collected:
Date Received:
Client Sample ID:

70 0040000
03/13/92
03/16/92
MW 1

Parameter	Units	MDL	(3/12)	DATE ANALYZED
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ORGANIC ANALYSIS

PURGEABLE HALOCARBONS, EPA METHOD 601

cis-1,3-Dichloropropene	ug/L	0.5	ND	03/17/92
trans-1,3-Dichloropropene	ug/L	0.5	ND	03/17/92
1,1,2-Trichloroethane	ug/L	0.5	ND	03/17/92
Tetrachloroethene	ug/L	0.5	0.8	03/17/92
Dibromochloromethane	ug/L	0.5	ND	03/17/92
Chlorobenzene	ug/L	0.5	ND	03/17/92
Bromoform	ug/L	0.5	ND	03/17/92
1,1,2,2-Tetrachloroethane	ug/L	0.5	ND	03/17/92
1,3-Dichlorobenzene	ug/L	0.5	ND	03/17/92
1,4-Dichlorobenzene	ug/L	0.5	ND	03/17/92
1,2-Dichlorobenzene	ug/L	0.5	ND	03/17/92
Bromochloromethane (Surrogate Recovery)			91%	03/17/92
1,4-Dichlorobutane (Surrogate Recovery)			93%	03/17/92

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

Mr. Brian Worden
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April 03, 1992
PACE Project Number: 420316511

Client Reference: Exxon 7-7003

PACE Sample Number: 70 0040019
 Date Collected: 03/13/92
 Date Received: 03/16/92
 Client Sample ID: MW 2

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>DATE ANALYZED</u>
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ORGANIC ANALYSIS

TPH GASOLINE/BTEX

TOTAL FUEL HYDROCARBONS, (LIGHT): 03/17/92

Purgeable Fuels, as Gasoline (EPA 8015) ug/L 50 350 03/17/92

PURGEABLE AROMATICS (BTXE BY EPA 8020): - 03/17/92

Benzene ug/L 0.5 ND 03/17/92

Toluene ug/L 0.5 0.6 03/17/92

Ethylbenzene ug/L 0.5 3.0 03/17/92

Xylenes, Total ug/L 0.5 1.0 03/17/92

PURGEABLE HALOCARBONS, EPA METHOD 601

Dichlorodifluoromethane ug/L 2.0 ND 03/17/92

Chloromethane ug/L 2.0 ND 03/17/92

Vinyl Chloride ug/L 2.0 ND 03/17/92

Bromomethane ug/L 2.0 ND 03/17/92

Chloroethane ug/L 2.0 ND 03/17/92

Trichlorofluoromethane (Freon 11) ug/L 2.0 ND 03/17/92

1,1-Dichloroethene ug/L 0.5 ND 03/17/92

Methylene Chloride ug/L 2.0 ND 03/17/92

trans-1,2-Dichloroethene ug/L 0.5 ND 03/17/92

cis-1,2-Dichloroethene ug/L 0.5 ND 03/17/92

1,1-Dichloroethane ug/L 0.5 ND 03/17/92

Chloroform ug/L 0.5 ND 03/17/92

1,1,1-Trichloroethane (TCA) ug/L 0.5 ND 03/17/92

Carbon Tetrachloride ug/L 0.5 ND 03/17/92

1,2-Dichloroethane (EDC) ug/L 0.5 ND 03/17/92

Trichloroethene (TCE) ug/L 0.5 ND 03/17/92

1,2-Dichloropropane ug/L 0.5 ND 03/17/92

Bromodichloromethane ug/L 0.5 ND 03/17/92

2-Chloroethylvinyl ether ug/L 0.5 ND 03/17/92

MDL. Method Detection Limit

ND Not detected at or above the MDL.

Mr. Brian Worden
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April 03, 1992
PACE Project Number: 420316511

Client Reference: Exxon 7-7003

PACE Sample Number:

70 0040019

Date Collected:

03/13/92

Date Received:

03/16/92

Client Sample ID:

MW 2

Parameter

Units

MDL

DATE ANALYZED

ORGANIC ANALYSIS

PURGEABLE HALOCARBONS, EPA METHOD 601

cis-1,3-Dichloropropene	ug/L	0.5	ND	03/17/92
trans-1,3-Dichloropropene	ug/L	0.5	ND	03/17/92
1,1,2-Trichloroethane	ug/L	0.5	ND	03/17/92
Tetrachloroethene	ug/L	0.5	ND	03/17/92
Dibromochloromethane	ug/L	0.5	ND	03/17/92
Chlorobenzene	ug/L	0.5	ND	03/17/92
Bromoform	ug/L	0.5	ND	03/17/92
1,1,2,2-Tetrachloroethane	ug/L	0.5	ND	03/17/92
1,3-Dichlorobenzene	ug/L	0.5	ND	03/17/92
1,4-Dichlorobenzene	ug/L	0.5	ND	03/17/92
1,2-Dichlorobenzene	ug/L	0.5	ND	03/17/92
Bromochloromethane (Surrogate Recovery)			87%	03/17/92
1,4-Dichlorobutane (Surrogate Recovery)			89%	03/17/92

MDL Method Detection Limit

ND Not detected at or above the MDL.

Mr. Brian Worden
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April 03, 1992
PACE Project Number: 420316511

Client Reference: Exxon 7-7003

PACE Sample Number: 70 0040027
 Date Collected: 03/12/92
 Date Received: 03/16/92
 Client Sample ID: MW 3

Parameter	Units	MDL	DATE ANALYZED
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ORGANIC ANALYSIS

TPH GASOLINE/BTEX

TOTAL FUEL HYDROCARBONS, (LIGHT): 03/17/92

Purgeable Fuels, as Gasoline (EPA 8015) ug/L 50 ND 03/17/92

PURGEABLE AROMATICS (BTXE BY EPA 8020): 03/17/92

Benzene ug/L 0.5 ND 03/17/92

Toluene ug/L 0.5 ND 03/17/92

Ethylbenzene ug/L 0.5 ND 03/17/92

Xylenes, Total ug/L 0.5 ND 03/17/92

PURGEABLE HALOCARBONS, EPA METHOD 601

Dichlorodifluoromethane ug/L 2.0 ND 03/17/92

Chloromethane ug/L 2.0 ND 03/17/92

Vinyl Chloride ug/L 2.0 ND 03/17/92

Bromomethane ug/L 2.0 ND 03/17/92

Chloroethane ug/L 2.0 ND 03/17/92

Trichlorofluoromethane (Freon 11) ug/L 2.0 ND 03/17/92

1,1-Dichloroethene ug/L 0.5 ND 03/17/92

Methylene Chloride ug/L 2.0 ND 03/17/92

trans-1,2-Dichloroethene ug/L 0.5 ND 03/17/92

cis-1,2-Dichloroethene ug/L 0.5 ND 03/17/92

1,1-Dichloroethane ug/L 0.5 ND 03/17/92

Chloroform ug/L 0.5 ND 03/17/92

1,1,1-Trichloroethane (TCA) ug/L 0.5 ND 03/17/92

Carbon Tetrachloride ug/L 0.5 ND 03/17/92

1,2-Dichloroethane (EDC) ug/L 0.5 ND 03/17/92

Trichloroethene (TCE) ug/L 0.5 ND 03/17/92

1,2-Dichloropropane ug/L 0.5 ND 03/17/92

Bromodichloromethane ug/L 0.5 ND 03/17/92

2-Chloroethylvinyl ether ug/L 0.5 ND 03/17/92

MDL Method Detection Limit

ND Not detected at or above the MDL.

Mr. Brian Worden
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April 03, 1992
PACE Project Number: 420316511

Client Reference: Exxon 7-7003

PACE Sample Number: 70 0040027
 Date Collected: 03/12/92
 Date Received: 03/16/92
 Client Sample ID: MW 3

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>DATE ANALYZED</u>
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ORGANIC ANALYSIS

PURGEABLE HALOCARBONS, EPA METHOD 601

cis-1,3-Dichloropropene	ug/L	0.5	ND	03/17/92
trans-1,3-Dichloropropene	ug/L	0.5	ND	03/17/92
1,1,2-Trichloroethane	ug/L	0.5	ND	03/17/92
Tetrachloroethene	ug/L	0.5	ND	03/17/92
Dibromochloromethane	ug/L	0.5	ND	03/17/92
Chlorobenzene	ug/L	0.5	ND	03/17/92
Bromoform	ug/L	0.5	ND	03/17/92
1,1,2,2-Tetrachloroethane	ug/L	0.5	ND	03/17/92
1,3-Dichlorobenzene	ug/L	0.5	ND	03/17/92
1,4-Dichlorobenzene	ug/L	0.5	ND	03/17/92
1,2-Dichlorobenzene	ug/L	0.5	ND	03/17/92
Bromochloromethane (Surrogate Recovery)			110%	03/17/92
1,4-Dichlorobutane (Surrogate Recovery)			85%	03/17/92
TOTAL OIL AND GREASE (SM 5520)				
Total Oil & Grease SM 5520	mg/L	5.0	ND	03/19/92
Date Extracted				03/18/92

MDL Method Detection Limit

ND Not detected at or above the MDL.

Mr. Brian Worden
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April 03, 1992
 PACE Project Number: 420316511

Client Reference: Exxon 7-7003

PACE Sample Number: 70 0040035
 Date Collected: 03/13/92
 Date Received: 03/16/92
 Client Sample ID: MW 4

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>DATE ANALYZED</u>
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ORGANIC ANALYSIS

TPH GASOLINE/BTEX

TOTAL FUEL HYDROCARBONS, (LIGHT): 03/17/92

Purgeable Fuels, as Gasoline (EPA 8015) ug/L 50 82 03/17/92

PURGEABLE AROMATICS (BTXE BY EPA 8020): - 03/17/92

Benzene ug/L 0.5 1.2 03/17/92

Toluene ug/L 0.5 ND 03/17/92

Ethylbenzene ug/L 0.5 5.3 03/17/92

Xylenes, Total ug/L 0.5 4.3 03/17/92

PURGEABLE HALOCARBONS, EPA METHOD 601

Dichlorodifluoromethane ug/L 2.0 ND 03/17/92

Chloromethane ug/L 2.0 ND 03/17/92

Vinyl Chloride ug/L 2.0 ND 03/17/92

Bromomethane ug/L 2.0 ND 03/17/92

Chloroethane ug/L 2.0 ND 03/17/92

Trichlorofluoromethane (Freon 11) ug/L 2.0 ND 03/17/92

1,1-Dichloroethene ug/L 0.5 ND 03/17/92

Methylene Chloride ug/L 2.0 ND 03/17/92

trans-1,2-Dichloroethene ug/L 0.5 ND 03/17/92

cis-1,2-Dichloroethene ug/L 0.5 ND 03/17/92

1,1-Dichloroethane ug/L 0.5 ND 03/17/92

Chloroform ug/L 0.5 ND 03/17/92

1,1,1-Trichloroethane (TCA) ug/L 0.5 ND 03/17/92

Carbon Tetrachloride ug/L 0.5 ND 03/17/92

1,2-Dichloroethane (EDC) ug/L 0.5 ND 03/17/92

Trichloroethene (TCE) ug/L 0.5 ND 03/17/92

1,2-Dichloropropane ug/L 0.5 ND 03/17/92

Bromodichloromethane ug/L 0.5 ND 03/17/92

2-Chloroethylvinyl ether ug/L 0.5 ND 03/17/92

MDL Method Detection Limit

ND Not detected at or above the MDL.

Mr. Brian Worden
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April 03, 1992
 PACE Project Number: 420316511

Client Reference: Exxon 7-7003

PACE Sample Number: 70 0040035
 Date Collected: 03/13/92
 Date Received: 03/16/92
 Client Sample ID: MW 4

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>DATE ANALYZED</u>
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ORGANIC ANALYSIS

PURGEABLE HALOCARBONS, EPA METHOD 601

cis-1,3-Dichloropropene	ug/L	0.5	ND	03/17/92
trans-1,3-Dichloropropene	ug/L	0.5	ND	03/17/92
1,1,2-Trichloroethane	ug/L	0.5	ND	03/17/92
Tetrachloroethene	ug/L	0.5	ND	03/17/92
Dibromochloromethane	ug/L	0.5	ND	03/17/92
Chlorobenzene	ug/L	0.5	ND	03/17/92
Bromoform	ug/L	0.5	ND	03/17/92
1,1,2,2-Tetrachloroethane	ug/L	0.5	ND	03/17/92
1,3-Dichlorobenzene	ug/L	0.5	ND	03/17/92
1,4-Dichlorobenzene	ug/L	0.5	ND	03/17/92
1,2-Dichlorobenzene	ug/L	0.5	ND	03/17/92
Bromochloromethane (Surrogate Recovery)			109%	03/17/92
1,4-Dichlorobutane (Surrogate Recovery)			84%	03/17/92

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

Mr. Brian Worden
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April 03, 1992
PACE Project Number: 420316511

Client Reference: Exxon 7-7003

PACE Sample Number: 70 0040043
 Date Collected: 03/12/92
 Date Received: 03/16/92
 Client Sample ID: MW 5

Parameter	Units	MDL	DATE ANALYZED
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ORGANIC ANALYSIS

TPH GASOLINE/BTEX

TOTAL FUEL HYDROCARBONS, (LIGHT): Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	50	-	03/17/92
PURGEABLE AROMATICS (BTXE BY EPA 8020): Benzene	ug/L	0.5	ND	03/17/92
Toluene	ug/L	0.5	ND	03/17/92
Ethylbenzene	ug/L	0.5	ND	03/17/92
Xylenes, Total	ug/L	0.5	ND	03/17/92

PURGEABLE HALOCARBONS, EPA METHOD 601

Dichlorodifluoromethane	ug/L	2.0	ND	03/17/92
Chloromethane	ug/L	2.0	ND	03/17/92
Vinyl Chloride	ug/L	2.0	ND	03/17/92
Bromomethane	ug/L	2.0	ND	03/17/92
Chloroethane	ug/L	2.0	ND	03/17/92
Trichlorofluoromethane (Freon 11)	ug/L	2.0	ND	03/17/92
1,1-Dichloroethene	ug/L	0.5	ND	03/17/92
Methylene Chloride	ug/L	2.0	ND	03/17/92
trans-1,2-Dichloroethene	ug/L	0.5	ND	03/17/92
cis-1,2-Dichloroethene	ug/L	0.5	ND	03/17/92
1,1-Dichloroethane	ug/L	0.5	ND	03/17/92
Chloroform	ug/L	0.5	ND	03/17/92

1,1,1-Trichloroethane (TCA)	ug/L	0.5	ND	03/17/92
Carbon Tetrachloride	ug/L	0.5	ND	03/17/92
1,2-Dichloroethane (EDC)	ug/L	0.5	ND	03/17/92
Trichloroethene (TCE)	ug/L	0.5	ND	03/17/92
1,2-Dichloropropane	ug/L	0.5	ND	03/17/92
Bromodichloromethane	ug/L	0.5	ND	03/17/92

2-Chloroethylvinyl ether	ug/L	0.5	ND	03/17/92
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MDL Method Detection Limit

ND Not detected at or above the MDL.

Mr. Brian Worden
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April 03, 1992
 PACE Project Number: 420316511

Client Reference: Exxon 7-7003

PACE Sample Number: 70 0040043
 Date Collected: 03/12/92
 Date Received: 03/16/92
 Client Sample ID: MW 5

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>DATE ANALYZED</u>
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ORGANIC ANALYSIS

PURGEABLE HALOCARBONS, EPA METHOD 601

cis-1,3-Dichloropropene	ug/L	0.5	ND	03/17/92
trans-1,3-Dichloropropene	ug/L	0.5	ND	03/17/92
1,1,2-Trichloroethane	ug/L	0.5	ND	03/17/92
Tetrachloroethene	ug/L	0.5	ND	03/17/92
Dibromochloromethane	ug/L	0.5	ND	03/17/92
Chlorobenzene	ug/L	0.5	ND	03/17/92
Bromoform	ug/L	0.5	ND	03/17/92
1,1,2,2-Tetrachloroethane	ug/L	0.5	ND	03/17/92
1,3-Dichlorobenzene	ug/L	0.5	ND	03/17/92
1,4-Dichlorobenzene	ug/L	0.5	ND	03/17/92
1,2-Dichlorobenzene	ug/L	0.5	ND	03/17/92
Bromochloromethane (Surrogate Recovery)			115%	03/17/92
1,4-Dichlorobutane (Surrogate Recovery)			83%	03/17/92

MDL Method Detection Limit

ND Not detected at or above the MDL.

Mr. Brian Worden
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April 03, 1992
PACE Project Number: 420316511

Client Reference: Exxon 7-7003

PACE Sample Number:	70 0040051
Date Collected:	03/12/92
Date Received:	03/16/92
Client Sample ID:	MW 6

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>DATE ANALYZED</u>
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ORGANIC ANALYSIS

TPH GASOLINE/BTEX

TOTAL FUEL HYDROCARBONS, (LIGHT):			-	03/17/92
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	50	ND	03/17/92
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	03/17/92
Benzene	ug/L	0.5	ND	03/17/92
Toluene	ug/L	0.5	ND	03/17/92
Ethylbenzene	ug/L	0.5	ND	03/17/92
Xylenes, Total	ug/L	0.5	ND	03/17/92

PURGEABLE HALOCARBONS, EPA METHOD 601

Dichlorodifluoromethane	ug/L	2.0	ND	03/17/92
Chloromethane	ug/L	2.0	ND	03/17/92
Vinyl Chloride	ug/L	2.0	ND	03/17/92
Bromomethane	ug/L	2.0	ND	03/17/92
Chloroethane	ug/L	2.0	ND	03/17/92
Trichlorofluoromethane (Freon 11)	ug/L	2.0	ND	03/17/92
1,1-Dichloroethene	ug/L	0.5	ND	03/17/92
Methylene Chloride	ug/L	2.0	ND	03/17/92
trans-1,2-Dichloroethene	ug/L	0.5	ND	03/17/92
cis-1,2-Dichloroethene	ug/L	0.5	ND	03/17/92
1,1-Dichloroethane	ug/L	0.5	ND	03/17/92
Chloroform	ug/L	0.5	ND	03/17/92

1,1,1-Trichloroethane (TCA)	ug/L	0.5	ND	03/17/92
Carbon Tetrachloride	ug/L	0.5	ND	03/17/92
1,2-Dichloroethane (EDC)	ug/L	0.5	ND	03/17/92
Trichloroethene (TCE)	ug/L	0.5	ND	03/17/92
1,2-Dichloropropane	ug/L	0.5	ND	03/17/92
Bromodichloromethane	ug/L	0.5	ND	03/17/92

2-Chloroethylvinyl ether	ug/L	0.5	ND	03/17/92
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MDL Method Detection Limit

ND Not detected at or above the MDL.

Mr. Brian Worden
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April 03, 1992
PACE Project Number: 420316511

Client Reference: Exxon 7-7003

PACE Sample Number: 70 0040051
 Date Collected: 03/12/92
 Date Received: 03/16/92
 Client Sample ID: MW 6

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>DATE ANALYZED</u>
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ORGANIC ANALYSIS

PURGEABLE HALOCARBONS, EPA METHOD 601

cis-1,3-Dichloropropene	ug/L	0.5	ND	03/17/92
trans-1,3-Dichloropropene	ug/L	0.5	ND	03/17/92
1,1,2-Trichloroethane	ug/L	0.5	ND	03/17/92
Tetrachloroethene	ug/L	0.5	ND	03/17/92
Dibromochloromethane	ug/L	0.5	ND	03/17/92
Chlorobenzene	ug/L	0.5	ND	03/17/92
Bromoform	ug/L	0.5	ND	03/17/92
1,1,2,2-Tetrachloroethane	ug/L	0.5	ND	03/17/92
1,3-Dichlorobenzene	ug/L	0.5	ND	03/17/92
1,4-Dichlorobenzene	ug/L	0.5	ND	03/17/92
1,2-Dichlorobenzene	ug/L	0.5	ND	03/17/92
Bromochloromethane (Surrogate Recovery)			113%	03/17/92
1,4-Dichlorobutane (Surrogate Recovery)			83%	03/17/92

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

Mr. Brian Worden
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April 03, 1992
PACE Project Number: 420316511

Client Reference: Exxon 7-7003

PACE Sample Number: 70 0040060
 Date Collected: 03/12/92
 Date Received: 03/16/92
 Client Sample ID: MW 7

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>DATE ANALYZED</u>
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ORGANIC ANALYSIS

TPH GASOLINE/BTEX

TOTAL FUEL HYDROCARBONS, (LIGHT): Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	50	-	03/17/92
PURGEABLE AROMATICS (BTXE BY EPA 8020): Benzene	ug/L	0.5	ND	03/17/92
Toluene	ug/L	0.5	ND	03/17/92
Ethylbenzene	ug/L	0.5	ND	03/17/92

Xylenes, Total	ug/L	0.5	ND	03/17/92
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PURGEABLE HALOCARBONS, EPA METHOD 601

Dichlorodifluoromethane	ug/L	2.0	ND	03/17/92
Chloromethane	ug/L	2.0	ND	03/17/92
Vinyl Chloride	ug/L	2.0	ND	03/17/92
Bromomethane	ug/L	2.0	ND	03/17/92
Chloroethane	ug/L	2.0	ND	03/17/92
Trichlorofluoromethane (Freon 11)	ug/L	2.0	ND	03/17/92
1,1-Dichloroethene	ug/L	0.5	ND	03/17/92
Methylene Chloride	ug/L	2.0	ND	03/17/92
trans-1,2-Dichloroethene	ug/L	0.5	ND	03/17/92
cis-1,2-Dichloroethene	ug/L	0.5	ND	03/17/92
1,1-Dichloroethane	ug/L	0.5	ND	03/17/92
Chloroform	ug/L	0.5	ND	03/17/92

1,1,1-Trichloroethane (TCA)	ug/L	0.5	ND	03/17/92
Carbon Tetrachloride	ug/L	0.5	ND	03/17/92
1,2-Dichloroethane (EDC)	ug/L	0.5	ND	03/17/92
Trichloroethene (TCE)	ug/L	0.5	ND	03/17/92
1,2-Dichloropropane	ug/L	0.5	ND	03/17/92
Bromodichloromethane	ug/L	0.5	ND	03/17/92

2-Chloroethylvinyl ether	ug/L	0.5	ND	03/17/92
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MDL Method Detection Limit

ND Not detected at or above the MDL.

Mr. Brian Worden
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April 03, 1992
PACE Project Number: 420316511

Client Reference: Exxon 7-7003

PACE Sample Number:
Date Collected:
Date Received:
Client Sample ID:
Parameter

70 0040060
03/12/92
03/16/92
MW 7

Units MDL DATE ANALYZED

ORGANIC ANALYSIS

PURGEABLE HALOCARBONS, EPA METHOD 601

cis-1,3-Dichloropropene	ug/L	0.5	ND	03/17/92
trans-1,3-Dichloropropene	ug/L	0.5	ND	03/17/92
1,1,2-Trichloroethane	ug/L	0.5	ND	03/17/92
Tetrachloroethene	ug/L	0.5	ND	03/17/92
Dibromochloromethane	ug/L	0.5	ND	03/17/92
Chlorobenzene	ug/L	0.5	ND	03/17/92
Bromoform	ug/L	0.5	ND	03/17/92
1,1,2,2-Tetrachloroethane	ug/L	0.5	ND	03/17/92
1,3-Dichlorobenzene	ug/L	0.5	ND	03/17/92
1,4-Dichlorobenzene	ug/L	0.5	ND	03/17/92
1,2-Dichlorobenzene	ug/L	0.5	ND	03/17/92
Bromochloromethane (Surrogate Recovery)			109%	03/17/92
1,4-Dichlorobutane (Surrogate Recovery)			83%	03/17/92

MDL Method Detection Limit

ND Not detected at or above the MDL.

These data have been reviewed and are approved for release.

Mark A. Valentini

Mark A. Valentini, Ph.D.
Regional Director

Mr. Brian Worden
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QUALITY CONTROL DATA

April 03, 1992
PACE Project Number: 420316511

Client Reference: Exxon 7-7003

PURGEABLE HALOCARBONS, EPA METHOD 601

Batch: 70 10776

Samples: 70 0040000, 70 0040019, 70 0040027, 70 0040035, 70 0040043
70 0040051, 70 0040060

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Dichlorodifluoromethane	ug/L	2.0	ND
Chloromethane	ug/L	2.0	ND
Vinyl Chloride	ug/L	2.0	ND
Bromomethane	ug/L	2.0	ND
Chloroethane	ug/L	2.0	ND
Trichlorofluoromethane (Freon 11)	ug/L	2.0	ND
1,1-Dichloroethene	ug/L	0.5	ND
Methylene Chloride	ug/L	2.0	ND
trans-1,2-Dichloroethene	ug/L	0.5	ND
cis-1,2-Dichloroethene	ug/L	0.5	ND
1,1-Dichloroethane	ug/L	0.5	ND
Chloroform	ug/L	0.5	ND
1,1,1-Trichloroethane (TCA)	ug/L	0.5	ND
Carbon Tetrachloride	ug/L	0.5	ND
1,2-Dichloroethane (EDC)	ug/L	0.5	ND
Trichloroethene (TCE)	ug/L	0.5	ND
1,2-Dichloropropane	ug/L	0.5	ND
Bromodichloromethane	ug/L	0.5	ND
2-Chloroethylvinyl ether	ug/L	0.5	ND
cis-1,3-Dichloropropene	ug/L	0.5	ND
trans-1,3-Dichloropropene	ug/L	0.5	ND
1,1,2-Trichloroethane	ug/L	0.5	ND
Tetrachloroethene	ug/L	0.5	ND
Dibromochloromethane	ug/L	0.5	ND
Chlorobenzene	ug/L	0.5	ND
Bromoform	ug/L	0.5	ND
1,1,2,2-Tetrachloroethane	ug/L	0.5	ND
1,3-Dichlorobenzene	ug/L	0.5	ND
1,4-Dichlorobenzene	ug/L	0.5	ND
1,2-Dichlorobenzene	ug/L	0.5	ND

MDL Method Detection Limit

Mr. Brian Worden
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QUALITY CONTROL DATA

April 03, 1992

PACE Project Number: 420316511

Client Reference: Exxon 7-7003

PURGEABLE HALOCARBONS, EPA METHOD 601

Batch: 70 10776

Samples: 70 0040000, 70 0040019, 70 0040027, 70 0040035, 70 0040043
70 0040051, 70 0040060

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Bromochloromethane (Surrogate Recovery)			111%
1,4-Dichlorobutane (Surrogate Recovery)			90%

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Dupl Recv	Dupl Recv	RPD
1,1-Dichloroethane	ug/L	0.5	10.00	113%	119%	5%
Trichloroethene (TCE)	ug/L	0.5	10.00	100%	106%	5%
trans-1,3-Dichloropropene	ug/L	0.5	3.8	110%	108%	1%
Tetrachloroethene	ug/L	0.5	10.00	116%	119%	2%

MDL Method Detection Limit

RPD Relative Percent Difference

Mr. Brian Worden
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QUALITY CONTROL DATA

April 03, 1992
 PACE Project Number: 420316511

Client Reference: Exxon 7-7003

TOTAL OIL AND GREASE (SM 5520)
 Batch: 70 10838
 Samples: 70 0040027

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Total Oil & Grease SM 5520	mg/L	5.0	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Dupl Recv	Recv	RPD
Total Oil & Grease SM 5520	mg/L	5.0	20	100%	100%	0%

MDL Method Detection Limit
 RPD Relative Percent Difference

Mr. Brian Worden
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QUALITY CONTROL DATA

April 03, 1992
PACE Project Number: 420316511

Client Reference: Exxon 7-7003

TPH GASOLINE/BTEX

Batch: 70 10766

Samples: 70 0040019, 70 0040027, 70 0040035, 70 0040043, 70 0040051
70 0040060

METHOD BLANK:

Parameter	Units	MDL	Method Blank
TOTAL FUEL HYDROCARBONS, (LIGHT):		-	
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	50	ND
PURGEABLE AROMATICS (BTXE BY EPA 8020):		-	
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	Dupl Recv	Dupl Recv	RPD
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	50	293	95%	84%	12%
Benzene	ug/L	0.5	40.0	100%	101%	0%
Toluene	ug/L	0.5	40.0	101%	102%	0%
Ethylbenzene	ug/L	0.5	40.0	102%	104%	1%
Xylenes, Total	ug/L	0.5	80.0	102%	103%	0%

MDL	Method Detection Limit
RPD	Relative Percent Difference

Mr. Brian Worden
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QUALITY CONTROL DATA

April 03, 1992
PACE Project Number: 420316511

Client Reference: Exxon 7-7003

TPH GASOLINE/BTEX
Batch: 70 10777
Samples: 70 0040000

METHOD BLANK:

Parameter	Units	MDL	Method Blank
TOTAL FUEL HYDROCARBONS, (LIGHT):			-
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	50	ND
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-
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	Dupl Recv	Dupl Recv	RPD
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	50	349	109%	109%	0%
Benzene	ug/L	0.5	40.0	102%	103%	0%
Toluene	ug/L	0.5	40.0	99%	105%	5%
Ethylbenzene	ug/L	0.5	40.0	98%	103%	4%
Xylenes, Total	ug/L	0.5	80.0	99%	104%	4%

MDL Method Detection Limit
RPD Relative Percent Difference

April 02, 1992

Mr. Brian Worden
Resna
42501 Albrae Street, Suite 100
Fremont, CA 94538

RE: PACE Project No. 420325.514
Client Reference: Exxon 7-7003

Dear Brian :

Enclosed is the report of laboratory analyses for samples received March 25, 1992.

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

Sincerely,



Carol Reid
Project Manager

Enclosures

Resna
42501 Albrae Street, Suite 100
Fremont, CA 94538

April 02, 1992
PACE Project Number: 420325514

Attn: Mr. Brian Worden

Client Reference: Exxon 7-7003

PACE Sample Number:

70 0053145

Date Collected:

03/13/92

Date Received:

03/25/92

Client Sample ID:

MW 1

Parameter

Units

MDL

AKA:4000.0 DATE ANALYZED

INORGANIC ANALYSIS

ORGANIC LEAD IN WATER; DHS METHOD #338

Organic Lead, as Pb

mg/L

0.1

ND

04/02/92

MDL Method Detection Limit

ND Not detected at or above the MDL.

REPORT OF LABORATORY ANALYSIS

Mr. Brian Worden
Page 2

April 02, 1992
PACE Project Number: 420325514

Client Reference: Exxon 7-7003

PACE Sample Number:

70 0053153

Date Collected:

03/13/92

Date Received:

03/25/92

Client Sample ID:

MW 2

Parameter

Units

MDL

AKA:4001.9 DATE ANALYZED

INORGANIC ANALYSIS

ORGANIC LEAD IN WATER; DHS METHOD #338

Organic Lead, as Pb

mg/L

0.1

ND

04/02/92

MDL Method Detection Limit

ND Not detected at or above the MDL.

Mr.Brian Worden
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April 02, 1992
PACE Project Number: 420325514

Client Reference: Exxon 7-7003

PACE Sample Number:
Date Collected:
Date Received:
Client Sample ID:
Parameter

70 0053161
03/12/92
03/25/92
MW 3
AKA:4002.7 DATE ANALYZED

INORGANIC ANALYSIS

ORGANIC LEAD IN WATER; DHS METHOD #338

Organic Lead, as Pb mg/L 0.1 ND 04/02/92

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

Mr. Brian Worden
Page 4

April 02, 1992
PACE Project Number: 420325514

Client Reference: Exxon 7-7003

PACE Sample Number:
Date Collected:
Date Received:
Client Sample ID:
Parameter

70 0053170
03/13/92
03/25/92
MW 4

Units MDL AKA:4003.5 DATE ANALYZED

INORGANIC ANALYSIS

ORGANIC LEAD IN WATER; DHS METHOD #338
Organic Lead, as Pb

mg/L 0.1 ND 04/02/92

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

Mr. Brian Worden
Page 5

April 02, 1992
PACE Project Number: 420325514

Client Reference: Exxon 7-7003

PACE Sample Number:

70 0053188

Date Collected:

03/12/92

Date Received:

03/25/92

Client Sample ID:

MW 5

Parameter

Units MDL AKA:4004.3 DATE ANALYZED

INORGANIC ANALYSIS

ORGANIC LEAD IN WATER; DHS METHOD #338

Organic Lead, as Pb

mg/L 0.1 ND 04/02/92

MDL Method Detection Limit

ND Not detected at or above the MDL.

Mr. Brian Worden
Page 6

April 02, 1992
PACE Project Number: 420325514

Client Reference: Exxon 7-7003

PACE Sample Number:
Date Collected:
Date Received:
Client Sample ID:
Parameter

70 0053196
03/12/92
03/25/92
MW 6
AKA:4005.1 DATE ANALYZED

INORGANIC ANALYSIS

ORGANIC LEAD IN WATER; DHS METHOD #338
Organic Lead, as Pb

mg/L 0.1 ND 04/02/92

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

Mr. Brian Worden
Page 7

April 02, 1992
PACE Project Number: 420325514

Client Reference: Exxon 7-7003

PACE Sample Number:

70 0053200

Date Collected:

03/12/92

Date Received:

03/25/92

Client Sample ID:

MW 7

Parameter

Units

MDL

AKA:4006.0 DATE ANALYZED

INORGANIC ANALYSIS

ORGANIC LEAD IN WATER; DHS METHOD #338

Organic Lead, as Pb

mg/L

0.1

ND

04/02/92

MDL Method Detection Limit

ND Not detected at or above the MDL.

These data have been reviewed and are approved for release.

Mark A. Valentini, Ph.D.
Regional Director

Mr. Brian Worden
 Page 8

QUALITY CONTROL DATA

April 02, 1992
 PACE Project Number: 420325514

Client Reference: Exxon 7-7003

Organic Lead, as Pb
 Batch: 70 11219

Samples: 70 0053145, 70 0053153, 70 0053161, 70 0053170, 70 0053188
 70 0053196, 70 0053200

METHOD BLANK:

Parameter	Units	MDL	Method Blank
Organic Lead, as Pb	mg/L	0.1	ND

LABORATORY CONTROL SAMPLE AND CONTROL SAMPLE DUPLICATE:

Parameter	Units	MDL	Reference Value	Dupl Recv	Dupl Recv	RPD
Organic Lead, as Pb	mg/L	0.1	1.25	98%	102%	4%

MDL Method Detection Limit

ND Not detected at or above the MDL.

RPD Relative Percent Difference