EXXON COMPANY, U.S.A.

POST OFFICE BOX 4032 • CONCORD, CA 94524-2032

ENVIRONMENTAL ENGINEERING

W. Y. WANG
SENIOR ENVIRONMENTAL ENGINEER

21 November, 1991

Exxon RAS 7-3399
2991 Hopyard Road, Pleasanton

Ms. Linda Spencer
San Francisco Bay Region
California Regional Water Quality Control Board
1800 Harrison Street, Suite 700
Oakland, California 94612

Dear Ms. Spencer:

Attached for your review and comment please find a report entitled **Third Quarter 1991 Groundwater Monitoring and Remediation Activities.** This report, prepared by RESNA/Applied GeoSystems of Fremont, California, presents the results of the quarterly sampling event conducted in September-October, 1991.

Due to low groundwater level, we were able to obtain water samples from wells MW-7 and MW-8 only. The results of this sampling event indicate detectable concentrations of benzene (3.5 ppb) in sample collected from well MW-7, the well screened in the uppermost aquifer; TPHg was not detected above method detection limit in this well. In addition, TPHg and BTEX were not detected above method detection limits in sample obtained from well MW-8, the well screened in the lower aquifer. Please note that Exxon has initiated monthly gauging in November, 1991.

The catalytic oxidizer vapor extraction system was in operation until 24 July, 1991; it was shut off because influent vapor concentrations fell below 0.5 ppm TPHg. Groundwater recovery and treatment will resume when water levels are sufficient for pumping. Should you have any questions, or require additional information, please contact me at (510) 246-8768.

Sincerely,

William Y. Wang

0553E.3
Attachment

c - w/attachment:
Mr. S. Cusenza - City of Pleasanton Public Works Department
Mr. J. Killingstad - Alameda County Flood Control District Zone 7
Mr. R. Meuller - City of Pleasanton Fire Department

w/o attachment:
Mr. D. J. Bertoch
Mr. P. J. Brininstool
Mr. D. Higgins - Applied GeoSystems

Applied GeoSystems, Inc.
A RESNA Company

RESNA
Environmental Solutions
Through Applied Science,
Engineering & Construction

42501 Albrae Street, Suite 100
Fremont, CA 94538
Phone: (415) 651-1906
Fax: (415) 651-8647

Exxon Company, U.S.A.

QUARTERLY SUMMARY REPORT

July - September 1991
Date: October 10, 1991

RAS #7-3399
2991 [redacted]
Pleasanton, CA

RESNA/AGS 18034-9

WORK PERFORMED THIS QUARTER

- Shut off vapor extraction system on July 24, 1991.
- Completed second quarter 1991 monitoring report (AGS Report No. 18034-9, dated August 23, 1991).
- Submitted draft letter response (dated August 23, 191) to a letter from the City of Pleasanton to the California Regional Water Quality Control Board, dated July 25, 1991.
- Collected third quarter 1991 groundwater samples from groundwater monitoring wells with sufficient water (MW-7) on September 24, 1991.
- Remediation System did not recover groundwater from well MW-7 due to insufficient water in the saturated zone to pump.
- Submitted applications for modification of existing vapor treatment system on September 24, 1991.
- Submitted draft second quarter monitoring report (RESNA/AGS Report No. 18034-9, dated October 10, 1991).
- Submitted proposal and budget for modification of the vapor-extraction system and quarterly groundwater monitoring and sampling on October 10, 1991.

QUARTERLY GROUNDWATER SAMPLING (9/24/91) RESULTS: (ug/l)

Well	B	T	E	X	TPHg	Historical Trend
MW-7	3.5	<0.5	1.7	6.8	<50	Decreasing

FREE PHASE PRODUCT RECOVERY SUMMARY:

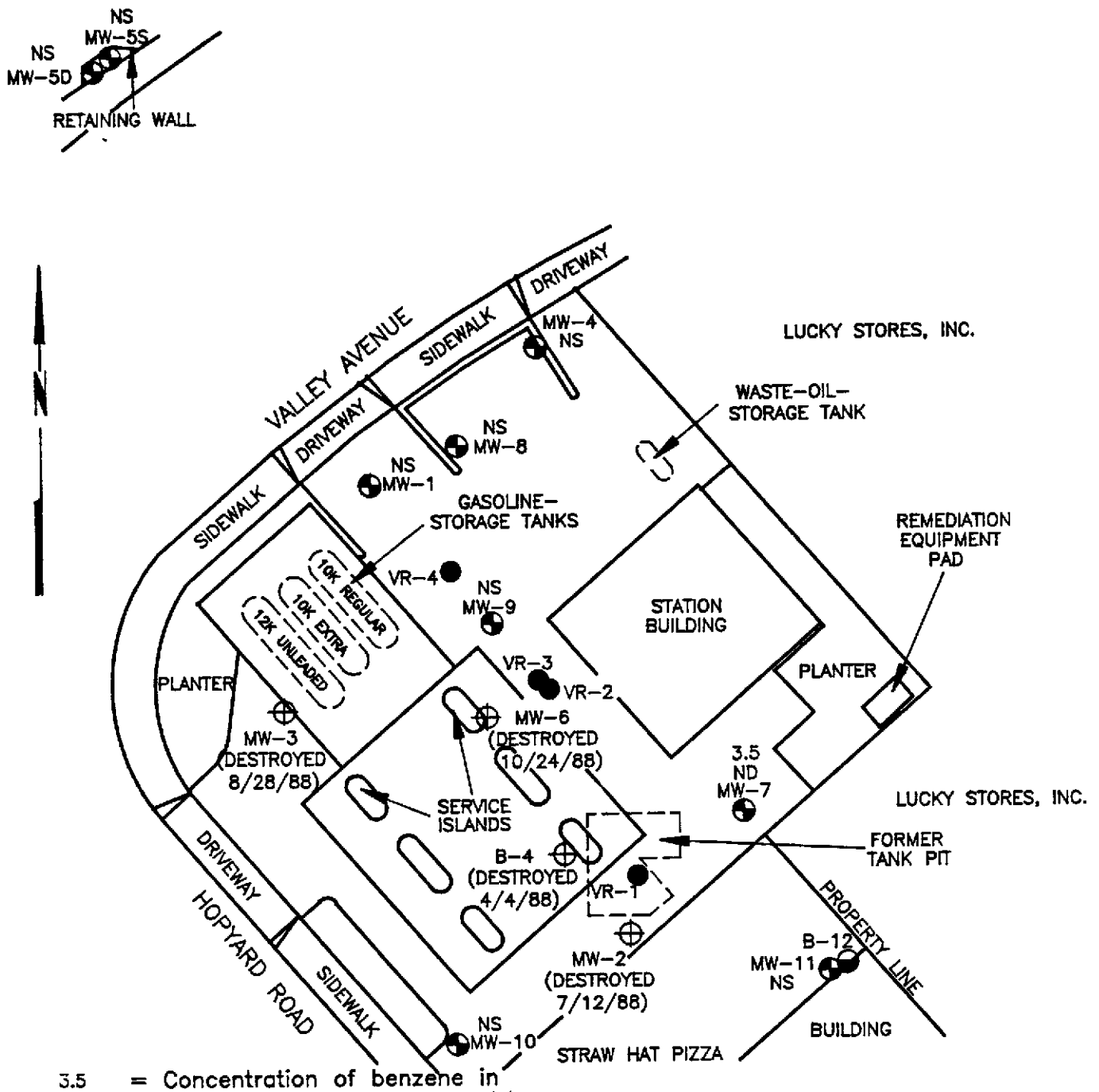
- Product recovered this quarter: 0 gallons
- Cumulative total product recovered: 58 gallons

WORK TO BE COMPLETED NEXT QUARTER: Estimated Completion Date 12/31/91

- Modify vapor-extraction system.
- Begin operation of the modified abatement system.
- Perform monthly groundwater monitoring
- Resume groundwater recovery if the water level rises.
- Continue groundwater monitoring and sampling.

WORK TO BE PERFORMED NEXT 12 MONTHS: Estimated Completion Date 12/31/92

- Conduct influent vapor readings daily for the first week, then weekly until carbon breakthrough.
- Perform monthly influent vapor sampling.
- Perform monthly groundwater monitoring.
- Perform quarterly groundwater sampling.
- Complete quarterly status reports.



3.5 = Concentration of benzene in groundwater in parts per billion

ND = Concentration of TPHg in groundwater in parts per billion

ND = Nondetectable

NS = Not sampled

MW-11 = Groundwater monitoring well

VR-4 = Vapor recovery well

B-12 = Soil boring

MW-6 = Former well or boring

Approximate Scale

40 20 0 40 80

feet

Applied GeoSystems

PROJECT NO. 18034-9

SITE PLAN FOR
QUARTERLY SUMMARY REPORT
Exxon Station No. 7-3399
2991 Hopyard Road
Pleasanton, California

PLATE 1

Exxon Company, U.S.A.

QUARTERLY SUMMARY REPORT

July-September 1991
Date: October 10, 1991

RAS # 7-3567
3192 Santa Rita Road
Pleasanton, CA 94566

90C0102A

WORK PERFORMED THIS QUARTER:

None

QUARTERLY GROUNDWATER SAMPLING RESULTS: (ug/L)

None

FREE PHASE PRODUCT RECOVERY SUMMARY:

Not applicable

WORK TO BE PERFORMED NEXT QUARTER:

Activity	Estimated Completion Date
Inactive	Pending Closure

WORK TO BE PERFORMED NEXT 12 MONTHS:

Activity	Estimated Completion Date
Inactive	Pending Closure

SITE MAP: Not Required

Applied GeoSystems, Inc.
A RESNA Company

RESNA
Environmental Solutions
Through Applied Science,
Engineering & Construction

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LETTER REPORT
THIRD QUARTER 1991
GROUNDWATER MONITORING
AND
REMEDIATION ACTIVITIES
at
Exxon Station No. 7-3399
2991 Hopyard Road
Pleasanton, California

RESNA/AGS Job No. 18034-9

RESNA
Environmental Solutions
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41674 Christy Street
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November 20, 1991
RESNA/AGS 18034-9

Mr. William Y. Wang
Exxon Company, U.S.A.
2300 Clayton Road, Suite 250
P.O. Box 4032
Concord, California 94520

Subject: Letter Report on Third Quarter 1991 Groundwater Monitoring and Remediation Activities, at Exxon Station No. 7-3399, 2991 Hopyard Road, Pleasanton, California

Dear Mr. Wang:

This report presents the results of the third quarter 1991 groundwater monitoring and sampling and an update of remediation activities, at Exxon Service Station No. 7-3399. The Exxon station is located at the intersection of Hopyard Road and Valley Avenue in Pleasanton, California (Plate 1). The monitoring program included measuring depth to groundwater, subjectively evaluating water from each of the wells for evidence of hydrocarbons, and purging the wells and collecting water samples for laboratory analysis.

Site Setting and Background

The original service station on the site was demolished in September 1988, and new station facilities were constructed between September 1988 and February 1989. The fuel underground storage tanks (USTs) in the southeastern part of the site were removed in July 1988, prior to station demolition. The current station has four USTs containing unleaded, premium unleaded, regular leaded gasoline, and waste oil (Plate 2).

Nine groundwater monitoring wells currently are used to monitor groundwater at the site (Plate 2). Seven of the nine wells, designated MW-1, MW-4, MW-5s, MW-7, MW-9, MW-10, and MW-11, are screened in the uppermost aquifer beneath the site. The remaining two wells, MW-5d and MW-8, are screened in the underlying second and third aquifers, respectively.

A groundwater recovery system has been in operation since 1988. Groundwater is pumped from well MW-7, the water passes through an oil-water separator, and then into the sanitary sewer under a permit from the Dublin-San Ramon Services District.

A 100-cubic-feet-per-minute vacuum pump and catalytic oxidizer were installed at the site in November 1990 to extract and treat soil vapors. The intent of the vapor extraction program is to remove vapors from the sand and gravel of the uppermost aquifer before the water level in this aquifer rises, and reduce potential future impact to the groundwater. The vacuum system is connected to six wells; shallow well VR-1, installed in the backfill material of the former UST pit; shallow wells VR-3 and VR-4, installed in the unsaturated silty clay overlying the uppermost aquifer; and deeper wells VR-2, MW-1, and MW-9, installed in sand and gravel in the uppermost aquifer. Because of the drop in water level since 1988, the sand and gravel zone is mostly unsaturated.

The vapor extraction system was permitted by the Bay Area Air Quality Management District under Authority to Construct No. 5125, dated August 2, 1990, and under permit to operate, dated January 4, 1991. After start up testing in late November, the system began operating on December 7, 1990. During December 1990 and January 1991, influent vapor samples were collected on a weekly and a biweekly basis, and after January were collected on a monthly basis.

MONITORING

Field Activities

On September 19, 1991, RESNA personnel measured depth-to-water, subjectively evaluated groundwater in each well, and purged and sampled well MW-7 for laboratory analysis as part of the quarterly groundwater monitoring program. The other wells which are included in the quarterly sampling program, were not sampled because these wells contained insufficient water for sampling, with the exception of MW-8. RESNA personnel returned to the site on October 14, 1991, to purge and sample MW-8; the water level in MW-8 (lower aquifer) had dropped substantially since the previous samping event in July, and required modifications of equipment to properly monitor this well. The field activities were performed using procedures described in Appendix A.

Results of Groundwater Monitoring

Between June and September 1991, the groundwater level in the wells in the uppermost aquifer fell near total depth of each well. During the same time, the water level in MW-5d (second aquifer) fell below total depth of this well and the water level in MW-8 (third aquifer) fell approximately 14 feet. No floating product or sheen was observed on water in

the wells. Cumulative results of depth to water measurements and subjective evaluations are presented in Table 1.

Due to the low water level measured in September 1991, resulting in an erroneous water level in the upper aquifer, a groundwater elevation map was not constructed. The water level in wells MW-4, MW-5s, and MW-7 suggest groundwater flow is generally southward. Previous data have shown that the groundwater flow is generally southward and the hydraulic gradient below much of the site is very flat.

Laboratory Methods and Results of Groundwater Sampling

Groundwater samples from MW-7 and MW-8 were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by Environmental Protection Agency (EPA) modified Method 8015, and benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method 602. The analyses were performed by Applied Analytical laboratories (Hazardous Waste Testing Laboratory Certification No. 1211), Fremont, California.

Results of laboratory analyses of water samples from wells MW-7 and MW-8 indicate no detectable TPHg. BTEX compounds were found in well MW-7; 3.5 ppb benzene, 1,700 ppb ethylbenzene, and 6,800 ppb total xylenes. These results are consistent with previous sampling results (Table 2). Chain of Custody Records and certified analysis reports are enclosed in Appendix A.

REMEDIATION

Groundwater Recovery

During this monitoring period, groundwater recovery from the upper aquifer was not undertaken due to insufficient water. Recovery activities will resume when the groundwater rises to a sufficient level for pumping.

Soil-Vapor Extraction System

Since November 1990, the existing catalytic oxidizer has effectively reduced vapor concentrations to levels below 0.5 ppm TPHg (Table 3). To continue vapor extraction of low hydrocarbon concentrations, the current cat-ox unit was shut off on July 24, 1991, pending modification of this system to an activated carbon abatement system.

Please call if you have questions.

Sincerely,
RESNA Industries

Keith M. McVicker
Project Geologist

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

Enclosures: Table 1, Cumulative Results of Subjective Evaluation of Water Samples
Table 2, Cumulative Results of Groundwater Analyses
Table 3, Cumulative Results of Influent and Effluent Vapor Samples
Plate 1, Site Vicinity Map
Plate 2, Generalized Site Plan

Appendix A: Field Procedures
Chain of Custody Records
Laboratory Analysis Reports

TABLE 2
CUMULATIVE RESULTS OF GROUNDWATER ANALYSES
(page 4 of 4)

Date	Sample No.	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Total Xylenes (ppb)	TPHg (ppb)	EPA 502.2 (ppb)	EPA 524.2 (ppb)
MW-11								
11/16/89	W-51-MW11	4.1	9.4	0.74	20	150	--	--
12/20/89	W-50-MW11	7.2	7.5	2.9	13	150	--	--
3/26/90	W-50-MW11	<0.5	<0.5	<0.5	2.7	32	--	--
7/30/90	W-54-MW11	<0.5	<0.5	<0.5	3.8	26	--	--

TPHg = total petroleum hydrocarbons as gasoline by EPA modified Method 8015
EPA 502.2 = EPA Method 502.2 (volatile organic compounds)
EPA 524.2 = EPA Method 524.2 (volatile organic compound)
< = Less than the method detection limits of the laboratory
-- = Not analyzed or not applicable
ND = Nondetectable or below the method detection limit(s) of the laboratory
* = Nondetectable concentrations for 58 volatile organic compounds

Sample designation: W-54-MW11
- W = water
- 54 = depth of sample to the nearest foot
- MW11 = monitoring well number

TABLE 3
CUMULATIVE RESULTS OF INFLUENT AND EFFLUENT VAPOR SAMPLES

Date	Sample No.	TPHg	Benzene	Toluene	Ethyl-benzene	Total xylenes
11/30/90	influent	1800*	19*	21*	15*	52*
12/11/90	influent	1.4	<0.0001	0.0005	0.0003	0.0008
12/14/90	influent	0.94	<0.0005	0.011	0.0083	0.025
	effluent	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
12/17/90	influent	0.20	0.0024	0.0016	0.0010	0.0026
	effluent	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
12/28/90	influent	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
	effluent	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
1/4/91	influent	0.94	0.013	0.0005	0.0006	0.0015
1/14/91	influent	1.2	0.0023	0.0013	0.0009	0.0039
1/28/91	influent	0.96	0.028	0.0008	0.0005	0.0005
2/28/91	System inoperative					
3/18/91	influent	0.91	0.0037	0.0015	0.0018	0.0091
4/22/91	System inoperative					
5/3/91	influent	0.62	<0.0005	<0.0005	<0.0005	0.0009
6/20/91	influent	0.49	0.026	0.041	0.0089	0.050

Results are in parts per million (ppm).
* = Results in milligrams per cubic meter (mg/m3).
TPHg = Total petroleum hydrocarbons as gasoline.
< = Less than the method detection limit of the laboratory.

TABLE 1
CUMULATIVE RESULTS OF SUBJECTIVE EVALUATION OF WATER SAMPLES
(page 1 of 8)

Date	Depth to Water (ft)	Groundwater Elevation (ft)	Floating Product (in)	Sheen
MW-1 (Wellhead Elevation = 321.44 ft)				
04/06/88	36.34	285.00	None	None
04/08/88	36.29	285.15	None	None
04/19/88	36.36	285.08	None	None
06/06/88	38.16	283.28	None	None
06/23/88	38.71	282.73	None	None
06/28/88	39.16	282.28	--	--
07/06/88	39.73	281.71	None	None
07/13/88	40.22	281.22	None	None
08/12/88		Well buried under excavated soil		
08/26/88	41.90	279.54	--	--
09/07/88	42.27	279.17	None	None
12/07/88	43.94	277.50	None	None
12/19/88	43.70	277.74	None	None
02/09/89	42.53	278.91	--	--
03/08/89	41.96	279.48	None	None
04/03/89	41.59	279.85	--	--
04/26/89	41.67	279.77	--	--
06/30/89	43.79	277.65	None	None
07/17/89	44.74	276.70	None	None
07/18/89	44.76	276.68	--	--
07/19/89	44.82	276.62	--	--
07/20/89	44.85	276.59	None	None
07/21/89	44.95	276.49	--	--
07/26/89	45.42	276.02	None	None
08/02/89	--	--	--	--
08/03/89	46.18	275.26	--	--
08/17/89	47.12	274.32	--	--
09/13/89	49.08	272.36	None	None
11/28/89	50.21	271.23	None	None
01/09/90	49.31	272.13	None	None
01/26/90	49.29	272.15	None	None
02/23/90	49.02#	272.42	None	None
02/23/90	49.02	272.42	None	None
03/26/90	48.71#	272.73	None	None
03/26/90	48.70	272.74	None	None
04/18/90	48.79	272.65	None	None
05/17/90	49.40	272.04	None	None
06/11/90	50.83	270.61	None	None
07/30/90	52.17	269.27	None	None
08/27/90	53.44	268.00	None	None
09/28/90	53.40	268.04	None	None
12/27/90	--	--	--	--
03/20/91	53.35	268.08	--	--
06/20/91	53.55	267.89	None	None
09/12/91	--	--	None	None

See notes on page 8 of 8.

TABLE 1
CUMULATIVE RESULTS OF SUBJECTIVE EVALUATION OF WATER SAMPLES
(page 2 of 8)

Date	Depth to Water (ft)	Groundwater Elevation (ft)	Floating Product (in)	Sheen
MW-2				
04/02/88	--	--	3.0	Heavy
04/04/88	--	--	18.0	Heavy
04/05/88	--	--	18.0	Heavy
04/06/88	39.31	--	38.4	Heavy
04/08/88	--*	--	--*	--*
04/19/88	38.90	--	29.76**	Heavy
06/06/88	38.78	--	3.12	Heavy
06/23/88	39.23	--	1.50	Heavy
06/28/88	39.72	--	--	--
07/06/88	40.31	--	None	Slight
07/12/88	Well destroyed due to excavation (old pit)			
MW-3				
04/06/88	37.19	--	None	None
04/08/88	37.14	--	None	None
04/19/88	37.22	--	None	None
06/06/88	39.02	--	None	None
06/23/88	39.58	--	None	None
06/28/88	40.04	--	--	--
07/06/88	40.60	--	None	None
07/13/88	41.09	--	None	None
08/12/88	Well buried under excavated soil			
08/26/88	42.77	--	--	--
08/29/88	Well destroyed due to excavation (new pit)			
MW-4 (Wellhead elevation = 321.56 ft)				
04/08/88	36.41	285.15	None	None
04/19/88	36.51	285.05	None	None
06/06/88	38.26	283.30	None	None
06/23/88	38.83	282.73	None	None
06/28/88	39.28	282.28	--	--
07/06/88	39.85	281.71	None	None
07/13/88	40.31	281.25	None	None
08/12/88	Well buried under excavated soil			
08/26/88	42.01	279.55	--	--
09/07/88	Not accessible due to construction			
12/07/88	Not accessible due to construction			
12/19/88	43.83	277.73	None	None
02/09/89	42.67	278.89	--	--
03/08/89	42.11	279.45	None	None
04/03/89	41.73	279.83	--	--
04/26/89	41.79	279.77	--	--
06/30/89	43.88	277.68	None	None
07/17/89	44.85	276.71	None	None
07/18/89	44.88	276.68	--	--
07/19/89	44.92	276.64	--	--

See notes on page 8 of 8.

TABLE 1
CUMULATIVE RESULTS OF SUBJECTIVE EVALUATION OF WATER SAMPLES
(page 3 of 8)

Date	Depth to Water (ft)	Groundwater Elevation (ft)	Floating Product (in)	Sheen
MW-4 (continued)				
07/20/89	44.98	276.58	None	None
07/21/89	45.04	276.52	--	--
07/26/89	45.50	276.06	None	None
08/02/89	--	--	--	--
08/03/89	46.28	275.28	--	--
08/17/89	47.22	274.34	--	--
09/13/89	49.19	272.37	None	None
11/28/89	50.34	271.22	None	None
01/09/90	49.47	272.09	None	None
01/26/90	49.36	272.20	None	None
02/23/90	49.18#	272.38	None	None
02/23/90	49.15	272.41	None	None
03/26/90	48.84#	272.72	None	None
03/26/90	48.83	272.73	None	None
04/18/90	48.90	272.66	None	None
05/17/90	50.03	271.53	None	None
06/11/90	50.98	270.58	None	None
07/30/90	53.57	267.99	None	None
08/27/90	53.61	267.95	None	None
09/28/90	53.57	267.99	None	None
12/27/90	53.68	267.88	None	None
03/20/91	53.56	268.00	None	None
06/20/91	53.75	267.81	None	None
09/12/91	53.70	267.86	None	None
B-4				
04/02/88	--	--	None	None
MW-5d (Wellhead Elevation = 321.79 ft)				
05/25/88	38.55	283.24	None	None
06/06/88	38.90	282.89	None	None
06/23/88	39.56	282.23	None	None
06/28/88	40.23	281.33	--	--
07/06/88	40.69	281.10	None	None
07/13/88	41.22	280.57	None	None
08/12/88	42.34	279.45	--	--
08/26/88	42.60	279.19	--	--
09/07/88	42.99	278.80	--	--
12/07/88	44.58	277.21	None	None
02/09/89	Casing head damaged by construction			
03/08/89	Casing head cut to lower elevation			
	42.49	279.30	None	None
04/03/89	42.21	279.58	--	--
04/26/89	42.36	279.43	--	--
06/30/89	44.79	277.00	None	None
07/17/89	45.73	276.06	None	None
07/18/89	45.75	276.04	--	--

See notes on page 8 of 8.

TABLE 1
CUMULATIVE RESULTS OF SUBJECTIVE EVALUATION OF WATER SAMPLES
(page 4 of 8)

Date	Depth to Water (ft)	Groundwater Elevation (ft)	Floating Product (in)	Sheen
MW-5d				
07/19/89	44.89	276.90	--	--
07/20/89	46.02	275.77	None	None
07/21/89	46.18	275.38	--	--
07/26/89	46.83	274.96	None	None
08/02/89	--	--	--	--
08/03/89	47.67	274.12	--	--
08/17/89	48.27	273.52	--	--
09/13/89	50.60	271.19	None	None
11/28/89	51.16	270.63	None	None
01/09/90	50.42	271.37	None	None
01/26/90	50.10	271.66	None	None
02/23/90	50.08	271.77	None	None
03/26/90	49.80#	271.99	None	None
03/26/90	49.77	272.02	None	None
04/18/90	49.80	271.99	None	None
05/17/90	51.32	270.47	None	None
06/11/90	52.10	269.69	None	None
07/30/90	53.47	268.32	None	None
08/27/90	58.24	263.55	None	None
09/28/90	60.70	261.09	None	None
12/27/90	62.52	259.27	None	None
03/20/91	59.18	262.61	None	None
06/20/91	65.02	256.77	None	None
09/12/91	DRY	--	--	--
MW-5s (Wellhead Elevation = 321.64 ft)				
05/25/88	38.46	283.18	None	None
06/06/88	38.86	282.78	None	None
06/23/88	39.52	282.12	None	None
06/28/88	39.84	281.80	--	--
07/06/88	40.45	281.19	None	None
07/13/88	40.90	280.74	None	None
07/22/88	41.30	280.34	None	None
08/05/88	23.84▾	297.80	None	None
08/12/88	42.21	279.43	--	--
08/26/88	42.55	279.09	--	--
09/07/88	42.94	278.70	None	None
12/07/88	44.67	276.97	None	None
02/09/89	43.19	278.45	--	--
03/08/89		Casing head cut to lower elevation		
	42.11	279.53	None	None
04/26/89	41.84	279.80	--	--
06/30/89	43.95	277.69	None	None
07/17/89	44.91	276.73	None	None
07/18/89	44.93	276.71	--	--
07/19/89	44.98	276.66	--	--
07/20/89	45.02	276.62	None	None

See notes on page 8 of 8.

TABLE 1
CUMULATIVE RESULTS OF SUBJECTIVE EVALUATION OF WATER SAMPLES
(page 5 of 8)

Date	Depth to Water (ft)	Groundwater Elevation (ft)	Floating Product (in)	Sheen
MW-5s (continued)				
07/21/89	45.10	276.54	--	--
07/26/89	45.57	276.07	None	None
08/02/89	--	--	--	--
08/03/89	46.31	275.33	--	--
08/17/89	47.25	274.39	--	--
09/13/89	49.22	272.42	None	None
11/28/89	50.39	271.25	None	None
01/09/90	49.51	272.13	None	None
01/26/90	49.40	272.24	None	None
02/23/90	49.20#	272.44	None	None
02/23/90	49.20	272.44	None	None
03/26/90	48.89#	272.75	None	None
03/26/90	48.88	272.76	None	None
04/18/90	48.95	272.69	None	None
05/17/90	50.06	271.58	None	None
06/11/90	50.98	270.66	None	None
07/30/90	53.40	268.24	None	None
08/27/90	53.60	268.04	None	None
09/28/90	53.55	268.09	None	None
12/27/90	53.61	268.03	None	None
03/20/91	53.56	268.08	None	None
06/20/91	53.73	267.91	None	None
09/12/91	**53.78**	**267.86**	**None**	**None**
MW-6				
05/11/88	37.71	--	None	None
06/06/88	38.70	--	None	None
06/23/88	39.23	--	None	None
06/28/88	39.74	--	None	None
07/13/88	40.78	--	None	None
08/05/88	41.72	--	None	None
08/12/88	42.14		--	--
08/17/88		Well buried under excavated soil		
08/26/88	42.51	--	--	--
09/07/88	42.85	--	None	None
10/24/88		Well destroyed for station construction		
MW-7 (Wellhead Elevation = 321.27 ft)				
07/13/88	40.50	280.77	None	None
07/22/88	41.85#	279.42	None##	None##
08/05/88	41.45#	279.82	None##	None##
08/12/88	42.69	278.58	--	--
09/07/88	42.60	278.67	--	--
12/07/88		Not accessible		
01/17/89	43.20	278.07	--	--
02/09/89		Not accessible, pump equipment in well		
10/12/89	49.93	271.34	None	None
11/28/89	57.61#	264.03	--	--

See notes on page 8 of 8.

TABLE 1
CUMULATIVE RESULTS OF SUBJECTIVE EVALUATION OF WATER SAMPLES
(page 6 of 8)

Date	Depth to Water (ft)	Groundwater Elevation (ft)	Floating Product (in)	Sheen
MW-7 (continued)				
01/09/90	57.57#	263.70	--	--
01/26/90	57.54#	263.73	None	None
01/26/90	49.08	272.19	None	None
02/23/90	55.26#	266.01	None	None
02/23/90	48.93	272.34	None	None
03/26/90	57.52#	263.73	None	None
03/26/90	48.60	272.67	None	None
04/18/90	57.55#	263.72	None	None
05/17/90	57.40#	263.87	None	None
06/11/90	50.68	270.59	None	None
07/30/90	--	--	None	None
08/27/90	53.05	268.22	None	None
09/28/90	--	--	--	--
12/27/90	--	--	--	--
03/20/91	54.11	267.16	--	--
06/20/91	55.14	266.13	None	None
09/12/91	55.84	265.43	None	None
MW-8 (Wellhead Elevation = 321.86 ft)				
10/01/89	53.88	267.98	None	None
11/28/89	53.74	268.12	None	None
01/09/90	57.90	263.96	None	None
01/26/90	53.57	268.29	None	None
02/23/90	52.16	269.70	None	None
03/26/90	52.80#	269.06	None	None
04/18/90	51.60	270.26	None	None
05/17/90	58.21	263.65	None	None
06/11/90	58.65	263.21	None	None
07/30/90	64.33	257.53	None	None
08/27/90	70.41	251.45	None	None
09/28/90	71.93	249.93	None	None
12/27/90	66.60	255.26	None	None
03/20/91	60.75	261.11	None	None
06/20/91	88.77	233.09	None	None
09/12/91	103.17	218.69	None	None
MW-9 (Wellhead elevation = 321.44 ft)				
10/12/89	50.24	271.20	None	None
11/28/89	50.59	270.85	1.0	Heavy
12/01/89	50.32	271.12	0.25	Heavy
12/07/89	50.13	271.31	1.92	Heavy
12/13/89	49.91	271.53	None	Slight
12/20/89	49.78	271.66	None	Slight
01/02/90	--	--	None	Slight
01/09/90	49.39	272.05	None	Slight
01/26/90	49.30	272.14	None	None
02/23/90	49.06#	272.38	None	None
02/23/90	49.05	272.39	None	None
03/26/90	48.75#	272.69	None	None

See notes on page 8 of 8.

TABLE 1
CUMULATIVE RESULTS OF SUBJECTIVE EVALUATION OF WATER SAMPLES
(page 7 of 8)

Date	Depth to Water (ft)	Groundwater Elevation (ft)	Floating Product (in)	Sheen
MW-9 (continued)				
03/26/90	48.73	272.71	None	Very Slight
04/18/90	48.81	272.63	None	Slight
05/17/90	49.96	271.48	None	Slight
06/11/90	51.58	269.86	4.5	--
07/30/90	Dry	--	--	--
08/27/90	Dry	--	--	--
09/28/90	Dry	--	--	--
12/27/90	--	--	--	--
03/20/91	Dry	--	None	Very Slight
06/20/91	49.63	271.81	None	None
09/12/91	--	--	--	--
MW-10 (Wellhead Elevation = 322.99 ft)				
10/12/89	51.93	271.06	None	None
11/28/89	51.88	271.11	None	None
12/20/89	51.47	271.52	None	None
01/09/90	50.98	272.01	None	None
01/26/90	50.87	272.12	None	None
02/23/90	50.67#	272.32	None	None
02/23/90	50.65	272.34	None	None
03/26/90	50.36#	272.63	None	None
03/26/90	50.35	272.64	None	None
04/18/90	50.45	272.54	None	None
06/11/90	51.16	271.83	None	None
07/30/90	55.72	267.27	None	None
08/27/90	57.75	265.24	None	None
09/28/90	--	--	--	--
12/27/90	58.08	264.91	None	None
03/20/91	57.80	265.19	None	None
06/20/91	58.00	264.99	None	None
09/12/91	DRY	--	--	--
MW-11 (Wellhead Elevation = 321.77 ft)				
11/10/89	50.64	271.13	None	None
11/28/89	50.51	271.26	None	Very Slight
12/20/89	51.47	270.30	None	None
01/09/90	49.68	272.09	None	None
01/26/90	49.55	272.22	None	None
02/23/90	49.37#	272.40	None	None
02/23/90	49.35	272.42	None	None
03/26/90	49.03#	272.74	None	None
03/26/90	49.03	272.74	None	None
04/18/90	49.12	272.65	None	None
05/17/90	50.30	271.47	None	None
06/11/90	51.16	270.61	None	None
07/30/90	53.50	268.27	None	None
08/27/90	53.65	268.12	None	None
09/28/90	53.62	268.15	None	None

See notes on page 8 of 8.

TABLE 1
CUMULATIVE RESULTS OF SUBJECTIVE EVALUATION OF WATER SAMPLES
(page 8 of 8)

Date	Depth to Water (ft)	Groundwater Elevation (ft)	Floating Product (in)	Sheen
MW-11 (continued)				
12/27/90	53.63	268.14	None	None
03/20/91	53.26	268.51	None	None
06/20/91	53.60	268.17	None	None
09/12/91	53.60	268.17	None	None

Depth to groundwater is in feet below top of casing.
Elevation is in feet above mean sea level.
-- = Not measured
NA = Not applicable
* = Not measured because of installed product-skimmer pump.
** = Thickness of floating product after the well was allowed to recharge for approximately 3 hours.
▼ = Anomalous water level possibly due to recharge from a perched water zone.
= Water level during pumping of MW-7.
= Water inspected in oil-water separator tank.

TABLE 2
CUMULATIVE RESULTS OF GROUNDWATER ANALYSES
(page 1 of 4)

Date	Sample No.	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Total Xylenes (ppb)	TPHg (ppb)	EPA 502.2 (ppb)	EPA 524.2 (ppb)
MW-1								
4/02/88	W-38-MW1	<0.5	1.7	<0.5	<0.5	<20	--	--
7/06/88	W-40-MW1	<0.5	<0.5	<0.5	<0.5	<20	--	--
7/13/88	W-42-MW1	<0.5	<0.5	<0.5	<0.5	<20	--	--
9/07/88	W-43-MW1	<0.5	<0.5	<0.5	<0.5	<20	--	--
3/08/89	W-43-MW1	1.6	<0.5	<0.5	<0.5	<20	--	--
6/30/89	W-44-MW1	<0.5	<0.5	<0.5	<0.5	<20	--	--
7/17/89	W-45-MW1	<0.5	<0.5	<0.5	<0.5	23	--	--
7/20/89	W-45-MW1	<0.5	<0.5	<0.5	<0.5	<20	--	--
7/26/89	W-46-MW1	<0.5	<0.5	<0.5	<0.5	<20	--	--
8/02/89	W-46-MW1	<0.5	<0.5	<0.5	<0.5	<20	--	--
9/13/89	W-50-MW1	39	0.60	<0.50	5.1	220	--	--
12/20/89	W-50-MW1	56	0.72	<0.50	0.71	220	--	--
1/25/90	W-50-MW1	18	1.6	<0.50	1.8	57	--	--
2/27/90	W-50-MW1	3.2	2.3	<0.50	3.2	55	--	--
3/26/90	W-49-MW1	<0.5	<0.5	<0.5	<0.5	<20	--	--
4/18/90	W-49-MW1	1.1	1.6	<0.50	3.1	25	--	--
5/17/90	W-49-MW1	<0.5	<0.5	<0.5	<0.5	<20	--	--
6/11/90	W-52-MW1	<0.5	<0.5	<0.5	<0.5	<20	--	--
7/30/90	W-53-MW1	<0.5	<0.5	<0.5	<0.5	<20	--	--
8/27/90	W-53-MW1	<0.5	<0.5	<0.5	<0.5	<20	--	--
9/28/90	W-53-MW1	<0.5	<0.5	<0.5	<0.5	<50	--	--
MW-2								
7/06/88	W-41-MW	25,700	18,500	2,900	21,400	62,000	--	--
7/12/88				Well destroyed				
MW-3								
4/06/88	W-39-MW3	<0.5	<0.5	<0.5	<0.5	20	--	--
7/06/88	W-41-MW3	<0.5	<0.5	<0.5	<0.5	<20	--	--
7/13/88	W-43-MW3	<0.5	<0.5	<0.5	<0.5	<20	--	--
8/26/88	W-44-MW3	<0.5	<0.5	<0.5	<0.5	<20	--	--
8/29/88				Well destroyed				
MW-4								
4/11/88	W-37-MW4	1.8	16.3	0.6	7.1	80	--	--
7/06/88	W-41-MW4	<0.5	<0.5	<0.5	<0.5	<20	--	--
7/13/88	W-42-MW4	<0.5	0.9	<0.5	<0.5	<20	--	--
9/07/88				(Well not accessible)				
3/08/89	W-43-MW4	3.8	1.0	<0.5	<0.5	440	--	--
6/30/89	W-44-MW4	<0.5	<0.5	<0.5	<0.5	100	--	--
7/17/89	W-45-MW4	<0.5	<0.5	<0.5	<0.5	390	--	--
7/20/89	W-45-MW4	<0.5	<0.5	<0.5	<0.5	200	ND*	--
7/26/89	W-46-MW4	<0.5	<0.5	<0.5	<0.5	66	--	--
8/02/89	W-46-MW4	--	--	--	--	--	--	ND*
9/13/89	W-50-MW4	<0.5	<0.5	<0.5	<0.5	<20	--	--
12/20/89	W-50-MW-4	<0.5	<0.5	<0.5	<0.5	<20	--	--
3/26/90	W-49-MW-4	<0.5	<0.5	<0.5	<0.5	<20	--	--
8/01/90	W-54-MW-4	<0.5	<0.5	<0.5	<0.5	<20	--	--
12/27/90	W-54-MW-4	<0.5	<0.5	<0.5	<0.5	<50	--	--
03/20/91	W-53-MW-4	<0.5	<0.5	<0.5	<0.5	<50	--	--

See notes on page 4 of 4.

TABLE 2
CUMULATIVE RESULTS OF GROUNDWATER ANALYSES
(page 2 of 4)

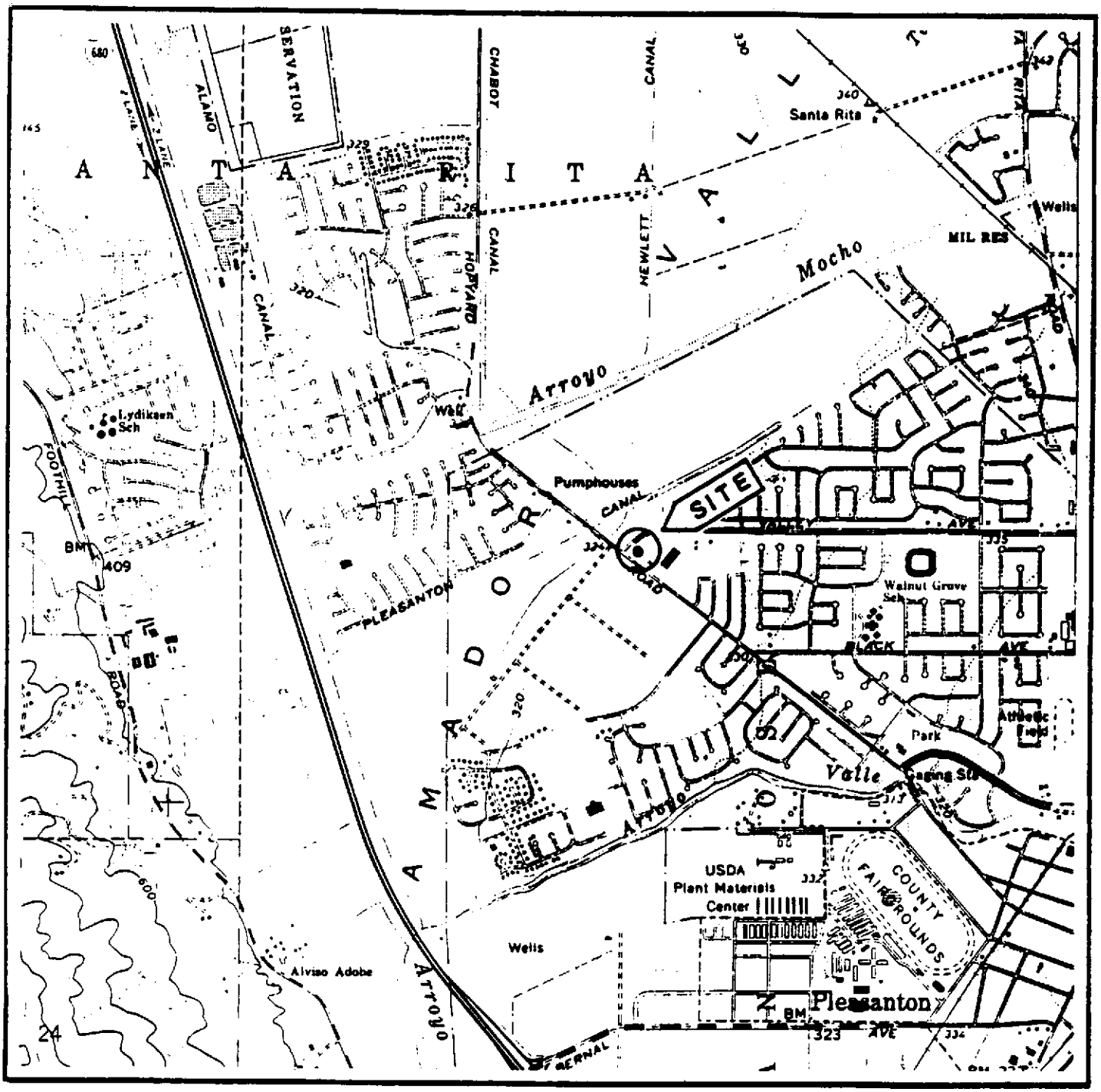
Date	Sample No.	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Total Xylenes (ppm)	TPHg (ppm)	EPA 502.2 (ppm)	EPA 524.2 (ppm)
MW-5d								
5/25/88	W-9-MW5a	<0.5	3.1	<0.5	<0.5	<20	--	--
7/06/88	W-41-MW5d	<0.5	<0.5	<0.5	<0.5	<20	--	--
7/13/88	W-43-MW5d	<0.5	<0.5	<0.5	<0.5	40	--	--
3/08/89	W-43-MW5d	<0.5	<0.5	<0.5	<0.5	<20	--	--
6/30/80	W-45-MW5d	<0.5	<0.5	<0.5	<0.5	<20	--	--
7/17/89	W-46-MW5d	<0.5	<0.5	<0.5	<0.5	<20	--	--
7/20/89	W-47-MW5d	<0.5	<0.5	<0.5	<0.5	<20	--	--
7/26/89	W-47-MW5d	<0.5	<0.5	<0.5	<0.5	<20	--	--
8/02/89	W-48-MW5d	<0.5	<0.5	<0.5	<0.5	<20	--	--
9/13/89	W-51-MW5d	<0.5	<0.5	<0.5	<0.5	<20	--	--
12/20/89	W-51-MW5d	<0.5	<0.5	<0.5	<0.5	<20	--	--
3/26/90	W-50-MW5d	<0.5	<0.5	<0.5	<0.5	<20	--	--
8/01/90	W-56-MW5d	<0.5	<0.5	<0.5	<0.5	<20	--	--
12/27/90	W-63-MW5d	<0.5	<0.5	<0.5	<0.5	<50	--	--
03/20/91	W-59-MW5d	<0.5	<0.5	<0.5	<0.5	<50	--	--
06/20/91	W-65-MW5d	<0.5	<0.5	<0.5	<0.5	<50	--	--
MW-5s								
5/25/88	W-41-MW5b	<0.5	0.9	<0.5	<0.5	<20	--	--
7/06/88	W-41-MW5s	<0.5	<0.5	<0.5	<0.5	<20	--	--
7/13/88	W-44-MW5s	<0.5	<0.5	<0.5	<0.5	<20	--	--
7/22/88	W-42-MW5s	0.9	4.1	1.3	8.7	50	--	--
8/05/88	W-25-MW5s	<0.5	<0.5	<0.5	<0.5	<20	--	--
9/07/88	W-43-MW5s	<0.5	<0.5	<0.5	<0.5	<20	--	--
3/08/89	W-43-MW5s	<0.5	<0.5	<0.5	<1.0	<20	--	--
6/30/89	W-45-MW5s	<0.5	<0.5	<0.5	<0.5	<20	--	--
7/17/89	W-46-MW5s	<0.5	<0.5	<0.5	<0.5	<20	--	--
7/20/89	W-46-MW5s	<0.5	<0.5	<0.5	<0.5	<20	--	--
7/26/89	W-46-MW5s	<0.5	<0.5	<0.5	<0.5	<20	--	--
8/02/89	W-47-MW5s	<0.5	<0.5	<0.5	<0.5	<20	--	--
9/13/89	W-50-MW5s	<0.5	<0.5	<0.5	<0.5	<20	--	--
12/20/89	W-50-MW5s	<0.5	<0.5	<0.5	<0.5	<20	--	--
3/26/90	W-49-MW5s	<0.5	<0.5	<0.5	<0.5	<20	--	--
8/01/90	W-55-MW5s	<0.5	<0.5	<0.5	<0.5	<50	--	--
12/27/90	W-54-MW5s	<0.5	<0.5	<0.5	<0.5	<50	--	--
MW-6								
5/17/88	W-40-MW6	<0.5	<0.5	<0.5	<0.5	<20	--	--
6/28/88	W-38-MW6	31.8	7.5	5.4	6.7	440	--	--
7/13/88	W-42-MW6	162.3	7.7	22.5	14.1	290	--	--
8/05/88	W-42-MW6	245	5.2	47.1	23.7	1,180	--	--
9/07/88	W-43-MW6	474	16	262	136	2,920	--	--
10/24/88				Well destroyed				

See notes on page 4 of 4.

TABLE 2
CUMULATIVE RESULTS OF GROUNDWATER ANALYSES
(page 3 of 4)

Date	Sample No.	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Total Xylenes (ppb)	TPHg (ppb)	EPA 502.2 (ppb)	EPA 524.2 (ppb)
MW-7 (recovery well)								
7/13/88	W-34-MW7	860	1,910	710	4,420	16,700	--	--
7/22/88	W-50-MW7	136	85	5	58	460	--	--
8/05/88	W-45-MW7	73.3	52.8	2.3	28.1	270	--	--
2/09/89	W-50-MW7	600	688	10	448	6,700	--	--
6/30/89	W-Pump-MW7	180	50	13	40	1,100	--	--
8/02/89	W-TAP-MW7	1.6	<0.5	<0.5	0.60	31	--	--
9/13/89	W-Influent	<0.5	2.6	<0.5	12	87	--	--
12/20/89	W-TAP-MW7	<0.5	<0.5	<0.5	<0.5	<20	--	--
6/20/91	W-55-MW7	<0.5	1.8	0.6	4.1	74	--	--
9/12/91	W-56-MW7	3.5	<0.5	1.7	6.8	<50	--	--
Well No. 7 (City of Pleasanton)								
7/20/89	Well 7	--	--	--	--	--	ND*	--
8/02/89	W-TAP-CW7	--	--	--	--	--	--	ND*
3/26/90	W-TAP-MW7	<0.50	<0.50	<0.50	<0.50	<20	--	--
MW-8								
10/03/89	W-53-MW8	<0.5	<0.5	<0.5	<0.5	<20	--	--
12/20/89	W-52-MW8	<0.50	<0.50	<0.50	0.61	<20	--	--
1/31/90	W-55-MW8	<0.50	<0.50	<0.50	0.87	<20	--	--
2/09/90	W-52-MW8	<0.5	<0.5	<0.5	1.1	<20	--	--
	(Blank)	<0.5	<0.5	<0.5	<0.5	<20	--	--
3/26/90	W-55-MW8	<0.5	<0.5	<0.5	<0.5	<20	--	--
	(Blank)	<0.5	<0.5	<0.5	<0.5	<20	--	--
4/18/90	W-52-MW8	<0.50	0.58	<0.50	1.1	<20	--	--
5/17/90	W-60-MW8	<0.5	<0.5	<0.5	<0.5	<20	--	--
6/11/90	W-62-MW8	<0.5	<0.5	<0.5	<0.5	<20	--	--
8/01/90	W-61-MW8	<0.5	<0.5	<0.5	<0.5	<20	--	--
8/27/90	W-70-MW8	<0.5	<0.5	0.5	0.5	<20	--	--
9/28/90	W-71-MW8	<0.5	<0.5	<0.5	0.5	<50	--	--
12/27/90	W-67-MW8	<0.5	<0.5	<0.5	0.6	<50	--	--
03/20/91	W-60-MW8	<0.5	<0.5	<0.5	<0.5	<50	--	--
06/20/91	W-88-MW8	<0.5	<0.5	<0.5	0.6	<50	--	--
10/14/91	W-99-MW8	<0.5	<0.5	<0.5	<0.5	<50	--	--
MW-9								
10/13/89	W-50-MW9	1,000	9,200	3,000	13,000	89,000	--	--
12/20/89	W-50-MW9	6,300	31,000	9,500	55,000	190,000	--	--
1/25/90	W-50-MW9	2,400	9,400	2,700	15,000	77,000	--	--
2/27/90	W-50-MW9	1,200	7,100	2,300	14,000	97,000	--	--
3/26/90	W-49-MW9	1,800	7,700	2,000	11,000	89,000	--	--
4/18/90	W-49-MW9	2,000	7,500	2,500	16,000	110,000	--	--
5/17/90	W-50-MW9	1,500	5,700	2,300	14,000	81,000	--	--
6/11/90		Not sampled because of the presence of floating product						
8/27/90		Not sampled because of dry well						
6/20/91	W-19-MW9	<0.5	<0.5	<0.5	<0.5	430	--	--
MW-10								
10/12/89	W-52-MW10	<0.5	<0.5	<0.5	1.5	20	--	--
12/20/89	W-52-MW10	<0.5	<0.5	<0.5	1.8	<20	--	--
3/26/90	W-51-MW10	<0.5	<0.5	<0.5	<0.5	<20	--	--
8/01/90	W-57-MW10	<0.5	<0.5	<0.5	<0.5	<20	--	--

See notes on page 4 of 4.



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

N

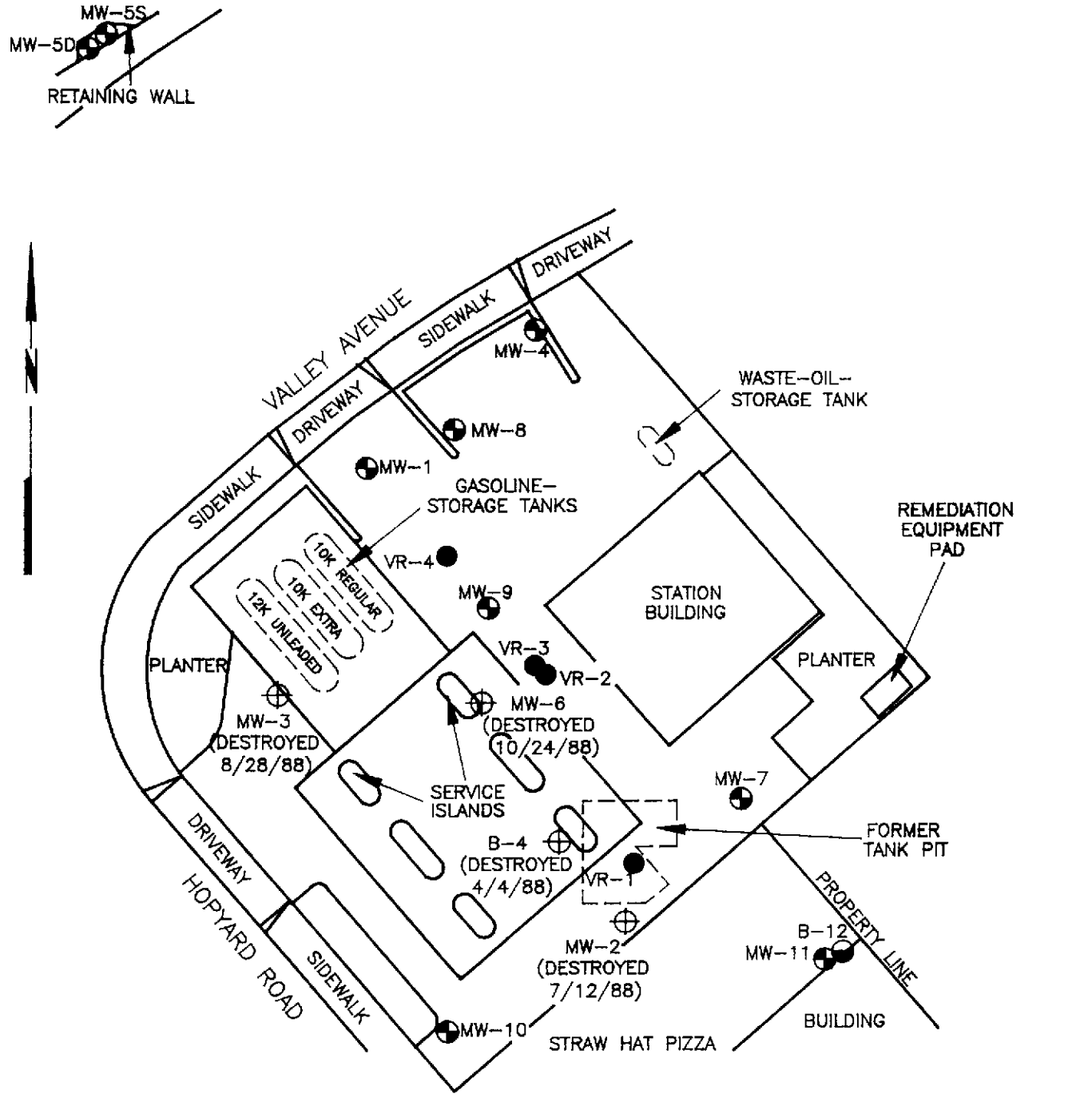
Approximate Scale
2000 1000 0 2000 4000
feet

Applied GeoSystems

PROJECT NO. 18034-9

SITE VICINITY MAP
Exxon Station No. 7-3399
2991 Hopyard Road
Pleasanton, California

PLATE
1



MW-7 = Monitoring well
VR-1 = Vapor recovery well
B-12 = Soil boring
MW-6 = Former well or boring

Approximate Scale

40 20 0 40 80

feet

Applied GeoSystems

PROJECT NO. 18034-9

GENERALIZED SITE PLAN
Exxon Station No. 7-3399
2991 Hopyard Road
Pleasanton, California

PLATE
2

FIELD PROCEDURES

Subjective Evaluations

Before groundwater samples were collected for subjective evaluations, the depth to static water level in each well was measured to the nearest 0.01 foot with a Solinst electronic water-level indicator. 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 samples were retrieved and examined for evidence of floating product and sheen. The bailer was washed with Alconox, a commercial biodegradable detergent, and rinsed with deionized water before each use.

Groundwater Sampling

Wells MW-7 and MW-8 were each purged of approximately three well volumes of water. A water sample was collected from each well after the well had recharged to more than 80 percent of the static level. A clean Teflon bailer was used to collect the ground-water samples. Half the length of the bailer was lowered past the air-water interface to retrieve the water sample. The bailer was retrieved and the water was slowly decanted into laboratory cleaned, 40-milliliter, volatile-organic analysis, glass sample vials with Teflon-lined caps. Hydrochloric acid was added to the samples as a preservative. The sample vials were promptly capped, labeled, and placed in iced storage for transport to Applied Analytical Environmental Laboratories. Chain-of-custody protocol was observed throughout the handling of samples.

Water Storage and Disposal

Purged ground water was temporarily stored onsite in 17E, 55-gallon liquid-waste drums approved for this purpose by the Department of Transportation. The purged water was discharged through the oil-water separator onsite and into the sanitary sewer under a permit from the Dublin-San Ramon Services District.

Influent and Effluent Vapor Sampling

Influent and effluent vapors samples were collected at the catalytic oxidizer's inlet port using evacuated aerosol containers (280 cubic centimeter Vacuum Samplers). These Vacuum Samplers were fitted with a septum port and needle guide, through which the containers were filled for subsequent laboratory analysis.

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EXXON COMPANY, U.S.A.

P.O. Box 4415, Houston, TX 77210-4415

CHAIN OF CUSTODY

Consultant Name: RESNA
Address:
Project Contact: Kurtis McVicker Project #: 18034-9
Phone #: (415)659-0404 Fax #:
Consultant Work Release #: 90120723

Exxon Contact: Gary Gibson Phone #: (415) 246-8768
Site RAS #: 7-3399
Site Location: Hopyard Blvd Pleasanton
Laboratory Work Release #: ~~90120723~~ 91137490

Sampled by (please print): Eric Twitty
Sampler Signature:
Date Sampled: 9/24/91

Sample Description	Collection Date/Time	Matrix	Prsv.	# of Cont.	SOIL: TPH/GAS/BTEX EPA 8015/8020	SOIL: TPH/Diesel EPA 8015	SOIL: Organic Lead DHS Method	WATER: TPH/GAS/BTEX EPA 8015/602	WATER: TPH/Diesel EPA 8015	WATER: Organic Lead DHS Method	TRPH EPA 418.1	Total Oil & Grease SM 5520					Remarks
W-56-MW7	1:00	H2O	HCl	3				\									9344.9
9/12																	

Cooler No.	Relinquished by/Affiliation	Accepted by/Affiliation	Date	Time
Cooler Seal Intact ☐ Yes ☐ No	RESNA	Kurtis McVicker	9/24/91	2:45
	Kurtis McVicker	Ed Lattey - Exxon	9/25/91	1335
Turnaround Time (circle choice) 24 hr. 48 hr. 72 hr. 96 hr. (5) workday (standard)	Ed Lattey - Exxon	Lea Lassore ARCO	9/25	1645
Shipment Method	Additional Comments:			
Shipment Date				

Distribution: White - Original Yellow - Exxon Pink - Lab Goldenrod - Consultant Field Staff

410925.509

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REPORT OF LABORATORY ANALYSIS

October 01, 1991

Mr. Keith McVicker
RESNA - Applied Geosystems
41674 Christy St.
Fremont, CA 94538

RE: PACE Project No. 410925.509
Client Reference: Exxon 7-3399

Dear Mr. McVicker:

Enclosed is the report of laboratory analyses for samples received September 25, 1991.

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

Sincerely,

Carol Reid

Carol Reid
Project Manager

Enclosures

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

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THE ASSURANCE OF QUALITY

REPORT OF LABORATORY ANALYSIS

RESNA - Applied Geosystems
41674 Christy St.
Fremont, CA 94538

October 01, 1991
PACE Project Number: 410925509

Attn: Mr. Keith McVicker

Client Reference: Exxon 7-3399

PACE Sample Number:			70 0093449	
Date Collected:			09/24/91	
Date Received:			09/25/91	
Client Sample ID:			W-56-MW7	
Parameter	Units	MDL		DATE ANALYZED
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	09/26/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	50	ND	09/26/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):				09/26/91
Benzene	ug/L	0.5	3.5	09/26/91
Toluene	ug/L	0.5	ND	09/26/91
Ethylbenzene	ug/L	0.5	1.7	09/26/91
Xylenes, Total	ug/L	0.5	6.8	09/26/91

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

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

REPORT OF LABORATORY ANALYSIS

Mr. Keith McVicker
Page 2

QUALITY CONTROL DATA

October 01, 1991
PACE Project Number: 410925509

Client Reference: Exxon 7-3399

TPH GASOLINE/BTEX
Batch: 70 06447
Samples: 70 0093449

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	Recv	Dupl Recv	RPD
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	50	447	98%	95%	3%
Benzene	ug/L	0.5	40.0	88%	101%	13%
Toluene	ug/L	0.5	40.0	91%	103%	12%
Ethylbenzene	ug/L	0.5	40.0	91%	103%	12%
Xylenes, Total	ug/L	0.5	120	92%	104%	12%

MDL Method Detection Limit
RPD Relative Percent Difference

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EXXON COMPANY, U.S.A.

P.O. Box 4415, Houston, TX 77210-4415

CHAIN OF CUSTODY

Consultant Name: RESNA / AGS
Address:
Project Contact: KEITH McVICKER Project #: 18034-9
Phone #: 415) 659-0404 Fax #:
Consultant Work Release #: 90107740 C.O. #1

Exxon Contact: GARY GIBSON Phone #: 415) 246-8768
Site RAS #: 7-3399
Site Location: EXXON, HWY 580 RD. PLEASANTON
Laboratory Work Release #: 911493 68

Sampled by (please print): ERIC TWITTY
Sampler Signature:
Date Sampled:

Sample Description	Collection Date/Time	Matrix	Prsv.	# of Cont.	SOIL: TPH/GAS/BTEX EPA 8015/8020	SOIL: TPH/Diesel EPA 8015	SOIL: Organic Lead DHS Method	WATER: TPH/GAS/BTEX EPA 8015/602	WATER: TPH/Diesel EPA 8015	WATER: Organic Lead DHS Method	TRPH EPA 418.1	Total Oil & Grease SM 5520					Remarks
W-99-MW8	10/14/91 5:45	H2O	HCl	3													10299.5
5/1																	

Cooler No.	Relinquished by/Affiliation	Accepted by/Affiliation	Date	Time
Cooler Seal Intact ☐ Yes ☐ No	RESNA	Keith McVicker	10/14/91	6:30
	Keith McVicker	Ed Mattey - Pace	10/14	1455
Turnaround Time (circle choice) 24 hr. 48 hr. 72 hr. ~~96 hr.~~ 5 workday (standard)	Ed Mattey - Pace	Tina Maynes-Pace	10/14	1915

Shipment Method:
Shipment Date:

Additional Comments:

Distribution: White - Original Yellow - Exxon Pink - Lab Goldenrod - Consultant Field Staff

A 110517

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REPORT OF LABORATORY ANALYSIS

RESNA - Applied Geosystems
41674 Christy St.
Fremont, CA 94538

October 21, 1991
PACE Project Number: 411016517

Attn: Mr. Keith McVicker

Client Reference: Exxon 7-3399

PACE Sample Number:			70 0102995	
Date Collected:			10/14/91	
Date Received:			10/16/91	
Client Sample ID:			W-99-MW8	
Parameter	Units	MDL		DATE ANALYZED
ORGANIC ANALYSIS				
TPH GASOLINE/BTEX				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	10/17/91
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	50	ND	10/17/91
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	10/17/91
Benzene	ug/L	0.5	ND	10/17/91
Toluene	ug/L	0.5	ND	10/17/91
Ethylbenzene	ug/L	0.5	ND	10/17/91
Xylenes, Total	ug/L	0.5	ND	10/17/91

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

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Novato, CA 94949
TEL: 415-883-6100
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Mr. Keith McVicker
Page 2

QUALITY CONTROL DATA

October 21, 1991
PACE Project Number: 411016517

Client Reference: Exxon 7-3399

PURGEABLE FUELS AND AROMATICS
Batch: 70 06978
Samples: 70 0102995

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	Recv	Dupl Recv	RPD
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	50	447	89%	86%	3%
Benzene	ug/L	0.5	40.0	91%	99%	8%
Toluene	ug/L	0.5	40.0	87%	94%	7%
Ethylbenzene	ug/L	0.5	40.0	87%	94%	7%
Xylenes, Total	ug/L	0.5	120	83%	90%	8%

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