Tetra Tech EM Inc.

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November 10, 1999

Barney Chan
Hazardous Materials Specialist
Alameda County Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Subject: **Submittal of Draft Summary Reports for Additional Site Characterization Work Conducted at 2301 East 12th Street, 1200 20th Avenue, and 744 East 12th Street in Oakland, California for J. W. Silveira Company**

Dear Mr.Chan:

Enclosed please find one copy each of additional site characterization summary reports for the sites at 2301 East 12th Street, 1200 20th Avenue, and 744 East 12th Street in Oakland, California. Tetra Tech EM Inc. (TtEMI) conducted the additional site characterization work at your request for J.W. Silveira Company.

The three reports are being submitted as draft versions of the documents. TtEMI will incorporate any comments you may have into the final versions of the documents. Additionally, any comments you may have regarding the recommendations for each of the three sites would be appreciated. Based on a preliminary review of the City of Oakland risk-based corrective action guidelines, closure of the sites may be attainable with minimal and/or no additional characterization work.

Thank you for your assistance. Please call me at (415) 222-8316 with any questions.

Sincerely,

Hal Dawson

Hal Dawson
Project Manager/Geologist

Jason D. Brodersen
California Registered Geologist #6262

cc: J.W. Silveira Company
Shapiro Buchman Provine & Patton LLP
File

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ADDITIONAL SITE CHARACTERIZATION REPORT
2301 EAST 12TH STREET, OAKLAND

Introduction: The site is located at the south corner of the intersection of East 12th Street and 23rd Avenue in Oakland, California (Figure 1). This report discusses the additional site characterization, which included advancing six hydropunch borings and collecting soil and groundwater samples at the site. The additional site characterization was conducted to determine the extent of petroleum contamination at the site.
& CHC

Site History: 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 two to four times a year from 1992 through 1998.

Monitoring Well Groundwater Sampling: As part of the additional site characterization, the six monitoring wells at the site were sampled on March 31, and April 1, 1999. Each well was purged with a dedicated disposable teflon-bailer. The well volume was calculated and a minimum of 3 well volumes was removed from each well prior to sampling. During removal of 3 well volumes from each well, the pH, temperature, electrical conductivity, dissolved oxygen, and turbidity of the groundwater being removed were monitored to determine when the physical parameters of the groundwater entering the well casing had stabilized. After the physical parameters of the groundwater had stabilized and a minimum of 3 well volumes had been removed from each well, groundwater samples were collected from each well. The groundwater samples were sent to an analytical laboratory to be 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).

Hydropunch Sampling: As part of the additional site characterization, six hydropunch borings, shown on Figure 2 as SB-1 through SB-6, were advanced at the site. Five of the hydropunch borings (SB-1, and SB-3 through SB-6) were completed at the locations proposed in the Work Plan. However, SB-2 was moved to a different location than that proposed in the Work Plan (inside of the building and northeast of SB-1). The boring (SB-2) was attempted at the proposed location, but the drilling equipment met with refusal on concrete at about 2 feet below the ground surface. Thus, SB-2 was moved to and completed at the location shown on Figure 2, approximately 30 feet northwest of SB-1. One soil sample was collected from each of the six hydropunch borings.

A macro-core soil sampler, a 2-inch outside-diameter by 48-inch-long continuous sampling tool, was used to collect soil from the borings for lithologic logging and analytical sampling purposes. Soil samples were collected in 1.5-inch-diameter clear acetate sleeves. The soil samples were analyzed for VOCs, MTBE, TPH-g, and TPH-d. The Work Plan called for six grab groundwater samples to be collected; one from each of the hydropunch borings. The grab groundwater samples were collected

and analyzed for VOCs, MTBE, TPH-g, and TPH-d. No problems were encountered during the grab groundwater sample collection activities.

Site Lithology: Boring logs for the additional site characterization hydropunch borings show that the soil underlying the site consists primarily of silt and low plasticity clay. Hydrocarbon-stained soil was detected in the soil cores from borings SB-4 and SB-5. The boring logs are provided in Appendix A.

Groundwater Flow Direction and Gradient: Groundwater elevations were measured in the groundwater monitoring wells during the additional site characterization sampling activities. The groundwater flow direction and gradient were calculated using the groundwater elevation data from the six wells and the relative surface elevations of the six wells. The groundwater flow direction is north 58 degrees west (N58W), as shown on Figure 3; this flow direction is relatively consistent with the direction of the slope of the ground surface at the site. The groundwater gradient was calculated to be 0.03 feet/foot (ft/ft). The calculated direction of groundwater flow and the groundwater gradient are consistent with those calculated using previous water-level measurements from the six wells.

Laboratory Analytical Program: For the additional site characterization, the soil and groundwater samples were sent to Curtis & Tompkins Analytical Laboratories (C&T), in Berkeley, California for analysis. C&T is a California state-certified laboratory. Analyses for VOCs, BTEX, and MTBE were conducted using U.S. Environmental Protection Agency (US EPA) Method 8021B. Analyses for TPH-g and TPH-d were conducted using US EPA Method 8015M.

Groundwater Sample Analytical Results: VOCs, TPH-g, and TPH-d were each detected in the majority of the groundwater samples collected from the six monitoring wells and the six soil borings during the additional site characterization. As shown in Table 1, detected concentrations of VOCs ranged from 0.8 to 1,300 micrograms per liter (ug/L). Specifically, detected benzene concentrations ranged from 4.1 to 1,300 ug/L; detected toluene concentrations ranged from 4.4 to 100 ug/L; detected ethylbenzene concentrations ranged from 0.08 to 540 ug/L; detected xylene concentrations ranged from 6.4 to 370 ug/L. However, MTBE was not detected in any of the groundwater samples. Detected concentrations of TPH-g ranged from 710 to 7,200 ug/L and detected concentrations of TPH-d ranged from 150 to 5,800 ug/L. The detected analytical results for the round of groundwater sampling conducted during the additional site characterization 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 is provided in Appendix B.

Soil Sample Analytical Results: For the additional site characterization soil samples, VOCs, TPH-g, and TPH-d were not detected in the samples collected from SB-1, SB-2, SB-3, and SB-6. The only detected analyte in the soil sample collected from SB-4 was cis-1,2-dichloroethene, which was detected at a concentration of 4.2 micrograms per kilogram (ug/Kg). The soil sample collected from SB-5 contained detectable VOC's at concentrations ranging from 360 to 920 mg/Kg. This sample also contained TPH-g at a concentration of 640 milligrams per kilogram (mg/Kg) and TPH-d at a concentration of 120 mg/kg. The detected analytical results of the soil samples are provided in Table 8. The complete laboratory analytical package is provided in Appendix B.

Conclusions and Recommendations: Results from the analytical samples show that the extent of TPH contamination in groundwater has essentially been delineated. Some free product is present in the [redacted] monitoring well MW-2.

To assess the potential impact to human health for workers, and to determine if the UST site can be closed, it is recommended that a human health risk assessment be conducted for the site. The site should also be compared against the City of Oakland risk-based corrective action guidelines to determine if it is suitable for closure.

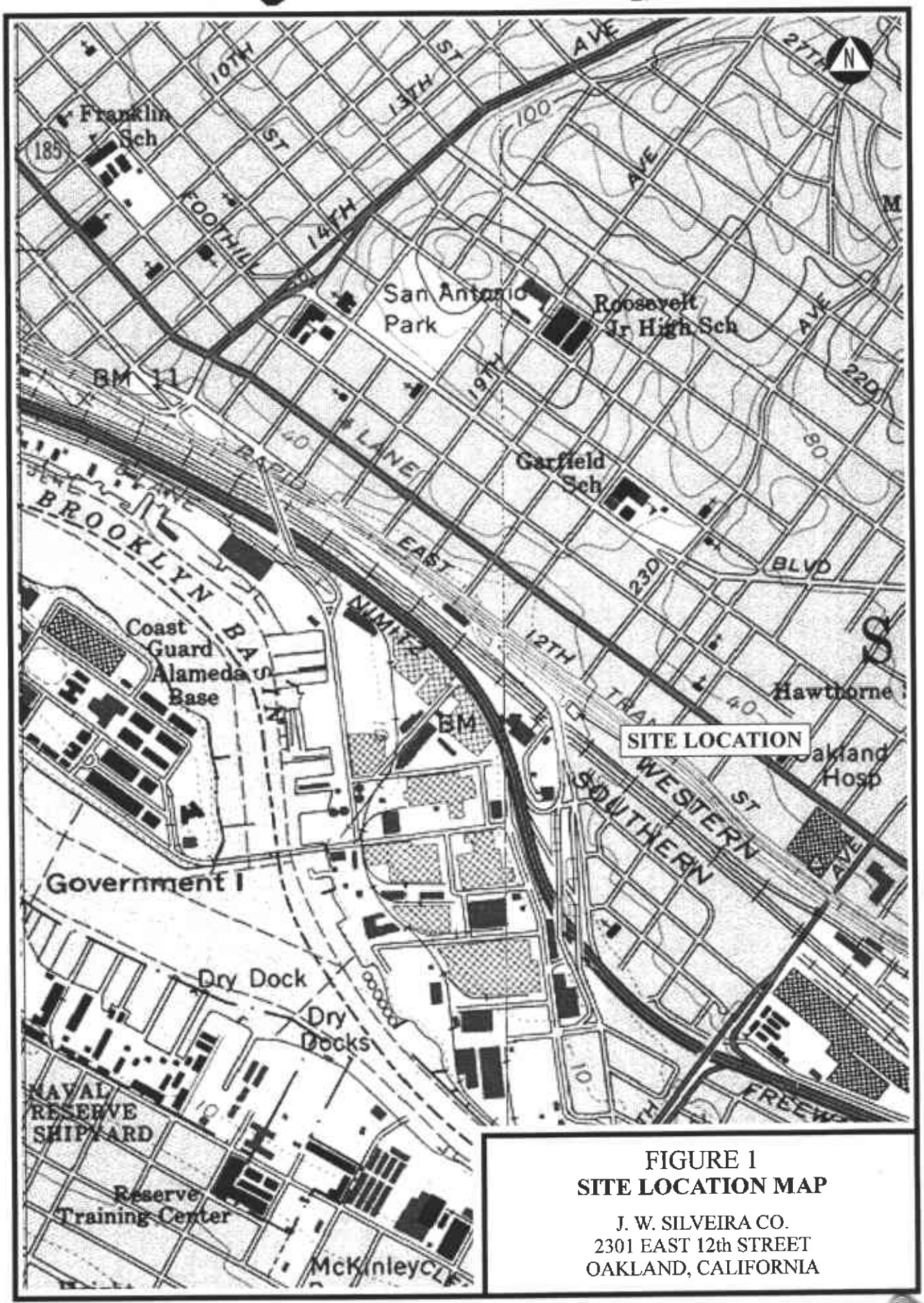


FIGURE 1
SITE LOCATION MAP

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

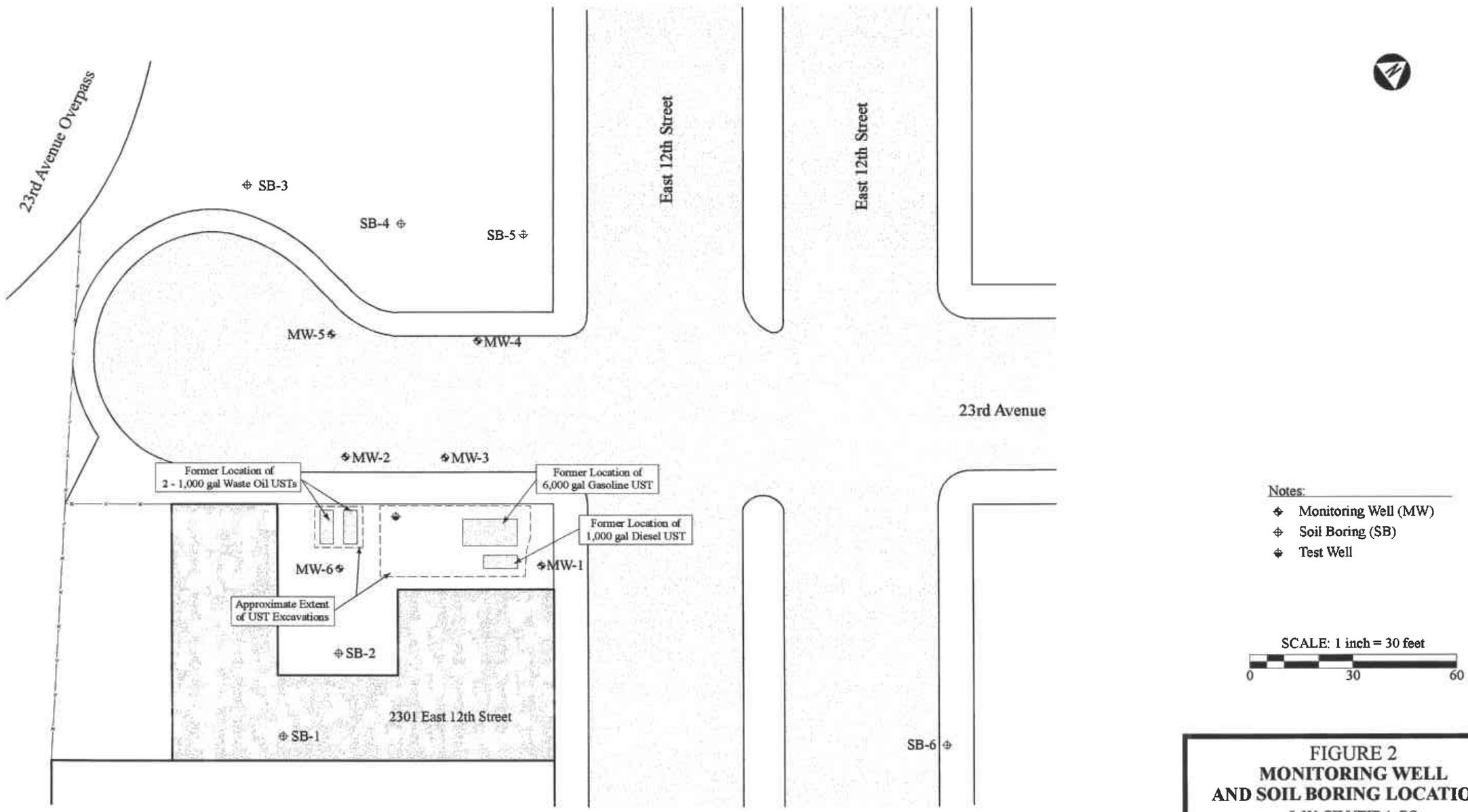


FIGURE 2
MONITORING WELL AND SOIL BORING LOCATIONS
J. W. SILVEIRA CO.
2301 EAST 12th STREET
OAKLAND, CALIFORNIA

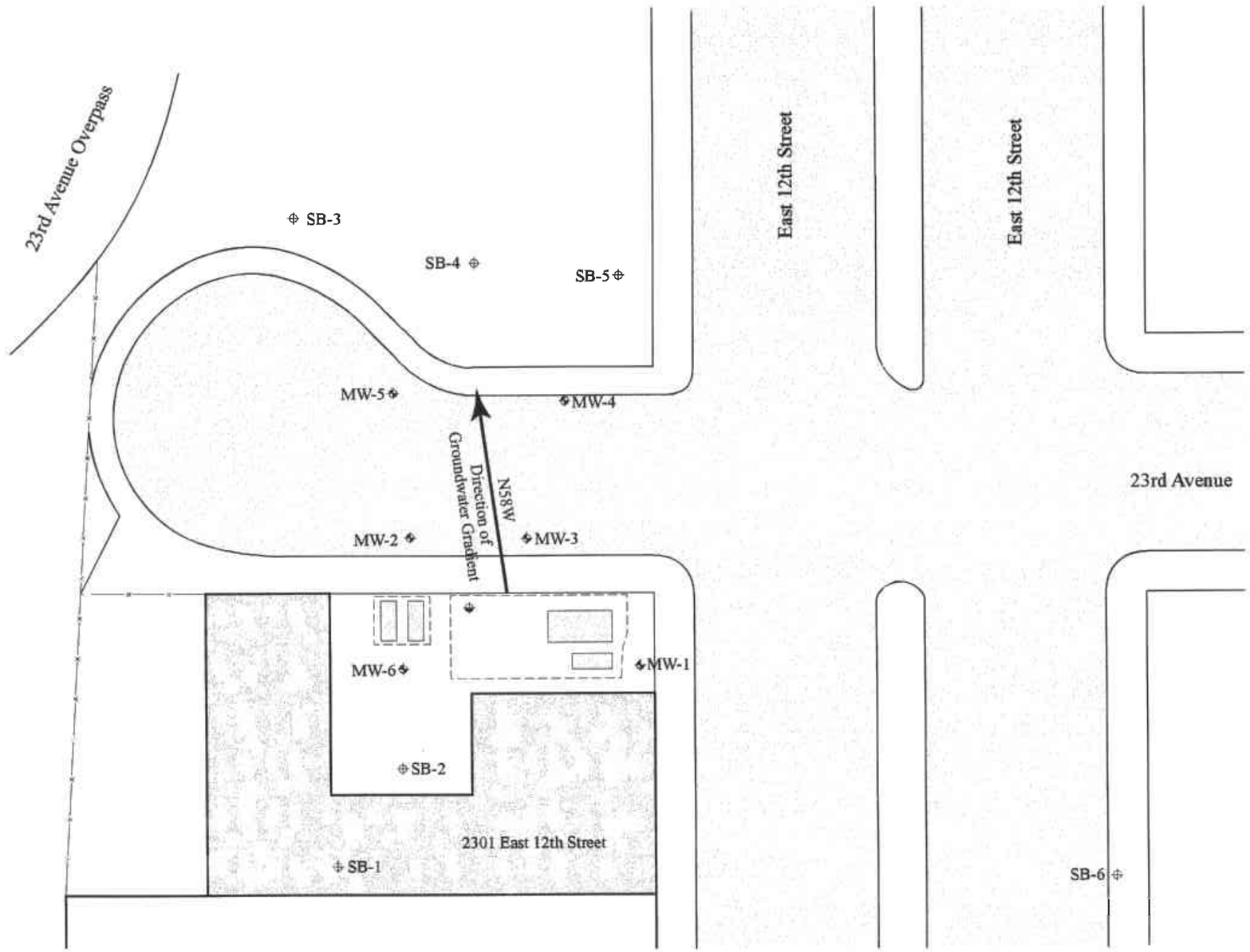


FIGURE 3
GROUNDWATER GRADIENT
J. W. SILVEIRA CO.
2301 EAST 12th STREET
OAKLAND, CALIFORNIA

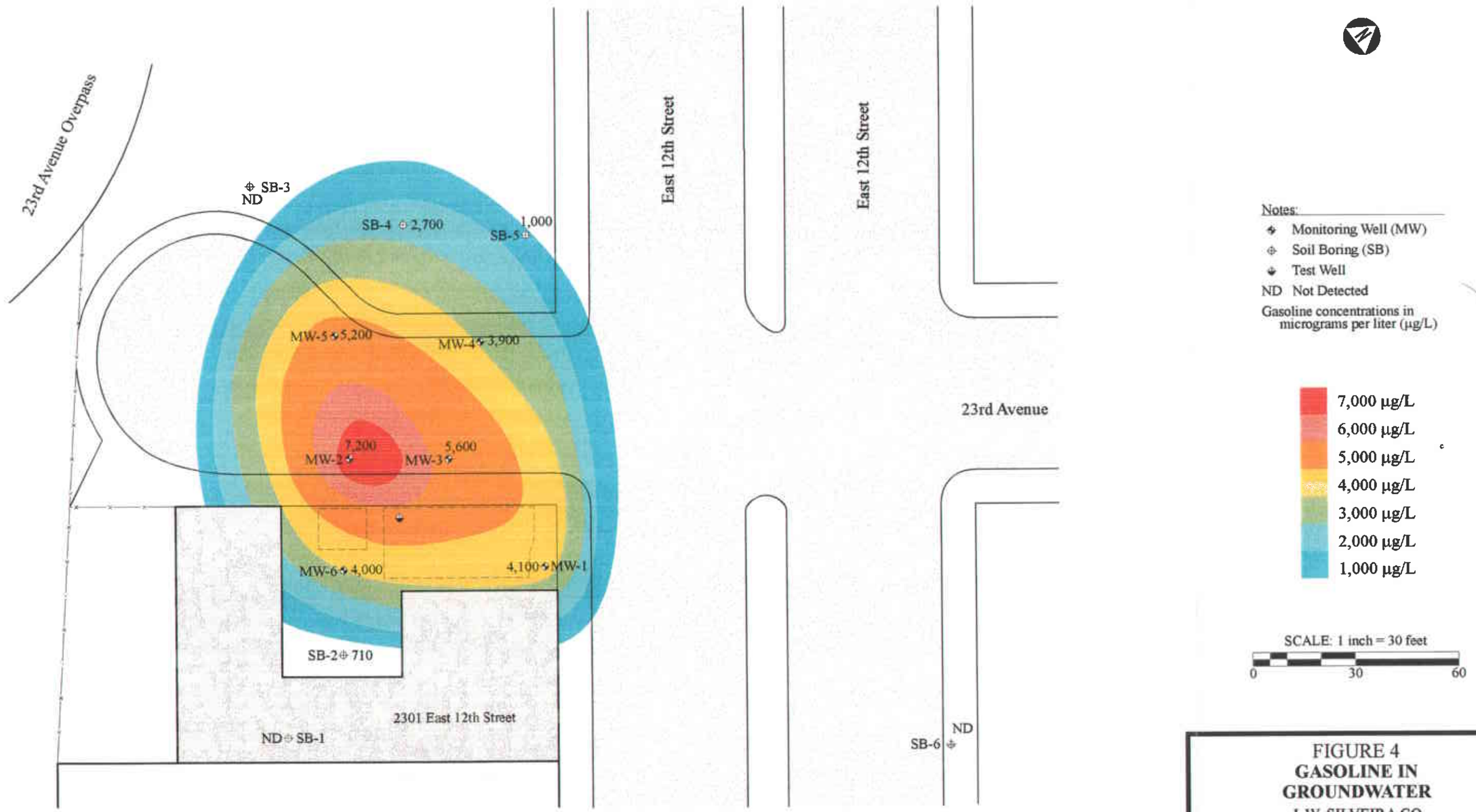


FIGURE 4
GASOLINE IN GROUNDWATER
J. W. SILVEIRA CO.
2301 EAST 12th STREET
OAKLAND, CALIFORNIA

FIGURE 5
DIESEL IN GROUNDWATER
J. W. SILVEIRA CO.
2301 EAST 12th STREET
OAKLAND, CALIFORNIA

3/31 + 4/1/99

TABLE 1
DETECTED VOC AND TPH COMPOUNDS IN GROUNDWATER FROM MONITORING WELLS AND SOIL BORINGS, 1999
2301 EAST 12TH STREET

Analyte	Monitoring Well Locations						Soil Boring Locations					
VOC (µg/L)	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	SB-1	SB-2	SB-3	SB-4	SB-5	SB-6
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.1
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.1
1,2,4-Trimethylbenzene	ND	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	ND	120	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	1,300	1,100	73	ND	73	280	ND	ND	ND	ND	4.1	4.1
Chlorobenzene	ND	5.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	93	540	29	0.8	13	66	ND	6.3	ND	ND	6.7	6.7
Isopropylbenzene	ND	50	41	18	55	17	ND	6.5	ND	7	9.3	9.3
Naphthalene	ND	570	3.4	ND	42	ND	ND	ND	ND	ND	ND	ND
Propylbenzene	ND	86	45	18	80	15	ND	7.3	ND	5.6	11	11
Toluene	30	100	7	ND	5	4.4	ND	ND	ND	ND	ND	ND
Trichloroethene	20	ND	6.7	ND	ND	75	3	ND	3.5	ND	150	150
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	72	ND	43	2.6	46	19	19
m,p-Xylenes	36	370	6.3	ND	13	6.4	ND	ND	ND	ND	ND	ND
o-Xylene	ND	38	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	ND	39	17	11	14	ND	ND	ND	ND	4	2.6	2.6
para-Isopropyl Toluene	ND	22	18	7.9	9.9	ND	ND	2.6	ND	ND	2.9	2.9
sec-Butylbenzene	ND	ND	12	13	8.3	ND	ND	ND	ND	7.2	2.6	2.6
trans-1,2-Dichloroethene	ND	ND	3.3	ND	2.7	21	ND	5.1	ND	26	14	14
TPH (µg/L)	**MW-1**	**MW-2**	**MW-3**	**MW-4**	**MW-5**	**MW-6**	**SB-1**	**SB-2**	**SB-3**	**SB-4**	**SB-5**	**SB-5**
Gasoline	4,100	7,200	5,600	3,900	5,200	4,000	ND	710	ND	2,700	1,000	1,000
Diesel	4,300	5,800	3,200	2,500	1,500	3,400	380	310	150	1,800	530	530
Motor Oil	850	750	280	300	290	280	--	--	--	--	--	--

Check these values

SB-6 ND ND

Notes:

The analytical results of the groundwater samples were validated by a TtEMI chemist.

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

TABLE 2
VOC AND TPH COMPOUNDS IN GROUNDWATER
MW-1 FROM JULY 1992 TO APRIL 1999
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

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-2 FROM JULY 1992 TO APRIL 1999
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

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-3 FROM JULY 1992 TO APRIL 1999
2301 EAST 12TH STREET

Date	TPH (µg/L)		VOC (µg/L)							
	Diesel	Gasoline	Benzene	Toluene	Ethylbenzene	Xylenes	Chloroethane	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	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	ND	16	ND	ND
12/23/93	230	7,900	30	14	12	62	--	--	--	--
03/27/94	4,300	5,700	180	10	100	24	ND	6	ND	ND
06/24/94	1,500	8,400	230	13	93	7.6	ND	ND	6	1.5
10/16/94	2,700	6,300	140	8.7	68	25	ND	12	8.4	2.1
02/13/95	1,600	7,500	220	17	110	22	ND	5.1	4.3	1.3
06/20/95	13,000	11,000	310	23	160	63	0.5	5.7	4.9	1.7
10/16/95	1,900	4,700	120	6.7	32	16	ND	7.8	7.1	2
02/15/96	9,400	8,100	62	13	50	33	ND	9.3	7.3	2.6
06/18/96	5,000	30,000	110	65	130	160	ND	ND	6.9	2.5
09/17/96	15,000	10,000	68	20	61	42	ND	13	11	ND
01/16/97	57,000	9,700	64	19	38	60	ND	3.9	4.9	2
05/01/97	30,000	7,300	67	13	51	20	ND	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	ND	1.1	0.81
04/01/99	3,200	5,600	73	7	29	6.3	ND	6.7	ND	3.3

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-4 FROM JULY 1992 TO APRIL 1999
2301 EAST 12TH STREET

Date	TPH (µg/L)		VOC (mg/L)						
	Diesel	Gasoline	Benzene	Toluene	Ethylbenzene	Xylenes	1,2-Dichloroethane	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	0.67	0.71	*ND*
02/13/95	630	2,600	100	100	3.8	7.1	*ND*	*ND*	*ND*
06/20/95	1,100	3,000	31	3.4	6.1	12	*ND*	2.2	1
10/16/95	1,100	2,000	43	2.3	8.4	6.9	*ND*	1.3	*ND*
02/15/96	940	3,400	*ND*	*ND*	*ND*	*ND*	*ND*	1.8	0.79
06/13/96	1,100	1,900	12	5.7	3.4	9.6	*ND*	*ND*	*ND*
09/17/96	2,500	3,100	*ND*	15	78	12	*ND*	*ND*	*ND*
01/16/97	13,000	4,000	*ND*	7	3	15	*ND*	0.76	*ND*
05/01/97	6,200	2,900	*ND*	5.1	3.4	5.7	*ND*	*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*	*ND*
04/01/99	2,500	3,900	*ND*	*ND*	0.8	*ND*	*ND*	*ND*	*ND*

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-5 FROM JULY 1992 TO APRIL 1999
2301 EAST 12TH STREET

Date	TPH (µg/L)		VOC (µg/L)								
	Diesel	Gasoline	Benzene	Toluene	Ethylbenzene	Xylenes	Chlorobenzene	Trichloroethene	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	*ND*	7.5	11	3.1
10/16/94	1,100	4,300	120	5.1	27	13	0.66	*ND*	9.6	16	4.2
02/13/95	1,200	4,600	130	7.9	38	29	*ND*	*ND*	8.4	*20*	5.1
06/20/95	1,000	6,000	140	6.7	27	29	0.95	*ND*	10	12	4.1
10/16/95	940	2,000	43	2.3	8.4	6.9	0.54	2	7.6	9.8	2.9
02/15/96	2,200	4,400	61	5.3	34	*ND*	0.57	*ND*	5.3	7.7	*ND*
06/18/96	--	7,400	94	11	32	40	*ND*	*ND*	*ND*	*2.9*	*ND*
09/17/96	1,600	5,200	140	7.5	18	21	0.83	*ND*	7.3	*4.5*	2.7
01/16/97	2,500	4,500	64	8.7	23	26	0.71	*ND*	9.1	6.1	3.8
05/01/97	3,400	4,300	120	7.6	21	23	*ND*	*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	*ND*	5.3	1.8	2
04/01/99	1,500	5,200	73	5	13	13	*ND*	*ND*	*ND*	*ND*	2.7

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-6 FROM JULY 1992 TO APRIL 1999
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

Notes:

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

TABLE 8
DETECTED VOC AND TPH COMPOUNDS IN SOIL
FROM SOIL BORINGS, 1999
2301 EAST 12TH STREET

Analyte	Location and Depth					
VOC (µg/Kg)	**SB-1** 15.5-16 ft bgs	**SB-2** 15-15.5 ft bgs	**SB-3** 18-18.5 ft bgs	**SB-4** 18-18.5 ft bgs	**SB-5** 13-13.5 ft bgs	**SB-6** 19-19.5 ft bgs
Isopropylbenzene	*ND*	*ND*	*ND*	*ND*	600	*ND*
Propylbenzene	*ND*	*ND*	*ND*	*ND*	920	*ND*
cis-1,2-Dichloroethene	*ND*	*ND*	*ND*	4.2	*ND*	*ND*
n-Butylbenzene	*ND*	*ND*	*ND*	*ND*	510	*ND*
para-Isopropyl Toluene	*ND*	*ND*	*ND*	*ND*	360	*ND*
sec-Butylbenzene	*ND*	*ND*	*ND*	*ND*	410	*ND*
TPH (mg/Kg)	**SB-1** 15.5-16 ft bgs	**SB-2** 15-15.5 ft bgs	**SB-3** 18-18.5 ft bgs	**SB-4** 18-18.5 ft bgs	**SB-5** 13-13.5 ft bgs	**SB-6** 19-19.5 ft bgs
Gasoline	*ND*	*ND*	*ND*	*ND*	640	*ND*
Diesel	*ND*	*ND*	*ND*	*ND*	120	*ND*

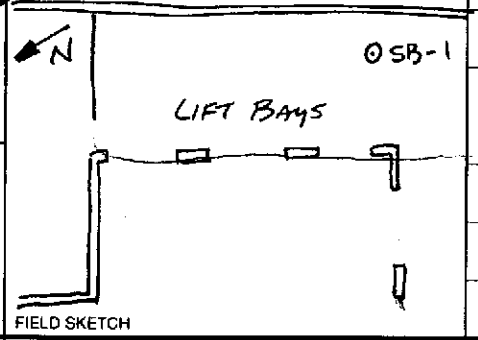
Notes:

The analytical results of the soil samples were validated by a TtEMI chemist.

bgs below ground surface
ft feet
µg/Kg micrograms per Kilogram
mg/Kg milligrams per Kilogram
- - Not Analyzed
ND Not Detected
TPH Total Petroleum Hydrocarbons
VOC Volitile Organic Compound

Tetra Tech EM Inc.
135 MAIN STREET, SUITE 1800
SAN FRANCISCO, CA 94105
415-543-4880

BORING ID: SB-1
SITE: 2301 EAST 12TH STREET
PROJECT: SILVEIRA - OAKLAND
PROJECT NO.: P1106
DATE: 6-28-99
LOGGED BY: ROY GLENN



FIELD SKETCH

SAMPLE ID	SAMPLE TIME	SAMPLE DEPTH	PID READING	DRIVE INTERVAL	INCHES RECOVERED / INCHES DRIVEN	DEPTH (ft bgs)	USCS SOIL TYPE	
					—	0		4" CONCRETE, 4" BASE ROCK
						1		4" CONCRETE
						2	FILL	FILL, SILT, DARK REDDISH BROWN (5YR 3/2), MEDIUM SOFT, DAMP, w/10% DEBRIS, MOSTLY BROKEN GLASS
					30/36	3		
						4		CLAYEY-SILT, VERY DARK GRAYISH-BROWN (2.5Y 3/2), MEDIUM STIFF, DAMP, w/10% SMALL 1-3mm GRAVEL, WELL ROUNDED, SOME REDDISH OXIDE STAINS
						5		
					44/48	6	ML	
						7		
						8		▼ 8.7'
						9		
						10		SILTY-GRAVEL, MOTTLED TAN, BROWN, & DARK RED, COARSE GRAVEL 5-10mm, ANGULAR, LOOSE, DAMP,
					35/48	11		
						12	GM	
						13		
						14		
					32/48	15	CL	SILTY-CLAY, DARK BROWN (7.5YR 3/2), LOW PLASTICITY, MEDIUM STIFF, DAMP, w/5% FINE-MEDIUM GRAVEL
JW1-09	1030					16		WET
								TD = 16 ft bgs.
						17		
						18		
						19		
						20		

GW SAMPLE: JW1-10

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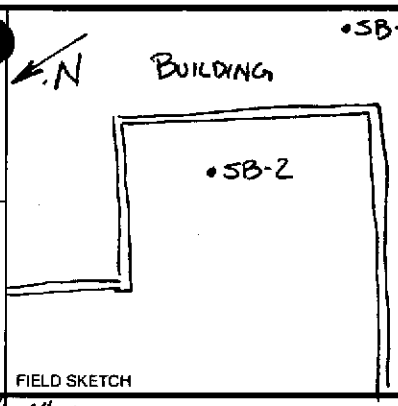

FIELD SKETCH

BORING ID: SB-2
SITE: 2301 EAST 12th ST.
PROJECT: SILVERA - OAKLAND
PROJECT NO.: P1106
DATE: 6-28-99
LOGGED BY: ROY GLENN

SAMPLE ID	SAMPLE TIME	SAMPLE DEPTH	PID READING	DRIVE INTERVAL	INCHES RECOVERED / INCHES DRIVEN	DEPTH (ft bgs)	USCS SOIL TYPE	
				0-4	30/44	1	ML	4" ASPHALT SILT, BLACK (N2.5), MEDIUM SOFT, DAMP, W/10% FINE GRAVEL & MINOR ORGANICS
				4-8	40/48	5	ML-CL	CLAYEY-SILT, DARK GREENISH GRAY (5GY 4/1) MEDIUM SOFT, DAMP, W/10% SMALL GRAVEL 1-2mm. SLIGHT HYDROCARBON ODOR FROM 4-6.5 ft bgs.
				8-12	38/48	9	ML-CL / ML	CLAYEY-SILT, VERY DARK GRAYISH BROWN (2.5Y 3/2), MEDIUM STIFF, DAMP, W/5% SMALL GRAVEL 1-2mm SILTY-GRAVEL, MOTTLED TAN, BROWN, & DARK GRAY, WELL GRADED, FINE GRAVEL, ANGULAR, MEDIUM DENSE, DAMP
						12		HYDROCARBON ODOR FROM 11.5-12.5 ft bgs
				12-16	44/48	13.5' ▼		
JW1-11	1400					15	CL	SANDY-CLAY, LIGHT OLIVE BROWN (2.5Y 5/4) LOW PLASTICITY, DAMP, STIFF, W/20% FINE SAND WET @ 15' bgs SATURATED @ 15.8'
						16		TD=16 ft bgs.
						20		GW SAMPLE: JW1-12

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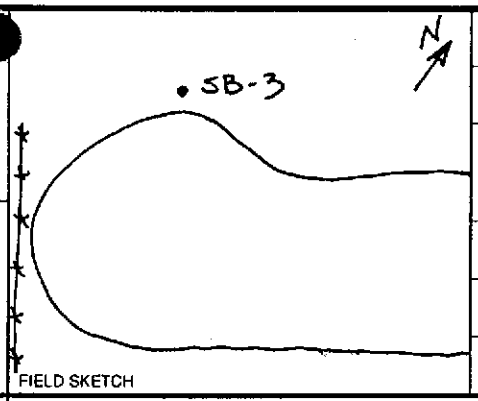

BORING ID: SB-3
SITE: 2301 EAST 12TH ST
PROJECT: SILVEIRA - OAKLAND
PROJECT NO.: P1106
DATE: 6-28-99
LOGGED BY: ROY GLENN

SAMPLE ID	SAMPLE TIME	SAMPLE DEPTH	PID READING	DRIVE INTERVAL / INCHES RECOVERED / INCHES DRIVEN	DEPTH (ft bgs)	USCS SOIL TYPE	
				30/48	1	ML	CLAYEY-SILT, BROWN (10YR 4/3), DRY, STIFF, W/10% FINE SAND, FILL?
					2		DAMP, MEDIUM STIFF
					3		
					4		
					5		IRON OXIDE STAINS IN FRACTURES
				46/48	6		
					7		CLAY, OLIVE GRAY (5Y 4/2), LOW PLASTICITY, DAMP, STIFF, W/5% VERY FINE GRAVEL, IRON OXIDE STAINING IN OLD ROOTS
					8	CL	
				42/48	9		
					10		
					11		CLAY, BROWN (10YR 5/3), DAMP, STIFF, W/5% VERY FINE SAND & 10% 1-2mm IRON OXIDE NODULES
					12		
				38/48	13	CL	
					14		W/15% FINE GRAVEL
					15		
					16		CLAYEY-SAND, LIGHT YELLOWISH BROWN (2.5Y 6/3) FINE SAND, WELL GRADED, DAMP, MEDIUM DENSE.
				32/36	17	SC	
					18		5mm LENSE OF MEDIUM SAND, WET AT 17.8'
JW1-13	1535				19		10mm LENSE OF COARSE SAND, SATURATED @ 18.5' TD = 19 ft bgs.
					20		

▼ 18.4'

GW SAMPLE: JW1-14

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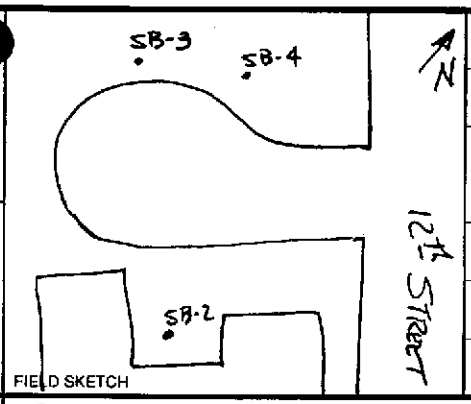

FIELD SKETCH

BORING ID: SB-4
SITE: 2301 EAST 12TH ST.
PROJECT: SILVEIRA - OAKLAND
PROJECT NO.: P1106
DATE: 6-28-99
LOGGED BY: Roy GLENN

SAMPLE ID	SAMPLE TIME	SAMPLE DEPTH	PID READING	DRIVE INTERVAL	INCHES RECOVERED / INCHES DRIVEN	DEPTH (ft bgs)	USCS SOIL TYPE	
						0	FILL	FILL, SILT, BLACK (N2), DRY, STIFF
					40/48	1		FILL, SILTY-GRAVEL, DARK BROWN (10YR 3/3), DRY, ANGULAR, MEDIUM GRAVEL, POORLY GRADED, LOOSE
						2		
						3	FILL	
						4		BRICK FRAGMENTS 12-28 mm
					39/48	5		
						6		SILTY-CLAY, OLIVE GRAY (5Y4/2) DAMP, LOW PLASTICITY, STIFF, w/5% FINE GRAVEL, IRON OXIDE STAINING.
						7		
						8	CL	
					36/36	9		9-11.5 ft bgs. HYDROCARBON ODOR, GREENISH STAINED SOIL
						10	GW @ 10.4'	
						11		
						12		
					44/48	13	CL	CLAY, LIGHT OLIVE BROWN (2.5Y5/4), DAMP, LOW PLASTICITY, STIFF, w/10% COARSE SAND
						14		
						15		
						16		
					32/48	17		
						18	SC	CLAYEY-SAND, LIGHT OLIVE BROWN (2.5Y5/4), MOIST, FINE SAND, WELL GRADED, LOOSE.
JW1-15	1715					19		WET w/10% VERY FINE GRAVEL
								TD = 19.0 ft bgs
						20		
								GW SAMPLE: JW1-16

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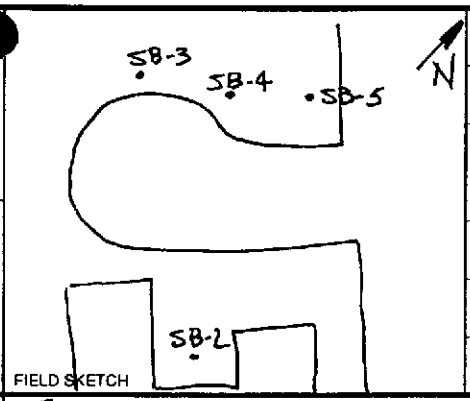

BORING ID: SB-5
SITE: 2301 EAST 12TH ST.
PROJECT: SILVEIRA - OAKLAND
PROJECT NO.: P1106
DATE: 6-28-99
LOGGED BY: ROY GLENN

SAMPLE ID	SAMPLE TIME	SAMPLE DEPTH	PID READING	DRIVE INTERVAL / INCHES RECOVERED / INCHES DRIVEN	DEPTH (ft bgs)	USCS SOIL TYPE	
				36/48	1	FILL	FILL, SILT, BLACK (N2), DRY, STIFF
					2		BRICK FRAGMENTS
					3	ML	SILT, VERY DARK GRAYISH-BROWN (10YR 3/2), DAMP, MEDIUM STIFF
				48/48	4		
					5		
					6		
					7		
					8		
				36/48	9		CLAY, DARK GREENISH GRAY (5GY 4/1), LOW PLASTICITY, DAMP, STIFF,
					10		▼ GW @ 10.0'
					11		HYDROCARBON ODOR PRESENT FROM ~11.0 TO 16 ft bgs.
					12	CL	
JW1-17	1800			40/48	13		MOIST
					14		WET
					15		SATURATED
					16		TD = 16 ft bgs.
					17		
					18		
					19		
					20		

GW SAMPLE: JW1-18

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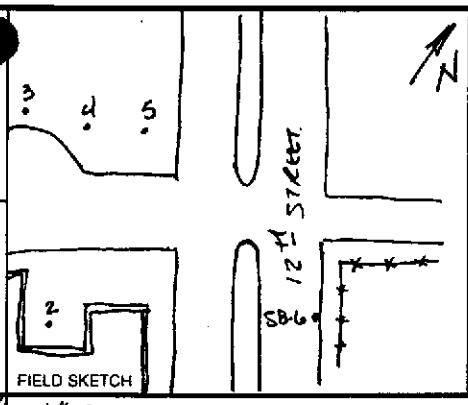

BORING ID: SB-6
SITE: 2301 EAST 12TH ST.
PROJECT: SILVEIRA - OAKLAND
PROJECT NO.: P1106
DATE: 8-10-99
LOGGED BY: Roy GLENN

SAMPLE ID	SAMPLE TIME	SAMPLE DEPTH	PID READING	DRIVE INTERVAL / INCHES RECOVERED / INCHES DRIVEN	DEPTH (ft bgs)	USCS SOIL TYPE	
				46/48	1	ML	4" CONCRETE SILT, BLACK (N3) MEDIUM SOFT, DAMP, w/5% VERY FINE GRAVEL
					2		PERCHED SATURATED LENSE FROM 2.2 TO 2.6 ft bgs DAMP FROM 2.6 ft
					3		
					4		
				41/48	5	CL	CLAY, OLIVE GRAY (5Y4/2), LOW PLASTICITY, DAMP, STIFF, w/10% FINE GRAVEL
					6		
					7		
					8		
				43/48	9		
					10		
					11		
					12	CL	CLAY, LIGHT OLIVE BROWN (2.5Y5/4), LOW PLASTICITY, DAMP, STIFF, w/15% MEDIUM SAND.
				39/48	13		
					14		
					15		
					16	CL	SANDY-CLAY, LIGHT OLIVE BROWN (2.5Y5/4), LOW PLASTICITY DAMP, STIFF, w/25% FINE SAND
				43/48	17		▼ 16.8'
					18		MOIST
JW1-20	1400				19		WET
					20		CLAYEY-SAND, LIGHT YELLOWISH BROWN (2.5Y6/3) CONT.

SAMPLE ID	SAMPLE TIME	SAMPLE DEPTH	PID READING	DRIVE INTERVAL	INCHES RECOVERED / INCHES DRIVEN	DEPTH (ft bgs)	USCS SOIL TY	
					28/48	22	SC	FINE SAND, DAMP, WELL GRADED, MEDIUM DENSITY, SATURATED
						23		
						24		TD = 24 ft bgs
						25		
						26		
						27		
						28		
						29		
						30		
						31		
						32		
						33		
						34		
						35		
						36		
						37		
						38		
						39		
						40		
						41		
						42		
						43		
						44		GW SAMPLE : JW1-21

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415-543-4880

BORING ID: SB-6
SITE: 2301 EAST 12TH ST.
PROJECT: SILVEIRA - OAKLAND

For this appendix, samples which contain "JW1" as their first three digits are associated with the site located at 2301 East 12th Street.

Samples which are numbered with the first three digits of "JW2", which are associated with the site located at 1200 20th Avenue, are also included in this appendix because the samples from the two sites were submitted to the analytical laboratory in the same cooler with the same chain-of-custody (COC) form. Thus, the analytical results presented by the laboratory include data for both sites.

The copy of the COCs delivered to the analytical laboratory does not include information about which location specific samples were collected from, nor is information provided on the laboratory copy of the COC about whether or not the sample is a quality control sample. Thus, the copy of the COCs which includes this information has also been included in this appendix.

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

Chain of Custody Record

PO#

Lab: CET

Project name: JW SILVEIRA PROPS

TtEMI technical contact: JACKIE LUTA

Field samplers: HAL DAWSON ROY GLENN

Project number: P110604

TtEMI project manager: HAL DAWSON

Field samplers' signatures: HalDawson

Sample ID	Sample Description/Notes	Date	Time	Matrix	No./Container Types: 40 ml VOA	1 Liter Amber	1 Liter Poly	Brass Tube	Glass Jar	6 oz. Poly	Preservative Added	Analysis Required: CLP VOA	CLP SVOA	CLP Pest/PCBs	CLP Metals	TPH Purgeables	TPH Extractables	VOCs	MTBE	Nitrate/Sulfate
JW1-01	Site 1/MW-4/	3/31/99	1400	Water	9	2				1						X	X	X	X	X
JW1-02	Site 1/MW-5/	3/31/99	1520	Water	9	2				1						X	X	X	X	X
JW1-03	TRIP BLANK	3/31/99	1548	Water	4											X		X		

JW1-03 VOCs

	Name (print)	Company Name	Date	Time
Relinquished by:	HAL DAWSON	TtEMI	3/31/99	
Received by:		Fed Ex CET	3/31/99	
Relinquished by:				
Received by:				
Relinquished by:				
Received by:				
Relinquished by:				
Received by:				

Turnaround time/remarks:

WHITE–Laboratory Copy YELLOW–Project Office Copy

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San Francisco Office
135 Main St Suite 1800
San Francisco, CA 94105
415-543-4880
Fax 415-543-5480

Chain of Custody Record

PO#

Lab: C&T

Project name: JW SILVEIRA

TtEMI technical contact: JACKIE LUTA

Field samplers: HAL DAWSON ROY GLENN

Project number: P1006.04

TtEMI project manager: HAL DAWSON

Field samplers' signatures:

Sample ID	Sample Description/Notes	Date	Time	Matrix	40 ml VOA	1 Liter Amber	1 Liter Poly	Brass Tube	Glass Jar	8oz Poly	CLP VOA	CLP SVOA	CLP Pest/PCBs	CLP Metals	TPH Purgeables	TPH Extractables	MTBE	BTEX	VOC	NITRATE	SULFATE
JW2-01	SITE 2, MW2, MS/MSD	4/1/99	0930	WATER	21										X		X	X			
JW2-02	SITE 2, MW1		1045		9										X		X	X			
JW2-03	SITE 2, MW10 DUPLICATE		1050		9										X		X	X			
JW2-04	SITE 2, MW3		1148		9										X		X	X			
JW1-04	SITE 1, MW3		1403		9	2				1					X	X	X		X	X	X
JW1-05	SITE 1, MW1		1440		9	2				1					X	X	X		X	X	X
JW1-06	SITE 1, MW6		1615		9	2				1					X	X	X		X	X	X
JW1-07	SITE 1, MW2		1645		9	2				1					X	X	X		X	X	X
JW1-08	TRIP BLANK		1700		5										X		X		X		
						1															
						-							48								

Preservative Added: HCl | - | HNO3 | HCl | H2O | - | -

Analysis Required

	Name (print)	Company Name	Date	Time
Relinquished by:	ROY GLENN	TtEMI	4-1-99	1830
Received by:	J. WILLIAMS	C&T	4/1/99	1851
Relinquished by:				
Received by:				
Relinquished by:				
Received by:				
Relinquished by:				
Received by:				

Turnaround time/remarks:

WHITE–Laboratory Copy YELLOW–Project Office Copy

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

Chain of Custody Record

PO#

Lab: C&T

Project name: JW SILVEIRA UST

Project number: P1106.05

TtEMI technical contact: JACKIE LUTA

TtEMI project manager: HAL DAWSON

Field samplers: ROY GLENN

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	Acetates	Preservative Added: HCl	Analysis Required: CLP VOA	CLP SVOA	CLP Pest/PCBs	CLP Metals	TPH Purgeables	TPH Extractables	BTEX	MTBE
JW1-09	SB1 15.5-16' bgs	6-28-99	1030	SOIL						1		X				X	X	X	X
JW1-10	SB1 GW1		1045	WATER	3	2						X				X	X	X	X
JW1-11	SB2 15-15.5		1400	SOIL						1		X				X	X	X	X
JW1-12	SB2 GW1		1420	WATER	3	1						X				X	X	X	X
JW1-13	SB3 18-18.5		1535	SOIL						1		X				X	X	X	X
JW1-14	SB3 GW1		1630	WATER	3	1						X				X	X	X	X
JW1-15	SB4 18-18.5		1715	SOIL						1		X				X	X	X	X
JW1-16	SB4 GW1		1745	WATER	3	1						X				X	X	X	X
JW1-17	SB5 13-13.5		1800	SOIL						1		X				X	X	X	X
JW1-18	SB5 GW1		1815	WATER	3	2						X				X	X	X	X
JW1-19	TRIP BLANK		1900	WATER	3							X				X		X	X

	Name (print)	Company Name	Date	Time
Relinquished by: Roy D. Glenn	ROY D. GLENN	TtEMI	6-29-99	1[redacted]50
Received by: M. Travers	M. TRAVERS	C&T	6-29-99	
Relinquished by:				
Received by:				
Relinquished by:				
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Received by:				

Turnaround time/remarks:

WHITE–Laboratory Copy YELLOW–Project Office Copy

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

Chain of Custody Record

PO#:

Lab: C&T

Project name: JW SILVEIRA UST

TtEMI technical contact: JACKIE LUTA

Field samplers: ROY GLENN

Project number: P1106.05

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	Acetate	Preservative Added: HCl	Analysis Required: CLP VOA	CLP SVOA	CLP Pest/PCBs	CLP Metals	TPH Purgeables	TPH Extractables	BTEX	MTBE
JW2-05	SB-2 8.5-9	8-10-99	1055	Soil						1						X		X	X
JW2-06	SB-2 26.5-27		1200	Soil						1						X		X	X
JW1-20	SB-6 19-19.5		1400	Soil						1		X				X	X		
JW1-21	SB-6 GW		1530	WATER	6	2						X				X	X		

	Name (print)	Company Name	Date	Time
Relinquished by: Roy D. Glenn	Roy	TT EMI	8-13	09
Received by: Steven E. Stanley	Steven E. Stanley	C&T	8-13/99	0930
Relinquished by:				
Received by:				
Relinquished by:				
Received by:				
Relinquished by:				
Received by:				

Turnaround time/remarks:

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900, Fax (510) 486-0532

RECEIVED
APR 28 1999
TETRA TECH EM INC.

Laboratory Number 138710

Tetra Tech EMI
135 Main Street
Suite 1800
San Francisco, CA 94105

Project#: P110604
Location: JW Silveira Props

Sample ID	Lab ID
JW1-01	138710-001
JW1-02	138710-002
JW1-03	138710-003

I certify that this data package has been reviewed for technical correctness and completeness. Please see attached narrative for a discussion of any analytical problems related to this sample set. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature: _____ Date: 4-26-99
Title: Operations Manager

Signature: Carol Wortham Date: 4/26/99
Title: Project Manager

Curtis & Tompkins, Ltd.

Laboratory Number: **138710**
Client: **Tetra Tech EMI**
Location: **JW Silveira Props**
Project#: **P110604**

Receipt Date: **03/31/99**

CASE NARRATIVE

This hardcopy data package contains sample and QC results for three water samples that were received on March 31, 1999.

Volatile Organics: The TIC compounds were not included in the electronic data deliverables. No analytical problems were encountered.

TPH-Purgeables: High surrogate recoveries were observed for samples JW1-01 (CT#138710-001) and JW1-02 (CT#138710-002) due to coelution with hydrocarbon peaks. No other analytical problems were encountered.

TPH-Extractables: No analytical problems were encountered.

Wet Chemistry: Samples were diluted due to high levels of hydrocarbons present in the sample. No analytical problems were encountered.

Tetra Tech EM Inc.
San Francisco Office

138710

1208

Chain of Custody Record

Page 1 of 1

135 Main St. Suite 1800
San Francisco, CA 94105
415-543-4880
Fax 415-543-5480

PO#

Lab: C&T

Project name: JW SILVEIRA PROPS

TtEMI technical contact: JACKIE LUTA

Field samplers: HAL DAWSON, ROY GLENN

Project number: P1106Ø4

TtEMI project manager: HAL DAWSON

Field samplers' signatures: Hal Dawson

Sample ID	Sample Description/Notes	Date	Time	Matrix	No./Container Types: 40 ml VOA	1 Liter Amber	1 Liter Poly	Brass Tube	Glass Jar	6 Oz. Poly	Preservative Added	Analysis Required: CLP VOA	CLP SVOA	CLP Pest/PCBs	CLP Metals	TPH Purgeables	TPH Extractables	VOCs	MTBE	Nitrate/Sulfate
JW1-Ø1		3/31/99	1400	Water	9	2				1						X	X	X	X	X
JW1-Ø2		3/31/99	1520	Water	9	2				1						X	X	X	X	X
JW1-Ø3		3/31/99	1548	Water	4											X	X			

	Name (print)	Company Name	Date	Time
Relinquished by:	HAL DAWSON	TtEMI	3/31/99	
Received by:		Fed C&T	3/31/99	
Relinquished by:				After 1 Sam
Received by:				
Relinquished by:				
Received by:				
Relinquished by:				
Received by:				

Turnaround time/remarks: 10

WHITE-Laboratory Copy YELLOW-Project Office Copy

NW Saving Drops

COOLER RECEIPT CHECKLIST

Login#: 138710 Date Received: 3/31 Number of Coolers: 1
Client: TTEMI Project: P110604

A. Preliminary Examination Phase
Date Opened: 3/31 By (print): J. Williams (sign) [signature]

1. Did cooler come with a shipping slip (airbill, etc.)? YES NO
If YES, enter carrier name and airbill number: —
2. Were custody seals on outside of cooler? YES NO
How many and where? _____ Seal date: _____ Seal name: _____
3. Were custody seals unbroken and intact at the date and time of arrival? YES NO N/A
4. Were custody papers dry and intact when received? YES NO
5. Were custody papers filled out properly (ink, signed, etc.)? YES NO
6. Did you sign the custody papers in the appropriate place? YES NO
7. Was project identifiable from custody papers? YES NO
If YES, enter project name at the top of this form.
8. If required, was sufficient ice used? YES NO
Type of ice: wet Temperature: 2.0°C

B. Login Phase
Date Logged In: 4/1 By (print): J. Williams (sign) [signature]

1. Describe type of packing in cooler: foam
2. Did all bottles arrive unbroken? YES NO
3. Were labels in good condition and complete (ID, date, time, signature, etc.)? YES NO
4. Did bottle labels agree with custody papers? YES NO
5. Were appropriate containers used for the tests indicated? YES NO
6. Were correct preservatives added to samples? YES NO
7. Was sufficient amount of sample sent for tests indicated? YES NO
8. Were bubbles absent in VOA samples? If NO, list sample Ids below. YES NO
9. Was the client contacted concerning this sample delivery? YES NO
If YES, give details below.
Who was called? _____ By whom? _____ Date: _____

Additional Comments:

Filename: F:\qc\forms\cooler.wpd Rev. 1 4/95

Volatile Organics by GC/MS

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: JW1-01
Lab ID: 138710-001
Matrix: Water
Batch#: 47202
Units: ug/L
Diln Fac: 1

Sampled: 03/31/99
Received: 03/31/99
Extracted: 04/02/99
Analyzed: 04/02/99

Analyte	Result	Reporting Limit
Freon 12	ND	10
Chloromethane	ND	1.0
Vinyl Chloride	ND	1.0
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	5.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	5.0
Chloroform	ND	0.5
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5

Volatile Organics by GC/MS

Field ID:	JW1-01	Sampled:	03/31/99
Lab ID:	138710-001	Received:	03/31/99
Matrix:	Water	Extracted:	04/02/99
Batch#:	47202	Analyzed:	04/02/99
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	0.8	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	0.5
Isopropylbenzene	18	5.0
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	18	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	13	5.0
para-Isopropyl Toluene	7.9	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	11	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%Recovery	Recovery Limits
Dibromofluoromethane	94	81-121
1,2-Dichloroethane-d4	97	76-127
Toluene-d8	104	90-109
Bromofluorobenzene	97	82-118

Volatile Organics by GC/MS

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: JW1-02 — MW 4
Lab ID: 138710-002
Matrix: Water
Batch#: 47202
Units: ug/L
Diln Fac: 1

Sampled: 03/31/99
Received: 03/31/99
Extracted: 04/02/99
Analyzed: 04/02/99

Analyte	Result	Reporting Limit
Freon 12	ND	10
Chloromethane	ND	1.0
Vinyl Chloride	ND	1.0
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	5.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	2.7	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	5.0
Chloroform	ND	0.5
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	73	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	5.0	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5

Volatile Organics by GC/MS

Field ID:	JW1-02	Sampled:	03/31/99
Lab ID:	138710-002	Received:	03/31/99
Matrix:	Water	Extracted:	04/02/99
Batch#:	47202	Analyzed:	04/02/99
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	13	0.5
m,p-Xylenes	13	0.5
o-Xylene	2.4	0.5
Styrene	ND	0.5
Bromoform	ND	0.5
Isopropylbenzene	55	5.0
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	80	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	8.3	5.0
para-Isopropyl Toluene	9.9	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	14	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	42	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%Recovery	Recovery Limits
Dibromofluoromethane	92	81-121
1,2-Dichloroethane-d4	96	76-127
Toluene-d8	104	90-109
Bromofluorobenzene	98	82-118

Volatile Organics by GC/MS

Client:	Tetra Tech EMI	Analysis Method:	EPA 8260
Project#:	P110604	Prep Method:	EPA 5030
Location:	JW Silveira Props		
Field ID:	JW1-03	Sampled:	03/31/99
Lab ID:	138710-003	Received:	03/31/99
Matrix:	Water	Extracted:	04/02/99
Batch#:	47202	Analyzed:	04/02/99
Units:	ug/L		
Diln Fac:	1		

Analyte	Result		Reporting Limit
Freon 12	ND	--	10
Chloromethane	ND		1.0
Vinyl Chloride	ND		1.0
Bromomethane	ND		1.0
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		5.0
Acetone	ND		10
Freon 113	ND		5.0
1,1-Dichloroethene	ND		0.5
Methylene Chloride	ND		5.0
Carbon Disulfide	ND		0.5
MTBE	ND		0.5
trans-1,2-Dichloroethene	ND		0.5
Vinyl Acetate	ND		10
1,1-Dichloroethane	ND		0.5
2-Butanone	ND		10
cis-1,2-Dichloroethene	ND		0.5
2,2-Dichloropropane	ND		5.0
Chloroform	ND		0.5
Bromochloromethane	ND		10
1,1,1-Trichloroethane	ND		0.5
1,1-Dichloropropene	ND		5.0
Carbon Tetrachloride	ND		0.5
1,2-Dichloroethane	ND		0.5
Benzene	ND		0.5
Trichloroethene	ND		0.5
1,2-Dichloropropane	ND		0.5
Bromodichloromethane	ND		0.5
Dibromomethane	ND		5.0
4-Methyl-2-Pentanone	ND		10
cis-1,3-Dichloropropene	ND		0.5
Toluene	ND		0.5
trans-1,3-Dichloropropene	ND		0.5
1,1,2-Trichloroethane	ND		0.5
2-Hexanone	ND		10
1,3-Dichloropropane	ND		5.0
Tetrachloroethene	ND		0.5
Dibromochloromethane	ND		0.5

Volatile Organics by GC/MS

Field ID:	JW1-03	Sampled:	03/31/99
Lab ID:	138710-003	Received:	03/31/99
Matrix:	Water	Extracted:	04/02/99
Batch#:	47202	Analyzed:	04/02/99
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	0.5
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%Recovery	Recovery Limits
Dibromofluoromethane	94	81-121
1,2-Dichloroethane-d4	98	76-127
Toluene-d8	105	90-109
Bromofluorobenzene	100	82-118

Lab #: 138710

BATCH QC REPORT

Curtis & Tompkins, Ltd.

EPA 8260 Volatile Organics

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 47202
Units: ug/L
Diln Fac: 1

Prep Date: 04/02/99
Analysis Date: 04/02/99

MB Lab ID: QC94388

Analyte	Result	Reporting Limit
Freon 12	ND	10
Chloromethane	ND	1.0
Vinyl Chloride	ND	1.0
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	5.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	5.0
Chloroform	ND	0.5
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5

EPA 8260 Volatile Organics

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 47202
Units: ug/L
Diln Fac: 1

Prep Date: 04/02/99
Analysis Date: 04/02/99

MB Lab ID: QC94388

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	0.5
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%Rec	Recovery Limits
Dibromofluoromethane	96	81-121
1,2-Dichloroethane-d4	97	76-127
Toluene-d8	104	90-109
Bromofluorobenzene	99	82-118

EPA 8260 Volatile Organics

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8260
Prep Method: EPA 5030

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 47202
Units: ug/L
Diln Fac: 1

Prep Date: 04/02/99
Analysis Date: 04/02/99

BS Lab ID: QC94386

Analyte	Spike Added	BS	%Rec #	Limits
1,1-Dichloroethene	50	53.46	107	64-139
Benzene	50	51.79	104	71-127
Trichloroethene	50	54.09	108	72-129
Toluene	50	57.3	115	73-129
Chlorobenzene	50	53.56	107	77-126

Surrogate	%Rec	Limits
Dibromofluoromethane	93	81-121
1,2-Dichloroethane-d4	97	76-127
Toluene-d8	105	90-109
Bromofluorobenzene	96	82-118

BSD Lab ID: QC94387

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	50.92	102	64-139	5	13
Benzene	50	49.38	99	71-127	5	10
Trichloroethene	50	50.75	102	72-129	6	10
Toluene	50	54.58	109	73-129	5	10
Chlorobenzene	50	51.32	103	77-126	4	10

Surrogate	%Rec	Limits
Dibromofluoromethane	95	81-121
1,2-Dichloroethane-d4	96	76-127
Toluene-d8	105	90-109
Bromofluorobenzene	96	82-118

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

TVH-Total Volatile Hydrocarbons

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8015M
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
138710-001	JW1-01	47198	03/31/99	04/03/99	04/03/99	
138710-002	JW1-02	47198	03/31/99	04/03/99	04/03/99	
138710-003	JW1-03	47198	03/31/99	04/03/99	04/03/99	

Matrix: Water

Analyte	Units	138710-001		138710-002		138710-003
Diln Fac:		1		1		1
Gasoline C7-C12	ug/L	3900	L	5200	L	<50
Surrogate						
Trifluorotoluene	%REC	933	*	762	*	110
Bromofluorobenzene	%REC	156	*	134		107

* Values outside of QC limits
L: Lighter hydrocarbons than indicated standard

Lab #: 138710 BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client:	Tetra Tech EMI	Analysis Method:	EPA 8015M
Project#:	P110604	Prep Method:	EPA 5030
Location:	JW Silveira Props		

METHOD BLANK

Matrix:	Water	Prep Date:	04/02/99
Batch#:	47198	Analysis Date:	04/02/99
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC94369

Analyte	Result
Gasoline C7-C12	<50

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	104	53-150
Bromofluorobenzene	98	53-149

Lab #: 138710 BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client:	Tetra Tech EMI	Analysis Method:	EPA 8015M
Project#:	P110604	Prep Method:	EPA 5030
Location:	JW Silveira Props		

LABORATORY CONTROL SAMPLE

Matrix:	Water	Prep Date:	04/02/99
Batch#:	47198	Analysis Date:	04/02/99
Units:	ug/L		
Diln Fac:	1		

LCS Lab ID: QC94368

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline C7-C12	1900	2000	95	77-117

Surrogate	%Rec	Limits
Trifluorotoluene	127	53-150
Bromofluorobenzene	93	53-149

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

TVH-Total Volatile Hydrocarbons

Client:	Tetra Tech EMI	Analysis Method:	EPA 8015M
Project#:	P110604	Prep Method:	EPA 5030
Location:	JW Silveira Props		

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID:	ZZZZZZ	Sample Date:	03/26/99
Lab ID:	138676-005	Received Date:	03/29/99
Matrix:	Water	Prep Date:	04/02/99
Batch#:	47198	Analysis Date:	04/02/99
Units:	ug/L		
Diln Fac:	1		

MS Lab ID: QC94370

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline C7-C12	2000	<50	1961	98	69-131

Surrogate	%Rec	Limits
Trifluorotoluene	139	53-150
Bromofluorobenzene	104	53-149

MSD Lab ID: QC94371

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline C7-C12	2000	1988	99	69-131	1	13

Surrogate	%Rec	Limits
Trifluorotoluene	140	53-150
Bromofluorobenzene	109	53-149

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

TEH-Tot Ext Hydrocarbons

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8015M
Prep Method: EPA 3520

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
138710-001	JW1-01	47268	03/31/99	04/06/99	04/08/99	
138710-002	JW1-02	47268	03/31/99	04/06/99	04/12/99	

Matrix: Water

Analyte	Units	138710-001		138710-002	
Diln Fac:		1		1	
Diesel C10-C24	ug/L	2500	YL	1500	YL
Motor Oil C24-C36	ug/L	300	YZ	<290	
Surrogate					
Hexacosane	%REC	65		58	

Y: Sample exhibits fuel pattern which does not resemble standard
Z: Sample exhibits unknown single peak or peaks
L: Lighter hydrocarbons than indicated standard

TEH-Tot Ext Hydrocarbons

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8015M
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 47268
Units: ug/L
Diln Fac: 1

Prep Date: 04/06/99
Analysis Date: 04/08/99

MB Lab ID: QC94630

Analyte	Result
Diesel C10-C24	<50
Motor Oil C24-C36	<300

Surrogate	%Rec	Recovery Limits
Hexacosane	80	58-128

TEH-Tot Ext Hydrocarbons

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8015M
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 47268
Units: ug/L
Diln Fac: 1

Prep Date: 04/06/99
Analysis Date: 04/10/99

BS Lab ID: QC94631

Analyte	Spike Added	BS	%Rec	#	Limits
Diesel C10-C24	2475	1660	67		50-114

Surrogate	%Rec	Limits
Hexacosane	67	58-128

BSD Lab ID: QC94632

Analyte	Spike Added	BSD	%Rec	#	Limits	RPD	#	Limit
Diesel C10-C24	2475	1725	70		50-114	4		25

Surrogate	%Rec	Limits
Hexacosane	66	58-128

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

Curtis & Tompkins, Ltd.

Nitrogen,Nitrate

Client: Tetra Tech EMI
Project #: P110604
Location : JW Silveira Props

Analysis Method: EPA 300.0
Prep Method: EPA 300.0

Sample #	Client ID	Batch#	Sampled	Analyzed	Moisture
138710-001	JW1-01	47179	31-MAR-99	02-APR-99	-
138710-002	JW1-02	47179	31-MAR-99	02-APR-99	-
QC94306	Method Blank	47179	-	02-APR-99	-

Analyte: Nitrogen, Nitrate **Matrix:** Water **Units:** mg/L

Sample #	Client ID		Result	Reporting Limit	Dilution Factor
138710-001	JW1-01		ND --	1.0	20
138710-002	JW1-02		ND	1.0	20
QC94306	Method Blank	ND		0.050	1

ND = None Detected at or above Reporting Limit

Curtis & Tompkins, Ltd.

Nitrogen,Nitrate

Client: Tetra Tech EMI
Project #: P110604
Location : JW Silveira Props

Analysis Method: EPA 300.0
Prep Method: EPA 300.0

Sample #	Client ID	Batch#	Sampled	Analyzed	Moisture
QC94307	Blank Spike	47179	-	02-APR-99	-
QC94308	Blank Spike Duplicate	47179	-	02-APR-99	-

Analyte: Nitrogen, Nitrate. **Matrix:** Water Units: mg/L

Sample #	Sample Type	Spike Amt.	Result	%Rec	Limits	%RPD	Limit
QC94307	Blank Spike	2.260	2.240	99	80-120		
QC94308	Blank Spike Duplicate	2.260	2.160	96	80-120	4	25

Curtis & Tompkins, Ltd.

Nitrogen,Nitrate

Client: Tetra Tech EMI
Project #: P110604
Location : JW Silveira Props

Analysis Method: EPA 300.0
Prep Method: EPA 300.0

Sample #	Client ID	Batch#	Sampled	Analyzed	Moisture
QC94309	MS of 138711-001	47179	31-MAR-99	02-APR-99	-
QC94310	MSD of 138711-001	47179	31-MAR-99	02-APR-99	-

Analyte: Nitrogen, Nitrate **Matrix:** Water **Units:** mg/L

Sample #	Client ID	Spikeamt	Result	%Rec	Limits	%RPD	Limit
QC94309	MS of 138711-001	11.30	11.14	99	75-125		
QC94310	MSD of 138711-001	11.30	11.70	104	75-125	5	35
138711-001	ZZZZZZZZ		<0.5000				

Curtis & Tompkins, Ltd.

Sulfate

Client: Tetra Tech EMI
Project #: P110604
Location : JW Silveira Props

Analysis Method: EPA 300.0
Prep Method: EPA 300.0

Sample #	Client ID	Batch#	Sampled	Analyzed	Moisture
138710-001	JW1-01	47179	31-MAR-99	02-APR-99	-
138710-002	JW1-02	47179	31-MAR-99	02-APR-99	-
QC94306	Method Blank	47179	-	02-APR-99	-

Analyte: Sulfate **Matrix:** Water **Units:** mg/L

Sample #	Client ID		Result	Reporting Limit	Dilution Factor
138710-001	JW1-01		ND	10	20
138710-002	JW1-02		ND	10	20
QC94306	Method Blank	ND		0.50	1

ND = None Detected at or above Reporting Limit

Curtis & Tompkins, Ltd.

Sulfate

Client: Tetra Tech EMI
Project #: P110604
Location : JW Silveira Props

Analysis Method: EPA 300.0
Prep Method: EPA 300.0

Sample #	Client ID	Batch#	Sampled	Analyzed	Moisture
QC94307	Blank Spike	47179	-	02-APR-99	-
QC94308	Blank Spike Duplicate	47179	-	02-APR-99	-

Analyte: Sulfate **Matrix:** Water **Units:** mg/L

Sample #	Sample Type	Spike Amt.	Result	%Rec	Limits	%RPD	Limit
QC94307	Blank Spike	15.00	14.80	99	80-120		
QC94308	Blank Spike Duplicate	15.00	14.66	98	80-120	1	25

Curtis & Tompkins, Ltd.

Sulfate

Client: Tetra Tech EMI
Project #: P110604
Location : JW Silveira Props

Analysis Method: EPA 300.0
Prep Method: EPA 300.0

Sample #	Client ID	Batch#	Sampled	Analyzed	Moisture
QC94309	MS of 138711-001	47179	01-APR-99	02-APR-99	-
QC94310	MSD of 138711-001	47179	01-APR-99	02-APR-99	-

Analyte: Sulfate **Matrix:** Water **Units:** mg/L

Sample #	Client ID	Spikeamt	Result	%Rec	Limits	%RPD	Limit
QC94309	MS of 138711-001	75.00	154.1	100	75-125		
QC94310	MSD of 138711-001	75.00	156.3	102	75-125	1	35

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900, Fax (510) 486-0532

RECEIVED
APR 28 1999
TETRA TECH EM INC.

Laboratory Number 138737

Tetra Tech EMI
135 Main Street
Suite 1800
San Francisco, CA 94105

Project#: P110604
Location: JW Silveira Props

Sample ID	Lab ID
JW2-01	138737-001
JW2-02	138737-002
JW2-03	138737-003
JW2-04	138737-004
JW1-04	138737-005
JW1-05	138737-006
JW1-06	138737-007
JW1-07	138737-008
JW1-08	138737-009

I certify that this data package has been reviewed for technical correctness and completeness. Please see attached narrative for a discussion of any analytical problems related to this sample set. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature: _____ Date: 4.27.99
Title: Operations Manager

Signature: Carol Worthan Date: 4/27/99
Title: Project Manager

Curtis & Tompkins, Ltd.

Laboratory Number: **138737**
Client: **Tetra Tech EMI**
Location: **JW Silveira Props**
Project#: **P110604**

Receipt Date: **04/01/99**

CASE NARRATIVE

This hardcopy data package contains sample and QC results for nine water samples that were received on April 1, 1999.

Volatile Organics: The TIC compounds were not included in the electronic data deliverables. There were bubbles present in the vial analyzed for JW1-08 (CT#138737-009). No analytical problems were encountered.

TPH-Purgeables/BTXE: High surrogate recoveries were observed for samples JW1-04 (CT#138737-005) and JW1-06 (CT#138737-007) due to coelution with hydrocarbon peaks. No other analytical problems were encountered.

TPH-Extractables: No analytical problems were encountered.

Wet Chemistry: Samples were diluted due to high levels of hydrocarbons present in the sample. No analytical problems were encountered.

1209

Tetra Tech EM Inc.
San Francisco Office

13873J

Chain of Custody Record

Page 1 of 1

135 Main St. Suite 1800
San Francisco, CA 94105
415-543-4880
Fax 415-543-5480

Project name: JW SILVEIRA	**PO#**	**Lab:** C&T
Project number: P110604	**TtEMI technical contact:** JACKIE LUTA	**Field samplers:** HAL DAWSON, ROY GLENN
	TtEMI project manager: HAL DAWSON	**Field samplers' signatures:**

Preservative Added: HCl | 1 | H2O | HCl | HCl | 1 | 1

No./Container Types / **Analysis Required**

Sample ID	Sample Description/Notes	Date	Time	Matrix	40 ml VOA	1 Liter Amber	1 Liter Poly	Brass Tube	Glass Jar	8oz Poly	CLP VOA	CLP SVOA	CLP Pest/PCBs	CLP Metals	TPH Purgeables	TPH Extractables	MTBE	BTEX	VOC	NITRATE	SULFATE
1 JW2-01	MS/MSD	4/1/99	0930	WATER	21										X		X	X			
2 JW2-02			1045		9										X		X	X			
3 JW2-03			1050		9										X		X	X			
4 JW2-04			1148		9										X		X	X			
5 JW1-04			1403		9	2				1					X	X	X		X	X	X
6 JW1-05			1440		9	2				1					X	X	X		X	X	X
7 JW1-06			1615		9	2				1					X	X	X		X	X	X
8 JW1-07			1645		9	2				1					X	X	X		X	X	X
9 JW1-08			1700		5										X		X		X		
TRIP BLK										HOLD											

	Name (print)	Company Name	Date	Time
Relinquished by:	ROY GLENN	TtEMI	4-1-99	1850
Received by:	J.W. Fitz	C&T	4/1/99	1851
Relinquished by:				
Received by:				
Relinquished by:				
Received by:				
Relinquished by:				
Received by:				

Turnaround time/remarks:

5

WHITE–Laboratory Copy YELLOW–Project Office Copy

JW Sweden

COOLER RECEIPT CHECKLIST

Login#: 138737 Date Received: 4/1 Number of Coolers: 2
Client: TENI Project: P110604

A. Preliminary Examination Phase
Date Opened: 4/1 By (print): [illegible] (sign) [illegible]

1. Did cooler come with a shipping slip (airbill, etc.)? YES (NO)
If YES, enter carrier name and airbill number:
2. Were custody seals on outside of cooler? YES (NO)
How many and where? Seal date: Seal name:
3. Were custody seals unbroken and intact at the date and time of arrival? YES NO NA
4. Were custody papers dry and intact when received? (YES) NO
5. Were custody papers filled out properly (ink, signed, etc.)? (YES) NO
6. Did you sign the custody papers in the appropriate place? (YES) NO
7. Was project identifiable from custody papers? (YES) NO
If YES, enter project name at the top of this form.
8. If required, was sufficient ice used? (YES) NO
Type of ice: Wet Temperature: 5.0°C ; 5.0°C

B. Login Phase
Date Logged In: 4/1 By (print): [illegible] (sign) [illegible]

1. Describe type of packing in cooler:
2. Did all bottles arrive unbroken? (YES) NO
3. Were labels in good condition and complete (ID, date, time, signature, etc.)? (YES) NO
4. Did bottle labels agree with custody papers? (YES) NO ORG
5. Were appropriate containers used for the tests indicated? (YES) NO
6. Were correct preservatives added to samples? (YES) NO
7. Was sufficient amount of sample sent for tests indicated? (YES) NO
8. Were bubbles absent in VOA samples? If NO, list sample Ids below. (YES) NO
9. Was the client contacted concerning this sample delivery? YES NO
If YES, give details below.
Who was called? By whom? Date:

Additional Comments:
~~Bubbles before 0.5 mL~~ JW

Volatile Organics by GC/MS

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: JW1-04
Lab ID: 138737-005
Matrix: Water
Batch#: 47202
Units: ug/L
Diln Fac: 1

Sampled: 04/01/99
Received: 04/01/99
Extracted: 04/02/99
Analyzed: 04/02/99

Analyte	Result		Reporting Limit
Freon 12	ND	--	10
Chloromethane	ND		1.0
Vinyl Chloride	ND		1.0
Bromomethane	ND		1.0
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		5.0
Acetone	ND		10
Freon 113	ND		5.0
1,1-Dichloroethene	ND		0.5
Methylene Chloride	ND		5.0
Carbon Disulfide	ND		0.5
MTBE	ND		0.5
trans-1,2-Dichloroethene	3.3		0.5
Vinyl Acetate	ND		10
1,1-Dichloroethane	ND		0.5
2-Butanone	ND		10
cis-1,2-Dichloroethene	ND		0.5
2,2-Dichloropropane	ND		5.0
Chloroform	ND		0.5
Bromochloromethane	ND		10
1,1,1-Trichloroethane	ND		0.5
1,1-Dichloropropene	ND		5.0
Carbon Tetrachloride	ND		0.5
1,2-Dichloroethane	ND		0.5
Benzene	73		0.5
Trichloroethene	6.7		0.5
1,2-Dichloropropane	ND		0.5
Bromodichloromethane	ND		0.5
Dibromomethane	ND		5.0
4-Methyl-2-Pentanone	ND		10
cis-1,3-Dichloropropene	ND		0.5
Toluene	7.0		0.5
trans-1,3-Dichloropropene	ND		0.5
1,1,2-Trichloroethane	ND		0.5
2-Hexanone	ND		10
1,3-Dichloropropane	ND		5.0
Tetrachloroethene	ND		0.5
Dibromochloromethane	ND		0.5

Volatile Organics by GC/MS

Field ID:	JW1-04	Sampled:	04/01/99
Lab ID:	138737-005	Received:	04/01/99
Matrix:	Water	Extracted:	04/02/99
Batch#:	47202	Analyzed:	04/02/99
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	29	0.5
m,p-Xylenes	6.3	0.5
o-Xylene	0.7	0.5
Styrene	ND	0.5
Bromoform	ND	0.5
Isopropylbenzene	41	5.0
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	45	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	12	5.0
para-Isopropyl Toluene	18	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	17	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	3.4 J	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%Recovery	Recovery Limits
Dibromofluoromethane	94	81-121
1,2-Dichloroethane-d4	96	76-127
Toluene-d8	103	90-109
Bromofluorobenzene	98	82-118

J: Estimated Value

Volatile Organics by GC/MS

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: JW1-05
Lab ID: 138737-006
Matrix: Water
Batch#: 47224
Units: ug/L
Diln Fac: 8.333

Sampled: 04/01/99
Received: 04/01/99
Extracted: 04/04/99
Analyzed: 04/04/99

Analyte	Result	Reporting Limit
Freon 12	ND	83
Chloromethane	ND	8.3
Vinyl Chloride	ND	8.3
Bromomethane	ND	8.3
Chloroethane	ND	8.3
Trichlorofluoromethane	ND	42
Acetone	ND	83
Freon 113	ND	42
1,1-Dichloroethene	ND	4.2
Methylene Chloride	ND	42
Carbon Disulfide	ND	4.2
MTBE	ND	4.2
trans-1,2-Dichloroethene	ND	4.2
Vinyl Acetate	ND	83
1,1-Dichloroethane	ND	4.2
2-Butanone	ND	83
cis-1,2-Dichloroethene	ND	4.2
2,2-Dichloropropane	ND	42
Chloroform	ND	4.2
Bromochloromethane	ND	83
1,1,1-Trichloroethane	ND	4.2
1,1-Dichloropropene	ND	42
Carbon Tetrachloride	ND	4.2
1,2-Dichloroethane	ND	4.2
Benzene	1300	4.2
Trichloroethene	20	4.2
1,2-Dichloropropane	ND	4.2
Bromodichloromethane	ND	4.2
Dibromomethane	ND	42
4-Methyl-2-Pentanone	ND	83
cis-1,3-Dichloropropene	ND	4.2
Toluene	30	4.2
trans-1,3-Dichloropropene	ND	4.2
1,1,2-Trichloroethane	ND	4.2
2-Hexanone	ND	83
1,3-Dichloropropane	ND	42
Tetrachloroethene	ND	4.2
Dibromochloromethane	ND	4.2

Volatile Organics by GC/MS

Field ID:	JW1-05	Sampled:	04/01/99
Lab ID:	138737-006	Received:	04/01/99
Matrix:	Water	Extracted:	04/04/99
Batch#:	47224	Analyzed:	04/04/99
Units:	ug/L		
Diln Fac:	8.333		

Analyte	Result		Reporting Limit
1,2-Dibromoethane	ND		42
Chlorobenzene	ND		4.2
1,1,1,2-Tetrachloroethane	ND		42
Ethylbenzene	93	--	4.2
m,p-Xylenes	36		4.2
o-Xylene	ND		4.2
Styrene	ND		4.2
Bromoform	ND		4.2
Isopropylbenzene	ND		42
1,1,2,2-Tetrachloroethane	ND		4.2
1,2,3-Trichloropropane	ND		42
Propylbenzene	ND		42
Bromobenzene	ND		42
1,3,5-Trimethylbenzene	ND		42
2-Chlorotoluene	ND		42
4-Chlorotoluene	ND		42
tert-Butylbenzene	ND		42
1,2,4-Trimethylbenzene	ND		42
sec-Butylbenzene	ND		42
para-Isopropyl Toluene	ND		42
1,3-Dichlorobenzene	ND		42
1,4-Dichlorobenzene	ND		42
n-Butylbenzene	ND		42
1,2-Dichlorobenzene	ND		42
1,2-Dibromo-3-Chloropropane	ND		42
1,2,4-Trichlorobenzene	ND		42
Hexachlorobutadiene	ND		42
Naphthalene	ND		42
1,2,3-Trichlorobenzene	ND		42

Surrogate	%Recovery	Recovery Limits
Dibromofluoromethane	96	81-121
1,2-Dichloroethane-d4	102	76-127
Toluene-d8	106	90-109
Bromofluorobenzene	95	82-118

Volatile Organics by GC/MS

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: JW1-06
Lab ID: 138737-007
Matrix: Water
Batch#: 47224
Units: ug/L
Diln Fac: 2.5

Sampled: 04/01/99
Received: 04/01/99
Extracted: 04/05/99
Analyzed: 04/05/99

Analyte	Result	Reporting Limit
Freon 12	ND	25
Chloromethane	ND	2.5
Vinyl Chloride	ND	2.5
Bromomethane	ND	2.5
Chloroethane	ND	2.5
Trichlorofluoromethane	ND	13
Acetone	ND	25
Freon 113	ND	13
1,1-Dichloroethene	ND	1.3
Methylene Chloride	ND	13
Carbon Disulfide	ND	1.3
MTBE	ND	1.3
trans-1,2-Dichloroethene	21	1.3
Vinyl Acetate	ND	25
1,1-Dichloroethane	ND	1.3
2-Butanone	ND	25
cis-1,2-Dichloroethene	72	1.3
2,2-Dichloropropane	ND	13
Chloroform	ND	1.3
Bromochloromethane	ND	25
1,1,1-Trichloroethane	ND	1.3
1,1-Dichloropropene	ND	13
Carbon Tetrachloride	ND	1.3
1,2-Dichloroethane	ND	1.3
Benzene	280	1.3
Trichloroethene	75	1.3
1,2-Dichloropropane	ND	1.3
Bromodichloromethane	ND	1.3
Dibromomethane	ND	13
4-Methyl-2-Pentanone	ND	25
cis-1,3-Dichloropropene	ND	1.3
Toluene	4.4	1.3
trans-1,3-Dichloropropene	ND	1.3
1,1,2-Trichloroethane	ND	1.3
2-Hexanone	ND	25
1,3-Dichloropropane	ND	13
Tetrachloroethene	ND	1.3
Dibromochloromethane	ND	1.3

Volatile Organics by GC/MS

Field ID:	JW1-06	Sampled:	04/01/99
Lab ID:	138737-007	Received:	04/01/99
Matrix:	Water	Extracted:	04/05/99
Batch#:	47224	Analyzed:	04/05/99
Units:	ug/L		
Diln Fac:	2.5		

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	13
Chlorobenzene	ND	1.3
1,1,1,2-Tetrachloroethane	ND	13
Ethylbenzene	66	1.3
m,p-Xylenes	6.4	1.3
o-Xylene	1.3	1.3
Styrene	ND	1.3
Bromoform	ND	1.3
Isopropylbenzene	17	13
1,1,2,2-Tetrachloroethane	ND	1.3
1,2,3-Trichloropropane	ND	13
Propylbenzene	15	13
Bromobenzene	ND	13
1,3,5-Trimethylbenzene	ND	13
2-Chlorotoluene	ND	13
4-Chlorotoluene	ND	13
tert-Butylbenzene	ND	13
1,2,4-Trimethylbenzene	ND	13
sec-Butylbenzene	ND	13
para-Isopropyl Toluene	ND	13
1,3-Dichlorobenzene	ND	13
1,4-Dichlorobenzene	ND	13
n-Butylbenzene	ND	13
1,2-Dichlorobenzene	ND	13
1,2-Dibromo-3-Chloropropane	ND	13
1,2,4-Trichlorobenzene	ND	13
Hexachlorobutadiene	ND	13
Naphthalene	ND	13
1,2,3-Trichlorobenzene	ND	13

Surrogate	%Recovery	Recovery Limits
Dibromofluoromethane	93	81-121
1,2-Dichloroethane-d4	96	76-127
Toluene-d8	104	90-109
Bromofluorobenzene	97	82-118

Volatile Organics by GC/MS

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: JW1-07
Lab ID: 138737-008
Matrix: Water
Batch#: 47224
Units: ug/L
Diln Fac: 8.333

Sampled: 04/01/99
Received: 04/01/99
Extracted: 04/05/99
Analyzed: 04/05/99

Analyte	Result	Reporting Limit
Freon 12	ND	83
Chloromethane	ND	8.3
Vinyl Chloride	ND	8.3
Bromomethane	ND	8.3
Chloroethane	ND	8.3
Trichlorofluoromethane	ND	42
Acetone	ND	83
Freon 113	ND	42
1,1-Dichloroethene	ND	4.2
Methylene Chloride	ND	42
Carbon Disulfide	ND	4.2
MTBE	ND	4.2
trans-1,2-Dichloroethene	ND	4.2
Vinyl Acetate	ND	83
1,1-Dichloroethane	ND	4.2
2-Butanone	ND	83
cis-1,2-Dichloroethene	ND	4.2
2,2-Dichloropropane	ND	42
Chloroform	ND	4.2
Bromochloromethane	ND	83
1,1,1-Trichloroethane	ND	4.2
1,1-Dichloropropene	ND	42
Carbon Tetrachloride	ND	4.2
1,2-Dichloroethane	ND	4.2
Benzene	1100	4.2
Trichloroethene	ND	4.2
1,2-Dichloropropane	ND	4.2
Bromodichloromethane	ND	4.2
Dibromomethane	ND	42
4-Methyl-2-Pentanone	ND	83
cis-1,3-Dichloropropene	ND	4.2
Toluene	100	4.2
trans-1,3-Dichloropropene	ND	4.2
1,1,2-Trichloroethane	ND	4.2
2-Hexanone	ND	83
1,3-Dichloropropane	ND	42
Tetrachloroethene	ND	4.2
Dibromochloromethane	ND	4.2

Volatile Organics by GC/MS

Field ID:	JW1-07	Sampled:	04/01/99
Lab ID:	138737-008	Received:	04/01/99
Matrix:	Water	Extracted:	04/05/99
Batch#:	47224	Analyzed:	04/05/99
Units:	ug/L		
Diln Fac:	8.333		

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	42
Chlorobenzene	5.2	4.2
1,1,1,2-Tetrachloroethane	ND	42
Ethylbenzene	540	4.2
m,p-Xylenes	370	4.2
o-Xylene	38	4.2
Styrene	ND	4.2
Bromoform	ND	4.2
Isopropylbenzene	50	42
1,1,2,2-Tetrachloroethane	ND	4.2
1,2,3-Trichloropropane	ND	42
Propylbenzene	86	42
Bromobenzene	ND	42
1,3,5-Trimethylbenzene	120	42
2-Chlorotoluene	ND	42
4-Chlorotoluene	ND	42
tert-Butylbenzene	ND	42
1,2,4-Trimethylbenzene	200	42
sec-Butylbenzene	ND	42
para-Isopropyl Toluene	22 J	42
1,3-Dichlorobenzene	ND	42
1,4-Dichlorobenzene	ND	42
n-Butylbenzene	39 J	42
1,2-Dichlorobenzene	ND	42
1,2-Dibromo-3-Chloropropane	ND	42
1,2,4-Trichlorobenzene	ND	42
Hexachlorobutadiene	ND	42
Naphthalene	570	42
1,2,3-Trichlorobenzene	ND	42

Surrogate	%Recovery	Recovery Limits
Dibromofluoromethane	94	81-121
1,2-Dichloroethane-d4	101	76-127
Toluene-d8	106	90-109
Bromofluorobenzene	97	82-118

J: Estimated Value

Volatile Organics by GC/MS

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: JW1-08
Lab ID: 138737-009
Matrix: Water
Batch#: 47202
Units: ug/L
Diln Fac: 1

Sampled: 04/01/99
Received: 04/01/99
Extracted: 04/02/99
Analyzed: 04/02/99

Analyte	Result		Reporting Limit
Freon 12	ND	--	10
Chloromethane	ND		1.0
Vinyl Chloride	ND		1.0
Bromomethane	ND		1.0
Chloroethane	ND		1.0
Trichlorofluoromethane	ND		5.0
Acetone	ND		10
Freon 113	ND		5.0
1,1-Dichloroethene	ND		0.5
Methylene Chloride	ND		5.0
Carbon Disulfide	ND		0.5
MTBE	ND		0.5
trans-1,2-Dichloroethene	ND		0.5
Vinyl Acetate	ND		10
1,1-Dichloroethane	ND		0.5
2-Butanone	ND		10
cis-1,2-Dichloroethene	ND		0.5
2,2-Dichloropropane	ND		5.0
Chloroform	ND		0.5
Bromochloromethane	ND		10
1,1,1-Trichloroethane	ND		0.5
1,1-Dichloropropene	ND		5.0
Carbon Tetrachloride	ND		0.5
1,2-Dichloroethane	ND		0.5
Benzene	ND		0.5
Trichloroethene	ND		0.5
1,2-Dichloropropane	ND		0.5
Bromodichloromethane	ND		0.5
Dibromomethane	ND		5.0
4-Methyl-2-Pentanone	ND		10
cis-1,3-Dichloropropene	ND		0.5
Toluene	ND		0.5
trans-1,3-Dichloropropene	ND		0.5
1,1,2-Trichloroethane	ND		0.5
2-Hexanone	ND		10
1,3-Dichloropropane	ND		5.0
Tetrachloroethene	ND		0.5
Dibromochloromethane	ND		0.5

Volatile Organics by GC/MS

Field ID:	JW1-08	Sampled:	04/01/99
Lab ID:	138737-009	Received:	04/01/99
Matrix:	Water	Extracted:	04/02/99
Batch#:	47202	Analyzed:	04/02/99
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	0.5
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%Recovery	Recovery Limits
Dibromofluoromethane	95	81-121
1,2-Dichloroethane-d4	99	76-127
Toluene-d8	106	90-109
Bromofluorobenzene	99	82-118

EPA 8260 Volatile Organics

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 47202
Units: ug/L
Diln Fac: 1

Prep Date: 04/02/99
Analysis Date: 04/02/99

MB Lab ID: QC94388

Analyte	Result	-- Reporting Limit
Freon 12	ND	10
Chloromethane	ND	1.0
Vinyl Chloride	ND	1.0
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	5.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	5.0
Chloroform	ND	0.5
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5

EPA 8260 Volatile Organics

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 47202
Units: ug/L
Diln Fac: 1

Prep Date: 04/02/99
Analysis Date: 04/02/99

MB Lab ID: QC94388

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	0.5
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%Rec	Recovery Limits
Dibromofluoromethane	96	81-121
1,2-Dichloroethane-d4	97	76-127
Toluene-d8	104	90-109
Bromofluorobenzene	99	82-118

Curtis & Tompkins, Ltd.

EPA 8260 Volatile Organics

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 47224
Units: ug/L
Diln Fac: 1

Prep Date: 04/04/99
Analysis Date: 04/04/99

MB Lab ID: QC94475

Analyte	Result	Reporting Limit
Freon 12	ND	10
Chloromethane	ND	1.0
Vinyl Chloride	ND	1.0
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	5.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	5.0
Chloroform	ND	0.5
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5

EPA 8260 Volatile Organics

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 47224
Units: ug/L
Diln Fac: 1

Prep Date: 04/04/99
Analysis Date: 04/04/99

MB Lab ID: QC94475

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	0.5
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%Rec	Recovery Limits
Dibromofluoromethane	94	81-121
1,2-Dichloroethane-d4	99	76-127
Toluene-d8	105	90-109
Bromofluorobenzene	98	82-118

EPA 8260 Volatile Organics

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 47224
Units: ug/L
Diln Fac: 1

Prep Date: 04/04/99
Analysis Date: 04/04/99

MB Lab ID: QC94476

Analyte	Result	Reporting Limit
Freon 12	ND	10
Chloromethane	ND	1.0
Vinyl Chloride	ND	1.0
Bromomethane	ND	1.0
Chloroethane	ND	1.0
Trichlorofluoromethane	ND	5.0
Acetone	ND	10
Freon 113	ND	5.0
1,1-Dichloroethene	ND	0.5
Methylene Chloride	ND	5.0
Carbon Disulfide	ND	0.5
MTBE	ND	0.5
trans-1,2-Dichloroethene	ND	0.5
Vinyl Acetate	ND	10
1,1-Dichloroethane	ND	0.5
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	0.5
2,2-Dichloropropane	ND	5.0
Chloroform	ND	0.5
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	0.5
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Trichloroethene	ND	0.5
1,2-Dichloropropane	ND	0.5
Bromodichloromethane	ND	0.5
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	0.5
Toluene	ND	0.5
trans-1,3-Dichloropropene	ND	0.5
1,1,2-Trichloroethane	ND	0.5
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	0.5
Dibromochloromethane	ND	0.5

EPA 8260 Volatile Organics

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 47224
Units: ug/L
Diln Fac: 1

Prep Date: 04/04/99
Analysis Date: 04/04/99

MB Lab ID: QC94476

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	0.5
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5
Styrene	ND	0.5
Bromoform	ND	0.5
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	0.5
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%Rec	Recovery Limits
Dibromofluoromethane	97	81-121
1,2-Dichloroethane-d4	102	76-127
Toluene-d8	104	90-109
Bromofluorobenzene	95	82-118

Lab #: 138737

BATCH QC REPORT

Curtis & Tompkins, Ltd.

EPA 8260 Volatile Organics

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8260
Prep Method: EPA 5030

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 47202
Units: ug/L
Diln Fac: 1

Prep Date: 04/02/99
Analysis Date: 04/02/99

BS Lab ID: QC94386

Analyte	Spike Added	BS	%Rec	#	Limits
1,1-Dichloroethene	50	53.46	107		64-139
Benzene	50	51.79	104		71-127
Trichloroethene	50	54.09	108		72-129
Toluene	50	57.3	115	.	73-129
Chlorobenzene	50	53.56	107		77-126

Surrogate	%Rec	Limits
Dibromofluoromethane	93	81-121
1,2-Dichloroethane-d4	97	76-127
Toluene-d8	105	90-109
Bromofluorobenzene	96	82-118

BSD Lab ID: QC94387

Analyte	Spike Added	BSD	%Rec	#	Limits	RPD	#	Limit
1,1-Dichloroethene	50	50.92	102		64-139	5		13
Benzene	50	49.38	99		71-127	5		10
Trichloroethene	50	50.75	102		72-129	6		10
Toluene	50	54.58	109		73-129	5		10
Chlorobenzene	50	51.32	103		77-126	4		10

Surrogate	%Rec	Limits
Dibromofluoromethane	95	81-121
1,2-Dichloroethane-d4	96	76-127
Toluene-d8	105	90-109
Bromofluorobenzene	96	82-118

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

Lab #: 138737 BATCH QC REPORT

Curtis & Tompkins, Ltd.

EPA 8260 Volatile Organics

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8260
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 47224
Units: ug/L
Diln Fac: 1

Prep Date: 04/04/99
Analysis Date: 04/04/99

LCS Lab ID: QC94474

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	51.24	50	102	64-139
Benzene	49.92	50	100	71-127
Trichloroethene	51.54	50	103	72-129
Toluene	54.31	50	109	73-129
Chlorobenzene	52.35	50	105	77-126

Surrogate	%Rec	Limits
Dibromofluoromethane	94	81-121
1,2-Dichloroethane-d4	97	76-127
Toluene-d8	104	90-109
Bromofluorobenzene	95	82-118

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 5 outside limits

EPA 8260 Volatile Organics

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8260A
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 138751-001
Matrix: Water
Batch#: 47224
Units: ug/L
Diln Fac: 1

Sample Date: 04/02/99
Received Date: 04/02/99
Prep Date: 04/04/99
Analysis Date: 04/04/99

MS Lab ID: QC94477

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	<0.5	50.48	101	59-144
Benzene	50	<0.5	49.98	100	67-128
Trichloroethene	50	1.513	53.09	103	61-136
Toluene	50	<0.5	54.99	110	72-126
Chlorobenzene	50	<0.5	52.77	106	78-122

Surrogate	%Rec	Limits
Dibromofluoromethane	92	81-121
1,2-Dichloroethane-d4	97	76-127
Toluene-d8	105	90-109
Bromofluorobenzene	96	82-118

MSD Lab ID: QC94478

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	50.64	101	59-144	0	13
Benzene	50	49.98	100	67-128	0	10
Trichloroethene	50	53.7	104	61-136	1	10
Toluene	50	55.21	110	72-126	0	10
Chlorobenzene	50	52.43	105	78-122	1	10

Surrogate	%Rec	Limits
Dibromofluoromethane	94	81-121
1,2-Dichloroethane-d4	100	76-127
Toluene-d8	106	90-109
Bromofluorobenzene	97	82-118

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

TVH-Total Volatile Hydrocarbons

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8015M
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
138737-001	JW2-01	47225	04/01/99	04/06/99	04/06/99	
138737-002	JW2-02	47248	04/01/99	04/06/99	04/06/99	
138737-003	JW2-03	47248	04/01/99	04/06/99	04/06/99	
138737-004	JW2-04	47225	04/01/99	04/06/99	04/06/99	

Matrix: Water

Analyte Diln Fac:	Units	138737-001 1	138737-002 20	138737-003 20	138737-004 1
Gasoline C7-C12	ug/L	<50	13000	14000	<50
Surrogate					
Trifluorotoluene	%REC	87	102	102	86
Bromofluorobenzene	%REC	86	114	110	85

BTXE

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8021B
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
138737-001	JW2-01	47344	04/01/99	04/09/99	04/09/99	
138737-002	JW2-02	47248	04/01/99	04/06/99	04/06/99	
138737-003	JW2-03	47248	04/01/99	04/06/99	04/06/99	
138737-004	JW2-04	47344	04/01/99	04/09/99	04/09/99	

Matrix: Water

Analyte Diln Fac:	Units	138737-001 1	138737-002 20	138737-003 20	138737-004 1
MTBE	ug/L	<2	100	120	<2
Benzene	ug/L	<0.5	2400	2600	<0.5
Toluene	ug/L	<0.5	310	340	<0.5
Ethylbenzene	ug/L	<0.5	520	560	<0.5
m,p-Xylenes	ug/L	<0.5	1600	1600	<0.5
o-Xylene	ug/L	<0.5	590	620	<0.5
Surrogate					
Trifluorotoluene	%REC	106	96	95	103
Bromofluorobenzene	%REC	104	100	95	105

TVH-Total Volatile Hydrocarbons

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8015M
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
138737-005	JW1-04	47228	04/01/99	04/05/99	04/05/99	
138737-006	JW1-05	47344	04/01/99	04/10/99	04/10/99	
138737-007	JW1-06	47228	04/01/99	04/05/99	04/05/99	
138737-008	JW1-07	47344	04/01/99	04/10/99	04/10/99	

Matrix: Water

Analyte Diln Fac:	Units	138737-005 1		138737-006 5	138737-007 1		138737-008 5
Gasoline C7-C12	ug/L	5600	YL	4100	4000	YL	7200
Surrogate							
Trifluorotoluene	%REC	1028	*	111	630	*	98
Bromofluorobenzene	%REC	151	*	123	158	*	109

* Values outside of QC limits
Y: Sample exhibits fuel pattern which does not resemble standard
L: Lighter hydrocarbons than indicated standard

TVH-Total Volatile Hydrocarbons

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8015M
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
138737-009	JW1-08	47228	04/01/99	04/05/99	04/05/99	

Matrix: Water

Analyte	Units	138737-009
Diln Fac:		1
Gasoline C7-C12	ug/L	<50
Surrogate		
Trifluorotoluene	%REC	121
Bromofluorobenzene	%REC	115

TVH-Total Volatile Hydrocarbons

Client:	Tetra Tech EMI	Analysis Method:	EPA 8015M
Project#:	P110604	Prep Method:	EPA 5030
Location:	JW Silveira Props		

METHOD BLANK

Matrix:	Water	Prep Date:	04/05/99
Batch#:	47225	Analysis Date:	04/05/99
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC94480

Analyte	Result
Gasoline C7-C12	<50

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	95	53-150
Bromofluorobenzene	95	53-149

TVH-Total Volatile Hydrocarbons

Client:	Tetra Tech EMI	Analysis Method:	EPA 8015M
Project#:	P110604	Prep Method:	EPA 5030
Location:	JW Silveira Props		

METHOD BLANK

Matrix:	Water	Prep Date:	04/05/99
Batch#:	47228	Analysis Date:	04/05/99
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC94495

Analyte	Result
Gasoline C7-C12	<50

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	116	53-150
Bromofluorobenzene	108	53-149

Lab #: 138737

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client:	Tetra Tech EMI	Analysis Method:	EPA 8015M
Project#:	P110604	Prep Method:	EPA 5030
Location:	JW Silveira Props		

METHOD BLANK

Matrix:	Water	Prep Date:	04/06/99
Batch#:	47248	Analysis Date:	04/06/99
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC94574

Analyte	Result
Gasoline C7-C12	<50

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	101	53-150
Bromofluorobenzene	97	53-149

BTXE	
Client: Tetra Tech EMI	Analysis Method: EPA 8021B
Project#: P110604	Prep Method: EPA 5030
Location: JW Silveira Props	

METHOD BLANK	
Matrix: Water	Prep Date: 04/06/99
Batch#: 47248	Analysis Date: 04/06/99
Units: ug/L	
Diln Fac: 1	

MB Lab ID: QC94574

Analyte	Result
MTBE	<2.0
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
m,p-Xylenes	<0.5
o-Xylene	<0.5

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	89	51-143
Bromofluorobenzene	90	37-146

TVH-Total Volatile Hydrocarbons

Client:	Tetra Tech EMI	Analysis Method:	EPA 8015M
Project#:	P110604	Prep Method:	EPA 5030
Location:	JW Silveira Props		

METHOD BLANK

Matrix:	Water	Prep Date:	04/09/99
Batch#:	47344	Analysis Date:	04/09/99
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC94937

Analyte	Result
Gasoline C7-C12	<50

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	106	53-150
Bromofluorobenzene	92	53-149

BTXE

Client:	Tetra Tech EMI	Analysis Method:	EPA 8021B
Project#:	P110604	Prep Method:	EPA 5030
Location:	JW Silveira Props		

METHOD BLANK

Matrix:	Water	Prep Date:	04/09/99
Batch#:	47344	Analysis Date:	04/09/99
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC94937

Analyte	Result
MTBE	<2.0
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
m,p-Xylenes	<0.5
o-Xylene	<0.5

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	108	51-143
Bromofluorobenzene	104	37-146

Lab #: 138737 BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8015M
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 47225
Units: ug/L
Diln Fac: 1

Prep Date: 04/05/99
Analysis Date: 04/05/99

LCS Lab ID: QC94479

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline C7-C12	1732	2000	87	77-117

Surrogate	%Rec	Limits
Trifluorotoluene	105	53-150
Bromofluorobenzene	112	53-149

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Lab #: 138737

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client:	Tetra Tech EMI	Analysis Method:	EPA 8015M
Project#:	P110604	Prep Method:	EPA 5030
Location:	JW Silveira Props		

LABORATORY CONTROL SAMPLE

Matrix:	Water	Prep Date:	04/05/99
Batch#:	47228	Analysis Date:	04/05/99
Units:	ug/L		
Diln Fac:	1		

LCS Lab ID: QC94494

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline C7-C12	1939	2000	97	77-117

Surrogate	%Rec	Limits
Trifluorotoluene	142	53-150
Bromofluorobenzene	110	53-149

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Lab #: 138737

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client:	Tetra Tech EMI	Analysis Method:	EPA 8015M
Project#:	P110604	Prep Method:	EPA 5030
Location:	JW Silveira Props		

LABORATORY CONTROL SAMPLE

Matrix:	Water	Prep Date:	04/06/99
Batch#:	47248	Analysis Date:	04/06/99
Units:	ug/L		
Diln Fac:	1		

LCS Lab ID: QC94572

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline C7-C12	1744	2000	87	77-117

Surrogate	%Rec	Limits
Trifluorotoluene	99	53-150
Bromofluorobenzene	105	53-149

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Lab #: 138737 BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8021B
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 47248
Units: ug/L
Diln Fac: 1

Prep Date: 04/06/99
Analysis Date: 04/06/99

LCS Lab ID: QC94573

Analyte	Result	Spike Added	%Rec #	Limits
MTBE	17.14	20	86	66-126
Benzene	20.04	20	100	65-111
Toluene	21.01	20	105	76-117
Ethylbenzene	20.93	20	105	71-121
m,p-Xylenes	42.89	40	107	80-123
o-Xylene	21.2	20	106	75-127

Surrogate	%Rec	Limits
Trifluorotoluene	93	51-143
Bromofluorobenzene	93	37-146

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 6 outside limits

Lab #: 138737

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client:	Tetra Tech EMI	Analysis Method:	EPA 8015M
Project#:	P110604	Prep Method:	EPA 5030
Location:	JW Silveira Props		

LABORATORY CONTROL SAMPLE

Matrix:	Water	Prep Date:	04/09/99
Batch#:	47344	Analysis Date:	04/09/99
Units:	ug/L		
Diln Fac:	1		

LCS Lab ID: QC94934

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline C7-C12	2004	2000	100	77-117

Surrogate	%Rec	Limits
Trifluorotoluene	95	53-150
Bromofluorobenzene	108	53-149

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

BTXE

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8021B
Prep Method: EPA 5030

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 47344
Units: ug/L
Diln Fac: 1

Prep Date: 04/09/99
Analysis Date: 04/09/99

BS Lab ID: QC94935

Analyte	Spike Added	BS	%Rec #	Limits
MTBE	20	17.84	89	66-126
Benzene	20	18.91	95	65-111
Toluene	20	18.4	92	76-117
Ethylbenzene	20	17.79	89	71-121
m,p-Xylenes	40	37.25	93	80-123
o-Xylene	20	18.86	94	75-127

Surrogate	%Rec	Limits
Trifluorotoluene	110	51-143
Bromofluorobenzene	103	37-146

BSD Lab ID: QC94936

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
MTBE	20	16.35	82	66-126	9	12
Benzene	20	17.17	86	65-111	10	10
Toluene	20	17.75	89	76-117	4	10
Ethylbenzene	20	17.28	86	71-121	3	11
m,p-Xylenes	40	35.89	90	80-123	4	10
o-Xylene	20	18.36	92	75-127	3	11

Surrogate	%Rec	Limits
Trifluorotoluene	109	51-143
Bromofluorobenzene	102	37-146

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

TVH-Total Volatile Hydrocarbons

Client:	Tetra Tech EMI	Analysis Method:	EPA 8015M
Project#:	P110604	Prep Method:	EPA 5030
Location:	JW Silveira Props		

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID:	JW2-01	Sample Date:	04/01/99
Lab ID:	138737-001	Received Date:	04/01/99
Matrix:	Water	Prep Date:	04/05/99
Batch#:	47225	Analysis Date:	04/05/99
Units:	ug/L		
Diln Fac:	1		

MS Lab ID: QC94483

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline C7-C12	2000	<50	1901	95	69-131

Surrogate	%Rec	Limits
Trifluorotoluene	106	53-150
Bromofluorobenzene	118	53-149

MSD Lab ID: QC94484

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline C7-C12	2000	1788	89	69-131	6	13

Surrogate	%Rec	Limits
Trifluorotoluene	61	53-150
Bromofluorobenzene	72	53-149

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

Lab #: 138737 BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client:	Tetra Tech EMI	Analysis Method:	EPA 8015M
Project#:	P110604	Prep Method:	EPA 5030
Location:	JW Silveira Props		

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID:	ZZZZZZ	Sample Date:	03/31/99
Lab ID:	138703-021	Received Date:	03/31/99
Matrix:	Water	Prep Date:	04/05/99
Batch#:	47228	Analysis Date:	04/05/99
Units:	ug/L		
Diln Fac:	1		

MS Lab ID: QC94496

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline C7-C12	2000	<50	1873	94	69-131

Surrogate	%Rec	Limits
Trifluorotoluene	148	53-150
Bromofluorobenzene	117	53-149

MSD Lab ID: QC94497

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline C7-C12	2000	1851	93	69-131	1	13

Surrogate	%Rec	Limits
Trifluorotoluene	147	53-150
Bromofluorobenzene	115	53-149

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

Lab #: 138737 BATCH QC REPORT

Curtis & Tompkins, Ltd.
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BTXE	
Client: Tetra Tech EMI	Analysis Method: EPA 8021B
Project#: P110604	Prep Method: EPA 5030
Location: JW Silveira Props	

MATRIX SPIKE/MATRIX SPIKE DUPLICATE	
Field ID: ZZZZZZ	Sample Date: 03/30/99
Lab ID: 138712-003	Received Date: 04/01/99
Matrix: Water	Prep Date: 04/07/99
Batch#: 47248	Analysis Date: 04/07/99
Units: ug/L	
Diln Fac: 1	

MS Lab ID: QC94575

Analyte	Spike Added	Sample	MS	%Rec #	Limits
MTBE	20	<2	18.55	93	49-136
Benzene	20	<0.5	20.55	103	55-122
Toluene	20	<0.5	21.33	107	63-139
Ethylbenzene	20	<0.5	21.19	106	61-137
m,p-Xylenes	40	<0.5	42.56	106	57-148
o-Xylene	20	<0.5	21.74	109	70-141

Surrogate	%Rec	Limits
Trifluorotoluene	96	51-143
Bromofluorobenzene	99	37-146

MSD Lab ID: QC94576

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
MTBE	20	18.39	92	49-136	1	11
Benzene	20	21.16	106	55-122	3	10
Toluene	20	21.98	110	63-139	3	10
Ethylbenzene	20	21.85	109	61-137	3	10
m,p-Xylenes	40	44.06	110	57-148	3	10
o-Xylene	20	22.33	112	70-141	3	10

Surrogate	%Rec	Limits
Trifluorotoluene	97	51-143
Bromofluorobenzene	100	37-146

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

Lab #: 138737 BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8015M
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 138834-007
Matrix: Water
Batch#: 47344
Units: ug/L
Diln Fac: 1

Sample Date: 04/07/99
Received Date: 04/08/99
Prep Date: 04/09/99
Analysis Date: 04/09/99

MS Lab ID: QC94938

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline C7-C12	2000	<50	1972	99	69-131

Surrogate	%Rec	Limits
Trifluorotoluene	97	53-150
Bromofluorobenzene	115	53-149

MSD Lab ID: QC94939

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline C7-C12	2000	1967	98	69-131	0	13

Surrogate	%Rec	Limits
Trifluorotoluene	96	53-150
Bromofluorobenzene	115	53-149

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

TEH-Tot Ext Hydrocarbons

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8015M
Prep Method: EPA 3520

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
138737-005	JW1-04	47268	04/01/99	04/06/99	04/08/99	
138737-006	JW1-05	47268	04/01/99	04/06/99	04/08/99	
138737-007	JW1-06	47268	04/01/99	04/06/99	04/08/99	
138737-008	JW1-07	47268	04/01/99	04/06/99	04/08/99	

Matrix: Water

Analyte	Units	138737-005	138737-006	138737-007	138737-008
Diln Fac:		1	1	1	1
Diesel C10-C24	ug/L	3200 YLH	4300 YLH	3400 YL	5800 YLH
Motor Oil C24-C36	ug/L	<280	850 L	<280	750 YL
Surrogate					
Hexacosane	%REC	62	76	89	66

Y: Sample exhibits fuel pattern which does not resemble standard
H: Heavier hydrocarbons than indicated standard
L: Lighter hydrocarbons than indicated standard

TEH-Tot Ext Hydrocarbons

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8015M
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 47268
Units: ug/L
Diln Fac: 1

Prep Date: 04/06/99
Analysis Date: 04/08/99

MB Lab ID: QC94630

Analyte	Result
Diesel C10-C24	<50
Motor Oil C24-C36	<300

Surrogate	%Rec	Recovery Limits
Hexacosane	80	58-128

TEH-Tot Ext Hydrocarbons

Client: Tetra Tech EMI
Project#: P110604
Location: JW Silveira Props

Analysis Method: EPA 8015M
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 47268
Units: ug/L
Diln Fac: 1

Prep Date: 04/06/99
Analysis Date: 04/10/99

BS Lab ID: QC94631

Analyte	Spike Added	BS	%Rec #	Limits
Diesel C10-C24	2475	1660	67	50-114

Surrogate	%Rec	Limits
Hexacosane	67	58-128

BSD Lab ID: QC94632

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Diesel C10-C24	2475	1725	70	50-114	4	25

Surrogate	%Rec	Limits
Hexacosane	66	58-128

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

Lab#: 138737
Page 1 of 1

Curtis & Tompkins, Ltd.

Nitrogen,Nitrate

Client: Tetra Tech EMI
Project #: P110604
Location : JW Silveira Props

Analysis Method: EPA 300.0
Prep Method: EPA 300.0

Sample #	Client ID	Batch#	Sampled	Analyzed	Moisture
138737-005	JW1-04	47200	01-APR-99	02-APR-99	-
138737-006	JW1-05	47200	01-APR-99	02-APR-99	-
138737-007	JW1-06	47200	01-APR-99	02-APR-99	-
138737-008	JW1-07	47200	01-APR-99	02-APR-99	-
QC94377	Method Blank	47200	-	02-APR-99	-

Analyte: Nitrogen, Nitrate **Matrix:** Water **Units:** mg/L

Sample #	Client ID	Result	Reporting Limit	Dilution Factor
138737-005	JW1-04	ND	0.5	10
138737-006	JW1-05	0.8	0.5	10
138737-007	JW1-06	ND	0.5	10
138737-008	JW1-07	ND	0.5	10
QC94377	Method Blank	ND	0.05	1

ND = None Detected at or above Reporting Limit

Curtis & Tompkins, Ltd.

Nitrogen,Nitrate

Client: Tetra Tech EMI
Project #: P110604
Location : JW Silveira Props

Analysis Method: EPA 300.0
Prep Method: EPA 300.0

Sample #	Client ID	Batch#	Sampled	Analyzed	Moisture
QC94378	Blank Spike	47200	-	02-APR-99	-
QC94379	Blank Spike Duplicate	47200	-	02-APR-99	-

Analyte: Nitrogen, Nitrate **Matrix:** Water **Units:** mg/L

Sample #	Sample Type	Spike Amt.	Result	%Rec	Limits	%RPD	Limit
QC94378	Blank Spike	2.260	2.260	100	80-120		
QC94379	Blank Spike Duplicate	2.260	2.230	99	80-120	1	25

Lab#: 138737
Page 1 of 1

Curtis & Tompkins, Ltd.

Nitrogen,Nitrate

Client: Tetra Tech EMI
Project #: P110604
Location : JW Silveira Props

Analysis Method: EPA 300.0
Prep Method: EPA 300.0

Sample #	Client ID	Batch#	Sampled	Analyzed	Moisture
QC94380	MS of 138737-005	47200	01-APR-99	02-APR-99	-
QC94381	MSD of 138737-005	47200	01-APR-99	02-APR-99	-

Analyte: Nitrogen, Nitrate **Matrix:** Water **Units:** mg/L

Sample #	Client ID	Spikeamt	Result	%Rec	Limits	%RPD	Limit
QC94380	MS of 138737-005	11.30	10.27	91	75-125		
QC94381	MSD of 138737-005	11.30	10.00	88	75-125	3	35
138737-005	JW1-04		<0.5000				

Curtis & Tompkins, Ltd.

Sulfate

Client: Tetra Tech EMI
Project #: P110604
Location : JW Silveira Props

Analysis Method: EPA 300.0
Prep Method: EPA 300.0

Sample #	Client ID	Batch#	Sampled	Analyzed	Moisture
138737-005	JW1-04	47200	01-APR-99	02-APR-99	-
138737-006	JW1-05	47200	01-APR-99	02-APR-99	-
138737-007	JW1-06	47200	01-APR-99	02-APR-99	-
138737-008	JW1-07	47200	01-APR-99	02-APR-99	-
QC94377	Method Blank	47200	-	02-APR-99	-

Analyte: Sulfate **Matrix:** Water **Units:** mg/L

Sample #	Client ID	Result	Reporting Limit	Dilution Factor
138737-005	JW1-04	ND	5.0	10
138737-006	JW1-05	7.3	5.0	10
138737-007	JW1-06	10	5.0	10
138737-008	JW1-07	ND	5.0	10
QC94377	Method Blank	ND	0.50	1

ND = None Detected at or above Reporting Limit

Curtis & Tompkins, Ltd.

Sulfate

Client: Tetra Tech EMI
Project #: P110604
Location : JW Silveira Props

Analysis Method: EPA 300.0
Prep Method: EPA 300.0

Sample #	Client ID	Batch#	Sampled	Analyzed	Moisture
QC94378	Blank Spike	47200	-	02-APR-99	-
QC94379	Blank Spike Duplicate	47200	-	02-APR-99	-

Analyte: Sulfate **Matrix:** Water **Units:** mg/L

Sample #	Sample Type	Spike Amt.	Result	%Rec	Limits	%RPD	Limit
QC94378	Blank Spike	15.00	15.00	100	80-120		
QC94379	Blank Spike Duplicate	15.00	14.86	99	80-120	1	25

Curtis & Tompkins, Ltd.

Sulfate

Client: Tetra Tech EMI
Project #: P110604
Location : JW Silveira Props

Analysis Method: EPA 300.0
Prep Method: EPA 300.0

Sample #	Client ID	Batch#	Sampled	Analyzed	Moisture
QC94380	MS of 138737-005	47200	01-APR-99	02-APR-99	-
QC94381	MSD of 138737-005	47200	01-APR-99	02-APR-99	-

Analyte: Sulfate **Matrix:** Water **Units:** mg/L

Sample #	Client ID	Spikeamt	Result	%Rec	Limits	%RPD	Limit
QC94380	MS of 138737-005	75.00	72.68	97	75-125		
QC94381	MSD of 138737-005	75.00	71.35	95	75-125	2	35
138737-005	JW1-04		<5.000				

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900, Fax (510) 486-0532

RECEIVED
JUL 28 1999
TETRA TECH EM INC.

Laboratory Number 140197

Tetra Tech EMI
135 Main Street
Suite 1800
San Francisco, CA 94105

Project#: P1106.05
Location: JW Silveria UST,Oak.

Sample ID	Lab ID
JW1-09	140197-001
JW1-11	140197-002
JW1-13	140197-003
JW1-15	140197-004
JW1-17	140197-005
JW1-10	140197-006
JW1-12	140197-007
JW1-14	140197-008
JW1-16	140197-009
JW1-18	140197-010
JW1-19	140197-011

I certify that this data package has been reviewed for technical correctness and completeness. Please see attached narrative for a discussion of any analytical problems related to this sample set. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

The case narrative is an integral and inseparable part of this report.

Signature: _____ Date: 7.22.99
Title: Operations Manager

Signature: Carol Workman Date: 7/22/99
Title: Project Manager

Curtis & Tompkins, Ltd.

Laboratory Number: 140197 **Receipt Date:** 06/29/99
Client: Tetra Tech EMI
Location: JW Silveria UST
Project#: P1106.05

CASE NARRATIVE

This hardcopy data package contains sample and QC results for five soil samples and six water samples that were received on June 29, 1999. The soil results were reported on a dry-weight basis.

Volatiles: Due to limitations with the computer system, TIC results were not included in the electronic deliverables. Sample JW1-17 (CT#140197-005) was diluted due to high levels of hydrocarbons. A high percent difference was observed for tert-butylbenzene in the continuing calibration verifications that were analyzed on June 30, 1999 (bfu02 and bfu14). This compound met the minimum response criteria and was not detected in the associated samples or method blanks. No other analytical problems were encountered.

TPH-Purgeables/BTXE: High surrogate recoveries were observed in samples JW1-17 (CT#140197-005), JW1-12 (CT#140197-007), JW1-16 (CT#140197-009), and JW1-18 (CT#140197-010) due to matrix interference. High surrogate recoveries were observed in the matrix spike and spike duplicate of JW1-16 (CT#140197-009) due to coelution with a hydrocarbon peak. A low spike recovery was observed for gasoline in the matrix spike duplicate of CT#140249-001. The spikes were reanalyzed with similar results. The spike recoveries for MTBE in the matrix spike and spike duplicate of JW1-16 (CT#140197-009) are considered not meaningful as the sample result is five times greater than the spike amount. No other analytical problems were encountered.

TPH-Extractables: Surrogates were not added to the laboratory control sample, matrix spike, and matrix spike duplicate of JW1-13 (CT#140197-003). This outlier should not affect the quality of the data as the diesel spike recoveries were within criteria and follow the same extraction treatment as the surrogates. The surrogate recoveries in the samples and method blank were within criteria. No other analytical problems were encountered.

Corrective Action Report

Curtis & Tompkins, Ltd.

Analysis: TCLP **Job#:** 140197, 231, 259, 261

Batch#: 49181 **Client:** Various

Problem/ Nonconformance:

		Initial & Date:
_ Hold Time	→ NO surrogate was found in any of the spiked QC samples. 0% recovery for hexacosane for LCS/ms/msD	Analyst _____
✓ QC Limits		GL 07/12/09
_ Contamination		
_ Other	→ Apparent that surrogate spiking solution was not added to the LCS/ms/msD.	

Impact:

		Initial & Date:
✓ Data Quality	→ Method Blank has surrogate @ 78% and ND for all targets	GL 07/12/09
_ Cost		PM _____
_ TAT	→ LCS/ms/msD all recs beautifully: 96%; 93% 91% RPD 2%.	QA _____
_ # of redo's		
_ Other	→ Does not appear to have any ~~techn~~ impact on technical defensibility of data	

Immediate Solution:

		Initial & Date:
_ Reanalyze	→ Re-analysis was not performed. Dirsed recoveries for the QC samples indicate that the injection were OK. Surrounding spikes from other batches were OK as well.	GL 07/12/09
_ Re-extract:		PM _____
new login: _____		QA _____
new batch#: _____	→ OK to report per JEG.	
✓ Narrate		
_ Educate Client		

Resolution:

		Initial & Date:
✓ Train Analyst	This was fourth or so batch prep'd by this extraction chemist. Retrain, emphasize need for diligence while spiking	Analyst _____
_ Revise SOP (attach revision)		GL 07/12/09
_ Single Incident		PM _____
_ Educate Client		QA _____
_ None Required		OpM _____

CAR#: _____

14097

1204

Tetra Tech EM Inc.
San Francisco Office

135 Main St. Suite 1800
San Francisco, CA 94105
415-543-4880
Fax 415-543-5480

Chain of Custody Record

Page 1 of 1

Project name: JW SILVEIRA UST	**PO#**	**Lab:** C&T	
Project number: P1106.05	**TtEMI technical contact:** JACKIE LUTA	**Field samplers:** 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	Acetates	Preservative Added: HCl	HCl	HCl	Analysis Required: CLP VOA	CLP SVOA	CLP Pest/PCBs	CLP Metals	TPH Purgeables	TPH Extractables	BTEX	MTBE
JW1-09	1	6-28-99	1030	SOIL						1				X				X	X	X	X
JW1-10	2 6		1045	WATER	3	2								X				X	X	X	X
JW1-11	3 2 8		1400	SOIL						1				X				X	X	X	X
JW1-12	4 7		1420	WATER	3	1								X				X	X	X	X
JW1-13	3		1535	SOIL						1				X				X	X	X	X
JW1-14	6 8		1630	WATER	3	1								X				X	X	X	X
JW1-15	4		1715	SOIL						1				X				X	X	X	X
JW1-16	9		1745	WATER	3	1								X				X	X	X	X
JW1-17	5		1800	SOIL						1				X				X	X	X	X
JW1-18	10		1815	WATER	3	2								X				X	X	X	X
JW1-19	11		1900	WATER	3									X				X		X	X

	Name (print)	Company Name	Date	Time
Relinquished by: Roy D. Glenn	ROY D. GLENN	TTEMI	6-29-99	14:30
Received by: M. Travers	M. TRAVERS	C&T	6-29-99	
Relinquished by:				
Received by:				
Relinquished by:				
Received by:				
Relinquished by:				
Received by:				

Turnaround time/remarks:

Jw Silvesian USA

Curtis & Tompkins, Ltd.

COOLER RECEIPT CHECKLIST

1

Login#: 14697 Date Received: 6/29 Number of Coolers: _____

Client: TEMS Project: P11CG.05

A. Preliminary Examination Phase

Date Opened: 6/29 By (print): Jennifer (sign) [signature]

1. Did cooler come with a shipping slip (airbill, etc.)? ..... YES ~~NO~~

   If YES, enter carrier name and airbill number: _____

2. Were custody seals on outside of cooler? ..... YES ~~NO~~

   How many and where? _____ Seal date: _____ Seal name: _____ N/A

3. Were custody seals unbroken and intact at the date and time of arrival? ..... YES NO

4. Were custody papers dry and intact when received? ..... YES NO

5. Were custody papers filled out properly (ink, signed, etc.)? ..... YES NO

6. Did you sign the custody papers in the appropriate place? ..... YES NO

7. Was project identifiable from custody papers? ..... YES NO

   If YES, enter project name at the top of this form.

8. If required, was sufficient ice used? ..... YES NO

   Type of ice: wet blue Temperature: 4.5°C

B. Login Phase

Date Logged In: 6/29 By (print): Jennifer (sign) [signature]

1. Describe type of packing in cooler: _____

2. Did all bottles arrive unbroken? ..... YES NO

3. Were labels in good condition and complete (ID, date, time, signature, etc.)? ..... YES NO

4. Did bottle labels agree with custody papers? ..... YES NO

5. Were appropriate containers used for the tests indicated? ..... YES NO

6. Were correct preservatives added to samples? ..... YES NO

7. Was sufficient amount of sample sent for tests indicated? ..... YES NO

8. Were bubbles absent in VOA samples? If NO, list sample Ids below ..... YES NO

9. Was the client contacted concerning this sample delivery? ..... YES NO

   If YES, give details below.

   Who was called? _____ By whom? _____ Date: _____

Additional Comments:

_____

_____

_____

_____

_____

_____

_____

_____

Filename: F:\qc\forms\cooler.wpd

Rev. 1 4/95

Percent Moisture Summary Report

Date: 06-JUL-99
Batch: 49111
Analyst: MR

Sample	Method	Date	Tare(g)	Wet(g)	Dry(g)	Percent Solids	Percent Moisture
140197-001	CLP SOW 390	06-JUL-99	15.2747	22.955	21.5885	82	18
140197-002	CLP SOW 390	06-JUL-99	15.5697	22.7363	21.7586	86	14
140197-003	CLP SOW 390	06-JUL-99	15.9674	23.3354	22.0963	83	17
140197-004	CLP SOW 390	06-JUL-99	14.9802	22.4741	21.1816	83	17
140197-005	CLP SOW 390	06-JUL-99	15.3762	23.2212	21.8966	83	17
140247-001	CLP SOW 390	06-JUL-99	15.6326	22.1895	22.1608	100	0
140247-002	CLP SOW 390	06-JUL-99	15.793	22.4209	22.3988	100	0
140247-003	CLP SOW 390	06-JUL-99	15.0085	22.8767	22.5678	96	4
140247-004	CLP SOW 390	06-JUL-99	15.9409	23.2142	22.963	97	3
140247-005	CLP SOW 390	06-JUL-99	15.4869	22.9117	21.5943	82	18
QC01856	CLP SOW 390	06-JUL-99	15.3447	23.482	23.171	96	4
of 140247-003					RPD:	0.1%	2.7%

Volatile Organics by GC/MS

Client:	Tetra Tech EMI	Analysis Method:	EPA 8260
Project#:	P1106.05	Prep Method:	EPA 5030
Location:	JW Silveria UST,Oak.		
Field ID:	JW1-09	Sampled:	06/28/99
Lab ID:	140197-001	Received:	06/29/99
Matrix:	Soil	Extracted:	06/30/99
Batch#:	49032	Analyzed:	06/30/99
Units:	ug/Kg		
Diln Fac:	0.9259		

Analyte	Result	Reporting Limit
Freon 12	ND	9.3
Chloromethane	ND	9.3
Vinyl Chloride	ND	9.3
Bromomethane	ND	9.3
Chloroethane	ND	9.3
Trichlorofluoromethane	ND	4.6
Acetone	ND	19
Freon 113	ND	4.6
1,1-Dichloroethene	ND	4.6
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.6
MTBE	ND	4.6
trans-1,2-Dichloroethene	ND	4.6
Vinyl Acetate	ND	46
1,1-Dichloroethane	ND	4.6
2-Butanone	ND	9.3
cis-1,2-Dichloroethene	ND	4.6
2,2-Dichloropropane	ND	4.6
Chloroform	ND	4.6
Bromochloromethane	ND	4.6
1,1,1-Trichloroethane	ND	4.6
1,1-Dichloropropene	ND	4.6
Carbon Tetrachloride	ND	4.6
1,2-Dichloroethane	ND	4.6
Benzene	ND	4.6
Trichloroethene	ND	4.6
1,2-Dichloropropane	ND	4.6
Bromodichloromethane	ND	4.6
Dibromomethane	ND	4.6
4-Methyl-2-Pentanone	ND	9.3
cis-1,3-Dichloropropene	ND	4.6
Toluene	ND	4.6
trans-1,3-Dichloropropene	ND	4.6
1,1,2-Trichloroethane	ND	4.6
2-Hexanone	ND	9.3
1,3-Dichloropropane	ND	4.6
Tetrachloroethene	ND	4.6
Dibromochloromethane	ND	4.6

Volatile Organics by GC/MS

Field ID:	JW1-09	Sampled:	06/28/99
Lab ID:	140197-001	Received:	06/29/99
Matrix:	Soil	Extracted:	06/30/99
Batch#:	49032	Analyzed:	06/30/99
Units:	ug/Kg		
Diln Fac:	0.9259		

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

Surrogate	%Recovery	Recovery Limits
Dibromofluoromethane	97	67-140
1,2-Dichloroethane-d4	94	80-129
Toluene-d8	98	88-111
Bromofluorobenzene	105	76-128

Volatile Organics by GC/MS

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

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: JW1-11
Lab ID: 140197-002
Matrix: Soil
Batch#: 49032
Units: ug/Kg
Diln Fac: 0.9434

Sampled: 06/28/99
Received: 06/29/99
Extracted: 06/30/99
Analyzed: 06/30/99

Analyte	Result	Reporting Limit
Freon 12	ND	9.4
Chloromethane	ND	9.4
Vinyl Chloride	ND	9.4
Bromomethane	ND	9.4
Chloroethane	ND	9.4
Trichlorofluoromethane	ND	4.7
Acetone	ND	19
Freon 113	ND	4.7
1,1-Dichloroethene	ND	4.7
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.7
MTBE	ND	4.7
trans-1,2-Dichloroethene	ND	4.7
Vinyl Acetate	ND	47
1,1-Dichloroethane	ND	4.7
2-Butanone	ND	9.4
cis-1,2-Dichloroethene	ND	4.7
2,2-Dichloropropane	ND	4.7
Chloroform	ND	4.7
Bromochloromethane	ND	4.7
1,1,1-Trichloroethane	ND	4.7
1,1-Dichloropropene	ND	4.7
Carbon Tetrachloride	ND	4.7
1,2-Dichloroethane	ND	4.7
Benzene	ND	4.7
Trichloroethene	ND	4.7
1,2-Dichloropropane	ND	4.7
Bromodichloromethane	ND	4.7
Dibromomethane	ND	4.7
4-Methyl-2-Pentanone	ND	9.4
cis-1,3-Dichloropropene	ND	4.7
Toluene	ND	4.7
trans-1,3-Dichloropropene	ND	4.7
1,1,2-Trichloroethane	ND	4.7
2-Hexanone	ND	9.4
1,3-Dichloropropane	ND	4.7
Tetrachloroethene	ND	4.7
Dibromochloromethane	ND	4.7

Volatile Organics by GC/MS

Field ID:	JW1-11	Sampled:	06/28/99
Lab ID:	140197-002	Received:	06/29/99
Matrix:	Soil	Extracted:	06/30/99
Batch#:	49032	Analyzed:	06/30/99
Units:	ug/Kg		
Diln Fac:	0.9434		

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	4.7
Chlorobenzene	ND	4.7
1,1,1,2-Tetrachloroethane	ND	4.7
Ethylbenzene	ND	4.7
m,p-Xylenes	ND	4.7
o-Xylene	ND	4.7
Styrene	ND	4.7
Bromoform	ND	4.7
Isopropylbenzene	ND	4.7
1,1,2,2-Tetrachloroethane	ND	4.7
1,2,3-Trichloropropane	ND	4.7
Propylbenzene	ND	4.7
Bromobenzene	ND	4.7
1,3,5-Trimethylbenzene	ND	4.7
2-Chlorotoluene	ND	4.7
4-Chlorotoluene	ND	4.7
tert-Butylbenzene	ND	4.7
1,2,4-Trimethylbenzene	ND	4.7
sec-Butylbenzene	ND	4.7
para-Isopropyl Toluene	ND	4.7
1,3-Dichlorobenzene	ND	4.7
1,4-Dichlorobenzene	ND	4.7
n-Butylbenzene	ND	4.7
1,2-Dichlorobenzene	ND	4.7
1,2-Dibromo-3-Chloropropane	ND	4.7
1,2,4-Trichlorobenzene	ND	4.7
Hexachlorobutadiene	ND	4.7
Naphthalene	ND	4.7
1,2,3-Trichlorobenzene	ND	4.7

Surrogate	%Recovery	Recovery Limits
Dibromofluoromethane	92	67-140
1,2-Dichloroethane-d4	91	80-129
Toluene-d8	96	88-111
Bromofluorobenzene	105	76-128

Volatile Organics by GC/MS

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

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: JW1-13
Lab ID: 140197-003
Matrix: Soil
Batch#: 49032
Units: ug/Kg
Diln Fac: 1

Sampled: 06/28/99
Received: 06/29/99
Extracted: 06/30/99
Analyzed: 06/30/99

Analyte	Result	Reporting Limit
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

Volatile Organics by GC/MS

Field ID:	JW1-13	Sampled:	06/28/99
Lab ID:	140197-003	Received:	06/29/99
Matrix:	Soil	Extracted:	06/30/99
Batch#:	49032	Analyzed:	06/30/99
Units:	ug/Kg		
Diln Fac:	1		

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%Recovery	Recovery Limits
Dibromofluoromethane	97	67-140
1,2-Dichloroethane-d4	95	80-129
Toluene-d8	96	88-111
Bromofluorobenzene	104	76-128

Volatile Organics by GC/MS

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

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: JW1-15
Lab ID: 140197-004
Matrix: Soil
Batch#: 49032
Units: ug/Kg
Diln Fac: 1.02

Sampled: 06/28/99
Received: 06/29/99
Extracted: 06/30/99
Analyzed: 06/30/99

Analyte	Result	Reporting Limit
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.1
Acetone	ND	20
Freon 113	ND	5.1
1,1-Dichloroethene	ND	5.1
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.1
MTBE	ND	5.1
trans-1,2-Dichloroethene	ND	5.1
Vinyl Acetate	ND	51
1,1-Dichloroethane	ND	5.1
2-Butanone	ND	10
cis-1,2-Dichloroethene	4.2 J	5.1
2,2-Dichloropropane	ND	5.1
Chloroform	ND	5.1
Bromochloromethane	ND	5.1
1,1,1-Trichloroethane	ND	5.1
1,1-Dichloropropene	ND	5.1
Carbon Tetrachloride	ND	5.1
1,2-Dichloroethane	ND	5.1
Benzene	ND	5.1
Trichloroethene	ND	5.1
1,2-Dichloropropane	ND	5.1
Bromodichloromethane	ND	5.1
Dibromomethane	ND	5.1
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.1
Toluene	ND	5.1
trans-1,3-Dichloropropene	ND	5.1
1,1,2-Trichloroethane	ND	5.1
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.1
Tetrachloroethene	ND	5.1
Dibromochloromethane	ND	5.1

Volatile Organics by GC/MS

Field ID:	JW1-15	Sampled:	06/28/99
Lab ID:	140197-004	Received:	06/29/99
Matrix:	Soil	Extracted:	06/30/99
Batch#:	49032	Analyzed:	06/30/99
Units:	ug/Kg		
Diln Fac:	1.02		

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	5.1
Chlorobenzene	ND	5.1
1,1,1,2-Tetrachloroethane	ND	5.1
Ethylbenzene	ND	5.1
m,p-Xylenes	ND	5.1
o-Xylene	ND	5.1
Styrene	ND	5.1
Bromoform	ND	5.1
Isopropylbenzene	ND	5.1
1,1,2,2-Tetrachloroethane	ND	5.1
1,2,3-Trichloropropane	ND	5.1
Propylbenzene	ND	5.1
Bromobenzene	ND	5.1
1,3,5-Trimethylbenzene	ND	5.1
2-Chlorotoluene	ND	5.1
4-Chlorotoluene	ND	5.1
tert-Butylbenzene	ND	5.1
1,2,4-Trimethylbenzene	ND	5.1
sec-Butylbenzene	ND	5.1
para-Isopropyl Toluene	ND	5.1
1,3-Dichlorobenzene	ND	5.1
1,4-Dichlorobenzene	ND	5.1
n-Butylbenzene	ND	5.1
1,2-Dichlorobenzene	ND	5.1
1,2-Dibromo-3-Chloropropane	ND	5.1
1,2,4-Trichlorobenzene	ND	5.1
Hexachlorobutadiene	ND	5.1
Naphthalene	ND	5.1
1,2,3-Trichlorobenzene	ND	5.1

Surrogate	%Recovery	Recovery Limits
Dibromofluoromethane	97	67-140
1,2-Dichloroethane-d4	92	80-129
Toluene-d8	92	88-111
Bromofluorobenzene	102	76-128

J: Estimated Value

Volatile Organics by GC/MS

Client:	Tetra Tech EMI	Analysis Method:	EPA 8260
Project#:	P1106.05	Prep Method:	EPA 5030
Location:	JW Silveria UST,Oak.		
Field ID:	JW1-17	Sampled:	06/28/99
Lab ID:	140197-005	Received:	06/29/99
Matrix:	Soil	Extracted:	06/30/99
Batch#:	49031	Analyzed:	06/30/99
Units:	ug/Kg		
Diln Fac:	50		

Analyte	Result	Reporting Limit
Freon 12	ND	500
Chloromethane	ND	500
Vinyl Chloride	ND	500
Bromomethane	ND	500
Chloroethane	ND	500
Trichlorofluoromethane	ND	250
Acetone	ND	1000
Freon 113	ND	250
1,1-Dichloroethene	ND	250
Methylene Chloride	ND	1000
Carbon Disulfide	ND	250
MTBE	ND	250
trans-1,2-Dichloroethene	ND	250
Vinyl Acetate	ND	2500
1,1-Dichloroethane	ND	250
2-Butanone	ND	500
cis-1,2-Dichloroethene	ND	250
2,2-Dichloropropane	ND	250
Chloroform	ND	250
Bromochloromethane	ND	250
1,1,1-Trichloroethane	ND	250
1,1-Dichloropropene	ND	250
Carbon Tetrachloride	ND	250
1,2-Dichloroethane	ND	250
Benzene	ND	250
Trichloroethene	ND	250
1,2-Dichloropropane	ND	250
Bromodichloromethane	ND	250
Dibromomethane	ND	250
4-Methyl-2-Pentanone	ND	500
cis-1,3-Dichloropropene	ND	250
Toluene	ND	250
trans-1,3-Dichloropropene	ND	250
1,1,2-Trichloroethane	ND	250
2-Hexanone	ND	500
1,3-Dichloropropane	ND	250
Tetrachloroethene	ND	250
Dibromochloromethane	ND	250

Volatile Organics by GC/MS

Field ID:	JW1-17	Sampled:	06/28/99
Lab ID:	140197-005	Received:	06/29/99
Matrix:	Soil	Extracted:	06/30/99
Batch#:	49031	Analyzed:	06/30/99
Units:	ug/Kg		
Diln Fac:	50		

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	250
Chlorobenzene	ND	250
1,1,1,2-Tetrachloroethane	ND	250
Ethylbenzene	ND	250
m,p-Xylenes	ND	250
o-Xylene	ND	250
Styrene	ND	250
Bromoform	ND	250
Isopropylbenzene	600	250
1,1,2,2-Tetrachloroethane	ND	250
1,2,3-Trichloropropane	ND	250
Propylbenzene	920	250
Bromobenzene	ND	250
1,3,5-Trimethylbenzene	ND	250
2-Chlorotoluene	ND	250
4-Chlorotoluene	ND	250
tert-Butylbenzene	ND	250
1,2,4-Trimethylbenzene	ND	250
sec-Butylbenzene	410	250
para-Isopropyl Toluene	360	250
1,3-Dichlorobenzene	ND	250
1,4-Dichlorobenzene	ND	250
n-Butylbenzene	510	250
1,2-Dichlorobenzene	ND	250
1,2-Dibromo-3-Chloropropane	ND	250
1,2,4-Trichlorobenzene	ND	250
Hexachlorobutadiene	ND	250
Naphthalene	ND	250
1,2,3-Trichlorobenzene	ND	250

Surrogate	%Recovery	Recovery Limits
Dibromofluoromethane	80	67-140
1,2-Dichloroethane-d4	85	80-129
Toluene-d8	97	88-111
Bromofluorobenzene	95	76-128

Volatile Organics by GC/MS

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

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: JW1-10
Lab ID: 140197-006
Matrix: Water
Batch#: 49121
Units: ug/L
Diln Fac: 1

Sampled: 06/28/99
Received: 06/29/99
Extracted: 07/06/99
Analyzed: 07/06/99

Analyte	Result	Reporting Limit
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	3.0 J	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

Volatile Organics by GC/MS

Field ID:	JW1-10	Sampled:	06/28/99
Lab ID:	140197-006	Received:	06/29/99
Matrix:	Water	Extracted:	07/06/99
Batch#:	49121	Analyzed:	07/06/99
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%Recovery	Recovery Limits
Dibromofluoromethane	106	81-121
1,2-Dichloroethane-d4	102	76-127
Toluene-d8	98	90-109
Bromofluorobenzene	99	82-118

J: Estimated Value

Volatile Organics by GC/MS

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

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: JW1-12
Lab ID: 140197-007
Matrix: Water
Batch#: 49121
Units: ug/L
Diln Fac: 1

Sampled: 06/28/99
Received: 06/29/99
Extracted: 07/06/99
Analyzed: 07/06/99

Analyte	Result	Reporting Limit
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	5.1	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	43	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

Volatile Organics by GC/MS

Field ID:	JW1-12	Sampled:	06/28/99
Lab ID:	140197-007	Received:	06/29/99
Matrix:	Water	Extracted:	07/06/99
Batch#:	49121	Analyzed:	07/06/99
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	6.3	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	6.5	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	7.3	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	2.6 J	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%Recovery	Recovery Limits
Dibromofluoromethane	102	81-121
1,2-Dichloroethane-d4	99	76-127
Toluene-d8	102	90-109
Bromofluorobenzene	100	82-118

J: Estimated Value

Volatile Organics by GC/MS

Client:	Tetra Tech EMI	Analysis Method:	EPA 8260
Project#:	P1106.05	Prep Method:	EPA 5030
Location:	JW Silveria UST,Oak.		

Field ID:	JW1-14	Sampled:	06/28/99
Lab ID:	140197-008	Received:	06/29/99
Matrix:	Water	Extracted:	07/06/99
Batch#:	49121	Analyzed:	07/06/99
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	2.6 J	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	3.5 J	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

Volatile Organics by GC/MS

Field ID:	JW1-14	Sampled:	06/28/99
Lab ID:	140197-008	Received:	06/29/99
Matrix:	Water	Extracted:	07/06/99
Batch#:	49121	Analyzed:	07/06/99
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%Recovery	Recovery Limits
Dibromofluoromethane	101	81-121
1,2-Dichloroethane-d4	101	76-127
Toluene-d8	103	90-109
Bromofluorobenzene	101	82-118

J: Estimated Value

Volatile Organics by GC/MS

Client:	Tetra Tech EMI	Analysis Method:	EPA 8260
Project#:	P1106.05	Prep Method:	EPA 5030
Location:	JW Silveria UST,Oak.		

Field ID:	JW1-16	Sampled:	06/28/99
Lab ID:	140197-009	Received:	06/29/99
Matrix:	Water	Extracted:	07/06/99
Batch#:	49121	Analyzed:	07/06/99
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	26	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	46	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

Volatile Organics by GC/MS

Field ID:	JW1-16	Sampled:	06/28/99
Lab ID:	140197-009	Received:	06/29/99
Matrix:	Water	Extracted:	07/06/99
Batch#:	49121	Analyzed:	07/06/99
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	7.0	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	5.6	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	7.2	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	4.0 J	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%Recovery	Recovery Limits
Dibromofluoromethane	100	81-121
1,2-Dichloroethane-d4	97	76-127
Toluene-d8	100	90-109
Bromofluorobenzene	100	82-118

J: Estimated Value

Volatile Organics by GC/MS

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

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: JW1-18
Lab ID: 140197-010
Matrix: Water
Batch#: 49121
Units: ug/L
Diln Fac: 1

Sampled: 06/28/99
Received: 06/29/99
Extracted: 07/06/99
Analyzed: 07/06/99

Analyte	Result	Reporting Limit
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	14	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	19	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	4.1 J	5.0
Trichloroethene	150	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

Volatile Organics by GC/MS

Field ID:	JW1-18	Sampled:	06/28/99
Lab ID:	140197-010	Received:	06/29/99
Matrix:	Water	Extracted:	07/06/99
Batch#:	49121	Analyzed:	07/06/99
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	6.7	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	9.3	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	11	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	2.6 J	5.0
para-Isopropyl Toluene	2.9 J	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	2.6 J	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%Recovery	Recovery Limits
Dibromofluoromethane	101	81-121
1,2-Dichloroethane-d4	99	76-127
Toluene-d8	101	90-109
Bromofluorobenzene	101	82-118

J: Estimated Value

Volatile Organics by GC/MS

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

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: JW1-19
Lab ID: 140197-011
Matrix: Water
Batch#: 49121
Units: ug/L
Diln Fac: 1

Sampled: 06/28/99
Received: 06/29/99
Extracted: 07/06/99
Analyzed: 07/06/99

Analyte	Result	Reporting Limit
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

Volatile Organics by GC/MS

Field ID:	JW1-19	Sampled:	06/28/99
Lab ID:	140197-011	Received:	06/29/99
Matrix:	Water	Extracted:	07/06/99
Batch#:	49121	Analyzed:	07/06/99
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%Recovery	Recovery Limits
Dibromofluoromethane	103	81-121
1,2-Dichloroethane-d4	101	76-127
Toluene-d8	100	90-109
Bromofluorobenzene	101	82-118

EPA 8260 Volatile Organics

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

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 49031
Units: ug/L
Diln Fac: 1

Prep Date: 06/30/99
Analysis Date: 06/30/99

MB Lab ID: QC01526

Analyte	Result	Reporting Limit
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

EPA 8260 Volatile Organics

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

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 49031
Units: ug/L
Diln Fac: 1

Prep Date: 06/30/99
Analysis Date: 06/30/99

MB Lab ID: QC01526

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%Rec	Recovery Limits
Dibromofluoromethane	95	81-121
1,2-Dichloroethane-d4	91	76-127
Toluene-d8	97	90-109
Bromofluorobenzene	101	82-118

EPA 8260 Volatile Organics

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

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil
Batch#: 49032
Units: ug/Kg
Diln Fac: 1

Prep Date: 06/30/99
Analysis Date: 06/30/99

MB Lab ID: QC01528

Analyte	Result	Reporting Limit
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

EPA 8260 Volatile Organics

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

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil
Batch#: 49032
Units: ug/Kg
Diln Fac: 1

Prep Date: 06/30/99
Analysis Date: 06/30/99

MB Lab ID: QC01528

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%Rec	Recovery Limits
Dibromofluoromethane	92	67-140
1,2-Dichloroethane-d4	93	80-129
Toluene-d8	100	88-111
Bromofluorobenzene	107	76-128

EPA 8260 Volatile Organics

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

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil
Batch#: 49032
Units: ug/Kg
Diln Fac: 1

Prep Date: 06/30/99
Analysis Date: 06/30/99

MB Lab ID: QC01531

Analyte	Result	Reporting Limit
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

EPA 8260 Volatile Organics

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

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil
Batch#: 49032
Units: ug/Kg
Diln Fac: 1

Prep Date: 06/30/99
Analysis Date: 06/30/99

MB Lab ID: QC01531

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%Rec	Recovery Limits
Dibromofluoromethane	94	67-140
1,2-Dichloroethane-d4	94	80-129
Toluene-d8	99	88-111
Bromofluorobenzene	104	76-128

EPA 8260 Volatile Organics

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

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 49121
Units: ug/L
Diln Fac: 1

Prep Date: 07/06/99
Analysis Date: 07/06/99

MB Lab ID: QC01887

Analyte	Result	Reporting Limit
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

EPA 8260 Volatile Organics

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

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 49121
Units: ug/L
Diln Fac: 1

Prep Date: 07/06/99
Analysis Date: 07/06/99

MB Lab ID: QC01887

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%Rec	Recovery Limits
Dibromofluoromethane	105	81-121
1,2-Dichloroethane-d4	100	76-127
Toluene-d8	99	90-109
Bromofluorobenzene	99	82-118

EPA 8260 Volatile Organics

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

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 49121
Units: ug/L
Diln Fac: 1

Prep Date: 07/06/99
Analysis Date: 07/06/99

MB Lab ID: QC01888

Analyte	Result	Reporting Limit
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

EPA 8260 Volatile Organics

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

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 49121
Units: ug/L
Diln Fac: 1

Prep Date: 07/06/99
Analysis Date: 07/06/99

MB Lab ID: QC01888

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%Rec	Recovery Limits
Dibromofluoromethane	105	81-121
1,2-Dichloroethane-d4	99	76-127
Toluene-d8	98	90-109
Bromofluorobenzene	101	82-118

Lab #: 140197 BATCH QC REPORT Page

EPA 8260 Volatile Organics

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

Analysis Method: EPA 8260
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 49031
Units: ug/L
Diln Fac: 1

Prep Date: 06/30/99
Analysis Date: 06/30/99

LCS Lab ID: QC01525

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	39.54	50	79	64-139
Benzene	49.71	50	99	71-127
Trichloroethene	47.83	50	96	72-129
Toluene	49.44	50	99	73-129
Chlorobenzene	48.25	50	97	77-126

Surrogate	%Rec	Limits
Dibromofluoromethane	92	81-121
1,2-Dichloroethane-d4	93	76-127
Toluene-d8	100	90-109
Bromofluorobenzene	99	82-118

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 5 outside limits

Lab #: 140197 BATCH QC REPORT Page

EPA 8260 Volatile Organics

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

Analysis Method: EPA 8260
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 49032
Units: ug/Kg
Diln Fac: 1

Prep Date: 06/30/99
Analysis Date: 06/30/99

LCS Lab ID: QC01527

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	53.87	50	108	63-144
Benzene	51.89	50	104	74-127
Trichloroethene	53.95	50	108	70-131
Toluene	53.38	50	107	72-131
Chlorobenzene	48.7	50	97	74-126

Surrogate	%Rec	Limits
Dibromofluoromethane	88	67-140
1,2-Dichloroethane-d4	95	80-129
Toluene-d8	101	88-111
Bromofluorobenzene	99	76-128

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 5 outside limits

EPA 8260 Volatile Organics

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

Analysis Method: EPA 8260
Prep Method: EPA 5030

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 49121
Units: ug/L
Diln Fac: 1

Prep Date: 07/06/99
Analysis Date: 07/06/99

BS Lab ID: QC01885

Analyte	Spike Added	BS	%Rec #	Limits
1,1-Dichloroethene	50	45.86	92	64-139
Benzene	50	46.42	93	71-127
Trichloroethene	50	46.04	92	72-129
Toluene	50	48.28	97	73-129
Chlorobenzene	50	48.34	97	77-126

Surrogate	%Rec	Limits
Dibromofluoromethane	103	81-121
1,2-Dichloroethane-d4	99	76-127
Toluene-d8	100	90-109
Bromofluorobenzene	99	82-118

BSD Lab ID: QC01886

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	46.61	93	64-139	2	13
Benzene	50	46.78	94	71-127	1	10
Trichloroethene	50	46.84	94	72-129	2	10
Toluene	50	49.51	99	73-129	3	10
Chlorobenzene	50	48.94	98	77-126	1	10

Surrogate	%Rec	Limits
Dibromofluoromethane	102	81-121
1,2-Dichloroethane-d4	100	76-127
Toluene-d8	102	90-109
Bromofluorobenzene	98	82-118

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

EPA 8260 Volatile Organics

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

Analysis Method: EPA 8260A
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: JW1-17
Lab ID: 140197-005
Matrix: Soil
Batch#: 49031
Units: ug/Kg
Diln Fac: 50

Sample Date: 06/28/99
Received Date: 06/29/99
Prep Date: 06/30/99
Analysis Date: 06/30/99

MS Lab ID: QC01574

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	2500	<250	1894	76	51-137
Benzene	2500	<250	2471	99	53-128
Trichloroethene	2500	<250	2337	93	33-153
Toluene	2500	<250	2399	96	45-134
Chlorobenzene	2500	<250	2537	101	39-132

Surrogate	%Rec	Limits
Dibromofluoromethane	81	67-140
1,2-Dichloroethane-d4	84	80-129
Toluene-d8	99	88-111
Bromofluorobenzene	98	76-128

MSD Lab ID: QC01575

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	2500	1720	69	51-137	10	35
Benzene	2500	2478	99	53-128	0	34
Trichloroethene	2500	2310	92	33-153	1	44
Toluene	2500	2434	97	45-134	1	44
Chlorobenzene	2500	2498	100	39-132	2	47

Surrogate	%Rec	Limits
Dibromofluoromethane	82	67-140
1,2-Dichloroethane-d4	90	80-129
Toluene-d8	100	88-111
Bromofluorobenzene	104	76-128

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

EPA 8260 Volatile Organics

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

Analysis Method: EPA 8260A
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: JW1-09
Lab ID: 140197-001
Matrix: Soil
Batch#: 49032
Units: ug/Kg
Diln Fac: 0.9615

Sample Date: 06/28/99
Received Date: 06/29/99
Prep Date: 06/30/99
Analysis Date: 06/30/99

MS Lab ID: QC01529

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	48.08	<4.808	44.5	93	51-137
Benzene	48.08	<4.808	41.55	86	53-128
Trichloroethene	48.08	<4.808	43.39	90	33-153
Toluene	48.08	<4.808	42.53	88	45-134
Chlorobenzene	48.08	<4.808	40.94	85	39-132

Surrogate	%Rec	Limits
Dibromofluoromethane	94	67-140
1,2-Dichloroethane-d4	95	80-129
Toluene-d8	98	88-111
Bromofluorobenzene	104	76-128

MSD Lab ID: QC01530

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	48.08	46.25	96	51-137	4	35
Benzene	48.08	43.04	90	53-128	4	34
Trichloroethene	48.08	45.57	95	33-153	5	44
Toluene	48.08	43.9	91	45-134	3	44
Chlorobenzene	48.08	42.13	88	39-132	3	47

Surrogate	%Rec	Limits
Dibromofluoromethane	94	67-140
1,2-Dichloroethane-d4	96	80-129
Toluene-d8	97	88-111
Bromofluorobenzene	97	76-128

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

TVH-Total Volatile Hydrocarbons

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

Analysis Method: EPA 8015M
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
140197-001	JW1-09	49105	06/28/99	07/04/99	07/04/99	18%
140197-002	JW1-11	49105	06/28/99	07/04/99	07/04/99	14%
140197-003	JW1-13	49105	06/28/99	07/04/99	07/04/99	17%
140197-004	JW1-15	49105	06/28/99	07/04/99	07/04/99	17%

Matrix: Soil

Analyte Diln Fac:	Units	140197-001 1	140197-002 1	140197-003 1	140197-004 1
Gasoline C7-C12	mg/Kg	<1.2	<1.2	<1.2	<1.2
Surrogate					
Trifluorotoluene	%REC	100	103	102	100
Bromofluorobenzene	%REC	106	112	106	103

BTXE

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

Analysis Method: EPA 8021B
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
140197-001	JW1-09	49105	06/28/99	07/04/99	07/04/99	18%
140197-002	JW1-11	49105	06/28/99	07/04/99	07/04/99	14%
140197-003	JW1-13	49105	06/28/99	07/04/99	07/04/99	17%
140197-004	JW1-15	49105	06/28/99	07/04/99	07/04/99	17%

Matrix: Soil

Analyte Diln Fac:	Units	140197-001 1	140197-002 1	140197-003 1	140197-004 1
MTBE	ug/Kg	<24	<23	<24	<24
Benzene	ug/Kg	<6.1	<5.8	<6	<6
Toluene	ug/Kg	<6.1	<5.8	<6	<6
Ethylbenzene	ug/Kg	<6.1	<5.8	<6	<6
m,p-Xylenes	ug/Kg	<6.1	<5.8	<6	<6
o-Xylene	ug/Kg	<6.1	<5.8	<6	<6
Surrogate					
Trifluorotoluene	%REC	111	114	114	112
Bromofluorobenzene	%REC	116	118	118	115

TVH-Total Volatile Hydrocarbons

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

Analysis Method: EPA 8015M
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
140197-005	JW1-17	49158	06/28/99	07/08/99	07/08/99	17%

Matrix: Soil

Analyte	Units	140197-005	
Diln Fac:		20	
Gasoline C7-C12	mg/Kg	640	
Surrogate			
Trifluorotoluene	%REC	208	*
Bromofluorobenzene	%REC	203	*

* Values outside of QC limits

BTXE

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

Analysis Method: EPA 8021B
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
140197-005	JW1-17	49158	06/28/99	07/08/99	07/08/99	17%

Matrix: Soil

Analyte	Units	140197-005	
Diln Fac:		20	
MTBE	ug/Kg	<480	
Benzene	ug/Kg	<120	
Toluene	ug/Kg	<120	
Ethylbenzene	ug/Kg	7700	C
m,p-Xylenes	ug/Kg	<120	
o-Xylene	ug/Kg	3600	C
Surrogate			
Trifluorotoluene	%REC	149	*
Bromofluorobenzene	%REC	129	

* Values outside of QC limits
C: Presence of this compound confirmed by second column, however, the confirmation concentration differed from the reported result by more than a factor of two

TVH-Total Volatile Hydrocarbons

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

Analysis Method: EPA 8015M
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
140197-006	JW1-10	49025	06/28/99	06/30/99	06/30/99	
140197-007	JW1-12	49025	06/28/99	06/30/99	06/30/99	
140197-008	JW1-14	49025	06/28/99	06/30/99	06/30/99	
140197-009	JW1-16	49025	06/28/99	06/30/99	06/30/99	

Matrix: Water

Analyte Diln Fac:	Units	140197-006 1	140197-007 1	140197-008 1	140197-009 1
Gasoline C7-C12	ug/L	<50	710	<50	2700
Surrogate					
Trifluorotoluene	%REC	107	108	111	113
Bromofluorobenzene	%REC	109	150 *	116	111

* Values outside of QC limits

BTXE

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

Analysis Method: EPA 8021B
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
140197-006	JW1-10	49025	06/28/99	06/30/99	06/30/99	
140197-007	JW1-12	49025	06/28/99	06/30/99	06/30/99	
140197-008	JW1-14	49025	06/28/99	06/30/99	06/30/99	
140197-009	JW1-16	49025	06/28/99	06/30/99	06/30/99	

Matrix: Water

Analyte Diln Fac:	Units	140197-006 1	140197-007 1	140197-008 1	140197-009 1
MTBE	ug/L	<2	25 C	<2	100 C
Benzene	ug/L	<0.5	9.1C	<0.5	11 C
Toluene	ug/L	<0.5	1.7C	<0.5	8.1C
Ethylbenzene	ug/L	<0.5	7.8	<0.5	9.7
m,p-Xylenes	ug/L	<0.5	2.6	<0.5	8.6
o-Xylene	ug/L	<0.5	0.66C	<0.5	4.7C
Surrogate					
Trifluorotoluene	%REC	118	120	122	127
Bromofluorobenzene	%REC	121	136	129	172 *

* Values outside of QC limits
C: Presence of this compound confirmed by second column, however, the confirmation concentration differed from the reported result by more than a factor of two

TVH-Total Volatile Hydrocarbons

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

Analysis Method: EPA 8015M
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
140197-010	JW1-18	49025	06/28/99	06/30/99	06/30/99	
140197-011	JW1-19	49025	06/28/99	06/30/99	06/30/99	

Matrix: Water

Analyte	Units	140197-010		140197-011
Diln Fac:		1		1
Gasoline C7-C12	ug/L	1000		<50
Surrogate				
Trifluorotoluene	%REC	110		108
Bromofluorobenzene	%REC	165	*	110

* Values outside of QC limits

BTXE

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

Analysis Method: EPA 8021B
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
140197-010	JW1-18	49025	06/28/99	06/30/99	06/30/99	
140197-011	JW1-19	49025	06/28/99	06/30/99	06/30/99	

Matrix: Water

Analyte	Units	140197-010	140197-011
Diln Fac:		1	1
MTBE	ug/L	56 C	<2
Benzene	ug/L	13 C	<0.5
Toluene	ug/L	2.6C	<0.5
Ethylbenzene	ug/L	7.7	<0.5
m,p-Xylenes	ug/L	2.9	<0.5
o-Xylene	ug/L	1 C	<0.5
Surrogate			
Trifluorotoluene	%REC	124	119
Bromofluorobenzene	%REC	142	123

C: Presence of this compound confirmed by second column, however, the confirmation concentration differed from the reported result by more than a factor of two

TVH-Total Volatile Hydrocarbons

Client:	Tetra Tech EMI	Analysis Method:	EPA 8015M
Project#:	P1106.05	Prep Method:	EPA 5030
Location:	JW Silveria UST,Oak.		

METHOD BLANK

Matrix:	Water	Prep Date:	06/30/99
Batch#:	49025	Analysis Date:	06/30/99
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC01506

Analyte	Result
Gasoline C7-C12	<50

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	108	53-150
Bromofluorobenzene	108	53-149

BTXE	
Client: Tetra Tech EMI	Analysis Method: EPA 8021B
Project#: P1106.05	Prep Method: EPA 5030
Location: JW Silveria UST,Oak.	

METHOD BLANK	
Matrix: Water	Prep Date: 06/30/99
Batch#: 49025	Analysis Date: 06/30/99
Units: ug/L	
Diln Fac: 1	

MB Lab ID: QC01506

Analyte	Result
MTBE	<2.0
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
m,p-Xylenes	<0.5
o-Xylene	<0.5

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	117	51-143
Bromofluorobenzene	118	37-146

TVH-Total Volatile Hydrocarbons

Client:	Tetra Tech EMI	Analysis Method:	EPA 8015M
Project#:	P1106.05	Prep Method:	EPA 5030
Location:	JW Silveria UST,Oak.		

METHOD BLANK

Matrix:	Soil	Prep Date:	07/04/99
Batch#:	49105	Analysis Date:	07/04/99
Units:	mg/Kg		
Diln Fac:	1		

MB Lab ID: QC01832

Analyte	Result
Gasoline C7-C12	<1.0

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	96	62-143
Bromofluorobenzene	95	59-150

BTXE

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

Analysis Method: EPA 8021B
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil
Batch#: 49105
Units: ug/Kg
Diln Fac: 1

Prep Date: 07/04/99
Analysis Date: 07/04/99

MB Lab ID: QC01832

Analyte	Result
MTBE	<20
Benzene	<5.0
Toluene	<5.0
Ethylbenzene	<5.0
m,p-Xylenes	<5.0
o-Xylene	<5.0

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	105	59-134
Bromofluorobenzene	106	38-150

TVH-Total Volatile Hydrocarbons

Client:	Tetra Tech EMI	Analysis Method:	EPA 8015M
Project#:	P1106.05	Prep Method:	EPA 5030
Location:	JW Silveria UST,Oak.		

METHOD BLANK

Matrix:	Soil	Prep Date:	07/07/99
Batch#:	49158	Analysis Date:	07/07/99
Units:	mg/Kg		
Diln Fac:	1		

MB Lab ID: QC02033

Analyte	Result
Gasoline C7-C12	<1.0

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	107	62-143
Bromofluorobenzene	113	59-150

BTXE

Client: Tetra Tech EMI	Analysis Method: EPA 8021B
Project#: P1106.05	Prep Method: EPA 5030
Location: JW Silveria UST,Oak.	

METHOD BLANK

Matrix: Soil	Prep Date: 07/07/99
Batch#: 49158	Analysis Date: 07/07/99
Units: ug/Kg	
Diln Fac: 1	

MB Lab ID: QC02033

Analyte	Result
MTBE	<20
Benzene	<5.0
Toluene	<5.0
Ethylbenzene	<5.0
m,p-Xylenes	<5.0
o-Xylene	<5.0

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	97	59-134
Bromofluorobenzene	100	38-150

Lab #: 140197 BATCH QC REPORT Page

TVH-Total Volatile Hydrocarbons	
Client: Tetra Tech EMI	Analysis Method: EPA 8015M
Project#: P1106.05	Prep Method: EPA 5030
Location: JW Silveria UST,Oak.	

LABORATORY CONTROL SAMPLE	
Matrix: Water	Prep Date: 06/30/99
Batch#: 49025	Analysis Date: 06/30/99
Units: ug/L	
Diln Fac: 1	

LCS Lab ID: QC01504

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline C7-C12	1798	2000	90	77-117

Surrogate	%Rec	Limits
Trifluorotoluene	107	53-150
Bromofluorobenzene	122	53-149

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Lab #: 140197 BATCH QC REPORT Page

BTXE	
Client: Tetra Tech EMI	Analysis Method: EPA 8021B
Project#: P1106.05	Prep Method: EPA 5030
Location: JW Silveria UST,Oak.	

LABORATORY CONTROL SAMPLE	
Matrix: Water	Prep Date: 06/30/99
Batch#: 49025	Analysis Date: 06/30/99
Units: ug/L	
Diln Fac: 1	

LCS Lab ID: QC01505

Analyte	Result	Spike Added	%Rec #	Limits
MTBE	18.66	20	93	66-126
Benzene	20.29	20	101	65-111
Toluene	20.62	20	103	76-117
Ethylbenzene	20.27	20	101	71-121
m,p-Xylenes	41.46	40	104	80-123
o-Xylene	20.88	20	104	75-127

Surrogate	%Rec	Limits
Trifluorotoluene	120	51-143
Bromofluorobenzene	122	37-146

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 6 outside limits

Lab #: 140197 BATCH QC REPORT Page

TVH-Total Volatile Hydrocarbons	
Client: Tetra Tech EMI	Analysis Method: EPA 8015M
Project#: P1106.05	Prep Method: EPA 5030
Location: JW Silveria UST,Oak.	

LABORATORY CONTROL SAMPLE	
Matrix: Soil	Prep Date: 07/04/99
Batch#: 49105	Analysis Date: 07/04/99
Units: mg/Kg	
Diln Fac: 1	

LCS Lab ID: QC01833

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline C7-C12	8.6	10	86	77-122
Surrogate	**%Rec**	**Limits**		
Trifluorotoluene	97	62-143		
Bromofluorobenzene	115	59-150		

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

TVH-Total Volatile Hydrocarbons	
Client: Tetra Tech EMI	Analysis Method: EPA 8015M
Project#: P1106.05	Prep Method: EPA 5030
Location: JW Silveria UST,Oak.	

LABORATORY CONTROL SAMPLE	
Matrix: Soil	Prep Date: 07/07/99
Batch#: 49158	Analysis Date: 07/07/99
Units: mg/Kg	
Diln Fac: 1	

LCS Lab ID: QC02034

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline C7-C12	9.25	10	93	77-122
Surrogate	**%Rec**	**Limits**		
Trifluorotoluene	117	62-143		
Bromofluorobenzene	98	59-150		

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Lab #: 140197 BATCH QC REPORT Page

BTXE	
Client: Tetra Tech EMI	Analysis Method: EPA 8021B
Project#: P1106.05	Prep Method: EPA 5030
Location: JW Silveria UST,Oak.	

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Soil	Prep Date: 07/04/99
Batch#: 49105	Analysis Date: 07/04/99
Units: ug/Kg	
Diln Fac: 1	

BS Lab ID: QC01834

Analyte	Spike Added	BS	%Rec #	Limits
MTBE	100	93.74	94	59-135
Benzene	100	101.4	101	67-116
Toluene	100	102	102	77-122
Ethylbenzene	100	100.6	101	70-124
m,p-Xylenes	200	201.8	101	75-125
o-Xylene	100	102.5	103	75-126

Surrogate	%Rec	Limits
Trifluorotoluene	109	59-134
Bromofluorobenzene	115	38-150

BSD Lab ID: QC01835

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
MTBE	100	95.6	96	59-135	2	13
Benzene	100	104.1	104	67-116	3	10
Toluene	100	107.1	107	77-122	5	10
Ethylbenzene	100	107.4	107	70-124	7	10
m,p-Xylenes	200	215.9	108	75-125	7	10
o-Xylene	100	111.2	111	75-126	8	10

Surrogate	%Rec	Limits
Trifluorotoluene	108	59-134
Bromofluorobenzene	112	38-150

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

Lab #: 140197 BATCH QC REPORT Page 1 of 1

BTXE

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

Analysis Method: EPA 8021B
Prep Method: EPA 5030

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Soil
Batch#: 49158
Units: ug/Kg
Diln Fac: 1

Prep Date: 07/08/99
Analysis Date: 07/08/99

BS Lab ID: QC02115

Analyte	Spike Added	BS	%Rec	#	Limits
MTBE	100	100.1	100		59-135
Benzene	100	97.15	97		67-116
Toluene	100	92.77	93		77-122
Ethylbenzene	100	96.31	96		70-124
m,p-Xylenes	200	198.4	99		75-125
o-Xylene	100	100.2	100		75-126

Surrogate	%Rec	Limits
Trifluorotoluene	96	59-134
Bromofluorobenzene	100	38-150

BSD Lab ID: QC02125

Analyte	Spike Added	BSD	%Rec	#	Limits	RPD	#	Limit
MTBE	100	95.93	96		59-135	4		13
Benzene	100	95.17	95		67-116	2		10
Toluene	100	90.5	91		77-122	2		10
Ethylbenzene	100	96.66	97		70-124	0		10
m,p-Xylenes	200	197.2	99		75-125	1		10
o-Xylene	100	99.65	100		75-126	1		10

Surrogate	%Rec	Limits
Trifluorotoluene	94	59-134
Bromofluorobenzene	96	38-150

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

Lab #: 140197 BATCH QC REPORT Page

BTXE

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

Analysis Method: EPA 8021B
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: JW1-16
Lab ID: 140197-009
Matrix: Water
Batch#: 49025
Units: ug/L
Diln Fac: 1

Sample Date: 06/28/99
Received Date: 06/29/99
Prep Date: 06/30/99
Analysis Date: 06/30/99

MS Lab ID: QC01507

Analyte	Spike Added	Sample	MS	%Rec #	Limits
MTBE	20	100.2	98.43	-9 *	49-136
Benzene	20	10.72	31.29	103	55-122
Toluene	20	8.1	28.09	100	63-139
Ethylbenzene	20	9.74	30.28	103	61-137
m,p-Xylenes	40	8.62	51.12	106	57-148
o-Xylene	20	4.7	27.08	112	70-141

Surrogate	%Rec	Limits
Trifluorotoluene	129	51-143
Bromofluorobenzene	167*	37-146

MSD Lab ID: QC01508

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
MTBE	20	101.4	6 *	49-136	3	11
Benzene	20	32.34	108	55-122	3	10
Toluene	20	29.4	107	63-139	5	10
Ethylbenzene	20	31.74	110	61-137	5	10
m,p-Xylenes	40	53.54	112	57-148	5	10
o-Xylene	20	28.6	120	70-141	5	10

Surrogate	%Rec	Limits
Trifluorotoluene	127	51-143
Bromofluorobenzene	166*	37-146

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 6 outside limits
Spike Recovery: 2 out of 12 outside limits

Lab #: 140197 BATCH QC REPORT

TVH-Total Volatile Hydrocarbons

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

Analysis Method: EPA 8015M
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 140235-002
Matrix: Soil
Batch#: 49105
Units: mg/Kg
Diln Fac: 1

Sample Date: 06/29/99
Received Date: 07/01/99
Prep Date: 07/04/99
Analysis Date: 07/04/99

MS Lab ID: QC01836

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline C7-C12	10	<1	8.28	83	55-134

Surrogate	%Rec	Limits
Trifluorotoluene	105	62-143
Bromofluorobenzene	123	59-150

MSD Lab ID: QC01837

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline C7-C12	10	8.46	85	55-134	2	30

Surrogate	%Rec	Limits
Trifluorotoluene	107	62-143
Bromofluorobenzene	125	59-150

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

TVH-Total Volatile Hydrocarbons

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

Analysis Method: EPA 8015M
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 140249-001
Matrix: Soil
Batch#: 49158
Units: mg/Kg
Diln Fac: 1

Sample Date: 07/01/99
Received Date: 07/01/99
Prep Date: 07/07/99
Analysis Date: 07/07/99

MS Lab ID: QC02101

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline C7-C12	10	<1	6.49	65	55-134

Surrogate	%Rec	Limits
Trifluorotoluene	117	62-143
Bromofluorobenzene	114	59-150

MSD Lab ID: QC02102

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline C7-C12	10	4.82	48 *	55-134	30	30

Surrogate	%Rec	Limits
Trifluorotoluene	112	62-143
Bromofluorobenzene	112	59-150

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 1 out of 2 outside limits

TEH-Tot Ext Hydrocarbons

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

Analysis Method: EPA 8015M
Prep Method: CA LUFT

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
140197-001	JW1-09	49181	06/28/99	07/07/99	07/10/99	18%
140197-002	JW1-11	49181	06/28/99	07/07/99	07/10/99	14%
140197-003	JW1-13	49181	06/28/99	07/07/99	07/10/99	17%
140197-004	JW1-15	49181	06/28/99	07/07/99	07/10/99	17%

Matrix: Soil

Analyte Diln Fac:	Units	140197-001 1	140197-002 1	140197-003 1	140197-004 1
Diesel C10-C24	mg/Kg	<1.2	<1.2	<1.2	<1.2
Surrogate					
Hexacosane	%REC	89	86	81	82

TEH-Tot Ext Hydrocarbons

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

Analysis Method: EPA 8015M
Prep Method: CA LUFT

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
140197-005	JW1-17	49181	06/28/99	07/07/99	07/10/99	17%

Matrix: Soil

Analyte	Units	140197-005
Diln Fac:		1
Diesel C10-C24	mg/Kg	120 YL
Surrogate		
Hexacosane	%REC	90

Y: Sample exhibits fuel pattern which does not resemble standard
L: Lighter hydrocarbons than indicated standard

TEH-Tot Ext Hydrocarbons

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

Analysis Method: EPA 8015M
Prep Method: EPA 3520

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
140197-006	JW1-10	49131	06/28/99	07/04/99	07/09/99	
140197-007	JW1-12	49131	06/28/99	07/04/99	07/09/99	
140197-008	JW1-14	49131	06/28/99	07/04/99	07/09/99	
140197-009	JW1-16	49131	06/28/99	07/04/99	07/09/99	

Matrix: Water

Analyte	Units	140197-006	140197-007	140197-008	140197-009
Diln Fac:		1	1	1	1
Diesel C10-C24	ug/L	380 YHL	310 YLZ	150 YLZH	1800 YL
Surrogate					
Hexacosane	%REC	110	87	83	113

Y: Sample exhibits fuel pattern which does not resemble standard
Z: Sample exhibits unknown single peak or peaks
H: Heavier hydrocarbons than indicated standard
L: Lighter hydrocarbons than indicated standard

TEH-Tot Ext Hydrocarbons

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

Analysis Method: EPA 8015M
Prep Method: EPA 3520

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
140197-010	JW1-18	49131	06/28/99	07/04/99	07/09/99	

Matrix: Water

Analyte	Units	140197-010
Diln Fac:		1
Diesel C10-C24	ug/L	530 YL
Surrogate		
Hexacosane	%REC	93

Y: Sample exhibits fuel pattern which does not resemble standard
L: Lighter hydrocarbons than indicated standard

TEH-Tot Ext Hydrocarbons	
Client: Tetra Tech EMI	Analysis Method: EPA 8015M
Project#: P1106.05	Prep Method: EPA 3520
Location: JW Silveria UST,Oak.	

METHOD BLANK	
Matrix: Water	Prep Date: 07/04/99
Batch#: 49131	Analysis Date: 07/08/99
Units: ug/L	
Diln Fac: 1	

MB Lab ID: QC01930

Analyte	Result	
Diesel C10-C24	<50	
Surrogate	**%Rec**	**Recovery Limits**
Hexacosane	86	58-128

TEH-Tot Ext Hydrocarbons

Client:	Tetra Tech EMI	Analysis Method:	EPA 8015M
Project#:	P1106.05	Prep Method:	CA LUFT
Location:	JW Silveria UST,Oak.		

METHOD BLANK

Matrix:	Soil	Prep Date:	07/07/99
Batch#:	49181	Analysis Date:	07/09/99
Units:	mg/Kg		
Diln Fac:	1		

MB Lab ID: QC02121

Analyte	Result
Diesel C10-C24	<1.0

Surrogate	%Rec	Recovery Limits
Hexacosane	78	52-137

Lab #: 140197 BATCH QC REPORT

TEH-Tot Ext Hydrocarbons	
Client: Tetra Tech EMI	Analysis Method: EPA 8015M
Project#: P1106.05	Prep Method: EPA 3520
Location: JW Silveria UST,Oak.	

BLANK SPIKE/BLANK SPIKE DUPLICATE	
Matrix: Water	Prep Date: 07/04/99
Batch#: 49131	Analysis Date: 07/08/99
Units: ug/L	
Diln Fac: 1	

BS Lab ID: QC01931

Analyte	Spike Added	BS	%Rec #	Limits
Diesel C10-C24	2475	2253	91	50-114
Surrogate	%Rec	Limits		
Hexacosane	108	58-128		

BSD Lab ID: QC01932

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Diesel C10-C24	2475	1946	79	50-114	15	25
Surrogate	%Rec	Limits				
Hexacosane	92	58-128				

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

Lab #: 140197 BATCH QC REPORT Page

TEH-Tot Ext Hydrocarbons	
Client: Tetra Tech EMI	Analysis Method: EPA 8015M
Project#: P1106.05	Prep Method: CA LUFT
Location: JW Silveria UST,Oak.	

LABORATORY CONTROL SAMPLE	
Matrix: Soil	Prep Date: 07/07/99
Batch#: 49181	Analysis Date: 07/10/99
Units: mg/Kg	
Diln Fac: 1	

LCS Lab ID: QC02122

Analyte	Result	Spike Added	%Rec #	Limits
Diesel C10-C24	47.56	49.5	96	52-117
Surrogate	**%Rec**	**Limits**		
Hexacosane	0*	52-137		

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Lab #: 140197 BATCH QC REPORT Page

TEH-Tot Ext Hydrocarbons	
Client: Tetra Tech EMI	Analysis Method: EPA 8015M
Project#: P1106.05	Prep Method: CA LUFT
Location: JW Silveria UST,Oak.	

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: JW1-13	Sample Date: 06/28/99
Lab ID: 140197-003	Received Date: 06/29/99
Matrix: Soil	Prep Date: 07/07/99
Batch#: 49181	Analysis Date: 07/10/99
Units: mg/Kg dry weight	Moisture: 17%
Diln Fac: 1	

MS Lab ID: QC02123

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Diesel C10-C24	59.64	<1.205	55.37	93	41-135
Surrogate	**%Rec**	**Limits**			
Hexacosane	0*	52-137			

MSD Lab ID: QC02124 JL 8.4.99

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Diesel C10-C24	59.64	54.35	91	41-135	2	37
Surrogate	**%Rec**	**Limits**				
Hexacosane	0*	52-137				

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900, Fax (510) 486-0532

RECEIVED
SEP 17 1999
TETRA TECH EM INC.

Laboratory Number 140946

Tetra Tech EMI
135 Main Street
Suite 1800
San Francisco, CA 94105

Project#: P1106.05
Location: JW Silveria UST,Oak.

Sample ID	Lab ID
JW2-05	140946-001
JW2-06	140946-002
JW1-20	140946-003
JW1-21	140946-004

I certify that this data package has been reviewed for technical correctness and completeness. Please see attached narrative for a discussion of any analytical problems related to this sample set. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

The case narrative is an integral and inseparable part of this report.

Signature: _____ Date: 9-14-99
Title: Operations Manager

Signature: Carol Wortham Date: 9/13/99 001
Title: Project Manager

Curtis & Tompkins, Ltd.

Laboratory Number: 140946
Client: Tetra Tech EMI
Location: JW Silveria UST
Project#: P1106.05

Receipt Date: 08/13/99

CASE NARRATIVE

This hardcopy data package contains sample and QC results for three soil samples and one water sample that were received on August 13, 1999. The soil results were reported on a dry-weight basis.

TPH-Purgeables/BTXE: No analytical problems were encountered.

TPH-Extractables: No analytical problems were encountered.

Volatiles: Due to limitations with the computer system, TIC results were not included in the electronic deliverables. High percent differences were observed for freon 12, chloroethane, n-butylbenzene, and 1,2,3-trichlorobenzene in the continuing calibration verification that was analyzed on August 16, 1999 (bhg15). These compounds met the minimum response criteria and were not detected in the associated samples or method blanks. No other analytical problems were encountered.

1206

Tetra Tech EM Inc.
San Francisco Office

140946

Chain of Custody Record

Page 1 of 1

135 Main St. Suite 1800
San Francisco, CA 94105
415-543-4880
Fax 415-543-5480

Project name: JW Silveira UST	**PO#**	**Lab:** C&T
Project number: P1106.05	**TtEMI technical contact:** Jackie Luta	**Field samplers:** 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	Acetate	Preservative Added: HCl	Analysis Required: CLP VOA	CLP SVOA	CLP Pest/PCBs	CLP Metals	TPH Purgeables	TPH Extractables	BTEX MTBE
JW2-05		8-10-99	1055	Soil						1						X		XX
JW2-06			1200	Soil						1						X		XX
JW1-20			1400	Soil						1		X				XX	XX	
JW1-21		↓	1530	WATER	6	2						X				XX	XX	

	Name (print)	Company Name	Date	Time
Relinquished by: Roy D. Glenn	Roy	TT EMI	8-13	09.30
Received by: Steven E. Stanley	Steven E. Stanley	C&T	8-13-99	0930
Relinquished by:				
Received by:				
Relinquished by:				
Received by:				
Relinquished by:				
Received by:				

Turnaround time/remarks:
30

WHITE - Laboratory Copy YELLOW - Project Office Copy

To Silvia GST

Curtis & Tompkins, Ltd.

COOLER RECEIPT CHECKLIST

Login#: 160646 Date Received: 8/13 Number of Coolers: 1

Client: ITEMS Project: P11 06.05

A. Preliminary Examination Phase

Date Opened: 8/13 By (print): Julian (sign) [signature]

1. Did cooler come with a shipping slip (airbill, etc.)? YES (NO)
   If YES, enter carrier name and airbill number: _____
2. Were custody seals on outside of cooler? YES (NO)
   How many and where? _____ Seal date: _____ Seal name: _____
3. Were custody seals unbroken and intact at the date and time of arrival? YES NO NA
4. Were custody papers dry and intact when received? (YES) NO
5. Were custody papers filled out properly (ink, signed, etc.)? (YES) NO
6. Did you sign the custody papers in the appropriate place? (YES) NO
7. Was project identifiable from custody papers? (YES) NO
   If YES, enter project name at the top of this form.
8. If required, was sufficient ice used? (YES) NO
   Type of ice: Wet Blue Temperature: 5.0°C

B. Login Phase

Date Logged In: 8/13 By (print): Julian (sign) [signature]

1. Describe type of packing in cooler: foam - bubblewrap
2. Did all bottles arrive unbroken? (YES) NO
3. Were labels in good condition and complete (ID, date, time, signature, etc.)? (YES) NO
4. Did bottle labels agree with custody papers? (YES) NO
5. Were appropriate containers used for the tests indicated? (YES) NO
6. Were correct preservatives added to samples? (YES) NO
7. Was sufficient amount of sample sent for tests indicated? (YES) NO
8. Were bubbles absent in VOA samples? If NO, list sample Ids below. (YES) NO
9. Was the client contacted concerning this sample delivery? YES NO
   If YES, give details below.
   Who was called? _____ By whom? _____ Date: _____

Additional Comments:

_____

_____

_____

_____

_____

_____

_____

Percent Moisture Summary Report

Date: 17-AUG-99
Batch: 49951
Analyst: MR

Sample	Method	Date	Tare(g)	Wet(g)	Dry(g)	Percent Solids	Percent Moisture
140927-001	CLP SOW 390	17-AUG-99	15.2168	22.7692	22.1258	91	9
140927-002	CLP SOW 390	17-AUG-99	15.6307	23.3987	22.5222	89	11
140927-003	CLP SOW 390	17-AUG-99	15.1542	23.4093	22.6205	90	10
140927-004	CLP SOW 390	17-AUG-99	15.7928	22.7369	22.004	89	11
140927-005	CLP SOW 390	17-AUG-99	14.978	22.6982	21.1103	79	21
140927-006	CLP SOW 390	17-AUG-99	15.4962	24.0242	22.927	87	13
140927-007	CLP SOW 390	17-AUG-99	15.2088	22.9498	22.0673	89	11
140927-008	CLP SOW 390	17-AUG-99	15.661	23.837	23.2404	93	7
140927-009	CLP SOW 390	17-AUG-99	15.8898	22.9358	22.1682	89	11
140927-010	CLP SOW 390	17-AUG-99	15.4917	22.9977	21.8261	84	16
140943-001	CLP SOW 390	17-AUG-99	15.8471	22.4576	19.371	53	47
140946-001	CLP SOW 390	17-AUG-99	15.9416	24.0225	23.0076	87	13
140946-002	CLP SOW 390	17-AUG-99	15.4184	22.6676	21.4602	83	17
140946-003	CLP SOW 390	17-AUG-99	15.4901	23.3183	22.1374	85	15
QC05104 of 140943-001	CLP SOW 390	17-AUG-99	15.6771	23.1163	19.5075	51	49
					RPD:	3.5%	3.8%

TVH-Total Volatile Hydrocarbons

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

Analysis Method: EPA 8015M
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
140946-001	JW2-05	50066	08/11/99	08/21/99	08/21/99	13%
140946-002	JW2-06	50066	08/11/99	08/21/99	08/21/99	17%
140946-003	JW1-20	50066	08/11/99	08/21/99	08/21/99	15%

Matrix: Soil

Analyte	Units	140946-001	140946-002	140946-003
Diln Fac:		1	1	1
Gasoline C7-C12	mg/Kg	<1.1	<1.2	<1.2
Surrogate				
Trifluorotoluene	%REC	93	80	79
Bromofluorobenzene	%REC	88	113	97

TVH-Total Volatile Hydrocarbons

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

Analysis Method: EPA 8015M
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
140946-004	JW1-21	50075	08/11/99	08/22/99	08/22/99	

Matrix: Water

Analyte	Units	140946-004
Diln Fac:		1
Gasoline C7-C12	ug/L	<50
Surrogate		
Trifluorotoluene	%REC	114
Bromofluorobenzene	%REC	114

BTXE

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

Analysis Method: EPA 8021B
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
140946-001	JW2-05	50066	08/11/99	08/21/99	08/21/99	13%
140946-002	JW2-06	50066	08/11/99	08/21/99	08/21/99	17%

Matrix: Soil

Analyte	Units	140946-001	140946-002
Diln Fac:		1	1
MTBE	ug/Kg	<23	<24
Benzene	ug/Kg	<5.7	<6
Toluene	ug/Kg	<5.7	<6
Ethylbenzene	ug/Kg	<5.7	<6
m,p-Xylenes	ug/Kg	<5.7	<6
o-Xylene	ug/Kg	<5.7	<6
Surrogate			
Trifluorotoluene	%REC	110	105
Bromofluorobenzene	%REC	109	107

Lab #: 140946

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client:	Tetra Tech EMI	Analysis Method:	EPA 8015M
Project#:	P1106.05	Prep Method:	EPA 5030
Location:	JW Silveria UST,Oak.		

METHOD BLANK

Matrix:	Soil	Prep Date:	08/21/99
Batch#:	50066	Analysis Date:	08/21/99
Units:	mg/Kg		
Diln Fac:	1		

MB Lab ID: QC05515

Analyte	Result
Gasoline C7-C12	<1.0

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	78	62-143
Bromofluorobenzene	91	59-150

Lab #: 140946

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

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

Analysis Method: EPA 8021B
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil
Batch#: 50066
Units: ug/Kg
Diln Fac: 1

Prep Date: 08/21/99
Analysis Date: 08/21/99

MB Lab ID: QC05515

Analyte	Result
MTBE	<20
Benzene	<5.0
Toluene	<5.0
Ethylbenzene	<5.0
m,p-Xylenes	<5.0
o-Xylene	<5.0

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	110	59-134
Bromofluorobenzene	110	38-150

TVH-Total Volatile Hydrocarbons

Client:	Tetra Tech EMI	Analysis Method:	EPA 8015M
Project#:	P1106.05	Prep Method:	EPA 5030
Location:	JW Silveria UST,Oak.		

METHOD BLANK

Matrix:	Water	Prep Date:	08/22/99
Batch#:	50075	Analysis Date:	08/22/99
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC05560

Analyte	Result
Gasoline C7-C12	<50

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	103	53-150
Bromofluorobenzene	102	53-149

Lab #: 140946

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

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

Analysis Method: EPA 8015M
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 50066
Units: mg/Kg
Diln Fac: 1

Prep Date: 08/21/99
Analysis Date: 08/21/99

LCS Lab ID: QC05516

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline C7-C12	9.31	10	93	77-122

Surrogate	%Rec	Limits
Trifluorotoluene	80	62-143
Bromofluorobenzene	93	59-150

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Lab #: 140946 BATCH QC REPORT Page

TVH-Total Volatile Hydrocarbons	
Client: Tetra Tech EMI	Analysis Method: EPA 8015M
Project#: P1106.05	Prep Method: EPA 5030
Location: JW Silveria UST,Oak.	

LABORATORY CONTROL SAMPLE	
Matrix: Water	Prep Date: 08/22/99
Batch#: 50075	Analysis Date: 08/22/99
Units: ug/L	
Diln Fac: 1	

LCS Lab ID: QC05558

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline C7-C12	1782	2000	89	77-117

Surrogate	%Rec	Limits
Trifluorotoluene	109	53-150
Bromofluorobenzene	119	53-149

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Lab #: 140946

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

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

Analysis Method: EPA 8021B
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 50066
Units: ug/Kg
Diln Fac: 1

Prep Date: 08/21/99
Analysis Date: 08/21/99

LCS Lab ID: QC05517

Analyte	Result	Spike Added	%Rec #	Limits
MTBE	100.3	100	100	59-135
Benzene	102	100	102	67-116
Toluene	103.1	100	103	77-122
Ethylbenzene	96.58	100	97	70-124
m,p-Xylenes	208.9	200	104	75-125
o-Xylene	103.3	100	103	75-126

Surrogate	%Rec	Limits
Trifluorotoluene	110	59-134
Bromofluorobenzene	105	38-150

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 6 outside limits

Lab #: 140946

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client:	Tetra Tech EMI	Analysis Method:	EPA 8015M
Project#:	P1106.05	Prep Method:	EPA 5030
Location:	JW Silveria UST,Oak.		

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID:	JW2-06	Sample Date:	08/11/99
Lab ID:	140946-002	Received Date:	08/13/99
Matrix:	Soil	Prep Date:	08/21/99
Batch#:	50066	Analysis Date:	08/21/99
Units:	mg/Kg dry weight	Moisture:	17%
Diln Fac:	1		

MS Lab ID: QC05518

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline C7-C12	12.05	<1.205	11.23	93	55-134

Surrogate	%Rec	Limits
Trifluorotoluene	79	62-143
Bromofluorobenzene	94	59-150

MSD Lab ID: QC05519

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline C7-C12	12.05	11.71	97	55-134	4	30

Surrogate	%Rec	Limits
Trifluorotoluene	80	62-143
Bromofluorobenzene	90	59-150

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

TVH-Total Volatile Hydrocarbons

Client:	Tetra Tech EMI	Analysis Method:	EPA 8015M
Project#:	P1106.05	Prep Method:	EPA 5030
Location:	JW Silveria UST,Oak.		

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID:	JW1-21	Sample Date:	08/11/99
Lab ID:	140946-004	Received Date:	08/13/99
Matrix:	Water	Prep Date:	08/22/99
Batch#:	50075	Analysis Date:	08/22/99
Units:	ug/L		
Diln Fac:	1		

MS Lab ID: QC05561

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline C7-C12	2000	<50	1704	85	69-131

Surrogate	%Rec	Limits
Trifluorotoluene	114	53-150
Bromofluorobenzene	126	53-149

MSD Lab ID: QC05562

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline C7-C12	2000	1915	96	69-131	12	13

Surrogate	%Rec	Limits
Trifluorotoluene	116	53-150
Bromofluorobenzene	129	53-149

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

TEH-Tot Ext Hydrocarbons

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

Analysis Method: EPA 8015M
Prep Method: CA LUFT

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
140946-003	JW1-20	50031	08/11/99	08/19/99	08/21/99	15%

Matrix: Soil

Analyte Diln Fac:	Units	140946-003 1
Diesel C10-C24	mg/Kg	<1.2
Surrogate		
Hexacosane	%REC	96

Curtis & Tompkins, Ltd.

TEH-Tot Ext Hydrocarbons

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

Analysis Method: EPA 8015M
Prep Method: EPA 3520

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
140946-004	JW1-21	50020	08/11/99	08/18/99	08/21/99	

Matrix: Water

Analyte	Units	140946-004
Diln Fac:		1
Diesel C10-C24	ug/L	<47
Surrogate		
Hexacosane	%REC	70

Lab #: 140946

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TEH-Tot Ext Hydrocarbons

Client:	Tetra Tech EMI	Analysis Method:	EPA 8015M
Project#:	P1106.05	Prep Method:	CA LUFT
Location:	JW Silveria UST,Oak.		

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID:	JW1-20	Sample Date:	08/11/99
Lab ID:	140946-003	Received Date:	08/13/99
Matrix:	Soil	Prep Date:	08/19/99
Batch#:	50031	Analysis Date:	08/21/99
Units:	mg/Kg dry weight	Moisture:	15%
Diln Fac:	1		

MS Lab ID: QC05382

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Diesel C10-C24	58.24	<1.176	46.4	79	41-135
Surrogate	**%Rec**	**Limits**			
Hexacosane	87	52-137			

MSD Lab ID: QC05383

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Diesel C10-C24	58.24	49.61	85	41-135	7	37
Surrogate	**%Rec**	**Limits**				
Hexacosane	92	52-137				

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

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Lab #: 140946

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TEH-Tot Ext Hydrocarbons

Client:	Tetra Tech EMI	Analysis Method:	EPA 8015M
Project#:	P1106.05	Prep Method:	EPA 3520
Location:	JW Silveria UST,Oak.		

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID:	ZZZZZZ	Sample Date:	08/11/99
Lab ID:	140915-005	Received Date:	08/12/99
Matrix:	Water	Prep Date:	08/18/99
Batch#:	50020	Analysis Date:	08/25/99
Units:	ug/L		
Diln Fac:	1		

MS Lab ID: QC05356

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Diesel C10-C24	2605	718.7	2475	67	51-104

Surrogate	%Rec	Limits
Hexacosane	69	58-128

MSD Lab ID: QC05357

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Diesel C10-C24	2605	3019	88	51-104	20	33

Surrogate	%Rec	Limits
Hexacosane	73	58-128

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

Lab #: 140946

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TEH-Tot Ext Hydrocarbons

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

Analysis Method: EPA 8015M
Prep Method: CA LUFT

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 50031
Units: mg/Kg
Diln Fac: 1

Prep Date: 08/19/99
Analysis Date: 08/21/99

LCS Lab ID: QC05381

Analyte	Result	Spike Added	%Rec #	Limits
Diesel C10-C24	43.84	49.5	89	52-117
Surrogate	**%Rec**	**Limits**		
Hexacosane	92	52-137		

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Lab #: 140946 BATCH QC REPORT Curtis & Tompkins, Ltd.

TEH-Tot Ext Hydrocarbons

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

Analysis Method: EPA 8015M
Prep Method: EPA 3520

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 50020
Units: ug/L
Diln Fac: 1

Prep Date: 08/18/99
Analysis Date: 08/25/99

LCS Lab ID: QC05355

Analyte	Result	Spike Added	%Rec #	Limits
Diesel C10-C24	1688	2475	68	50-114

Surrogate	%Rec	Limits
Hexacosane	63	58-128

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Lab #: 140946

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TEH-Tot Ext Hydrocarbons

Client:	Tetra Tech EMI	Analysis Method:	EPA 8015M
Project#:	P1106.05	Prep Method:	EPA 3520
Location:	JW Silveria UST,Oak.		

METHOD BLANK

Matrix:	Water	Prep Date:	08/18/99
Batch#:	50020	Analysis Date:	08/21/99
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC05354

Analyte	Result	
Diesel C10-C24	<50	
Surrogate	**%Rec**	**Recovery Limits**
Hexacosane	68	58-128

Lab #: 140946

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TEH-Tot Ext Hydrocarbons

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

Analysis Method: EPA 8015M
Prep Method: CA LUFT

METHOD BLANK

Matrix: Soil
Batch#: 50031
Units: mg/Kg
Diln Fac: 1

Prep Date: 08/19/99
Analysis Date: 08/21/99

MB Lab ID: QC05380

Analyte	Result	
Diesel C10-C24	<1.0	
Surrogate	**%Rec**	**Recovery Limits**
Hexacosane	87	52-137

Volatile Organics by GC/MS

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

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: JW1-20
Lab ID: 140946-003
Matrix: Soil
Batch#: 49932
Units: ug/Kg dry weight
Diln Fac: 0.9804

Sampled: 08/11/99
Received: 08/13/99
Extracted: 08/16/99
Analyzed: 08/16/99
Moisture: 15%

Analyte	Result	Reporting Limit
Freon 12	ND	12
Chloromethane	ND	12
Vinyl Chloride	ND	12
Bromomethane	ND	12
Chloroethane	ND	12
Trichlorofluoromethane	ND	5.8
Acetone	ND	23
Freon 113	ND	5.8
1,1-Dichloroethene	ND	5.8
Methylene Chloride	ND	23
Carbon Disulfide	ND	5.8
MTBE	ND	5.8
trans-1,2-Dichloroethene	ND	5.8
Vinyl Acetate	ND	58
1,1-Dichloroethane	ND	5.8
2-Butanone	ND	12
cis-1,2-Dichloroethene	ND	5.8
2,2-Dichloropropane	ND	5.8
Chloroform	ND	5.8
Bromochloromethane	ND	5.8
1,1,1-Trichloroethane	ND	5.8
1,1-Dichloropropene	ND	5.8
Carbon Tetrachloride	ND	5.8
1,2-Dichloroethane	ND	5.8
Benzene	ND	5.8
Trichloroethene	ND	5.8
1,2-Dichloropropane	ND	5.8
Bromodichloromethane	ND	5.8
Dibromomethane	ND	5.8
4-Methyl-2-Pentanone	ND	12
cis-1,3-Dichloropropene	ND	5.8
Toluene	ND	5.8
trans-1,3-Dichloropropene	ND	5.8
1,1,2-Trichloroethane	ND	5.8
2-Hexanone	ND	12
1,3-Dichloropropane	ND	5.8
Tetrachloroethene	ND	5.8
Dibromochloromethane	ND	5.8

Volatile Organics by GC/MS

Field ID:	JW1-20	Sampled:	08/11/99
Lab ID:	140946-003	Received:	08/13/99
Matrix:	Soil	Extracted:	08/16/99
Batch#:	49932	Analyzed:	08/16/99
Units:	ug/Kg dry weight	Moisture:	15%
Diln Fac:	0.9804		

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	5.8
Chlorobenzene	ND	5.8
1,1,1,2-Tetrachloroethane	ND	5.8
Ethylbenzene	ND	5.8
m,p-Xylenes	ND	5.8
o-Xylene	ND	5.8
Styrene	ND	5.8
Bromoform	ND	5.8
Isopropylbenzene	ND	5.8
1,1,2,2-Tetrachloroethane	ND	5.8
1,2,3-Trichloropropane	ND	5.8
Propylbenzene	ND	5.8
Bromobenzene	ND	5.8
1,3,5-Trimethylbenzene	ND	5.8
2-Chlorotoluene	ND	5.8
4-Chlorotoluene	ND	5.8
tert-Butylbenzene	ND	5.8
1,2,4-Trimethylbenzene	ND	5.8
sec-Butylbenzene	ND	5.8
para-Isopropyl Toluene	ND	5.8
1,3-Dichlorobenzene	ND	5.8
1,4-Dichlorobenzene	ND	5.8
n-Butylbenzene	ND	5.8
1,2-Dichlorobenzene	ND	5.8
1,2-Dibromo-3-Chloropropane	ND	5.8
1,2,4-Trichlorobenzene	ND	5.8
Hexachlorobutadiene	ND	5.8
Naphthalene	ND	5.8
1,2,3-Trichlorobenzene	ND	5.8

Surrogate	%Recovery	Recovery Limits
Dibromofluoromethane	108	67-140
1,2-Dichloroethane-d4	108	80-129
Toluene-d8	102	88-111
Bromofluorobenzene	100	76-128

Volatile Organics by GC/MS

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

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: JW1-21
Lab ID: 140946-004
Matrix: Water
Batch#: 49968
Units: ug/L
Diln Fac: 1

Sampled: 08/11/99
Received: 08/13/99
Extracted: 08/18/99
Analyzed: 08/18/99

Analyte	Result		Reporting Limit
Freon 12	ND	--	10
Chloromethane	ND		10
Vinyl Chloride	ND		10
Bromomethane	ND		10
Chloroethane	ND		10
Trichlorofluoromethane	ND		5.0
Acetone	ND		20
Freon 113	ND		5.0
1,1-Dichloroethene	6.1		5.0
Methylene Chloride	ND		20
Carbon Disulfide	ND		5.0
MTBE	ND		5.0
trans-1,2-Dichloroethene	ND		5.0
Vinyl Acetate	ND		50
1,1-Dichloroethane	4.1 J		5.0
2-Butanone	ND		10
cis-1,2-Dichloroethene	ND		5.0
2,2-Dichloropropane	ND		5.0
Chloroform	ND		5.0
Bromochloromethane	ND		10
1,1,1-Trichloroethane	ND		5.0
1,1-Dichloropropene	ND		5.0
Carbon Tetrachloride	ND		5.0
1,2-Dichloroethane	ND		5.0
Benzene	ND		5.0
Trichloroethene	ND		5.0
1,2-Dichloropropane	ND		5.0
Bromodichloromethane	ND		5.0
Dibromomethane	ND		5.0
4-Methyl-2-Pentanone	ND		10
cis-1,3-Dichloropropene	ND		5.0
Toluene	ND		5.0
trans-1,3-Dichloropropene	ND		5.0
1,1,2-Trichloroethane	ND		5.0
2-Hexanone	ND		10
1,3-Dichloropropane	ND		5.0
Tetrachloroethene	ND		5.0
Dibromochloromethane	ND		5.0

Volatile Organics by GC/MS

Field ID:	JW1-21	Sampled:	08/11/99
Lab ID:	140946-004	Received:	08/13/99
Matrix:	Water	Extracted:	08/18/99
Batch#:	49968	Analyzed:	08/18/99
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%Recovery	Recovery Limits
Dibromofluoromethane	104	81-121
1,2-Dichloroethane-d4	101	76-127
Toluene-d8	104	90-109
Bromofluorobenzene	97	82-118

J: Estimated Value

EPA 8260 Volatile Organics

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

Analysis Method: EPA 8260A
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil
Batch#: 49932
Units: ug/Kg
Diln Fac: 1

Prep Date: 08/16/99
Analysis Date: 08/16/99

MB Lab ID: QC05021

Analyte	Result	Reporting Limit
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

EPA 8260 Volatile Organics

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

Analysis Method: EPA 8260A
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil
Batch#: 49932
Units: ug/Kg
Diln Fac: 1

Prep Date: 08/16/99
Analysis Date: 08/16/99

MB Lab ID: QC05021

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%Rec	Recovery Limits
Dibromofluoromethane	102	67-140
1,2-Dichloroethane-d4	99	80-129
Toluene-d8	102	88-111
Bromofluorobenzene	94	76-128

EPA 8260 Volatile Organics

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

Analysis Method: EPA 8260A
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil
Batch#: 49932
Units: ug/Kg
Diln Fac: 1

Prep Date: 08/16/99
Analysis Date: 08/16/99

MB Lab ID: QC05103

Analyte	Result	Reporting Limit
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

EPA 8260 Volatile Organics

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

Analysis Method: EPA 8260A
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil
Batch#: 49932
Units: ug/Kg
Diln Fac: 1

Prep Date: 08/16/99
Analysis Date: 08/16/99

MB Lab ID: QC05103

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%Rec	Recovery Limits
Dibromofluoromethane	108	67-140
1,2-Dichloroethane-d4	106	80-129
Toluene-d8	103	88-111
Bromofluorobenzene	97	76-128

Lab #: 140946

BATCH QC REPORT

Curtis & Tompkins, Ltd.

EPA 8260 Volatile Organics

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

Analysis Method: EPA 8260A
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 49968
Units: ug/L
Diln Fac: 1

Prep Date: 08/17/99
Analysis Date: 08/17/99

MB Lab ID: QC05162

Analyte	Result	Reporting Limit
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	10
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0
Dibromochloromethane	ND	5.0

EPA 8260 Volatile Organics

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

Analysis Method: EPA 8260A
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 49968
Units: ug/L
Diln Fac: 1

Prep Date: 08/17/99
Analysis Date: 08/17/99

MB Lab ID: QC05162

Analyte	Result	Reporting Limit
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%Rec	Recovery Limits
Dibromofluoromethane	109	81-121
1,2-Dichloroethane-d4	101	76-127
Toluene-d8	100	90-109
Bromofluorobenzene	98	82-118

Lab #: 140946 BATCH QC REPORT

Curtis & Tompkins, Ltd.

EPA 8260 Volatile Organics

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

Analysis Method: EPA 8260
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 49932
Units: ug/Kg
Diln Fac: 1

Prep Date: 08/16/99
Analysis Date: 08/16/99

LCS Lab ID: QC05020

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	65.93	50	132	63-144
Benzene	50.25	50	100	74-127
Trichloroethene	51.69	50	103	70-131
Toluene	52.34	50	105	72-131
Chlorobenzene	48.5	50	97	74-126

Surrogate	%Rec	Limits
Dibromofluoromethane	102	67-140
1,2-Dichloroethane-d4	104	80-129
Toluene-d8	102	88-111
Bromofluorobenzene	96	76-128

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 5 outside limits

EPA 8260 Volatile Organics

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

Analysis Method: EPA 8260
Prep Method: EPA 5030

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 49968
Units: ug/L
Diln Fac: 1

Prep Date: 08/17/99
Analysis Date: 08/17/99

BS Lab ID: QC05159

Analyte	Spike Added	BS	%Rec #	Limits
1,1-Dichloroethene	50	51.81	104	64-139
Benzene	50	45.34	91	71-127
Trichloroethene	50	45.74	91	72-129
Toluene	50	44.29	89	73-129
Chlorobenzene	50	46.63	93	77-126

Surrogate	%Rec	Limits
Dibromofluoromethane	109	81-121
1,2-Dichloroethane-d4	101	76-127
Toluene-d8	98	90-109
Bromofluorobenzene	100	82-118

BSD Lab ID: QC05160

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	52.32	105	64-139	1	13
Benzene	50	45.59	91	71-127	1	10
Trichloroethene	50	46.34	93	72-129	1	10
Toluene	50	44.91	90	73-129	1	10
Chlorobenzene	50	45.48	91	77-126	2	10

Surrogate	%Rec	Limits
Dibromofluoromethane	106	81-121
1,2-Dichloroethane-d4	99	76-127
Toluene-d8	99	90-109
Bromofluorobenzene	98	82-118

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

EPA 8260 Volatile Organics

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

Analysis Method: EPA 8260A
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 140961-002
Matrix: Soil
Batch#: 49932
Units: ug/Kg
Diln Fac: 0.9434

Sample Date: 08/13/99
Received Date: 08/14/99
Prep Date: 08/16/99
Analysis Date: 08/16/99

MS Lab ID: QC05037

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	47.17	<4.717	56.99	121	51-137
Benzene	47.17	<4.717	46.76	99	53-128
Trichloroethene	47.17	<4.717	51.73	110	33-153
Toluene	47.17	<4.717	48.58	103	45-134
Chlorobenzene	47.17	<4.717	44.98	95	39-132

Surrogate	%Rec	Limits
Dibromofluoromethane	106	67-140
1,2-Dichloroethane-d4	102	80-129
Toluene-d8	103	88-111
Bromofluorobenzene	108	76-128

MSD Lab ID: QC05038

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	49.02	56.22	115	51-137	1	35
Benzene	49.02	50.6	103	53-128	8	34
Trichloroethene	49.02	55.18	113	33-153	6	44
Toluene	49.02	51.63	105	45-134	6	44
Chlorobenzene	49.02	47.08	96	39-132	5	47

Surrogate	%Rec	Limits
Dibromofluoromethane	99	67-140
1,2-Dichloroethane-d4	103	80-129
Toluene-d8	104	88-111
Bromofluorobenzene	102	76-128

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits