Tetra Tech EM Inc.

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November 7, 2000

#71

J. W. Silveira Company
499 Embarcadero
Oakland, California 94606

Subject: May 2000, Groundwater Monitoring report for the Sited Located at 2301 East 12th Street, Oakland

INTRODUCTION

The purpose of this report is to provide the results of the groundwater sampling at 6 monitoring wells conducted on May 22, 2000. The site is located at 2301 East 12th Street at the south corner of the intersection of East 12th Street and 23rd Avenue in Oakland, California (Figure 1).

SITE BACKGROUND

Four underground storage tanks (USTs) were previously located at the site. Two of the USTs were 1,000-gallon tanks and were used for waste oil storage; one of the USTs was a 6,000-gallon tank that contained gasoline; and one of the USTs was a 1,000-gallon tank that contained diesel fuel. The gasoline and diesel tanks were removed on December 21, 1990, and the 2 waste oil tanks were removed on February 11, 1991. It was reported that contamination was discovered at both ends of the 1,000-gallon waste oil tanks and at the northern end of the 6,000-gallon gasoline tank. As part of the UST removal action activities, six groundwater monitoring wells and one extraction well were installed at the site. The wells were sampled approximately two to four times a year from 1992 through 1999.

GROUNDWATER SAMPLING ACTIVITIES

As part of the additional site characterization, the six monitoring wells at the site were sampled on May 22, 2000. The depth of groundwater was measured at each well with an electronic depth probe. The depth to the monitoring well caps were removed from the tops of the well and the groundwater

was allowed to equilibrate before the depth to groundwater was measured. Each well was purged and sampled with a dedicated disposable bailer. During the purging of the monitoring well a Horiba U10 water quality checker was used to measure the following physical parameters of the groundwater: pH, temperature, electrical conductivity, dissolved oxygen, and turbidity. Copies of the groundwater field sampling sheets are provided in Appendix A. These physical parameters were monitored to determine when the groundwater in the well casing was representative of the groundwater outside of the monitoring well. After the physical parameters of the groundwater had stabilized groundwater samples were collected from the well. The samples were placed in the appropriate sample containers provided by the laboratory. After each sample was labeled the sample was stored in a cooler of ice under a chain-of-custody control. The groundwater samples were sent to Curtis & Tompkins Analytical Laboratories (C&T), in Berkeley, California. C&T is a California state-certified laboratory. The groundwater samples were analyzed for volatile organic compounds (VOCs), methyl tertiary-butyl ether (MTBE), total petroleum hydrocarbons (TPH) as gasoline (TPH-g), and TPH as diesel (TPH-d).

GROUNDWATER GRADIENT

The groundwater elevations were calculated for each of the monitoring wells from the measured depth to groundwater at the site. The depth to groundwater is measured from the top of casing at each well, and the groundwater elevations measured at the site are presented in Table 1. The groundwater flow directions and gradient at the site were calculated using this data. The groundwater flow directions were calculated from two different triangles where the highest and lowest groundwater elevations (MW-6 and MW-5 respectively) were used for both calculations. The groundwater flow direction at the southeast portion of the site was calculated from monitoring wells MW-1, MW-5, and MW-6 at north 37 degrees west (N37W), as shown on Figure 3. The groundwater flow direction at the northwest portion of the site was calculated from monitoring wells MW-4, MW-5, and MW-6 at N66W. The groundwater gradient is calculated to be 0.038 feet/foot (ft/ft).

The tops of casing elevations of the monitoring wells are estimated from a USGS topographic map of the area. Monitoring well MW-1 was estimated to be 19.00 feet above mean sea level. The other monitoring wells MW-2 through MW-6 are based upon the elevation of MW-1. No records could be found of any survey data that states the actual top of casing elevations to a known survey point.

GROUNDWATER ANALYTICAL RESULTS

VOCs, TPH-g, and TPH-d were each detected in the groundwater samples collected from the six monitoring wells during the groundwater sampling event. As shown in Table 2, detected benzene concentrations ranged from 53 to 1,300 micrograms per Liter (ug/L); detected toluene concentrations ranged from 3.9 to 84 ug/L; detected ethylbenzene concentrations ranged from 5.6 to 560 ug/L; and detected xylene concentrations ranged from 6.0 to 257 ug/L. However, MTBE was not detected in any of the groundwater samples. Detected concentrations of TPH-g ranged from 2,4000 to 14,000 ug/L and detected concentrations of TPH-d ranged from 280 to 9,700 ug/L. The detected analytical results from this current round of groundwater sampling are provided in Table 1. Tables 2 through 7 provide the analytical groundwater sample results for VOCs and TPH compounds for monitoring wells MW-1 through MW-6, respectively, since July 1992. The complete laboratory analytical package for the May 2000, groundwater sampling is provided in Appendix B.

CONCLUSIONS AND RECOMMENDATIONS

Results from the analytical samples show that the extent of TPH contamination is still present in the groundwater. Most of the groundwater contamination appears to be around monitoring well MW-2. TtEMI recommends decreasing the groundwater sampling frequency at the site to one time per year because the existing groundwater data from the site shows essentially no change in contaminant concentrations over time.

It is recommended that a Feasibility Study be conducted to determine the best remedial approach that will reduce the contamination at the site. The most likely approach to remediation at the site is using hydrogen peroxide injection. An iso-concentration map showing the soil types and contaminant concentrations will also be prepared to determine the locations of the areas that have been impacted with the contaminant concentrations. Based upon the previous sampling data, the iso-concentration map, and the Feasibility Study a remedial cleanup method will be presented for recommendation at this site.

If the recommended remedial approach proves successful by reducing the sources of contamination at the site, and subsequent groundwater sampling shows a decrease in contaminant concentrations at the site, closure of the site will then be attainable.

Should you have any questions, please feel free to contact the undersigned project manager, Hal Dawson, at (415) 222-8316.

Sincerely,

Hal Dawson
TtEMI Project Manager

Jerry Wickham
Registered Geologist #3766

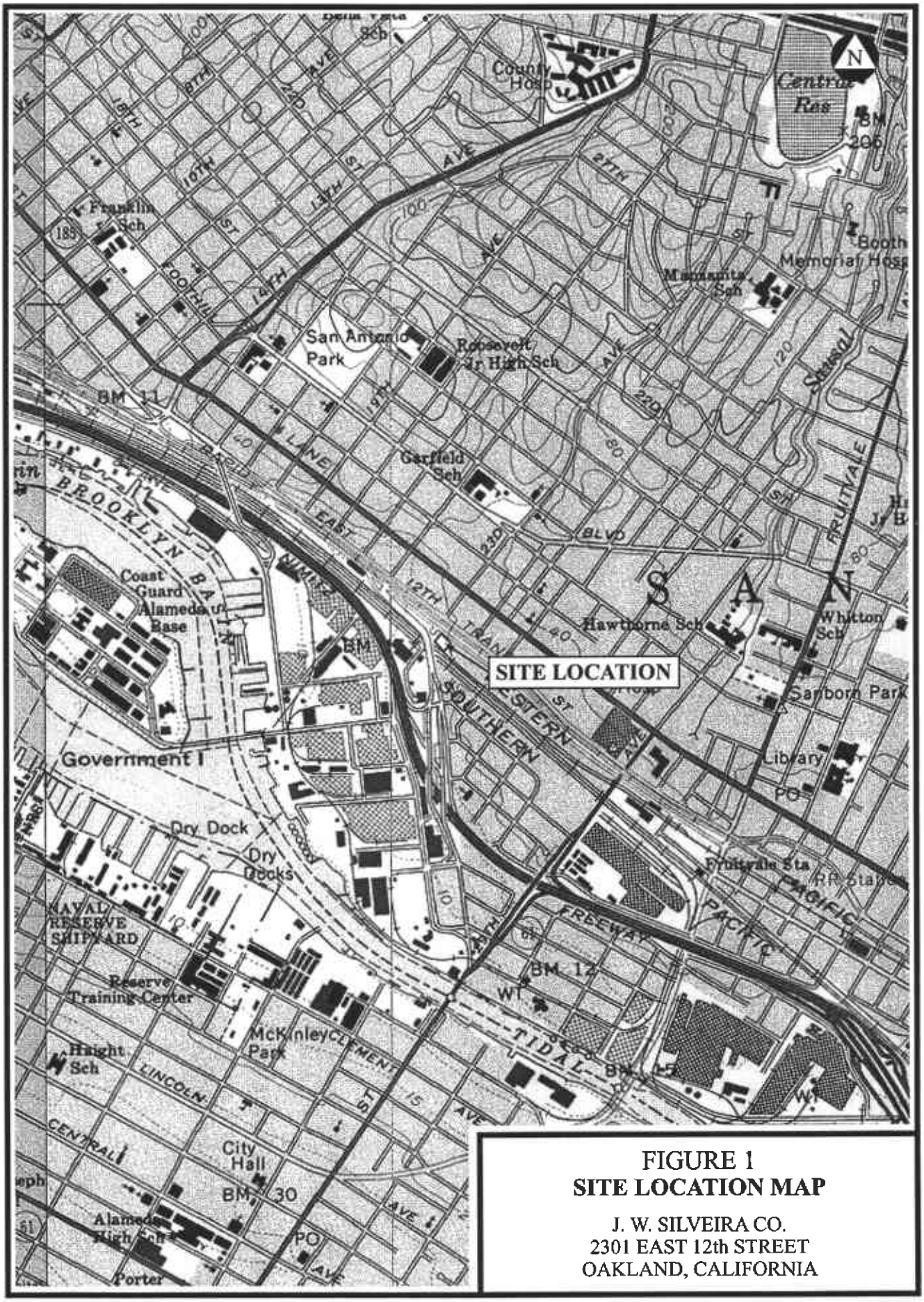


FIGURE 1
SITE LOCATION MAP

J. W. SILVEIRA CO.
2301 EAST 12th STREET
OAKLAND, CALIFORNIA

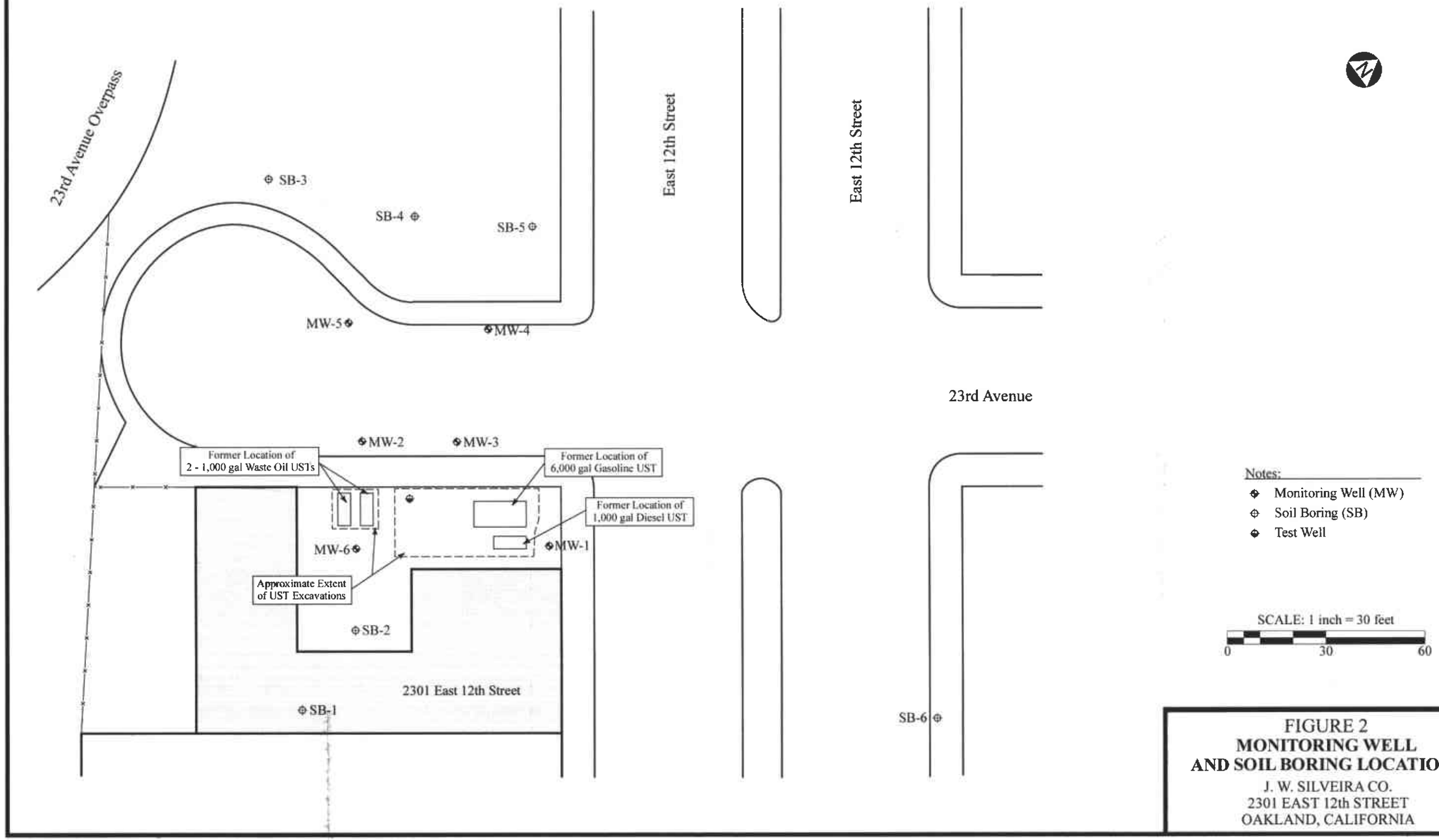
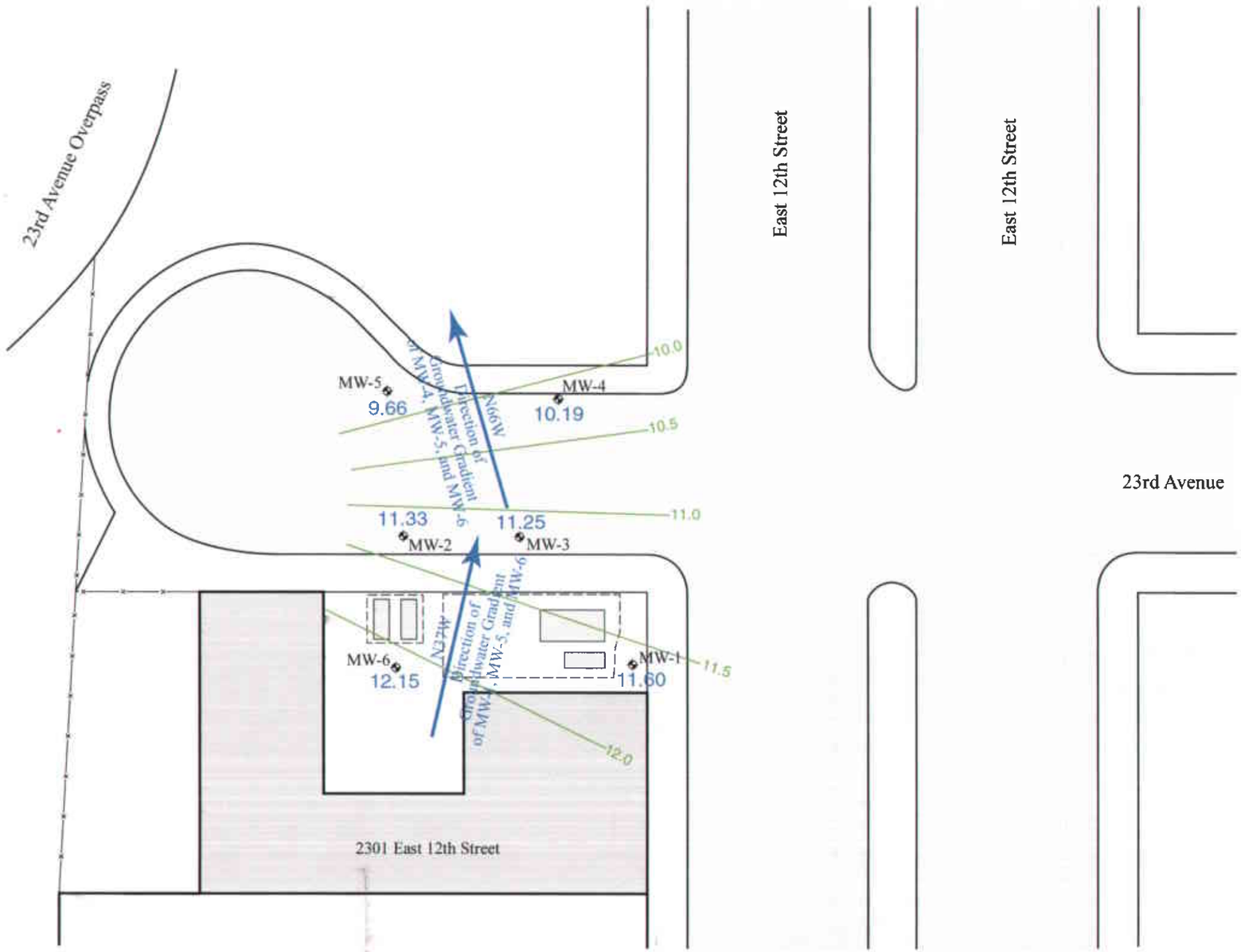


FIGURE 2
MONITORING WELL AND SOIL BORING LOCATIONS
J. W. SILVEIRA CO.
2301 EAST 12th STREET
OAKLAND, CALIFORNIA



Notes:

- Monitoring Well (MW)
- 12.15 Groundwater elevation in feet above mean sea level

SCALE: 1 inch = 30 feet

0 30 60

FIGURE 3
MAY 2000
GROUNDWATER GRADIENT
J. W. SILVEIRA CO.
2301 EAST 12th STREET
OAKLAND, CALIFORNIA

Tetra Tech EM Inc.

TABLE 1
GROUNDWATER ELEVATIONS
2301 EAST 12TH STREET

Date	Groundwater Elevations (msl)					
	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6
5/22/00	11.60	11.33	11.25	10.19	9.66	12.15

Notes:

MW-1 TOC Elevation: 19.00
MW-2 TOC Elevation: 17.22
MW-3 TOC Elevation: 17.71
MW-4 TOC Elevation: 17.46
MW-5 TOC Elevation: 17.48
MW-6 TOC Elevation: 18.05
TOC top of casing
msl mean sea level
The TOC elevations are estimated from a USGS topographic map were MW-1 is 19.00 ft above msl.

TABLE 2
DETECTED VOC AND TPH COMPOUNDS IN GROUNDWATER
FROM MONITORING WELLS MAY 22, 2000
2301 EAST 12TH STREET

Analyte	Monitoring Well Locations					
VOC (µg/L)	**MW-1**	**MW-2**	**MW-3**	**MW-4**	**MW-5**	**MW-6**
1,1-Dichloroethane	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*
1,1-Dichloroethene*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*
1,2,4-Trimethylbenzene	5.4	110	0.5	*ND*	0.8	*ND*
1,3,5-Trimethylbenzene	6.4	100	*ND*	*ND*	*ND*	*ND*
Benzene	1,300	970	73	*ND*	53	320
Chlorobenzene	*ND*	4.6	*ND*	*ND*	1.1	*ND*
Ethylbenzene	98	560	18	*ND*	5.6	61
Isopropylbenzene	17	63	41	10	43	20
Naphthalene	16	600	3.9	*ND*	26	*ND*
Propylbenzene	17	120	48	9.4	61	17
Toluene	30	84	6.3	*ND*	3.4	3.8
Trichloroethene	*ND*	*ND*	3.9	*ND*	*ND*	46
cis-1,2-Dichloroethene	1.0	*ND*	3.4	*ND*	3.6	44
m,p-Xylenes	24	230	5.4	*ND*	8.1	1.9
o-Xylene	1.9	27	0.6	*ND*	1.5	*ND*
n-Butylbenzene	10	43	20	4.6	11	5.8
para-Isopropyl Toluene	9.6	21	21	2.8	6.3	3.9
sec-Butylbenzene	7.2	13	13	7.0	6.8	4.0
tert-Butylbenzene	*ND*	*ND*	1.3	1.0	*ND*	*ND*
trans-1,2-Dichloroethene*	*ND*	*ND*	2.6	*ND*	3.6	18
TPH (µg/L)	**MW-1**	**MW-2**	**MW-3**	**MW-4**	**MW-5**	**MW-6**
Gasoline	5,600	14,000	7,600	2,400	4,500	3,000
Diesel	3,300	6,900	9,700	580	1,000	730
Motor Oil	720	840	390	*ND*	*ND*	*ND*

Notes:

µg/L	micrograms per Liter
- -	Not Analyzed
ND	Not Detected
TPH	Total Petroleum Hydrocarbons
VOC	Volitile Organic Compound

TABLE 3
VOC AND TPH COMPOUNDS IN GROUNDWATER
MW-1 FROM JULY 1992 TO MAY 2000
2301 EAST 12TH STREET

Date	TPH (µg/L)		VOC (µg/L)							
	Diesel	Gasoline	Benzene	Toluene	Ethylbenzene	Xylenes	Chloroethane	Tetrachloroethene	Trichloroethene	Cis 1,2 Dichloroethene
07/27/92	360	1,800	600	5.1	13	18	--	--	--	--
11/06/92	670	8,000	2,400	6.1	41	ND	--	--	--	--
03/02/93	1,100	5,600	3,800	ND	120	ND	ND	ND	5.8	ND
05/26/93	1,170	4,800	3,400	44	140	150	ND	ND	6.8	ND
08/27/93	1,200	8,400	2,300	35	180	57	ND	5.4	ND	1.1
12/23/93	ND	7,800	29	16	5.8	26	--	--	--	--
03/27/94	2,600	10,000	2,400	84	310	280	--	--	--	--
06/24/94	1,500	9,000	2,300	44	260	170	--	--	--	--
10/16/94	2,000	10,000	2,100	35	250	140	--	--	--	--
02/13/95	2,500	16,000	3,200	110	460	260	ND	ND	ND	1.3
06/20/95	3,500	18,000	2,600	87	450	220	1.1	ND	6.5	1.1
10/16/95	2,700	13,000	2,200	63	220	110	ND	ND	2.5	0.84
02/15/96	16,000	11,000	1,400	25	130	81	ND	ND	24	0.82
06/18/96	8,000	12,000	2,500	72	190	130	ND	ND	ND	ND
09/17/96	3,100	7,000	1,200	29	86	55	ND	ND	11	ND
01/16/97	11,000	14,000	1,500	47	190	130	ND	ND	13	0.71
05/01/97	4,300	10,000	2,200	56	170	110	ND	ND	2.7	0.81
12/12/97	3,400	9,800	2,000	46	81	94	--	--	--	--
03/24/98	8,600	12,000	2,600	74	280	100	--	--	--	--
07/20/98	6,800	11,000	2,100	57	220	83	ND	ND	3.4	1.4
04/01/99	4,300	4,100	1,300	30	93	36	ND	ND	20	ND
05/22/00	3,300	5,600	1,300	ND	98	24	ND	ND	ND	1.0

Notes:

µg/L	micrograms per Liter
--	Not Analyzed
ND	Not Detected
TPH	Total Petroleum Hydrocarbons
VOC	Volitile Organic Compound

TABLE 4
VOC AND TPH COMPOUNDS IN GROUNDWATER
MW-2 FROM JULY 1992 TO MAY 2000
2301 EAST 12TH STREET

Date	TPH (µg/L)		VOC (µg/L)								
	Diesel	Gasoline	Benzene	Toluene	Ethylbenzene	Xylenes	Chlorobenzene	Chloroethane	Trichloroethene	Vinyl Chloride	cis-1,2-Dichloroethene
07/27/92	1,500	20,000	110	6	37	39	--	--	--	--	--
11/06/92	17,000	19,000	2,800	120	790	1100	--	--	--	--	--
03/02/93	37,000	14,000	3,800	110	950	1100	ND	ND	ND	ND	ND
05/26/93	6,000	11,000	5,200	140	1,000	990	9.8	ND	ND	ND	2.7
08/27/93	54,000	16,000	1,700	120	640	710	10	1.3	ND	2.2	3.2
12/23/93	720	18,000	87	79	42	400	4.3	ND	ND	1.5	1
03/27/94	6,100	17,000	2,100	100	630	750	ND	ND	ND	ND	ND
06/24/94	3,000	15,000	2,000	72	550	520	6.5	ND	ND	ND	ND
10/16/94	53,000	15,000	1,500	81	410	520	5.7	1.1	ND	1	0.73
02/13/95	49,000	18,000	2,000	120	660	900	12	ND	ND	ND	ND
06/20/95	6,600	30,000	1,300	85	510	520	7.9	1.5	ND	2.1	1
10/16/95	31,000	19,000	1,500	92	400	330	5.1	ND	ND	ND	ND
02/15/96	11,000	25,000	1,700	93	490	440	4.8	ND	ND	ND	ND
06/13/96	5,500	13,000	1,400	75	460	410	5.6	ND	ND	ND	ND
09/17/96	13,000	15,000	1,600	66	480	460	8.2	ND	ND	ND	ND
01/16/97	30,000	20,000	1,800	150	670	780	ND	ND	12	ND	0.69
05/01/97	24,000	11,000	1,300	96	400	410	5.2	ND	ND	ND	ND
12/12/97	24,000	14,000	1,200	76	460	420	--	--	--	--	--
03/24/98	9,500	11,000	1,200	74	430	350	--	--	--	--	--
07/20/98	490,000	38,000	890	160	490	850	1.9	1.4	ND	0.76	ND
04/01/99	5,800	7,200	1,100	100	540	370	5.2	ND	ND	ND	ND
05/22/00	6,900	14,000	970	84	560	230	4.6	ND	ND	ND	ND

Notes:

µg/L	micrograms per Liter
--	Not Analyzed
ND	Not Detected
TPH	Total Petroleum Hydrocarbons
VOC	Volitile Organic Compound

TABLE 5
VOC AND TPH COMPOUNDS IN GROUNDWATER
MW-3 FROM JULY 1992 TO MAY 2000
2301 EAST 12TH STREET

Date	TPH (µg/L)		VOC (µg/L)						
	Diesel	Gasoline	Benzene	Toluene	Ethylbenzene	Xylenes	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene
07/27/92	4,000	8,800	150	8.6	88	13	--	--	--
11/06/92	21,000	10,000	78	3.1	830	13	--	--	--
03/02/93	9,300	3,900	120	nd	240	37	ND	ND	ND
05/26/93	4,400	7,400	570	4.1	640	8.4	--	--	--
08/27/93	8,200	7,100	180	15	110	9.4	16	ND	ND
12/23/93	230	7,900	30	14	12	62	--	--	--
03/27/94	4,300	5,700	180	10	100	24	6	ND	ND
06/24/94	1,500	8,400	230	13	93	7.6	ND	6	1.5
10/16/94	2,700	6,300	140	8.7	68	25	12	8.4	2.1
02/13/95	1,600	7,500	220	17	110	22	5.1	4.3	1.3
06/20/95	13,000	11,000	310	23	160	63	5.7	4.9	1.7
10/16/95	1,900	4,700	120	6.7	32	16	7.8	7.1	2
02/15/96	9,400	8,100	62	13	50	33	9.3	7.3	2.6
06/18/96	5,000	30,000	110	65	130	160	ND	6.9	2.5
09/17/96	15,000	10,000	68	20	61	42	13	11	ND
01/16/97	57,000	9,700	64	19	38	60	3.9	4.9	2
05/01/97	30,000	7,300	67	13	51	20	ND	4.9	2.4
12/12/97	16,000	10,000	63	22	68	48	--	--	--
03/24/98	10,000	7,900	ND	1.5	53	21	--	--	--
07/20/98	17,000	6,200	87	13	44	25	ND	1.1	0.81
04/01/99	3,200	5,600	73	7	29	6.3	6.7	ND	3.3
05/22/00	9,700	7,600	73	6.3	18	5.4	3.9	3.4	2.6

Notes:

µg/L	micrograms per Liter
--	Not Analyzed
ND	Not Detected
TPH	Total Petroleum Hydrocarbons
VOC	Volitile Organic Compound

TABLE 6
VOC AND TPH COMPOUNDS IN GROUNDWATER
MW-4 FROM JULY 1992 TO MAY 2000
2301 EAST 12TH STREET

Date	TPH (µg/L)		VOC (mg/L)					
	Diesel	Gasoline	Benzene	Toluene	Ethylbenzene	Xylenes	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene
03/27/94	1,800	2,200	19	1.2	2.9	12	--	--
06/24/94	420	2,300	2.9	1.6	2.8	4.6	--	--
10/16/94	900	3,500	3.8	2	5.2	24	0.71	*ND*
02/13/95	630	2,600	100	100	3.8	7.1	*ND*	*ND*
06/20/95	1,100	3,000	31	3.4	6.1	12	2.2	1
10/16/95	1,100	2,000	43	2.3	8.4	6.9	1.3	*ND*
02/15/96	940	3,400	*ND*	*ND*	*ND*	*ND*	1.8	0.79
06/13/96	1,100	1,900	12	5.7	3.4	9.6	*ND*	*ND*
09/17/96	2,500	3,100	*ND*	15	78	12	*ND*	*ND*
01/16/97	13,000	4,000	*ND*	7	3	15	0.76	*ND*
05/01/97	6,200	2,900	*ND*	5.1	3.4	5.7	*ND*	*ND*
12/12/97	650	1,800	41	13	14	20	--	--
03/24/98	1,300	3,100	*ND*	5	3.7	6.2	--	--
07/20/98	1,000	950	2.2	1.5	2	2.1	*ND*	*ND*
04/01/99	2,500	3,900	*ND*	*ND*	0.8	*ND*	*ND*	*ND*
05/22/00	580	2,400	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*

Notes:

µg/L	micrograms per Liter
--	Not Analyzed
ND	Not Detected
TPH	Total Petroleum Hydrocarbons
VOC	Volitile Organic Compound

TABLE 7
VOC AND TPH COMPOUNDS IN GROUNDWATER
MW-5 FROM JULY 1992 TO MAY 2000
2301 EAST 12TH STREET

Date	TPH (µg/L)		VOC (µg/L)							
	Diesel	Gasoline	Benzene	Toluene	Ethylbenzene	Xylenes	Chlorobenzene	Vinyl Chloride	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene
03/27/94	870	2,900	71	*ND*	27	15	--	--	--	--
06/24/94	950	6,100	220	12	38	24	0.53	7.5	11	3.1
10/16/94	1,100	4,300	120	5.1	27	13	0.66	9.6	16	4.2
02/13/95	1,200	4,600	130	7.9	38	29	*ND*	8.4	*20*	5.1
06/20/95	1,000	6,000	140	6.7	27	29	0.95	10	12	4.1
10/16/95	940	2,000	43	2.3	8.4	6.9	0.54	7.6	9.8	2.9
02/15/96	2,200	4,400	61	5.3	34	*ND*	0.57	5.3	7.7	*ND*
06/18/96	--	7,400	94	11	32	40	*ND*	*ND*	*2.9*	*ND*
09/17/96	1,600	5,200	140	7.5	18	21	0.83	7.3	4.5	2.7
01/16/97	2,500	4,500	64	8.7	23	26	0.71	9.1	6.1	3.8
05/01/97	3,400	4,300	120	7.6	21	23	*ND*	1.1	0.55	*ND*
12/12/97	2,400	4,000	66	8.7	15	25	--	--	--	--
03/24/98	1,200	4,100	48	7.2	14	21	--	--	--	--
07/20/98	1,600	3,400	69	6	11	15	0.68	5.3	1.8	2
04/01/99	1,500	5,200	73	5	13	13	*ND*	*ND*	*ND*	2.7
05/22/00	1,000	4,500	53	3.4	5.6	8.1	1.1	*ND*	3.6	3.6

Notes:

µg/L micrograms per Liter
-- Not Analyzed
ND Not Detected
TPH Total Petroleum Hydrocarbons
VOC Volitile Organic Compound

TABLE 8
VOC AND TPH COMPOUNDS IN GROUNDWATER
MW-6 FROM JULY 1992 TO MAY 2000
2301 EAST 12TH STREET

Date	TPH (µg/L)		VOC (µg/L)										
	Diesel	Gasoline	Benzene	Toluene	Ethylbenzene	Xylenes	1,2-Dichloroethane	Chloroethane	Trichloroethene	cis-1,2-Dichloroethene	Vinyl Chloride	trans-1,2-Dichloroethene
03/27/94	1,000	5,000	1,100	17	180	41	--	--	--	--	--	--
06/24/94	660	8,000	1,200	21	210	54	--	--	--	--	--	--
10/16/94	850	6,300	870	14	140	49	--	--	--	--	--	--
02/13/95	1,000	5,500	1,000	17	210	55	ND	ND	99	40	87	13
06/20/95	1,400	9,100	1,300	24	240	79	ND	ND	29	26	130	17
10/16/95	770	3,000	590	8.8	84	24	ND	ND	110	75	54	16
02/15/96	1,500	3,900	460	11	110	23	ND	ND	160	110	46	25
06/13/96	1,300	4,800	630	14	140	37	ND	ND	83	72	33	20
09/17/96	1,300	4,700	550	14	120	38	ND	2.7	59	73	48	25
01/16/97	2,200	5,600	850	17	190	43	1.1	1.1	82	81	29	21
05/01/97	3,500	5,400	450	9.1	38	35	0.92	2	52	50	26	17
12/12/97	1,200	4,900	530	13	130	38	--	--	--	--	--	--
03/24/98	1,200	5,300	630	11	120	25	--	--	--	--	--	--
07/20/98	1,600	2,900	420	7	60	14	ND	2.5	34	54	12	16
04/01/99	3,400	4,000	280	4.4	66	6.4	ND	ND	75	72	ND	21
05/22/00	730	3,000	320	3.8	61	1.9	ND	ND	46	44	ND	18

Notes:

µg/L	micrograms per Liter
--	Not Analyzed
ND	Not Detected
TPH	Total Petroleum Hydrocarbons
VOC	Volitile Organic Compound

APPENDIX A
GROUNDWATER SAMPLING DATA SHEETS

Could/did not
purge each (2) casing volumes
prior to sampling
OK

GROUNDWATER SAMPLING RECORD

DATE 5/22/00 PAGE 1 OF 2

MONITORING WELL NO. 1

PROJECT JW Silveira

SITE 1-2301 E. 12th St.

PROJECT NO. P110604

TOTAL GALLONS TO BE PURGED

PURGING METHOD

SAMPLING METHOD

Time	Volume of Water Removed (gallons)	Discharge Rate (gal/min)	Field Parameters Measured							Water Level (feet)	Comments
			pH	Specific Conductivity (ms/cm)	Turbidity (ntu)	Dissolved Oxygen (mg/L)	Temp. (°C)				
1300	Initial		6.58	1.66	0	0.60	20.0°				
1303	3 gal		6.59	1.67	28	0.64	19.0°				
1308	6 gal		6.52	1.73	33	0.44	18.9°				
1314	9 gal		6.50	1.77	33	0.70	18.9°				
1323	12 gal		6.50	1.80	39	0.74	19.0°				at 12 gal - 2' of H_2O in well
1328	14 gal		6.52	1.81	51	0.78	19.0°				at 14 gal - 1' of H_2O in well Purged dry @ 14 gal
											~~3 vol = 3 x (3x7.4 gal)~~

FIELD EQUIPMENT	SERIAL NUMBER	RENTAL COMPANY

SAMPLE ID: JW1-32

ANALYSIS: VOC, MTBE, TPH-P, TPH-E

COC NUMBER: 0813

SAMPLING PERSONNEL:

TETRA TECH EM INC.
• SAN FRANCISCO •

GROUNDWATER SAMPLING RECORD

DATE 5/22/00 PAGE 2 OF 2

MONITORING WELL NO. 1

PROJECT JW Silveira

SITE 1 - 2301 E 12th St.

PROJECT NO. P110604

CASING DIAMETER 2 inches

BOREHOLE DIAMETER 8.25 inches

TOP OF CASING ELEVATION _____ feet

WATER LEVEL 7.40 feet bgs @ 0945

WATER LEVEL ELEVATION _____ feet msl

STANDING WATER COLUMN 17.04 feet

WELL VOLUMES TO BE PURGED _____

MINUMUM PURGE VOLUME _____ gallons

ACTUAL VOLUME PURGED _____ gallons

VOLUME CALCULATED BY:

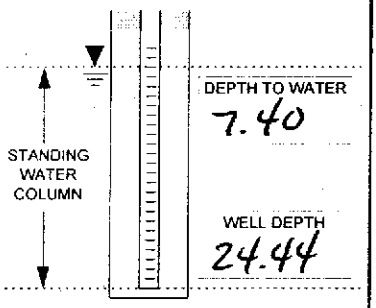
Well Depth = Below TOC

PURGE VOLUME CALCULATION

One Well Volume = Casing Volume + Annulus Volume

One Well Volume = 2.90 gal + 7.47 gal

One Well Volume = 10.37 gallons



24.4
7.4
17.0

Casing Volume = Standing Water Column (ft) x Pipe Volume (gal/linear ft)[a]

Casing Volume = 17.04 ft x .17 gal/linear ft

Casing Volume = 2.90 gallons x 3 = 9 gal

NOTE
a Refer to Table 1
b Refer to Table 2
c Assuming Sand Pack Porosity of 30%

Annulus Volume = [(Standing Water Column (ft) x Borehole Volume (gal/linear ft)[b]) - Casing Volume] x 0.3[c]

Annulus Volume = [(10.17 ft x 2.78 gal/linear ft) - 2.90 gal] x 0.3

Annulus Volume = 7.47 gallons 13.3

Table 1
Pipe Volume of Schedule 40 PVC Casing

Diameter (inches)	OD (inches)	ID (inches)	Volume (gal/linear ft)	Diameter (inches)	OD (inches)	ID (inches)	Volume (gal/linear ft)
1.25	1.660	1.380	0.08	4	4.500	4.026	0.66
2	2.375	2.067	0.17	6	6.625	6.065	1.50
3	3.500	3.068	0.38	8	8.625	7.981	2.60

Table 2
Volume of Borehole

Diameter (inches)	Volume (gal/linear ft)	Diameter (inches)	Volume (gal/linear ft)	Diameter (inches)	Volume (gal/linear ft)
7.25	2.14	8.25	2.78	9.25	3.52
7.75	2.45	8.75	3.12	10.25	4.29

GROUNDWATER SAMPLING RECORD

DATE 5/22/00 PAGE 1 OF 2

MONITORING WELL NO. 2

PROJECT JW Silveira

SITE 1-2301 E. 12th St.

PROJECT NO. P110604

TOTAL GALLONS TO BE PURGED _____

PURGING METHOD _____

SAMPLING METHOD _____

Time	Volume of Water Removed (gallons)	Discharge Rate (gal/min)	Field Parameters Measured: pH	Specific Conductivity (ms/cm)	Turbidity (ntu)	Dissolved Oxygen (mg/L)	Temp. (°C)			Water Level (feet)	Comments
1437	Initial		7.00	1.28	50	0.53	19.8°				Well under pressure when lid removed
1439	2 gal		6.96	1.28	73	0.75	19.6°				At 2.5 gal - 1.5' of water in well.
1444	3 gal		7.17	1.34	270	0.86	19.8°				This well only yields ~1+ casing
1527	3.1 gal		6.93	1.41	27	0.95	18.9°				volumes at a time - as if there
1530	4 gal		6.85	1.44	42	1.90	19.1°				is not a filter pack. Will move to
											next well, then come back + see if it recovers.
											Some recharge - but removal
											of 1 more gallon nearly
											dries well. Collect Sample
											@ 1535

Purge Sample This Well 1st
Slow Recharge

FIELD EQUIPMENT	SERIAL NUMBER	RENTAL COMPANY

SAMPLE ID: JW1-34

ANALYSIS: _____

COC NUMBER: _____

SAMPLING PERSONNEL:

_____

_____

_____

TETRA TECH EM INC.
• SAN FRANCISCO •

GROUNDWATER SAMPLING RECORD

DATE 5/22/00 PAGE 2 OF 2

MONITORING WELL NO. 2

PROJECT JW Silveira

SITE 1-2301 E 12th St.

PROJECT NO. P1106Ø4

CASING DIAMETER _____ inches

BOREHOLE DIAMETER _____ inches

TOP OF CASING ELEVATION _____ feet

WATER LEVEL 5.89 feet bgs @ Ø955

WATER LEVEL ELEVATION _____ feet msl

Well Depth = 15.15' below TOC

STANDING WATER COLUMN 9.26 feet

WELL VOLUMES TO BE PURGED _____

MINUMUM PURGE VOLUME _____ gallons

ACTUAL VOLUME PURGED _____ gallons

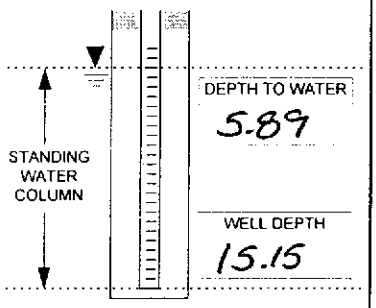
VOLUME CALCULATED BY:

PURGE VOLUME CALCULATION

One Well Volume = Casing Volume + Annulus Volume

One Well Volume = 1.57 gal + 7.25 gal

One Well Volume = 8.82 gallons



Casing Volume = Standing Water Column (ft) x Pipe Volume (gal/linear ft)[a]

Casing Volume = 9.26 ft x .17 gal/linear ft

Casing Volume = 1.57 gallons

NOTE:
a Refer to Table 1
b Refer to Table 2
c Assuming Sand Pack Porosity of 30%

Annulus Volume = [(Standing Water Column (ft) x Borehole Volume (gal/linear ft)[b]) - Casing Volume] x 0.3[c]

Annulus Volume = [(9.26 ft x 2.78 gal/linear ft) - 1.57 gal] x 0.3

Annulus Volume = 7.25 gallons

Table 1
Pipe Volume of Schedule 40 PVC Casing

Diameter (inches)	OD (inches)	ID (inches)	Volume (gal/linear ft)	Diameter (inches)	OD (inches)	ID (inches)	Volume (gal/linear ft)
1.25	1.660	1.380	0.08	4	4.500	4.026	0.66
2	2.375	2.067	0.17	6	6.625	6.065	1.50
3	3.500	3.068	0.38	8	8.625	7.981	2.60

Table 2
Volume of Borehole

Diameter (inches)	Volume (gal/linear ft)	Diameter (inches)	Volume (gal/linear ft)	Diameter (inches)	Volume (gal/linear ft)
7.25	2.14	8.25	2.78	9.25	3.52
7.75	2.45	8.75	3.12	10.25	4.29

GROUNDWATER SAMPLING RECORD

DATE 5/22/00 PAGE 1 OF 2

MONITORING WELL NO. 3

PROJECT JW Silveira

SITE 1 – 2301 E 12th St.

PROJECT NO. P110604

TOTAL GALLONS TO BE PURGED _____

PURGING METHOD _____

SAMPLING METHOD _____

Time	Volume of Water Removed (gallons)	Discharge Rate - (gal/min)	Field Parameters Measured							Water Level (feet)	Comments
			pH	Specific Conductivity (ms/cm)	Turbidity (ntu)	Dissolved Oxygen (mg/L)	Temp. (°C)				
1350	Initial		6.76	1.14	26	0.54	19.6°				
1355	3 gal		6.69	1.08	153	0.41	19.4				
1403	7 gal		6.57	1.31	160	0.46	19.4°				At 7 gal – 2' of H_2O in well
1409	8 gal		6.61	1.34	265	1.18	19.4°				At 8 gal – 1.5' of H_2O in well
1414	9 gal		6.61	1.35	480	1.43	19.4°				

FIELD EQUIPMENT	SERIAL NUMBER	RENTAL COMPANY

SAMPLE ID: JW1-33 @1420

ANALYSIS: _____

COC NUMBER: _____

SAMPLING PERSONNEL:

_____

_____

_____

TETRA TECH EM INC.
• SAN FRANCISCO •

GROUNDWATER SAMPLING RECORD

DATE 5/22/00 PAGE 2 OF 2

MONITORING WELL NO. 3

PROJECT JW Silveira

SITE 1-2301 E. 12th St.

PROJECT NO. P1106Ø4

CASING DIAMETER _____ inches

BOREHOLE DIAMETER _____ inches

TOP OF CASING ELEVATION _____ feet

WATER LEVEL 6.46 feet bgs @ Ø95Ø

WATER LEVEL ELEVATION _____ feet msl

Well Depth = ' Below TOC

STANDING WATER COLUMN 9.32 feet

WELL VOLUMES TO BE PURGED _____

MINUMUM PURGE VOLUME _____ gallons

ACTUAL VOLUME PURGED _____ gallons

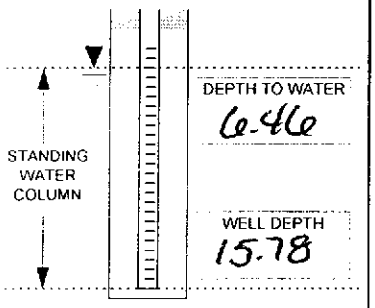
VOLUME CALCULATED BY:

PURGE VOLUME CALCULATION

One Well Volume = Casing Volume + Annulus Volume

One Well Volume = 1.58 gal + 7.30 gal

One Well Volume = 8.88 gallons



Casing Volume = Standing Water Column (ft) x Pipe Volume (gal/linear ft)[a]

Casing Volume = 9.32 ft x .17 gal/linear ft

Casing Volume = 1.58 gallons

NOTE
a Refer to Table 1
b Refer to Table 2
c Assuming Sand Pack Porosity of 30%

Annulus Volume = [(Standing Water Column (ft) x Borehole Volume (gal/linear ft)[b]) - Casing Volume] x 0.3[c]

Annulus Volume = [(9.32 ft x 2.78 gal/linear ft) - 1.58 gal] x 0.3

Annulus Volume = 7.30 gallons

Table 1
Pipe Volume of Schedule 40 PVC Casing

Diameter (inches)	OD (inches)	ID (inches)	Volume (gal/linear ft)	Diameter (inches)	OD (inches)	ID (inches)	Volume (gal/linear ft)
1.25	1.660	1.380	0.08	4	4.500	4.026	0.66
2	2.375	2.067	0.17	6	6.625	6.065	1.50
3	3.500	3.068	0.38	8	8.625	7.981	2.60

Table 2
Volume of Borehole

Diameter (inches)	Volume (gal/linear ft)	Diameter (inches)	Volume (gal/linear ft)	Diameter (inches)	Volume (gal/linear ft)
7.25	2.14	8.25	2.78	9.25	3.52
7.75	2.45	8.75	3.12	10.25	4.29

GROUNDWATER SAMPLING RECORD

DATE 5/22/00 PAGE 1 OF 2

MONITORING WELL NO. 4

PROJECT J.W. Silveira

SITE 1-2301 E. 12th St.

PROJECT NO. P110604

TOTAL GALLONS TO BE PURGED

PURGING METHOD

SAMPLING METHOD

Time	Volume of Water Removed (gallons)	Discharge Rate (gal/min)	Field Parameters Measured							Water Level (feet)	Comments
			pH	Specific Conductivity (ms/cm)	Turbidity (ntu)	Dissolved Oxygen (mg/L)	Temp. (°C)				
1115	Initial		6.41	Ø.666	80	Ø.15	19.6				Well under pressure when lid removed
1122	3 gal		6.32	Ø.669	15	Ø.40	19.1°				
1128	6 gal		6.26	Ø.679	23	Ø.62	19.1°				
1134	9 gal		6.32	Ø.693	162	Ø.31	19.2°				
1140	12 gal		6.35	Ø.713	999	Ø.43	19.2°				At 12 gal - 2.5' of H_2O in well - Hi Turb.
1143	14 gal		6.39	Ø.726	999	Ø.33	19.2°				At 14 gal - 2' of H_2O in well - High Turbidity
1147	15 gal		6.43	Ø.748	999	Ø.58	19.2°				Purged dry.

FIELD EQUIPMENT	SERIAL NUMBER	RENTAL COMPANY

SAMPLE ID: JW1-31

ANALYSIS: VOC, MTBE, TPH-P, TPH-E

COC NUMBER:

SAMPLING PERSONNEL:

TETRA TECH EM INC.
• SAN FRANCISCO •

APPENDIX B
ANALYTICAL DATA PACKAGE

Tetra Tech EM Inc.
San Francisco Office
135 Main St. Suite 1800
San Francisco, CA 94105
415-543-4880
Fax 415-543-5480

145792

0815

Chain of Custody Record

Page 1 of 1

Project name: JW SILVEIRA #1	PO#	Lab: CURTIS & TOMPKINS	
Project number: P1106	TtEMI technical contact: JACKIE LUTA	Field samplers: HAL DAWSON & ROY GLENN	
	TtEMI project manager: HAL DAWSON	Field samplers' signatures:	

Sample ID	Sample Description/Notes	Date	Time	Matrix	No./Container Types: 40 ml VOA	1 Liter Amber	1 Liter Poly	Brass Tube	Glass Jar	Preservative Added: HCl				HCl	HCl	Analysis Required: CLP VOA	CLP SVOA	CLP Pest/PCBs	CLP Metals	TPH Purgeables	TPH Extractables	MTBE
JW1-30	1 MW-5	5-22-00	1100	WATER	6	2										X				X	X	X
JW1-31	2 MW-4		1200		6	2										X				X	X	X
JW1-32	3 MW-1		1400		6	2										X				X	X	X
JW1-33	4 MW-3		1420		6	2										X				X	X	X
JW1-34	5 MW-2		1535		6	2										X				X	X	X
JW1-35	6 MW-6		1525		6	2										X				X	X	X

	Name (print)	Company Name	Date	Time
Relinquished by:	ROY GLENN	TTEMI	5-23-00	
Received by:	L. Bennetts	CofT	5-23-00	1245
Relinquished by:				
Received by:				
Relinquished by:				
Received by:				
Relinquished by:				
Received by:				

Turnaround time/remarks:

Received Chilled

TEMP. RECEIVED: 5.0 °C
RECEIVED BY: [signature]

WHITE-Laboratory Copy YELLOW-Project Office Copy

Curtis & Tompkins, Ltd.

Laboratory Number: 145792
Client: Tetra Tech EMI
Location: JW Silveria UST,Oak.
Project#: P1106.05

Receipt Date: 05/23/00

CASE NARRATIVE

This hardcopy data package contains sample and QC results for six water samples that were received on May 23, 2000.

TPH-Purgeable and BTXE: Sample JW1-34 (CT#145792-005) was originally analyzed within the EPA recommended hold time of fourteen days but the results were greater than the linear range of the instrument. The reported results were analyzed less than three days beyond the recommended hold time. High surrogate recoveries were observed for bromofluorobenzene in samples JW1-31 (CT#145792-002), JW1-32 (CT#145792-003), JW1-33 (CT#145792-004), and JW1-35 (CT#145792-006) due to coelution with a hydrocarbon peak. The surrogate recoveries in the gasoline and BTXE continuing calibration verifications were flagged but the recoveries were within the laboratory's statistically derived limits. No other analytical problems were encountered.

TPH-Extractables: No analytical problems were encountered.

Volatile Organics: There was insufficient sample provided to do a matrix spike and spike duplicate from this site. A high percent difference was observed for 2-butanone in the continuing calibration verification that was analyzed on June 4, 2000 (ef403). The compound met the minimum response criteria and was not detected in the associated samples. No other analytical problems were encountered.

Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8015M
Field ID:	JW1-30	Batch#:	56307
Lab ID:	145792-001	Sampled:	05/22/00
Matrix:	Water	Received:	05/23/00
Units:	ug/L	Analyzed:	06/05/00
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	4,500 G	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	123	59-135
Bromofluorobenzene (FID)	124	60-140

G = Pattern resembles gasoline
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8021B
Field ID:	JW1-30	Batch#:	56307
Lab ID:	145792-001	Sampled:	05/22/00
Matrix:	Water	Received:	05/23/00
Units:	ug/L	Analyzed:	06/05/00
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	23 C	2.0
Benzene	61 C	0.50
Toluene	25 C	0.50
Ethylbenzene	16	0.50
m,p-Xylenes	16	0.50
o-Xylene	6.2	0.50

Surrogate	%REC	Limits
Trifluorotoluene (PID)	116	56-142
Bromofluorobenzene (PID)	114	55-149

C = Presence confirmed, but confirmation concentration differed by more than a factor of two
RL = Reporting Limit

007

Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8015M
Field ID:	JW1-31	Batch#:	56307
Lab ID:	145792-002	Sampled:	05/22/00
Matrix:	Water	Received:	05/23/00
Units:	ug/L	Analyzed:	06/05/00
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	2,400 G	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	111	59-135
Bromofluorobenzene (FID)	159 *	60-140

* = Value outside of QC limits; see narrative
G = Pattern resembles gasoline
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8021B
Field ID:	JW1-31	Batch#:	56307
Lab ID:	145792-002	Sampled:	05/22/00
Matrix:	Water	Received:	05/23/00
Units:	ug/L	Analyzed:	06/05/00
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	2.7 C	2.0
Benzene	ND	0.50
Toluene	1.3 C	0.50
Ethylbenzene	9.8 C	0.50
m,p-Xylenes	1.5	0.50
o-Xylene	6.3 C	0.50

Surrogate	%REC	Limits
Trifluorotoluene (PID)	99	56-142
Bromofluorobenzene (PID)	113	55-149

C = Presence confirmed, but confirmation concentration differed by more than a factor of two
ND = Not Detected
RL = Reporting Limit

009

Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8015M
Field ID:	JW1-32	Batch#:	56307
Lab ID:	145792-003	Sampled:	05/22/00
Matrix:	Water	Received:	05/23/00
Units:	ug/L	Analyzed:	06/05/00
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	5,600 G	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	122	59-135
Bromofluorobenzene (FID)	197 *	60-140

* = Value outside of QC limits; see narrative
G = Pattern resembles gasoline
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8021B
Field ID:	JW1-32	Batch#:	56307
Lab ID:	145792-003	Sampled:	05/22/00
Matrix:	Water	Received:	05/23/00
Units:	ug/L	Analyzed:	06/05/00
Diln Fac:	10.00		

Analyte	Result	RL
MTBE	170 C	20
Benzene	1,300	5.0
Toluene	23	5.0
Ethylbenzene	110	5.0
m,p-Xylenes	34	5.0
o-Xylene	6.7	5.0

Surrogate	%REC	Limits
Trifluorotoluene (PID)	103	56-142
Bromofluorobenzene (PID)	97	55-149

C = Presence confirmed, but confirmation concentration differed by more than a factor of two
RL = Reporting Limit

011

Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8015M
Field ID:	JW1-33	Batch#:	56307
Lab ID:	145792-004	Sampled:	05/22/00
Matrix:	Water	Received:	05/23/00
Units:	ug/L	Analyzed:	06/05/00
Diln Fac:	2.000		

Analyte	Result	RL
Gasoline C7-C12	7,600 G	100

Surrogate	%REC	Limits
Trifluorotoluene (FID)	125	59-135
Bromofluorobenzene (FID)	200 *	60-140

* = Value outside of QC limits; see narrative
G = Pattern resembles gasoline
RL = Reporting Limit

012

Curtis & Tompkins, Ltd.

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8021B
Field ID:	JW1-33	Batch#:	56307
Lab ID:	145792-004	Sampled:	05/22/00
Matrix:	Water	Received:	05/23/00
Units:	ug/L	Analyzed:	06/05/00
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	44 C	2.0
Benzene	84 C	0.50
Toluene	4.0 C	0.50
Ethylbenzene	35	0.50
m,p-Xylenes	29	0.50
o-Xylene	16 C	0.50

Surrogate	%REC	Limits
Trifluorotoluene (PID)	130	56-142
Bromofluorobenzene (PID)	144	55-149

C = Presence confirmed, but confirmation concentration differed by more than a factor of two
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8015M
Field ID:	JW1-34	Batch#:	56307
Lab ID:	145792-005	Sampled:	05/22/00
Matrix:	Water	Received:	05/23/00
Units:	ug/L	Analyzed:	06/05/00
Diln Fac:	5.000		

Analyte	Result	RL
Gasoline C7-C12	14,000 G	250

Surrogate	%REC	Limits
Trifluorotoluene (FID)	117	59-135
Bromofluorobenzene (FID)	114	60-140

G = Pattern resembles gasoline
RL = Reporting Limit

014

Curtis & Tompkins, Ltd.

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8021B
Field ID:	JW1-34	Batch#:	56394
Lab ID:	145792-005	Sampled:	05/22/00
Matrix:	Water	Received:	05/23/00
Units:	ug/L	Analyzed:	06/08/00
Diln Fac:	10.00		

Analyte	Result	RL
MTBE	90	20
Benzene	1,200	5.0
Toluene	81	5.0
Ethylbenzene	550	5.0
m,p-Xylenes	220	5.0
o-Xylene	26	5.0

Surrogate	%REC	Limits
Trifluorotoluene (PID)	119	56-142
Bromofluorobenzene (PID)	125	55-149

015

RL = Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8015M
Field ID:	JW1-35	Batch#:	56307
Lab ID:	145792-006	Sampled:	05/22/00
Matrix:	Water	Received:	05/23/00
Units:	ug/L	Analyzed:	06/05/00
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	3,000 G	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	116	59-135
Bromofluorobenzene (FID)	197 *	60-140

* = Value outside of QC limits; see narrative
G = Pattern resembles gasoline
RL = Reporting Limit

016

Curtis & Tompkins, Ltd.

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8021B
Field ID:	JW1-35	Batch#:	56307
Lab ID:	145792-006	Sampled:	05/22/00
Matrix:	Water	Received:	05/23/00
Units:	ug/L	Analyzed:	06/05/00
Diln Fac:	2.000		

Analyte	Result	RL
MTBE	130 C	4.0
Benzene	340	1.0
Toluene	3.4	1.0
Ethylbenzene	75	1.0
m,p-Xylenes	8.4	1.0
o-Xylene	2.5	1.0

Surrogate	%REC	Limits
Trifluorotoluene (PID)	112	56-142
Bromofluorobenzene (PID)	106	55-149

C = Presence confirmed, but confirmation concentration differed by more than a factor of two
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8015M
Field ID:	ZZZZZZZZZZ	Batch#:	56307
MSS Lab ID:	145802-003	Sampled:	05/24/00
Matrix:	Water	Received:	05/24/00
Units:	ug/L	Analyzed:	06/06/00
Diln Fac:	1.000		

Type: MS Lab ID: QC117469

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	43.89	2,000	2,006	98	65-131

Surrogate	%REC	Limits
Trifluorotoluene (FID)	121	59-135
Bromofluorobenzene (FID)	121	60-140

Type: MSD Lab ID: QC117470

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,977	97	65-131	1	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	122	59-135
Bromofluorobenzene (FID)	123	60-140

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8021B
Field ID:	ZZZZZZZZZZ	Batch#:	56394
MSS Lab ID:	145994-005	Sampled:	06/07/00
Matrix:	Water	Received:	06/07/00
Units:	ug/L	Analyzed:	06/09/00
Diln Fac:	1.000		

Type: MS Lab ID: QC117776

Analyte	MSS Result	Spiked	Result	%REC	Limits
MTBE	73.03	20.00	95.28	111	49-136
Benzene	ND	20.00	21.93	110	65-123
Toluene	ND	20.00	20.96	105	73-122
Ethylbenzene	ND	20.00	20.33	102	59-137
m,p-Xylenes	ND	40.00	42.51	106	68-132
o-Xylene	ND	20.00	20.42	102	61-140

Surrogate	%REC	Limits
Trifluorotoluene (PID)	125	56-142
Bromofluorobenzene (PID)	132	55-149

Type: MSD Lab ID: QC117777

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	20.00	93.92	104	49-136	1	11
Benzene	20.00	19.35	97	65-123	12	20
Toluene	20.00	18.50	92	73-122	12	20
Ethylbenzene	20.00	17.98	90	59-137	12	20
m,p-Xylenes	40.00	37.71	94	68-132	12	20
o-Xylene	20.00	18.13	91	61-140	12	20

Surrogate	%REC	Limits
Trifluorotoluene (PID)	122	56-142
Bromofluorobenzene (PID)	127	55-149

ND = Not Detected
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8015M
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC117466	Batch#:	56307
Matrix:	Water	Analyzed:	06/05/00
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	1,951	98	73-121

Surrogate	%REC	Limits
Trifluorotoluene (FID)	124	59-135
Bromofluorobenzene (FID)	123	60-140

Curtis & Tompkins, Ltd.

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8021B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC117467	Batch#:	56307
Matrix:	Water	Analyzed:	06/05/00
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
MTBE	20.00	18.94	95	66-126
Benzene	20.00	18.09	90	67-117
Toluene	20.00	18.89	94	69-117
Ethylbenzene	20.00	19.47	97	68-124
m,p-Xylenes	40.00	40.22	101	70-125
o-Xylene	20.00	19.21	96	65-129

Surrogate	%REC	Limits
Trifluorotoluene (PID)	95	56-142
Bromofluorobenzene (PID)	92	55-149

Curtis & Tompkins, Ltd.

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8021B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC117774	Batch#:	56394
Matrix:	Water	Analyzed:	06/08/00
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
MTBE	20.00	21.72	109	66-126
Benzene	20.00	20.75	104	67-117
Toluene	20.00	20.38	102	69-117
Ethylbenzene	20.00	20.00	100	68-124
m,p-Xylenes	40.00	42.41	106	70-125
o-Xylene	20.00	19.80	99	65-129

Surrogate	%REC	Limits
Trifluorotoluene (PID)	107	56-142
Bromofluorobenzene (PID)	113	55-149

Curtis & Tompkins, Ltd.

Gasoline by GC/FID CA LUFT

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8015M
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC117468	Batch#:	56307
Matrix:	Water	Analyzed:	06/05/00
Units:	ug/L		

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	109	59-135
Bromofluorobenzene (FID)	109	60-140

ND = Not Detected
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8021B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC117468	Batch#:	56307
Matrix:	Water	Analyzed:	06/05/00
Units:	ug/L		

Analyte	Result	RL
MTBE	ND	2.0
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Trifluorotoluene (PID)	97	56-142
Bromofluorobenzene (PID)	93	55-149

024

ND = Not Detected
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8021B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC117775	Batch#:	56394
Matrix:	Water	Analyzed:	06/08/00
Units:	ug/L		

Analyte	Result	RL
MTBE	ND	2.0
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Trifluorotoluene (PID)	103	56-142
Bromofluorobenzene (PID)	108	55-149

ND = Not Detected
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 3520
Project#:	P1106.05	Analysis:	EPA 8015M
Field ID:	JW1-30	Batch#:	56326
Lab ID:	145792-001	Sampled:	05/22/00
Matrix:	Water	Received:	05/23/00
Units:	ug/L	Prepared:	06/05/00
Diln Fac:	1.000	Analyzed:	06/10/00

Analyte	Result	RL
Diesel C10-C24	1,000 L Y	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	87	44-121

L = Lighter hydrocarbons contributed to the quantitation
Y = Sample exhibits fuel pattern which does not resemble standard
ND = Not Detected
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 3520
Project#:	P1106.05	Analysis:	EPA 8015M
Field ID:	JW1-31	Batch#:	56326
Lab ID:	145792-002	Sampled:	05/22/00
Matrix:	Water	Received:	05/23/00
Units:	ug/L	Prepared:	06/05/00
Diln Fac:	1.000	Analyzed:	06/10/00

Analyte	Result	RL
Diesel C10-C24	580 L Y	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	93	44-121

L = Lighter hydrocarbons contributed to the quantitation
Y = Sample exhibits fuel pattern which does not resemble standard
ND = Not Detected
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 3520
Project#:	P1106.05	Analysis:	EPA 8015M
Field ID:	JW1-32	Batch#:	56326
Lab ID:	145792-003	Sampled:	05/22/00
Matrix:	Water	Received:	05/23/00
Units:	ug/L	Prepared:	06/05/00
Diln Fac:	1.000	Analyzed:	06/10/00

Analyte	Result	RL
Diesel C10-C24	3,300 H L Y	50
Motor Oil C24-C36	720 M	300

Surrogate	%REC	Limits
Hexacosane	99	44-121

H = Heavier hydrocarbons contributed to the quantitation
L = Lighter hydrocarbons contributed to the quantitation
M = Pattern resembles motor oil
Y = Sample exhibits fuel pattern which does not resemble standard
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 3520
Project#:	P1106.05	Analysis:	EPA 8015M
Field ID:	JW1-33	Batch#:	56326
Lab ID:	145792-004	Sampled:	05/22/00
Matrix:	Water	Received:	05/23/00
Units:	ug/L	Prepared:	06/05/00
Diln Fac:	1.000	Analyzed:	06/10/00

Analyte	Result	RL
Diesel C10-C24	9,700 D L	50
Motor Oil C24-C36	390 L Y	300

Surrogate	%REC	Limits
Hexacosane	95	44-121

D = Pattern resembles diesel
L = Lighter hydrocarbons contributed to the quantitation
Y = Sample exhibits fuel pattern which does not resemble standard
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 3520
Project#:	P1106.05	Analysis:	EPA 8015M
Field ID:	JW1-34	Batch#:	56326
Lab ID:	145792-005	Sampled:	05/22/00
Matrix:	Water	Received:	05/23/00
Units:	ug/L	Prepared:	06/05/00
Diln Fac:	1.000	Analyzed:	06/10/00

Analyte	Result	RL
Diesel C10-C24	6,900 D L	50
Motor Oil C24-C36	840 L Y	300

Surrogate	%REC	Limits
Hexacosane	104	44-121

D = Pattern resembles diesel
L = Lighter hydrocarbons contributed to the quantitation
Y = Sample exhibits fuel pattern which does not resemble standard
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 3520
Project#:	P1106.05	Analysis:	EPA 8015M
Field ID:	JW1-35	Batch#:	56326
Lab ID:	145792-006	Sampled:	05/22/00
Matrix:	Water	Received:	05/23/00
Units:	ug/L	Prepared:	06/05/00
Diln Fac:	1.000	Analyzed:	06/10/00

Analyte	Result	RL
Diesel C10-C24	730 L Y	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	92	44-121

L = Lighter hydrocarbons contributed to the quantitation
Y = Sample exhibits fuel pattern which does not resemble standard
ND = Not Detected
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8260B
Field ID:	JW1-30	Batch#:	56244
Lab ID:	145792-001	Sampled:	05/22/00
Matrix:	Water	Received:	05/23/00
Units:	ug/L	Analyzed:	06/01/00
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	1.0
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	1.0
Methylene Chloride	ND	10
Carbon Disulfide	ND	1.0
MTBE	ND	1.0
trans-1,2-Dichloroethene	3.6	1.0
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	1.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	3.6	1.0
2,2-Dichloropropane	ND	1.0
Chloroform	ND	1.0
Bromochloromethane	ND	1.0
1,1,1-Trichloroethane	ND	1.0
1,1-Dichloropropene	ND	1.0
Carbon Tetrachloride	ND	1.0
1,2-Dichloroethane	ND	1.0
Benzene	53	1.0
Trichloroethene	ND	1.0
1,2-Dichloropropane	ND	1.0
Bromodichloromethane	ND	1.0
Dibromomethane	ND	1.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	1.0
Toluene	3.4	1.0
trans-1,3-Dichloropropene	ND	1.0
1,1,2-Trichloroethane	ND	1.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	1.0
Tetrachloroethene	ND	1.0
Dibromochloromethane	ND	1.0
1,2-Dibromoethane	ND	1.0
Chlorobenzene	1.1	1.0
1,1,1,2-Tetrachloroethane	ND	1.0
Ethylbenzene	5.6	1.0
m,p-Xylenes	8.1	1.0
o-Xylene	1.5	1.0
Styrene	ND	1.0
Bromoform	ND	1.0
Isopropylbenzene	43	1.0
1,1,2,2-Tetrachloroethane	ND	1.0
1,2,3-Trichloropropane	ND	1.0
Propylbenzene	61	1.0
Bromobenzene	ND	1.0
1,3,5-Trimethylbenzene	ND	1.0
2-Chlorotoluene	ND	1.0
4-Chlorotoluene	ND	1.0

J = Estimated value
ND = Not Detected
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8260B
Field ID:	JW1-30	Batch#:	56244
Lab ID:	145792-001	Sampled:	05/22/00
Matrix:	Water	Received:	05/23/00
Units:	ug/L	Analyzed:	06/01/00
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butylbenzene	ND	1.0
1,2,4-Trimethylbenzene	0.8 J	1.0
sec-Butylbenzene	6.8	1.0
para-Isopropyl Toluene	6.3	1.0
1,3-Dichlorobenzene	ND	1.0
1,4-Dichlorobenzene	ND	1.0
n-Butylbenzene	11	1.0
1,2-Dichlorobenzene	ND	1.0
1,2-Dibromo-3-Chloropropane	ND	1.0
1,2,4-Trichlorobenzene	ND	1.0
Hexachlorobutadiene	ND	1.0
Naphthalene	26	1.0
1,2,3-Trichlorobenzene	ND	1.0

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-122
1,2-Dichloroethane-d4	103	78-123
Toluene-d8	105	80-110
Bromofluorobenzene	105	80-115

J = Estimated value
ND = Not Detected
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8260B
Field ID:	JW1-31	Batch#:	56244
Lab ID:	145792-002	Sampled:	05/22/00
Matrix:	Water	Received:	05/23/00
Units:	ug/L	Analyzed:	06/01/00
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	1.0
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	1.0
Methylene Chloride	ND	10
Carbon Disulfide	ND	1.0
MTBE	ND	1.0
trans-1,2-Dichloroethene	ND	1.0
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	1.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	1.0
2,2-Dichloropropane	ND	1.0
Chloroform	ND	1.0
Bromochloromethane	ND	1.0
1,1,1-Trichloroethane	ND	1.0
1,1-Dichloropropene	ND	1.0
Carbon Tetrachloride	ND	1.0
1,2-Dichloroethane	ND	1.0
Benzene	ND	1.0
Trichloroethene	ND	1.0
1,2-Dichloropropane	ND	1.0
Bromodichloromethane	ND	1.0
Dibromomethane	ND	1.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	1.0
Toluene	ND	1.0
trans-1,3-Dichloropropene	ND	1.0
1,1,2-Trichloroethane	ND	1.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	1.0
Tetrachloroethene	ND	1.0

ND = Not Detected
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8260B
Field ID:	JW1-31	Batch#:	56244
Lab ID:	145792-002	Sampled:	05/22/00
Matrix:	Water	Received:	05/23/00
Units:	ug/L	Analyzed:	06/01/00
Diln Fac:	1.000		

Analyte	Result	RL
Dibromochloromethane	ND	1.0
1,2-Dibromoethane	ND	1.0
Chlorobenzene	ND	1.0
1,1,1,2-Tetrachloroethane	ND	1.0
Ethylbenzene	ND	1.0
m,p-Xylenes	ND	1.0
o-Xylene	ND	1.0
Styrene	ND	1.0
Bromoform	ND	1.0
Isopropylbenzene	10	1.0
1,1,2,2-Tetrachloroethane	ND	1.0
1,2,3-Trichloropropane	ND	1.0
Propylbenzene	9.4	1.0
Bromobenzene	ND	1.0
1,3,5-Trimethylbenzene	ND	1.0
2-Chlorotoluene	ND	1.0
4-Chlorotoluene	ND	1.0
tert-Butylbenzene	1.0	1.0
1,2,4-Trimethylbenzene	ND	1.0
sec-Butylbenzene	7.0	1.0
para-Isopropyl Toluene	2.8	1.0
1,3-Dichlorobenzene	ND	1.0
1,4-Dichlorobenzene	ND	1.0
n-Butylbenzene	4.6	1.0
1,2-Dichlorobenzene	ND	1.0
1,2-Dibromo-3-Chloropropane	ND	1.0
1,2,4-Trichlorobenzene	ND	1.0
Hexachlorobutadiene	ND	1.0
Naphthalene	ND	1.0
1,2,3-Trichlorobenzene	ND	1.0

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-122
1,2-Dichloroethane-d4	107	78-123
Toluene-d8	103	80-110
Bromofluorobenzene	107	80-115

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ND = Not Detected
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8260B
Field ID:	JW1-32	Units:	ug/L
Lab ID:	145792-003	Sampled:	05/22/00
Matrix:	Water	Received:	05/23/00

Analyte	Result	RL	Dil Fac	Batch#	Analyzed
Freon 12	ND	1.0	1.000	56244	06/01/00
Chloromethane	ND	1.0	1.000	56244	06/01/00
Vinyl Chloride	ND	1.0	1.000	56244	06/01/00
Bromomethane	ND	1.0	1.000	56244	06/01/00
Chloroethane	ND	1.0	1.000	56244	06/01/00
Trichlorofluoromethane	ND	1.0	1.000	56244	06/01/00
Acetone	ND	10	1.000	56244	06/01/00
Freon 113	ND	5.0	1.000	56244	06/01/00
1,1-Dichloroethene	ND	1.0	1.000	56244	06/01/00
Methylene Chloride	ND	10	1.000	56244	06/01/00
Carbon Disulfide	ND	1.0	1.000	56244	06/01/00
MTBE	ND	1.0	1.000	56244	06/01/00
trans-1,2-Dichloroethene	ND	1.0	1.000	56244	06/01/00
Vinyl Acetate	ND	10	1.000	56244	06/01/00
1,1-Dichloroethane	ND	1.0	1.000	56244	06/01/00
2-Butanone	ND	10	1.000	56244	06/01/00
cis-1,2-Dichloroethene	1.0	1.0	1.000	56244	06/01/00
2,2-Dichloropropane	ND	1.0	1.000	56244	06/01/00
Chloroform	ND	1.0	1.000	56244	06/01/00
Bromochloromethane	ND	1.0	1.000	56244	06/01/00
1,1,1-Trichloroethane	ND	1.0	1.000	56244	06/01/00
1,1-Dichloropropene	ND	1.0	1.000	56244	06/01/00
Carbon Tetrachloride	ND	1.0	1.000	56244	06/01/00
1,2-Dichloroethane	ND	1.0	1.000	56244	06/01/00
Benzene	1,300	10	10.00	56303	06/05/00
Trichloroethene	ND	1.0	1.000	56244	06/01/00
1,2-Dichloropropane	ND	1.0	1.000	56244	06/01/00
Bromodichloromethane	ND	1.0	1.000	56244	06/01/00
Dibromomethane	ND	1.0	1.000	56244	06/01/00
4-Methyl-2-Pentanone	ND	10	1.000	56244	06/01/00
cis-1,3-Dichloropropene	ND	1.0	1.000	56244	06/01/00
Toluene	24	1.0	1.000	56244	06/01/00
trans-1,3-Dichloropropene	ND	1.0	1.000	56244	06/01/00
1,1,2-Trichloroethane	ND	1.0	1.000	56244	06/01/00
2-Hexanone	ND	10	1.000	56244	06/01/00
1,3-Dichloropropane	ND	1.0	1.000	56244	06/01/00
Tetrachloroethene	ND	1.0	1.000	56244	06/01/00
Dibromochloromethane	ND	1.0	1.000	56244	06/01/00
1,2-Dibromoethane	ND	1.0	1.000	56244	06/01/00

ND = Not Detected
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8260B
Field ID:	JW1-32	Units:	ug/L
Lab ID:	145792-003	Sampled:	05/22/00
Matrix:	Water	Received:	05/23/00

Analyte	Result	RL	Diln Fac	Batch#	Analyzed
Chlorobenzene	ND	1.0	1.000	56244	06/01/00
1,1,1,2-Tetrachloroethane	ND	1.0	1.000	56244	06/01/00
Ethylbenzene	98	1.0	1.000	56244	06/01/00
m,p-Xylenes	24	1.0	1.000	56244	06/01/00
o-Xylene	1.9	1.0	1.000	56244	06/01/00
Styrene	ND	1.0	1.000	56244	06/01/00
Bromoform	ND	1.0	1.000	56244	06/01/00
Isopropylbenzene	17	1.0	1.000	56244	06/01/00
1,1,2,2-Tetrachloroethane	ND	1.0	1.000	56244	06/01/00
1,2,3-Trichloropropane	ND	1.0	1.000	56244	06/01/00
Propylbenzene	17	1.0	1.000	56244	06/01/00
Bromobenzene	ND	1.0	1.000	56244	06/01/00
1,3,5-Trimethylbenzene	6.4	1.0	1.000	56244	06/01/00
2-Chlorotoluene	ND	1.0	1.000	56244	06/01/00
4-Chlorotoluene	ND	1.0	1.000	56244	06/01/00
tert-Butylbenzene	ND	1.0	1.000	56244	06/01/00
1,2,4-Trimethylbenzene	5.4	1.0	1.000	56244	06/01/00
sec-Butylbenzene	7.2	1.0	1.000	56244	06/01/00
para-Isopropyl Toluene	9.6	1.0	1.000	56244	06/01/00
1,3-Dichlorobenzene	ND	1.0	1.000	56244	06/01/00
1,4-Dichlorobenzene	ND	1.0	1.000	56244	06/01/00
n-Butylbenzene	10	1.0	1.000	56244	06/01/00
1,2-Dichlorobenzene	ND	1.0	1.000	56244	06/01/00
1,2-Dibromo-3-Chloropropane	ND	1.0	1.000	56244	06/01/00
1,2,4-Trichlorobenzene	ND	1.0	1.000	56244	06/01/00
Hexachlorobutadiene	ND	1.0	1.000	56244	06/01/00
Naphthalene	16	1.0	1.000	56244	06/01/00
1,2,3-Trichlorobenzene	ND	1.0	1.000	56244	06/01/00

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed
Dibromofluoromethane	100	80-122	1.000	56244	06/01/00
1,2-Dichloroethane-d4	104	78-123	1.000	56244	06/01/00
Toluene-d8	102	80-110	1.000	56244	06/01/00
Bromofluorobenzene	107	80-115	1.000	56244	06/01/00

ND = Not Detected
RL = Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8260B
Field ID:	JW1-33	Batch#:	56244
Lab ID:	145792-004	Sampled:	05/22/00
Matrix:	Water	Received:	05/23/00
Units:	ug/L	Analyzed:	06/01/00
Diln Fac:	1.000		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	1.0
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	1.0
Methylene Chloride	ND	10
Carbon Disulfide	ND	1.0
MTBE	ND	1.0
trans-1,2-Dichloroethene	2.6	1.0
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	1.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	3.4	1.0
2,2-Dichloropropane	ND	1.0
Chloroform	ND	1.0
Bromochloromethane	ND	1.0
1,1,1-Trichloroethane	ND	1.0
1,1-Dichloropropene	ND	1.0
Carbon Tetrachloride	ND	1.0
1,2-Dichloroethane	ND	1.0
Benzene	73	1.0
Trichloroethene	3.9	1.0
1,2-Dichloropropane	ND	1.0
Bromodichloromethane	ND	1.0
Dibromomethane	ND	1.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	1.0
Toluene	6.3	1.0
trans-1,3-Dichloropropene	ND	1.0
1,1,2-Trichloroethane	ND	1.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	1.0
Tetrachloroethene	ND	1.0
Dibromochloromethane	ND	1.0
1,2-Dibromoethane	ND	1.0
Chlorobenzene	ND	1.0
1,1,1,2-Tetrachloroethane	ND	1.0
Ethylbenzene	18	1.0
m,p-Xylenes	5.4	1.0
o-Xylene	0.6 J	1.0
Styrene	ND	1.0
Bromoform	ND	1.0
Isopropylbenzene	41	1.0
1,1,2,2-Tetrachloroethane	ND	1.0
1,2,3-Trichloropropane	ND	1.0
Propylbenzene	48	1.0
Bromobenzene	ND	1.0
1,3,5-Trimethylbenzene	ND	1.0
2-Chlorotoluene	ND	1.0
4-Chlorotoluene	ND	1.0

J = Estimated value
ND = Not Detected
RL = Reporting Limit

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8260B
Field ID:	JW1-33	Batch#:	56244
Lab ID:	145792-004	Sampled:	05/22/00
Matrix:	Water	Received:	05/23/00
Units:	ug/L	Analyzed:	06/01/00
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butylbenzene	1.3	1.0
1,2,4-Trimethylbenzene	0.5 J	1.0
sec-Butylbenzene	13	1.0
para-Isopropyl Toluene	21	1.0
1,3-Dichlorobenzene	ND	1.0
1,4-Dichlorobenzene	ND	1.0
n-Butylbenzene	20	1.0
1,2-Dichlorobenzene	ND	1.0
1,2-Dibromo-3-Chloropropane	ND	1.0
1,2,4-Trichlorobenzene	ND	1.0
Hexachlorobutadiene	ND	1.0
Naphthalene	3.9	1.0
1,2,3-Trichlorobenzene	ND	1.0

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-122
1,2-Dichloroethane-d4	105	78-123
Toluene-d8	104	80-110
Bromofluorobenzene	109	80-115

J = Estimated value
ND = Not Detected
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8260B
Field ID:	JW1-34	Batch#:	56297
Lab ID:	145792-005	Sampled:	05/22/00
Matrix:	Water	Received:	05/23/00
Units:	ug/L	Analyzed:	06/05/00
Diln Fac:	6.250		

Analyte	Result	RL	
Freon 12	ND	6.3	
Chloromethane	ND	6.3	
Vinyl Chloride	ND	6.3	
Bromomethane	ND	6.3	
Chloroethane	ND	6.3	
Trichlorofluoromethane	ND	6.3	
Acetone	ND	63	
Freon 113	ND	31	
1,1-Dichloroethene	ND	6.3	
Methylene Chloride	ND	63	
Carbon Disulfide	ND	6.3	
MTBE	ND	6.3	
trans-1,2-Dichloroethene	ND	6.3	
Vinyl Acetate	ND	63	
1,1-Dichloroethane	ND	6.3	
2-Butanone	ND	63	UJc
cis-1,2-Dichloroethene	ND	6.3	
2,2-Dichloropropane	ND	6.3	
Chloroform	ND	6.3	
Bromochloromethane	ND	6.3	
1,1,1-Trichloroethane	ND	6.3	
1,1-Dichloropropene	ND	6.3	
Carbon Tetrachloride	ND	6.3	
1,2-Dichloroethane	ND	6.3	
Benzene	970	6.3	
Trichloroethene	ND	6.3	
1,2-Dichloropropane	ND	6.3	
Bromodichloromethane	ND	6.3	
Dibromomethane	ND	6.3	
4-Methyl-2-Pentanone	ND	63	UJc
cis-1,3-Dichloropropene	ND	6.3	
Toluene	84	6.3	
trans-1,3-Dichloropropene	ND	6.3	
1,1,2-Trichloroethane	ND	6.3	
2-Hexanone	ND	63	
1,3-Dichloropropane	ND	6.3	
Tetrachloroethene	ND	6.3	
Dibromochloromethane	ND	6.3	
1,2-Dibromoethane	ND	6.3	
Chlorobenzene	4.6 J	6.3	Jq
1,1,1,2-Tetrachloroethane	ND	6.3	
Ethylbenzene	560	6.3	
m,p-Xylenes	230	6.3	
o-Xylene	27	6.3	
Styrene	ND	6.3	
Bromoform	ND	6.3	
Isopropylbenzene	63	6.3	
1,1,2,2-Tetrachloroethane	ND	6.3	
1,2,3-Trichloropropane	ND	6.3	
Propylbenzene	120	6.3	
Bromobenzene	ND	6.3	
1,3,5-Trimethylbenzene	100	6.3	
2-Chlorotoluene	ND	6.3	
4-Chlorotoluene	ND	6.3	

J = Estimated value
ND = Not Detected
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8260B
Field ID:	JW1-34	Batch#:	56297
Lab ID:	145792-005	Sampled:	05/22/00
Matrix:	Water	Received:	05/23/00
Units:	ug/L	Analyzed:	06/05/00
Diln Fac:	6.250		

Analyte	Result	RL
tert-Butylbenzene	ND	6.3
1,2,4-Trimethylbenzene	110	6.3
sec-Butylbenzene	13	6.3
para-Isopropyl Toluene	21	6.3
1,3-Dichlorobenzene	ND	6.3
1,4-Dichlorobenzene	ND	6.3
n-Butylbenzene	43	6.3
1,2-Dichlorobenzene	ND	6.3
1,2-Dibromo-3-Chloropropane	ND	6.3
1,2,4-Trichlorobenzene	ND	6.3
Hexachlorobutadiene	ND	6.3
Naphthalene	600	6.3
1,2,3-Trichlorobenzene	ND	6.3

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-122
1,2-Dichloroethane-d4	115	78-123
Toluene-d8	108	80-110
Bromofluorobenzene	110	80-115

J = Estimated value
ND = Not Detected
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8260B
Field ID:	JW1-35	Batch#:	56280
Lab ID:	145792-006	Sampled:	05/22/00
Matrix:	Water	Received:	05/23/00
Units:	ug/L	Analyzed:	06/02/00
Diln Fac:	2.500		

Analyte	Result	RL
Freon 12	ND	2.5
Chloromethane	ND	2.5
Vinyl Chloride	ND	2.5
Bromomethane	ND	2.5
Chloroethane	ND	2.5
Trichlorofluoromethane	ND	2.5
Acetone	ND	25
Freon 113	ND	13
1,1-Dichloroethene	ND	2.5
Methylene Chloride	ND	25
Carbon Disulfide	ND	2.5
MTBE	ND	2.5
trans-1,2-Dichloroethene	18	2.5
Vinyl Acetate	ND	25
1,1-Dichloroethane	ND	2.5
2-Butanone	ND	25
cis-1,2-Dichloroethene	44	2.5
2,2-Dichloropropane	ND	2.5
Chloroform	ND	2.5
Bromochloromethane	ND	2.5
1,1,1-Trichloroethane	ND	2.5
1,1-Dichloropropene	ND	2.5
Carbon Tetrachloride	ND	2.5
1,2-Dichloroethane	ND	2.5
Benzene	320	2.5
Trichloroethene	46	2.5
1,2-Dichloropropane	ND	2.5
Bromodichloromethane	ND	2.5
Dibromomethane	ND	2.5
4-Methyl-2-Pentanone	ND	25
cis-1,3-Dichloropropene	ND	2.5
Toluene	3.8	2.5
trans-1,3-Dichloropropene	ND	2.5
1,1,2-Trichloroethane	ND	2.5
2-Hexanone	ND	25
1,3-Dichloropropane	ND	2.5
Tetrachloroethene	ND	2.5
Dibromochloromethane	ND	2.5
1,2-Dibromoethane	ND	2.5
Chlorobenzene	ND	2.5
1,1,1,2-Tetrachloroethane	ND	2.5
Ethylbenzene	61	2.5
m,p-Xylenes	1.9 J	2.5
o-Xylene	ND	2.5
Styrene	ND	2.5
Bromoform	ND	2.5
Isopropylbenzene	20	2.5
1,1,2,2-Tetrachloroethane	ND	2.5
1,2,3-Trichloropropane	ND	2.5
Propylbenzene	17	2.5
Bromobenzene	ND	2.5
1,3,5-Trimethylbenzene	ND	2.5
2-Chlorotoluene	ND	2.5
4-Chlorotoluene	ND	2.5

J = Estimated value
ND = Not Detected
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8260B
Field ID:	JW1-35	Batch#:	56280
Lab ID:	145792-006	Sampled:	05/22/00
Matrix:	Water	Received:	05/23/00
Units:	ug/L	Analyzed:	06/02/00
Diln Fac:	2.500		

Analyte	Result	RL
tert-Butylbenzene	ND	2.5
1,2,4-Trimethylbenzene	ND	2.5
sec-Butylbenzene	4.0	2.5
para-Isopropyl Toluene	3.9	2.5
1,3-Dichlorobenzene	ND	2.5
1,4-Dichlorobenzene	ND	2.5
n-Butylbenzene	5.8	2.5
1,2-Dichlorobenzene	ND	2.5
1,2-Dibromo-3-Chloropropane	ND	2.5
1,2,4-Trichlorobenzene	ND	2.5
Hexachlorobutadiene	ND	2.5
Naphthalene	ND	2.5
1,2,3-Trichlorobenzene	ND	2.5

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-122
1,2-Dichloroethane-d4	108	78-123
Toluene-d8	106	80-110
Bromofluorobenzene	110	80-115

J = Estimated value
ND = Not Detected
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	56297
MSS Lab ID:	145823-001	Sampled:	05/25/00
Matrix:	Water	Received:	05/26/00
Units:	ug/L	Analyzed:	06/07/00
Diln Fac:	1.000		

Type: MS Lab ID: QC117430

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.5000	50.00	57.21	114	70-132
Benzene	<0.5000	50.00	53.86	108	80-114
Trichloroethene	<0.5000	50.00	52.96	105	62-137
Toluene	<0.5000	50.00	54.82	110	79-121
Chlorobenzene	<0.5000	50.00	49.85	100	80-117

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-122
1,2-Dichloroethane-d4	112	78-123
Toluene-d8	109	80-110
Bromofluorobenzene	110	80-115

Type: MSD Lab ID: QC117431

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	50.00	54.29	108	70-132	5	20
Benzene	50.00	52.70	105	80-114	2	20
Trichloroethene	50.00	51.38	102	62-137	3	20
Toluene	50.00	53.74	107	79-121	2	20
Chlorobenzene	50.00	48.85	98	80-117	2	20

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-122
1,2-Dichloroethane-d4	111	78-123
Toluene-d8	109	80-110
Bromofluorobenzene	109	80-115

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	56244
Units:	ug/L	Analyzed:	06/01/00
Diln Fac:	1.000		

Type: BS Lab ID: QC117222

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	54.35	109	74-132
Benzene	50.00	50.61	101	80-116
Trichloroethene	50.00	51.96	104	80-119
Toluene	50.00	52.71	105	80-120
Chlorobenzene	50.00	50.17	100	80-117

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-122
1,2-Dichloroethane-d4	102	78-123
Toluene-d8	103	80-110
Bromofluorobenzene	102	80-115

Type: BSD Lab ID: QC117223

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	50.00	55.38	111	74-132	2	20
Benzene	50.00	49.76	100	80-116	2	20
Trichloroethene	50.00	51.39	103	80-119	1	20
Toluene	50.00	51.25	102	80-120	3	20
Chlorobenzene	50.00	49.29	99	80-117	2	20

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-122
1,2-Dichloroethane-d4	106	78-123
Toluene-d8	103	80-110
Bromofluorobenzene	104	80-115

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	56280
Units:	ug/L	Analyzed:	06/02/00
Diln Fac:	1.000		

Type: BS Lab ID: QC117362

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	60.72	121	74-132
Benzene	50.00	53.74	107	80-116
Trichloroethene	50.00	52.85	106	80-119
Toluene	50.00	54.60	109	80-120
Chlorobenzene	50.00	51.22	102	80-117

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-122
1,2-Dichloroethane-d4	104	78-123
Toluene-d8	103	80-110
Bromofluorobenzene	105	80-115

Type: BSD Lab ID: QC117363

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	50.00	60.35	121	74-132	1	20
Benzene	50.00	53.22	106	80-116	1	20
Trichloroethene	50.00	52.66	105	80-119	0	20
Toluene	50.00	50.71	101	80-120	7	20
Chlorobenzene	50.00	49.64	99	80-117	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	105	80-122
1,2-Dichloroethane-d4	109	78-123
Toluene-d8	100	80-110
Bromofluorobenzene	104	80-115

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC117428	Batch#:	56297
Matrix:	Water	Analyzed:	06/04/00
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	63.99	128	74-132
Benzene	50.00	55.43	111	80-116
Trichloroethene	50.00	52.98	106	80-119
Toluene	50.00	54.02	108	80-120
Chlorobenzene	50.00	50.51	101	80-117

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-122
1,2-Dichloroethane-d4	109	78-123
Toluene-d8	104	80-110
Bromofluorobenzene	109	80-115

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	56303
Units:	ug/L	Analyzed:	06/05/00
Diln Fac:	1.000		

Type: BS Lab ID: QC117449

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	50.00	61.31	123	74-132
Benzene	50.00	55.18	110	80-116
Trichloroethene	50.00	53.54	107	80-119
Toluene	50.00	54.28	109	80-120
Chlorobenzene	50.00	50.92	102	80-117

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-122
1,2-Dichloroethane-d4	110	78-123
Toluene-d8	105	80-110
Bromofluorobenzene	109	80-115

Type: BSD Lab ID: QC117450

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	50.00	59.74	119	74-132	3	20
Benzene	50.00	54.46	109	80-116	1	20
Trichloroethene	50.00	52.28	105	80-119	2	20
Toluene	50.00	54.31	109	80-120	0	20
Chlorobenzene	50.00	48.97	98	80-117	4	20

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-122
1,2-Dichloroethane-d4	110	78-123
Toluene-d8	105	80-110
Bromofluorobenzene	109	80-115

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC117225	Batch#:	56244
Matrix:	Water	Analyzed:	06/01/00
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	1.0
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	1.0
Methylene Chloride	ND	10
Carbon Disulfide	ND	1.0
MTBE	ND	1.0
trans-1,2-Dichloroethene	ND	1.0
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	1.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	1.0
2,2-Dichloropropane	ND	1.0
Chloroform	ND	1.0
Bromochloromethane	ND	1.0
1,1,1-Trichloroethane	ND	1.0
1,1-Dichloropropene	ND	1.0
Carbon Tetrachloride	ND	1.0
1,2-Dichloroethane	ND	1.0
Benzene	ND	1.0
Trichloroethene	ND	1.0
1,2-Dichloropropane	ND	1.0
Bromodichloromethane	ND	1.0
Dibromomethane	ND	1.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	1.0
Toluene	ND	1.0
trans-1,3-Dichloropropene	ND	1.0
1,1,2-Trichloroethane	ND	1.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	1.0
Tetrachloroethene	ND	1.0
Dibromochloromethane	ND	1.0

ND = Not Detected
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC117225	Batch#:	56244
Matrix:	Water	Analyzed:	06/01/00
Units:	ug/L		

Analyte	Result	RL
1,2-Dibromoethane	ND	1.0
Chlorobenzene	ND	1.0
1,1,1,2-Tetrachloroethane	ND	1.0
Ethylbenzene	ND	1.0
m,p-Xylenes	ND	1.0
o-Xylene	ND	1.0
Styrene	ND	1.0
Bromoform	ND	1.0
Isopropylbenzene	ND	1.0
1,1,2,2-Tetrachloroethane	ND	1.0
1,2,3-Trichloropropane	ND	1.0
Propylbenzene	ND	1.0
Bromobenzene	ND	1.0
1,3,5-Trimethylbenzene	ND	1.0
2-Chlorotoluene	ND	1.0
4-Chlorotoluene	ND	1.0
tert-Butylbenzene	ND	1.0
1,2,4-Trimethylbenzene	ND	1.0
sec-Butylbenzene	ND	1.0
para-Isopropyl Toluene	ND	1.0
1,3-Dichlorobenzene	ND	1.0
1,4-Dichlorobenzene	ND	1.0
n-Butylbenzene	ND	1.0
1,2-Dichlorobenzene	ND	1.0
1,2-Dibromo-3-Chloropropane	ND	1.0
1,2,4-Trichlorobenzene	ND	1.0
Hexachlorobutadiene	ND	1.0
Naphthalene	ND	1.0
1,2,3-Trichlorobenzene	ND	1.0

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-122
1,2-Dichloroethane-d4	105	78-123
Toluene-d8	103	80-110
Bromofluorobenzene	106	80-115

ND = Not Detected
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC117364	Batch#:	56280
Matrix:	Water	Analyzed:	06/02/00
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	1.0
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	1.0
Methylene Chloride	ND	10
Carbon Disulfide	ND	1.0
MTBE	ND	1.0
trans-1,2-Dichloroethene	ND	1.0
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	1.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	1.0
2,2-Dichloropropane	ND	1.0
Chloroform	ND	1.0
Bromochloromethane	ND	1.0
1,1,1-Trichloroethane	ND	1.0
1,1-Dichloropropene	ND	1.0
Carbon Tetrachloride	ND	1.0
1,2-Dichloroethane	ND	1.0
Benzene	ND	1.0
Trichloroethene	ND	1.0
1,2-Dichloropropane	ND	1.0
Bromodichloromethane	ND	1.0
Dibromomethane	ND	1.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	1.0
Toluene	ND	1.0
trans-1,3-Dichloropropene	ND	1.0
1,1,2-Trichloroethane	ND	1.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	1.0
Tetrachloroethene	ND	1.0
Dibromochloromethane	ND	1.0

ND = Not Detected
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC117364	Batch#:	56280
Matrix:	Water	Analyzed:	06/02/00
Units:	ug/L		

Analyte	Result	RL
1,2-Dibromoethane	ND	1.0
Chlorobenzene	ND	1.0
1,1,1,2-Tetrachloroethane	ND	1.0
Ethylbenzene	ND	1.0
m,p-Xylenes	ND	1.0
o-Xylene	ND	1.0
Styrene	ND	1.0
Bromoform	ND	1.0
Isopropylbenzene	ND	1.0
1,1,2,2-Tetrachloroethane	ND	1.0
1,2,3-Trichloropropane	ND	1.0
Propylbenzene	ND	1.0
Bromobenzene	ND	1.0
1,3,5-Trimethylbenzene	ND	1.0
2-Chlorotoluene	ND	1.0
4-Chlorotoluene	ND	1.0
tert-Butylbenzene	ND	1.0
1,2,4-Trimethylbenzene	ND	1.0
sec-Butylbenzene	ND	1.0
para-Isopropyl Toluene	ND	1.0
1,3-Dichlorobenzene	ND	1.0
1,4-Dichlorobenzene	ND	1.0
n-Butylbenzene	ND	1.0
1,2-Dichlorobenzene	ND	1.0
1,2-Dibromo-3-Chloropropane	ND	1.0
1,2,4-Trichlorobenzene	ND	1.0
Hexachlorobutadiene	ND	1.0
Naphthalene	ND	1.0
1,2,3-Trichlorobenzene	ND	1.0

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-122
1,2-Dichloroethane-d4	109	78-123
Toluene-d8	105	80-110
Bromofluorobenzene	108	80-115

111

ND = Not Detected
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC117429	Batch#:	56297
Matrix:	Water	Analyzed:	06/04/00
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	1.0
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	1.0
Methylene Chloride	ND	10
Carbon Disulfide	ND	1.0
MTBE	ND	1.0
trans-1,2-Dichloroethene	ND	1.0
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	1.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	1.0
2,2-Dichloropropane	ND	1.0
Chloroform	ND	1.0
Bromochloromethane	ND	1.0
1,1,1-Trichloroethane	ND	1.0
1,1-Dichloropropene	ND	1.0
Carbon Tetrachloride	ND	1.0
1,2-Dichloroethane	ND	1.0
Benzene	ND	1.0
Trichloroethene	ND	1.0
1,2-Dichloropropane	ND	1.0
Bromodichloromethane	ND	1.0
Dibromomethane	ND	1.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	1.0
Toluene	ND	1.0
trans-1,3-Dichloropropene	ND	1.0
1,1,2-Trichloroethane	ND	1.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	1.0
Tetrachloroethene	ND	1.0
Dibromochloromethane	ND	1.0

ND = Not Detected
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC117429	Batch#:	56297
Matrix:	Water	Analyzed:	06/04/00
Units:	ug/L		

Analyte	Result	RL
1,2-Dibromoethane	ND	1.0
Chlorobenzene	ND	1.0
1,1,1,2-Tetrachloroethane	ND	1.0
Ethylbenzene	ND	1.0
m,p-Xylenes	ND	1.0
o-Xylene	ND	1.0
Styrene	ND	1.0
Bromoform	ND	1.0
Isopropylbenzene	ND	1.0
1,1,2,2-Tetrachloroethane	ND	1.0
1,2,3-Trichloropropane	ND	1.0
Propylbenzene	ND	1.0
Bromobenzene	ND	1.0
1,3,5-Trimethylbenzene	ND	1.0
2-Chlorotoluene	ND	1.0
4-Chlorotoluene	ND	1.0
tert-Butylbenzene	ND	1.0
1,2,4-Trimethylbenzene	ND	1.0
sec-Butylbenzene	ND	1.0
para-Isopropyl Toluene	ND	1.0
1,3-Dichlorobenzene	ND	1.0
1,4-Dichlorobenzene	ND	1.0
n-Butylbenzene	ND	1.0
1,2-Dichlorobenzene	ND	1.0
1,2-Dibromo-3-Chloropropane	ND	1.0
1,2,4-Trichlorobenzene	ND	1.0
Hexachlorobutadiene	ND	1.0
Naphthalene	ND	1.0
1,2,3-Trichlorobenzene	ND	1.0

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-122
1,2-Dichloroethane-d4	112	78-123
Toluene-d8	105	80-110
Bromofluorobenzene	111	80-115

ND = Not Detected
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC117451	Batch#:	56303
Matrix:	Water	Analyzed:	06/05/00
Units:	ug/L		

Analyte	Result	RL
Freon 12	ND	1.0
Chloromethane	ND	1.0
Vinyl Chloride	ND	1.0
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	1.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	1.0
Methylene Chloride	ND	10
Carbon Disulfide	ND	1.0
MTBE	ND	1.0
trans-1,2-Dichloroethene	ND	1.0
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	1.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	1.0
2,2-Dichloropropane	ND	1.0
Chloroform	ND	1.0
Bromochloromethane	ND	1.0
1,1,1-Trichloroethane	ND	1.0
1,1-Dichloropropene	ND	1.0
Carbon Tetrachloride	ND	1.0
1,2-Dichloroethane	ND	1.0
Benzene	ND	1.0
Trichloroethene	ND	1.0
1,2-Dichloropropane	ND	1.0
Bromodichloromethane	ND	1.0
Dibromomethane	ND	1.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	1.0
Toluene	ND	1.0
trans-1,3-Dichloropropene	ND	1.0
1,1,2-Trichloroethane	ND	1.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	1.0
Tetrachloroethene	ND	1.0
Dibromochloromethane	ND	1.0

ND = Not Detected
RL = Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	145792	Location:	JW Silveria UST,Oak.
Client:	Tetra Tech EMI	Prep:	EPA 5030
Project#:	P1106.05	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC117451	Batch#:	56303
Matrix:	Water	Analyzed:	06/05/00
Units:	ug/L		

Analyte	Result	RL
1,2-Dibromoethane	ND	1.0
Chlorobenzene	ND	1.0
1,1,1,2-Tetrachloroethane	ND	1.0
Ethylbenzene	ND	1.0
m,p-Xylenes	ND	1.0
o-Xylene	ND	1.0
Styrene	ND	1.0
Bromoform	ND	1.0
Isopropylbenzene	ND	1.0
1,1,2,2-Tetrachloroethane	ND	1.0
1,2,3-Trichloropropane	ND	1.0
Propylbenzene	ND	1.0
Bromobenzene	ND	1.0
1,3,5-Trimethylbenzene	ND	1.0
2-Chlorotoluene	ND	1.0
4-Chlorotoluene	ND	1.0
tert-Butylbenzene	ND	1.0
1,2,4-Trimethylbenzene	ND	1.0
sec-Butylbenzene	ND	1.0
para-Isopropyl Toluene	ND	1.0
1,3-Dichlorobenzene	ND	1.0
1,4-Dichlorobenzene	ND	1.0
n-Butylbenzene	ND	1.0
1,2-Dichlorobenzene	ND	1.0
1,2-Dibromo-3-Chloropropane	ND	1.0
1,2,4-Trichlorobenzene	ND	1.0
Hexachlorobutadiene	ND	1.0
Naphthalene	ND	1.0
1,2,3-Trichlorobenzene	ND	1.0

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-122
1,2-Dichloroethane-d4	114	78-123
Toluene-d8	105	80-110
Bromofluorobenzene	111	80-115

ND = Not Detected
RL = Reporting Limit