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MONITORING REPORTS

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Report of Ground Water Monitoring Activities

**Transwestern Pipeline Company
WT-1 Compressor Station: Engine Room Drain Pit Area
Lea County, New Mexico**

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Report of Ground Water Monitoring Activities

Transwestern Pipeline Company

WT-1 Compressor Station: Engine Room Drain Pit Area

I. Ground Water Monitoring Activities

Ground Water Sampling Events

Transwestern Pipeline Company (TW) has completed three sampling events since the last report of ground water monitoring activities. These events were completed on July 17, 1998, January 27, 1999, and July 9, 1999.

Prior to sampling, the depth to water, and the depth to hydrocarbon where phase separated hydrocarbon (PSH) was present, was determined for each monitor well. The measured depths and the corresponding water table elevation for each monitor well is presented in Table 1.

Ground water samples were collected from nine of eleven monitor wells in the course of the July 1998 and January 1999 sampling events. Ground water samples were not collected from monitor well MW-2 due to the presence of PSH accumulated in the well casing and samples were not collected from monitor well MW-3 due to an insufficient volume of water in the well casing. In the course of the July 1999 sampling event, samples were not collected from monitor well MW-1 due to the presence of a sheen of PSH in the well casing. A summary of field measured parameters obtained in the course of sampling is presented in Table 2.

Ground water samples were delivered to a laboratory for analysis for volatile organic compounds (VOCs), twelve metal constituents, total dissolved solids (TDS), chloride, and sulfate. Inorganic analyses were only completed for the July 1998 and July 1999 sampling events as specified in the sampling plan. A summary of laboratory results for selected organic constituents is presented in Table 3. A summary of additional organic constituents, measured and reported by the laboratory but not included in Table 3, is presented in Table 4. A summary of laboratory results for inorganic constituents is presented in Table 5.

Results/Conclusions from Ground Water Sampling Events

Occurrence and Direction of Ground Water Flow

A water table elevation diagram was prepared from information obtained in the course of the July 1999 sampling event and is included as Figure 3. The apparent direction of ground water flow is toward the north and is consistent with water table elevations previously measured at this site.

Lateral Extent of Phase Separated Hydrocarbon

The lateral extent of PSH is currently defined by the occurrence of PSH at the water table in monitor well MW-2, a sheen of PSH at the water table in monitor well MW-1, and the absence of PSH in all other monitor wells. The thickness of accumulated PSH in monitor well MW-2 can not accurately be measured due to the limited depth of screened interval below the water table, however, the measured thickness between the depth to PSH and the total depth of the well is on the order of 2.0 feet.

Condition of Affected Ground Water

The condition of affected ground water, based on the recent sampling events, has not changed significantly from previous sampling events as evidenced by the information presented in Table 3 and Table 5. The primary constituents of concern are benzene, 1,1-dichloroethane, and trichloroethene. Distribution maps for BTEX, selected halogenated compounds, and selected inorganic constituents are included as Figure 4, Figure 5, and Figure 6, respectively.

II. Planned Changes to the Ground Water Monitoring Program

Disposal of Monitor Well Purge Water

Transwestern will continue with the approved method for disposal of monitor well purge water. Purge water will be accumulated on-site in 55-gallon drums. Based on previous experience, Transwestern anticipates that approximately 45 gallons of purge water will be generated in the course of each sampling event. Transwestern has determined that the purge water generated at this site is non-hazardous. This determination is based on laboratory analyses of ground water samples from each of the individual monitor wells which produced the purge water and based on generator knowledge. However, due to the relatively small volume of purge water generated in the course of each event, Transwestern will manage the purge water as if it were a RCRA regulated hazardous waste (although, the water will be manifested for disposal as "non-regulated").

Frequency of Ground Water Monitoring

Transwestern will continue with semiannual sampling events.

Sample Analysis Plan

Subsequent to approval of the previous "Report of Ground Water Monitoring Activities", Transwestern modified the sample analysis plan such that samples are collected for analysis for VOCs in the course of each semiannual sampling event and samples are collected for analysis for inorganic constituents in the course of just one semiannual sampling event (i.e., annually). The current list of analytes and laboratory analytical methods are as follows:

- Volatile Organic Compounds (method 8260)
- Total Dissolved Solids (method 160.1)
- Chloride (method 325.2)
- Sulfate (method 375.2)
- Nitrite & Nitrate as Nitrogen (method 353.2)
- Total Metals (method 7470 for Hg & method 6010 for all others) including Barium, Cadmium, Chromium, Lead, Mercury, Silver, Copper, Iron, Manganese, & Zinc. Arsenic will be analyzed by graphite furnace method 7060. Selenium will be analyzed by graphite furnace method 7740.

Transwestern proposes to modify the current sampling plan to exclude eight of the twelve metal constituents from the sample analysis plan. Only four of the twelve metal constituents have consistently been detected above a NMWQCC ground water standard: Arsenic, measured in samples from monitor well MW-1; Barium, measured in samples from monitor wells MW-1 and MW-5; Iron, measured in samples from monitor wells MW-1 and MW-5; and Manganese, measured in samples from monitor wells MW-6, MW-8, and MW-16. In light of this, only these four metal constituents will be included in the sample analysis plan.

Routine Reporting of Monitoring Activities

Transwestern will continue with annual reporting. The next annual report will be submitted to the OCD by November 1, 2000.

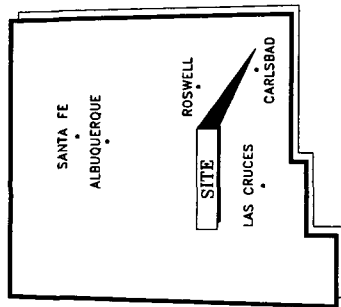
III. Status of Remediation Activities

Transwestern is in the process of evaluating corrective action alternatives for this site.

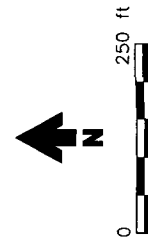
Report of Ground Water Monitoring Activities
WT-1 Compressor Station: Engine Room Drain Pit Area
Transwestern Pipeline Company

Figures

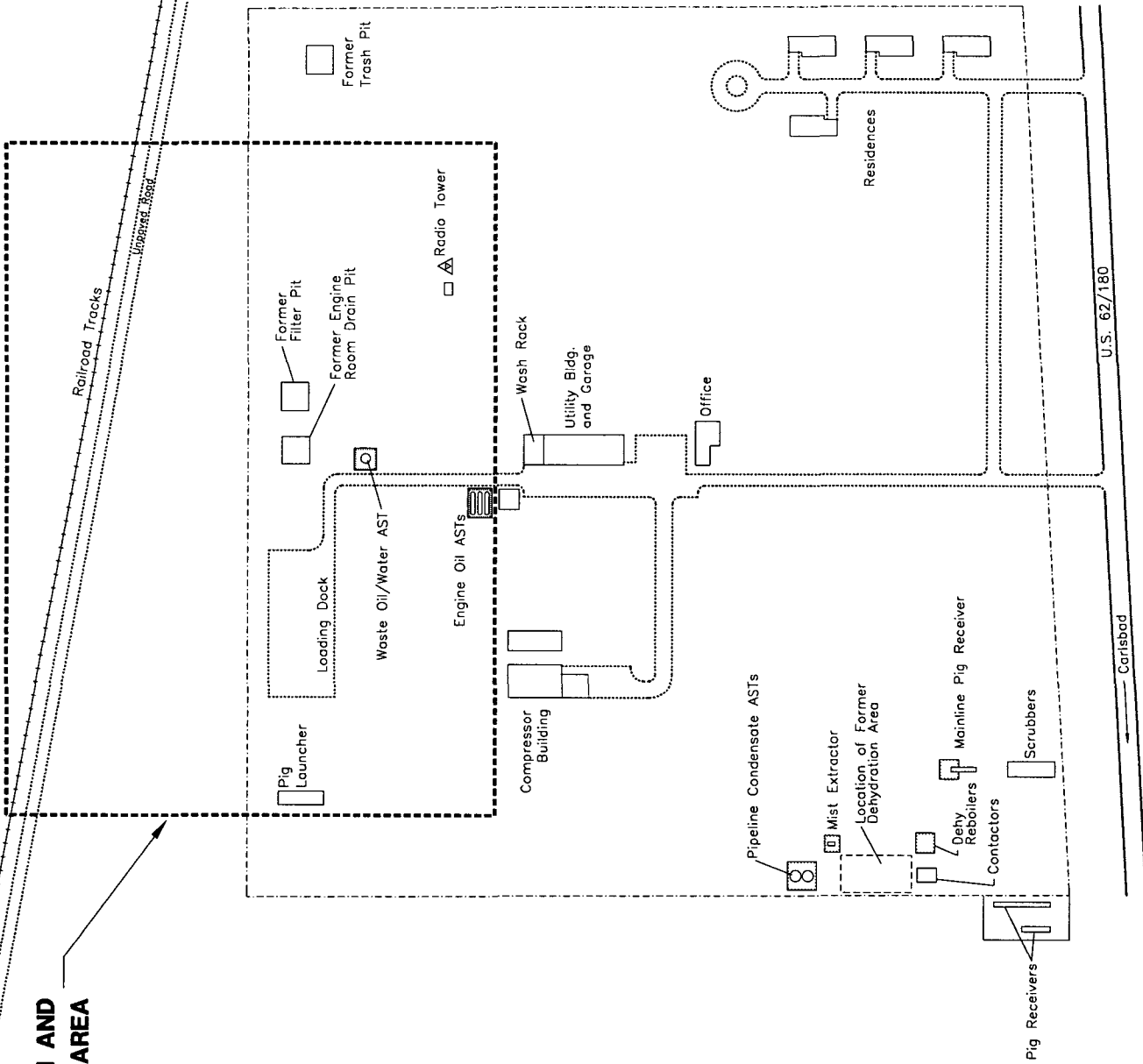
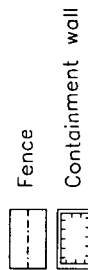
FORMER ENGINE ROOM DRAIN AND FILTER PIT REMEDIATION AREA



STATE OF NEW MEXICO

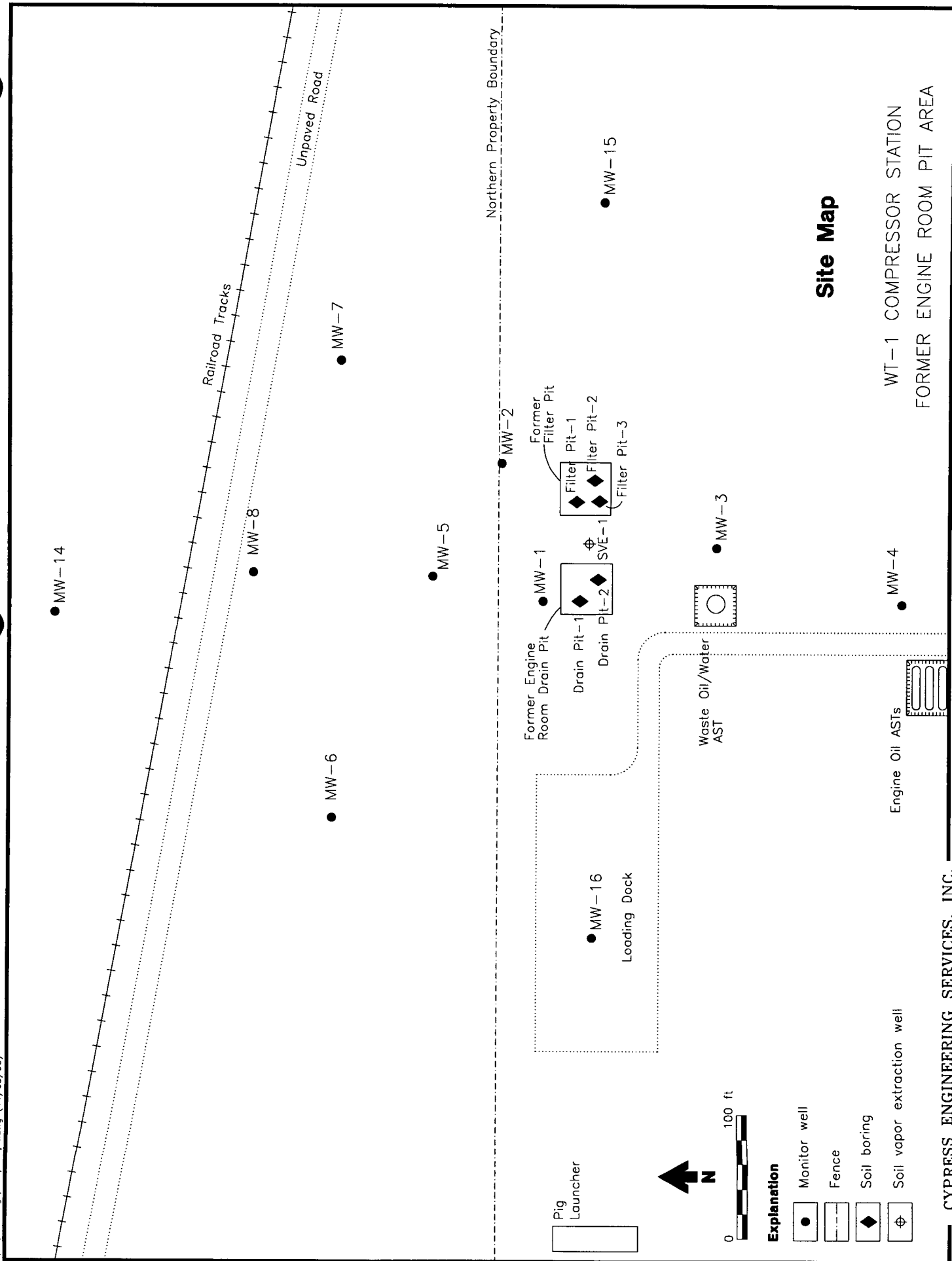


Explanation



Facility Site Map

WT-1 COMPRESSOR STATION
TRANSWESTERN PIPELINE COMPANY



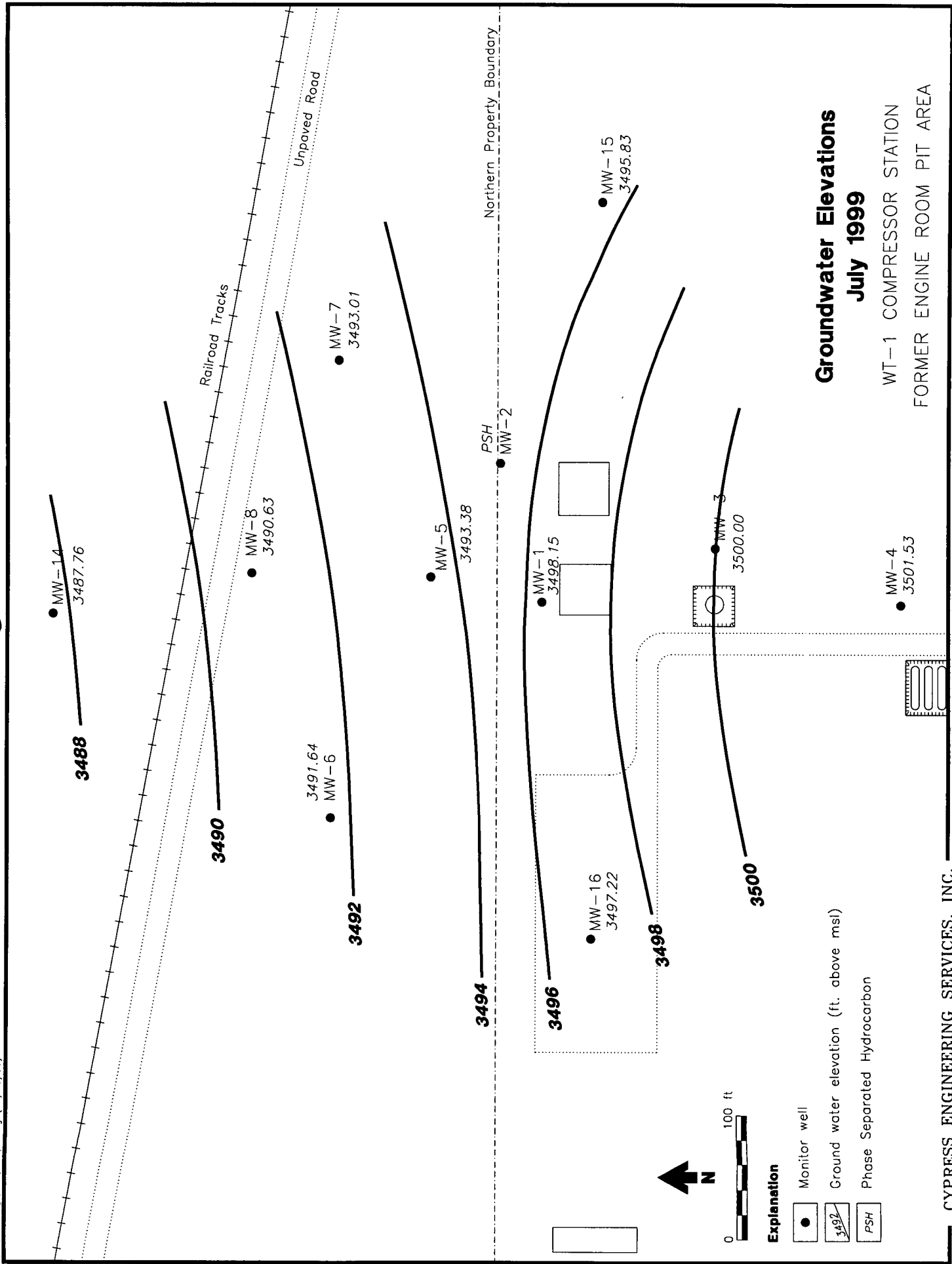


Figure 3

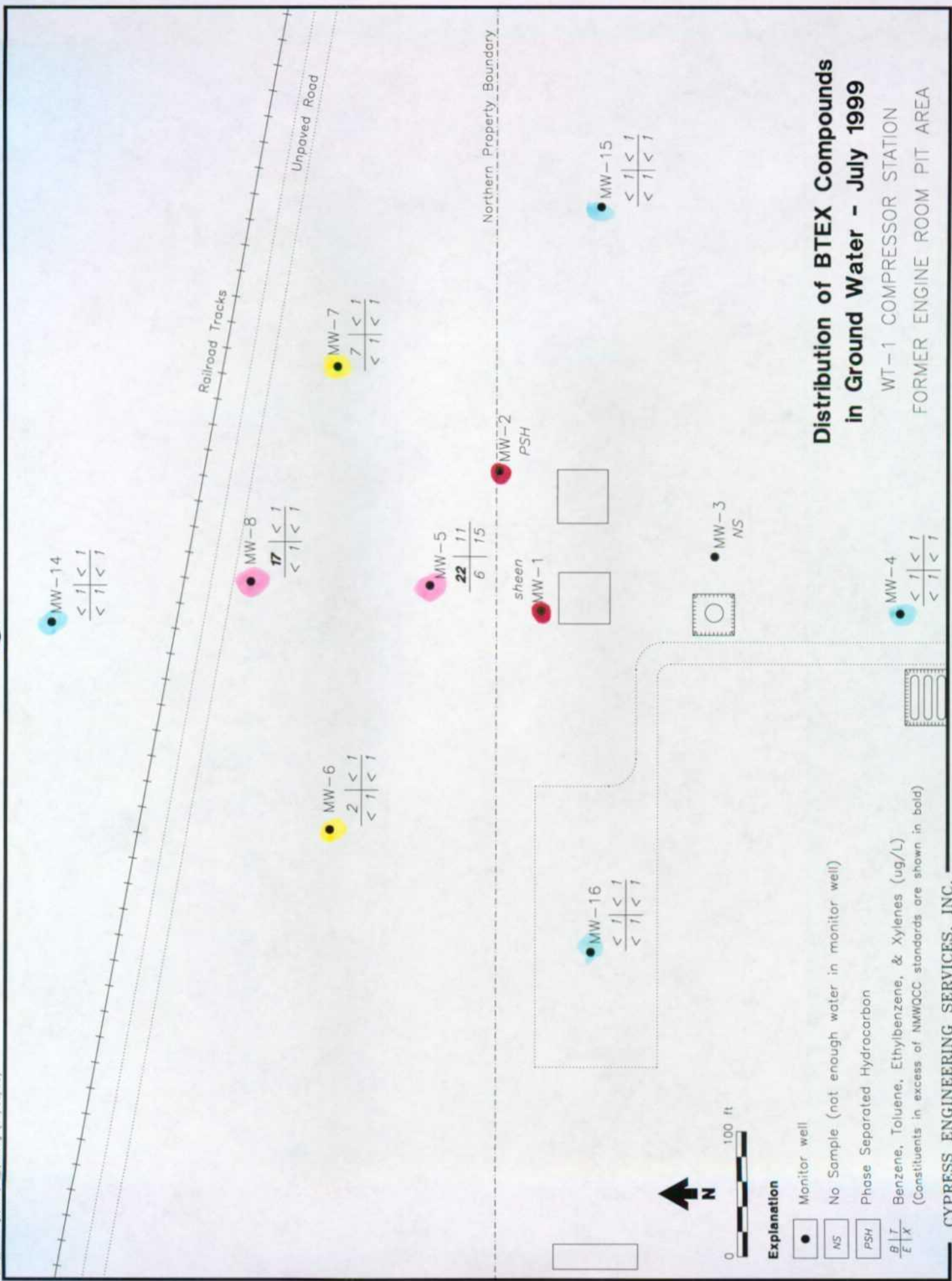


Figure 4

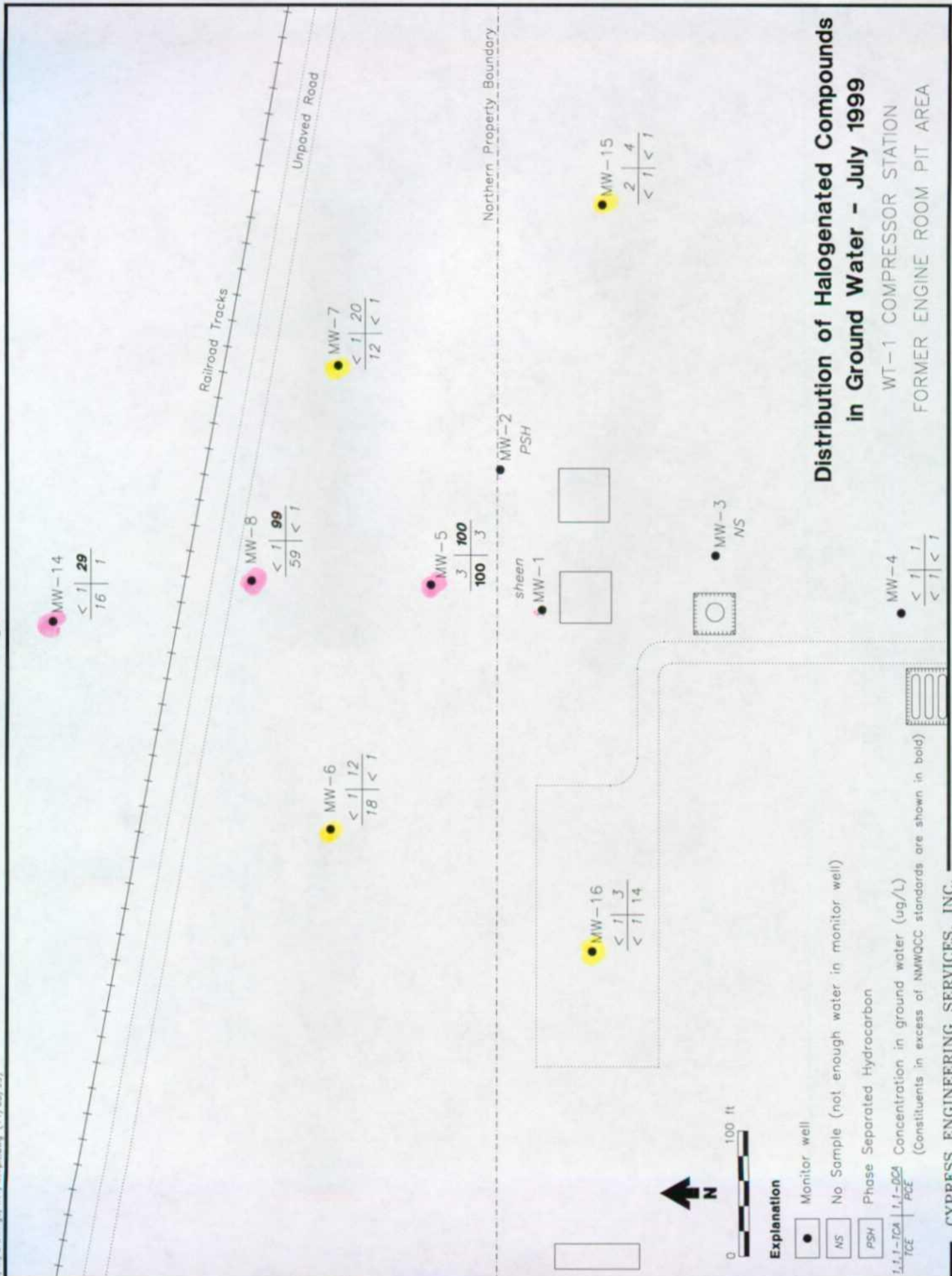


Figure 5

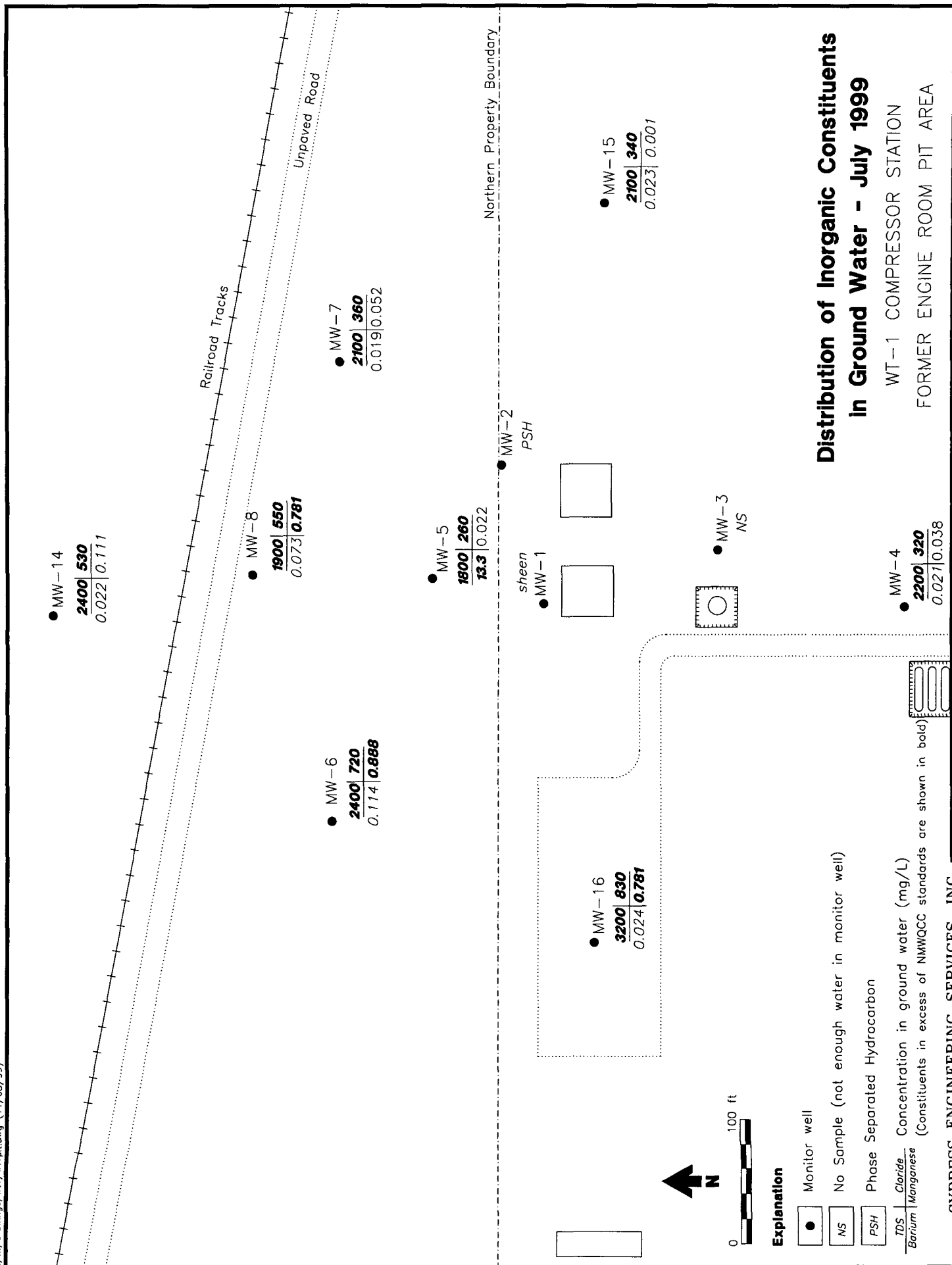


Figure 6

Report of Ground Water Monitoring Activities

**WT-1 Compressor Station: Engine Room Drain Pit Area
Transwestern Pipeline Company**

Tables

**Table 1. Summary of Ground Water Surface Elevations
TW WT-1 Station Engine Room Pit Area**

Well	Sampling Date	Top of Casing (ft)	Depth to PSH (ft)	Depth to Water (ft)	PSH (ft)	Surface Elevation (ft)
MW-1	11/15/94	3547.67	(a)	47.59	(a)	3500.08
	09/14/95		(a)	48.85	(a)	3498.82
	11/12/96		(a)	49.79	(a)	3497.88
	02/04/97		(a)	49.71	(a)	3497.96
	05/10/97		(a)	49.86	(a)	3497.81
	08/06/97		(a)	49.90	(a)	3497.77
	10/08/97		(a)	49.76	(a)	3497.91
	01/21/98		(a)	50.73	(a)	3496.94
	04/15/98		(a)	49.68	(a)	3497.99
	07/16/98		(a)	49.91	(a)	3497.76
	01/26/99		(a)	49.39	(a)	3498.28
	07/08/99		sheen	49.52	(a)	3498.15
MW-2	11/15/94	3546.28	PSH	-	-	NA
	09/12/95		PSH	-	-	NA
	11/12/96		49.91	-	NA *	NA *
	02/04/97		49.90	52.15	2.25	3495.93
	05/10/97		50.09	52.18	2.09	3495.77
	08/06/97		50.20	52.17	1.97	3495.69
	10/09/97		50.27	52.22	1.95	3495.62
	01/21/98		50.08	-	NA *	NA *
	04/15/98		49.97	-	NA *	NA *
	07/16/98		50.25	-	NA *	NA *
	01/26/99		50.10	-	NA *	NA *
	07/08/99		50.12	-	NA *	NA *
MW-3	11/16/94	3548.99	(a)	48.71	(a)	3500.28
	09/12/95		(a)	49.49	(a)	3499.50
	11/12/96		(a)	49.76	(a)	3499.23
	02/04/97		(a)	49.57	(a)	3499.42
	05/10/97		(a)	49.81	(a)	3499.18
	08/06/97		(a)	49.81	(a)	3499.18
	10/08/97		(a)	49.84	(a)	3499.15
	01/21/98		(a)	49.29	(a)	3499.70
	07/16/98		(a)	49.42	(a)	3499.57
	01/26/99		(a)	48.62	(a)	3500.37
MW-4	07/08/99	3548.29	(a)	48.99	(a)	3500.00
	12/01/94		(a)	47.18	(a)	3501.11
	09/12/95		(a)	47.50	(a)	3500.79
	11/12/96		(a)	47.50	(a)	3500.79
	02/04/97		(a)	47.51	(a)	3500.78
	05/10/97		(a)	47.51	(a)	3500.78
	08/06/97		(a)	47.49	(a)	3500.80
	10/08/97		(a)	47.43	(a)	3500.86
	01/21/98		(a)	47.02	(a)	3501.27
	04/16/98		(a)	46.81	(a)	3501.48
	07/16/98		(a)	46.75	(a)	3501.54
	01/26/99		(a)	46.36	(a)	3501.93
	07/08/99		(a)	46.76	(a)	3501.53

**Table 1. Summary of Ground Water Surface Elevations
TW WT-1 Station Engine Room Pit Area**

Well	Sampling Date	Top of Casing (ft)	Depth to PSH (ft)	Depth to Water (ft)	PSH (ft)	Surface Elevation (ft)
MW-5	12/01/94	3543.59	(a)	48.68	(a)	3494.91
	09/12/95		(a)	49.48	(a)	3494.11
	11/12/96		(a)	50.12	(a)	3493.47
	02/04/97		(a)	50.11	(a)	3493.48
	05/10/97		(a)	50.35	(a)	3493.24
	08/06/97		(a)	50.40	(a)	3493.19
	10/08/97		(a)	50.18	(a)	3493.41
	01/21/98		(a)	50.13	(a)	3493.46
	04/15/98		(a)	50.15	(a)	3493.44
	07/16/98		(a)	50.45	(a)	3493.14
	01/26/99		(a)	50.04	(a)	3493.55
	07/08/99		(a)	50.21	(a)	3493.38
MW-6	11/30/94	3543.29	(a)	50.22	(a)	3493.07
	09/12/95		(a)	50.97	(a)	3492.32
	11/12/96		(a)	51.93	(a)	3491.36
	02/04/97		(a)	51.93	(a)	3491.36
	05/10/97		(a)	52.08	(a)	3491.21
	08/06/97		(a)	52.11	(a)	3491.18
	10/08/97		(a)	51.88	(a)	3491.41
	01/21/98		(a)	51.72	(a)	3491.57
	04/15/98		(a)	51.63	(a)	3491.66
	07/16/98		(a)	51.87	(a)	3491.42
	01/26/99		(a)	51.39	(a)	3491.90
	07/08/99		(a)	51.65	(a)	3491.64
MW-7	11/30/94	3541.97	(a)	47.67	(a)	3494.30
	09/12/95		(a)	48.54	(a)	3493.43
	11/12/96		(a)	48.67	(a)	3493.30
	02/04/97		(a)	48.83	(a)	3493.14
	05/10/97		(a)	49.05	(a)	3492.92
	08/06/97		(a)	48.96	(a)	3493.01
	10/08/97		(a)	48.74	(a)	3493.23
	01/21/98		(a)	48.65	(a)	3493.32
	04/15/98		(a)	48.71	(a)	3493.26
	07/16/98		(a)	49.12	(a)	3492.85
	01/26/99		(a)	48.70	(a)	3493.27
	07/08/99		(a)	48.96	(a)	3493.01
MW-8	11/30/94	3541.47	(a)	49.20	(a)	3492.27
	09/13/95		(a)	50.14	(a)	3491.33
	11/12/96		(a)	50.73	(a)	3490.74
	02/04/97		(a)	50.79	(a)	3490.68
	05/10/97		(a)	51.03	(a)	3490.44
	08/06/97		(a)	51.08	(a)	3490.39
	10/08/97		(a)	50.90	(a)	3490.57
	01/21/98		(a)	50.73	(a)	3490.74
	04/15/98		(a)	49.62	(a)	3491.85
	07/16/98		(a)	50.96	(a)	3490.51
	01/26/99		(a)	50.55	(a)	3490.92
	07/08/99		(a)	50.84	(a)	3490.63

**Table 1. Summary of Ground Water Surface Elevations
TW WT-1 Station Engine Room Pit Area**

Well	Sampling Date	Top of Casing (ft)	Depth to PSH (ft)	Depth to Water (ft)	PSH (ft)	Surface Elevation (ft)
MW-14	09/13/95	3539.71	(a)	51.53	(a)	3488.18
	11/12/96		(a)	51.96	(a)	3487.75
	02/04/97		(a)	52.00	(a)	3487.71
	05/10/97		(a)	52.12	(a)	3487.59
	08/06/97		(a)	52.11	(a)	3487.60
	10/08/97		(a)	51.95	(a)	3487.76
	01/21/98		(a)	51.88	(a)	3487.83
	04/15/98		(a)	51.83	(a)	3487.88
	07/16/98		(a)	52.09	(a)	3487.62
	01/26/99		(a)	51.72	(a)	3487.99
	07/08/99		(a)	51.95	(a)	3487.76
MW-15	09/14/95	3542.82	(a)	46.43	(a)	3496.39
	11/12/96		(a)	46.61	(a)	3496.21
	02/04/97		(a)	46.90	(a)	3495.92
	05/10/97		(a)	47.23	(a)	3495.59
	08/06/97		(a)	46.97	(a)	3495.85
	10/08/97		(a)	46.75	(a)	3496.07
	01/21/98		(a)	46.62	(a)	3496.20
	04/15/98		(a)	46.81	(a)	3496.01
	07/16/98		(a)	47.24	(a)	3495.58
	01/26/99		(a)	46.71	(a)	3496.11
	07/08/99		(a)	46.99	(a)	3495.83
MW-16	09/14/95	3546.01	(a)	48.86	(a)	3497.15
	11/12/96		(a)	49.42	(a)	3496.59
	02/04/97		(a)	49.41	(a)	3496.60
	05/10/97		(a)	49.51	(a)	3496.50
	08/06/97		(a)	49.57	(a)	3496.44
	10/08/97		(a)	49.36	(a)	3496.65
	01/21/98		(a)	49.00	(a)	3497.01
	04/15/98		(a)	48.84	(a)	3497.17
	07/16/98		(a)	49.02	(a)	3496.99
	01/26/99		(a)	48.46	(a)	3497.55
	07/08/99		(a)	48.79	(a)	3497.22

NOTES:

(a) Not applicable since no measurable thickness of hydrocarbon is present

(b) Corrections to ground water surface elevation for presence of hydrocarbon is calculated assuming a specific gravity of 0.8

NA* - No PSH/water interface detected

**Table 2. Summary of Field Measured Parameters
TW WT-1 Engine Room Pit Area**

Monitor Well	Date	pH	Temperature °C	Electrical Conductivity (µs/cm)	Dissolved Oxygen (mg/L) Meter/Hach Kit	Turbidity (NTU/FTU) field / lab	Remarks
MW-1	11/12/96	6.67	22.2	--	0.0	--	strong mercaptin odor, bailed dry 1 gal
	02/04/97	6.70	17.3	3,100	0.0	39.3/127	strong odor, blk color, bailed dry 1 gal
	05/10/96	6.92	21.8	3,110	--	62.0	strong odor, blk/gry color
	08/08/97	6.88	20.3	3,260	0.0	101	clear to gray, strong odor
	10/09/97	6.89	21.6	3,080	1.2	--	gray blk, strong odor
	01/23/98	6.65	17.1	2,970	0.0	--	strong odor, amber color
	04/17/98	6.96	19.9	3,070	0.9	58.0	clear, gold tint, strong odor
	07/17/98	6.91	22.4	3,400	0.1	9.97	clear, light tint, strong odor
	01/27/99	6.81	20.8	3,020	--	--	clear, odor
MW-4	11/12/96	7.10	20.8	--	--	--	clear, no odor
	02/04/97	7.17	17.5	3,400	4.0	41.8/32	fine red silt, no odor
	05/10/97	7.09	19.7	3,400	3.0	5.46	very slight brn silt, mostly clear
	08/06/97	7.02	21.7	3,390	3.5	45.2	red silty
	10/08/97	7.05	21.5	3,060	3.0	--	slightly silty, light gold to brown
	01/23/98	7.11	18.7	2,640	0.6/0.8	--	clear
	04/16/98	7.00	21.1	2,720	1.8/0.4	2.5	clear
	07/16/98	6.99	21.6	3,090	1.3/0.8	0.67	clear
	01/26/99	7.01	19.1	2,740	1.2	--	clear
MW-5	11/12/96	7.00	23.1	--	--	--	strong odor, bailed dry 3.5 gal
	02/06/97	7.17	15.7	3,600	0.6	303/2040	strong odor, silty, foamy
	05/10/96	7.25	20.7	3,500	0.8	295	strong odor, red-yellow color, bailed dry 3.5g
	08/07/97	7.47	20.7	2,810	4.9	173	silty, red
	10/09/97	7.12	22.9	2,970	0.2	--	red silty, strong odor
	01/24/98	7.14	18.7	2,870	0.8	31.1	clear, amber color, strong odor
	04/17/98	7.16	20.2	2,840	0.6	52.0	clear, amber tint, strong odor
	07/17/98	7.02	22.5	3,140	0.7	43.18	foamy, light tint, strong odor
	01/27/99	7.10	20.5	2,700	0.6	--	clear, odor
MW-6	11/12/96	--	21.6	--	--	--	red silty
	02/04/97	6.56	17.0	3,800	2.0	279/600	fine red silt, no odor
	05/10/97	6.96	21.7	3,800	1.8	234	red silty
	08/07/97	6.89	20.2	3,730	1.8	173	red silty
	10/09/97	6.89	19.3	3,510	1.7	--	red silty
	01/23/98	6.81	19.7	3,460	0.6	--	slightly turbid
	04/16/98	6.87	19.1	3,470	0.4	15.36	clear
	07/16/98	6.84	22.6	3,810	2.9/1.6	5.37	clear, took 4 cycles to get final parameters
	01/27/99	6.79	19.6	3,550	1.1	--	clear, odor
MW-7	11/12/97	7.16	23.6	--	--	--	red silty
	02/04/97	6.89	--	2,900	2.0	539/2080	fine red silt, no odor
	05/10/97	7.17	21.1	2,970	2.0	>1000	red silty/sandy
	08/07/97	7.18	20.2	2,970	2.0	18.8	slight red silt
	10/09/97	7.20	19.6	2,750	2.6	--	red silty
	01/23/98	7.10	18.7	2,730	1.1/1.6	--	clear
	04/17/98	7.21	18.0	2,720	2.5/2.6	1.64	clear
	07/16/98	7.12	21.7	2,970	3.5	1.81	clear
	01/27/99	7.10	19.9	2,740	2.6	--	clear
MW-8	07/08/99	7.16	20.7	2,850	3.4	1.12	clear

**Table 2. Summary of Field Measured Parameters
TW WT-1 Engine Room Pit Area**

Monitor Well	Date	pH	Temperature °C	Electrical Conductivity (µs/cm)	Dissolved Oxygen (mg/L) Meter/Hach Kit	Turbidity (NTU/FTU) field / lab	Remarks
MW-8	11/12/96	6.91	22.1	--	--	--	very fine red silt,
	02/06/97	6.95	14.1	3,000	2.0	<1000/590	red, silty, no odor
	05/10/97	7.00	22.0	3,040	1.6	193	red silt/sand
	08/07/97	6.97	20.1	3,040	1.1	237	red silt
	10/09/97	6.95	20.8	2,800	2.9	--	red silty
	01/24/98	6.90	19.0	2,810	0/0.2	26.17	Lt. amber color, clear
	04/17/98	6.97	19.2	2,860	0.9	25.46	clear, Lt. amber color
	07/17/98	6.85	22.5	3,070	0.2/0.0	4.10	clear, odor
	01/27/99	6.84	19.4	2,830	0.8/0.0	--	clear, odor
	07/08/99	6.87	22.1	2,950	1.9	2.79	clear
MW-14	11/12/96	7.07	19.9	--	--	--	mostly clear, slight silt
	02/04/97	7.06	15.3	3,600	3.0	70.1/92	clear initially, red silty, no odor
	05/10/97	7.04	21.2	3,390	2.0	16.2	slight red sand/silt
	08/07/97	7.09	20.4	3,340	1.0	2.8	clear
	10/08/97	6.74	20.7	3,170	1.5	--	clear
	01/23/98	6.97	17.5	3,150	0.7	--	clear
	04/17/98	7.08	21.1	3,180	1.2	0.79	clear
	07/17/98	6.94	21.8	3,520	0.6	2.25	clear
	01/27/99	6.92	19.9	3,260	--	--	clear
	07/08/99	6.96	20.9	3,460	1.3	0.87	clear
MW-15	11/12/96	7.21	24.6	--	--	--	clear
	02/04/97	6.90	18.3	3,200	8.0	34.5/133	fine red silt, no odor
	05/10/97	7.28	20.0	3,230	--	63.1	silty red sand
	08/07/97	7.13	20.5	3,160	7.4	159	red silt
	10/08/97	7.26	21.0	2,900	7.4	--	red sand/ fine silt
	01/23/98	7.24	18.8	2,930	5.2	--	turbid
	04/16/98	7.13	19.4	2,940	4.9	5.69	clear
	07/17/98	7.04	22.1	3,210	5.8/5.0	11.05	clear
	01/26/99	7.08	19.4	2,830	4.5	--	clear
	07/08/99	7.08	20.2	2,840	6.1	11.34	clear
MW-16	11/12/96	6.7	22.7	--	--	--	mostly clear, slight red silt
	02/04/97	6.49	17.2	4,900	4.0	139/830	fine red silt, no odor
	05/10/97	6.91	20.1	4,800	1.4	203	red sand/silt
	08/06/97	6.87	21.3	4,540	3.3	670	very silty, red
	10/08/97	6.88	21.3	4,190	3.3	--	red silty
	01/23/98	6.84	18.6	3,940	1.9	--	slightly turbid
	04/16/98	6.88	20.8	3,990	1.4/1.0	1.27	clear
	07/16/98	6.81	21.2	4,380	2.2	0.43	clear
	01/26/99	6.82	19.5	3,980	1.3	--	clear
	07/08/99	6.84	20.7	4,520	1.6/1.0	0.80	clear, no odor

Table 3. Summary of Ground Water Analyses - Organics
TW WT-1 Station Engine Room Pit Area

Well	Sampling Date	BTEX (ug/L)				Other VOCs (ug/L)														
		Benzene	Toluene	Ethylbenzene	Xylenes (total)	Acetone	Methyl ethyl ketone (2-butanone)	Chloroethane	Chloroform	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	Dichloromethane (Methylene chloride)	4-methyl-2-pentanone	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Vinyl chloride	
NMWQCC Standard																				
MW-1	11/15/94	12 ^a	100 ^a	10 ^a	110 ^a	na	na	<2.0 ^a	<2.0 ^a	6.7 ^a	2.2 ^a	2.8 ^a	420 ^a	na	na	16 ^a	<2.0 ^a	28 ^a	<2.0 ^a	
	09/14/95	13	90	8	110	2000	400	<10	<5	730	13	9	na	170	1800	19	57	24	<10	
	11/12/96	9	66	<5	39	630	100	<10	<5	480	9	<5	na	88	1500	12	<5	20	<10	
	02/04/97	13	94	8	80	790	300	<10	<5	480	10	<5	<5	89 ^b	1700	9	<5	29	11	
	05/10/97	10	75	6	45	470	<100	<10	<5	470	9	<5	<5	<50	1000	8	9	20	<10	
	08/07/97	<50	<50	<50	<50	1100	1100	<50	<50	590	<50	<50	<50	200	1200	<50	<50	<50	<100	
	10/09/97	<50	132	<50	97	1660	<1000	<100	<50	597	<50	<50	<50	221 ^b	1650	<50	<50	<50	<100	
	01/23/98	11	82	7	85	2300	93	<10	<5	530	<5	<5	<5	230	2000	8	<5	24	<10	
	04/17/98	11	84	7	85	2100	52	<10	<5	480	8	<5	<5	360	1600	6	<5	24	<10	
	04/17/98	14	93	8	96	2400	100	11	<5	460	11	<5	<5	230	2100	8	<5	30	<10	
Dup (MW-17)	07/17/98	15	93	8	97	<2000	98	<10	<5	820	8	12	<5	330	1800	14	93	21	<10	
	01/27/99	15	58	9	93	330	120	4	<1	460	8	4	3	310	2100	10	18	26	<2	
MW-3	11/16/94	5	<0.5	<0.5	0.5	na	na	na	na	na	na	na	na	na	na	na	na	na	na	
MW-4	12/01/94	<0.5	<0.5	<0.5	<0.5	na	na	<0.2	7.6	0.9	<0.2	4.7	<0.2	<2.0	na	0.5	<0.2	<0.2	<0.2	
	09/12/95	<1	<5	<5	<5	<100	<100	<10	6	<5	<5	<5	na	<5	<50	<5	<5	<5	<10	
	11/12/96	<5	<5	<5	<5	<100	<100	<10	6	<5	<5	<5	na	<5	<50	<5	<5	<5	<10	
	02/04/97	<5	<5	<5	<5	<100	<100	<10	<5	<5	<5	<5	<5	<5	100	<5	<5	<5	<10	
	05/10/97	<5	<5	<5	<5	<100	<100	<10	<5	<5	<5	<5	<5	<50	<50	<5	<5	<5	<10	
	08/06/97	<5	<5	<5	<5	<100	<100	<10	<5	<5	<5	5.4	<5	<5	<50	<5	<5	<5	<10	
	10/08/97	<5	<5	<5	<5	<100	<100	<10	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5	<10	
	01/23/98	<5	<5	<5	<5	<100	<100	<10	5	<5	<5	<5	<5	<5	<50	<5	<5	<5	<10	
	04/16/98	<5	<5	<5	<5	<100	<100	<10	<5	<5	<5	<5	<5	<5	<10	<5	<5	<5	<10	
	07/16/98	<5	<5	<5	<5	<100	<100	<10	5	<5	<5	5	<5	<5	<10	<5	<5	<5	<10	
	01/26/99	<1	<1	<1	<1	<20	<20	<2	4	<1	<1	4	<1	<2	<10	<1	<1	<1	<2	
	07/08/99	<1	<1	<1	<1	<20	<20	<2	4	1	<1	4	<1	<2	<10	<1	<1	<1	<2	

Table 3. Summary of Ground Water Analyses - Organics
TW WT-1 Station Engine Room Pit Area

Well	Sampling Date	BTEX (ug/L)				Other VOCs (ug/L)														
		Benzene	Toluene	Ethylbenzene	Xylenes (total)	Acetone	Methyl ethyl ketone (2-butanone)	Chloroethane	Chloroform	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	Dichloromethane (Methylene chloride)	4-methyl-2-pentanone	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Vinyl chloride	
NMWQCC Standard		10	750	750	620	none	none	none	100.0	25.0	10.0	5	none	none	none	20	60	100	1	
	MW-5	20	19	8.3	26	na	na	8.9	<0.2	18	1.1	<0.2	12	43	na	0.8	<0.2	3.2	<0.2	
		12	24	<5	24	1000	200	100	<5	200	7	<5	na	190	520	<5	<5	67	<10	
		20	44	18	44	<100	<100	31	<5	150	<5	<5	na	5	300	<5	<5	<5	11	
		31	53	12	83	56	<100	56	<5	160	<5	5.6	140	36 ^b	280	<5	<5	120	16	
		24	35	9	38	<100	<100	22	<5	140	<5	<5	120	<50	210	<5	<5	86	<10	
		23	38	9	38	<100	<100	22	<5	130	<5	<5	111	<50	180	<5	<5	82	<10	
		22	9	<5	15	<100	<100	11	<5	47	<5	<5	53	7	50	<5	<5	35	<10	
		19	15	7	24	<100	<100	<10	<5	96	<5	<5	103	10 ^b	89	<5	<5	71	<10	
		18	14	7	25	<100	<100	<10	<5	102	<5	<5	111	10 ^b	98	<5	<5	69	<10	
		23	18	9	33	<100	<20	<10	<5	120	<5	6	140	<5	130	<5	<5	75	<10	
		25	19	9	34	<100	<20	10	<5	130	<5	7	150	<5	120	<5	<5	77	<10	
		16	9	<5	14	<100	<20	<10	<5	83	<5	<5	91	<5	18	<5	<5	67	<10	
		21	10	5	17	<100	<20	16	<5	110	<5	6	100	<5	47	<5	<5	91	<10	
		22	9	7	19	<20	<20	7	<1	84	1	5	85	<2	17	4	3	100	<2	
		22	9	7	19	<20	<20	5	<1	81	1	5	86	<2	19	3	2	96	<2	
		22	11	6	15	<20	<20	5	<1	100	2	4	84	<2	22	3	3	100	<2	
	MW-6	11/30/94	1.8	<0.5	<0.5	0.5	na	na	0.5	<0.2	13	<0.2	2.9	6.8	<2.0	na	0.4	<0.2	15	<0.2
		09/12/95	2	<5	<5	<5	<100	<100	<10	<5	17	<5	<5	na	<5	<50	<5	<5	21	<10
	11/12/96	<5	<5	<5	<5	<100	<100	<10	<5	12	<5	<5	na	<5	<50	<5	<5	15	<10	
	02/04/97	<5	<5	<5	<5	<100	<100	<10	<5	11	<5	<5	6	<50	<50	<5	<5	18	<10	
	05/10/97	<5	<5	<5	<5	<100	<100	<10	<5	10	<5	<5	<5	<50	<50	<5	<5	14	<10	
	08/07/97	<5	<5	<5	<5	<100	<100	<10	<5	12	<5	<5	7	<5	<50	<5	<5	16	<10	
	10/09/97	<5	<5	<5	<5	<100	<100	<10	<5	12	<5	<5	7	<5	<50	<5	<5	16	<10	
	01/23/98	<5	<5	<5	<5	<100	<20	<10	<5	14	<5	<5	7	<5	<10	<5	<5	15	<10	
	04/16/98	<5	<5	<5	<5	<100	<20	<10	<5	13	<5	<5	8	<5	<10	<5	<5	17	<10	
	07/16/98	<5	<5	<5	<5	<100	<20	<10	<5	12	<5	<5	7	<5	<10	<5	<5	14	<10	
	01/27/99	1	<1	<1	<1	<20	<20	<2	<1	11	<1	3	8	<2	<10	<1	<1	16	<2	
	07/08/99	2	<1	<1	<1	<20	<20	<2	<1	12	<1	2	9	<2	<10	<1	<1	18	<2	

Table 3. Summary of Ground Water Analyses - Organics
TW WT-1 Station Engine Room Pit Area

Well	Sampling Date	BTEX (ug/L)				Other VOCs (ug/L)													
		Benzene	Toluene	Ethylbenzene	Xylenes (total)	Acetone	Methyl ethyl ketone (2-butanone)	Chloroethane	Chloroform	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	Dichloromethane (Methylene chloride)	4-methyl-2-pentanone	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Vinyl chloride
NMWQCC Standard		10	750	750	620	none	none	none	100.0	25.0	10.0	5	none	none	none	20	60	100	1
MW-7	11/22/94	7	<0.5	<0.5	<0.5	na	na	<0.2	<0.2	23	0.3	2.3	7.3	<2.0	na	0.4	1.6	14	0.3
	09/12/95	6	<5	<5	<5	<100	<100	<10	<5	22	<5	<5	na	<5	<50	<5	<5	13	<10
	11/12/96	9	<5	<5	<5	<100	<100	<10	<5	22	24	<5	na	<5	<50	<5	<5	18	<10
	02/04/97	8	<5	<5	<5	<100	<100	<10	<5	18	<5	<5	7	<50	<50	<5	<5	15	<10
	05/10/97	6	<5	<5	<5	<100	<100	<10	<5	16	<5	<5	<5	<50	<50	<5	<5	13	<10
	08/07/97	9	<5	<5	<5	<100	<100	<10	<5	22	<5	<5	8	<5	<50	<5	<5	17	<10
	10/09/97	<5	<5	<5	<5	<100	<100	<10	<5	20	<5	<5	6	<5	<50	<5	<5	16	<10
	01/23/98	6	<5	<5	<5	<100	<20	<10	<5	21	<5	<5	6	<5	<10	<5	<5	13	<10
	04/17/98	6	<5	<5	<5	<100	<20	<10	<5	20	<5	<5	8	<5	<10	<5	<5	14	<10
	07/16/98	7	<5	<5	<5	<100	<20	<10	<5	19	<5	<5	7	<5	<10	<5	<5	12	<10
MW-8	01/27/99	7	<1	<1	<1	<20	<20	<2	1	19	<1	3	10	<2	<10	<1	<1	12	<2
	07/08/99	7	<1	<1	<1	<20	<20	<2	1	20	<1	2	10	<2	<10	<1	<1	12	<2
	11/30/94	12	<0.5	<0.5	<0.5	na	na	0.5	<0.2	71	0.9	1.3	18	<2.0	na	<0.2	<0.2	17	0.2
	09/13/95	18	<5	<5	<5	<100	<100	<10	<5	92	<5	<5	na	<5	<50	<5	<5	45	<10
	11/12/96	19	<5	<5	<5	<100	<100	<10	<5	86	<5	6	na	<5	<50	<5	<5	59	<10
	02/06/97	24	<5	<5	<5	<100	<100	<10	<5	80	<5	<5	28	5.2 ^b	<50	<5	<5	52	<10
	05/10/97	19	42	<5	<5	<100	<100	25	<5	74	<5	<5	120	<50	130	<5	<5	44	<10
	08/07/97	21	<5	<5	<5	<100	<100	25	<5	86	<5	7.4	30	<5	<50	<5	<5	49	<10
	08/07/97	21	<5	<5	<5	<100	<100	25	<5	88	<5	7.8	32	<5	<50	<5	<5	51	<10
	10/09/97	25	<5	<5	<5	<100	<100	<10	<5	104	<5	<5	34	7 ^b	<50	<5	<5	67	<10
Dup (MW-17)	01/24/98	21	<5	<5	<5	<100	<20	<10	<5	100	<5	<5	33	<5	12	<5	<5	52	<10
	04/17/98	19	<5	<5	<5	<100	<20	<10	<5	89	<5	<5	33	<5	<10	<5	<5	51	<10
	07/17/98	20	<5	<5	<5	<100	<20	<10	<5	91	<5	<5	32	<5	<10	<5	<5	51	<10
	07/17/98	20	<5	<5	<5	<100	<20	<10	<5	88	<5	<5	31	<5	<10	<5	<5	52	<10
	01/27/99	20	<1	<1	<1	<20	<20	<2	<1	94	2	5	37	<2	<10	<1	<1	54	<2
	07/09/99	17	<1	<1	<1	<20	<20	<2	<1	99	2	5	39	<2	<10	<1	<1	59	<2
	07/09/99	16	<1	<1	<1	<20	<20	<2	<1	95	2	5	39	<2	<10	<1	<1	59	<2

Table 3. Summary of Ground Water Analyses - Organics
TW WT-1 Station Engine Room Pit Area

Well	Sampling Date	BTEX (ug/L)				Other VOCs (ug/L)													
		Benzene	Toluene	Ethylbenzene	Xylenes (total)	Acetone	Methyl ethyl ketone (2-butanone)	Chloroethane	Chloroform	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	Dichloromethane (Methylene chloride)	4-methyl-2-pentanone	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Vinyl chloride
NMWQCC Standard		10	750	750	620	none	none	none	100.0	25.0	10.0	5	none	none	none	20	60	100	1
MW-14	09/13/95	1	<5	<5	<5	<100	<10	<10	<5	24	<10	<5	na	<5	<50	<5	<5	11	<10
	11/12/96	<5	<5	<5	<5	<100	<10	<10	<5	25	<10	<5	na	<5	<50	<5	<5	13	<10
	02/04/97	<5	<5	<5	<5	<100	<10	<10	<5	21	<5	<5	<5	<50	<50	<5	<5	13	<10
	05/10/97	<5	<5	<5	<5	<100	<10	<10	<5	22	<5	<5	<5	<50	<50	<5	<5	12	<10
	08/07/97	<5	<5	<5	<5	<100	<10	<10	<5	27	<5	<5	<5	<5	<50	<5	<5	14	<10
	10/09/97	<5	<5	<5	<5	<100	<10	<10	<5	27	<5	<5	<5	6 ^b	<50	<5	<5	15	<10
	01/23/98	<5	<5	<5	<5	<100	<20	<10	<5	31	<5	<5	5	<5	<10	<5	<5	13	<10
	04/17/98	<5	<5	<5	<5	<100	<20	<10	<5	28	<5	<5	<5	<5	<10	<5	<5	14	<10
	07/17/98	<5	<5	<5	<5	<100	<20	<10	<5	26	<5	<5	<5	<5	<10	<5	<5	14	<10
	01/27/99	<1	<1	<1	<1	<20	<20	<2	<1	27	<1	2	5	<2	<10	1	<1	14	<2
MW-15	07/09/99	<1	<1	<1	<1	<20	<20	<2	<1	29	<1	2	5	<2	<10	1	<1	16	<2
	09/14/95	<1	<5	<5	<5	<100	<100	<10	<5	<5	<5	5	na	<5	<50	<5	<5	<5	<10
	11/12/96	<5	<5	<5	<5	<100	<100	<10	<5	<5	<5	5	na	<5	<50	<5	<5	<5	<10
	02/04/97	<5	<5	<5	<5	<100	<100	<10	<5	<5	<5	<5	<5	<50	<50	<5	<5	<5	<10
	05/10/97	<5	<5	<5	<5	<100	<100	<10	<5	<5	<5	<5	<5	<50	<50	<5	<5	<5	<10
	08/07/97	<5	<5	<5	<5	<100	<100	<10	<5	<5	<5	<5	<5	<5	<50	<5	<5	<5	<10
	10/08/97	<5	<5	<5	<5	<100	<100	<10	<5	<5	<5	<5	<5	6 ^b	<50	<5	<5	<5	<10
	01/23/98	<5	<5	<5	<5	<100	<20	<10	<5	<5	<5	<5	<5	<5	<10	<5	<5	<5	<10
	04/16/98	<5	13	<5	<5	<100	<20	<10	<5	<5	<5	5	<5	<5	<10	<5	<5	<5	<10
	07/17/98	<5	<5	<5	<5	<100	<20	<10	<5	<5	<5	<5	<5	<5	<10	<5	<5	<5	<10
01/26/99	<1	<1	<1	<1	<20	<20	<2	2	3	<1	5	<5	<5	<10	<5	<5	<5	<10	
07/08/99	<1	<1	<1	<1	<20	<20	<2	2	4	<1	4	<1	<2	<10	<1	2	<1	<2	

Table 3. Summary of Ground Water Analyses - Organics
TW WT-1 Station Engine Room Pit Area

Well	Sampling Date	BTEX (ug/L)				Other VOCs (ug/L)													
		Benzene	Toluene	Ethylbenzene	Xylenes (total)	Acetone	Methyl ethyl ketone (2-butanone)	Chloroethane	Chloroform	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	Cis-1,2-Dichloroethene	Dichloromethane (Methylene chloride)	4-methyl-2-pentanone	Tetrachloroethene	1,1,1-Trichloroethane	Trichloroethene	Vinyl chloride
NMWQCC Standard		10	750	750	620	none	none	none	100.0	25.0	10.0	5	none	none	none	20	60	100	1
MW-16	09/14/95	< 1	< 5	< 5	< 5	< 100	< 100	< 10	< 5	6	< 5	< 5	na	< 5	< 50	6	< 5	< 5	< 10
	11/12/96	< 5	< 5	< 5	< 5	< 100	< 100	< 10	< 5	6	< 5	< 5	na	< 5	< 50	21	< 5	< 5	< 10
	02/04/97	< 5	< 5	< 5	< 5	< 100	< 100	< 10	< 5	< 5	< 5	< 5	< 5	< 50	< 50	17	< 5	< 5	< 10
	05/10/97	< 5	< 5	< 5	< 5	< 100	< 100	< 10	< 5	< 5	< 5	< 5	< 5	< 50	< 50	< 5	< 5	< 5	< 10
	08/06/97	< 5	< 5	< 5	< 5	< 100	< 100	< 10	< 5	< 5	< 5	< 5	< 5	6	< 50	14	< 5	< 5	< 10
	10/08/97	< 5	< 5	< 5	< 5	< 100	< 100	< 10	< 5	< 5	< 5	< 5	< 5	7 ^b	< 50	15	< 5	< 5	< 10
	01/23/98	< 5	< 5	< 5	< 5	< 100	< 20	< 10	< 5	< 5	< 5	< 5	< 5	< 5	< 10	13	< 5	< 5	< 10
	04/16/98	< 5	< 5	< 5	< 5	< 100	< 20	< 10	< 5	< 5	< 5	< 5	< 5	< 5	< 10	< 5	< 5	< 5	< 10
	07/16/98	< 5	< 5	< 5	< 5	< 100	< 20	< 10	< 5	< 5	< 5	< 5	< 5	< 5	< 10	16	< 5	< 5	< 10
	01/26/99	< 1	< 1	< 1	< 1	< 20	< 20	< 2	< 1	3	< 1	3	< 1	< 2	< 10	16	< 1	1	< 2
07/08/99	< 1	< 1	< 1	< 1	< 20	< 20	< 2	< 1	3	< 1	3	< 1	< 2	< 10	14	< 1	< 1	< 2	

NOTES:

(a) Sample analyzed at 10x dilution

(b) Constituent also detected in laboratory blank sample

**Table 4. Summary of Analytical Results for Additional
Halogenated Organic Compounds Not Listed in Table 3
TW WT-1 Station Engine Room Pit Area**

Well	Sampling Date	Compound	Concentration (µg/L)	Reporting Limit (µg/L)
MW-1	10/09/97	1,1,2,2-Tetrachloroethane	107	50
	01/23/98	1,2,4-Trimethylbenzene	36	5
	01/23/98	1,3,5-Trimethylbenzene	13	5
	01/23/98	2-Hexanone	25	10
	04/17/98	Naphthalene	11	5
	04/17/98	1,2,4-Trimethylbenzene	39	5
	04/17/98	1,3,5-Trimethylbenzene	13	5
	04/17/98	2-Hexanone	18	10
Dup(MW-17)	04/17/98	Naphthalene	24	5
	04/17/98	1,2,4-Trimethylbenzene	40	5
	04/17/98	1,3,5-Trimethylbenzene	14	5
	04/17/98	2-Hexanone	26	10
	07/17/98	Naphthalene	13	5
	07/17/98	1,2,4-Trimethylbenzene	32	5
	07/17/98	1,3,5-Trimethylbenzene	11	5
	07/17/98	2-Hexanone	18	10
	01/27/99	Carbon disulfide	1	1
	01/27/99	Isopropylbenzene	2	1
	01/27/99	n-Propylbenzene	3	1
	01/27/99	1,3,5-Trimethylbenzene	14	1
	01/27/99	1,2,4-Trimethylbenzene	38	1
	01/27/99	4-Isopropyltoluene	2	1
	01/27/99	1,2-Dichlorobenzene	1	1
	01/27/99	Naphthalene	14	1
MW-4	12/1/994	Bromodichloromethane	0.2	0.2
MW-5	12/01/94	1,2-Dichlorobenzene	0.5	0.2
	11/12/96	Bromodichloromethane	94	5
	01/24/98	Naphthalene	48	5
	01/24/98	1,2,4-Trimethylbenzene	17	5
	01/24/98	1,3,5-Trimethylbenzene	10	5
	01/24/98	Naphthalene	40	5
	01/24/98	1,2,4-Trimethylbenzene	17	5
	01/24/98	1,3,5-Trimethylbenzene	10	5
	04/17/98	Naphthalene	5	5
	04/17/98	1,2,4-Trimethylbenzene	6	5
	07/17/98	Naphthalene	7	5
	07/17/98	1,2,4-Trimethylbenzene	6	5
	01/27/99	trans-1,2-Dichloroethene	1	1
	01/27/99	1,3,5-Trimethylbenzene	6	1
	01/27/99	1,2,4-Trimethylbenzene	9	1
	01/27/99	4-Isopropyltoluene	1	1

**Table 4. Summary of Analytical Results for Additional
Halogenated Organic Compounds Not Listed in Table 3
TW WT-1 Station Engine Room Pit Area**

Well	Sampling Date	Compound	Concentration (µg/L)	Reporting Limit (µg/L)
	01/27/99	1,2-Dichlorobenzene	1	1
	01/27/99	Naphthalene	9	1
Dup(MW-17)	01/27/99	1,3,5-Trimethylbenzene	7	1
	01/27/99	1,2,4-Trimethylbenzene	10	1
	01/27/99	4-Isopropyltoluene	1	1
	01/27/99	1,2-Dichlorobenzene	1	1
	01/27/99	Naphthalene	9	1
	07/09/99	1,3,5-Trimethylbenzene	6	1
	07/09/99	1,2,4-Trimethylbenzene	9	1
	07/09/99	4-Isopropyltoluene	1	1
	07/09/99	Naphthalene	9	1
MW-6	11/30/94	1,2-Dichlorobenzene	0.3	0.2
MW-8	11/30/94	1,2-Dichlorobenzene	0.4	0.2
	01/24/98	P-Isopropyltoluene	10	5
	01/27/99	Isopropylbenzene	2	1
	01/27/99	4-Isopropyltoluene	2	1
	01/27/99	1,2-Dichlorobenzene	1	1

Table 5. Summary of Ground Water Analyses - Inorganics
TW WT-1 Station Engine Room Pit Area

Well	Sampling Date	Major Ions (mg/L)										Metals (mg/L)											
		TDS	Chloride	Sulfate	NO ₃ /NO ₂ -N, total	Calcium	Potassium	Magnesium	Sodium	Total alkalinity (as CaCO ₃)	Arsenic	Barium	Cadmium	Chromium	Copper	Iron	Lead	Mercury	Manganese	Selenium	Silver	Zinc	
NMWQCC Standard		1000	250	600	10	none	none	none	none	none	0.1	1.0	0.01	0.05	1.0	1.0	0.05	0.002	0.2	0.05	0.05	10	
	MW-1	11/15/94	2900	190	< 5	< 0.06	485	59.1	175	216	1610	0.11	24	< 0.0005	< 0.01	< 0.01	0.325	< 0.002	< 0.0002	0.1	< 0.005	< 0.01	na
		09/14/95	na	na	na	na	na	na	na	na	na	0.13	22.9	< 0.01	< 0.01	na	na	< 0.03	< 0.0002	0.05	< 0.04	< 0.01	na
		11/12/96	2370	165	< 50	na	na	na	na	na	na	0.12	20	< 0.01	< 0.01	< 0.01	0.25	< 0.03	< 0.0002	0.03	< 0.04	< 0.01	na
		02/04/97	2460	172	< 5.0	na	na	na	na	na	na	0.13	22	< 0.01	< 0.01	< 0.01	10	< 0.03	< 0.0002	0.05	< 0.04	< 0.01	< 0.03
		05/10/97	2840	162	< 5.0	< 0.05	na	na	na	na	na	0.15	22.5	< 0.01	< 0.01	< 0.01	0.21	< 0.03	< 0.0002	0.02	< 0.04	< 0.01	< 0.03
	08/07/97	2910	150	< 5.0	5.4	na	na	na	na	na	0.11	27	< 0.01	< 0.01	< 0.01	0.21	< 0.03	< 0.0002	0.02	< 0.04	< 0.01	0.46	
	10/09/97	2690	175	< 5.0	< 0.05	na	na	na	na	na	0.16	26	< 0.01	< 0.01	0.04	0.11	< 0.03	< 0.0002	0.02	< 0.04	< 0.01	0.45	
	01/23/98	1890	160	9	0.15	na	na	na	na	na	0.2	27.2	< 0.005	< 0.01	< 0.01	0.54	< 0.05	< 0.0002	0.020	< 0.1	< 0.01	< 0.02	
	04/17/98	2100	150	200	0.90	na	na	na	na	na	0.2	26.8	< 0.005	< 0.01	< 0.01	8.42	< 0.05	< 0.0002	0.018	< 0.1	< 0.01	< 0.02	
Dup (MW-17)	04/17/98	1800	150	7	1.29	na	na	na	na	na	0.1	24.9	< 0.005	< 0.01	< 0.01	8.92	< 0.05	< 0.0002	0.019	< 0.1	< 0.01	< 0.02	
	07/17/98	2200	156	9	< 0.1	na	na	na	na	na	0.15	32.2	< 0.005	< 0.01	< 0.01	15.1	< 0.05	< 0.0002	0.023	< 0.005	< 0.01	< 0.02	
MW-4	12/01/94	2800	540	1000	20	332	5.9	153	353	273	0.007	0.025	< 0.0005	< 0.01	< 0.01	< 0.05	< 0.002	< 0.0002	0.024	0.02	< 0.01	na	
	09/12/95	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	
	11/12/96	2500	430	1000	na	na	na	na	na	na	< 0.03	0.03	< 0.01	< 0.01	na	na	< 0.03	< 0.0002	0.03	< 0.04	< 0.01	na	
	02/04/97	2370	416	416	na	na	na	na	na	na	< 0.03	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.0002	< 0.01	< 0.04	< 0.01	< 0.03	
											< 0.03	0.03	< 0.01	< 0.01	< 0.01	0.57	< 0.03	< 0.0002	0.03	< 0.04	< 0.01	< 0.03	
	05/10/97	2660	410	778	10.7	na	na	na	na	na	< 0.03	0.02	< 0.01	< 0.01	< 0.01	< 0.01	< 0.03	< 0.0002	< 0.01	< 0.04	< 0.01	< 0.03	
	08/06/97	2620	435	863	12.8	na	na	na	na	na	< 0.03	0.33	< 0.01	0.02	< 0.01	< 0.01	< 0.03	< 0.0002	< 0.01	0.08	< 0.01	0.25	
	10/08/97	2470	380	879	9.6	na	na	na	na	na	< 0.03	0.92	< 0.01	< 0.01	< 0.01	0.14	< 0.03	< 0.0002	< 0.01	< 0.04	< 0.01	0.4	
	01/23/98	1920	300	581	< 0.05	na	na	na	na	na	< 0.1	0.017	< 0.005	< 0.01	< 0.01	< 0.02	< 0.05	< 0.0002	0.188	< 0.1	< 0.01	< 0.02	
	04/16/98	1600	320	800	11.6	na	na	na	na	na	< 0.1	0.026	< 0.005	< 0.01	< 0.01	0.07	< 0.05	< 0.0002	0.201	< 0.1	< 0.01	0.03	
07/16/98	2300	301	900	14.1	na	na	na	na	na	0.011	0.020	< 0.005	< 0.01	< 0.01	< 0.02	< 0.05	< 0.0002	0.154	0.018	< 0.01	< 0.02		
07/08/99	2200	320	710	14.0	na	na	na	na	na	0.010	0.0213	< 0.0020	< 0.0050	< 0.0020	< 0.010	< 0.025	< 0.00020	0.0381	0.020	< 0.0030	< 0.010		

Table 5. Summary of Ground Water Analyses - Inorganics
TW WT-1 Station Engine Room Pit Area

Well	Sampling Date	Major Ions (mg/L)										Metals (mg/L)											
		TDS	Chloride	Sulfate	NO ₂ /NO ₃ - N, total	Calcium	Potassium	Magnesium	Sodium	Total alkalinity (as CaCO ₃)	Arsenic	Barium	Cadmium	Chromium	Copper	Iron	Lead	Mercury	Manganese	Selenium	Silver	Zinc	
NMWQCC Standard		1000	250	600	10	none	none	none	none	none	0.1	1.0	0.01	0.05	1.0	1.0	0.05	0.002	0.2	0.05	0.05	10	
MW-5	12/01/94	2000	360	< 5	< 0.06	185	6.1	200	326	1080	0.036	17.3	< 0.0005	< 0.01	< 0.01	0.097	< 0.002	< 0.0002	0.112	< 0.005	< 0.01	na	
	09/12/95	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	
	11/12/96	2610	495	< 25	na	na	na	na	na	na	0.06	25.9	< 0.01	< 0.01	na	na	< 0.03	< 0.0002	0.43	< 0.04	< 0.01	na	
	02/06/97	2300	4400	< 5.0	na	na	na	na	na	na	0.04	21	< 0.01	< 0.01	< 0.01	< 0.01	0.21	< 0.03	< 0.0002	0.02	< 0.04	< 0.01	0.04
Dup (MW-17)										(Unfiltered metals analysis)	0.12	22	< 0.01	0.02	0.02	27	0.04	< 0.0002	0.56	< 0.04	< 0.01	0.09	
	05/10/97	2340	380	< 5.0	< 0.05	na	na	na	na	na	0.05	22.2	< 0.01	< 0.01	< 0.01	0.12	< 0.03	< 0.0002	0.01	< 0.04	< 0.01	< 0.03	
	08/07/97	1870	300	< 5.0	0.09	na	na	na	na	na	< 0.03	16	< 0.01	< 0.01	< 0.01	0.08	< 0.03	< 0.0002	< 0.01	< 0.04	< 0.01	0.24	
	10/09/97	2090	320	< 5.0	< 0.05	na	na	na	na	na	< 0.03	23	< 0.01	< 0.01	< 0.01	0.02	< 0.03	< 0.0002	< 0.01	< 0.04	< 0.01	0.23	
	10/09/97	2100	340	< 5.0	< 0.05	na	na	na	na	na	< 0.03	16	< 0.01	< 0.01	< 0.01	0.01	< 0.03	< 0.0002	< 0.01	< 0.04	< 0.01	0.23	
	01/24/98	1640	300	4	< 0.05	na	na	na	na	na	< 0.05	15.5	< 0.005	< 0.01	< 0.01	0.19	< 0.05	< 0.0002	0.017	< 0.1	< 0.01	< 0.02	
	01/24/98	1680	300	4	< 0.05	na	na	na	na	na	0.1	16.4	< 0.005	< 0.01	< 0.01	0.19	< 0.05	< 0.0002	0.015	< 0.1	< 0.01	< 0.02	
	04/17/98	1400	290	200	0.88	na	na	na	na	na	< 0.1	14.4	< 0.005	< 0.01	< 0.01	1.29	< 0.05	< 0.0002	0.022	< 0.1	< 0.01	0.03	
Dup (MW-17)	07/17/98	1600	281	3	< 0.1	na	na	na	na	na	0.020	13.7	< 0.005	< 0.01	< 0.01	4.61	< 0.05	< 0.0002	0.018	< 0.005	< 0.01	< 0.02	
	07/09/99	1800	260	< 25	< 0.01	na	na	na	na	na	0.019	13.3	< 0.0020	< 0.0050	< 0.0020	2.50	< 0.025	< 0.00020	0.0224	< 0.010	< 0.0030	< 0.010	
	MW-6	11/30/94	2400	700	410	< 0.06	293	7.1	197	267	624	< 0.005	0.109	< 0.0005	< 0.01	0.014	< 0.05	< 0.002	< 0.0002	0.562	< 0.005	< 0.01	na
	09/12/95	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	
MW-6	11/12/96	2460	715	527	na	na	na	na	na	na	< 0.03	0.37	< 0.01	< 0.01	na	na	< 0.03	< 0.0002	0.95	< 0.04	< 0.01	na	
	02/04/97	2390	700	467	na	na	na	na	na	na	< 0.03	0.12	< 0.01	< 0.01	< 0.01	0.01	< 0.03	< 0.0002	0.79	< 0.04	< 0.01	< 0.03	
											< 0.03	0.55	< 0.01	0.02	0.03	14	< 0.03	< 0.0002	1.1	< 0.04	< 0.01	0.05	
	05/10/97	2550	700	463	< 0.05	na	na	na	na	na	< 0.03	0.1	< 0.01	< 0.01	< 0.01	0.01	< 0.03	< 0.0002	0.69	< 0.04	< 0.01	< 0.03	
	08/07/97	2660	720	427	0.4	na	na	na	na	na	< 0.03	0.8	< 0.01	< 0.01	< 0.01	< 0.01	< 0.03	< 0.0002	0.93	< 0.04	< 0.01	0.29	
	10/09/97	2710	710	468	< 0.05	na	na	na	na	na	< 0.03	0.95	< 0.01	< 0.01	< 0.01	0.18	< 0.03	< 0.0002	0.91	< 0.04	< 0.01	0.4	
	01/23/98	2190	700	378	< 0.05	na	na	na	na	na	< 0.1	0.121	< 0.005	< 0.01	< 0.01	< 0.02	< 0.05	< 0.0002	0.933	< 0.1	< 0.01	< 0.02	
	04/16/98	1700	720	500	0.89	na	na	na	na	na	< 0.1	0.112	< 0.005	< 0.01	< 0.01	0.7	< 0.05	< 0.0002	0.844	< 0.1	< 0.01	< 0.02	
MW-6	07/16/98	2100	620	550	< 0.1	na	na	na	na	na	0.008	0.110	< 0.005	< 0.01	< 0.01	0.70	< 0.05	< 0.0002	0.832	< 0.005	< 0.01	< 0.02	
	07/08/99	2400	720	390	< 0.01	na	na	na	na	na	< 0.010	0.114	< 0.0020	< 0.0050	< 0.0020	0.638	< 0.025	< 0.00020	0.888	< 0.010	< 0.0030	< 0.010	

Table 5. Summary of Ground Water Analyses - Inorganics
TW WT-1 Station Engine Room Pit Area

Well	Sampling Date	Major Ions (mg/L)							Metals (mg/L)													
		TDS	Chloride	Sulfate	NO ₂ /NO ₃ - N, total	Calcium	Potassium	Magnesium	Sodium	Total alkalinity (as CaCO ₃)	Arsenic	Barium	Cadmium	Chromium	Copper	Iron	Lead	Mercury	Manganese	Selenium	Silver	Zinc
NMWQCC Standard		1000	250	600	10	none	none	none	none	none	0.1	1.0	0.01	0.05	1.0	1.0	0.05	0.002	0.2	0.05	0.05	10
MW-7	11/30/94	2400	400	920	6.8	323	7.9	148	244	327	0.006	0.032	<0.0005	<0.01	0.014	<0.05	<0.002	<0.0002	0.069	0.008	<0.01	na
	09/12/95	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
	11/12/96	2240	400	823	na	na	na	na	na	na	<0.03	1.27	<0.01	0.01	na	na	<0.03	<0.0002	0.6	<0.04	<0.01	na
	02/04/97	2100	380	779	na	na	na	na	na	na	<0.03	0.04	<0.01	<0.01	<0.01	0.01	<0.03	<0.0002	0.04	<0.04	<0.01	<0.03
											0.12	3.2	<0.01	0.04	0.06	41	0.04	<0.0002	1.2	<0.04	<0.01	0.14
	05/10/97	2250	390	757	7.3	na	na	na	na	na	<0.03	0.02	<0.01	<0.01	<0.01	<0.01	<0.03	<0.0002	0.04	<0.04	<0.01	<0.03
	08/07/97	2310	370	716	4.1	na	na	na	na	na	<0.03	0.61	<0.01	<0.01	<0.01	<0.01	<0.03	<0.0002	0.09	<0.04	<0.01	0.22
	10/09/97	2190	410	784	7	na	na	na	na	na	<0.03	0.81	<0.01	<0.01	<0.01	0.19	<0.03	<0.0002	0.07	<0.04	<0.01	0.35
	01/23/98	1700	400	646	8.4	na	na	na	na	na	<0.1	0.018	<0.005	<0.01	<0.01	<0.02	<0.05	<0.0002	0.042	<0.1	<0.01	<0.02
	04/17/98	1800	410	900	8.38	na	na	na	na	na	<0.1	0.021	<0.005	<0.01	<0.01	<0.02	<0.05	<0.0002	0.051	<0.1	<0.01	0.02
MW-8	07/16/98	1900	301	800	8.2	na	na	na	na	na	0.007	0.019	<0.005	<0.01	<0.01	<0.02	<0.05	<0.0002	0.061	0.012	<0.01	<0.02
	07/08/99	2100	360	670	8.0	na	na	na	na	na	<0.010	0.0191	<0.0020	<0.0050	<0.0020	<0.010	<0.025	<0.00020	0.0517	0.012	<0.0030	<0.010
	11/30/94	1900	590	330	0.44	247	6	137	221	441	0.006	0.062	<0.0005	<0.01	0.014	<0.05	<0.002	<0.0002	0.136	<0.005	<0.01	na
	09/13/95	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na	na
	11/12/96	2010	555	395	na	na	na	na	na	na	<0.03	0.13	<0.01	<0.01	na	na	<0.03	<0.0002	0.41	<0.04	<0.01	na
	02/06/97	2000	575	222	na	na	na	na	na	na	<0.03	0.08	<0.01	<0.01	<0.01	<0.01	<0.03	<0.0002	0.44	<0.04	<0.01	<0.03
											<0.03	0.27	<0.01	0.02	0.02	8.9	<0.03	<0.0002	0.72	<0.04	<0.01	0.05
	05/10/97	1990	550	263	<0.05	na	na	na	na	na	<0.03	0.06	<0.01	<0.01	<0.01	<0.01	<0.03	<0.0002	0.52	<0.04	<0.01	<0.03
	08/07/97	2020	540	251	0.07	na	na	na	na	na	<0.03	0.8	<0.01	<0.01	<0.01	<0.01	<0.03	<0.0002	0.67	<0.04	<0.01	0.24
Dup (MW-17)	10/09/97	2100	570	242	<0.05	na	na	na	na	na	<0.03	0.7	<0.01	<0.01	<0.01	0.18	<0.03	<0.0002	0.86	<0.04	<0.01	0.25
	01/24/98	1740	500	248	<0.05	na	na	na	na	na	<0.1	0.071	<0.005	<0.01	<0.01	<0.02	<0.05	<0.0002	0.543	<0.1	<0.01	<0.02
	04/17/98	1300	550	400	0.88	na	na	na	na	na	<0.1	0.071	<0.005	<0.01	<0.01	0.65	<0.05	<0.0002	0.751	<0.1	<0.01	<0.02
	07/17/98	1500	557	400	<0.1	na	na	na	na	na	0.008	0.063	<0.005	<0.01	<0.01	0.03	<0.05	<0.0002	0.506	<0.005	<0.01	<0.02
	07/17/98	1500	578	30	<0.1	na	na	na	na	na	0.008	0.070	<0.005	<0.01	<0.01	0.09	<0.05	<0.0002	0.654	<0.005	<0.01	<0.02
	07/09/99	1900	550	250	0.09	na	na	na	na	na	<0.010	0.0731	<0.0020	<0.0050	<0.0020	0.141	<0.025	<0.00020	0.781	<0.010	<0.0030	<0.010
	07/09/99	1900	540	250	0.11	na	na	na	na	na	<0.010	0.0728	<0.0020	<0.0050	0.0029	0.242	<0.025	<0.00020	0.731	<0.010	<0.0030	<0.010

Table 5. Summary of Ground Water Analyses - Inorganics
TW WT-1 Station Engine Room Pit Area

Well	Sampling Date	Major Ions (mg/L)										Metals (mg/L)													
		NO ₂ /NO ₃ - N, total										Arsenic	Barium	Cadmium	Chromium	Copper	Iron	Lead	Mercury	Manganese	Selenium	Silver	Zinc		
		TDS	Chloride	Sulfate	10	600	250	1000	none	Calcium	Potassium													Magnesium	Sodium
NMWQCC Standard		1000	250	600	10	none	none	none	none	none	none	none	none	0.1	1.0	0.01	0.05	1.0	1.0	0.05	0.002	0.2	0.05	0.05	10
MW-14	09/13/95	2360	515	700	1.91	276	7	147	170	444	<0.05	0.14	<0.005	<0.01	na	na	<0.05	<0.0002	na	<0.1	<0.01	na			
	11/12/96	2510	550	837	na	na	na	na	na	na	<0.03	0.05	<0.01	<0.01	na	na	<0.03	<0.0002	0.07	<0.04	<0.01	na			
	02/04/97	2510	575	757	na	na	na	na	na	na	<0.03	0.07	<0.01	<0.01	<0.01	<0.01	<0.03	<0.0002	0.06	<0.04	<0.01	<0.03			
											<0.03	0.13	<0.01	<0.01	<0.01	1.9	<0.03	<0.0002	0.1	<0.04	<0.01	<0.03			
	05/10/97	2530	520	715	2.2	na	na	na	na	na	<0.03	0.02	<0.01	<0.01	<0.01	<0.01	<0.03	<0.0002	0.07	<0.04	<0.01	<0.03			
	08/07/97	2420	520	662	1.9	na	na	na	na	na	<0.03	0.73	<0.01	<0.01	<0.01	<0.01	<0.03	<0.0002	0.11	<0.04	<0.01	0.22			
	10/08/97	2490	550	769	2.3	na	na	na	na	na	<0.03	0.54	<0.01	<0.01	<0.01	0.18	<0.03	<0.0002	0.11	<0.04	<0.01	0.22			
	01/23/98	2200	500	663	2.9	na	na	na	na	na	<0.1	0.018	<0.005	<0.01	<0.01	<0.02	<0.05	<0.0002	0.080	<0.1	<0.01	<0.02			
	04/17/98	2000	540	800	3.72	na	na	na	na	na	<0.1	0.028	<0.005	<0.01	<0.01	0.03	0.05	<0.0002	0.119	<0.1	<0.01	0.02			
	07/17/98	1800	557	700	2.8	na	na	na	na	na	0.011	0.021	<0.005	<0.01	<0.01	<0.02	<0.05	<0.0002	0.136	0.010	<0.01	0.02			
07/09/99	2400	530	640	2.7	na	na	na	na	na	na	<0.010	0.0216	<0.0020	<0.0050	0.0025	<0.010	<0.025	<0.00020	0.111	<0.010	<0.0030	<0.010			
MW15	09/14/95	2500	442	900	13.2	291	6.5	137	206	286	<0.05	0.02	<0.005	<0.01	na	na	<0.05	<0.0002	na	<0.1	0.01	na			
	11/12/96	2420	435	892	na	na	na	na	na	na	<0.03	0.06	<0.01	<0.01	na	na	<0.03	<0.0002	0.02	<0.04	<0.01	na			
	02/04/97	2360	420	924	na	na	na	na	na	na	<0.03	0.03	<0.01	<0.01	<0.01	<0.01	<0.03	<0.0002	<0.01	<0.04	<0.01	<0.03			
											<0.03	0.17	<0.01	<0.01	<0.01	2.3	<0.03	<0.0002	0.06	<0.04	<0.01	<0.03			
	05/10/97	2530	860	1020	10.2	na	na	na	na	na	<0.03	0.02	<0.01	<0.01	<0.01	<0.01	<0.03	<0.0002	<0.01	<0.04	<0.01	<0.03			
	08/07/97	2510	410	825	10.2	na	na	na	na	na	<0.03	0.63	<0.01	<0.01	<0.01	<0.01	<0.03	<0.0002	<0.01	<0.04	<0.01	0.26			
	10/08/97	2400	420	941	5.8	na	na	na	na	na	<0.03	0.53	<0.01	<0.01	<0.01	0.19	<0.03	<0.0002	<0.01	<0.04	<0.01	0.23			
	01/23/98	2150	400	766	12.54	na	na	na	na	na	<0.1	0.014	<0.005	<0.01	<0.01	<0.02	<0.05	<0.0002	<0.005	<0.1	<0.01	<0.02			
	04/16/98	1700	420	1000	19.6	na	na	na	na	na	<0.1	0.020	<0.005	<0.01	<0.01	0.06	<0.05	<0.0002	<0.005	<0.1	<0.01	0.03			
	07/17/98	1800	386	1000	11.9	na	na	na	na	na	0.012	0.018	<0.005	<0.01	<0.01	0.24	<0.05	<0.0002	<0.005	0.020	<0.01	<0.02			
07/08/99	2100	340	710	13.0	na	na	na	na	na	<0.010	0.0231	<0.0020	<0.0050	<0.0020	0.144	<0.025	<0.00020	0.0014	0.016	<0.0030	<0.010				

Table 5. Summary of Ground Water Analyses - Inorganics
TW WT-1 Station Engine Room Pit Area

Well	Sampling Date	Major Ions (mg/L)							Metals (mg/L)														
		TDS	Chloride	Sulfate	NO ₂ /NO ₃ - N, total	Calcium	Potassium	Magnesium	Sodium	Total alkalinity (as CaCO ₃)	Arsenic	Barium	Cadmium	Chromium	Copper	Iron	Lead	Mercury	Manganese	Selenium	Silver	Zinc	
NMWQCC Standard		1000	250	600	10	none	none	none	none	none	0.1	1.0	0.01	0.05	1.0	1.0	0.05	0.002	0.2	0.05	0.05	10	
	MW16	2570	624	850	2.62	320	9.7	188	211	410	<0.05	0.22	<0.005	0.02	na	na	<0.05	0.0003	na	<0.1	<0.01	na	
			3550	995	1020	na	na	na	na	na	na	<0.03	0.06	<0.01	<0.01	na	na	<0.03	<0.0002	1.21	<0.04	<0.01	na
			3470	950	830	na	na	na	na	na	na	<0.03	0.05	<0.01	<0.01	<0.01	<0.01	<0.03	<0.0002	1.1	<0.04	<0.01	<0.03
											0.07	0.37	<0.01	0.02	0.04	27	0.04	<0.0002	1.8	<0.04	<0.01	0.1	
		3520	420	1110	1.6	na	na	na	na	na	<0.03	0.02	<0.01	<0.01	<0.01	<0.01	<0.03	<0.0002	1.07	<0.04	0.02	0.02	
		3480	860	1010	1.7	na	na	na	na	na	<0.03	0.67	<0.01	<0.01	<0.01	<0.01	<0.03	<0.0002	1.1	<0.04	0.02	0.29	
		3370	860	904	0.95	na	na	na	na	na	<0.03	0.52	<0.01	<0.01	<0.01	0.26	<0.03	<0.0002	1.14	<0.04	<0.01	0.25	
		2730	800	824	0.91	na	na	na	na	na	<0.1	0.019	<0.005	<0.01	<0.01	<0.02	<0.05	<0.0002	0.971	<0.1	<0.01	<0.02	
		04/16/98	2400	710	1100	1.78	na	na	na	na	<0.1	0.026	<0.005	<0.01	<0.01	0.04	<0.05	<0.0002	0.941	<0.1	<0.01	<0.02	
	07/16/98	2500	620	1100	1.2	na	na	na	na	<0.005	0.023	<0.005	<0.01	<0.01	<0.02	<0.05	<0.0002	0.913	<0.005	<0.01	0.03		
	07/08/99	3200	830	920	1.8	na	na	na	na	na	<0.010	0.0240	<0.0020	<0.0050	0.0020	<0.010	<0.025	<0.00020	0.781	<0.010	<0.0030	<0.010	

NOTES:

na - Analysis for this constituent was not run on samples collected during this sample event

Report of Ground Water Monitoring Activities

**WT-1 Compressor Station: Engine Room Drain Pit Area
Transwestern Pipeline Company**

Attachment #1

**Lab Reports for the July 1998, January 1999,
& July 1999 Ground Water Sampling Events**



L12121

July 27, 1999

George Robinson
Enron Gas Pipeline Group
333 Clay St., Room 3142
P.O. Box 1188
Houston, TX 77002

Phone: (713) 646-7327
FAX: (713) 646-7867

Re: Laboratory Sample Analysis

Project: WT-1 Station, Engine Room Pit Area

Project Manager: George Robinson

Dear George Robinson:

On July 12 through 13, 1999, OAL received ten (10) water samples for analysis. The samples were analyzed utilizing EPA, ASTM, or equivalent methodology.

Should you have any questions concerning the results in this report, please contact us at (503) 590-5300. Refer to OAL login number L12121.

Sincerely,

Doug McKenzie
Project Manager

OREGON ANALYTICAL LABORATORY

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L12121

Sample Summary

<u>Sample ID</u>	<u>Lab #</u>	<u>Description</u>	<u>Sampled</u>	<u>Received</u>
MW-4	L12121-1	water	07/08/99 12:45	07/12/99
MW-16	L12121-2	water	07/08/99 14:15	07/12/99
MW-6	L12121-3	water	07/08/99 15:40	07/12/99
MW-7	L12121-4	water	07/08/99 16:40	07/12/99
MW-15	L12121-5	water	07/08/99 17:40	07/12/99
TRIP BLANK	L12121-6	water	07/08/99	07/12/99
MW-17	L12121-7	water	07/09/99 10:00	07/13/99
MW-14	L12121-8	water	07/09/99 11:30	07/13/99
MW-8	L12121-9	water	07/09/99 13:00	07/13/99
MW-5	L12121-10	water	07/09/99 13:45	07/13/99

Definition of Terms

- * Batch duplicate analysis exceeds laboratory control limits.
- D Reported value is based on a dilution.
- D1 Reported value is based on a dilution due to matrix interference.
- K2 Batch matrix spike was diluted out during analysis.
- ND Analytical result was below the reporting limit.

Laboratory Certifications*

<u>Agency</u>	<u>Number</u>
Florida Department of Health	ID #E87569
Oregon Health Division	State Lab #OR020
Washington Department of Ecology	Lab Accreditation #C136
Washington Department of Health	Washington Code #136

* Current Scopes of Accreditation are available upon request.

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Analysts

<u>Initials</u>	<u>Analyst</u>	<u>Title</u>
CAC	Cindy Covey	Technician
CV	Cheryl Vezzani	Chemist
DM	Dan Miller	Chemist
DMC ²	Debbie McBreen-McKenzie	Chemist / Supervisor
KDK	Kirk Keyes	Chemist
MJ	Marki James	Technician
NM	Nick Miller	Technician
SHS	Sophia Hussein-Swoboda	Technician
TMH	Tara M. Hopman	Technician

Method Summary

<u>Analysis</u>	<u>Method</u>
Arsenic	EPA 200.9
Barium	EPA 200.7/6010
Cadmium	EPA 200.7/6010
Chloride	EPA 300.0
Chromium	EPA 200.7/6010
Copper	EPA 200.7/6010
Iron	EPA 200.7/6010
Lead	EPA 200.7/6010
Manganese	EPA 200.7/6010
Mercury	EPA 245.1/7470A
Nitrate + Nitrite as N	EPA 353.2
Selenium	EPA 200.9
Silver	EPA 200.7/6010
Solids, Total Dissolved (TDS)	EPA 160.1 / SM 2540C
Sulfate as SO ₄	EPA 300.0
Volatile Organic Compounds (VOC)	EPA 8260
Zinc	EPA 200.7/6010

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L12121

Client: **Enron Gas Pipeline Group**
Contact: **George Robinson**

Project: **WT-1 Station, Engine Room**
Pit Area

Inorganics

Sample ID	Matrix							Lab Number
Analyte	Result	Reporting Limit	Units (ppm)	Date Analyzed	Method	Comment	Analyst	

MW-4	Water							Sampled: 07/08/99	L12121-1
Chloride	320	5.0	mg/L	07/16/99	EPA 300.0		D	KDK	
Nitrate + Nitrite as N	14.	0.10	mg/L	07/21/99	EPA 353.2		D	NM	
Solids, Total Dissolved (TDS)	2,200	10.	mg/L	07/13/99	EPA 160.1 / SM 2540C			CAC	
Sulfate as SO4	710	25.	mg/L	07/16/99	EPA 300.0		D	KDK	

MW-16	Water							Sampled: 07/08/99	L12121-2
Chloride	830	5.0	mg/L	07/16/99	EPA 300.0		D	KDK	
Nitrate + Nitrite as N	1.8	0.01	mg/L	07/21/99	EPA 353.2			NM	
Solids, Total Dissolved (TDS)	3,200	10.	mg/L	07/13/99	EPA 160.1 / SM 2540C			CAC	
Sulfate as SO4	920	25.	mg/L	07/16/99	EPA 300.0		D	KDK	

MW-6	Water							Sampled: 07/08/99	L12121-3
Chloride	720	5.0	mg/L	07/16/99	EPA 300.0		D	KDK	
Nitrate + Nitrite as N	ND	0.01	mg/L	07/21/99	EPA 353.2			NM	
Solids, Total Dissolved (TDS)	2,400	10.	mg/L	07/13/99	EPA 160.1 / SM 2540C			CAC	
Sulfate as SO4	390	25.	mg/L	07/16/99	EPA 300.0		D	KDK	

MW-7	Water							Sampled: 07/08/99	L12121-4
Chloride	360	5.0	mg/L	07/16/99	EPA 300.0		D	KDK	
Nitrate + Nitrite as N	8.0	0.05	mg/L	07/21/99	EPA 353.2		D	NM	
Solids, Total Dissolved (TDS)	2,100	10.	mg/L	07/13/99	EPA 160.1 / SM 2540C			CAC	
Sulfate as SO4	670	25.	mg/L	07/16/99	EPA 300.0		D	KDK	

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L12121

Client: **Enron Gas Pipeline Group**
Contact: **George Robinson**

Project: **WT-1 Station, Engine Room**
Pit Area

Inorganics

Sample ID	Matrix	Result	Reporting Limit	Units (ppm)	Date Analyzed	Method	Lab Number	Comment	Analyst
Analyte									

MW-15	Water					Sampled: 07/08/99	L12121-5		
Chloride		340	5.0	mg/L	07/16/99	EPA 300.0	D	KDK	
Nitrate + Nitrite as N		13.	0.05	mg/L	07/21/99	EPA 353.2	D	NM	
Solids, Total Dissolved (TDS)		2,100	10.	mg/L	07/13/99	EPA 160.1 / SM 2540C		CAC	
Sulfate as SO4		710	25.	mg/L	07/16/99	EPA 300.0	D	KDK	

MW-17	Water					Sampled: 07/09/99	L12121-7		
Chloride		540	5.0	mg/L	07/16/99	EPA 300.0	D	KDK	
Nitrate + Nitrite as N		0.11	0.01	mg/L	07/21/99	EPA 353.2		NM	
Solids, Total Dissolved (TDS)		1,900	10.	mg/L	07/15/99	EPA 160.1 / SM 2540C		TMH	
Sulfate as SO4		250	25.	mg/L	07/16/99	EPA 300.0	D	KDK	

MW-14	Water					Sampled: 07/09/99	L12121-8		
Chloride		530	5.0	mg/L	07/16/99	EPA 300.0	D	KDK	
Nitrate + Nitrite as N		2.7	0.02	mg/L	07/21/99	EPA 353.2	D	NM	
Solids, Total Dissolved (TDS)		2,400	10.	mg/L	07/15/99	EPA 160.1 / SM 2540C		TMH	
Sulfate as SO4		640	25.	mg/L	07/16/99	EPA 300.0	D	KDK	

MW-8	Water					Sampled: 07/09/99	L12121-9		
Chloride		550	5.0	mg/L	07/16/99	EPA 300.0	D	KDK	
Nitrate + Nitrite as N		0.09	0.01	mg/L	07/21/99	EPA 353.2		NM	
Solids, Total Dissolved (TDS)		1,900	10.	mg/L	07/15/99	EPA 160.1 / SM 2540C		TMH	
Sulfate as SO4		250	25.	mg/L	07/16/99	EPA 300.0	D	KDK	

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L12121

Client: **Enron Gas Pipeline Group**
Contact: **George Robinson**

Project: **WT-1 Station, Engine Room**
Pit Area

Inorganics

<i>Sample ID</i>	<i>Matrix</i>						<i>Lab Number</i>
Analyte		Result	Reporting Limit	Units (ppm)	Date Analyzed	Method	Comment Analyst

<i>MW-5</i>	<i>Water</i>					<i>Sampled: 07/09/99</i>	<i>L12121-10</i>
Chloride		260	5.0	mg/L	07/16/99	EPA 300.0	D KDK
Nitrate + Nitrite as N		ND	0.01	mg/L	07/22/99	EPA 353.2	NM
Solids, Total Dissolved (TDS)		1,800	10.	mg/L	07/15/99	EPA 160.1 / SM 2540C	TMH
Sulfate as SO ₄		ND	25.	mg/L	07/16/99	EPA 300.0	D KDK

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- 3 -



L12121

Client: **Enron Gas Pipeline Group**
 Contact: **George Robinson**

Project: **WT-1 Station, Engine Room**
Pit Area

Total Metals

Sample ID	Matrix	Result	Reporting Limit	Units (ppm)	Date Analyzed	Method	Lab Number	Comment	Analyst
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		Sampled: 07/08/99							
		Hot Plate Digestion EPA 200.2/3005A: 07/14/99							
		Mercury Digestion: 07/15/99							
MW-4	Water	L12121-1							
Arsenic		0.010	0.010	mg/L	07/20/99	EPA 200.9	D1	CV	
Barium		0.0213	0.0010	mg/L	07/14/99	EPA 200.7/6010		DMC ²	
Cadmium		ND	0.0020	mg/L	07/14/99	EPA 200.7/6010		DMC ²	
Chromium		ND	0.0050	mg/L	07/14/99	EPA 200.7/6010		DMC ²	
Copper		ND	0.0020	mg/L	07/14/99	EPA 200.7/6010		DMC ²	
Iron		ND	0.010	mg/L	07/14/99	EPA 200.7/6010		DMC ²	
Lead		ND	0.025	mg/L	07/14/99	EPA 200.7/6010		DMC ²	
Manganese		0.0381	0.0010	mg/L	07/14/99	EPA 200.7/6010		DMC ²	
Mercury		ND	0.00020	mg/L	07/16/99	EPA 245.1/7470A		SHS	
Selenium		0.020	0.010	mg/L	07/20/99	EPA 200.9	D1	CV	
Silver		ND	0.0030	mg/L	07/14/99	EPA 200.7/6010		DMC ²	
Zinc		ND	0.010	mg/L	07/14/99	EPA 200.7/6010		DMC ²	

		Sampled: 07/08/99							
		Hot Plate Digestion EPA 200.2/3005A: 07/14/99							
		Mercury Digestion: 07/15/99							
MW-16	Water	L12121-2							
Arsenic		ND	0.010	mg/L	07/20/99	EPA 200.9	D1	CV	
Barium		0.0240	0.0010	mg/L	07/14/99	EPA 200.7/6010		DMC ²	
Cadmium		ND	0.0020	mg/L	07/14/99	EPA 200.7/6010		DMC ²	
Chromium		ND	0.0050	mg/L	07/14/99	EPA 200.7/6010		DMC ²	
Copper		0.0020	0.0020	mg/L	07/14/99	EPA 200.7/6010		DMC ²	
Iron		ND	0.010	mg/L	07/14/99	EPA 200.7/6010		DMC ²	
Lead		ND	0.025	mg/L	07/14/99	EPA 200.7/6010		DMC ²	
Manganese		0.781	0.0010	mg/L	07/14/99	EPA 200.7/6010		DMC ²	
Mercury		ND	0.00020	mg/L	07/16/99	EPA 245.1/7470A		SHS	
Selenium		ND	0.010	mg/L	07/20/99	EPA 200.9	D1	CV	
Silver		ND	0.0030	mg/L	07/14/99	EPA 200.7/6010		DMC ²	
Zinc		ND	0.010	mg/L	07/14/99	EPA 200.7/6010		DMC ²	

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L12121

Client: **Enron Gas Pipeline Group**
 Contact: **George Robinson**

Project: **WT-1 Station, Engine Room**
Pit Area

Total Metals

Sample ID	Matrix	Result	Reporting Limit	Units (ppm)	Date Analyzed	Method	Lab Number	Comment Analyst
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MW-6		Water		Sampled: 07/08/99 Hot Plate Digestion EPA 200.2/3005A: 07/14/99 Mercury Digestion: 07/15/99					L12121-3	
Arsenic	ND	0.010	mg/L	07/20/99	EPA 200.9			D1	CV	
Barium	0.114	0.0010	mg/L	07/14/99	EPA 200.7/6010				DMC ²	
Cadmium	ND	0.0020	mg/L	07/14/99	EPA 200.7/6010				DMC ²	
Chromium	ND	0.0050	mg/L	07/14/99	EPA 200.7/6010				DMC ²	
Copper	ND	0.0020	mg/L	07/14/99	EPA 200.7/6010				DMC ²	
Iron	0.638	0.010	mg/L	07/14/99	EPA 200.7/6010				DMC ²	
Lead	ND	0.025	mg/L	07/14/99	EPA 200.7/6010				DMC ²	
Manganese	0.888	0.0010	mg/L	07/14/99	EPA 200.7/6010				DMC ²	
Mercury	ND	0.00020	mg/L	07/16/99	EPA 245.1/7470A				SHS	
Selenium	ND	0.010	mg/L	07/20/99	EPA 200.9			D1	CV	
Silver	ND	0.0030	mg/L	07/14/99	EPA 200.7/6010				DMC ²	
Zinc	ND	0.010	mg/L	07/14/99	EPA 200.7/6010				DMC ²	

MW-7		Water		Sampled: 07/08/99 Hot Plate Digestion EPA 200.2/3005A: 07/14/99 Mercury Digestion: 07/15/99					L12121-4	
Arsenic	ND	0.010	mg/L	07/20/99	EPA 200.9		D1	CV		
Barium	0.0191	0.0010	mg/L	07/14/99	EPA 200.7/6010			DMC ²		
Cadmium	ND	0.0020	mg/L	07/14/99	EPA 200.7/6010			DMC ²		
Chromium	ND	0.0050	mg/L	07/14/99	EPA 200.7/6010			DMC ²		
Copper	ND	0.0020	mg/L	07/14/99	EPA 200.7/6010			DMC ²		
Iron	ND	0.010	mg/L	07/14/99	EPA 200.7/6010			DMC ²		
Lead	ND	0.025	mg/L	07/14/99	EPA 200.7/6010			DMC ²		
Manganese	0.0517	0.0010	mg/L	07/14/99	EPA 200.7/6010			DMC ²		
Mercury	ND	0.00020	mg/L	07/16/99	EPA 245.1/7470A			SHS		
Selenium	0.012	0.010	mg/L	07/20/99	EPA 200.9		D1	CV		
Silver	ND	0.0030	mg/L	07/14/99	EPA 200.7/6010			DMC ²		
Zinc	ND	0.010	mg/L	07/14/99	EPA 200.7/6010			DMC ²		

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L12121

Client: **Enron Gas Pipeline Group**
 Contact: **George Robinson**

Project: **WT-1 Station, Engine Room**
Pit Area

Total Metals

Sample ID	Matrix	Result	Reporting Limit	Units (ppm)	Date Analyzed	Method	Lab Number	Comment	Analyst
Analyte									

MW-15		Water		Sampled: 07/08/99 Hot Plate Digestion EPA 200.2/3005A: 07/14/99 Mercury Digestion: 07/15/99						L12121-5
Arsenic	ND	0.010	mg/L	07/20/99	EPA 200.9		D1	CV		
Barium	0.0231	0.0010	mg/L	07/14/99	EPA 200.7/6010			DMC ²		
Cadmium	ND	0.0020	mg/L	07/14/99	EPA 200.7/6010			DMC ²		
Chromium	ND	0.0050	mg/L	07/14/99	EPA 200.7/6010			DMC ²		
Copper	ND	0.0020	mg/L	07/14/99	EPA 200.7/6010			DMC ²		
Iron	0.144	0.010	mg/L	07/14/99	EPA 200.7/6010			DMC ²		
Lead	ND	0.025	mg/L	07/14/99	EPA 200.7/6010			DMC ²		
Manganese	0.0014	0.0010	mg/L	07/14/99	EPA 200.7/6010			DMC ²		
Mercury	ND	0.00020	mg/L	07/16/99	EPA 245.1/7470A			SHS		
Selenium	0.016	0.010	mg/L	07/20/99	EPA 200.9		D1	CV		
Silver	ND	0.0030	mg/L	07/14/99	EPA 200.7/6010			DMC ²		
Zinc	ND	0.010	mg/L	07/14/99	EPA 200.7/6010			DMC ²		

MW-17		Water		Sampled: 07/09/99 Mercury Digestion: 07/15/99 Hot Plate Digestion EPA 200.2/3005A: 07/16/99						L12121-7
Arsenic	ND	0.010	mg/L	07/20/99	EPA 200.9		D1	CV		
Barium	0.0728	0.0010	mg/L	07/19/99	EPA 200.7/6010			MJ		
Cadmium	ND	0.0020	mg/L	07/19/99	EPA 200.7/6010			MJ		
Chromium	ND	0.0050	mg/L	07/19/99	EPA 200.7/6010			MJ		
Copper	0.0029	0.0020	mg/L	07/19/99	EPA 200.7/6010			MJ		
Iron	0.242	0.010	mg/L	07/19/99	EPA 200.7/6010		*	MJ		
Lead	ND	0.025	mg/L	07/19/99	EPA 200.7/6010			MJ		
Manganese	0.731	0.0010	mg/L	07/19/99	EPA 200.7/6010			MJ		
Mercury	ND	0.00020	mg/L	07/16/99	EPA 245.1/7470A			SHS		
Selenium	ND	0.010	mg/L	07/20/99	EPA 200.9		D1,K2	CV		
Silver	ND	0.0030	mg/L	07/19/99	EPA 200.7/6010			MJ		
Zinc	ND	0.010	mg/L	07/19/99	EPA 200.7/6010			MJ		

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L12121

Client: **Enron Gas Pipeline Group**
 Contact: **George Robinson**

Project: **WT-1 Station, Engine Room**
Pit Area

Total Metals

Sample ID	Matrix	Result	Reporting Limit	Units (ppm)	Date Analyzed	Method	Lab Number	Comment	Analyst
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MW-14		Water		Sampled: 07/09/99 Mercury Digestion: 07/15/99 Hot Plate Digestion EPA 200.2/3005A: 07/16/99						L12121-8	
Arsenic	ND	0.010	mg/L	07/20/99	EPA 200.9			D1		CV	
Barium	0.0216	0.0010	mg/L	07/19/99	EPA 200.7/6010					MJ	
Cadmium	ND	0.0020	mg/L	07/19/99	EPA 200.7/6010					MJ	
Chromium	ND	0.0050	mg/L	07/19/99	EPA 200.7/6010					MJ	
Copper	0.0025	0.0020	mg/L	07/19/99	EPA 200.7/6010					MJ	
Iron	ND	0.010	mg/L	07/19/99	EPA 200.7/6010			*		MJ	
Lead	ND	0.025	mg/L	07/19/99	EPA 200.7/6010					MJ	
Manganese	0.111	0.0010	mg/L	07/19/99	EPA 200.7/6010					MJ	
Mercury	ND	0.00020	mg/L	07/16/99	EPA 245.1/7470A					SHS	
Selenium	ND	0.010	mg/L	07/20/99	EPA 200.9			D1,K2		CV	
Silver	ND	0.0030	mg/L	07/19/99	EPA 200.7/6010					MJ	
Zinc	ND	0.010	mg/L	07/19/99	EPA 200.7/6010					MJ	

MW-8		Water		Sampled: 07/09/99 Mercury Digestion: 07/15/99 Hot Plate Digestion EPA 200.2/3005A: 07/16/99					L12121-9	
Arsenic	ND	0.010	mg/L	07/20/99	EPA 200.9		D1		CV	
Barium	0.0731	0.0010	mg/L	07/19/99	EPA 200.7/6010				MJ	
Cadmium	ND	0.0020	mg/L	07/19/99	EPA 200.7/6010				MJ	
Chromium	ND	0.0050	mg/L	07/19/99	EPA 200.7/6010				MJ	
Copper	ND	0.0020	mg/L	07/19/99	EPA 200.7/6010				MJ	
Iron	0.141	0.010	mg/L	07/19/99	EPA 200.7/6010		*		MJ	
Lead	ND	0.025	mg/L	07/19/99	EPA 200.7/6010				MJ	
Manganese	0.781	0.0010	mg/L	07/19/99	EPA 200.7/6010				MJ	
Mercury	ND	0.00020	mg/L	07/16/99	EPA 245.1/7470A				SHS	
Selenium	ND	0.010	mg/L	07/20/99	EPA 200.9		D1,K2		CV	
Silver	ND	0.0030	mg/L	07/19/99	EPA 200.7/6010					
Zinc	ND	0.010	mg/L	07/19/99	EPA 200.7/6010					

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L12121

Client: **Enron Gas Pipeline Group**
Contact: **George Robinson**

Project: **WT-1 Station, Engine Room
Pit Area**

Total Metals

Sample ID	Matrix	Result	Reporting Limit	Units (ppm)	Date Analyzed	Method	Lab Number	Comment	Analyst
Analyte									

		Sampled: 07/09/99							
		Mercury Digestion: 07/15/99							
MW-5	Water	Hot Plate Digestion EPA 200.2/3005A: 07/16/99						L12121-10	
Arsenic		0.019	0.010	mg/L	07/20/99	EPA 200.9	D1	CV	
Barium		13.3	0.0010	mg/L	07/19/99	EPA 200.7/6010		MJ	
Cadmium		ND	0.0020	mg/L	07/19/99	EPA 200.7/6010		MJ	
Chromium		ND	0.0050	mg/L	07/19/99	EPA 200.7/6010		MJ	
Copper		ND	0.0020	mg/L	07/19/99	EPA 200.7/6010		MJ	
Iron		2.50	0.010	mg/L	07/19/99	EPA 200.7/6010	*	MJ	
Lead		ND	0.025	mg/L	07/19/99	EPA 200.7/6010		MJ	
Manganese		0.0224	0.0010	mg/L	07/19/99	EPA 200.7/6010		MJ	
Mercury		ND	0.00020	mg/L	07/16/99	EPA 245.1/7470A		SHS	
Selenium		ND	0.010	mg/L	07/20/99	EPA 200.9	D1,K2	CV	
Silver		ND	0.0030	mg/L	07/19/99	EPA 200.7/6010		MJ	
Zinc		ND	0.010	mg/L	07/19/99	EPA 200.7/6010		MJ	

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L12121

Client: **Enron Gas Pipeline Group**
Contact: **George Robinson**

Project: **WT-1 Station, Engine Room**
Pit Area

Volatile Organic Compounds (VOC) by EPA 8260

Sample ID	Matrix	Result	Reporting Limit	Units	Comment	Lab Number
CAS	Analyte					
MW-4	Water				Sampled: 07/08/99 Analyzed: 07/14/99 by DM	L12121-1
See Attached Data Sheet						
MW-16	Water				Sampled: 07/08/99 Analyzed: 07/14/99 by DM	L12121-2
See Attached Data Sheet						
MW-6	Water				Sampled: 07/08/99 Analyzed: 07/14/99 by DM	L12121-3
See Attached Data Sheet						
MW-7	Water				Sampled: 07/08/99 Analyzed: 07/14/99 by DM	L12121-4
See Attached Data Sheet						
MW-15	Water				Sampled: 07/08/99 Analyzed: 07/14/99 by DM	L12121-5
See Attached Data Sheet						
TRIP BLANK	Water				Sampled: 07/08/99 Analyzed: 07/14/99 by DM	L12121-6
See Attached Data Sheet						
MW-17	Water				Sampled: 07/09/99 Analyzed: 07/14/99 by DM	L12121-7
See Attached Data Sheet						

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Client: **Enron Gas Pipeline Group**
Contact: **George Robinson**

Project: **WT-1 Station, Engine Room
Pit Area**

Volatile Organic Compounds (VOC)
by EPA 8260

<i>Sample ID</i>	<i>Matrix</i>				<i>Lab Number</i>
CAS	Analyte	Result	Reporting Limit	Units	Comment

<i>MW-14</i>	<i>Water</i>				Sampled: 07/09/99 Analyzed: 07/14/99 by DM <i>L12121-8</i>
See Attached Data Sheet _____					

<i>MW-8</i>	<i>Water</i>				Sampled: 07/09/99 Analyzed: 07/14/99 by DM <i>L12121-9</i>
See Attached Data Sheet _____					

<i>MW-5</i>	<i>Water</i>				Sampled: 07/09/99 Analyzed: 07/14/99 by DM <i>L12121-10</i>
See Attached Data Sheet _____					



L12121

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station

Volatiles
by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	
MW-4	Water	MB0714				Sampled : 07/08/99 Analyzed : 07/14/99 L12121-1
CAS #						
75-71-8	Dichlorodifluoromethane	nd	nd	2	ug/L	
74-87-3	Chloromethane	nd	nd	2	ug/L	
75-01-4	Vinyl chloride	nd	nd	2	ug/L	
74-83-9	Bromomethane	nd	nd	2	ug/L	
75-00-3	Chloroethane	nd	nd	2	ug/L	
75-69-4	Trichlorofluoromethane	nd	nd	1	ug/L	
67-64-1	Acetone	nd	nd	20	ug/L	
75-35-4	1,1-Dichloroethene	4	nd	1	ug/L	
75-09-2	Methylene chloride	nd	nd	2	ug/L	
75-15-0	Carbon disulfide	nd	nd	1	ug/L	
156-60-5	trans-1,2-Dichloroethene	nd	nd	1	ug/L	
75-34-3	1,1-Dichloroethane	1	nd	1	ug/L	
78-93-3	2-Butanone	nd	nd	20	ug/L	
590-20-7	2,2-Dichloropropane	nd	nd	1	ug/L	
156-59-4	cis-1,2-Dichloroethene	nd	nd	1	ug/L	
74-97-5	Bromochloromethane	nd	nd	1	ug/L	
67-66-3	Chloroform	4	nd	1	ug/L	
71-55-6	1,1,1-Trichloroethane	nd	nd	1	ug/L	
56-23-5	Carbon tetrachloride	nd	nd	1	ug/L	
563-58-6	1,1-Dichloropropene	nd	nd	1	ug/L	
71-43-2	Benzene	nd	nd	1	ug/L	
107-06-2	1,2-Dichloroethane	nd	nd	1	ug/L	
79-01-6	Trichloroethene	nd	nd	1	ug/L	

none detected = nd

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L12121

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station

Volatiles
by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-4	Water	MB0714			Sampled : 07/08/99	
					Analyzed : 07/14/99	L12121-1
CAS #						
78-87-5	1,2-Dichloropropane	nd	nd	1	ug/L	
74-95-3	Dibromomethane	nd	nd	1	ug/L	
75-27-4	Bromodichloromethane	nd	nd	1	ug/L	
10061-01-5	cis-1,3-Dichloropropene	nd	nd	1	ug/L	
108-10-1	4-Methyl-2-pentanone	nd	nd	10	ug/L	
108-88-3	Toluene	nd	nd	1	ug/L	
591-78-6	2-Hexanone	nd	nd	10	ug/L	
10061-02-6	trans-1,3-Dichloropropene	nd	nd	1	ug/L	
79-00-5	1,1,2-Trichloroethane	nd	nd	1	ug/L	
127-18-4	Tetrachloroethene	nd	nd	1	ug/L	
542-75-6	1,3-Dichloropropane	nd	nd	1	ug/L	
124-48-1	Dibromochloromethane	nd	nd	1	ug/L	
106-93-4	1,2-Dibromoethane	nd	nd	1	ug/L	
108-90-7	Chlorobenzene	nd	nd	1	ug/L	
630-20-6	1,1,1,2-Tetrachloroethane	nd	nd	1	ug/L	
100-41-4	Ethylbenzene	nd	nd	1	ug/L	
100-42-5	Styrene	nd	nd	1	ug/L	
75-25-2	Bromoform	nd	nd	1	ug/L	
98-82-8	Isopropylbenzene	nd	nd	1	ug/L	
108-86-1	Bromobenzene	nd	nd	1	ug/L	
79-34-5	1,1,2,2-Tetrachloroethane	nd	nd	1	ug/L	
96-18-4	1,2,3-Trichloropropane	nd	nd	1	ug/L	
103-65-1	n-Propylbenzene	nd	nd	1	ug/L	

none detected = nd

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L12121

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station

Volatiles
by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-4		Water		MB0714		Sampled : 07/08/99	Analyzed : 07/14/99	L12121-1
CAS #								
95-49-8	2-Chlorotoluene	nd	nd	1	ug/L			
106-43-4	4-Chlorotoluene	nd	nd	1	ug/L			
108-67-8	1,3,5-Trimethylbenzene	nd	nd	1	ug/L			
98-06-6	tert-Butylbenzene	nd	nd	1	ug/L			
95-63-6	1,2,4-Trimethylbenzene	nd	nd	1	ug/L			
135-98-8	sec-Butylbenzene	nd	nd	1	ug/L			
541-73-1	1,3-Dichlorobenzene	nd	nd	1	ug/L			
99-87-6	4-Isopropyltoluene	nd	nd	1	ug/L			
106-46-7	1,4-Dichlorobenzene	nd	nd	1	ug/L			
95-50-1	1,2-Dichlorobenzene	nd	nd	1	ug/L			
104-51-8	n-Butylbenzene	nd	nd	1	ug/L			
96-12-8	1,2-Dibromo-3-chloropropane	nd	nd	1	ug/L			
120-82-1	1,2,4-Trichlorobenzene	nd	nd	1	ug/L			
87-68-3	Hexachlorobutadiene	nd	nd	1	ug/L			
91-20-3	Naphthalene	nd	nd	1	ug/L			
87-61-6	1,2,3-Trichlorobenzene	nd	nd	1	ug/L			
	Total Xylenes	nd	nd	1	ug/L			
Surrogates		Recovery L12121-1	Recovery MB0714					
1,2-Dichloroethane-d4		101%	99%					
Toluene-d8		100%	100%					
4-Bromofluorobenzene		103%	100%					

none detected = nd



L12121

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station

Volatiles
by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	
MW-16	Water		MB0714		Sampled : 07/08/99 Analyzed : 07/14/99	L12121-2
CAS #						
75-71-8	Dichlorodifluoromethane	nd	nd	2	ug/L	
74-87-3	Chloromethane	nd	nd	2	ug/L	
75-01-4	Vinyl chloride	nd	nd	2	ug/L	
74-83-9	Bromomethane	nd	nd	2	ug/L	
75-00-3	Chloroethane	nd	nd	2	ug/L	
75-69-4	Trichlorofluoromethane	nd	nd	1	ug/L	
67-64-1	Acetone	nd	nd	20	ug/L	
75-35-4	1,1-Dichloroethene	3	nd	1	ug/L	
75-09-2	Methylene chloride	nd	nd	2	ug/L	
75-15-0	Carbon disulfide	nd	nd	1	ug/L	
156-60-5	trans-1,2-Dichloroethene	nd	nd	1	ug/L	
75-34-3	1,1-Dichloroethane	3	nd	1	ug/L	
78-93-3	2-Butanone	nd	nd	20	ug/L	
590-20-7	2,2-Dichloropropane	nd	nd	1	ug/L	
156-59-4	cis-1,2-Dichloroethene	nd	nd	1	ug/L	
74-97-5	Bromochloromethane	nd	nd	1	ug/L	
67-66-3	Chloroform	nd	nd	1	ug/L	
71-55-6	1,1,1-Trichloroethane	nd	nd	1	ug/L	
56-23-5	Carbon tetrachloride	nd	nd	1	ug/L	
563-58-6	1,1-Dichloropropene	nd	nd	1	ug/L	
71-43-2	Benzene	nd	nd	1	ug/L	
107-06-2	1,2-Dichloroethane	nd	nd	1	ug/L	
79-01-6	Trichloroethene	1	nd	1	ug/L	

none detected = nd

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L12121

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station

Volatiles

by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	
MW-16	Water		MB0714			Sampled : 07/08/99 Analyzed : 07/14/99 L12121-2
CAS #						
78-87-5	1,2-Dichloropropane	nd	nd	1	ug/L	
74-95-3	Dibromomethane	nd	nd	1	ug/L	
75-27-4	Bromodichloromethane	nd	nd	1	ug/L	
10061-01-5	cis-1,3-Dichloropropene	nd	nd	1	ug/L	
108-10-1	4-Methyl-2-pentanone	nd	nd	10	ug/L	
108-88-3	Toluene	nd	nd	1	ug/L	
591-78-6	2-Hexanone	nd	nd	10	ug/L	
10061-02-6	trans-1,3-Dichloropropene	nd	nd	1	ug/L	
79-00-5	1,1,2-Trichloroethane	nd	nd	1	ug/L	
127-18-4	Tetrachloroethene	14	nd	1	ug/L	
542-75-6	1,3-Dichloropropane	nd	nd	1	ug/L	
124-48-1	Dibromochloromethane	nd	nd	1	ug/L	
106-93-4	1,2-Dibromoethane	nd	nd	1	ug/L	
108-90-7	Chlorobenzene	nd	nd	1	ug/L	
630-20-6	1,1,1,2-Tetrachloroethane	nd	nd	1	ug/L	
100-41-4	Ethylbenzene	nd	nd	1	ug/L	
100-42-5	Styrene	nd	nd	1	ug/L	
75-25-2	Bromoform	nd	nd	1	ug/L	
98-82-8	Isopropylbenzene	nd	nd	1	ug/L	
108-86-1	Bromobenzene	nd	nd	1	ug/L	
79-34-5	1,1,2,2-Tetrachloroethane	nd	nd	1	ug/L	
96-18-4	1,2,3-Trichloropropane	nd	nd	1	ug/L	
103-65-1	n-Propylbenzene	nd	nd	1	ug/L	

none detected = nd

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L12121

Client: Enron Gas Pipeline Group
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Volatiles

by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-16	Water	MB0714				Sampled : 07/08/99	L12121-2
Analyzed : 07/14/99							
CAS #							
95-49-8	2-Chlorotoluene	nd	nd	1	ug/L		
106-43-4	4-Chlorotoluene	nd	nd	1	ug/L		
108-67-8	1,3,5-Trimethylbenzene	nd	nd	1	ug/L		
98-06-6	tert-Butylbenzene	nd	nd	1	ug/L		
95-63-6	1,2,4-Trimethylbenzene	nd	nd	1	ug/L		
135-98-8	sec-Butylbenzene	nd	nd	1	ug/L		
541-73-1	1,3-Dichlorobenzene	nd	nd	1	ug/L		
99-87-6	4-Isopropyltoluene	nd	nd	1	ug/L		
106-46-7	1,4-Dichlorobenzene	nd	nd	1	ug/L		
95-50-1	1,2-Dichlorobenzene	nd	nd	1	ug/L		
104-51-8	n-Butylbenzene	nd	nd	1	ug/L		
96-12-8	1,2-Dibromo-3-chloropropane ...	nd	nd	1	ug/L		
120-82-1	1,2,4-Trichlorobenzene	nd	nd	1	ug/L		
87-68-3	Hexachlorobutadiene	nd	nd	1	ug/L		
91-20-3	Naphthalene	nd	nd	1	ug/L		
87-61-6	1,2,3-Trichlorobenzene	nd	nd	1	ug/L		
	Total Xylenes	nd	nd	1	ug/L		
		Recovery	Recovery				
Surrogates		L12121-2	MB0714				
1,2-Dichloroethane-d4		105%	99%				
Toluene-d8		98%	100%				
4-Bromofluorobenzene		101%	100%				

none detected = nd

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L12121

Client: Enron Gas Pipeline Group
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Project: WT-1 Station

Volatiles
by EPA Method 8260

Sample ID							Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment		
MW-6	Water		ME0714		Sampled : 07/08/99		L12121-3
					Analyzed : 07/14/99		
CAS #							
75-71-8	Dichlorodifluoromethane	nd	nd	2	ug/L		
74-87-3	Chloromethane	nd	nd	2	ug/L		
75-01-4	Vinyl chloride	nd	nd	2	ug/L		
74-83-9	Bromomethane	nd	nd	2	ug/L		
75-00-3	Chloroethane	nd	nd	2	ug/L		
75-69-4	Trichlorofluoromethane	nd	nd	1	ug/L		
67-64-1	Acetone	nd	nd	20	ug/L		
75-35-4	1,1-Dichloroethene	2	nd	1	ug/L		
75-09-2	Methylene chloride	nd	nd	2	ug/L		
75-15-0	Carbon disulfide	nd	nd	1	ug/L		
156-60-5	trans-1,2-Dichloroethene	nd	nd	1	ug/L		
75-34-3	1,1-Dichloroethane	12	nd	1	ug/L		
78-93-3	2-Butanone	nd	nd	20	ug/L		
590-20-7	2,2-Dichloropropane	nd	nd	1	ug/L		
156-59-4	cis-1,2-Dichloroethene	9	nd	1	ug/L		
74-97-5	Bromochloromethane	nd	nd	1	ug/L		
67-66-3	Chloroform	nd	nd	1	ug/L		
71-55-6	1,1,1-Trichloroethane	nd	nd	1	ug/L		
56-23-5	Carbon tetrachloride	nd	nd	1	ug/L		
563-58-6	1,1-Dichloropropene	nd	nd	1	ug/L		
71-43-2	Benzene	2	nd	1	ug/L		
107-06-2	1,2-Dichloroethane	nd	nd	1	ug/L		
79-01-6	Trichloroethene	18	nd	1	ug/L		

none detected = nd

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Volatiles
by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-6	Water	MB0714				Sampled : 07/08/99	
						Analyzed : 07/14/99	L12121-3
CAS #							
78-87-5	1,2-Dichloropropane	nd	nd	1	ug/L		
74-95-3	Dibromomethane	nd	nd	1	ug/L		
75-27-4	Bromodichloromethane	nd	nd	1	ug/L		
10061-01-5	cis-1,3-Dichloropropene	nd	nd	1	ug/L		
108-10-1	4-Methyl-2-pentanone	nd	nd	10	ug/L		
108-88-3	Toluene	nd	nd	1	ug/L		
591-78-6	2-Hexanone	nd	nd	10	ug/L		
10061-02-6	trans-1,3-Dichloropropene	nd	nd	1	ug/L		
79-00-5	1,1,2-Trichloroethane	nd	nd	1	ug/L		
127-18-4	Tetrachloroethene	nd	nd	1	ug/L		
542-75-6	1,3-Dichloropropane	nd	nd	1	ug/L		
124-48-1	Dibromochloromethane	nd	nd	1	ug/L		
106-93-4	1,2-Dibromoethane	nd	nd	1	ug/L		
108-90-7	Chlorobenzene	nd	nd	1	ug/L		
630-20-6	1,1,1,2-Tetrachloroethane	nd	nd	1	ug/L		
100-41-4	Ethylbenzene	nd	nd	1	ug/L		
100-42-5	Styrene	nd	nd	1	ug/L		
75-25-2	Bromoform	nd	nd	1	ug/L		
98-82-8	Isopropylbenzene	nd	nd	1	ug/L		
108-86-1	Bromobenzene	nd	nd	1	ug/L		
79-34-5	1,1,2,2-Tetrachloroethane	nd	nd	1	ug/L		
96-18-4	1,2,3-Trichloropropane	nd	nd	1	ug/L		
103-65-1	n-Propylbenzene	nd	nd	1	ug/L		

none detected = nd

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L12121

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station

Volatiles

by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-7	Water	MB0714				Sampled : 07/08/99	
						Analyzed : 07/14/99	L12121-4
CAS #							
75-71-8	Dichlorodifluoromethane	nd	nd	2	ug/L		
74-87-3	Chloromethane	nd	nd	2	ug/L		
75-01-4	Vinyl chloride	nd	nd	2	ug/L		
74-83-9	Bromomethane	nd	nd	2	ug/L		
75-00-3	Chloroethane	nd	nd	2	ug/L		
75-69-4	Trichlorofluoromethane	nd	nd	1	ug/L		
67-64-1	Acetone	nd	nd	20	ug/L		
75-35-4	1,1-Dichloroethene	2	nd	1	ug/L		
75-09-2	Methylene chloride	nd	nd	2	ug/L		
75-15-0	Carbon disulfide	nd	nd	1	ug/L		
156-60-5	trans-1,2-Dichloroethene	nd	nd	1	ug/L		
75-34-3	1,1-Dichloroethane	20	nd	1	ug/L		
78-93-3	2-Butanone	nd	nd	20	ug/L		
590-20-7	2,2-Dichloropropane	nd	nd	1	ug/L		
156-59-4	cis-1,2-Dichloroethene	10	nd	1	ug/L		
74-97-5	Bromochloromethane	nd	nd	1	ug/L		
67-66-3	Chloroform	1	nd	1	ug/L		
71-55-6	1,1,1-Trichloroethane	nd	nd	1	ug/L		
56-23-5	Carbon tetrachloride	nd	nd	1	ug/L		
563-58-6	1,1-Dichloropropene	nd	nd	1	ug/L		
71-43-2	Benzene	7	nd	1	ug/L		
107-06-2	1,2-Dichloroethane	nd	nd	1	ug/L		
79-01-6	Trichloroethene	12	nd	1	ug/L		

none detected = nd

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Volatiles
by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-7	Water	MB0714			Sampled : 07/08/99	Analyzed : 07/14/99	L12121-4
CAS #							
78-87-5	1,2-Dichloropropane	nd	nd	1	ug/L		
74-95-3	Dibromomethane	nd	nd	1	ug/L		
75-27-4	Bromodichloromethane	nd	nd	1	ug/L		
10061-01-5	cis-1,3-Dichloropropene	nd	nd	1	ug/L		
108-10-1	4-Methyl-2-pentanone	nd	nd	10	ug/L		
108-88-3	Toluene	nd	nd	1	ug/L		
591-78-6	2-Hexanone	nd	nd	10	ug/L		
10061-02-6	trans-1,3-Dichloropropene	nd	nd	1	ug/L		
79-00-5	1,1,2-Trichloroethane	nd	nd	1	ug/L		
127-18-4	Tetrachloroethene	nd	nd	1	ug/L		
542-75-6	1,3-Dichloropropane	nd	nd	1	ug/L		
124-48-1	Dibromochloromethane	nd	nd	1	ug/L		
106-93-4	1,2-Dibromoethane	nd	nd	1	ug/L		
108-90-7	Chlorobenzene	nd	nd	1	ug/L		
630-20-6	1,1,1,2-Tetrachloroethane	nd	nd	1	ug/L		
100-41-4	Ethylbenzene	nd	nd	1	ug/L		
100-42-5	Styrene	nd	nd	1	ug/L		
75-25-2	Bromoform	nd	nd	1	ug/L		
98-82-8	Isopropylbenzene	nd	nd	1	ug/L		
108-86-1	Bromobenzene	nd	nd	1	ug/L		
79-34-5	1,1,2,2-Tetrachloroethane	nd	nd	1	ug/L		
96-18-4	1,2,3-Trichloropropane	nd	nd	1	ug/L		
103-65-1	n-Propylbenzene	nd	nd	1	ug/L		

none detected = nd

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L12121

Client: Enron Gas Pipeline Group
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Project: WT-1 Station

Volatiles
by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-7	Water	MB0714				Sampled : 07/08/99	
						Analyzed : 07/14/99	L12121-4
CAS #							
95-49-8	2-Chlorotoluene	nd	nd	1	ug/L		
106-43-4	4-Chlorotoluene	nd	nd	1	ug/L		
108-67-8	1,3,5-Trimethylbenzene	nd	nd	1	ug/L		
98-06-6	tert-Butylbenzene	nd	nd	1	ug/L		
95-63-6	1,2,4-Trimethylbenzene	nd	nd	1	ug/L		
135-98-8	sec-Butylbenzene	nd	nd	1	ug/L		
541-73-1	1,3-Dichlorobenzene	nd	nd	1	ug/L		
99-87-6	4-Isopropyltoluene	nd	nd	1	ug/L		
106-46-7	1,4-Dichlorobenzene	nd	nd	1	ug/L		
95-50-1	1,2-Dichlorobenzene	nd	nd	1	ug/L		
104-51-8	n-Butylbenzene	nd	nd	1	ug/L		
96-12-8	1,2-Dibromo-3-chloropropane	nd	nd	1	ug/L		
120-82-1	1,2,4-Trichlorobenzene	nd	nd	1	ug/L		
87-68-3	Hexachlorobutadiene	nd	nd	1	ug/L		
91-20-3	Naphthalene	nd	nd	1	ug/L		
87-61-6	1,2,3-Trichlorobenzene	nd	nd	1	ug/L		
	Total Xylenes	nd	nd	1	ug/L		
		Recovery	Recovery				
Surrogates		L12121-4	MB0714				
	1,2-Dichloroethane-d4	104%	99%				
	Toluene-d8	97%	100%				
	4-Bromofluorobenzene	101%	100%				

none detected = nd

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L12121

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Project: WT-1 Station

Volatiles
by EPA Method 8260

Sample ID	Lab Number					
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-15	Water	MB0714				Sampled : 07/08/99	Analyzed : 07/14/99	L12121-5
CAS #								
75-71-8	Dichlorodifluoromethane	nd	nd	2	ug/L			
74-87-3	Chloromethane	nd	nd	2	ug/L			
75-01-4	Vinyl chloride	nd	nd	2	ug/L			
74-83-9	Bromomethane	nd	nd	2	ug/L			
75-00-3	Chloroethane	nd	nd	2	ug/L			
75-69-4	Trichlorofluoromethane	nd	nd	1	ug/L			
67-64-1	Acetone	nd	nd	20	ug/L			
75-35-4	1,1-Dichloroethene	4	nd	1	ug/L			
75-09-2	Methylene chloride	nd	nd	2	ug/L			
75-15-0	Carbon disulfide	nd	nd	1	ug/L			
156-60-5	trans-1,2-Dichloroethene	nd	nd	1	ug/L			
75-34-3	1,1-Dichloroethane	4	nd	1	ug/L			
78-93-3	2-Butanone	nd	nd	20	ug/L			
590-20-7	2,2-Dichloropropane	nd	nd	1	ug/L			
156-59-4	cis-1,2-Dichloroethene	nd	nd	1	ug/L			
74-97-5	Bromochloromethane	nd	nd	1	ug/L			
67-66-3	Chloroform	2	nd	1	ug/L			
71-55-6	1,1,1-Trichloroethane	2	nd	1	ug/L			
56-23-5	Carbon tetrachloride	nd	nd	1	ug/L			
563-58-6	1,1-Dichloropropene	nd	nd	1	ug/L			
71-43-2	Benzene	nd	nd	1	ug/L			
107-06-2	1,2-Dichloroethane	nd	nd	1	ug/L			
79-01-6	Trichloroethene	nd	nd	1	ug/L			

none detected = nd

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L12121

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Project: WT-1 Station

Volatiles
by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-15	Water	MB0714				Sampled : 07/08/99	L12121-5
Analyzed : 07/14/99							
CAS #							
78-87-5	1,2-Dichloropropane	nd	nd	1	ug/L		
74-95-3	Dibromomethane	nd	nd	1	ug/L		
75-27-4	Bromodichloromethane	nd	nd	1	ug/L		
10061-01-5	cis-1,3-Dichloropropene	nd	nd	1	ug/L		
108-10-1	4-Methyl-2-pentanone	nd	nd	10	ug/L		
108-88-3	Toluene	nd	nd	1	ug/L		
591-78-6	2-Hexanone	nd	nd	10	ug/L		
10061-02-6	trans-1,3-Dichloropropene	nd	nd	1	ug/L		
79-00-5	1,1,2-Trichloroethane	nd	nd	1	ug/L		
127-18-4	Tetrachloroethene	nd	nd	1	ug/L		
542-75-6	1,3-Dichloropropane	nd	nd	1	ug/L		
124-48-1	Dibromochloromethane	nd	nd	1	ug/L		
106-93-4	1,2-Dibromoethane	nd	nd	1	ug/L		
108-90-7	Chlorobenzene	nd	nd	1	ug/L		
630-20-6	1,1,1,2-Tetrachloroethane	nd	nd	1	ug/L		
100-41-4	Ethylbenzene	nd	nd	1	ug/L		
100-42-5	Styrene	nd	nd	1	ug/L		
75-25-2	Bromoform	nd	nd	1	ug/L		
98-82-8	Isopropylbenzene	nd	nd	1	ug/L		
108-86-1	Bromobenzene	nd	nd	1	ug/L		
79-34-5	1,1,2,2-Tetrachloroethane	nd	nd	1	ug/L		
96-18-4	1,2,3-Trichloropropane	nd	nd	1	ug/L		
103-65-1	n-Propylbenzene	nd	nd	1	ug/L		

none detected = nd

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L12121

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Project: WT-1 Station

Volatiles

by EPA Method 8260

Sample ID							Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment		
MW-15	Water	MB0714		Sampled : 07/08/99 Analyzed : 07/14/99		L12121-5	
CAS #							
95-49-8	2-Chlorotoluene	nd	nd	1	ug/L		
106-43-4	4-Chlorotoluene	nd	nd	1	ug/L		
108-67-8	1,3,5-Trimethylbenzene	nd	nd	1	ug/L		
98-06-6	tert-Butylbenzene	nd	nd	1	ug/L		
95-63-6	1,2,4-Trimethylbenzene	nd	nd	1	ug/L		
135-98-8	sec-Butylbenzene	nd	nd	1	ug/L		
541-73-1	1,3-Dichlorobenzene	nd	nd	1	ug/L		
99-87-6	4-Isopropyltoluene	nd	nd	1	ug/L		
106-46-7	1,4-Dichlorobenzene	nd	nd	1	ug/L		
95-50-1	1,2-Dichlorobenzene	nd	nd	1	ug/L		
104-51-8	n-Butylbenzene	nd	nd	1	ug/L		
96-12-8	1,2-Dibromo-3-chloropropane ...	nd	nd	1	ug/L		
120-82-1	1,2,4-Trichlorobenzene	nd	nd	1	ug/L		
87-68-3	Hexachlorobutadiene	nd	nd	1	ug/L		
91-20-3	Naphthalene	nd	nd	1	ug/L		
87-61-6	1,2,3-Trichlorobenzene	nd	nd	1	ug/L		
	Total Xylenes	nd	nd	1	ug/L		
		Recovery	Recovery				
Surrogates		L12121-5	MB0714				
1,2-Dichloroethane-d4		102%	99%				
Toluene-d8		101%	100%				
4-Bromofluorobenzene		104%	100%				

none detected = nd



L12121

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station

Volatiles by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

TRIP BLANK		Water	MB0714		Sampled : 07/08/99		Analyzed : 07/14/99	L12121-6
CAS #								
75-71-8	Dichlorodifluoromethane	nd	nd	2	ug/L			
74-87-3	Chloromethane	nd	nd	2	ug/L			
75-01-4	Vinyl chloride	nd	nd	2	ug/L			
74-83-9	Bromomethane	nd	nd	2	ug/L			
75-00-3	Chloroethane	nd	nd	2	ug/L			
75-69-4	Trichlorofluoromethane	nd	nd	1	ug/L			
67-64-1	Acetone	nd	nd	20	ug/L			
75-35-4	1,1-Dichloroethene	nd	nd	1	ug/L			
75-09-2	Methylene chloride	nd	nd	2	ug/L			
75-15-0	Carbon disulfide	nd	nd	1	ug/L			
156-60-5	trans-1,2-Dichloroethene	nd	nd	1	ug/L			
75-34-3	1,1-Dichloroethane	nd	nd	1	ug/L			
78-93-3	2-Butanone	nd	nd	20	ug/L			
590-20-7	2,2-Dichloropropane	nd	nd	1	ug/L			
156-59-4	cis-1,2-Dichloroethene	nd	nd	1	ug/L			
74-97-5	Bromochloromethane	nd	nd	1	ug/L			
67-66-3	Chloroform	nd	nd	1	ug/L			
71-55-6	1,1,1-Trichloroethane	nd	nd	1	ug/L			
56-23-5	Carbon tetrachloride	nd	nd	1	ug/L			
563-58-6	1,1-Dichloropropene	nd	nd	1	ug/L			
71-43-2	Benzene	nd	nd	1	ug/L			
107-06-2	1,2-Dichloroethane	nd	nd	1	ug/L			
79-01-6	Trichloroethene	nd	nd	1	ug/L			

none detected = nd

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L12121

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station

Volatiles
by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

TRIP BLANK		Water		MB0714		Sampled : 07/08/99	Analyzed : 07/14/99	L12121-6
CAS #								
78-87-5	1,2-Dichloropropane	nd	nd	1	ug/L			
74-95-3	Dibromomethane	nd	nd	1	ug/L			
75-27-4	Bromodichloromethane	nd	nd	1	ug/L			
10061-01-5	cis-1,3-Dichloropropene	nd	nd	1	ug/L			
108-10-1	4-Methyl-2-pentanone	nd	nd	10	ug/L			
108-88-3	Toluene	nd	nd	1	ug/L			
591-78-6	2-Hexanone	nd	nd	10	ug/L			
10061-02-6	trans-1,3-Dichloropropene	nd	nd	1	ug/L			
79-00-5	1,1,2-Trichloroethane	nd	nd	1	ug/L			
127-18-4	Tetrachloroethene	nd	nd	1	ug/L			
542-75-6	1,3-Dichloropropane	nd	nd	1	ug/L			
124-48-1	Dibromochloromethane	nd	nd	1	ug/L			
106-93-4	1,2-Dibromoethane	nd	nd	1	ug/L			
108-90-7	Chlorobenzene	nd	nd	1	ug/L			
630-20-6	1,1,1,2-Tetrachloroethane	nd	nd	1	ug/L			
100-41-4	Ethylbenzene	nd	nd	1	ug/L			
100-42-5	Styrene	nd	nd	1	ug/L			
75-25-2	Bromoform	nd	nd	1	ug/L			
98-82-8	Isopropylbenzene	nd	nd	1	ug/L			
108-86-1	Bromobenzene	nd	nd	1	ug/L			
79-34-5	1,1,2,2-Tetrachloroethane	nd	nd	1	ug/L			
96-18-4	1,2,3-Trichloropropane	nd	nd	1	ug/L			
103-65-1	n-Propylbenzene	nd	nd	1	ug/L			

none detected = nd

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L12121

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station

Volatiles by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

TRIP BLANK		Water		MB0714		Sampled : 07/08/99		Analyzed : 07/14/99		L12121-6	
CAS #											
95-49-8	2-Chlorotoluene	nd	nd	1	ug/L						
106-43-4	4-Chlorotoluene	nd	nd	1	ug/L						
108-67-8	1,3,5-Trimethylbenzene	nd	nd	1	ug/L						
98-06-6	tert-Butylbenzene	nd	nd	1	ug/L						
95-63-6	1,2,4-Trimethylbenzene	nd	nd	1	ug/L						
135-98-8	sec-Butylbenzene	nd	nd	1	ug/L						
541-73-1	1,3-Dichlorobenzene	nd	nd	1	ug/L						
99-87-6	4-Isopropyltoluene	nd	nd	1	ug/L						
106-46-7	1,4-Dichlorobenzene	nd	nd	1	ug/L						
95-50-1	1,2-Dichlorobenzene	nd	nd	1	ug/L						
104-51-8	n-Butylbenzene	nd	nd	1	ug/L						
96-12-8	1,2-Dibromo-3-chloropropane	nd	nd	1	ug/L						
120-82-1	1,2,4-Trichlorobenzene	nd	nd	1	ug/L						
87-68-3	Hexachlorobutadiene	nd	nd	1	ug/L						
91-20-3	Naphthalene	nd	nd	1	ug/L						
87-61-6	1,2,3-Trichlorobenzene	nd	nd	1	ug/L						
	Total Xylenes	nd	nd	1	ug/L						
		Recovery		Recovery							
Surrogates		L12121-6		MB0714							
1,2-Dichloroethane-d4		99%		99%							
Toluene-d8		99%		100%							
4-Bromofluorobenzene		101%		100%							

none detected = nd

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L12121

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station

Volatiles

by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	
MW-17	Water		MB0714			
						Sampled : 07/09/99 Analyzed : 07/14/99 L12121-7
CAS #						
75-71-8	Dichlorodifluoromethane	nd	nd	2	ug/L	
74-87-3	Chloromethane	nd	nd	2	ug/L	
75-01-4	Vinyl chloride	nd	nd	2	ug/L	
74-83-9	Bromomethane	nd	nd	2	ug/L	
75-00-3	Chloroethane	nd	nd	2	ug/L	
75-69-4	Trichlorofluoromethane	nd	nd	1	ug/L	
67-64-1	Acetone	nd	nd	20	ug/L	
75-35-4	1,1-Dichloroethene	5	nd	1	ug/L	
75-09-2	Methylene chloride	nd	nd	2	ug/L	
75-15-0	Carbon disulfide	nd	nd	1	ug/L	
156-60-5	trans-1,2-Dichloroethene	nd	nd	1	ug/L	
75-34-3	1,1-Dichloroethane	95	nd	1	ug/L	D
78-93-3	2-Butanone	nd	nd	20	ug/L	
590-20-7	2,2-Dichloropropane	nd	nd	1	ug/L	
156-59-4	cis-1,2-Dichloroethene	39	nd	1	ug/L	
74-97-5	Bromochloromethane	nd	nd	1	ug/L	
67-66-3	Chloroform	nd	nd	1	ug/L	
71-55-6	1,1,1-Trichloroethane	nd	nd	1	ug/L	
56-23-5	Carbon tetrachloride	nd	nd	1	ug/L	
563-58-6	1,1-Dichloropropene	nd	nd	1	ug/L	
71-43-2	Benzene	16	nd	1	ug/L	
107-06-2	1,2-Dichloroethane	2	nd	1	ug/L	
79-01-6	Trichloroethene	59	nd	1	ug/L	

none detected = nd
Results based on dilution = D

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L12121

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Contact: George Robinson

Project: WT-1 Station

Volatiles
by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-17	Water	MB0714			Sampled : 07/09/99	
					Analyzed : 07/14/99	L12121-7
CAS #						
78-87-5	1,2-Dichloropropane	nd	nd	1	ug/L	
74-95-3	Dibromomethane	nd	nd	1	ug/L	
75-27-4	Bromodichloromethane	nd	nd	1	ug/L	
10061-01-5	cis-1,3-Dichloropropene	nd	nd	1	ug/L	
108-10-1	4-Methyl-2-pentanone	nd	nd	10	ug/L	
108-88-3	Toluene	nd	nd	1	ug/L	
591-78-6	2-Hexanone	nd	nd	10	ug/L	
10061-02-6	trans-1,3-Dichloropropene	nd	nd	1	ug/L	
79-00-5	1,1,2-Trichloroethane	nd	nd	1	ug/L	
127-18-4	Tetrachloroethene	nd	nd	1	ug/L	
542-75-6	1,3-Dichloropropane	nd	nd	1	ug/L	
124-48-1	Dibromochloromethane	nd	nd	1	ug/L	
106-93-4	1,2-Dibromoethane	nd	nd	1	ug/L	
108-90-7	Chlorobenzene	nd	nd	1	ug/L	
630-20-6	1,1,1,2-Tetrachloroethane	nd	nd	1	ug/L	
100-41-4	Ethylbenzene	nd	nd	1	ug/L	
100-42-5	Styrene	nd	nd	1	ug/L	
75-25-2	Bromoform	nd	nd	1	ug/L	
98-82-8	Isopropylbenzene	nd	nd	1	ug/L	
108-86-1	Bromobenzene	nd	nd	1	ug/L	
79-34-5	1,1,2,2-Tetrachloroethane	nd	nd	1	ug/L	
96-18-4	1,2,3-Trichloropropane	nd	nd	1	ug/L	
103-65-1	n-Propylbenzene	nd	nd	1	ug/L	

none detected = nd
Results based on dilution = D

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L12121

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Project: WT-1 Station

Volatiles
by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	
MW-17	Water		MB0714			Sampled : 07/09/99 Analyzed : 07/14/99 L12121-7
CAS #						
95-49-8	2-Chlorotoluene	nd	nd	1	ug/L	
106-43-4	4-Chlorotoluene	nd	nd	1	ug/L	
108-67-8	1,3,5-Trimethylbenzene	nd	nd	1	ug/L	
98-06-6	tert-Butylbenzene	nd	nd	1	ug/L	
95-63-6	1,2,4-Trimethylbenzene	nd	nd	1	ug/L	
135-98-8	sec-Butylbenzene	nd	nd	1	ug/L	
541-73-1	1,3-Dichlorobenzene	nd	nd	1	ug/L	
99-87-6	4-Isopropyltoluene	nd	nd	1	ug/L	
106-46-7	1,4-Dichlorobenzene	nd	nd	1	ug/L	
95-50-1	1,2-Dichlorobenzene	1	nd	1	ug/L	
104-51-8	n-Butylbenzene	nd	nd	1	ug/L	
96-12-8	1,2-Dibromo-3-chloropropane ...	nd	nd	1	ug/L	
120-82-1	1,2,4-Trichlorobenzene	nd	nd	1	ug/L	
87-68-3	Hexachlorobutadiene	nd	nd	1	ug/L	
91-20-3	Naphthalene	nd	nd	1	ug/L	
87-61-6	1,2,3-Trichlorobenzene	nd	nd	1	ug/L	
	Total Xylenes	nd	nd	1	ug/L	
		Recovery	Recovery			
	Surrogates	L12121-7	MB0714			
	1,2-Dichloroethane-d4	103%	99%			
	Toluene-d8	98%	100%			
	4-Bromofluorobenzene	101%	100%			

none detected = nd
Results based on dilution = D

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L12121

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Project: WT-1 Station

Volatiles

by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-14	Water	MB0714				Sampled : 07/09/99	Analyzed : 07/14/99	L12121-8
CAS #								
75-71-8	Dichlorodifluoromethane	nd	nd	2	ug/L			
74-87-3	Chloromethane	nd	nd	2	ug/L			
75-01-4	Vinyl chloride	nd	nd	2	ug/L			
74-83-9	Bromomethane	nd	nd	2	ug/L			
75-00-3	Chloroethane	nd	nd	2	ug/L			
75-69-4	Trichlorofluoromethane	nd	nd	1	ug/L			
67-64-1	Acetone	nd	nd	20	ug/L			
75-35-4	1,1-Dichloroethene	2	nd	1	ug/L			
75-09-2	Methylene chloride	nd	nd	2	ug/L			
75-15-0	Carbon disulfide	nd	nd	1	ug/L			
156-60-5	trans-1,2-Dichloroethene	nd	nd	1	ug/L			
75-34-3	1,1-Dichloroethane	29	nd	1	ug/L			
78-93-3	2-Butanone	nd	nd	20	ug/L			
590-20-7	2,2-Dichloropropane	nd	nd	1	ug/L			
156-59-4	cis-1,2-Dichloroethene	5	nd	1	ug/L			
74-97-5	Bromochloromethane	nd	nd	1	ug/L			
67-66-3	Chloroform	nd	nd	1	ug/L			
71-55-6	1,1,1-Trichloroethane	nd	nd	1	ug/L			
56-23-5	Carbon tetrachloride	nd	nd	1	ug/L			
563-58-6	1,1-Dichloropropene	nd	nd	1	ug/L			
71-43-2	Benzene	nd	nd	1	ug/L			
107-06-2	1,2-Dichloroethane	nd	nd	1	ug/L			
79-01-6	Trichloroethene	16	nd	1	ug/L			

none detected = nd

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L12121

Client: Enron Gas Pipeline Group
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Project: WT-1 Station

Volatiles

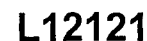
by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	
MW-14	Water		MB0714			Sampled : 07/09/99 Analyzed : 07/14/99 L12121-8
CAS #						
78-87-5	1,2-Dichloropropane	nd	nd	1	ug/L	
74-95-3	Dibromomethane	nd	nd	1	ug/L	
75-27-4	Bromodichloromethane	nd	nd	1	ug/L	
10061-01-5	cis-1,3-Dichloropropene	nd	nd	1	ug/L	
108-10-1	4-Methyl-2-pentanone	nd	nd	10	ug/L	
108-88-3	Toluene	nd	nd	1	ug/L	
591-78-6	2-Hexanone	nd	nd	10	ug/L	
10061-02-6	trans-1,3-Dichloropropene	nd	nd	1	ug/L	
79-00-5	1,1,2-Trichloroethane	nd	nd	1	ug/L	
127-18-4	Tetrachloroethene	1	nd	1	ug/L	
542-75-6	1,3-Dichloropropane	nd	nd	1	ug/L	
124-48-1	Dibromochloromethane	nd	nd	1	ug/L	
106-93-4	1,2-Dibromoethane	nd	nd	1	ug/L	
108-90-7	Chlorobenzene	nd	nd	1	ug/L	
630-20-6	1,1,1,2-Tetrachloroethane	nd	nd	1	ug/L	
100-41-4	Ethylbenzene	nd	nd	1	ug/L	
100-42-5	Styrene	nd	nd	1	ug/L	
75-25-2	Bromoform	nd	nd	1	ug/L	
98-82-8	Isopropylbenzene	nd	nd	1	ug/L	
108-86-1	Bromobenzene	nd	nd	1	ug/L	
79-34-5	1,1,2,2-Tetrachloroethane	nd	nd	1	ug/L	
96-18-4	1,2,3-Trichloropropane	nd	nd	1	ug/L	
103-65-1	n-Propylbenzene	nd	nd	1	ug/L	

none detected = nd

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Project: WT-1 Station

Volatiles

by EPA Method 8260

MW-14	Water	MB0714	Sampled : 07/09/99	Analyzed : 07/14/99	L12121-8
CAS #					
95-49-8	2-Chlorotoluene	nd	nd	1	ug/L
106-43-4	4-Chlorotoluene	nd	nd	1	ug/L
108-67-8	1,3,5-Trimethylbenzene	nd	nd	1	ug/L
98-06-6	tert-Butylbenzene	nd	nd	1	ug/L
95-63-6	1,2,4-Trimethylbenzene	nd	nd	1	ug/L
135-98-8	sec-Butylbenzene	nd	nd	1	ug/L
541-73-1	1,3-Dichlorobenzene	nd	nd	1	ug/L
99-87-6	4-Isopropyltoluene	nd	nd	1	ug/L
106-46-7	1,4-Dichlorobenzene	nd	nd	1	ug/L
95-50-1	1,2-Dichlorobenzene	nd	nd	1	ug/L
104-51-8	n-Butylbenzene	nd	nd	1	ug/L
96-12-8	1,2-Dibromo-3-chloropropane	nd	nd	1	ug/L
120-82-1	1,2,4-Trichlorobenzene	nd	nd	1	ug/L
87-68-3	Hexachlorobutadiene	nd	nd	1	ug/L
91-20-3	Naphthalene	nd	nd	1	ug/L
87-61-6	1,2,3-Trichlorobenzene	nd	nd	1	ug/L
	Total Xylenes	nd	nd	1	ug/L
		Recovery	Recovery		
	Surrogates	L12121-8	MB0714		
	1,2-Dichloroethane-d4	104%	99%		
	Toluene-d8	102%	100%		
	4-Bromofluorobenzene	101%	100%		

none detected = nd

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L12121

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station

Volatiles

by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-8	Water	MB0714				Sampled : 07/09/99	Analyzed : 07/14/99	L12121-9
CAS #								
75-71-8	Dichlorodifluoromethane	nd	nd	2	ug/L			
74-87-3	Chloromethane	nd	nd	2	ug/L			
75-01-4	Vinyl chloride	nd	nd	2	ug/L			
74-83-9	Bromomethane	nd	nd	2	ug/L			
75-00-3	Chloroethane	nd	nd	2	ug/L			
75-69-4	Trichlorofluoromethane	nd	nd	1	ug/L			
67-64-1	Acetone	nd	nd	20	ug/L			
75-35-4	1,1-Dichloroethene	5	nd	1	ug/L			
75-09-2	Methylene chloride	nd	nd	2	ug/L			
75-15-0	Carbon disulfide	nd	nd	1	ug/L			
156-60-5	trans-1,2-Dichloroethene	nd	nd	1	ug/L			
75-34-3	1,1-Dichloroethane	99	nd	1	ug/L	D		
78-93-3	2-Butanone	nd	nd	20	ug/L			
590-20-7	2,2-Dichloropropane	nd	nd	1	ug/L			
156-59-4	cis-1,2-Dichloroethene	39	nd	1	ug/L			
74-97-5	Bromochloromethane	nd	nd	1	ug/L			
67-66-3	Chloroform	nd	nd	1	ug/L			
71-55-6	1,1,1-Trichloroethane	nd	nd	1	ug/L			
56-23-5	Carbon tetrachloride	nd	nd	1	ug/L			
563-58-6	1,1-Dichloropropene	nd	nd	1	ug/L			
71-43-2	Benzene	17	nd	1	ug/L			
107-06-2	1,2-Dichloroethane	2	nd	1	ug/L			
79-01-6	Trichloroethene	59	nd	1	ug/L			

none detected = nd
Results based on dilution = D

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L12121

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Project: WT-1 Station

Volatiles

by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-8	Water	MB0714			Sampled : 07/09/99	
					Analyzed : 07/14/99	L12121-9
CAS #						
78-87-5	1,2-Dichloropropane	nd	nd	1	ug/L	
74-95-3	Dibromomethane	nd	nd	1	ug/L	
75-27-4	Bromodichloromethane	nd	nd	1	ug/L	
10061-01-5	cis-1,3-Dichloropropene	nd	nd	1	ug/L	
108-10-1	4-Methyl-2-pentanone	nd	nd	10	ug/L	
108-88-3	Toluene	nd	nd	1	ug/L	
591-78-6	2-Hexanone	nd	nd	10	ug/L	
10061-02-6	trans-1,3-Dichloropropene	nd	nd	1	ug/L	
79-00-5	1,1,2-Trichloroethane	nd	nd	1	ug/L	
127-18-4	Tetrachloroethene	nd	nd	1	ug/L	
542-75-6	1,3-Dichloropropane	nd	nd	1	ug/L	
124-48-1	Dibromochloromethane	nd	nd	1	ug/L	
106-93-4	1,2-Dibromoethane	nd	nd	1	ug/L	
108-90-7	Chlorobenzene	nd	nd	1	ug/L	
630-20-6	1,1,1,2-Tetrachloroethane	nd	nd	1	ug/L	
100-41-4	Ethylbenzene	nd	nd	1	ug/L	
100-42-5	Styrene	nd	nd	1	ug/L	
75-25-2	Bromoform	nd	nd	1	ug/L	
98-82-8	Isopropylbenzene	nd	nd	1	ug/L	
108-86-1	Bromobenzene	nd	nd	1	ug/L	
79-34-5	1,1,2,2-Tetrachloroethane	nd	nd	1	ug/L	
96-18-4	1,2,3-Trichloropropane	nd	nd	1	ug/L	
103-65-1	n-Propylbenzene	nd	nd	1	ug/L	

none detected = nd
Results based on dilution = D

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L12121

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station

Volatiles
by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	
MW-8	Water	MB0714				Sampled : 07/09/99 Analyzed : 07/14/99 L12121-9
CAS #						
95-49-8	2-Chlorotoluene	nd	nd	1	ug/L	
106-43-4	4-Chlorotoluene	nd	nd	1	ug/L	
108-67-8	1,3,5-Trimethylbenzene	nd	nd	1	ug/L	
98-06-6	tert-Butylbenzene	nd	nd	1	ug/L	
95-63-6	1,2,4-Trimethylbenzene	nd	nd	1	ug/L	
135-98-8	sec-Butylbenzene	nd	nd	1	ug/L	
541-73-1	1,3-Dichlorobenzene	nd	nd	1	ug/L	
99-87-6	4-Isopropyltoluene	nd	nd	1	ug/L	
106-46-7	1,4-Dichlorobenzene	nd	nd	1	ug/L	
95-50-1	1,2-Dichlorobenzene	1	nd	1	ug/L	
104-51-8	n-Butylbenzene	nd	nd	1	ug/L	
96-12-8	1,2-Dibromo-3-chloropropane ...	nd	nd	1	ug/L	
120-82-1	1,2,4-Trichlorobenzene	nd	nd	1	ug/L	
87-68-3	Hexachlorobutadiene	nd	nd	1	ug/L	
91-20-3	Naphthalene	nd	nd	1	ug/L	
87-61-6	1,2,3-Trichlorobenzene	nd	nd	1	ug/L	
	Total Xylenes	nd	nd	1	ug/L	
Surrogates		Recovery	Recovery			
		L12121-9	MB0714			
	1,2-Dichloroethane-d4	104%	99%			
	Toluene-d8	102%	100%			
	4-Bromofluorobenzene	105%	100%			

none detected = nd
Results based on dilution = D



L12121

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station

Volatiles

by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-5	Water	MB0714				Sampled : 07/09/99	Analyzed : 07/14/99	L12121-10
CAS #								
75-71-8	Dichlorodifluoromethane	nd	nd	2	ug/L			
74-87-3	Chloromethane	nd	nd	2	ug/L			
75-01-4	Vinyl chloride	nd	nd	2	ug/L			
74-83-9	Bromomethane	nd	nd	2	ug/L			
75-00-3	Chloroethane	5	nd	2	ug/L			
75-69-4	Trichlorofluoromethane	nd	nd	1	ug/L			
67-64-1	Acetone	nd	nd	20	ug/L			
75-35-4	1,1-Dichloroethene	4	nd	1	ug/L			
75-09-2	Methylene chloride	nd	nd	2	ug/L			
75-15-0	Carbon disulfide	nd	nd	1	ug/L			
156-60-5	trans-1,2-Dichloroethene	nd	nd	1	ug/L			
75-34-3	1,1-Dichloroethane	100	nd	1	ug/L	D		
78-93-3	2-Butanone	nd	nd	20	ug/L			
590-20-7	2,2-Dichloropropane	nd	nd	1	ug/L			
156-59-4	cis-1,2-Dichloroethene	84	nd	1	ug/L	D		
74-97-5	Bromochloromethane	nd	nd	1	ug/L			
67-66-3	Chloroform	nd	nd	1	ug/L			
71-55-6	1,1,1-Trichloroethane	3	nd	1	ug/L			
56-23-5	Carbon tetrachloride	nd	nd	1	ug/L			
563-58-6	1,1-Dichloropropene	nd	nd	1	ug/L			
71-43-2	Benzene	22	nd	1	ug/L			
107-06-2	1,2-Dichloroethane	2	nd	1	ug/L			
79-01-6	Trichloroethene	100	nd	1	ug/L	D		

none detected = nd
Results based on dilution = D

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L12121

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station

Volatiles
by EPA Method 8260

Sample ID							Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment		
MW-5	Water	MB0714					Sampled : 07/09/99 Analyzed : 07/14/99 L12121-10
CAS #							
78-87-5	1,2-Dichloropropane	nd	nd	1	ug/L		
74-95-3	Dibromomethane	nd	nd	1	ug/L		
75-27-4	Bromodichloromethane	nd	nd	1	ug/L		
10061-01-5	cis-1,3-Dichloropropene	nd	nd	1	ug/L		
108-10-1	4-Methyl-2-pentanone	22	nd	10	ug/L		
108-88-3	Toluene	11	nd	1	ug/L		
591-78-6	2-Hexanone	nd	nd	10	ug/L		
10061-02-6	trans-1,3-Dichloropropene	nd	nd	1	ug/L		
79-00-5	1,1,2-Trichloroethane	nd	nd	1	ug/L		
127-18-4	Tetrachloroethene	3	nd	1	ug/L		
542-75-6	1,3-Dichloropropane	nd	nd	1	ug/L		
124-48-1	Dibromochloromethane	nd	nd	1	ug/L		
106-93-4	1,2-Dibromoethane	nd	nd	1	ug/L		
108-90-7	Chlorobenzene	nd	nd	1	ug/L		
630-20-6	1,1,1,2-Tetrachloroethane	nd	nd	1	ug/L		
100-41-4	Ethylbenzene	6	nd	1	ug/L		
100-42-5	Styrene	nd	nd	1	ug/L		
75-25-2	Bromoform	nd	nd	1	ug/L		
98-82-8	Isopropylbenzene	nd	nd	1	ug/L		
108-86-1	Bromobenzene	nd	nd	1	ug/L		
79-34-5	1,1,2,2-Tetrachloroethane	nd	nd	1	ug/L		
96-18-4	1,2,3-Trichloropropane	nd	nd	1	ug/L		
103-65-1	n-Propylbenzene	nd	nd	1	ug/L		

none detected = nd
Results based on dilution = D

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L12121

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station

Volatiles

by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-5	Water	MB0714				Sampled : 07/09/99	
						Analyzed : 07/14/99	L12121-10
CAS #							
95-49-8	2-Chlorotoluene	nd	nd	1	ug/L		
106-43-4	4-Chlorotoluene	nd	nd	1	ug/L		
108-67-8	1,3,5-Trimethylbenzene	6	nd	1	ug/L		
98-06-6	tert-Butylbenzene	nd	nd	1	ug/L		
95-63-6	1,2,4-Trimethylbenzene	9	nd	1	ug/L		
135-98-8	sec-Butylbenzene	nd	nd	1	ug/L		
541-73-1	1,3-Dichlorobenzene	nd	nd	1	ug/L		
99-87-6	4-Isopropyltoluene	1	nd	1	ug/L		
106-46-7	1,4-Dichlorobenzene	nd	nd	1	ug/L		
95-50-1	1,2-Dichlorobenzene	nd	nd	1	ug/L		
104-51-8	n-Butylbenzene	nd	nd	1	ug/L		
96-12-8	1,2-Dibromo-3-chloropropane ...	nd	nd	1	ug/L		
120-82-1	1,2,4-Trichlorobenzene	nd	nd	1	ug/L		
87-68-3	Hexachlorobutadiene	nd	nd	1	ug/L		
91-20-3	Naphthalene	9	nd	1	ug/L		
87-61-6	1,2,3-Trichlorobenzene	nd	nd	1	ug/L		
	Total Xylenes	15	nd	1	ug/L		
		Recovery	Recovery				
Surrogates		L12121-10	MB0714				
1,2-Dichloroethane-d4		105%	99%				
Toluene-d8		96%	100%				
4-Bromofluorobenzene		101%	100%				

none detected = nd
Results based on dilution = D

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L12121

Client: **Enron Gas Pipeline Group**
Contact: **George Robinson**

Project: **WT-1 Station, Engine Room Pit Area**

Batch Q.C.
Blank
Inorganics - Waters (mg/L)

Analyte	Result	Reporting		Date
		Limit	Q	Analyzed
Chloride	ND	0.1		07/16/99
Nitrate + Nitrite as N	ND	0.01		07/21/99
Solids, Total Dissolved (TDS)	NA	10		07/13/99
Sulfate as SO4	ND	0.5		07/16/99
Comments: Nitrate + nitrite results for L12121-1 through -5, -7 through -9.				

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L12121

L12121

7 Gas Pipeline Group
7e Robinson

Project: WT-1 Station, Engine Room Pit Area

Engine Room Pit Area

Batch Q.C.
Blank
Inorganics - Waters (mg/L)

Result	Reporting	Q	Date
	Limit		Analyzed
ND	0.01		07/22/99
+ nitrite results for L12121-10.			

Date Analyzed
07/16/99
07/21/99
07/13/99
07/16/99

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L12121

Client: **Enron Gas Pipeline Group**
Contact: **George Robinson**

Project: **WT-1 Station, Engine Room Pit Area**

Batch Q.C.

LCSW

Inorganics - Waters (mg/L)

Analyte	True Value	Result	% Recovery	% Limit	Date Analyzed
Nitrate + Nitrite as N	0.50	0.51	102	75-125	07/22/99
Comments: Nitrate + nitrite results for L12121-10.					

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L12121

Client: **Enron Gas Pipeline Group**
Contact: **George Robinson**

Project: **WT-1 Station, Engine Room Pit Area**

Batch Q.C.
Duplicate
Inorganics - Waters (mg/L)

Analyte	Duplicate		Reporting	RPD		Date
	Result	Result	Limit	RPD	Limit	Q Analyzed

Chloride	320	330	5	3	20	07/16/99
Nitrate + Nitrite as N	ND	ND	0.01	<1	20	07/21/99
Solids, Total Dissolved (TDS)	90	80	10	12	20	07/01/99
Sulfate as SO4	710	730	25	3	20	07/16/99

Comments: Nitrate + nitrite results for L12121-1 through -5, -7 through -9.
TDS results for L12121-1 through -5.

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L12121

Client: **Enron Gas Pipeline Group**
Contact: **George Robinson**

Project: **WT-1 Station, Engine Room Pit Area**

Batch Q.C.
Duplicate
Inorganics - Waters (mg/L)

Analyte	Result	Duplicate Result	Reporting Limit	RPD	RPD Limit	Q	Date Analyzed
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Nitrate + Nitrite as N	ND	ND	0.01	<1	20		07/22/99
Solids, Total Dissolved (TDS)	2400	2400	10	<1	20		07/15/99

Comments: Nitrate + nitrite results for L12121-10.
TDS results for L12121-7 through -10.

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L12121

Client: **Enron Gas Pipeline Group**
Contact: **George Robinson**

Project: **WT-1 Station, Engine Room Pit Area****Batch Q.C.****Spike****Inorganics - Waters (mg/L)**

Analyte	Spike Result	Sample Result	Spike Added	% Recovery	% Limit	Q	Date Analyzed
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Chloride	116	82	30	113	75-125		07/16/99
Nitrate + Nitrite as N	0.50	ND	0.50	100	75-125		07/21/99
Solids, Total Dissolved (TDS)	NA	NA	NA	NA			07/13/99
Sulfate as SO ₄	2700	1600	900	122	75-125		07/16/99

Comments: Nitrate + nitrite results for L12121-1 through -5, -7 through -9.

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L12121

Client: *Enron Gas Pipeline Group*
Contact: *George Robinson*

Project: *WT-1 Station, Engine Room Pit Area*

Batch Q.C.
Spike
Inorganics - Waters (mg/L)

Analyte	Spike Result	Sample Result	Spike Added	% Recovery	% Limit	Q	Date Analyzed
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Nitrate + Nitrite as N	0.58	ND	0.50	116	75-125		07/22/99
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Comments: Nitrate + nitrite results for L12121-10.

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L12121

Client: **Enron Gas Pipeline Group**
Contact: **George Robinson**

Project: **WT-1 Station, Engine Room Pit Area**

Batch Q.C.
Method Blank
Metals / Total by Volume (mg/L)

Analyte	Result	Reporting Limit	Q	Date Analyzed
Arsenic	ND	0.0020		07/20/99
Barium	ND	0.0010		07/14/99
Cadmium	ND	0.0020		07/14/99
Chromium	ND	0.0050		07/14/99
Copper	ND	0.0020		07/14/99
Iron	ND	0.010		07/14/99
Lead	ND	0.025		07/14/99
Manganese	ND	0.0010		07/14/99
Mercury	ND	0.00020		07/16/99
Selenium	ND	0.0020		07/20/99
.....	ND	0.0030		07/14/99
.....	ND	0.010		07/14/99

Comments: Batch QC for samples L12121-1 thru -5

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L12121

Client: **Enron Gas Pipeline Group**
Contact: **George Robinson**

Project: **WT-1 Station, Engine Room Pit Area**

Batch Q.C.
LCSW
Metals / Total by Volume (mg/L)

Analyte	True Value	Result	% Recovery	% Limit	Date Analyzed
Arsenic	0.0400	0.0421	105	80-120	07/20/99
Barium	2.00	2.06	103	80-120	07/14/99
Cadmium	0.0500	0.0494	99	80-120	07/14/99
Chromium	0.200	0.207	104	80-120	07/14/99
Copper	0.250	0.257	103	80-120	07/14/99
Iron	1.00	1.02	102	80-120	07/14/99
Lead	0.500	0.524	105	80-120	07/14/99
Manganese	0.500	0.513	103	80-120	07/14/99
Mercury	0.00200	0.00201	101	80-120	07/16/99
Selenium	0.010	0.010	100	80-120	07/20/99
Silver	0.0500	0.0513	103	80-120	07/14/99
Zinc	0.500	0.494	99	80-120	07/14/99
Comments: LCSW = Laboratory Control Sample: Water Batch QC for samples L12121-1 thru -5					

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L12121

Client: **Enron Gas Pipeline Group**
Contact: **George Robinson**

Project: **WT-1 Station, Engine Room Pit Area****Batch Q.C.****Duplicate****Metals / Total by Volume (mg/L)**

Analyte	Result	Duplicate Result	Reporting Limit	RPD	RPD Limit	Q	Date Analyzed
Arsenic	0.010	ND	0.010	NA	20		07/20/99
Barium	0.0213	0.0213	0.0010	<1	20		07/14/99
Cadmium	ND	ND	0.0020	NA	20		07/14/99
Chromium	ND	ND	0.0050	NA	20		07/14/99
Copper	ND	ND	0.0020	NA	20		07/14/99
Iron	ND	ND	0.010	NA	20		07/14/99
Lead	ND	ND	0.025	NA	20		07/14/99
Manganese	0.0381	0.0372	0.0010	2	20		07/14/99
Mercury	ND	ND	0.00020	NA	20		07/16/99
Selenium	0.020	0.020	0.010	<1	20		07/20/99
Silver	ND	ND	0.0030	NA	20		07/14/99
C	ND	ND	0.010	NA	20		07/14/99

Comments: Batch QC for samples L12121-1 thru -5

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L12121

Client: **Enron Gas Pipeline Group**
Contact: **George Robinson**

Project: **WT-1 Station, Engine Room Pit Area****Batch Q.C.****Spike****Metals / Total by Volume (mg/L)**

Analyte	Spike Result	Sample Result	Spike Added	% Recovery	% Limit	Q	Date Analyzed
Arsenic	0.052	0.010	0.0400	105	75-125		07/20/99
Barium	1.92	0.0213	2.00	95	75-125		07/14/99
Cadmium	0.0436	ND	0.0500	87	75-125		07/14/99
Chromium	0.185	ND	0.200	93	75-125		07/14/99
Copper	0.233	ND	0.250	93	75-125		07/14/99
Iron	0.903	ND	1.00	90	75-125		07/14/99
Lead	0.463	ND	0.500	93	75-125		07/14/99
Manganese	0.492	0.0381	0.500	91	75-125		07/14/99
Mercury	0.0018	ND	0.00200	90	75-125		07/16/99
Selenium	0.030	0.020	0.010	100	75-125		07/20/99
Silver	0.0455	ND	0.0500	91	75-125		07/14/99
Zinc	0.436	ND	0.500	87	75-125		07/14/99
Comments: Batch QC for samples L12121-1 thru -5							

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L12121

Client: **Enron Gas Pipeline Group**
Contact: **George Robinson**

Project: **WT-1 Station, Engine Room Pit Area**

Batch Q.C.
Method Blank
Metals / Total by Volume (mg/L)

Analyte	Result	Reporting Limit	Q	Date Analyzed
Arsenic	ND	0.0020		07/20/99
Barium	ND	0.0010		07/19/99
Cadmium	ND	0.0020		07/19/99
Chromium	ND	0.0050		07/19/99
Copper	ND	0.0020		07/19/99
Iron	ND	0.010		07/19/99
Lead	ND	0.025		07/19/99
Manganese	ND	0.0010		07/19/99
Mercury	ND	0.00020		07/16/99
Selenium	ND	0.0020		07/20/99
.....	ND	0.0030		07/19/99
.....	ND	0.010		07/19/99

Comments: Batch QC for samples L12121-7 thru -10

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L12121

Client: **Enron Gas Pipeline Group**
Contact: **George Robinson**

Project: **WT-1 Station, Engine Room Pit Area**

Batch Q.C.
LCSW
Metals / Total by Volume (mg/L)

Analyte	True Value	Result	% Recovery	% Limit	Date Analyzed
Arsenic	0.0400	0.0423	106	80-120	07/20/99
Barium	2.00	2.03	102	80-120	07/19/99
Cadmium	0.0500	0.0502	100	80-120	07/19/99
Chromium	0.200	0.207	104	80-120	07/19/99
Copper	0.250	0.254	102	80-120	07/19/99
Iron	1.00	1.01	101	80-120	07/19/99
Lead	0.500	0.510	102	80-120	07/19/99
Manganese	0.500	0.504	101	80-120	07/19/99
Mercury	0.00200	0.00201	101	80-120	07/16/99
Selenium	0.010	0.010	100	80-120	07/20/99
Silver	0.0500	0.0518	104	80-120	07/19/99
Zinc	0.500	0.498	100	80-120	07/19/99
Comments	LCSW = Laboratory Control Sample: Water Batch QC for samples L12121-7 thru -10				

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L12121

Client: **Enron Gas Pipeline Group**
Contact: **George Robinson**

Project: **WT-1 Station, Engine Room Pit Area****Batch Q.C.****Duplicate****Metals / Total by Volume (mg/L)**

Analyte	Result	Duplicate Result	Reporting Limit	RPD	RPD Limit	Q	Date Analyzed
Arsenic	ND	ND	0.010	NA	20		07/20/99
Barium	0.0728	0.073	0.0010	<1	20		07/19/99
Cadmium	ND	ND	0.0020	NA	20		07/19/99
Chromium	ND	ND	0.0050	NA	20		07/19/99
Copper	0.0029	0.0024	0.0020	17	20		07/19/99
Iron	0.242	0.322	0.010	25	20	*	07/19/99
Lead	ND	ND	0.025	NA	20		07/19/99
Manganese	0.731	0.742	0.0010	1	20		07/19/99
Mercury	ND	ND	0.00020	NA	20		07/16/99
Selenium	ND	ND	0.010	NA	20		07/20/99
Silver	ND	ND	0.0030	NA	20		07/19/99
Nickel	ND	ND	0.010	NA	20		07/19/99
Comments: Batch QC for samples L12121-7 thru -10							

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L12121

Client: **Enron Gas Pipeline Group**
Contact: **George Robinson**

Project: **WT-1 Station, Engine Room Pit Area****Batch Q.C.****Spike****Metals / Total by Volume (mg/L)**

Analyte	Spike Result	Sample Result	Spike Added	% Recovery	% Limit	Q	Date Analyzed
Arsenic	0.047	ND	0.0400	118	75-125		07/20/99
Barium	1.92	0.0728	2.00	92	75-125		07/19/99
Cadmium	0.0426	ND	0.0500	85	75-125		07/19/99
Chromium	0.184	ND	0.200	92	75-125		07/19/99
Copper	0.228	0.0029	0.250	90	75-125		07/19/99
Iron	1.16	0.242	1.00	92	75-125		07/19/99
Lead	0.456	ND	0.500	91	75-125		07/19/99
Manganese	1.18	0.731	0.500	90	75-125		07/19/99
Mercury	0.0018	ND	0.00200	90	75-125		07/16/99
Selenium	ND	ND	0.010	NA	75-125	K2 ‡	07/20/99
Silver	0.0454	ND	0.0500	91	75-125		07/19/99
Zinc	0.438	ND	0.500	88	75-125		07/19/99

Comments: Batch QC for samples L12121-7 thru -10
‡ Post digestion spike for Selenium was within acceptable QC limits.

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L12121

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station

Volatiles LCS

Water (ug/L)
by EPA Method 8260

					Lab ID
Analyte	Results	Amount Spiked	Recovery		
CAS #		(ug/L)	(ug/L)	(%)	Analyzed : 07/14/99 LCS0714
75-35-4	1,1-Dichloroethene	19.3	20.0	96	
71-43-2	Benzene	21.0	20.0	105	
79-01-6	Trichloroethene	21.4	20.0	107	
108-88-3	Toluene	21.6	20.0	108	
108-90-7	Chlorobenzene	21.4	20.0	107	
		Recovery			
Surrogates		(%)			
1,2-Dichloroethane-d4		101			
Toluene-d8		102			
4-Bromofluorobenzene		102			

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L12121

Enron Gas Pipeline Group
George Robinson

Project: WT-1 Station

Volatiles MS/MSD

Water (ug/L)
by EPA Method 8260

18	VOA Vials
15	Plastic Bottles 1L, 250 mL
	Glass Bottles
	Other

Analyte	Lab Number			
	MS Result	MSD Result	Spike Added	Sample Result

	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Analyzed : 07/14/99	L12102-1
1,1-Dichloroethene	20	21	20	<1		
Benzene	21	21	20	<1		
Trichloroethene	22	22	20	<1		
Toluene	20	20	20	<1		
Chlorobenzene	21	21	20	<1		

	MS Recovery (%)	MSD Recovery (%)	RPD (%)
1,1-Dichloroethene	102	103	<1
Benzene	102	104	1
Trichloroethene	104	104	<1
Toluene	102	102	<1
Chlorobenzene	102	103	<1

Surrogates	MS Recovery (%)	MSD Recovery (%)
1,2-Dichloroethane-d4	101	103
Toluene-d8	99	100
4-Bromofluorobenzene	100	102

none detected = nd

Sample results <1 are used in the calculation for the MS/MSD % recoveries.

Received	Date	Time
Signature	Print Name	Company

Received	Date	Time
Signature	Print Name	Company

Signature	Date	Print Name	Company
	6/11/99	Doug McKenzie	OAL

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Analytical
Laboratory

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Beaverton OR 97007
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CHAIN OF CUSTODY RECORD LABORATORY ANALYSIS REQUEST

Sampling: ☒ Grab ☐ Comp
OAL Hours _____ Site Visit ☐
ISCO _____
www.oalab.com/oal

Client Information

Company CYLLISS ENGINEERING
Contact SANDY SHARP
Address 10335 WEST LIME BLVD STE 200
HOUSTON TX 77040
Phone # 281-252-7867 Fax # 281-252-7867

Billing Information

Company ENLON
Contact GEORGE JOHNSON
Address SAN ANGELO
Phone # 361-7327 Fax # 361-7327

Project Information

Project Name TRANSITION PAVING
Project # WICHITA AT AREA
P.O. # _____
Comments Color 3
As Colours (1st Section SAT.)

Sampler's Name

Signature SANDY SHARP
Quote # _____
NOTE: If quote number is not referenced,
standard pricing will be applied.
Provide Fax Results ☒ Yes ☐ No

Remarks

VOC'S (8260) Including
1,2 DICHLOROBENZENE (CIS & TRANS) &
DICHLOROBENZENE (O-M & P)

Matrix

Soil _____
Water _____
Other (Note in Remarks) _____

Analyses

BTX 602 / 8021 MTBE
G X DX/OIL
NW TPH Quantification
Quantity? Yes ☐ No ☐
NW TPH-HCID
Organochlor Pesticides 608 / 8081
PAH(SIM) 8270 PAH 8310
Semivolatiles 625 / 8270
Volatiles 620 / 8260 / 8240
8010 / 8020
Other (Note in Remarks) _____

Turnaround

[N] Normal - 10 working days
[S] Special - 5 working days
[R] Rush - 24-72 hrs
[O] Other - _____

Remarks

Turnaround

Remarks

Signature	Date
<u>Sandy Sharp</u>	<u>7/11/99</u>
Print Name	Time
<u>SANDY SHARP</u>	<u>0700</u>
Company	
<u>ENLON</u>	
Signature	Date
<u>Cathy Evans</u>	<u>7-13-99</u>
Print Name	Time
<u>CATHY EVANS</u>	<u>1045</u>
Company	
<u>ENLON</u>	

Signature	Date
_____	_____
Print Name	Time
_____	_____
Company	

Signature	Date
_____	_____
Print Name	Time
_____	_____
Company	

Signature	Date
_____	_____
Print Name	Time
_____	_____
Company	

Signature	Date
_____	_____
Print Name	Time
_____	_____
Company	

Courier ☐ UPS ☐ FedEx ☐ Other ☐	Received @ <u>-5</u> °C
Appropriate Containers ☒ Yes ☐ No	4oz./8oz. Jars _____
VOA Vials _____	Plastic Bottles <u>4</u>
Glass Bottles _____	Returned <u>2 empty plastic</u>
Other _____	



L9868

February 5, 1999

George Robinson
Enron Gas Pipeline Group
333 Clay St., Room 3142
P.O. Box 1188
Houston, TX 77002

Phone: (713) 646-7327

FAX: (713) 646-7867

Re: Laboratory Sample Analysis

Project: WT-1 Station, Engine Room Pit Area

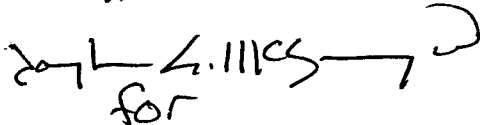
Project Manager: George Robinson

Dear George Robinson:

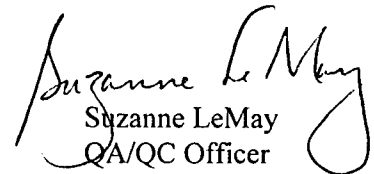
On Friday, January 29, 1999, OAL received ten (10) water samples for analysis. The samples were analyzed utilizing EPA, ASTM, or equivalent methodology.

Should you have any questions concerning the results in this report, please contact us at (503) 590-5300. Refer to OAL login number L9868.

Sincerely,


for

Kami Morrow
Project Manager


Suzanne LeMay
QA/QC Officer

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L9868

Sample Summary

<u>Sample ID</u>	<u>Lab #</u>	<u>Description</u>	<u>Sampled</u>	<u>Received</u>
MW-15	L9868-1	water	01/26/99 16:20	01/29/99
MW-16	L9868-2	water	01/26/99 17:05	01/29/99
MW-4	L9868-3	water	01/26/99 18:05	01/29/99
MW-6	L9868-4	water	01/27/99 09:25	01/29/99
MW-7	L9868-5	water	01/27/99 10:20	01/29/99
MW-8	L9868-6	water	01/27/99 11:35	01/29/99
MW-17	L9868-7	water	01/27/99 12:15	01/29/99
MW-14	L9868-8	water	01/27/99 13:50	01/29/99
MW-1	L9868-9	water	01/27/99 14:40	01/29/99
MW-5	L9868-10	water	01/27/99 15:00	01/29/99

Analysts

<u>Initials</u>	<u>Analyst</u>	<u>Title</u>
DM	Dan Miller	Organics Chemist

Method Summary

<u>Analysis</u>	<u>Method</u>
Volatile Organic Compounds (VOC)	EPA 8260

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L9868

Client: **Enron Gas Pipeline Group**
Contact: **George Robinson**

Project: **WT-1 Station, Engine Room**
Pit Area

Volatile Organic Compounds (VOC) by EPA 8260

Sample ID	Matrix	Result	Reporting Limit	Units	Comment	Lab Number
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MW-15	Water				See Attached Data Sheet	Sampled: 01/26/99 Analyzed: 02/01/99 by DM L9868-1
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MW-16	Water				See Attached Data Sheet	Sampled: 01/26/99 Analyzed: 02/01/99 by DM L9868-2
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MW-4	Water				See Attached Data Sheet	Sampled: 01/26/99 Analyzed: 02/01/99 by DM L9868-3
------	-------	--	--	--	-------------------------	--

MW-6	Water				See Attached Data Sheet	Sampled: 01/27/99 Analyzed: 02/01/99 by DM L9868-4
------	-------	--	--	--	-------------------------	--

MW-7	Water				See Attached Data Sheet	Sampled: 01/27/99 Analyzed: 02/02/99 by DM L9868-5
------	-------	--	--	--	-------------------------	--

MW-8	Water				See Attached Data Sheet	Sampled: 01/27/99 Analyzed: 02/02/99 by DM L9868-6
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MW-17	Water				See Attached Data Sheet	Sampled: 01/27/99 Analyzed: 02/02/99 by DM L9868-7
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L9868

Client: **Enron Gas Pipeline Group**
Contact: **George Robinson**

Project: **WT-1 Station, Engine Room
Pit Area**

Volatile Organic Compounds (VOC) by EPA 8260

Sample ID	Matrix	Result	Reporting Limit	Units	Comment	Lab Number
Analyte						
MW-14	Water				Sampled: 01/27/99 Analyzed: 02/02/99 by DM	L9868-8
See Attached Data Sheet						
MW-1	Water				Sampled: 01/27/99 Analyzed: 02/02/99 by DM	L9868-9
See Attached Data Sheet						
MW-5	Water				Sampled: 01/27/99 Analyzed: 02/02/99 by DM	L9868-10
See Attached Data Sheet						

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L9868

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station, Engine Room Pit Area

Volatiles
by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	
MW-15	Water	MB0201				Sampled : 01/26/99 Analyzed : 02/01/99 L9868-1
CAS #						
75-71-8	Dichlorodifluoromethane	nd	nd	2	ug/L	
74-87-3	Chloromethane	nd	nd	2	ug/L	
75-01-4	Vinyl chloride	nd	nd	2	ug/L	
74-83-9	Bromomethane	nd	nd	2	ug/L	
75-00-3	Chloroethane	nd	nd	2	ug/L	
75-69-4	Trichlorofluoromethane	nd	nd	1	ug/L	
67-64-1	Acetone	nd	nd	20	ug/L	
75-35-4	1,1-Dichloroethene	5	nd	1	ug/L	
75-09-2	Methylene chloride	nd	nd	2	ug/L	
75-15-0	Carbon disulfide	nd	nd	1	ug/L	
156-60-5	trans-1,2-Dichloroethene	nd	nd	1	ug/L	
75-34-3	1,1-Dichloroethane	3	nd	1	ug/L	
78-93-3	2-Butanone	nd	nd	20	ug/L	
590-20-7	2,2-Dichloropropane	nd	nd	1	ug/L	
156-59-4	cis-1,2-Dichloroethene	nd	nd	1	ug/L	
74-97-5	Bromochloromethane	nd	nd	1	ug/L	
67-66-3	Chloroform	2	nd	1	ug/L	
71-55-6	1,1,1-Trichloroethane	1	nd	1	ug/L	
56-23-5	Carbon tetrachloride	nd	nd	1	ug/L	
563-58-6	1,1-Dichloropropene	nd	nd	1	ug/L	
71-43-2	Benzene	nd	nd	1	ug/L	
107-06-2	1,2-Dichloroethane	nd	nd	1	ug/L	
79-01-6	Trichloroethene	nd	nd	1	ug/L	

none detected = nd

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L9868

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station, Engine Room Pit Area

Volatiles
by EPA Method 8260

Sample ID	Lab Number					
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-15 Water		MB0201				Sampled : 01/26/99	L9868-1
CAS #						Analyzed : 02/01/99	
78-87-5	1,2-Dichloropropane	nd	nd	1	ug/L		
74-95-3	Dibromomethane	nd	nd	1	ug/L		
75-27-4	Bromodichloromethane	nd	nd	1	ug/L		
10061-01-5	cis-1,3-Dichloropropene	nd	nd	1	ug/L		
108-10-1	4-Methyl-2-pentanone	nd	nd	10	ug/L		
108-88-3	Toluene	nd	nd	1	ug/L		
591-78-6	2-Hexanone	nd	nd	10	ug/L		
10061-02-6	trans-1,3-Dichloropropene	nd	nd	1	ug/L		
79-00-5	1,1,2-Trichloroethane	nd	nd	1	ug/L		
127-18-4	Tetrachloroethene	nd	nd	1	ug/L		
542-75-6	1,3-Dichloropropane	nd	nd	1	ug/L		
124-48-1	Dibromochloromethane	nd	nd	1	ug/L		
106-93-4	1,2-Dibromoethane	nd	nd	1	ug/L		
108-90-7	Chlorobenzene	nd	nd	1	ug/L		
630-20-6	1,1,1,2-Tetrachloroethane	nd	nd	1	ug/L		
100-41-4	Ethylbenzene	nd	nd	1	ug/L		
100-42-5	Styrene	nd	nd	1	ug/L		
75-25-2	Bromoform	nd	nd	1	ug/L		
98-82-8	Isopropylbenzene	nd	nd	1	ug/L		
108-86-1	Bromobenzene	nd	nd	1	ug/L		
79-34-5	1,1,2,2-Tetrachloroethane	nd	nd	1	ug/L		
96-18-4	1,2,3-Trichloropropane	nd	nd	1	ug/L		
103-65-1	n-Propylbenzene	nd	nd	1	ug/L		

none detected = nd

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L9868

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station, Engine Room Pit Area

Volatiles by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-15	Water	MB0201				Sampled : 01/26/99	Analized : 02/01/99	L9868-1
CAS #								
95-49-8	2-Chlorotoluene	nd	nd	1	ug/L			
106-43-4	4-Chlorotoluene	nd	nd	1	ug/L			
108-67-8	1,3,5-Trimethylbenzene	nd	nd	1	ug/L			
98-06-6	tert-Butylbenzene	nd	nd	1	ug/L			
95-63-6	1,2,4-Trimethylbenzene	nd	nd	1	ug/L			
135-98-8	sec-Butylbenzene	nd	nd	1	ug/L			
541-73-1	1,3-Dichlorobenzene	nd	nd	1	ug/L			
99-87-6	4-Isopropyltoluene	nd	nd	1	ug/L			
106-46-7	1,4-Dichlorobenzene	nd	nd	1	ug/L			
95-50-1	1,2-Dichlorobenzene	nd	nd	1	ug/L			
104-51-8	n-Butylbenzene	nd	nd	1	ug/L			
96-12-8	1,2-Dibromo-3-chloropropane	nd	nd	1	ug/L			
120-82-1	1,2,4-Trichlorobenzene	nd	nd	1	ug/L			
87-68-3	Hexachlorobutadiene	nd	nd	1	ug/L			
91-20-3	Naphthalene	nd	nd	1	ug/L			
87-61-6	1,2,3-Trichlorobenzene	nd	nd	1	ug/L			
	Total Xylenes	nd	nd	1	ug/L			
						Recovery	Recovery	
Surrogates						L9868-1	MB0201	
1,2-Dichloroethane-d4						96%	99%	
Toluene-d8						93%	101%	
4-Bromofluorobenzene						96%	104%	

none detected = nd

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L9868

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station, Engine Room Pit Area

Volatiles
by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-16	Water	MB0201				Sampled : 01/26/99	Lab Number
CAS #						Analyzed : 02/01/99	L9868-2
75-71-8	Dichlorodifluoromethane	nd	nd	2	ug/L		
74-87-3	Chloromethane	nd	nd	2	ug/L		
75-01-4	Vinyl chloride	nd	nd	2	ug/L		
74-83-9	Bromomethane	nd	nd	2	ug/L		
75-00-3	Chloroethane	nd	nd	2	ug/L		
75-69-4	Trichlorofluoromethane	nd	nd	1	ug/L		
67-64-1	Acetone	nd	nd	20	ug/L		
75-35-4	1,1-Dichloroethene	3	nd	1	ug/L		
75-09-2	Methylene chloride	nd	nd	2	ug/L		
75-15-0	Carbon disulfide	nd	nd	1	ug/L		
156-60-5	trans-1,2-Dichloroethene	nd	nd	1	ug/L		
75-34-3	1,1-Dichloroethene	3	nd	1	ug/L		
78-93-3	2-Butanone	nd	nd	20	ug/L		
590-20-7	2,2-Dichloropropane	nd	nd	1	ug/L		
156-59-4	cis-1,2-Dichloroethene	nd	nd	1	ug/L		
74-97-5	Bromochloromethane	nd	nd	1	ug/L		
67-66-3	Chloroform	nd	nd	1	ug/L		
71-55-6	1,1,1-Trichloroethane	nd	nd	1	ug/L		
56-23-5	Carbon tetrachloride	nd	nd	1	ug/L		
563-58-6	1,1-Dichloropropene	nd	nd	1	ug/L		
71-43-2	Benzene	nd	nd	1	ug/L		
107-06-2	1,2-Dichloroethane	nd	nd	1	ug/L		
79-01-6	Trichloroethene	1	nd	1	ug/L		

none detected = nd

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L9868

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station, Engine Room Pit Area

Volatiles
by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-16	Water	MB0201				Sampled : 01/26/99	L9868-2
Analyzed : 02/01/99							
CAS #							
78-87-5	1,2-Dichloropropane	nd	nd	1	ug/L		
74-95-3	Dibromomethane	nd	nd	1	ug/L		
75-27-4	Bromodichloromethane	nd	nd	1	ug/L		
10061-01-5	cis-1,3-Dichloropropene	nd	nd	1	ug/L		
108-10-1	4-Methyl-2-pentanone	nd	nd	10	ug/L		
108-88-3	Toluene	nd	nd	1	ug/L		
591-78-6	2-Hexanone	nd	nd	10	ug/L		
10061-02-6	trans-1,3-Dichloropropene	nd	nd	1	ug/L		
79-00-5	1,1,2-Trichloroethane	nd	nd	1	ug/L		
127-18-4	Tetrachloroethene	16	nd	1	ug/L		
542-75-6	1,3-Dichloropropane	nd	nd	1	ug/L		
124-48-1	Dibromochloromethane	nd	nd	1	ug/L		
106-93-4	1,2-Dibromoethane	nd	nd	1	ug/L		
108-90-7	Chlorobenzene	nd	nd	1	ug/L		
630-20-6	1,1,1,2-Tetrachloroethane	nd	nd	1	ug/L		
100-41-4	Ethylbenzene	nd	nd	1	ug/L		
100-42-5	Styrene	nd	nd	1	ug/L		
75-25-2	Bromoform	nd	nd	1	ug/L		
98-82-8	Isopropylbenzene	nd	nd	1	ug/L		
108-86-1	Bromobenzene	nd	nd	1	ug/L		
79-34-5	1,1,2,2-Tetrachloroethane	nd	nd	1	ug/L		
96-18-4	1,2,3-Trichloropropane	nd	nd	1	ug/L		
103-65-1	n-Propylbenzene	nd	nd	1	ug/L		

none detected = nd

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L9868

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station, Engine Room Pit Area

Volatiles

by EPA Method 8260

Sample ID							Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment		

MW-16	Water	MB0201				Sampled : 01/26/99	L9868-2
						Analyzed : 02/01/99	
CAS #							
95-49-8	2-Chlorotoluene	nd	nd	1	ug/L		
106-43-4	4-Chlorotoluene	nd	nd	1	ug/L		
108-67-8	1,3,5-Trimethylbenzene	nd	nd	1	ug/L		
98-06-6	tert-Butylbenzene	nd	nd	1	ug/L		
95-63-6	1,2,4-Trimethylbenzene	nd	nd	1	ug/L		
135-98-8	sec-Butylbenzene	nd	nd	1	ug/L		
541-73-1	1,3-Dichlorobenzene	nd	nd	1	ug/L		
99-87-6	4-Isopropyltoluene	nd	nd	1	ug/L		
106-46-7	1,4-Dichlorobenzene	nd	nd	1	ug/L		
95-50-1	1,2-Dichlorobenzene	nd	nd	1	ug/L		
104-51-8	n-Butylbenzene	nd	nd	1	ug/L		
96-12-8	1,2-Dibromo-3-chloropropane . .	nd	nd	1	ug/L		
120-82-1	1,2,4-Trichlorobenzene	nd	nd	1	ug/L		
87-68-3	Hexachlorobutadiene	nd	nd	1	ug/L		
91-20-3	Naphthalene	nd	nd	1	ug/L		
87-61-6	1,2,3-Trichlorobenzene	nd	nd	1	ug/L		
	Total Xylenes	nd	nd	1	ug/L		
						Recovery	Recovery
Surrogates						L9868-2	MB0201
1,2-Dichloroethane-d4						94%	99%
Toluene-d8						96%	101%
4-Bromofluorobenzene						100%	104%

none detected = nd

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L9868

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station, Engine Room Pit Area

Volatiles

by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	
MW-4 Water MB0201						Sampled : 01/26/99 Analyzed : 02/01/99 L9868-3
CAS #						
75-71-8	Dichlorodifluoromethane	nd	nd	2	ug/L	
74-87-3	Chloromethane	nd	nd	2	ug/L	
75-01-4	Vinyl chloride	nd	nd	2	ug/L	
74-83-9	Bromomethane	nd	nd	2	ug/L	
75-00-3	Chloroethane	nd	nd	2	ug/L	
75-69-4	Trichlorofluoromethane	nd	nd	1	ug/L	
67-64-1	Acetone	nd	nd	20	ug/L	
75-35-4	1,1-Dichloroethene	4	nd	1	ug/L	
75-09-2	Methylene chloride	nd	nd	2	ug/L	
75-15-0	Carbon disulfide	nd	nd	1	ug/L	
156-60-5	trans-1,2-Dichloroethene	nd	nd	1	ug/L	
75-34-3	1,1-Dichloroethane	nd	nd	1	ug/L	
78-93-3	2-Butanone	nd	nd	20	ug/L	
590-20-7	2,2-Dichloropropane	nd	nd	1	ug/L	
156-59-4	cis-1,2-Dichloroethene	nd	nd	1	ug/L	
74-97-5	Bromochloromethane	nd	nd	1	ug/L	
67-66-3	Chloroform	4	nd	1	ug/L	
71-55-6	1,1,1-Trichloroethane	nd	nd	1	ug/L	
56-23-5	Carbon tetrachloride	nd	nd	1	ug/L	
563-58-6	1,1-Dichloropropene	nd	nd	1	ug/L	
71-43-2	Benzene	nd	nd	1	ug/L	
107-06-2	1,2-Dichloroethane	nd	nd	1	ug/L	
79-01-6	Trichloroethene	nd	nd	1	ug/L	

none detected = nd

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L9868

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station, Engine Room Pit Area

Volatiles
by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-4	Water	MB0201				Sampled : 01/26/99	Analyzed : 02/01/99	L9868-3
CAS #								
78-87-5	1,2-Dichloropropane	nd	nd	1	ug/L			
74-95-3	Dibromomethane	nd	nd	1	ug/L			
75-27-4	Bromodichloromethane	nd	nd	1	ug/L			
10061-01-5	cis-1,3-Dichloropropene	nd	nd	1	ug/L			
108-10-1	4-Methyl-2-pentanone	nd	nd	10	ug/L			
108-88-3	Toluene	nd	nd	1	ug/L			
591-78-6	2-Hexanone	nd	nd	10	ug/L			
10061-02-6	trans-1,3-Dichloropropene	nd	nd	1	ug/L			
79-00-5	1,1,2-Trichloroethane	nd	nd	1	ug/L			
127-18-4	Tetrachloroethene	nd	nd	1	ug/L			
542-75-6	1,3-Dichloropropane	nd	nd	1	ug/L			
124-48-1	Dibromochloromethane	nd	nd	1	ug/L			
106-93-4	1,2-Dibromoethane	nd	nd	1	ug/L			
108-90-7	Chlorobenzene	nd	nd	1	ug/L			
630-20-6	1,1,1,2-Tetrachloroethane	nd	nd	1	ug/L			
100-41-4	Ethylbenzene	nd	nd	1	ug/L			
100-42-5	Styrene	nd	nd	1	ug/L			
75-25-2	Bromoform	nd	nd	1	ug/L			
98-82-8	Isopropylbenzene	nd	nd	1	ug/L			
108-86-1	Bromobenzene	nd	nd	1	ug/L			
79-34-5	1,1,2,2-Tetrachloroethane	nd	nd	1	ug/L			
96-18-4	1,2,3-Trichloropropane	nd	nd	1	ug/L			
103-65-1	n-Propylbenzene	nd	nd	1	ug/L			

none detected = nd

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L9868

Client: **Enron Gas Pipeline Group**
Contact: **George Robinson**

Project: WT-1 Station, Engine Room Pit Area

Volatiles

by EPA Method 8260

Sample ID	Lab Number				
Analyte	Result	Blank Result	Reporting Limit	Units	Comment

MW-4	Water	MB0201				Sampled : 01/26/99	Analyzed : 02/01/99	L9868-3
CAS #								
95-49-8	2-Chlorotoluene	nd	nd	1	ug/L			
106-43-4	4-Chlorotoluene	nd	nd	1	ug/L			
108-67-8	1,3,5-Trimethylbenzene	nd	nd	1	ug/L			
98-06-6	tert-Butylbenzene	nd	nd	1	ug/L			
95-63-6	1,2,4-Trimethylbenzene	nd	nd	1	ug/L			
135-98-8	sec-Butylbenzene	nd	nd	1	ug/L			
541-73-1	1,3-Dichlorobenzene	nd	nd	1	ug/L			
99-87-6	4-Isopropyltoluene	nd	nd	1	ug/L			
106-46-7	1,4-Dichlorobenzene	nd	nd	1	ug/L			
95-50-1	1,2-Dichlorobenzene	nd	nd	1	ug/L			
104-51-8	n-Butylbenzene	nd	nd	1	ug/L			
96-12-8	1,2-Dibromo-3-chloropropane	nd	nd	1	ug/L			
120-82-1	1,2,4-Trichlorobenzene	nd	nd	1	ug/L			
87-68-3	Hexachlorobutadiene	nd	nd	1	ug/L			
91-20-3	Naphthalene	nd	nd	1	ug/L			
87-61-6	1,2,3-Trichlorobenzene	nd	nd	1	ug/L			
	Total Xylenes	nd	nd	1	ug/L			
						Recovery	Recovery	
Surrogates						L9868-3	MB0201	
1,2-Dichloroethane-d4						92%	99%	
Toluene-d8						92%	101%	
4-Bromofluorobenzene						95%	104%	

none detected = nd

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L9868

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station, Engine Room Pit Area

Volatiles
by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-6		Water		MB0201		Sampled : 01/27/99		Analyzed : 02/01/99		L9868-4	
CAS #											
75-71-8	Dichlorodifluoromethane	nd	nd	2	ug/L						
74-87-3	Chloromethane	nd	nd	2	ug/L						
75-01-4	Vinyl chloride	nd	nd	2	ug/L						
74-83-9	Bromomethane	nd	nd	2	ug/L						
75-00-3	Chloroethane	nd	nd	2	ug/L						
75-69-4	Trichlorofluoromethane	nd	nd	1	ug/L						
67-64-1	Acetone	nd	nd	20	ug/L						
75-35-4	1,1-Dichloroethene	3	nd	1	ug/L						
75-09-2	Methylene chloride	nd	nd	2	ug/L						
75-15-0	Carbon disulfide	nd	nd	1	ug/L						
156-60-5	trans-1,2-Dichloroethene	nd	nd	1	ug/L						
75-34-3	1,1-Dichloroethane	11	nd	1	ug/L						
78-93-3	2-Butanone	nd	nd	20	ug/L						
590-20-7	2,2-Dichloropropane	nd	nd	1	ug/L						
156-59-4	cis-1,2-Dichloroethene	8	nd	1	ug/L						
74-97-5	Bromochloromethane	nd	nd	1	ug/L						
67-66-3	Chloroform	nd	nd	1	ug/L						
71-55-6	1,1,1-Trichloroethane	nd	nd	1	ug/L						
56-23-5	Carbon tetrachloride	nd	nd	1	ug/L						
563-58-6	1,1-Dichloropropene	nd	nd	1	ug/L						
71-43-2	Benzene	1	nd	1	ug/L						
107-06-2	1,2-Dichloroethane	nd	nd	1	ug/L						
79-01-6	Trichloroethene	16	nd	1	ug/L						

none detected = nd

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L9868

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Contact: George Robinson

Project: WT-1 Station, Engine Room Pit Area

Volatiles
by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-6 Water		MB0201			Sampled : 01/27/99 Analyzed : 02/01/99		L9868-4
CAS #							
78-87-5	1,2-Dichloropropane	nd	nd	1	ug/L		
74-95-3	Dibromomethane	nd	nd	1	ug/L		
75-27-4	Bromodichloromethane	nd	nd	1	ug/L		
10061-01-5	cis-1,3-Dichloropropene	nd	nd	1	ug/L		
108-10-1	4-Methyl-2-pentanone	nd	nd	10	ug/L		
108-88-3	Toluene	nd	nd	1	ug/L		
591-78-6	2-Hexanone	nd	nd	10	ug/L		
10061-02-6	trans-1,3-Dichloropropene	nd	nd	1	ug/L		
79-00-5	1,1,2-Trichloroethane	nd	nd	1	ug/L		
127-18-4	Tetrachloroethene	nd	nd	1	ug/L		
542-75-6	1,3-Dichloropropane	nd	nd	1	ug/L		
124-48-1	Dibromochloromethane	nd	nd	1	ug/L		
106-93-4	1,2-Dibromoethane	nd	nd	1	ug/L		
108-90-7	Chlorobenzene	nd	nd	1	ug/L		
630-20-6	1,1,1,2-Tetrachloroethane	nd	nd	1	ug/L		
100-41-4	Ethylbenzene	nd	nd	1	ug/L		
100-42-5	Styrene	nd	nd	1	ug/L		
75-25-2	Bromoform	nd	nd	1	ug/L		
98-82-8	Isopropylbenzene	nd	nd	1	ug/L		
108-86-1	Bromobenzene	nd	nd	1	ug/L		
79-34-5	1,1,2,2-Tetrachloroethane	nd	nd	1	ug/L		
96-18-4	1,2,3-Trichloropropane	nd	nd	1	ug/L		
103-65-1	n-Propylbenzene	nd	nd	1	ug/L		

none detected = nd

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L9868

Client: Enron Gas Pipeline Group
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Project: WT-1 Station, Engine Room Pit Area

Volatiles
by EPA Method 8260

Sample ID	Lab Number					
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-6 Water		MB0201				Sampled : 01/27/99 Analyzed : 02/01/99		L9868-4
CAS #								
95-49-8	2-Chlorotoluene	nd	nd	1	ug/L			
106-43-4	4-Chlorotoluene	nd	nd	1	ug/L			
108-67-8	1,3,5-Trimethylbenzene	nd	nd	1	ug/L			
98-06-6	tert-Butylbenzene	nd	nd	1	ug/L			
95-63-6	1,2,4-Trimethylbenzene	nd	nd	1	ug/L			
135-98-8	sec-Butylbenzene	nd	nd	1	ug/L			
541-73-1	1,3-Dichlorobenzene	nd	nd	1	ug/L			
99-87-6	4-Isopropyltoluene	nd	nd	1	ug/L			
106-46-7	1,4-Dichlorobenzene	nd	nd	1	ug/L			
95-50-1	1,2-Dichlorobenzene	nd	nd	1	ug/L			
104-51-8	n-Butylbenzene	nd	nd	1	ug/L			
96-12-8	1,2-Dibromo-3-chloropropane . .	nd	nd	1	ug/L			
120-82-1	1,2,4-Trichlorobenzene	nd	nd	1	ug/L			
87-68-3	Hexachlorobutadiene	nd	nd	1	ug/L			
91-20-3	Naphthalene	nd	nd	1	ug/L			
87-61-6	1,2,3-Trichlorobenzene	nd	nd	1	ug/L			
	Total Xylenes	nd	nd	1	ug/L			
Surrogates						Recovery	Recovery	
						L9868-4	MB0201	
						92%	99%	
						91%	101%	
						99%	104%	

none detected = nd

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L9868

Client: Enron Gas Pipeline Group
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Project: WT-1 Station, Engine Room Pit Area

Volatiles by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-7	Water	MB0202			Sampled : 01/27/99	Analyzed : 02/02/99	L9868-5
CAS #							
75-71-8	Dichlorodifluoromethane	nd	nd	2	ug/L		
74-87-3	Chloromethane	nd	nd	2	ug/L		
75-01-4	Vinyl chloride	nd	nd	2	ug/L		
74-83-9	Bromomethane	nd	nd	2	ug/L		
75-00-3	Chloroethane	nd	nd	2	ug/L		
75-69-4	Trichlorofluoromethane	nd	nd	1	ug/L		
67-64-1	Acetone	nd	nd	20	ug/L		
75-35-4	1,1-Dichloroethene	3	nd	1	ug/L		
75-09-2	Methylene chloride	nd	nd	2	ug/L		
75-15-0	Carbon disulfide	nd	nd	1	ug/L		
156-60-5	trans-1,2-Dichloroethene	nd	nd	1	ug/L		
75-34-3	1,1-Dichloroethene	19	nd	1	ug/L		
78-93-3	2-Butanone	nd	nd	20	ug/L		
590-20-7	2,2-Dichloropropane	nd	nd	1	ug/L		
156-59-4	cis-1,2-Dichloroethene	10	nd	1	ug/L		
74-97-5	Bromochloromethane	nd	nd	1	ug/L		
67-66-3	Chloroform	1	nd	1	ug/L		
71-55-6	1,1,1-Trichloroethane	nd	nd	1	ug/L		
56-23-5	Carbon tetrachloride	nd	nd	1	ug/L		
563-58-6	1,1-Dichloropropene	nd	nd	1	ug/L		
71-43-2	Benzene	7	nd	1	ug/L		
107-06-2	1,2-Dichloroethane	nd	nd	1	ug/L		
79-01-6	Trichloroethene	12	nd	1	ug/L		

none detected = nd

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L9868

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Volatiles by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-7	Water	MB0202				Sampled : 01/27/99	Analyzed : 02/02/99	L9868-5
CAS #								
78-87-5	1,2-Dichloropropane	nd	nd	1	ug/L			
74-95-3	Dibromomethane	nd	nd	1	ug/L			
75-27-4	Bromodichloromethane	nd	nd	1	ug/L			
10061-01-5	cis-1,3-Dichloropropene	nd	nd	1	ug/L			
108-10-1	4-Methyl-2-pentanone	nd	nd	10	ug/L			
108-88-3	Toluene	nd	nd	1	ug/L			
591-78-6	2-Hexanone	nd	nd	10	ug/L			
10061-02-6	trans-1,3-Dichloropropene	nd	nd	1	ug/L			
79-00-5	1,1,2-Trichloroethane	nd	nd	1	ug/L			
127-18-4	Tetrachloroethene	nd	nd	1	ug/L			
542-75-6	1,3-Dichloropropane	nd	nd	1	ug/L			
124-48-1	Dibromochloromethane	nd	nd	1	ug/L			
106-93-4	1,2-Dibromoethane	nd	nd	1	ug/L			
108-90-7	Chlorobenzene	nd	nd	1	ug/L			
630-20-6	1,1,1,2-Tetrachloroethane	nd	nd	1	ug/L			
100-41-4	Ethylbenzene	nd	nd	1	ug/L			
100-42-5	Styrene	nd	nd	1	ug/L			
75-25-2	Bromoform	nd	nd	1	ug/L			
98-82-8	Isopropylbenzene	nd	nd	1	ug/L			
108-86-1	Bromobenzene	nd	nd	1	ug/L			
79-34-5	1,1,2,2-Tetrachloroethane	nd	nd	1	ug/L			
96-18-4	1,2,3-Trichloropropane	nd	nd	1	ug/L			
103-65-1	n-Propylbenzene	nd	nd	1	ug/L			

none detected = nd

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L9868

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Project: WT-1 Station, Engine Room Pit Area

Volatiles
by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-8 Water		MB0202		Sampled : 01/27/99 Analyzed : 02/02/99		L9868-6
CAS #						
75-71-8	Dichlorodifluoromethane	nd	nd	2	ug/L	
74-87-3	Chloromethane	nd	nd	2	ug/L	
75-01-4	Vinyl chloride	nd	nd	2	ug/L	
74-83-9	Bromomethane	nd	nd	2	ug/L	
75-00-3	Chloroethane	nd	nd	2	ug/L	
75-69-4	Trichlorofluoromethane	nd	nd	1	ug/L	
67-64-1	Acetone	nd	nd	20	ug/L	
75-35-4	1,1-Dichloroethene	5	nd	1	ug/L	
75-09-2	Methylene chloride	nd	nd	2	ug/L	
75-15-0	Carbon disulfide	nd	nd	1	ug/L	
156-60-5	trans-1,2-Dichloroethene	nd	nd	1	ug/L	
75-34-3	1,1-Dichloroethene	94	nd	1	ug/L	D
78-93-3	2-Butanone	nd	nd	20	ug/L	
590-20-7	2,2-Dichloropropane	nd	nd	1	ug/L	
156-59-4	cis-1,2-Dichloroethene	37	nd	1	ug/L	
74-97-5	Bromochloromethane	nd	nd	1	ug/L	
67-66-3	Chloroform	nd	nd	1	ug/L	
71-55-6	1,1,1-Trichloroethane	nd	nd	1	ug/L	
56-23-5	Carbon tetrachloride	nd	nd	1	ug/L	
563-58-6	1,1-Dichloropropene	nd	nd	1	ug/L	
71-43-2	Benzene	20	nd	1	ug/L	
107-06-2	1,2-Dichloroethane	2	nd	1	ug/L	
79-01-6	Trichloroethene	54	nd	1	ug/L	

none detected = nd
Results based on dilution = D

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L9868

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station, Engine Room Pit Area

Volatiles by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-8	Water	MB0202			Sampled : 01/27/99	Analyzed : 02/02/99	L9868-6
CAS #							
78-87-5	1,2-Dichloropropane	nd	nd	1	ug/L		
74-95-3	Dibromomethane	nd	nd	1	ug/L		
75-27-4	Bromodichloromethane	nd	nd	1	ug/L		
10061-01-5	cis-1,3-Dichloropropene	nd	nd	1	ug/L		
108-10-1	4-Methyl-2-pentanone	nd	nd	10	ug/L		
108-88-3	Toluene	nd	nd	1	ug/L		
591-78-6	2-Hexanone	nd	nd	10	ug/L		
10061-02-6	trans-1,3-Dichloropropene	nd	nd	1	ug/L		
79-00-5	1,1,2-Trichloroethane	nd	nd	1	ug/L		
127-18-4	Tetrachloroethene	nd	nd	1	ug/L		
542-75-6	1,3-Dichloropropane	nd	nd	1	ug/L		
124-48-1	Dibromochloromethane	nd	nd	1	ug/L		
106-93-4	1,2-Dibromoethane	nd	nd	1	ug/L		
108-90-7	Chlorobenzene	nd	nd	1	ug/L		
630-20-6	1,1,1,2-Tetrachloroethane	nd	nd	1	ug/L		
100-41-4	Ethylbenzene	nd	nd	1	ug/L		
100-42-5	Styrene	nd	nd	1	ug/L		
75-25-2	Bromoform	nd	nd	1	ug/L		
98-82-8	Isopropylbenzene	2	nd	1	ug/L		
108-86-1	Bromobenzene	nd	nd	1	ug/L		
79-34-5	1,1,2,2-Tetrachloroethane	nd	nd	1	ug/L		
96-18-4	1,2,3-Trichloropropane	nd	nd	1	ug/L		
103-65-1	n-Propylbenzene	nd	nd	1	ug/L		

none detected = nd
Results based on dilution = D

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L9868

Client: Enron Gas Pipeline Group
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Project: WT-1 Station, Engine Room Pit Area

Volatiles by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-8 Water		MB0202				Sampled : 01/27/99	L9868-6	
CAS #								Analyzed : 02/02/99
95-49-8	2-Chlorotoluene	nd	nd	1	ug/L			
106-43-4	4-Chlorotoluene	nd	nd	1	ug/L			
108-67-8	1,3,5-Trimethylbenzene	nd	nd	1	ug/L			
98-06-6	tert-Butylbenzene	nd	nd	1	ug/L			
95-63-6	1,2,4-Trimethylbenzene	nd	nd	1	ug/L			
135-98-8	sec-Butylbenzene	nd	nd	1	ug/L			
541-73-1	1,3-Dichlorobenzene	nd	nd	1	ug/L			
99-87-6	4-Isopropyltoluene	2	nd	1	ug/L			
106-46-7	1,4-Dichlorobenzene	nd	nd	1	ug/L			
95-50-1	1,2-Dichlorobenzene	1	nd	1	ug/L			
104-51-8	n-Butylbenzene	nd	nd	1	ug/L			
96-12-8	1,2-Dibromo-3-chloropropane	nd	nd	1	ug/L			
120-82-1	1,2,4-Trichlorobenzene	nd	nd	1	ug/L			
87-68-3	Hexachlorobutadiene	nd	nd	1	ug/L			
91-20-3	Naphthalene	nd	nd	1	ug/L			
87-61-6	1,2,3-Trichlorobenzene	nd	nd	1	ug/L			
	Total Xylenes	nd	nd	1	ug/L			
Surrogates						Recovery	Recovery	
						L9868-6	MB0202	
						95%	97%	
						98%	93%	
						103%	98%	

none detected = nd
Results based on dilution = D

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L9868

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Project: WT-1 Station, Engine Room Pit Area

Volatiles

by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	
MW-17 Water MB0202						Sampled : 01/27/99 Analyzed : 02/02/99 L9868-7
CAS #						
75-71-8	Dichlorodifluoromethane	nd	nd	2	ug/L	
74-87-3	Chloromethane	nd	nd	2	ug/L	
75-01-4	Vinyl chloride	nd	nd	2	ug/L	
74-83-9	Bromomethane	nd	nd	2	ug/L	
75-00-3	Chloroethane	7	nd	2	ug/L	
75-69-4	Trichlorofluoromethane	nd	nd	1	ug/L	
67-64-1	Acetone	nd	nd	20	ug/L	
75-35-4	1,1-Dichloroethene	5	nd	1	ug/L	
75-09-2	Methylene chloride	nd	nd	2	ug/L	
75-15-0	Carbon disulfide	nd	nd	1	ug/L	
156-60-5	trans-1,2-Dichloroethene . .	1	nd	1	ug/L	
75-34-3	1,1-Dichloroethane	84	nd	1	ug/L	D
78-93-3	2-Butanone	nd	nd	20	ug/L	
590-20-7	2,2-Dichloropropane	nd	nd	1	ug/L	
156-59-4	cis-1,2-Dichloroethene . . .	85	nd	1	ug/L	D
74-97-5	Bromochloromethane	nd	nd	1	ug/L	
67-66-3	Chloroform	nd	nd	1	ug/L	
71-55-6	1,1,1-Trichloroethane	3	nd	1	ug/L	
56-23-5	Carbon tetrachloride	nd	nd	1	ug/L	
563-58-6	1,1-Dichloropropene	nd	nd	1	ug/L	
71-43-2	Benzene	22	nd	1	ug/L	
107-06-2	1,2-Dichloroethane	1	nd	1	ug/L	
79-01-6	Trichloroethene	100	nd	1	ug/L	D

none detected = nd
Results based on dilution = D

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Project: WT-1 Station, Engine Room Pit Area

Volatiles

by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-17 Water		MB0202			Sampled : 01/27/99 Analyzed : 02/02/99		L9868-7
CAS #							
78-87-5	1,2-Dichloropropane	nd	nd	1	ug/L		
74-95-3	Dibromomethane	nd	nd	1	ug/L		
75-27-4	Bromodichloromethane	nd	nd	1	ug/L		
10061-01-5	cis-1,3-Dichloropropene	nd	nd	1	ug/L		
108-10-1	4-Methyl-2-pentanone	17	nd	10	ug/L		
108-88-3	Toluene	9	nd	1	ug/L		
591-78-6	2-Hexanone	nd	nd	10	ug/L		
10061-02-6	trans-1,3-Dichloropropene	nd	nd	1	ug/L		
79-00-5	1,1,2-Trichloroethane	nd	nd	1	ug/L		
127-18-4	Tetrachloroethene	4	nd	1	ug/L		
542-75-6	1,3-Dichloropropane	nd	nd	1	ug/L		
124-48-1	Dibromochloromethane	nd	nd	1	ug/L		
106-93-4	1,2-Dibromoethane	nd	nd	1	ug/L		
108-90-7	Chlorobenzene	nd	nd	1	ug/L		
630-20-6	1,1,1,2-Tetrachloroethane	nd	nd	1	ug/L		
100-41-4	Ethylbenzene	7	nd	1	ug/L		
100-42-5	Styrene	nd	nd	1	ug/L		
75-25-2	Bromoform	nd	nd	1	ug/L		
98-82-8	Isopropylbenzene	nd	nd	1	ug/L		
108-86-1	Bromobenzene	nd	nd	1	ug/L		
79-34-5	1,1,2,2-Tetrachloroethane	nd	nd	1	ug/L		
96-18-4	1,2,3-Trichloropropane	nd	nd	1	ug/L		
103-65-1	n-Propylbenzene	nd	nd	1	ug/L		

none detected = nd
Results based on dilution = D

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L9868

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Project: WT-1 Station, Engine Room Pit Area

Volatiles
by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-17	Water	MB0202				Sampled : 01/27/99	Analyzed : 02/02/99	L9868-7
CAS #								
95-49-8	2-Chlorotoluene	nd	nd	1	ug/L			
106-43-4	4-Chlorotoluene	nd	nd	1	ug/L			
108-67-8	1,3,5-Trimethylbenzene ...	7	nd	1	ug/L			
98-06-6	tert-Butylbenzene	nd	nd	1	ug/L			
95-63-6	1,2,4-Trimethylbenzene ...	10	nd	1	ug/L			
135-98-8	sec-Butylbenzene	nd	nd	1	ug/L			
541-73-1	1,3-Dichlorobenzene	nd	nd	1	ug/L			
99-87-6	4-Isopropyltoluene	1	nd	1	ug/L			
106-46-7	1,4-Dichlorobenzene	nd	nd	1	ug/L			
95-50-1	1,2-Dichlorobenzene	1	nd	1	ug/L			
104-51-8	n-Butylbenzene	nd	nd	1	ug/L			
96-12-8	1,2-Dibromo-3-chloropropane ..	nd	nd	1	ug/L			
120-82-1	1,2,4-Trichlorobenzene	nd	nd	1	ug/L			
87-68-3	Hexachlorobutadiene	nd	nd	1	ug/L			
91-20-3	Naphthalene	9	nd	1	ug/L			
87-61-6	1,2,3-Trichlorobenzene	nd	nd	1	ug/L			
	Total Xylenes	19	nd	1	ug/L			
						Recovery	Recovery	
Surrogates						L9868-7	MB0202	
1,2-Dichloroethane-d4						95%	97%	
Toluene-d8						97%	93%	
4-Bromofluorobenzene						105%	98%	

none detected = nd
Results based on dilution = D

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L9868

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Contact: George Robinson

Project: WT-1 Station, Engine Room Pit Area

Volatiles
by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-14 Water		MB0202				Sampled : 01/27/99	L9868-8
						Analyzed : 02/02/99	
CAS #							
75-71-8	Dichlorodifluoromethane	nd	nd	2	ug/L		
74-87-3	Chloromethane	nd	nd	2	ug/L		
75-01-4	Vinyl chloride	nd	nd	2	ug/L		
74-83-9	Bromomethane	nd	nd	2	ug/L		
75-00-3	Chloroethane	nd	nd	2	ug/L		
75-69-4	Trichlorofluoromethane	nd	nd	1	ug/L		
67-64-1	Acetone	nd	nd	20	ug/L		
75-35-4	1,1-Dichloroethene	2	nd	1	ug/L		
75-09-2	Methylene chloride	nd	nd	2	ug/L		
75-15-0	Carbon disulfide	nd	nd	1	ug/L		
156-60-5	trans-1,2-Dichloroethene	nd	nd	1	ug/L		
75-34-3	1,1-Dichloroethane	27	nd	1	ug/L		
78-93-3	2-Butanone	nd	nd	20	ug/L		
590-20-7	2,2-Dichloropropane	nd	nd	1	ug/L		
156-59-4	cis-1,2-Dichloroethene	5	nd	1	ug/L		
74-97-5	Bromochloromethane	nd	nd	1	ug/L		
67-66-3	Chloroform	nd	nd	1	ug/L		
71-55-6	1,1,1-Trichloroethane	nd	nd	1	ug/L		
56-23-5	Carbon tetrachloride	nd	nd	1	ug/L		
563-58-6	1,1-Dichloropropene	nd	nd	1	ug/L		
71-43-2	Benzene	nd	nd	1	ug/L		
107-06-2	1,2-Dichloroethane	nd	nd	1	ug/L		
79-01-6	Trichloroethene	14	nd	1	ug/L		

none detected = nd

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L9868

Client: Enron Gas Pipeline Group
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Project: WT-1 Station, Engine Room Pit Area

Volatiles

by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-14 Water		MB0202			Sampled : 01/27/99 Analyzed : 02/02/99		L9868-8
CAS #							
78-87-5	1,2-Dichloropropane	nd	nd	1	ug/L		
74-95-3	Dibromomethane	nd	nd	1	ug/L		
75-27-4	Bromodichloromethane	nd	nd	1	ug/L		
10061-01-5	cis-1,3-Dichloropropene	nd	nd	1	ug/L		
108-10-1	4-Methyl-2-pentanone	nd	nd	10	ug/L		
108-88-3	Toluene	nd	nd	1	ug/L		
591-78-6	2-Hexanone	nd	nd	10	ug/L		
10061-02-6	trans-1,3-Dichloropropene	nd	nd	1	ug/L		
79-00-5	1,1,2-Trichloroethane	nd	nd	1	ug/L		
127-18-4	Tetrachloroethene	1	nd	1	ug/L		
542-75-6	1,3-Dichloropropane	nd	nd	1	ug/L		
124-48-1	Dibromochloromethane	nd	nd	1	ug/L		
106-93-4	1,2-Dibromoethane	nd	nd	1	ug/L		
108-90-7	Chlorobenzene	nd	nd	1	ug/L		
630-20-6	1,1,1,2-Tetrachloroethane	nd	nd	1	ug/L		
100-41-4	Ethylbenzene	nd	nd	1	ug/L		
100-42-5	Styrene	nd	nd	1	ug/L		
75-25-2	Bromoform	nd	nd	1	ug/L		
98-82-8	Isopropylbenzene	nd	nd	1	ug/L		
108-86-1	Bromobenzene	nd	nd	1	ug/L		
79-34-5	1,1,2,2-Tetrachloroethane	nd	nd	1	ug/L		
96-18-4	1,2,3-Trichloropropane	nd	nd	1	ug/L		
103-65-1	n-Propylbenzene	nd	nd	1	ug/L		

none detected = nd

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L9868

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Project: WT-1 Station, Engine Room Pit Area

Volatiles
by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-14 Water		MB0202				Sampled : 01/27/99	L9868-8	
CAS #						Analyzed : 02/02/99		
95-49-8	2-Chlorotoluene	nd	nd	1	ug/L			
106-43-4	4-Chlorotoluene	nd	nd	1	ug/L			
108-67-8	1,3,5-Trimethylbenzene	nd	nd	1	ug/L			
98-06-6	tert-Butylbenzene	nd	nd	1	ug/L			
95-63-6	1,2,4-Trimethylbenzene	nd	nd	1	ug/L			
135-98-8	sec-Butylbenzene	nd	nd	1	ug/L			
541-73-1	1,3-Dichlorobenzene	nd	nd	1	ug/L			
99-87-6	4-Isopropyltoluene	nd	nd	1	ug/L			
106-46-7	1,4-Dichlorobenzene	nd	nd	1	ug/L			
95-50-1	1,2-Dichlorobenzene	nd	nd	1	ug/L			
104-51-8	n-Butylbenzene	nd	nd	1	ug/L			
96-12-8	1,2-Dibromo-3-chloropropane	nd	nd	1	ug/L			
120-82-1	1,2,4-Trichlorobenzene	nd	nd	1	ug/L			
87-68-3	Hexachlorobutadiene	nd	nd	1	ug/L			
91-20-3	Naphthalene	nd	nd	1	ug/L			
87-61-6	1,2,3-Trichlorobenzene	nd	nd	1	ug/L			
	Total Xylenes	nd	nd	1	ug/L			
						Recovery	Recovery	
						L9868-8	MB0202	
Surrogates								
1,2-Dichloroethane-d4						101%	97%	
Toluene-d8						96%	93%	
4-Bromofluorobenzene						104%	98%	

none detected = nd

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L9868

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Volatiles
by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-1	Water	MB0202				Sampled : 01/27/99	Analyzed : 02/02/99	L9868-9
CAS #								
75-71-8	Dichlorodifluoromethane	nd	nd	2	ug/L			
74-87-3	Chloromethane	nd	nd	2	ug/L			
75-01-4	Vinyl chloride	nd	nd	2	ug/L			
74-83-9	Bromomethane	nd	nd	2	ug/L			
75-00-3	Chloroethane	4	nd	2	ug/L			
75-69-4	Trichlorofluoromethane	nd	nd	1	ug/L			
67-64-1	Acetone	330	nd	20	ug/L			
75-35-4	1,1-Dichloroethene	4	nd	1	ug/L			
75-09-2	Methylene chloride	310	nd	2	ug/L	D		
75-15-0	Carbon disulfide	1	nd	1	ug/L			
156-60-5	trans-1,2-Dichloroethene	nd	nd	1	ug/L			
75-34-3	1,1-Dichloroethane	460	nd	1	ug/L	D		
78-93-3	2-Butanone	120	nd	20	ug/L			
590-20-7	2,2-Dichloropropane	nd	nd	1	ug/L			
156-59-4	cis-1,2-Dichloroethene	3	nd	1	ug/L			
74-97-5	Bromochloromethane	nd	nd	1	ug/L			
67-66-3	Chloroform	nd	nd	1	ug/L			
71-55-6	1,1,1-Trichloroethane	18	nd	1	ug/L			
56-23-5	Carbon tetrachloride	nd	nd	1	ug/L			
563-58-6	1,1-Dichloropropene	nd	nd	1	ug/L			
71-43-2	Benzene	15	nd	1	ug/L			
107-06-2	1,2-Dichloroethane	8	nd	1	ug/L			
79-01-6	Trichloroethene	26	nd	1	ug/L			

none detected = nd
Result based on dilution = D

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Volatiles
by EPA Method 8260

Sample ID	Lab Number					
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-1 Water		MB0202				Sampled : 01/27/99	D
CAS #						Analyzed : 02/02/99	
78-87-5	1,2-Dichloropropane	nd	nd	1	ug/L		
74-95-3	Dibromomethane	nd	nd	1	ug/L		
75-27-4	Bromodichloromethane	nd	nd	1	ug/L		
10061-01-5	cis-1,3-Dichloropropene	nd	nd	1	ug/L		
108-10-1	4-Methyl-2-pentanone	2,100	nd	10	ug/L		
108-88-3	Toluene	58	nd	1	ug/L		
591-78-6	2-Hexanone	nd	nd	10	ug/L		
10061-02-6	trans-1,3-Dichloropropene	nd	nd	1	ug/L		
79-00-5	1,1,2-Trichloroethane	nd	nd	1	ug/L		
127-18-4	Tetrachloroethene	10	nd	1	ug/L		
542-75-6	1,3-Dichloropropane	nd	nd	1	ug/L		
124-48-1	Dibromochloromethane	nd	nd	1	ug/L		
106-93-4	1,2-Dibromoethane	nd	nd	1	ug/L		
108-90-7	Chlorobenzene	nd	nd	1	ug/L		
630-20-6	1,1,1,2-Tetrachloroethane	nd	nd	1	ug/L		
100-41-4	Ethylbenzene	9	nd	1	ug/L		
100-42-5	Styrene	nd	nd	1	ug/L		
75-25-2	Bromoform	nd	nd	1	ug/L		
98-82-8	Isopropylbenzene	2	nd	1	ug/L		
108-86-1	Bromobenzene	nd	nd	1	ug/L		
79-34-5	1,1,2,2-Tetrachloroethane	nd	nd	1	ug/L		
96-18-4	1,2,3-Trichloropropane	nd	nd	1	ug/L		
103-65-1	n-Propylbenzene	3	nd	1	ug/L		

none detected = nd
Result based on dilution = D

OREGON ANALYTICAL LABORATORY

A Division of Portland General Electric
14855 S.W. Scholls Ferry Road, Beaverton, OR 97007
Phone 503-590-5300 • Fax 503-590-1404
www.oalab.com/oal • Toll-Free 1-800-644-0967



L9868

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station, Engine Room Pit Area

Volatiles

by EPA Method 8260

Sample ID						Lab Number	
Analyte	Result	Blank Result	Reporting Limit	Units	Comment		
MW-1 Water CAS # 95-49-8 2-Chlorotoluene nd nd 1 ug/L 106-43-4 4-Chlorotoluene nd nd 1 ug/L 108-67-8 1,3,5-Trimethylbenzene ... 14 nd 1 ug/L 98-06-6 tert-Butylbenzene nd nd 1 ug/L 95-63-6 1,2,4-Trimethylbenzene ... 38 nd 1 ug/L 135-98-8 sec-Butylbenzene nd nd 1 ug/L 541-73-1 1,3-Dichlorobenzene nd nd 1 ug/L 99-87-6 4-Isopropyltoluene 2 nd 1 ug/L 106-46-7 1,4-Dichlorobenzene nd nd 1 ug/L 95-50-1 1,2-Dichlorobenzene 1 nd 1 ug/L 104-51-8 n-Butylbenzene nd nd 1 ug/L 96-12-8 1,2-Dibromo-3-chloropropane .. nd nd 1 ug/L 120-82-1 1,2,4-Trichlorobenzene nd nd 1 ug/L 87-68-3 Hexachlorobutadiene nd nd 1 ug/L 91-20-3 Naphthalene 14 nd 1 ug/L 87-61-6 1,2,3-Trichlorobenzene nd nd 1 ug/L Total Xylenes 93 nd 1 ug/L						Sampled : 01/27/99 Analyzed : 02/02/99 L9868-9	
						Recovery	Recovery
Surrogates						L9868-9	MB0202
1,2-Dichloroethane-d4						96%	97%
Toluene-d8						101%	93%
4-Bromofluorobenzene						110%	98%

none detected = nd
Result based on dilution = D

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L9868

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station, Engine Room Pit Area

Volatiles by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	
MW-5 Water						MB0202
						Sampled : 01/27/99
						Analyzed : 02/02/99
						L9868-10
CAS #						
75-71-8	Dichlorodifluoromethane	nd	nd	2	ug/L	
74-87-3	Chloromethane	nd	nd	2	ug/L	
75-01-4	Vinyl chloride	nd	nd	2	ug/L	
74-83-9	Bromomethane	nd	nd	2	ug/L	
75-00-3	Chloroethane	5	nd	2	ug/L	
75-69-4	Trichlorofluoromethane	nd	nd	1	ug/L	
67-64-1	Acetone	nd	nd	20	ug/L	
75-35-4	1,1-Dichloroethene	5	nd	1	ug/L	
75-09-2	Methylene chloride	nd	nd	2	ug/L	
75-15-0	Carbon disulfide	nd	nd	1	ug/L	
156-60-5	trans-1,2-Dichloroethene . .	1	nd	1	ug/L	
75-34-3	1,1-Dichloroethane	81	nd	1	ug/L	D
78-93-3	2-Butanone	nd	nd	20	ug/L	
590-20-7	2,2-Dichloropropane	nd	nd	1	ug/L	
156-59-4	cis-1,2-Dichloroethene	86	nd	1	ug/L	D
74-97-5	Bromochloromethane	nd	nd	1	ug/L	
67-66-3	Chloroform	nd	nd	1	ug/L	
71-55-6	1,1,1-Trichloroethane	2	nd	1	ug/L	
56-23-5	Carbon tetrachloride	nd	nd	1	ug/L	
563-58-6	1,1-Dichloropropene	nd	nd	1	ug/L	
71-43-2	Benzene	22	nd	1	ug/L	
107-06-2	1,2-Dichloroethane	1	nd	1	ug/L	
79-01-6	Trichloroethene	96	nd	1	ug/L	D

none detected = nd
Results based on dilution = D

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L9868

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station, Engine Room Pit Area

Volatiles by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	
MW-5 Water MB0202						Sampled : 01/27/99 Analyzed : 02/02/99 L9868-10
CAS #						
78-87-5	1,2-Dichloropropane	nd	nd	1	ug/L	
74-95-3	Dibromomethane	nd	nd	1	ug/L	
75-27-4	Bromodichloromethane	nd	nd	1	ug/L	
10061-01-5	cis-1,3-Dichloropropene	nd	nd	1	ug/L	
108-10-1	4-Methyl-2-pentanone	19	nd	10	ug/L	
108-88-3	Toluene	9	nd	1	ug/L	
591-78-6	2-Hexanone	nd	nd	10	ug/L	
10061-02-6	trans-1,3-Dichloropropene	nd	nd	1	ug/L	
79-00-5	1,1,2-Trichloroethane	nd	nd	1	ug/L	
127-18-4	Tetrachloroethene	3	nd	1	ug/L	
542-75-6	1,3-Dichloropropane	nd	nd	1	ug/L	
124-48-1	Dibromochloromethane	nd	nd	1	ug/L	
106-93-4	1,2-Dibromoethane	nd	nd	1	ug/L	
108-90-7	Chlorobenzene	nd	nd	1	ug/L	
630-20-6	1,1,1,2-Tetrachloroethane	nd	nd	1	ug/L	
100-41-4	Ethylbenzene	7	nd	1	ug/L	
100-42-5	Styrene	nd	nd	1	ug/L	
75-25-2	Bromoform	nd	nd	1	ug/L	
98-82-8	Isopropylbenzene	nd	nd	1	ug/L	
108-86-1	Bromobenzene	nd	nd	1	ug/L	
79-34-5	1,1,2,2-Tetrachloroethane	nd	nd	1	ug/L	
96-18-4	1,2,3-Trichloropropane	nd	nd	1	ug/L	
103-65-1	n-Propylbenzene	nd	nd	1	ug/L	

none detected = nd
Results based on dilution = D

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L9868

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station, Engine Room Pit Area

Volatiles
by EPA Method 8260

Sample ID						Lab Number
Analyte	Result	Blank Result	Reporting Limit	Units	Comment	

MW-5	Water	MB0202				Sampled : 01/27/99	Analyzed : 02/02/99	L9868-10
CAS #								
95-49-8	2-Chlorotoluene	nd	nd	1	ug/L			
106-43-4	4-Chlorotoluene	nd	nd	1	ug/L			
108-67-8	1,3,5-Trimethylbenzene ...	6	nd	1	ug/L			
98-06-6	tert-Butylbenzene	nd	nd	1	ug/L			
95-63-6	1,2,4-Trimethylbenzene ...	9	nd	1	ug/L			
135-98-8	sec-Butylbenzene	nd	nd	1	ug/L			
541-73-1	1,3-Dichlorobenzene	nd	nd	1	ug/L			
99-87-6	4-Isopropyltoluene	1	nd	1	ug/L			
106-46-7	1,4-Dichlorobenzene	nd	nd	1	ug/L			
95-50-1	1,2-Dichlorobenzene	1	nd	1	ug/L			
104-51-8	n-Butylbenzene	nd	nd	1	ug/L			
96-12-8	1,2-Dibromo-3-chloropropane ..	nd	nd	1	ug/L			
120-82-1	1,2,4-Trichlorobenzene	nd	nd	1	ug/L			
87-68-3	Hexachlorobutadiene	nd	nd	1	ug/L			
91-20-3	Naphthalene	9	nd	1	ug/L			
87-61-6	1,2,3-Trichlorobenzene	nd	nd	1	ug/L			
	Total Xylenes	19	nd	1	ug/L			
						Recovery	Recovery	
Surrogates						L9868-10	MB0202	
1,2-Dichloroethane-d4						97%	97%	
Toluene-d8						98%	93%	
4-Bromofluorobenzene						106%	98%	

none detected = nd
Results based on dilution = D

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L9868

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station, Engine Room Pit Area

Volatiles LCS by EPA Method 8260

						Lab Number
Analyte	Results	Amount Spiked	Units	Recovery		
Analyzed : 02/01/99						LCS0201
CAS #						
75-35-4	1,1-Dichloroethene	21.8	20.0	ug/L	109%	
71-43-2	Benzene	21.9	20.0	ug/L	109%	
79-01-6	Trichloroethene	21.6	20.0	ug/L	108%	
108-88-3	Toluene	22.8	20.0	ug/L	114%	
108-90-7	Chlorobenzene	23.7	20.0	ug/L	118%	
Surrogates					Recovery	
					LCS0201	
1,2-Dichloroethane-d4					98%	
Toluene-d8					106%	
4-Bromofluorobenzene					111%	

none detected = nd

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Phone 503-590-5300 • Fax 503-590-1404
www.oalab.com/oal • Toll-Free 1-800-644-0967





L9868

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station, Engine Room Pit Area

Volatiles LCS
by EPA Method 8260

					Lab Number
Analyte	Results	Amount Spiked	Units	Recovery	

Analyzed : 02/02/99					LCS0202
CAS #					
75-35-4	1,1-Dichloroethene	21.4	20.0	ug/L	107%
71-43-2	Benzene	21.3	20.0	ug/L	106%
79-01-6	Trichloroethene	21.6	20.0	ug/L	108%
108-88-3	Toluene	20.5	20.0	ug/L	103%
108-90-7	Chlorobenzene	21.4	20.0	ug/L	107%
					Recovery
					LCS0202
Surrogates					
1,2-Dichloroethane-d4					94%
Toluene-d8					97%
4-Bromofluorobenzene					97%

none detected = nd

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A Division of Portland General Electric
14855 S.W. Scholls Ferry Road, Beaverton, OR 97007
Phone 503-590-5300 • Fax 503-590-1404
www.oal.com 401-1/11/99 1,800-644-8067



L9868

Client: Enron Gas Pipeline Group
Contact: George Robinson

Project: WT-1 Station, Engine Room Pit Area

Volatiles MS/MSD
by EPA Method 8260

Sample ID		Lab Number		
Analyte	Recovery MS	Recovery MSD	RPD	
XXXXX WATER	%	%	%	Analyzed : 01/20/99 L9723-10
CAS #				
75-35-4 1,1-Dichloroethene	103	105	2	
71-43-2 Benzene	102	103	<1	
79-01-6 Trichloroethene	102	103	<1	
108-88-3 Toluene	96	101	4	
108-90-7 Chlorobenzene	105	109	4	
Surrogates				
1,2-Dichloroethane-d4	95	100		
Toluene-d8	97	102		
4-Bromofluorobenzene	97	104		

none detected = nd

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www.oalab.com/oal • Toll-Free 1-800-644-0967



CHAIN OF CUSTODY RECORD LABORATORY ANALYSIS REQUEST

Sampling: ☒ Grab ☐ Comp
OAL hrs. _____ of _____
ISCO _____ Site Visit ☐

Client Information
Company EXPRESS ENGINEERING
Contact SANDY SHARP
Address 10235 WEST LITTLE YORK SWE 252
HOUSTON, TX 77040
Phone # 713-646-7852 Fax # 713-646-7867

Billing Information
Company ENLON
Contact JO GEORGE ROBINSON
Address _____
Phone # 646-7527 Fax # 713-646-7867

Project Information
Project Name TWP
Project # WT-1 ER PIT AREA
P.O. # _____
Comments _____

Sampler's Name Sandy Sharp
Signature [Signature]
Quote # _____
NOTE: If quote number is not referenced, standard pricing will be applied.
Provide Fax Results ☒ Yes ☐ No

Remarks 8200 VOC'S
INCLUDE:
1,2 DICHLOROETHANE (CIS- & TRANS-)
& DICHLOROBENZENE (O-, M- & P-)

Remarks	8200 VOL'S	INCLUDE:	1,2 DICHLOROETHANE (CIS- & TRANS-)	& DICHLOROBENZENE (O-,M-&P-)	FOR LAB USE ONLY OAL Login #	Time	Date	Sample Identification	# of Containers	Matrix			Analyses												Turnaround	Remarks																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
										Soil	Water	Other (Note in Remarks)	Volatiles 624 / 8250 / 8240	Semivolatiles 625 / 8270	PAH(SIM) PAH 8310	Organochlorine 608 / 8080 / 8081	PCB Pesticide	NW TPH-HCB	Quantity? ☐ Yes ☐ No	NW TPH Quantification	G D 418.1M	BTEX 602 / 8020 ☐ MTBE	TPH Oil & Grease ☐ Total ☐ NP	Metals ☐ Total ☐ TCLP ☐ Dissolved			As Ba Cd Cr Pb Hg Se Ag	Other																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
1	MW-15	1/27/99	1620	19868-1	3					X	X		X																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		

Relinquished
Signature Sandy Sharp Date 1/28/99
Print Name SANDY SHARP Time 0630
Company _____

Received
Signature [Signature] Date 1/29/99
Print Name MANA WAGBO-CODRIL Time 1405
Company OR

Relinquished
Signature _____ Date _____
Print Name _____ Time _____
Company _____

Received
Signature _____ Date _____
Print Name _____ Time _____
Company _____

Relinquished
Signature _____ Date _____
Print Name _____ Time _____
Company _____

Received
Signature _____ Date _____
Print Name _____ Time _____
Company _____

☐ Courier ☐ UPS ☒ FedEx ☐ Other
Received @ 8 °C
Appropriate Containers ☒ Yes ☐ No
27 4oz./8oz. Jars
27 VOA Vials
Plastic Bottles
Glass Bottles
Other _____

Client Information

Company: CYPRESS ENGINEERING
Contact: SANDY SHARP
Address: 10235 WEST LITTLE YORK STE 232
HOUSTON TX 77040
Phone: 713 646-7252 Fax: 646-7867

Billing Information

Company: ENRON
Contact: GEORGE RABINSON
Address: 713 646-7327 Fax: 646-7867

Project Information

Project Name: TWJ
Project # WT-1 ER PT AREA
P.O. #
Comments:

Sampler's Name: SANDY SHARP
Signature: Sandy Sharp
Quote #
NOTE: If quote number is not referenced, standard pricing will be applied.
Provide Fax Results ☒ Yes ☐ No

Remarks

Sample Identification	Date	Time	FOR LAB USE ONLY OAL Login #	# of Containers																
				Soil	Water	Other (Note in Remarks)	Volatiles 624 / 8260 / 8240	Semivolatiles 625 / 8270	PAH(SM) PAH 8310	Organochlorine 608 / 8080 / 8081	PCB Pesticide	NW TPH-HC10	Quantity? ☐ Yes ☐ No	NW TPH Quantification	G D 418.1M	BTEX 602 / 8020 ☐ MTBE	TPH 418.1 ☐ Total ☐ NP 413.1 / 1664 ☐ NP	Metals ☐ Total ☐ TCLP ☐ Dissolved	As Ba Cd Cr Pb Hg Se Ag	Other
1 MW-5	1/27/99	1500	09868-103	X			3													
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				

Turnaround	Remarks
N	INCLUDE: 1,2 DICHLOETHANE (CIS-ATRA) # DICHLOETHANE (O-, M-EP-)

Relinquished
Signature: Sandy Sharp Date: 1/29/99
Print Name: SANDY SHARP Time: 0930 AM
Company:

Received
Signature: Date: 1/29/99
Print Name: Time:
Company:

Relinquished
Signature: Date:
Print Name: Time:
Company:

Received
Signature: Date:
Print Name: Time:
Company:

Relinquished
Signature: Date:
Print Name: Time:
Company:

Received
Signature: Date:
Print Name: Time:
Company:

☐ Courier ☐ UPS ☒ FedEx ☐ Other
Received @ °C
Appropriate Containers ☒ Yes ☐ No
3 4oz./8oz. Jars
3 VOA Vials
 Plastic Bottles
 Glass Bottles
 Other



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

August 6, 1998

Mr. George Robinson
CYPRESS ENGINEERING, INC.
10235 W. Little York Rd., #256
Houston, TX 77040

The following report contains analytical results for the sample(s) received at Southern Petroleum Laboratories (SPL) on July 21, 1998. The sample(s) was assigned to Certificate of Analysis No.(s) 9807A50 and analyzed for all parameters as listed on the chain of custody.

Any data flag or quality control exception associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s).

If you have any questions or comments pertaining to this data report, please do not hesitate to contact me. Please reference the above Certificate of Analysis No. during any inquiries.

Again, SPL is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

Southern Petroleum Laboratories

A handwritten signature in cursive script, reading "Electa Brown", written over a horizontal line.

Electa Brown
Project Manager



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Southern Petroleum Laboratories, Inc.

Certificate of Analysis Number: 98-07-A50

Approved for Release by:

A handwritten signature in cursive script, reading "Electa Brown", is written over a horizontal line.

Electa Brown, Project Manager

A handwritten date "8-11-98" is written in cursive script over a horizontal line.

Date

Greg Grandits
Laboratory Director

Cynthia Schreiner
Quality Assurance Officer

The attached analytical data package may not be reproduced except in full without the express written approval of this laboratory.



****SUMMARY REPORT****

08/06/98

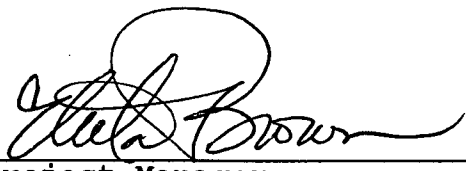
HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Company: Cypress Engineering, Inc.
Site:
Project No:
Project: TWP WT-1 ER Pit Area

ANALYTICAL DATA
NOTE: ND - Not Detected

SPL ID MATRIX	CLIENT ID DATE SAMPLED	BENZENE	TOLUENE	ETHYLBENZ.	XYLENE	TPH-IR	TPH-GC	LEAD	MTBE
9807A50-01 WATER	MW-15 07/17/98 11:30:00							ND 0.05mg/L	
9807A50-02 WATER	MW-14 07/17/98 13:45:00							ND 0.05mg/L	
9807A50-03 WATER	MW-17 07/17/98 10:10:00							ND 0.05mg/L	
9807A50-04 WATER	MW-5 07/17/98 17:05:00							ND 0.05mg/L	
9807A50-05 WATER	MW-8 07/17/98 15:55:00							ND 0.05mg/L	
9807A50-06 WATER	MW-1 07/17/98 18:40:00							ND 0.05mg/L	

LEAD - Method 6010B ***


SPL, Inc., - Project Manager



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9807A50-01

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

DATE: 08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-15

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/17/98 11:30:00
DATE RECEIVED: 07/21/98

ANALYTICAL DATA			
PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Chloride Method 325.3 * Analyzed by: AB Date: 08/04/98 09:00:00	386	5	mg/L
Sulfate Method 375.4 * Analyzed by: TW Date: 08/04/98 10:30:00	1000	100	mg/L
Total Dissolved Solids Method 160.1 * Analyzed by: DS Date: 07/24/98 09:45:00	1800	100	mg/L
Nitrate-Nitrite, as N Method 353.3 * Analyzed by: DAM Date: 07/31/98 18:00:00	11.9	0.5	mg/L
Silver, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.01	mg/L
Arsenic, Total Method 7060A *** Analyzed by: PB Date: 08/03/98 17:49:00	0.012	0.005	mg/L

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.



Certificate of Analysis No. H9-9807A50-01

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

DATE: 08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-15

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/17/98 11:30:00
DATE RECEIVED: 07/21/98

ANALYTICAL DATA				
PARAMETER	RESULTS	DETECTION LIMIT	UNITS	
Barium, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	0.018	0.005	mg/L	
Cadmium, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.005	mg/L	
Chromium, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.01	mg/L	
Copper, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.01	mg/L	
Iron, Total Method 6010B *** Analyzed by: EG Date: 08/05/98 09:45:00	0.24	0.02	mg/L	
Mercury, Total Method 7470 A*** Analyzed by: AG Date: 07/28/98 14:28:00	ND	0.0002	mg/L	

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.



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HOUSTON, TEXAS 77054
PHONE (713) 680-0901

Certificate of Analysis No. H9-9807A50-01

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

DATE: 08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-15

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/17/98 11:30:00
DATE RECEIVED: 07/21/98

ANALYTICAL DATA			
PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Manganese, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.005	mg/L
Acid Digestion-Aqueous, ICP Method 3010A *** Analyzed by: EE Date: 07/31/98 09:00:00	07/31/98		
Lead, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.05	mg/L
Selenium, Total Method 7740 *** Analyzed by: PB Date: 08/04/98 09:11:00	0.020	0.005	mg/L
Zinc, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.02	mg/L

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9807A50-01

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-15

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/17/98 11:30:00
DATE RECEIVED: 07/21/98

ANALYTICAL DATA				
PARAMETER	RESULTS	PQL*	UNITS	
Benzene	ND	5	ug/L	
Bromobenzene	ND	5	ug/L	
Bromochloromethane	ND	5	ug/L	
Bromodichloromethane	ND	5	ug/L	
Bromoform	ND	5	ug/L	
Bromomethane	ND	10	ug/L	
n-Butylbenzene	ND	5	ug/L	
sec-Butylbenzene	ND	5	ug/L	
tert-Butylbenzene	ND	5	ug/L	
Carbon tetrachloride	ND	5	ug/L	
Chlorobenzene	ND	5	ug/L	
Chlorodibromomethane	ND	5	ug/L	
Chloroethane	ND	10	ug/L	
Chloroform	ND	5	ug/L	
Chloromethane	ND	10	ug/L	
2-Chlorotoluene	ND	5	ug/L	
4-Chlorotoluene	ND	5	ug/L	
1,2-Dibromo-3-chloropropane	ND	5	ug/L	
1,2-Dibromoethane	ND	5	ug/L	
Dibromomethane	ND	5	ug/L	
1,2-Dichlorobenzene	ND	5	ug/L	
1,3-Dichlorobenzene	ND	5	ug/L	
1,4-Dichlorobenzene	ND	5	ug/L	
Dichlorodifluoromethane	ND	10	ug/L	
1,1-Dichloroethane	ND	5	ug/L	
1,2-Dichloroethane	ND	5	ug/L	
1,1-Dichloroethene	ND	5	ug/L	
cis-1,2-Dichloroethene	ND	5	ug/L	
trans-1,2-Dichloroethene	ND	5	ug/L	
1,2-Dichloropropane	ND	5	ug/L	
1,3-Dichloropropane	ND	5	ug/L	
2,2-Dichloropropane	ND	5	ug/L	
1,1-Dichloropropene	ND	5	ug/L	
Ethylbenzene	ND	5	ug/L	
Hexachlorobutadiene	ND	5	ug/L	
Isopropylbenzene	ND	5	ug/L	
p-Isopropyltoluene	ND	5	ug/L	
Methylene chloride	ND	5	ug/L	

METHOD: 8260 Water, Volatile Organics
(continued on next page)



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9807A50-01

Cypress Engineering, Inc.

SAMPLE ID: MW-15

ANALYTICAL DATA (continued)			
PARAMETER	RESULTS	PQL*	UNITS
Naphthalene	ND	5	ug/L
n-Propylbenzene	ND	5	ug/L
Styrene	ND	5	ug/L
1,1,1,2-Tetrachloroethane	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	ND	5	ug/L
1,2,3-Trichlorobenzene	ND	5	ug/L
1,2,4-Trichlorobenzene	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
1,2,3-Trichloropropane	ND	5	ug/L
1,2,4-Trimethylbenzene	ND	5	ug/L
1,3,5-Trimethylbenzene	ND	5	ug/L
Vinyl chloride	ND	10	ug/L
Xylenes (total)	ND	5	ug/L
1,2-Dichloroethene (total)	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Acetone	ND	100	ug/L
2-Butanone	ND	20	ug/L
4-Methyl-2-Pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Carbon Disulfide	ND	5	ug/L
Vinyl Acetate	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
1,2-Dichloroethane-d4	50 ug/L	94	80	120
Toluene-d8	50 ug/L	102	88	110
4-Bromofluorobenzene	50 ug/L	100	86	115

ANALYZED BY: LT

DATE/TIME: 07/25/98 11:57:00

METHOD: 8260 Water, Volatile Organics

NOTES: * - Practical Quantitation Limit

ND - Not Detected

NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.



Certificate of Analysis No. H9-9807A50-02

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

DATE: 08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-14

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/17/98 13:45:00
DATE RECEIVED: 07/21/98

ANALYTICAL DATA				
PARAMETER	RESULTS	DETECTION LIMIT	UNITS	
Chloride Method 325.3 * Analyzed by: AB Date: 08/04/98 09:00:00	557	5	mg/L	
Sulfate Method 375.4 * Analyzed by: TW Date: 08/04/98 10:30:00	700	100	mg/L	
Total Dissolved Solids Method 160.1 * Analyzed by: DS Date: 07/24/98 09:45:00	1800	100	mg/L	
Nitrate-Nitrite, as N Method 353.3 * Analyzed by: DAM Date: 07/31/98 18:00:00	2.8	0.1	mg/L	
Silver, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.01	mg/L	
Arsenic, Total Method 7060A *** Analyzed by: PB Date: 08/03/98 17:49:00	0.011	0.005	mg/L	

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9807A50-02

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

DATE: 08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-14

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/17/98 13:45:00
DATE RECEIVED: 07/21/98

ANALYTICAL DATA			
PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Barium, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	0.021	0.005	mg/L
Cadmium, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.005	mg/L
Chromium, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.01	mg/L
Copper, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.01	mg/L
Iron, Total Method 6010B *** Analyzed by: EG Date: 08/05/98 09:45:00	ND	0.02	mg/L
Mercury, Total Method 7470 A*** Analyzed by: AG Date: 07/28/98 14:28:00	ND	0.0002	mg/L

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.



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8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
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Certificate of Analysis No. H9-9807A50-02

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

DATE: 08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-14

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/17/98 13:45:00
DATE RECEIVED: 07/21/98

ANALYTICAL DATA				
PARAMETER	RESULTS	DETECTION LIMIT	UNITS	
Manganese, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	0.136	0.005	mg/L	
Acid Digestion-Aqueous, ICP Method 3010A *** Analyzed by: EE Date: 07/31/98 09:00:00	07/31/98			
Lead, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.05	mg/L	
Selenium, Total Method 7740 *** Analyzed by: PB Date: 08/04/98 09:11:00	0.010	0.005	mg/L	
Zinc, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.02	mg/L	

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9807A50-02

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-14

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/17/98 13:45:00
DATE RECEIVED: 07/21/98

ANALYTICAL DATA			
PARAMETER	RESULTS	PQL*	UNITS
Benzene	ND	5	ug/L
Bromobenzene	ND	5	ug/L
Bromochloromethane	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
n-Butylbenzene	ND	5	ug/L
sec-Butylbenzene	ND	5	ug/L
tert-Butylbenzene	ND	5	ug/L
Carbon tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chlorodibromomethane	ND	5	ug/L
Chloroethane	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
2-Chlorotoluene	ND	5	ug/L
4-Chlorotoluene	ND	5	ug/L
1,2-Dibromo-3-chloropropane	ND	5	ug/L
1,2-Dibromoethane	ND	5	ug/L
Dibromomethane	ND	5	ug/L
1,2-Dichlorobenzene	ND	5	ug/L
1,3-Dichlorobenzene	ND	5	ug/L
1,4-Dichlorobenzene	ND	5	ug/L
Dichlorodifluoromethane	ND	10	ug/L
1,1-Dichloroethane	26	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
1,3-Dichloropropane	ND	5	ug/L
2,2-Dichloropropane	ND	5	ug/L
1,1-Dichloropropene	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Hexachlorobutadiene	ND	5	ug/L
Isopropylbenzene	ND	5	ug/L
p-Isopropyltoluene	ND	5	ug/L
Methylene chloride	ND	5	ug/L

METHOD: 8260 Water, Volatile Organics
(continued on next page)



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9807A50-02

Cypress Engineering, Inc.

SAMPLE ID: MW-14

ANALYTICAL DATA (continued)			
PARAMETER	RESULTS	PQL*	UNITS
Naphthalene	ND	5	ug/L
n-Propylbenzene	ND	5	ug/L
Styrene	ND	5	ug/L
1,1,1,2-Tetrachloroethane	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	ND	5	ug/L
1,2,3-Trichlorobenzene	ND	5	ug/L
1,2,4-Trichlorobenzene	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	14	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
1,2,3-Trichloropropane	ND	5	ug/L
1,2,4-Trimethylbenzene	ND	5	ug/L
1,3,5-Trimethylbenzene	ND	5	ug/L
Vinyl chloride	ND	10	ug/L
Xylenes (total)	ND	5	ug/L
1,2-Dichloroethene (total)	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Acetone	ND	100	ug/L
2-Butanone	ND	20	ug/L
4-Methyl-2-Pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Carbon Disulfide	ND	5	ug/L
Vinyl Acetate	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
1,2-Dichloroethane-d4	50 ug/L	96	80	120
Toluene-d8	50 ug/L	100	88	110
4-Bromofluorobenzene	50 ug/L	100	86	115

ANALYZED BY: LT

DATE/TIME: 07/25/98 12:24:00

METHOD: 8260 Water, Volatile Organics

NOTES: * - Practical Quantitation Limit

ND - Not Detected

NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.



Certificate of Analysis No. H9-9807A50-03

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

DATE: 08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-17

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/17/98 10:10:00
DATE RECEIVED: 07/21/98

ANALYTICAL DATA				
PARAMETER	RESULTS	DETECTION LIMIT	UNITS	
Chloride Method 325.3 * Analyzed by: AB Date: 08/04/98 09:00:00	578	5	mg/L	
Sulfate Method 375.4 * Analyzed by: TW Date: 08/04/98 10:30:00	30	2	mg/L	
Total Dissolved Solids Method 160.1 * Analyzed by: DS Date: 07/24/98 09:45:00	1500	100	mg/L	
Nitrate-Nitrite, as N Method 353.3 * Analyzed by: DAM Date: 07/31/98 18:00:00	ND	0.1	mg/L	
Silver, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.01	mg/L	
Arsenic, Total Method 7060A *** Analyzed by: PB Date: 08/03/98 17:49:00	0.008	0.005	mg/L	

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9807A50-03

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

DATE: 08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-17

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/17/98 10:10:00
DATE RECEIVED: 07/21/98

ANALYTICAL DATA				
PARAMETER	RESULTS	DETECTION LIMIT	UNITS	
Barium, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	0.070	0.005	mg/L	
Cadmium, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.005	mg/L	
Chromium, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.01	mg/L	
Copper, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.01	mg/L	
Iron, Total Method 6010B *** Analyzed by: EG Date: 08/05/98 09:45:00	0.09	0.02	mg/L	
Mercury, Total Method 7470 A*** Analyzed by: AG Date: 07/28/98 14:28:00	ND	0.0002	mg/L	

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.



Certificate of Analysis No. H9-9807A50-03

HOUSTON LABORATORY
888C INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

DATE: 08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-17

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/17/98 10:10:00
DATE RECEIVED: 07/21/98

ANALYTICAL DATA				
PARAMETER	RESULTS	DETECTION LIMIT	UNITS	
Manganese, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	0.654	0.005	mg/L	
Acid Digestion-Aqueous, ICP Method 3010A *** Analyzed by: EE Date: 07/31/98 09:00:00	07/31/98			
Lead, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.05	mg/L	
Selenium, Total Method 7740 *** Analyzed by: PB Date: 08/04/98 09:11:00	ND	0.005	mg/L	
Zinc, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.02	mg/L	

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.



Certificate of Analysis No. H9-9807A50-03

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-17

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/17/98 10:10:00
DATE RECEIVED: 07/21/98

ANALYTICAL DATA				
PARAMETER	RESULTS	PQL*	UNITS	
Benzene	20	5	ug/L	
Bromobenzene	ND	5	ug/L	
Bromochloromethane	ND	5	ug/L	
Bromodichloromethane	ND	5	ug/L	
Bromoform	ND	5	ug/L	
Bromomethane	ND	10	ug/L	
n-Butylbenzene	ND	5	ug/L	
sec-Butylbenzene	ND	5	ug/L	
tert-Butylbenzene	ND	5	ug/L	
Carbon tetrachloride	ND	5	ug/L	
Chlorobenzene	ND	5	ug/L	
Chlorodibromomethane	ND	5	ug/L	
Chloroethane	ND	10	ug/L	
Chloroform	ND	5	ug/L	
Chloromethane	ND	10	ug/L	
2-Chlorotoluene	ND	5	ug/L	
4-Chlorotoluene	ND	5	ug/L	
1,2-Dibromo-3-chloropropane	ND	5	ug/L	
1,2-Dibromoethane	ND	5	ug/L	
Dibromomethane	ND	5	ug/L	
1,2-Dichlorobenzene	ND	5	ug/L	
1,3-Dichlorobenzene	ND	5	ug/L	
1,4-Dichlorobenzene	ND	5	ug/L	
Dichlorodifluoromethane	ND	10	ug/L	
1,1-Dichloroethane	88	5	ug/L	
1,2-Dichloroethane	ND	5	ug/L	
1,1-Dichloroethene	ND	5	ug/L	
cis-1,2-Dichloroethene	31	5	ug/L	
trans-1,2-Dichloroethene	ND	5	ug/L	
1,2-Dichloropropane	ND	5	ug/L	
1,3-Dichloropropane	ND	5	ug/L	
2,2-Dichloropropane	ND	5	ug/L	
1,1-Dichloropropene	ND	5	ug/L	
Ethylbenzene	ND	5	ug/L	
Hexachlorobutadiene	ND	5	ug/L	
Isopropylbenzene	ND	5	ug/L	
p-Isopropyltoluene	ND	5	ug/L	
Methylene chloride	ND	5	ug/L	

METHOD: 8260 Water, Volatile Organics
(continued on next page)



Certificate of Analysis No. H9-9807A50-03

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Cypress Engineering, Inc.

SAMPLE ID: MW-17

PARAMETER	ANALYTICAL DATA (continued)		UNITS
	RESULTS	PQL*	
Naphthalene	ND	5	ug/L
n-Propylbenzene	ND	5	ug/L
Styrene	ND	5	ug/L
1,1,1,2-Tetrachloroethane	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	ND	5	ug/L
1,2,3-Trichlorobenzene	ND	5	ug/L
1,2,4-Trichlorobenzene	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	52	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
1,2,3-Trichloropropane	ND	5	ug/L
1,2,4-Trimethylbenzene	ND	5	ug/L
1,3,5-Trimethylbenzene	ND	5	ug/L
Vinyl chloride	ND	10	ug/L
Xylenes (total)	ND	5	ug/L
1,2-Dichloroethene (total)	31	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Acetone	ND	100	ug/L
2-Butanone	ND	20	ug/L
4-Methyl-2-Pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Carbon Disulfide	ND	5	ug/L
Vinyl Acetate	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L

SURROGATES	AMOUNT	%	LOWER	UPPER
	SPIKED	RECOVERY	LIMIT	LIMIT
1,2-Dichloroethane-d4	50 ug/L	96	80	120
Toluene-d8	50 ug/L	102	88	110
4-Bromofluorobenzene	50 ug/L	102	86	115

ANALYZED BY: LT

DATE/TIME: 07/25/98 12:51:00

METHOD: 8260 Water, Volatile Organics

NOTES: * - Practical Quantitation Limit

ND - Not Detected

NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9807A50-04

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

DATE: 08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-5

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/17/98 17:05:00
DATE RECEIVED: 07/21/98

ANALYTICAL DATA				
PARAMETER	RESULTS	DETECTION LIMIT	UNITS	
Chloride Method 325.3 * Analyzed by: AB Date: 08/04/98 09:00:00	281	5	mg/L	
Sulfate Method 375.4 * Analyzed by: TW Date: 08/04/98 10:30:00	3	2	mg/L	
Total Dissolved Solids Method 160.1 * Analyzed by: DS Date: 07/24/98 09:45:00	1600	100	mg/L	
Nitrate-Nitrite, as N Method 353.3 * Analyzed by: DAM Date: 07/31/98 18:00:00	ND	0.1	mg/L	
Silver, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.01	mg/L	
Arsenic, Total Method 7060A *** Analyzed by: PB Date: 08/03/98 17:49:00	0.020	0.005	mg/L	

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.



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Certificate of Analysis No. H9-9807A50-04

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

DATE: 08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-5

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/17/98 17:05:00
DATE RECEIVED: 07/21/98

ANALYTICAL DATA				
PARAMETER	RESULTS	DETECTION LIMIT	UNITS	
Barium, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	13.7	0.005	mg/L	
Cadmium, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.005	mg/L	
Chromium, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.01	mg/L	
Copper, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.01	mg/L	
Iron, Total Method 6010B *** Analyzed by: EG Date: 08/05/98 09:45:00	4.61	0.02	mg/L	
Mercury, Total Method 7470 A*** Analyzed by: AG Date: 07/28/98 14:28:00	ND	0.0002	mg/L	

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.



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Certificate of Analysis No. H9-9807A50-04

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

DATE: 08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-5

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/17/98 17:05:00
DATE RECEIVED: 07/21/98

ANALYTICAL DATA				
PARAMETER	RESULTS	DETECTION LIMIT	UNITS	
Manganese, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	0.018	0.005	mg/L	
Acid Digestion-Aqueous, ICP Method 3010A *** Analyzed by: EE Date: 07/31/98 09:00:00	07/31/98			
Lead, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.05	mg/L	
Selenium, Total Method 7740 *** Analyzed by: PB Date: 08/04/98 09:11:00	ND	0.005	mg/L	
Zinc, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.02	mg/L	

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9807A50-04

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-5

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/17/98 17:05:00
DATE RECEIVED: 07/21/98

ANALYTICAL DATA			
PARAMETER	RESULTS	PQL*	UNITS
Benzene	21	5	ug/L
Bromobenzene	ND	5	ug/L
Bromochloromethane	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
n-Butylbenzene	ND	5	ug/L
sec-Butylbenzene	ND	5	ug/L
tert-Butylbenzene	ND	5	ug/L
Carbon tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chlorodibromomethane	ND	5	ug/L
Chloroethane	16	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
2-Chlorotoluene	ND	5	ug/L
4-Chlorotoluene	ND	5	ug/L
1,2-Dibromo-3-chloropropane	ND	5	ug/L
1,2-Dibromoethane	ND	5	ug/L
Dibromomethane	ND	5	ug/L
1,2-Dichlorobenzene	ND	5	ug/L
1,3-Dichlorobenzene	ND	5	ug/L
1,4-Dichlorobenzene	ND	5	ug/L
Dichlorodifluoromethane	ND	10	ug/L
1,1-Dichloroethane	110	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	6	5	ug/L
cis-1,2-Dichloroethene	100	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
1,3-Dichloropropane	ND	5	ug/L
2,2-Dichloropropane	ND	5	ug/L
1,1-Dichloropropene	ND	5	ug/L
Ethylbenzene	5	5	ug/L
Hexachlorobutadiene	ND	5	ug/L
Isopropylbenzene	ND	5	ug/L
p-Isopropyltoluene	ND	5	ug/L
Methylene chloride	ND	5	ug/L

METHOD: 8260 Water, Volatile Organics
(continued on next page)



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9807A50-04

Cypress Engineering, Inc.

SAMPLE ID: MW-5

ANALYTICAL DATA (continued)			
PARAMETER	RESULTS	PQL*	UNITS
Naphthalene	7	5	ug/L
n-Propylbenzene	ND	5	ug/L
Styrene	ND	5	ug/L
1,1,1,2-Tetrachloroethane	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	10	5	ug/L
1,2,3-Trichlorobenzene	ND	5	ug/L
1,2,4-Trichlorobenzene	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	91	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
1,2,3-Trichloropropane	ND	5	ug/L
1,2,4-Trimethylbenzene	6	5	ug/L
1,3,5-Trimethylbenzene	ND	5	ug/L
Vinyl chloride	ND	10	ug/L
Xylenes (total)	17	5	ug/L
1,2-Dichloroethene (total)	100	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Acetone	ND	100	ug/L
2-Butanone	ND	20	ug/L
4-Methyl-2-Pentanone	47	10	ug/L
2-Hexanone	ND	10	ug/L
Carbon Disulfide	ND	5	ug/L
Vinyl Acetate	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
1,2-Dichloroethane-d4	50 ug/L	90	80	120
Toluene-d8	50 ug/L	100	88	110
4-Bromofluorobenzene	50 ug/L	102	86	115

ANALYZED BY: LT

DATE/TIME: 07/25/98 13:17:00

METHOD: 8260 Water, Volatile Organics

NOTES: * - Practical Quantitation Limit

ND - Not Detected

NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.



Certificate of Analysis No. H9-9807A50-05

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

DATE: 08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-8

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/17/98 15:55:00
DATE RECEIVED: 07/21/98

ANALYTICAL DATA				
PARAMETER	RESULTS	DETECTION LIMIT	UNITS	
Chloride Method 325.3 * Analyzed by: AB Date: 08/04/98 09:00:00	557	5	mg/L	
Sulfate Method 375.4 * Analyzed by: TW Date: 08/04/98 10:30:00	400	100	mg/L	
Total Dissolved Solids Method 160.1 * Analyzed by: DS Date: 07/24/98 09:45:00	1500	100	mg/L	
Nitrate-Nitrite, as N Method 353.3 * Analyzed by: DAM Date: 07/31/98 18:00:00	ND	0.1	mg/L	
Silver, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.01	mg/L	
Arsenic, Total Method 7060A *** Analyzed by: PB Date: 08/03/98 17:49:00	0.008	0.005	mg/L	

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9807A50-05

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

DATE: 08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-8

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/17/98 15:55:00
DATE RECEIVED: 07/21/98

ANALYTICAL DATA				
PARAMETER	RESULTS	DETECTION LIMIT	UNITS	
Barium, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	0.063	0.005	mg/L	
Cadmium, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.005	mg/L	
Chromium, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.01	mg/L	
Copper, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.01	mg/L	
Iron, Total Method 6010B *** Analyzed by: EG Date: 08/05/98 09:45:00	0.03	0.02	mg/L	
Mercury, Total Method 7470 A*** Analyzed by: AG Date: 07/28/98 14:28:00	ND	0.0002	mg/L	

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.

**HOUSTON LABORATORY**8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9807A50-05

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

DATE: 08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-8PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/17/98 15:55:00
DATE RECEIVED: 07/21/98

ANALYTICAL DATA		RESULTS	DETECTION LIMIT	UNITS
PARAMETER				
Manganese, Total		0.506	0.005	mg/L
Method 6010B ***				
Analyzed by: EG				
Date: 08/03/98 10:40:00				
Acid Digestion-Aqueous, ICP		07/31/98		
Method 3010A ***				
Analyzed by: EE				
Date: 07/31/98 09:00:00				
Lead, Total		ND	0.05	mg
Method 6010B ***				
Analyzed by: EG				
Date: 08/03/98 10:40:00				
Selenium, Total		ND	0.005	mg/L
Method 7740 ***				
Analyzed by: PB				
Date: 08/04/98 09:11:00				
Zinc, Total		ND	0.02	mg/L
Method 6010B ***				
Analyzed by: EG				
Date: 08/03/98 10:40:00				

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
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Certificate of Analysis No. H9-9807A50-05

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-8

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/17/98 15:55:00
DATE RECEIVED: 07/21/98

ANALYTICAL DATA			
PARAMETER	RESULTS	PQL*	UNITS
Benzene	20	5	ug/L
Bromobenzene	ND	5	ug/L
Bromochloromethane	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
n-Butylbenzene	ND	5	ug/L
sec-Butylbenzene	ND	5	ug/L
tert-Butylbenzene	ND	5	ug/L
Carbon tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chlorodibromomethane	ND	5	ug/L
Chloroethane	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
2-Chlorotoluene	ND	5	ug/L
4-Chlorotoluene	ND	5	ug/L
1,2-Dibromo-3-chloropropane	ND	5	ug/L
1,2-Dibromoethane	ND	5	ug/L
Dibromomethane	ND	5	ug/L
1,2-Dichlorobenzene	ND	5	ug/L
1,3-Dichlorobenzene	ND	5	ug/L
1,4-Dichlorobenzene	ND	5	ug/L
Dichlorodifluoromethane	ND	10	ug/L
1,1-Dichloroethane	91	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
cis-1,2-Dichloroethene	32	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
1,3-Dichloropropane	ND	5	ug/L
2,2-Dichloropropane	ND	5	ug/L
1,1-Dichloropropene	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Hexachlorobutadiene	ND	5	ug/L
Isopropylbenzene	ND	5	ug/L
p-Isopropyltoluene	ND	5	ug/L
Methylene chloride	ND	5	ug/L

METHOD: 8260 Water, Volatile Organics
(continued on next page)



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9807A50-05

Cypress Engineering, Inc.

SAMPLE ID: MW-8

ANALYTICAL DATA (continued)

PARAMETER	RESULTS	PQL*	UNITS
Naphthalene	ND	5	ug/L
n-Propylbenzene	ND	5	ug/L
Styrene	ND	5	ug/L
1,1,1,2-Tetrachloroethane	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	ND	5	ug/L
1,2,3-Trichlorobenzene	ND	5	ug/L
1,2,4-Trichlorobenzene	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	51	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
1,2,3-Trichloropropane	ND	5	ug/L
1,2,4-Trimethylbenzene	ND	5	ug/L
1,3,5-Trimethylbenzene	ND	5	ug/L
Vinyl chloride	ND	10	ug/L
Xylenes (total)	ND	5	ug/L
1,2-Dichloroethene (total)	32	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Acetone	ND	100	ug/L
2-Butanone	ND	20	ug/L
4-Methyl-2-Pentanone	ND	10	ug/L
2-Hexanone	ND	10	ug/L
Carbon Disulfide	ND	5	ug/L
Vinyl Acetate	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
1,2-Dichloroethane-d4	50 ug/L	96	80	120
Toluene-d8	50 ug/L	102	88	110
4-Bromofluorobenzene	50 ug/L	102	86	115

ANALYZED BY: LT

DATE/TIME: 07/28/98 15:56:00

METHOD: 8260 Water, Volatile Organics

NOTES: * - Practical Quantitation Limit

ND - Not Detected

NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.



Certificate of Analysis No. H9-9807A50-06

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

DATE: 08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-1

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/17/98 18:40:00
DATE RECEIVED: 07/21/98

ANALYTICAL DATA				
PARAMETER	RESULTS	DETECTION LIMIT	UNITS	
Chloride Method 325.3 * Analyzed by: AB Date: 08/04/98 09:00:00	156	5	mg/L	
Sulfate Method 375.4 * Analyzed by: TW Date: 08/04/98 10:30:00	9	2	mg/L	
Total Dissolved Solids Method 160.1 * Analyzed by: DS Date: 07/24/98 09:45:00	2200	100	mg/L	
Nitrate-Nitrite, as N Method 353.3 * Analyzed by: DAM Date: 07/31/98 18:00:00	ND	0.1	mg/L	
Silver, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.01	mg/L	
Arsenic, Total Method 7060A *** Analyzed by: PB Date: 08/04/98 09:13:00	0.15	0.01	mg/L	

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.



Certificate of Analysis No. H9-9807A50-06

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

DATE: 08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-1

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/17/98 18:40:00
DATE RECEIVED: 07/21/98

ANALYTICAL DATA				
PARAMETER	RESULTS	DETECTION LIMIT	UNITS	
Barium, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	32.2	0.005	mg/L	
Cadmium, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.005	mg/L	
Chromium, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.01	mg/L	
Copper, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.01	mg/L	
Iron, Total Method 6010B *** Analyzed by: EG Date: 08/05/98 09:45:00	15.1	0.02	mg/L	
Mercury, Total Method 7470 A*** Analyzed by: AG Date: 07/28/98 14:28:00	ND	0.0002	mg/L	

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9807A50-06

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

DATE: 08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-1

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/17/98 18:40:00
DATE RECEIVED: 07/21/98

ANALYTICAL DATA				
PARAMETER	RESULTS	DETECTION LIMIT	UNITS	
Manganese, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	0.023	0.005	mg/L	
Acid Digestion-Aqueous, ICP Method 3010A *** Analyzed by: EE Date: 07/31/98 09:00:00	07/31/98			
Lead, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.05	mg/L	
Selenium, Total Method 7740 *** Analyzed by: PB Date: 08/04/98 09:11:00	ND	0.005	mg/L	
Zinc, Total Method 6010B *** Analyzed by: EG Date: 08/03/98 10:40:00	ND	0.02	mg/L	

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.



Certificate of Analysis No. H9-9807A50-06

HOUSTON LABORATORY
888C INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-1

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/17/98 18:40:00
DATE RECEIVED: 07/21/98

ANALYTICAL DATA				
PARAMETER	RESULTS	PQL*	UNITS	
Benzene	15	5	ug/L	
Bromobenzene	ND	5	ug/L	
Bromochloromethane	ND	5	ug/L	
Bromodichloromethane	ND	5	ug/L	
Bromoform	ND	5	ug/L	
Bromomethane	ND	10	ug/L	
n-Butylbenzene	ND	5	ug/L	
sec-Butylbenzene	ND	5	ug/L	
tert-Butylbenzene	ND	5	ug/L	
Carbon tetrachloride	ND	5	ug/L	
Chlorobenzene	ND	5	ug/L	
Chlorodibromomethane	ND	5	ug/L	
Chloroethane	ND	10	ug/L	
Chloroform	ND	5	ug/L	
Chloromethane	ND	10	ug/L	
2-Chlorotoluene	ND	5	ug/L	
4-Chlorotoluene	ND	5	ug/L	
1,2-Dibromo-3-chloropropane	ND	5	ug/L	
1,2-Dibromoethane	ND	5	ug/L	
Dibromomethane	ND	5	ug/L	
1,2-Dichlorobenzene	ND	5	ug/L	
1,3-Dichlorobenzene	ND	5	ug/L	
1,4-Dichlorobenzene	ND	5	ug/L	
Dichlorodifluoromethane	ND	10	ug/L	
1,1-Dichloroethane	820	100	ug/L	
1,2-Dichloroethane	8	5	ug/L	
1,1-Dichloroethene	12	5	ug/L	
cis-1,2-Dichloroethene	ND	5	ug/L	
trans-1,2-Dichloroethene	ND	5	ug/L	
1,2-Dichloropropane	ND	5	ug/L	
1,3-Dichloropropane	ND	5	ug/L	
2,2-Dichloropropane	ND	8 5	ug/L	
1,1-Dichloropropene	ND	5	ug/L	
Ethylbenzene	8	5	ug/L	
Hexachlorobutadiene	ND	5	ug/L	
Isopropylbenzene	ND	5	ug/L	
p-Isopropyltoluene	ND	5	ug/L	
Methylene chloride	330	100	ug/L	

METHOD: 8260 Water, Volatile Organics
(continued on next page)



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9807A50-06

Cypress Engineering, Inc.

SAMPLE ID: MW-1

ANALYTICAL DATA (continued)			
PARAMETER	RESULTS	PQL*	UNITS
Naphthalene	13	5	ug/L
n-Propylbenzene	ND	5	ug/L
Styrene	ND	5	ug/L
1,1,1,2-Tetrachloroethane	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	14	5	ug/L
Toluene	93	5	ug/L
1,2,3-Trichlorobenzene	ND	5	ug/L
1,2,4-Trichlorobenzene	ND	5	ug/L
1,1,1-Trichloroethane	93	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	21	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
1,2,3-Trichloropropane	ND	5	ug/L
1,2,4-Trimethylbenzene	32	5	ug/L
1,3,5-Trimethylbenzene	11	5	ug/L
Vinyl chloride	ND	10	ug/L
Xylenes (total)	97	5	ug/L
1,2-Dichloroethene (total)	ND	5	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Acetone	J 1400	2000	ug/L
2-Butanone	98	20	ug/L
4-Methyl-2-Pentanone	1800	200	ug/L
2-Hexanone	18	10	ug/L
Carbon Disulfide	ND	5	ug/L
Vinyl Acetate	ND	10	ug/L
2-Chloroethylvinylether	ND	10	ug/L

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
1,2-Dichloroethane-d4	50 ug/L	102	80	120
Toluene-d8	50 ug/L	104	88	110
4-Bromofluorobenzene	50 ug/L	102	86	115

ANALYZED BY: LT

DATE/TIME: 07/28/98 16:22:00

METHOD: 8260 Water, Volatile Organics

NOTES: * - Practical Quantitation Limit

ND - Not Detected

NA - Not Analyzed

J - Estimated value.

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

QUALITY CONTROL
DOCUMENTATION

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SPL

Contract:

Lab Code:

Case No.: 9807908 SAS No.:

SDG No.:

Matrix Spike - EPA Sample No.: PW-2D

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
=====	=====	=====	=====	=====	=====
1,1-Dichloroethene	50	0	41	82	61-145
Trichloroethene	50	0	45	90	71-120
Benzene	50	0	48	96	76-127
Toluene	50	0	44	88	76-125
Chlorobenzene	50	0	46	92	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS	
=====	=====	=====	=====	=====	=====	=====
1,1-Dichloroethene	50	35	70	16*	14	61-145
Trichloroethene	50	40	80	12	14	71-120
Benzene	50	44	88	9	11	76-127
Toluene	50	41	82	7	13	76-125
Chlorobenzene	50	42	84	9	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits, per method recoveries are advisory only

RPD: 1 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

Report Date: 27-Jul-1998 15:24

SPL Houston Labs

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: METHSPIKE-8260W/1X
Level: LOW

Client SDG: 1980724

Fraction: VOA

Data Type: MS DATA

Operator: LT

SpikeList File: 8260_water.spk

SampleType: METHSPIKE

Sublist File: 8260_lcs.sub

Quant Type: ISTD

Method File: /var/chem/1.i/1980724a.b/18260aw.m

Misc Info: L205W2//L205CW3

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
8 1,1-Dichloroethene	50	52	104.00	61-145
29 Trichloroethene	50	52	104.00	71-120
25 Benzene	50	53	106.00	76-127
37 Toluene	50	51	102.00	76-125
45 Chlorobenzene	50	49	98.00	75-130

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 21 1,2-Dichloroethane	50	49	98.00	80-120
\$ 36 Toluene-d8	50	51	102.00	88-110
\$ 56 Bromofluorobenzene	50	50	100.00	86-115

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SPL

Contract:

Lab Code:

Case No.: 9807C61 SAS No.:

SDG No.:

Matrix Spike - EPA Sample No.: W072498-MF-001

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
=====	=====	=====	=====	=====	=====
1,1-Dichloroethene	50	0	54	108	61-145
Trichloroethene	50	0	51	102	71-120
Benzene	50	0	54	108	76-127
Toluene	50	0	52	104	76-125
Chlorobenzene	50	0	48	96	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
=====	=====	=====	=====	=====	=====	=====
1,1-Dichloroethene	50	52	104	4	14	61-145
Trichloroethene	50	50	100	2	14	71-120
Benzene	50	53	106	2	11	76-127
Toluene	50	50	100	4	13	76-125
Chlorobenzene	50	48	96	0	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits due to matrix interference

RPD: 0 out of 5 outside limits

Spike Recovery: 0 out of 10 outside limits

SPL Houston Labs

RECOVERY REPORT

Client Name: Client SDG: 1980728
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id: METHSPIKE-8260W/1X Client Smp ID: LCS
Level: LOW Operator: LT
Data Type: MS DATA SampleType: METHSPIKE
SpikeList File: 8260_water.spk Quant Type: ISTD
Sublist File: 8260_lcs.sub
Method File: /var/chem/l.i/1980728.b/l8260aw.m
Misc Info: L209W1//L209CW1

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
8 1,1-Dichloroethene	50	43	86.00	61-145
29 Trichloroethene	50	46	92.00	71-120
25 Benzene	50	49	98.00	76-127
37 Toluene	50	47	94.00	76-125
45 Chlorobenzene	50	45	90.00	75-130

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 21 1,2-Dichloroethane	50	50	100.00	80-120
\$ 36 Toluene-d8	50	52	104.00	88-110
\$ 56 Bromofluorobenzene	50	49	98.00	86-115



SPL Blank QC Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 568-0901

1

Matrix: Aqueous
Sample ID: VLBLK
Batch: L980724104646

Reported on: 07/30/98 15:13
Analyzed on: 07/25/98 03:49
Analyst: LT

METHOD 8260/8240 L205B04

Compound	Result	Detection Limit	Units
Dichlorodifluoromethane	ND	10	ug/L
Chloromethane	ND	10	ug/L
Vinyl Chloride	ND	10	ug/L
Bromomethane	ND	10	ug/L
Chloroethane	ND	10	ug/L
Trichlorofluoromethane	ND	5	ug/L
Acetone	ND	100	ug/L
1,1-Dichloroethene	ND	5	ug/L
Methylene Chloride	ND	5	ug/L
Carbon Disulfide	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
Vinyl Acetate	ND	10	ug/L
2-Butanone	ND	20	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloroethene (total)	ND	5	ug/L
2,2-Dichloropropane	ND	5	ug/L
Bromochloromethane	ND	5	ug/L
Chloroform	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloropropene	ND	5	ug/L
Benzene	ND	5	ug/L
Carbon Tetrachloride	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Dibromomethane	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
2-Chloroethylvinylether	ND	10	ug/L
4-Methyl-2-Pentanone	ND	10	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L

Notes

ND - Not detected.



SPL Blank QC Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Matrix: Aqueous.
Sample ID: VLBLK
Batch: L980724104646

Reported on: 07/30/98 15:13
Analyzed on: 07/25/98 03:49
Analyst: LT

METHOD 8260/8240 L205B04

Compound	Result	Detection Limit	Units
1,3-Dichloropropane	ND	5	ug/L
2-Hexanone	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,2-Dibromoethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
1,1,1,2-Tetrachloroethane	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Bromoform	ND	5	ug/L
Styrene	ND	5	ug/L
Xylene (Total)	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
1,2,3-Trichloropropane	ND	5	ug/L
Isopropylbenzene	ND	5	ug/L
Bromobenzene	ND	5	ug/L
N-Propylbenzene	ND	5	ug/L
2-Chlorotoluene	ND	5	ug/L
4-Chlorotoluene	ND	5	ug/L
1,3,5-Trimethylbenzene	ND	5	ug/L
tert-Butylbenzene	ND	5	ug/L
1,2,4-Trimethylbenzene	ND	5	ug/L
1,3-Dichlorobenzene	ND	5	ug/L
sec-Butylbenzene	ND	5	ug/L
1,4-Dichlorobenzene	ND	5	ug/L
p-Isopropyltoluene	ND	5	ug/L
1,2-Dichlorobenzene	ND	5	ug/L
n-Butylbenzene	ND	5	ug/L
1,2-Dibromo-3-Chloropropan	ND	5	ug/L
1,2,4-Trichlorobenzene	ND	5	ug/L
Naphthalene	ND	5	ug/L
Hexachlorobutadiene	ND	5	ug/L
1,2,3-Trichlorobenzene	ND	5	ug/L

Notes

ND - Not detected.



SPL Blank QC Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 684-9800

3

Matrix: Aqueous
Sample ID: VLBLK
Batch: L980724104646

Reported on: 07/30/98 15:13
Analyzed on: 07/25/98 03:49
Analyst: LT

METHOD 8260/8240 L205B04

Surrogate	Result	QC Criteria	Units
1,2-Dichloroethane-d4	96	80-120	% Recovery
Toluene-d8	104	88-110	% Recovery
Bromofluorobenzene	100	86-115	% Recovery

Samples in Batch 9807A50-01 9807A50-02 9807A50-03 9807A50-04

Notes

ND - Not detected.



SPL Blank QC Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 582-9661

Matrix: Aqueous
Sample ID: VLBLK
Batch: L980728104642

Reported on: 07/30/98 15:13
Analyzed on: 07/28/98 10:33
Analyst: LT

METHOD 8260/8240 L209B02

Compound	Result	Detection Limit	Units
Dichlorodifluoromethane	ND	10	ug/L
Chloromethane	ND	10	ug/L
Vinyl Chloride	ND	10	ug/L
Bromomethane	ND	10	ug/L
Chloroethane	ND	10	ug/L
Trichlorofluoromethane	ND	5	ug/L
Acetone	ND	100	ug/L
1,1-Dichloroethene	ND	5	ug/L
Methylene Chloride	ND	5	ug/L
Carbon Disulfide	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
Vinyl Acetate	ND	10	ug/L
2-Butanone	ND	20	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloroethene (total)	ND	5	ug/L
2,2-Dichloropropane	ND	5	ug/L
Bromochloromethane	ND	5	ug/L
Chloroform	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloropropene	ND	5	ug/L
Benzene	ND	5	ug/L
Carbon Tetrachloride	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Dibromomethane	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
2-Chloroethylvinylether	ND	10	ug/L
4-Methyl-2-Pentanone	ND	10	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L

Notes

ND - Not detected.



SPL Blank QC Report

HOUSTON LABORATORY

8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 669-0901

5

Matrix: Aqueous
Sample ID: VLBLK
Batch: L980728104642

Reported on: 07/30/98 15:13

Analyzed on: 07/28/98 10:33

Analyst: LT

METHOD 8260/8240 L209B02

Compound	Result	Detection Limit	Units
1,3-Dichloropropane	ND	5	ug/L
2-Hexanone	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,2-Dibromoethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
1,1,1,2-Tetrachloroethane	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Bromoform	ND	5	ug/L
Styrene	ND	5	ug/L
Xylene (Total)	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
1,2,3-Trichloropropane	ND	5	ug/L
Isopropylbenzene	ND	5	ug/L
Bromobenzene	ND	5	ug/L
N-Propylbenzene	ND	5	ug/L
2-Chlorotoluene	ND	5	ug/L
4-Chlorotoluene	ND	5	ug/L
1,3,5-Trimethylbenzene	ND	5	ug/L
tert-Butylbenzene	ND	5	ug/L
1,2,4-Trimethylbenzene	ND	5	ug/L
1,3-Dichlorobenzene	ND	5	ug/L
sec-Butylbenzene	ND	5	ug/L
1,4-Dichlorobenzene	ND	5	ug/L
p-Isopropyltoluene	ND	5	ug/L
1,2-Dichlorobenzene	ND	5	ug/L
n-Butylbenzene	ND	5	ug/L
1,2-Dibromo-3-Chloropropan	ND	5	ug/L
1,2,4-Trichlorobenzene	ND	5	ug/L
Naphthalene	ND	5	ug/L
Hexachlorobutadiene	ND	5	ug/L
1,2,3-Trichlorobenzene	ND	5	ug/L

Notes

ND - Not detected.



SPL Blank QC Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 558-0961

Matrix: Aqueous
Sample ID: VLBLK
Batch: L980728104642

Reported on: 07/30/98 15:13
Analyzed on: 07/28/98 10:33
Analyst: LT

METHOD 8260/8240 L209B02

Surrogate	Result	QC Criteria	Units
1,2-Dichloroethane-d4	98	80-120	% Recovery
Toluene-d8	100	88-110	% Recovery
Bromofluorobenzene	102	86-115	% Recovery

Samples in Batch 9807A50-05 9807A50-06

Notes

ND - Not detected.

ICP Spectroscopy Method 6010 Quality Control Report

Analyst: EG



Matrix: Water

Units: mg/L

Date:080398 Time:1040 File Name: 080398M7

HOUSTON LABORATORY

 8880 INTERCHANGE DRIVE
 HOUSTON, TEXAS 77054
 PHONE (713) 660-0901

Laboratory Control Sample

Element	Mth. Blank	True Value	Result	% Recovery	Lower Limit	Upper Limit
Silver	ND	2.00	2.02	101	1.60	2.40
Aluminum						
Arsenic						
Barium	ND	2.00	2.02	101	1.60	2.40
Beryllium						
Calcium						
Cadmium	ND	2.00	2.07	103	1.60	2.40
Cobalt						
Chromium	ND	2.00	2.04	102	1.60	2.40
Copper	ND	2.00	2.07	103	1.60	2.40
Iron						
Potassium						
Magnesium						
Manganese	ND	2.00	2.04	102	1.60	2.40
Sodium						
Nickel						
Lead	ND	2.00	2.05	102	1.60	2.40
Antimony						
Selenium						
Thallium						
Vanadium						
Zinc	ND	2.00	2.11	106	1.60	2.40

Work Orders in Batch

Work Order Fractions

98-07-A50 01D-06D

98-07-B98 01E-05E

Matrix Spike - Spike Duplicate Results

Work Order Spiked: 9807A50-01D

Element	Sample Result	Spike Added	Matrix Spike Result	Matrix Spike Recovery	Matrix Spike Duplicate Result	Matrix Spike Duplicate Recovery	QC Limits % Recovery	Spike RPD %	QC Limits %
Silver	ND	1.0	0.9276	92.8	0.9266	92.7	80 120	0.1	20.0
Aluminum									
Arsenic									
Barium	0.0183	1.0	0.9873	96.9	0.9438	92.6	80 120	4.6	20.0
Beryllium									
Calcium									
Cadmium	ND	1.0	0.9606	96.1	0.9606	96.1	80 120	0.0	20.0
Cobalt									
Chromium	ND	1.0	0.915	91.5	0.9151	91.5	80 120	0.0	20.0
Copper	ND	1.0	0.9613	96.1	0.9545	95.5	80 120	0.7	20.0
Iron									
Potassium									
Magnesium									
Manganese	ND	1.0	0.9235	92.4	0.9205	92.1	80 120	0.3	20.0
Sodium									
Nickel									
Lead	ND	1.0	0.9165	91.7	0.9238	92.4	80 120	0.8	20.0
Antimony									
Selenium									
Thallium									
Vanadium									
Zinc	ND	1.0	0.9884	98.8	0.9799	98.0	80 120	0.9	20.0

Checked: MX 8/4/98

ICP Spectroscopy Method 6010 Quality Control Report

Analyst: EG



Matrix: Water

Units: mg/L

Date:080598 Time:0945 File Name: 080598M4

HOUSTON LABORATORY
8860 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Laboratory Control Sample

Element	Mth. Blank	True Value	Result	% Recovery	Lower Limit	Upper Limit
Silver						
Aluminum						
Arsenic						
Barium						
Beryllium						
Calcium						
Cadmium						
Cobalt						
Chromium						
Copper						
Iron	ND	2.00	2.03	101	1.60	2.40
Potassium						
Magnesium						
Manganese						
Sodium						
Nickel						
Lead						
Antimony						
Selenium						
Thallium						
Vanadium						
Zinc						

Work Orders in Batch

Work Order Fractions

98-07-A50 01D-06D

Matrix Spike - Spike Duplicate Results

Work Order Spiked: 9807C77-01C

Element	Sample Result	Spike Added	Matrix Spike Result	Matrix Spike Recovery	Matrix Spike Duplicate Result	Matrix Spike Duplicate Recovery	QC Limits % Recovery	Spike RPD %	QC Limits %
Silver									
Aluminum									
Arsenic									
Barium									
Beryllium									
Calcium									
Cadmium									
Cobalt									
Chromium									
Copper									
Iron	2.338	1.0	3.258	92.0	3.245	90.7	80 120	1.4	20.0
Potassium									
Magnesium									
Manganese									
Sodium									
Nickel									
Lead									
Antimony									
Selenium									
Thallium									
Vanadium									
Zinc									

Elements Post Spiked: Fe.

Checked: *MX* 8/6/98



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

** SPL QUALITY CONTROL REPORT **

Matrix: Aqueous

Reported on: 08/03/98

Analyzed on: 08/03/98

Analyst: PB

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Arsenic, Total
Method 7060A ***

SPL Sample ID Number	Blank Value ug/L	LCS Concentration ug/L	Measured Concentration ug/L	% Recovery	QC Limits Recovery
LCS	ND	40.0	38.54	96.4	80 - 120

-9808130

mples in batch:

9807A50-01D	9807A50-02D	9807A50-03D	9807A50-04D
9807A50-05D	9807B98-01E	9807B98-02E	9807B98-03E
9807B98-04E	9807B98-05E		

COMMENTS:

LCS= SPL ID# 98-1034-12-12



**** SPL QUALITY CONTROL REPORT ****

HOUSTON LABORATORY
8883 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Matrix: Aqueous

Reported on: 08/03/98
Analyzed on: 08/03/98
Analyst: PB

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Arsenic, Total
Method 7060A ***

SPL Sample	Method	Sample	Spike	Matrix Spike		Matrix Spike Duplicate		RPD	QC LIMITS (Advisory)	
ID Number	Blank ug/L	Result ug/L	Added ug/L	Result ug/L	Recovery %	Result ug/L	Recovery %	(%)	RPD Max	% REC
9807A50-02D	ND	10.93	40.00	52.30	103	51.24	101	2.0	20	75 -125

-9808130

Samples in batch:

9807A50-01D	9807A50-02D	9807A50-03D	9807A50-04D
9807A50-05D	9807B98-01E	9807B98-02E	9807B98-03E
9807B98-04E	9807B98-05E		

COMMENTS:

LCS= SPL ID# 98-1034-12-12



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

** SPL QUALITY CONTROL REPORT **

Matrix: Aqueous

Reported on: 08/04/98

Analyzed on: 08/04/98

Analyst: PB

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Arsenic, Total
Method 7060A ***

SPL Sample ID Number	Blank Value ug/L	LCS Concentration ug/L	Measured Concentration ug/L	% Recovery	QC Limits Recovery
LCS	ND	40.0	38.3	95.8	80 - 120

-9808140

Samples in batch:

9807A50-06D

COMMENTS:

LCS= SPL ID# 98-1034-12-12



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

** SPL QUALITY CONTROL REPORT **

Matrix: Aqueous

Reported on: 08/04/98
Analyzed on: 08/04/98
Analyst: PB

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Arsenic, Total
Method 7060A ***

SPL Sample	Method	Sample	Spike	Matrix Spike		Matrix Spike Duplicate		RPD	QC LIMITS (Advisory)		
ID Number	Blank ug/L	Result ug/L	Added ug/L	Result ug/L	Recovery %	Result ug/L	Recovery %	(%)	RPD Max	% REC	
9807A50-02D	ND	8.0	40.0	45.7	94.2	46.8	97.0	2.9	20	75	-125

-9808140

Samples in batch:

9807A50-06D

COMMENTS:

LCS= SPL ID# 98-1034-12-12



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

** SPL QUALITY CONTROL REPORT **

Matrix: Aqueous

Reported on: 07/28/98

Analyzed on: 07/28/98

Analyst: AG

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Mercury, Total
Method 7470 A***

SPL Sample ID Number	Blank Value ug/L	LCS Concentration ug/L	Measured Concentration ug/L	% Recovery	QC Limits Recovery
LCS	ND	2.00	1.87	93.5	80 - 120

-9807C51

Samples in batch:

9807927-01E	9807A50-01D	9807A50-02D	9807A50-03D
9807A50-04D	9807A50-05D	9807A50-06D	9807B27-01E
9807B98-01E	9807B98-02E	9807B98-03E	9807B98-04E
9807B98-05E			

COMMENTS:

LCS = SPL ID# 94-452-45-21



**** SPL QUALITY CONTROL REPORT ****

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Matrix: Aqueous

Reported on: 07/28/98
Analyzed on: 07/28/98
Analyst: AG

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

**Mercury, Total
Method 7470 A*****

SPL Sample ID Number	Method Blank ug/L	Sample Result ug/L	Spike Added ug/L	Matrix Spike		Matrix Spike Duplicate		RPD (%)	QC LIMITS (Advisory)		
				Result ug/L	Recovery %	Result ug/L	Recovery %		RPD Max	% REC	
9807A50-01D	ND	ND	2.00	2.30	115	2.35	118	2.6	20	75	-125

-9807C51

Samples in batch:

9807927-01E	9807A50-01D	9807A50-02D	9807A50-03D
9807A50-04D	9807A50-05D	9807A50-06D	9807B27-01E
9807B98-01E	9807B98-02E	9807B98-03E	9807B98-04E
9807B98-05E			

COMMENTS:

LCS = SPL ID# 94-452-45-21



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

**** SPL QUALITY CONTROL REPORT ****

Matrix: Aqueous

Reported on: 08/04/98

Analyzed on: 08/04/98

Analyst: PB

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Selenium, Total
Method 7740 ***

SPL Sample ID Number	Blank Value ug/L	LCS Concentration ug/L	Measured Concentration ug/L	% Recovery	QC Limits Recovery
LCS	ND	40.0	41.4	104	80 - 120

-9808127

Samples in batch:

9807A50-01D 9807A50-02D 9807A50-03D 9807A50-04D
9807A50-05D 9807A50-06D

COMMENTS:

LCS= SPL ID# 98-1034-12-12



**** SPL QUALITY CONTROL REPORT ****

HOUSTON LABORATORY

8880 INTERCHANGE DRIVE

HOUSTON, TEXAS 77054

PHONE (713) 660-0901

Matrix: Aqueous

Reported on: 08/04/98

Analyzed on: 08/04/98

Analyst: PB

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Selenium, Total
Method 7740 ***

SPL Sample	Method	Sample	Spike	Matrix Spike		Matrix Spike Duplicate		RPD	QC LIMITS (Advisory)		
ID Number	Blank ug/L	Result ug/L	Added ug/L	Result ug/L	Recovery %	Result ug/L	Recovery %	(%)	RPD Max	% REC	
9807A50-02D	ND	10.0	40.0	45.7	89.2	47.0	92.5	3.6	20	75	-125

-9808127

Samples in batch:

9807A50-01D 9807A50-02D 9807A50-03D 9807A50-04D
9807A50-05D 9807A50-06D

COMMENTS:

LCS= SPL ID# 98-1034-12-12



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

** SPL QUALITY CONTROL REPORT **

Matrix: Aqueous

Reported on: 08/06/98

Analyzed on: 08/04/98

Analyst: AB

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Chloride
Method 325.3 *

SPL Sample ID Number	Blank Value mg/L	LCS Concentration mg/L	Measured Concentration mg/L	% Recovery	QC Limits Recovery
LCS	ND	27.1	25.8	95.2	94 - 106

-9808332

Samples in batch:

9807A50-01B	9807A50-02B	9807A50-03B	9807A50-04B
9807A50-05B	9807A50-06B	9807C07-01A	9807C07-02A
9807C07-03A	9807C53-01D	9807C53-03D	9807C53-05D

COMMENTS:

LCS = SPL ID#:95535210-7



** SPL QUALITY CONTROL REPORT **

HOUSTON LABORATORY
8830 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Matrix: Aqueous

Reported on: 08/06/98
Analyzed on: 08/04/98
Analyst: AB

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Chloride
Method 325.3 *

SPL Sample	Method	Sample	Spike	Matrix Spike		Matrix Spike Duplicate		RPD	QC LIMITS (Advisory)	
ID Number	Blank	Result	Added	Result	Recovery	Result	Recovery	(%)	RPD Max	% REC
	mg/L	mg/L	mg/L	mg/L	%	mg/L	%			
9807C07-01A	ND	30.13	100.0	127.6	97.5	129.4	99.3	1.8	5	92 -109

-9808330

Samples in batch:

9807A50-01B 9807A50-02B 9807A50-03B 9807A50-04B
9807A50-05B 9807A50-06B 9807C07-01A 9807C07-02A
9807C07-03A

COMMENTS:



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

** SPL QUALITY CONTROL REPORT **

Matrix: Aqueous

Reported on: 08/04/98

Analyzed on: 08/04/98

Analyst: TW

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Sulfate
Method 375.4 *

SPL Sample ID Number	Blank Value mg/L	LCS Concentration mg/L	Measured Concentration mg/L	% Recovery	QC Limits Recovery
LCS	ND	10.15	10.13	99.8	82 - 111

-9808146

Samples in batch:

9807569-01D	9807570-01D	9807572-01D	9807572-02D
9807572-03D	9807572-04D	9807927-01D	9807A10-01F
9807A10-02F	9807A10-03F	9807A10-04F	9807A50-01B
9807A50-02B	9807A50-03B	9807A50-04B	9807A50-05B
9807A50-06B	9807C53-01D	9807C53-03D	9807C53-05D

COMMENTS:

SPL LCS#95535210-7



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

** SPL QUALITY CONTROL REPORT **

Matrix: Aqueous

Reported on: 08/04/98
Analyzed on: 08/04/98
Analyst: TW

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Sulfate
Method 375.4 *

SPL Sample ID Number	Method Blank mg/L	Sample Result mg/L	Spike Added mg/L	Matrix Spike		Matrix Spike Duplicate		RPD (%)	QC LIMITS (Advisory)		
				Result mg/L	Recovery %	Result mg/L	Recovery %		RPD Max	% REC	
9807A10-03F	ND	5.77	10.00	14.72	89.5	14.87	91.0	1.7	9.5	84	-120

-9808139

Samples in batch:

9807927-01D 9807A10-01F 9807A10-02F 9807A10-03F
9807A10-04F 9807A50-01B 9807A50-02B 9807A50-03B

COMMENTS:



**** SPL QUALITY CONTROL REPORT ****

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Matrix: Aqueous

Reported on: 08/04/98

Analyzed on: 08/04/98

Analyst: TW

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Sulfate
Method 375.4 *

SPL Sample	Method	Sample	Spike	Matrix Spike		Matrix Spike Duplicate		RPD	QC LIMITS (Advisory)		
ID Number	Blank mg/L	Result mg/L	Added mg/L	Result mg/L	Recovery %	Result mg/L	Recovery %	(%)	RPD Max	% REC	
9807A50-04B	ND	1.17	10.00	11.23	101	11.19	100	1.0	9.5	84	-120

-9808141

Samples in batch:

9807569-01D 9807570-01D 9807A50-04B 9807A50-05B
9807A50-06B 9807C53-01D 9807C53-03D 9807C53-05D

COMMENTS:



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

** SPL QUALITY CONTROL REPORT **

Matrix: Aqueous

Reported on: 07/27/98

Analyzed on: 07/24/98

Analyst: DS

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Total Dissolved Solids
Method 160.1 *

SPL Sample ID Number	Blank Value mg/L	LCS Concentration mg/L	Measured Concentration mg/L	% Recovery	QC Limits Recovery
LCS	ND	432.7	413	95.4	93 - 107

-9807B53

Samples in batch:

9806164-18A	9807964-01D	9807A50-01B	9807A50-02B
9807A50-03B	9807A50-04B	9807A50-05B	9807A50-06B

COMMENTS:

LCS=SPL ID#95535212-4



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

** SPL QUALITY CONTROL REPORT **

Matrix: Aqueous

Reported on: 07/27/98

Analyzed on: 07/24/98

Analyst: DS

This sample was randomly selected for use in the SPL quality control program. The results are as follows:

Total Dissolved Solids
Method 160.1 *

-- DUPLICATE ANALYSIS --

SPL Sample ID	Original Sample Concentration mg/L	Duplicate Sample mg/L	RPD	RPD Max.
9807A50-06B	2200	2500	12.8	5

-9807B51

Samples in batch:

9806164-18A	9807964-01D	9807A50-01B	9807A50-02B
9807A50-03B	9807A50-04B	9807A50-05B	9807A50-06B

COMMENTS:

RPD OUT OF RANGE DUE TO SMALL AMOUNT OF SAMPLE USED.



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

** SPL QUALITY CONTROL REPORT **

Matrix: Aqueous

Reported on: 08/04/98

Analyzed on: 07/31/98

Analyst: DAM

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Nitrate-Nitrite, as N
Method 353.3 *

SPL Sample ID Number	Blank Value mg/L	LCS Concentration mg/L	Measured Concentration mg/L	% Recovery	QC Limits Recovery
LCS	ND	2.77	2.59	93.5	92 - 111

-9808195

Samples in batch:

9807927-01B 9807A50-01C 9807A50-02C 9807A50-03C
9807A50-04C 9807A50-05C 9807A50-06C

COMMENTS:

LCS = SPL ID#:95535172-26



**** SPL QUALITY CONTROL REPORT ****

HOUSTON LABORATORY

8880 INTERCHANGE DRIVE

HOUSTON, TEXAS 77054

PHONE (713) 660-0901

Matrix: Aqueous

Reported on: 08/04/98

Analyzed on: 07/31/98

Analyst: DAM

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Nitrate-Nitrite, as N
Method 353.3 *

SPL Sample	Method	Sample	Spike	Matrix Spike		Matrix Spike Duplicate		RPD	QC LIMITS (Advisory)		
ID Number	Blank mg/L	Result mg/L	Added mg/L	Result mg/L	Recovery %	Result mg/L	Recovery %	(%)	RPD Max	% REC	
9807A50-02C	ND	1.17	5.00	6.27	102	6.46	106	3.8	12	87	-120

-9808194

Samples in batch:

9807927-01B 9807A50-01C 9807A50-02C 9807A50-03C
9807A50-04C 9807A50-05C 9807A50-06C

COMMENTS:



SPL, Inc.

SPL Workorder No:

48786

Analysis Request & Chain of Custody Record

98071A50

page 1 of 2

Client Name: CYRESS ENVIRONMENTAL

Address/Phone: 10235 WEST LITTLE ROCK, SUITE 250
HOUSTON, TX 77040 (713) 550-7980

Client Contact: SANDY SHAWP (713) 646-7867 FAX

Project Name: TWP' WT-1 ER D.T. AREA

Project Number:

Project Location:

Invoice To: GEORGE ROBINSON & CYRESS

SAMPLE ID DATE TIME comp grab

MW-15 7/7/98 1130

MW-15 1130

MW-14 1345

MW-14 1345

MW-17 1010

MW-17 1010

MW-5 1705

MW-5 1705

MW-8 1555

MW-8 1555

MW-8 1555

Client/Consultant Remarks: SEE ELETRA BEGUN w/ QUESTIONS
*** TOTAL METALS DO NOT PURCH AAD PRESERVATIVE HAD3

Laboratory remarks:

Requested TAT

24hr ☐ 72hr ☐48hr ☐ Standard ☒Other ☐

Special Reporting Requirements

Fax Results ☒Level 3 QC ☒Level 4 QC ☐Raw Data ☐

Special Detection Limits (specify):

Intact? ☐ Y ☐ N

Temp: 20

PM review (initial):

98/1/22

Requested Analysis

matrix bottle size pres. Number of Containers
W=water S=soil SL=sludge O=other:
P=plastic A=amber glass G=glass V=vial
1=1 liter 4=4oz 40=vial 8=8oz 16=16oz
1=HCl 2=HNO3 3=H2SO4 O=other:
VOC'S 8260 INCLUDING 1,2-DICHLOROETHENE (CIS & TRANS) DICHLOROBENZENE (O,T,M-4P)
TOS, CHLORIDES, & SULFATE
353.3
NITRILE & NITRATE AS NITROGEN
*** TOTAL METALS 7420 - Hg
6010 - Ba, Cd, Cr, Pb, Hg, Ag, Cu, Fe, Mn, Zn
7060 - As by GRAPHITE FURNACE
7740 - Se by GRAPHITE FURNACE☐ 8880 Interchange Drive, Houston, TX 77054 (713) 660-0901
☐ 459-Hughes Drive, Traverse City, MI 49684 (616) 947-5777☐ 500 Ambassador Caffery Parkway, Scott, LA 70583 (318) 237-4775
☐ 1501 E. Orangethorpe Avenue, Fullerton, CA 92631 (714) 447-6868



SPL, Inc.

Analysis Request & Chain of Custody Record

SPL Workorder No:

9807MSD

48787

page 2 of 2

Requested Analysis

matrix bottle size pres.

W=water S=soil
SL=sludge O=other:
P=plastic A=amber glass
G=glass V=vial
1=1 liter 4=4oz 40=vial
8=8oz 16=16oz
1=HCl 2=HNO3
3=H2SO4 O=other:

Number of Containers

VOCs 8260 INCLUDING
1,2 DICHLOROETHENE (CIS & TRANS)
DICHLOROBENZENE (O, M- & P-)
TPS, CHLORIDES & SULFATE
353.3
NITRITES & NITRATE AS NITROGEN
X: TOTAL METALS
7470 Hg
6010 Ba, Cd, Cr, Pb,
Ag, Cu, Fe, Mn, Zn
As by 7060 GRAPHITE FURNACE
Se by 7140

Intact? ☐ Y ☐ N

Temp: 70

PM review (initial): 98/1/22

Client Name: CYRESS ENGINEERING

Address/Phone: 10235 WEST LITTLE GULF, SUITE 256
HOUSTON, TX 77044 (713) 856-7980

Client Contact: SANDY SPARZ (713) 646-7252

Project Name: TWP UT-1 ER PIT AREA

Project Number:

Project Location:

Invoice To: GEORGE ROBINSON & CYRESS

SAMPLE ID DATE TIME comp grab

MW-1 7/17/98 1840 X W G 40 1 3 3 X

MW-1 7/17/98 1840 X W P 1 0/3 2/1 X X X X

Client/Consultant Remarks: See EXACT BELOW w/ QUESTIONS
* TOTAL METALS DO NOT FILTER AND PRESERVE HULB

Laboratory remarks:

Requested TAT

Special Reporting Requirements

Standard QC ☐ Level 3 QC ☒ Raw Data ☐ Level 4 QC ☐ Special Detection Limits (specify):

1. Relinquished by Signifier: [Signature]

2. Received by: [Signature]

3. Relinquished by: [Signature]

4. Received by: [Signature]

5. Relinquished by: [Signature]

6. Received by Laboratory: [Signature]

Other ☐

8880 Interchange Drive, Houston, TX 77054 (713) 660-0901

459-H... Drive, Traverse City, MI 49684 (616) 947-5777

500 Ambassador Caffery Parkway, Scott, LA 70583

1501 E. Orangethorpe Avenue, Fullerton, CA 92631 (714) 447-6868

237-4775

447-6868

SPL Houston Environmental Laboratory

Sample Login Checklist

Date: 7-21-98	Time: 1000
------------------	---------------

SPL Sample ID: 9807A50

		Yes	No
1	Chain-of-Custody (COC) form is present.	✓	
2	COC is properly completed.	✓	
3	If no, Non-Conformance Worksheet has been completed.		
4	Custody seals are present on the shipping container.	✓	
5	If yes, custody seals are intact.	✓	
6	All samples are tagged or labeled.	✓	
7	If no, Non-Conformance Worksheet has been completed.		
8	Sample containers arrived intact	✓	
9	Temperature of samples upon arrival:	2°	C
10	Method of sample delivery to SPL:	SPL Delivery	
		Client Delivery	
		FedEx Delivery (airbill #)	804391 60360 30403916 240 7
		Other:	
11	Method of sample disposal:	SPL Disposal	✓
		HOLD	
		Return to Client	

Name: Jim Cox	Date: 7-21-98
------------------	------------------



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

August 4, 1998

Mr. George Robinson
CYPRESS ENGINEERING, INC.
10235 W. Little York Rd #256
Houston, TX 77040

The following report contains analytical results for the sample(s) received at Southern Petroleum Laboratories (SPL) on July 18, 1998. The sample(s) was assigned to Certificate of Analysis No.(s) 9807907 and analyzed for all parameters as listed on the chain of custody.

Your sample "MW-4" (SPL ID: 9807907-01) was randomly selected as a Quality Control sample for the Total Selenium analysis by method 7740. The Matrix Spike (MS) and Matrix Spike Duplicate (MSD) recoveries were outside of advisable quality control limits, due to matrix interference. A Laboratory Control Sample (LCS) was analyzed as a quality control check for the analytical batch and its recovery was within acceptable limits.

Any other data flag or quality control exception associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s).

If you have any questions or comments pertaining to this data report, please do not hesitate to contact me. Please reference the above Certificate of Analysis No. during any inquiries.

Again, SPL is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

Southern Petroleum Laboratories

A handwritten signature in cursive script, reading "Electa Brown", is written over a horizontal line.

Electa Brown
Project Manager



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Southern Petroleum Laboratories, Inc.

Certificate of Analysis Number: 98-07-907

Approved for Release by:

A handwritten signature in cursive script, reading "Electa Brown", is written over a horizontal line.

Electa Brown, Project Manager

A handwritten date "8-4-98" is written in cursive script over a horizontal line.

Date

Greg Grandits
Laboratory Director

Cynthia Schreiner
Quality Assurance Officer

The attached analytical data package may not be reproduced except in full without the express written approval of this laboratory.



****SUMMARY REPORT****

08/06/98

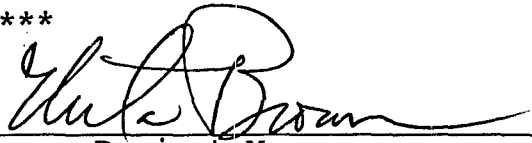
HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Company: Cypress Engineering, Inc.
Site:
Project No:
Project: TWP WT-1 ER Pit Area

ANALYTICAL DATA
NOTE: ND - Not Detected

SPL ID MATRIX	CLIENT ID DATE SAMPLED	BENZENE	TOLUENE	ETHYLBENZ.	XYLENE	TPH-IR	TPH-GC	LEAD	MTBE
9807907-01 WATER	MW-4 07/16/98 13:45:00							ND 0.05mg/L	
9807907-02 WATER	MW-16 07/16/98 15:20:00							ND 0.05mg/L	
9807907-03 WATER	MW-6 07/16/98 16:50:00							ND 0.05mg/L	
9807907-04 WATER	MW-7 07/16/98 18:10:00							ND 0.05mg/L	

LEAD - Method 6010B ***


SPL, Inc., - Project Manager



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9807907-01

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

DATE: 08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-4

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/16/98 13:45:00
DATE RECEIVED: 07/18/98

ANALYTICAL DATA			
PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Chloride Method 325.3 * Analyzed by: AB Date: 07/30/98 13:00:00	301	10	mg/L
Sulfate Method 375.4 * Analyzed by: TW Date: 07/30/98 16:30:00	900	100	mg/L
Total Dissolved Solids Method 160.1 * Analyzed by: DS Date: 07/22/98 09:30:00	2300	100	mg/L
Nitrate-Nitrite, as N Method 353.3 * Analyzed by: DAM Date: 07/21/98 14:00:00	14.1	0.2	mg/L
Silver, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	ND	0.01	mg/L
Arsenic, Total Method 7060A *** Analyzed by: PB Date: 07/31/98 09:35:00	0.011	0.005	mg/L

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.



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8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
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Certificate of Analysis No. H9-9807907-01

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

DATE: 08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-4

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/16/98 13:45:00
DATE RECEIVED: 07/18/98

ANALYTICAL DATA				
PARAMETER	RESULTS	DETECTION LIMIT	UNITS	
Barium, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	0.020	0.005	mg/L	
Cadmium, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	ND	0.005	mg/L	
Chromium, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	ND	0.01	mg/L	
Copper, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	ND	0.01	mg/L	
Iron, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	ND	0.02	mg/L	
Mercury, Total Method 7470 A*** Analyzed by: AG Date: 07/24/98 14:32:00	ND	0.0002	mg/L	

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

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8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
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Certificate of Analysis No. H9-9807907-01

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

DATE: 08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-4

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/16/98 13:45:00
DATE RECEIVED: 07/18/98

ANALYTICAL DATA				
PARAMETER	RESULTS	DETECTION LIMIT	UNITS	
Manganese, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	0.154	0.005	mg/L	
Acid Digestion-Aqueous, ICP Method 3010A *** Analyzed by: EE Date: 07/29/98 11:30:00	07/29/98			
Lead, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	ND	0.05	mg/L	
Selenium, Total Method 7740 *** Analyzed by: PB Date: 07/31/98 12:25:00	0.018	0.005	mg/L	
Zinc, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	ND	0.02	mg/L	

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9807907-01

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-4

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/16/98 13:45:00
DATE RECEIVED: 07/18/98

ANALYTICAL DATA				
PARAMETER	RESULTS	PQL*	UNITS	
Benzene	ND	5	ug/L	
Bromobenzene	ND	5	ug/L	
Bromochloromethane	ND	5	ug/L	
Bromodichloromethane	ND	5	ug/L	
Bromoform	ND	5	ug/L	
Bromomethane	ND	10	ug/L	
n-Butylbenzene	ND	5	ug/L	
sec-Butylbenzene	ND	5	ug/L	
tert-Butylbenzene	ND	5	ug/L	
Carbon tetrachloride	ND	5	ug/L	
Chlorobenzene	ND	5	ug/L	
Chlorodibromomethane	ND	5	ug/L	
Chloroethane	ND	10	ug/L	
Chloroform	5	5	ug/L	
Chloromethane	ND	10	ug/L	
2-Chlorotoluene	ND	5	ug/L	
4-Chlorotoluene	ND	5	ug/L	
1,2-Dibromo-3-chloropropane	ND	5	ug/L	
1,2-Dibromoethane	ND	5	ug/L	
Dibromomethane	ND	5	ug/L	
1,2-Dichlorobenzene	ND	5	ug/L	
1,3-Dichlorobenzene	ND	5	ug/L	
1,4-Dichlorobenzene	ND	5	ug/L	
Dichlorodifluoromethane	ND	10	ug/L	
1,1-Dichloroethane	ND	5	ug/L	
1,2-Dichloroethane	ND	5	ug/L	
1,1-Dichloroethene	5	5	ug/L	
cis-1,2-Dichloroethene	ND	5	ug/L	
trans-1,2-Dichloroethene	ND	5	ug/L	
1,2-Dichloropropane	ND	5	ug/L	
1,3-Dichloropropane	ND	5	ug/L	
2,2-Dichloropropane	ND	5	ug/L	
1,1-Dichloropropene	ND	5	ug/L	
Ethylbenzene	ND	5	ug/L	
Hexachlorobutadiene	ND	5	ug/L	
Isopropylbenzene	ND	5	ug/L	
p-Isopropyltoluene	ND	5	ug/L	
Methylene chloride	ND	5	ug/L	

METHOD: 8260 Water, Volatile Organics
(continued on next page)



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9807907-01

Cypress Engineering, Inc.

SAMPLE ID: MW-4

ANALYTICAL DATA (continued)			
PARAMETER	RESULTS	PQL*	UNITS
Naphthalene	ND	5	ug/L
n-Propylbenzene	ND	5	ug/L
Styrene	ND	5	ug/L
1,1,1,2-Tetrachloroethane	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	ND	5	ug/L
1,2,3-Trichlorobenzene	ND	5	ug/L
1,2,4-Trichlorobenzene	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
1,2,3-Trichloropropane	ND	5	ug/L
1,2,4-Trimethylbenzene	ND	5	ug/L
1,3,5-Trimethylbenzene	ND	5	ug/L
Vinyl chloride	ND	10	ug/L
Xylenes (total)	ND	5	ug/L
Acetone	ND	100	ug/L
Carbon Disulfide	ND	5	ug/L
Vinyl Acetate	ND	10	ug/L
2-Butanone	ND	20	ug/L
1,2-Dichloroethene (total)	ND	5	ug/L
2-Chloroethylvinylether	ND	10	ug/L
4-Methyl-2-Pentanone	ND	10	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
2-Hexanone	ND	10	ug/L

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
1,2-Dichloroethane-d4	50 ug/L	92	76	114
Toluene-d8	50 ug/L	100	88	110
4-Bromofluorobenzene	50 ug/L	104	86	115

ANALYZED BY: JC

DATE/TIME: 07/24/98 13:47:00

METHOD: 8260 Water, Volatile Organics

NOTES: * - Practical Quantitation Limit

ND - Not Detected

NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9807907-02

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

DATE: 08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-16

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/16/98 15:20:00
DATE RECEIVED: 07/18/98

ANALYTICAL DATA				
PARAMETER	RESULTS	DETECTION LIMIT	UNITS	
Chloride Method 325.3 * Analyzed by: AB Date: 07/30/98 13:00:00	620	10	mg/L	
Sulfate Method 375.4 * Analyzed by: TW Date: 07/30/98 16:30:00	1100	100	mg/L	
Total Dissolved Solids Method 160.1 * Analyzed by: DS Date: 07/22/98 09:30:00	2500	100	mg/L	
Nitrate-Nitrite, as N Method 353.3 * Analyzed by: DAM Date: 07/21/98 14:00:00	1.2	0.1	mg/L	
Silver, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	ND	0.01	mg/L	
Arsenic, Total Method 7060A *** Analyzed by: PB Date: 07/31/98 09:35:00	ND	0.005	mg/L	

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.



Certificate of Analysis No. H9-9807907-02

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

DATE: 08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-16

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/16/98 15:20:00
DATE RECEIVED: 07/18/98

ANALYTICAL DATA				
PARAMETER	RESULTS	DETECTION LIMIT	UNITS	
Barium, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	0.023	0.005	mg/L	
Cadmium, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	ND	0.005	mg/L	
Chromium, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	ND	0.01	mg/L	
Copper, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	ND	0.01	mg/L	
Iron, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	ND	0.02	mg/L	
Mercury, Total Method 7470 A*** Analyzed by: AG Date: 07/24/98 14:32:00	ND	0.0002	mg/L	

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

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PHONE (713) 660-0901

Certificate of Analysis No. H9-9807907-02

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

DATE: 08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-16

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/16/98 15:20:00
DATE RECEIVED: 07/18/98

ANALYTICAL DATA				
PARAMETER	RESULTS	DETECTION LIMIT	UNITS	
Manganese, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	0.913	0.005	mg/L	
Acid Digestion-Aqueous, ICP Method 3010A *** Analyzed by: EE Date: 07/29/98 11:30:00	07/29/98			
Lead, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	ND	0.05	mg/L	
Selenium, Total Method 7740 *** Analyzed by: PB Date: 07/31/98 12:25:00	ND	0.005	mg/L	
Zinc, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	0.03	0.02	mg/L	

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.



Certificate of Analysis No. H9-9807907-02

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-16PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/16/98 15:20:00
DATE RECEIVED: 07/18/98

ANALYTICAL DATA			
PARAMETER	RESULTS	PQL*	UNITS
Benzene	ND	5	ug/L
Bromobenzene	ND	5	ug/L
Bromochloromethane	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
n-Butylbenzene	ND	5	ug/L
sec-Butylbenzene	ND	5	ug/L
tert-Butylbenzene	ND	5	ug/L
Carbon tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chlorodibromomethane	ND	5	ug/L
Chloroethane	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
2-Chlorotoluene	ND	5	ug/L
4-Chlorotoluene	ND	5	ug/L
1,2-Dibromo-3-chloropropane	ND	5	ug/L
1,2-Dibromoethane	ND	5	ug/L
Dibromomethane	ND	5	ug/L
1,2-Dichlorobenzene	ND	5	ug/L
1,3-Dichlorobenzene	ND	5	ug/L
1,4-Dichlorobenzene	ND	5	ug/L
Dichlorodifluoromethane	ND	10	ug/L
1,1-Dichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
1,3-Dichloropropane	ND	5	ug/L
2,2-Dichloropropane	ND	5	ug/L
1,1-Dichloropropene	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Hexachlorobutadiene	ND	5	ug/L
Isopropylbenzene	ND	5	ug/L
p-Isopropyltoluene	ND	5	ug/L
Methylene chloride	ND	5	ug/L

METHOD: 8260 Water, Volatile Organics
(continued on next page)



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9807907-02

Cypress Engineering, Inc.

SAMPLE ID: MW-16

ANALYTICAL DATA (continued)				
PARAMETER	RESULTS	PQL*	UNITS	
Naphthalene	ND	5	ug/L	
n-Propylbenzene	ND	5	ug/L	
Styrene	ND	5	ug/L	
1,1,1,2-Tetrachloroethane	ND	5	ug/L	
1,1,2,2-Tetrachloroethane	ND	5	ug/L	
Tetrachloroethene	16	5	ug/L	
Toluene	ND	5	ug/L	
1,2,3-Trichlorobenzene	ND	5	ug/L	
1,2,4-Trichlorobenzene	ND	5	ug/L	
1,1,1-Trichloroethane	ND	5	ug/L	
1,1,2-Trichloroethane	ND	5	ug/L	
Trichloroethene	ND	5	ug/L	
Trichlorofluoromethane	ND	5	ug/L	
1,2,3-Trichloropropane	ND	5	ug/L	
1,2,4-Trimethylbenzene	ND	5	ug/L	
1,3,5-Trimethylbenzene	ND	5	ug/L	
Vinyl chloride	ND	10	ug/L	
Xylenes (total)	ND	5	ug/L	
Acetone	ND	100	ug/L	
Carbon Disulfide	ND	5	ug/L	
Vinyl Acetate	ND	10	ug/L	
2-Butanone	ND	20	ug/L	
1,2-Dichloroethene (total)	ND	5	ug/L	
2-Chloroethylvinylether	ND	10	ug/L	
4-Methyl-2-Pentanone	ND	10	ug/L	
cis-1,3-Dichloropropene	ND	5	ug/L	
trans-1,3-Dichloropropene	ND	5	ug/L	
2-Hexanone	ND	10	ug/L	

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
1,2-Dichloroethane-d4	50 ug/L	90	76	114
Toluene-d8	50 ug/L	102	88	110
4-Bromofluorobenzene	50 ug/L	104	86	115

ANALYZED BY: JC

DATE/TIME: 07/24/98 14:12:00

METHOD: 8260 Water, Volatile Organics

NOTES: * - Practical Quantitation Limit

ND - Not Detected

NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9807907-03

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

DATE: 08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-6

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/16/98 16:50:00
DATE RECEIVED: 07/18/98

ANALYTICAL DATA				
PARAMETER	RESULTS	DETECTION LIMIT	UNITS	
Chloride Method 325.3 * Analyzed by: AB Date: 07/30/98 13:00:00	620	10	mg/L	
Sulfate Method 375.4 * Analyzed by: TW Date: 07/30/98 16:30:00	550	25	mg/L	
Total Dissolved Solids Method 160.1 * Analyzed by: DS Date: 07/22/98 09:30:00	2100	100	mg/L	
Nitrate-Nitrite, as N Method 353.3 * Analyzed by: DAM Date: 07/21/98 14:00:00	ND	0.1	mg/L	
Silver, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	ND	0.01	mg/L	
Arsenic, Total Method 7060A *** Analyzed by: PB Date: 07/31/98 09:35:00	0.008	0.005	mg/L	

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9807907-03

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

DATE: 08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-6

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/16/98 16:50:00
DATE RECEIVED: 07/18/98

ANALYTICAL DATA

PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Barium, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	0.110	0.005	mg/L
Cadmium, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	ND	0.005	mg/L
Chromium, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	ND	0.01	mg/L
Copper, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	ND	0.01	mg/L
Iron, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	0.70	0.02	mg/L
Mercury, Total Method 7470 A*** Analyzed by: AG Date: 07/24/98 14:32:00	ND	0.0002	mg/L

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance
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HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9807907-03

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

DATE: 08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-6

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/16/98 16:50:00
DATE RECEIVED: 07/18/98

ANALYTICAL DATA				
PARAMETER	RESULTS	DETECTION LIMIT	UNITS	
Manganese, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	0.832	0.005	mg/L	
Acid Digestion-Aqueous, ICP Method 3010A *** Analyzed by: EE Date: 07/29/98 11:30:00	07/29/98			
Lead, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	ND	0.05	mg/L	
Selenium, Total Method 7740 *** Analyzed by: PB Date: 07/31/98 12:25:00	ND	0.005	mg/L	
Zinc, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	ND	0.02	mg/L	

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9807907-03

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-6

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/16/98 16:50:00
DATE RECEIVED: 07/18/98

ANALYTICAL DATA

PARAMETER	RESULTS	PQL*	UNITS
Benzene	ND	5	ug/L
Bromobenzene	ND	5	ug/L
Bromochloromethane	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
Bromoform	ND	5	ug/L
Bromomethane	ND	10	ug/L
n-Butylbenzene	ND	5	ug/L
sec-Butylbenzene	ND	5	ug/L
tert-Butylbenzene	ND	5	ug/L
Carbon tetrachloride	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
Chlorodibromomethane	ND	5	ug/L
Chloroethane	ND	10	ug/L
Chloroform	ND	5	ug/L
Chloromethane	ND	10	ug/L
2-Chlorotoluene	ND	5	ug/L
4-Chlorotoluene	ND	5	ug/L
1,2-Dibromo-3-chloropropane	ND	5	ug/L
1,2-Dibromoethane	ND	5	ug/L
Dibromomethane	ND	5	ug/L
1,2-Dichlorobenzene	ND	5	ug/L
1,3-Dichlorobenzene	ND	5	ug/L
1,4-Dichlorobenzene	ND	5	ug/L
Dichlorodifluoromethane	ND	10	ug/L
1,1-Dichloroethane	12	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloroethene	ND	5	ug/L
cis-1,2-Dichloroethene	7	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
1,3-Dichloropropane	ND	5	ug/L
2,2-Dichloropropane	ND	5	ug/L
1,1-Dichloropropene	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Hexachlorobutadiene	ND	5	ug/L
Isopropylbenzene	ND	5	ug/L
p-Isopropyltoluene	ND	5	ug/L
Methylene chloride	ND	5	ug/L

METHOD: 8260 Water, Volatile Organics
(continued on next page)



HOUSTON LABORATORY

8880 INTERCHANGE DRIVE

HOUSTON, TEXAS 77054

PHONE (713) 660-0901

Certificate of Analysis No. H9-9807907-03

Cypress Engineering, Inc.

SAMPLE ID: MW-6

ANALYTICAL DATA (continued)			
PARAMETER	RESULTS	PQL*	UNITS
Naphthalene	ND	5	ug/L
n-Propylbenzene	ND	5	ug/L
Styrene	ND	5	ug/L
1,1,1,2-Tetrachloroethane	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Toluene	ND	5	ug/L
1,2,3-Trichlorobenzene	ND	5	ug/L
1,2,4-Trichlorobenzene	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L
Trichloroethene	14	5	ug/L
Trichlorofluoromethane	ND	5	ug/L
1,2,3-Trichloropropane	ND	5	ug/L
1,2,4-Trimethylbenzene	ND	5	ug/L
1,3,5-Trimethylbenzene	ND	5	ug/L
Vinyl chloride	ND	10	ug/L
Xylenes (total)	ND	5	ug/L
Acetone	ND	100	ug/L
Carbon Disulfide	ND	5	ug/L
Vinyl Acetate	ND	10	ug/L
2-Butanone	ND	20	ug/L
1,2-Dichloroethene (total)	7	5	ug/L
2-Chloroethylvinylether	ND	10	ug/L
4-Methyl-2-Pentanone	ND	10	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
2-Hexanone	ND	10	ug/L

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
1,2-Dichloroethane-d4	50 ug/L	90	76	114
Toluene-d8	50 ug/L	104	88	110
4-Bromofluorobenzene	50 ug/L	106	86	115

ANALYZED BY: JC

DATE/TIME: 07/24/98 14:38:00

METHOD: 8260 Water, Volatile Organics

NOTES: * - Practical Quantitation Limit

ND - Not Detected

NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9807907-04

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

DATE: 08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-7

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/16/98 18:10:00
DATE RECEIVED: 07/18/98

ANALYTICAL DATA			
PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Chloride Method 325.3 * Analyzed by: AB Date: 07/30/98 13:00:00	301	10	mg/L
Sulfate Method 375.4 * Analyzed by: TW Date: 07/30/98 16:30:00	800	100	mg/L
Total Dissolved Solids Method 160.1 * Analyzed by: DS Date: 07/22/98 09:30:00	1900	100	mg/L
Nitrate-Nitrite, as N Method 353.3 * Analyzed by: DAM Date: 07/21/98 14:00:00	8.2	0.2	mg/L
Silver, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	ND	0.01	mg/L
Arsenic, Total Method 7060A *** Analyzed by: PB Date: 07/31/98 09:35:00	0.007	0.005	mg/L

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9807907-04

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

DATE: 08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-7

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/16/98 18:10:00
DATE RECEIVED: 07/18/98

ANALYTICAL DATA				
PARAMETER	RESULTS	DETECTION LIMIT	UNITS	
Barium, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	0.019	0.005	mg/L	
Cadmium, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	ND	0.005	mg/L	
Chromium, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	ND	0.01	mg/L	
Copper, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	ND	0.01	mg/L	
Iron, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	ND	0.02	mg/L	
Mercury, Total Method 7470 A*** Analyzed by: AG Date: 07/24/98 14:32:00	ND	0.0002	mg/L	

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9807907-04

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

DATE: 08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-7

PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/16/98 18:10:00
DATE RECEIVED: 07/18/98

ANALYTICAL DATA			
PARAMETER	RESULTS	DETECTION LIMIT	UNITS
Manganese, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	0.061	0.005	mg/L
Acid Digestion-Aqueous, ICP Method 3010A *** Analyzed by: EE Date: 07/29/98 11:30:00	07/29/98		
Lead, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	ND	0.05	mg/L
Selenium, Total Method 7740 *** Analyzed by: PB Date: 07/31/98 12:25:00	0.012	0.005	mg/L
Zinc, Total Method 6010B *** Analyzed by: EG Date: 07/30/98 10:30:00	ND	0.02	mg/L

ND - Not detected.

Notes: *Ref: Methods for Chemical Analysis of Water and Wastes, 1983, EPA
**Ref: Standard Methods for Examination of Water & Wastewater, 18th ed.
***Ref: Test Methods for Evaluating Solid Waste, EPA SW846, 3rd Ed.

QUALITY ASSURANCE: These analyses are performed in accordance
with EPA guidelines for quality assurance.

**HOUSTON LABORATORY**8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9807907-04

Cypress Engineering, Inc.
10235 W. Little York Rd #256
Houston, TX 77040
ATTN: George Robinson

08/06/98

PROJECT: TWP WT-1 ER Pit Area
SITE:
SAMPLED BY: Cypress Engineering
SAMPLE ID: MW-7PROJECT NO:
MATRIX: WATER
DATE SAMPLED: 07/16/98 18:10:00
DATE RECEIVED: 07/18/98

ANALYTICAL DATA				
PARAMETER	RESULTS	PQL*	UNITS	
Benzene	7	5	ug/L	
Bromobenzene	ND	5	ug/L	
Bromochloromethane	ND	5	ug/L	
Bromodichloromethane	ND	5	ug/L	
Bromoform	ND	5	ug/L	
Bromomethane	ND	10	ug/L	
n-Butylbenzene	ND	5	ug/L	
sec-Butylbenzene	ND	5	ug/L	
tert-Butylbenzene	ND	5	ug/L	
Carbon tetrachloride	ND	5	ug/L	
Chlorobenzene	ND	5	ug/L	
Chlorodibromomethane	ND	5	ug/L	
Chloroethane	ND	10	ug/L	
Chloroform	ND	5	ug/L	
Chloromethane	ND	10	ug/L	
2-Chlorotoluene	ND	5	ug/L	
4-Chlorotoluene	ND	5	ug/L	
1,2-Dibromo-3-chloropropane	ND	5	ug/L	
1,2-Dibromoethane	ND	5	ug/L	
Dibromomethane	ND	5	ug/L	
1,2-Dichlorobenzene	ND	5	ug/L	
1,3-Dichlorobenzene	ND	5	ug/L	
1,4-Dichlorobenzene	ND	5	ug/L	
Dichlorodifluoromethane	ND	10	ug/L	
1,1-Dichloroethane	19	5	ug/L	
1,2-Dichloroethane	ND	5	ug/L	
1,1-Dichloroethene	ND	5	ug/L	
cis-1,2-Dichloroethene	7	5	ug/L	
trans-1,2-Dichloroethene	ND	5	ug/L	
1,2-Dichloropropane	ND	5	ug/L	
1,3-Dichloropropane	ND	5	ug/L	
2,2-Dichloropropane	ND	5	ug/L	
1,1-Dichloropropene	ND	5	ug/L	
Ethylbenzene	ND	5	ug/L	
Hexachlorobutadiene	ND	5	ug/L	
Isopropylbenzene	ND	5	ug/L	
p-Isopropyltoluene	ND	5	ug/L	
Methylene chloride	ND	5	ug/L	

METHOD: 8260 Water, Volatile Organics
(continued on next page)



HOUSTON LABORATORY
8830 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Certificate of Analysis No. H9-9807907-04

Cypress Engineering, Inc.

SAMPLE ID: MW-7

ANALYTICAL DATA (continued)				
PARAMETER	RESULTS	PQL*	UNITS	
Naphthalene	ND	5	ug/L	
n-Propylbenzene	ND	5	ug/L	
Styrene	ND	5	ug/L	
1,1,1,2-Tetrachloroethane	ND	5	ug/L	
1,1,2,2-Tetrachloroethane	ND	5	ug/L	
Tetrachloroethene	ND	5	ug/L	
Toluene	ND	5	ug/L	
1,2,3-Trichlorobenzene	ND	5	ug/L	
1,2,4-Trichlorobenzene	ND	5	ug/L	
1,1,1-Trichloroethane	ND	5	ug/L	
1,1,2-Trichloroethane	ND	5	ug/L	
Trichloroethene	12	5	ug/L	
Trichlorofluoromethane	ND	5	ug/L	
1,2,3-Trichloropropane	ND	5	ug/L	
1,2,4-Trimethylbenzene	ND	5	ug/L	
1,3,5-Trimethylbenzene	ND	5	ug/L	
Vinyl chloride	ND	10	ug/L	
Xylenes (total)	ND	5	ug/L	
Acetone	ND	100	ug/L	
Carbon Disulfide	ND	5	ug/L	
Vinyl Acetate	ND	10	ug/L	
2-Butanone	ND	20	ug/L	
1,2-Dichloroethene (total)	7	5	ug/L	
2-Chloroethylvinylether	ND	10	ug/L	
4-Methyl-2-Pentanone	ND	10	ug/L	
cis-1,3-Dichloropropene	ND	5	ug/L	
trans-1,3-Dichloropropene	ND	5	ug/L	
2-Hexanone	ND	10	ug/L	

SURROGATES	AMOUNT SPIKED	% RECOVERY	LOWER LIMIT	UPPER LIMIT
1,2-Dichloroethane-d4	50 ug/L	98	76	114
Toluene-d8	50 ug/L	102	88	110
4-Bromofluorobenzene	50 ug/L	106	86	115

ANALYZED BY: JC

DATE/TIME: 07/24/98 15:03:00

METHOD: 8260 Water, Volatile Organics

NOTES: * - Practical Quantitation Limit

ND - Not Detected

NA - Not Analyzed

COMMENTS:

QUALITY ASSURANCE: These analyses are performed in accordance with EPA guidelines for quality assurance.

QUALITY CONTROL
DOCUMENTATION

3A
WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SPL

Contract:

Lab Code:

Case No.: 9807B07 SAS No.:

SDG No.:

Matrix Spike - EPA Sample No.: LEACHATE TANK

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	0	59	118	61-145
Trichloroethene	50	0	52	104	71-120
Benzene	50	0	52	104	76-127
Toluene	50	0	51	102	76-125
Chlorobenzene	50	0	49	98	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	REC
1,1-Dichloroethene	50	58	116	2	14	61-145
Trichloroethene	50	50	100	4	14	71-120
Benzene	50	52	104	0	11	76-127
Toluene	50	50	100	2	13	76-125
Chlorobenzene	50	49	98	0	13	75-130

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

SPL Houston Labs

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: METHSPIKE-8260W
Level: LOW
Data Type: MS DATA
SpikeList File: 8260_water.spk
Sublist File: 8260.sub
Method File: /var/chem/n.i/n980724.b/n8260w.m
Misc Info: N205W1//N205CW1

Client SDG: n980724
Fraction: VOA

Operator: JC
SampleType: LCS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
8 1,1-Dichloroethene	50	60	120.00	61-145
29 Trichloroethene	50	49	98.00	71-120
25 Benzene	50	50	100.00	76-127
37 Toluene	50	48	96.00	76-125
45 Chlorobenzene	50	47	94.00	75-130

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 21 1,2-Dichloroethane	50	48	96.00	76-114
\$ 36 Toluene-d8	50	52	104.00	88-110
\$ 56 Bromofluorobenzene	50	53	106.00	86-115



SPL Blank QC Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 881-9901

Matrix: Aqueous
Sample ID: VLBLK
Batch: N980724122720

Reported on: 07/30/98 17:29
Analyzed on: 07/24/98 10:50
Analyst: JC

METHOD 8260/8240 N205B01

Compound	Result	Detection Limit	Units
Dichlorodifluoromethane	ND	10	ug/L
Chloromethane	ND	10	ug/L
Vinyl Chloride	ND	10	ug/L
Bromomethane	ND	10	ug/L
Chloroethane	ND	10	ug/L
Trichlorofluoromethane	ND	5	ug/L
Acetone	ND	100	ug/L
1,1-Dichloroethene	ND	5	ug/L
Methylene Chloride	ND	5	ug/L
Carbon Disulfide	ND	5	ug/L
trans-1,2-Dichloroethene	ND	5	ug/L
1,1-Dichloroethane	ND	5	ug/L
Vinyl Acetate	ND	10	ug/L
2-Butanone	ND	20	ug/L
cis-1,2-Dichloroethene	ND	5	ug/L
1,2-Dichloroethene (total)	ND	5	ug/L
2,2-Dichloropropane	ND	5	ug/L
Bromochloromethane	ND	5	ug/L
Chloroform	ND	5	ug/L
1,1,1-Trichloroethane	ND	5	ug/L
1,2-Dichloroethane	ND	5	ug/L
1,1-Dichloropropene	ND	5	ug/L
Benzene	ND	5	ug/L
Carbon Tetrachloride	ND	5	ug/L
1,2-Dichloropropane	ND	5	ug/L
Trichloroethene	ND	5	ug/L
Dibromomethane	ND	5	ug/L
Bromodichloromethane	ND	5	ug/L
2-Chloroethylvinylether	ND	10	ug/L
4-Methyl-2-Pentanone	ND	10	ug/L
cis-1,3-Dichloropropene	ND	5	ug/L
trans-1,3-Dichloropropene	ND	5	ug/L
Toluene	ND	5	ug/L
1,1,2-Trichloroethane	ND	5	ug/L

Notes

ND - Not detected.



SPL Blank QC Report

HOUSTON LABORATORY

8880 INTERCHANGE DRIVE

HOUSTON, TEXAS 77054

PHONE (713) 688-0901

2

Matrix: Aqueous
Sample ID: VLBLK
Batch: N980724122720

Reported on: 07/30/98 17:29
Analyzed on: 07/24/98 10:50
Analyst: JC

METHOD 8260/8240 N205B01

Compound	Result	Detection Limit	Units
1,3-Dichloropropane	ND	5	ug/L
2-Hexanone	ND	10	ug/L
Dibromochloromethane	ND	5	ug/L
1,2-Dibromoethane	ND	5	ug/L
Tetrachloroethene	ND	5	ug/L
Chlorobenzene	ND	5	ug/L
1,1,1,2-Tetrachloroethane	ND	5	ug/L
Ethylbenzene	ND	5	ug/L
Bromoform	ND	5	ug/L
Styrene	ND	5	ug/L
Xylene (Total)	ND	5	ug/L
1,1,2,2-Tetrachloroethane	ND	5	ug/L
1,2,3-Trichloropropane	ND	5	ug/L
Isopropylbenzene	ND	5	ug/L
Bromobenzene	ND	5	ug/L
N-Propylbenzene	ND	5	ug/L
2-Chlorotoluene	ND	5	ug/L
4-Chlorotoluene	ND	5	ug/L
1,3,5-Trimethylbenzene	ND	5	ug/L
tert-Butylbenzene	ND	5	ug/L
1,2,4-Trimethylbenzene	ND	5	ug/L
1,3-Dichlorobenzene	ND	5	ug/L
sec-Butylbenzene	ND	5	ug/L
1,4-Dichlorobenzene	ND	5	ug/L
p-Isopropyltoluene	ND	5	ug/L
1,2-Dichlorobenzene	ND	5	ug/L
n-Butylbenzene	ND	5	ug/L
1,2-Dibromo-3-Chloropropan	ND	5	ug/L
1,2,4-Trichlorobenzene	ND	5	ug/L
Naphthalene	ND	5	ug/L
Hexachlorobutadiene	ND	5	ug/L
1,2,3-Trichlorobenzene	ND	5	ug/L

Notes

ND - Not detected.



SPL Blank QC Report

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 558-0961

Matrix: Aqueous
Sample ID: VLBLK
Batch: N980724122720

Reported on: 07/30/98 17:29
Analyzed on: 07/24/98 10:50
Analyst: JC

METHOD 8260/8240 N205B01

Surrogate	Result	QC Criteria	Units
1,2-Dichloroethane-d4	96	76-114	% Recovery
Toluene-d8	102	88-110	% Recovery
Bromofluorobenzene	106	86-115	% Recovery

Samples in Batch 9807907-01 9807907-02 9807907-03 9807907-04

Notes

ND - Not detected.



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

** SPL QUALITY CONTROL REPORT **

Matrix: Aqueous

Reported on: 08/01/98

Analyzed on: 07/21/98

Analyst: DAM

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Nitrate-Nitrite, as N
Method 353.3 *

SPL Sample ID Number	Blank Value mg/L	LCS Concentration mg/L	Measured Concentration mg/L	% Recovery	QC Limits Recovery
LCS	ND	2.77	2.68	96.8	92 - 111

-9808011

Samples in batch:

9807438-02B 9807907-01C 9807907-02C 9807907-03C
9807907-04C

COMMENTS:

LCS = SPL ID#:95535172-26



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

**** SPL QUALITY CONTROL REPORT ****

Matrix: Aqueous

Reported on: 08/01/98

Analyzed on: 07/21/98

Analyst: DAM

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Nitrate-Nitrite, as N
Method 353.3 *

SPL Sample ID Number	Method Blank mg/L	Sample Result mg/L	Spike Added mg/L	Matrix Spike		Matrix Spike Duplicate		RPD (%)	QC LIMITS (Advisory)	
				Result mg/L	Recovery %	Result mg/L	Recovery %		RPD Max	% REC
9807438-02B	ND	0.38	5.00	5.39	100	5.41	101	1.0	12	87 -120

-9808010

Samples in batch:

9807438-02B 9807907-01C 9807907-02C 9807907-03C
9807907-04C

COMMENTS:

ICP Spectroscopy Method 6010 Quality Control Report

Analyst: EG



Matrix: Water

Units: mg/L

Date: 073098 Time: 1030 File Name: 073098M4

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Laboratory Control Sample

Element	Mth. Blank	True Value	Result	% Recovery	Lower Limit	Upper Limit
Silver	ND	2.00	1.97	99	1.60	2.40
Aluminum						
Arsenic						
Barium	ND	2.00	1.99	100	1.60	2.40
Beryllium						
Calcium						
Cadmium	ND	2.00	2.09	105	1.60	2.40
Cobalt						
Chromium	ND	2.00	2.06	103	1.60	2.40
Copper	ND	2.00	2.02	101	1.60	2.40
Iron	ND	2.00	2.05	103	1.60	2.40
Potassium						
Magnesium						
Manganese	ND	2.00	2.02	101	1.60	2.40
Sodium						
Nickel						
Lead	ND	2.00	2.01	100	1.60	2.40
Antimony						
Selenium						
Thallium						
Vanadium						
Zinc	ND	2.00	2.07	103	1.60	2.40

Work Orders in Batch

Work Order Fractions

98-07-907 01D-04D

Matrix Spike - Spike Duplicate Results

Work Order Spiked: 9807907-01D

Element	Sample Result	Spike Added	Matrix Spike Result	Matrix Spike Recovery	Matrix Spike Duplicate Result	Matrix Spike Duplicate Recovery	QC Limits % Recovery	Spike RPD %	QC Limits %
Silver	ND	1.0	0.919	91.9	0.892	89.2	80 120	3.0	20.0
Aluminum									
Arsenic									
Barium	0.0196	1.0	0.9357	91.6	0.902	88.2	80 120	3.7	20.0
Beryllium									
Calcium									
Cadmium	ND	1.0	0.99	99.0	0.9664	96.6	80 120	2.4	20.0
Cobalt									
Chromium	ND	1.0	0.9374	93.7	0.9148	91.5	80 120	2.4	20.0
Copper	ND	1.0	0.948	94.8	0.9192	91.9	80 120	3.1	20.0
Iron	ND	1.0	0.9432	94.3	0.9194	91.9	80 120	2.6	20.0
Potassium									
Magnesium									
Manganese	0.1543	1.0	1.067	91.3	1.047	89.3	80 120	2.2	20.0
Sodium									
Nickel									
Lead	ND	1.0	0.9126	91.3	0.8923	89.2	80 120	2.2	20.0
Antimony									
Selenium									
Thallium									
Vanadium									
Zinc	ND	1.0	0.9738	97.4	0.9533	95.3	80 120	2.1	20.0

Checked: *JA 8/3*



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

**** SPL QUALITY CONTROL REPORT ****

Matrix: Aqueous

Reported on: 07/31/98

Analyzed on: 07/31/98

Analyst: PB

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Arsenic, Total
Method 7060A ***

SPL Sample ID Number	Blank Value ug/L	LCS Concentration ug/L	Measured Concentration ug/L	% Recovery	QC Limits Recovery
LCS	ND	40.0	36.1	90.2	80 - 120

-9807E09

Samples in batch:

9807907-01D 9807907-02D 9807907-03D 9807907-04D

COMMENTS:

LCS= SPL ID# 98-1034-12-12



**** SPL QUALITY CONTROL REPORT ****

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Matrix: Aqueous

Reported on: 07/31/98
Analyzed on: 07/31/98
Analyst: PB

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Arsenic, Total
Method 7060A ***

SPL Sample ID Number	Method Blank ug/L	Sample Result ug/L	Spike Added ug/L	Matrix Spike		Matrix Spike Duplicate		RPD (%)	QC LIMITS (Advisory)	
				Result ug/L	Recovery %	Result ug/L	Recovery %		RPD Max	% REC
9807907-01D	ND	10.8	40.0	51.1	101	49.7	97.2	3.8	20	75 -125

-9807E09

Samples in batch:

9807907-01D 9807907-02D 9807907-03D 9807907-04D

COMMENTS:

LCS= SPL ID# 98-1034-12-12



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

**** SPL QUALITY CONTROL REPORT ****

Matrix: Aqueous

Reported on: 07/24/98

Analyzed on: 07/24/98

Analyst: AG

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Mercury, Total
Method 7470 A***

SPL Sample ID Number	Blank Value ug/L	LCS Concentration ug/L	Measured Concentration ug/L	% Recovery	QC Limits Recovery
LCS	ND	2.00	1.79	89.5	80 - 120

-9807A63

Samples in batch:

9807759-01G	9807802-01C	9807802-02C	9807802-03C
9807802-04C	9807802-05C	9807802-06C	9807802-07C
9807802-08C	9807802-09C	9807802-10C	9807804-11C
9807804-12C	9807854-01A	9807907-01D	9807907-02D
9807907-03D	9807907-04D		

COMMENTS:

LCS = SPL ID# 94-452-45-21

* VALUES OUTSIDE QC RANGE DUE TO MATRIX INTERFERENCE



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

** SPL QUALITY CONTROL REPORT **

Matrix: Aqueous

Reported on: 07/24/98
Analyzed on: 07/24/98
Analyst: AG

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Mercury, Total
Method 7470 A***

SPL Sample ID Number	Method Blank ug/L	Sample Result ug/L	Spike Added ug/L	Matrix Spike		Matrix Spike Duplicate		RPD (%)	QC LIMITS (Advisory)	
				Result ug/L	Recovery %	Result ug/L	Recovery %		RPD Max	% REC
9807802-01C	ND	ND	2.00	1.01	50.5*	1.01	50.5*	0	20	75 -125

-9807A63

Samples in batch:

9807759-01G	9807802-01C	9807802-02C	9807802-03C
9807802-04C	9807802-05C	9807802-06C	9807802-07C
9807802-08C	9807802-09C	9807802-10C	9807804-11C
9807804-12C	9807854-01A	9807907-01D	9807907-02D
9807907-03D	9807907-04D		

COMMENTS:

LCS = SPL ID# 94-452-45-21

* VALUES OUTSIDE QC RANGE DUE TO MATRIX INTERFERENCE



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

**** SPL QUALITY CONTROL REPORT ****

Matrix: Aqueous

Reported on: 07/31/98

Analyzed on: 07/31/98

Analyst: PB

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Selenium, Total
Method 7740 ***

SPL Sample ID Number	Blank Value ug/L	LCS Concentration ug/L	Measured Concentration ug/L	% Recovery	QC Limits Recovery
LCS	ND	40.0	41.1	103	80 - 120

-9807E23

Samples in batch:

9807907-01D 9807907-02D 9807907-03D 9807907-04D

COMMENTS:

LCS= SPL ID# 98-1034-12-12

* = VALUES OUTSIDE QC RANGE DUE TO MATRIX INTERFERENCE.



**** SPL QUALITY CONTROL REPORT ****

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Matrix: Aqueous

Reported on: 07/31/98
Analyzed on: 07/31/98
Analyst: PB

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Selenium, Total
Method 7740 ***

SPL Sample ID Number	Method Blank ug/L	Sample Result ug/L	Spike Added ug/L	Matrix Spike		Matrix Spike Duplicate		RPD (%)	QC LIMITS (Advisory)		
				Result ug/L	Recovery %	Result ug/L	Recovery %		RPD Max	% REC	
9807907-01D	ND	17.9	40.0	41.5	59.0*	40.0	55.2*	6.6	20	75	-125

-9807E23

Samples in batch:

9807907-01D 9807907-02D 9807907-03D 9807907-04D

COMMENTS:

LCS= SPL ID# 98-1034-12-12

* = VALUES OUTSIDE QC RANGE DUE TO MATRIX INTERFERENCE.



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

** SPL QUALITY CONTROL REPORT **

Matrix: Aqueous

Reported on: 08/03/98

Analyzed on: 07/30/98

Analyst: AB

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Chloride
Method 325.3 *

SPL Sample ID Number	Blank Value mg/L	LCS Concentration mg/L	Measured Concentration mg/L	% Recovery	QC Limits Recovery
LCS	ND	28.36	27.23	96.0	94 - 106

-9808073

Samples in batch:

9807907-04B 9807908-01C 9807908-02C 9807908-03C
9807908-04C 9807908-05C 9807976-01E 9807978-01F
9807978-02F

COMMENTS:

SPL LCS ID# 95535210-7



** SPL QUALITY CONTROL REPORT **

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Matrix: Aqueous

Reported on: 07/30/98
Analyzed on: 07/30/98
Analyst: AB

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Chloride
Method 325.3 *

SPL Sample	Method	Sample	Spike	Matrix Spike		Matrix Spike Duplicate		RPD	QC LIMITS (Advisory)	
ID Number	Blank	Result	Added	Result	Recovery	Result	Recovery	(%)	RPD	% REC
	mg/L	mg/L	mg/L	mg/L	%	mg/L	%		Max	
9807907-04B	ND	ND	0.50	0.52	104	0.52	104	0	5	92 -109

-9808068

Samples in batch:

9807907-04B 9807908-01C 9807908-02C 9807908-03C
9807908-04C 9807908-05C 9807976-01E 9807978-01F
9807978-02F

COMMENTS:



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

** SPL QUALITY CONTROL REPORT **

Matrix: Aqueous

Reported on: 07/30/98

Analyzed on: 07/30/98

Analyst: TW

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Sulfate
Method 375.4 *

SPL Sample ID Number	Blank Value mg/L	LCS Concentration mg/L	Measured Concentration mg/L	% Recovery	QC Limits Recovery
LCS	ND	10.15	9.96	98.1	82 - 111

-9807D67

Samples in batch:

9807567-01D	9807835-03C	9807835-04C	9807835-05C
9807907-01B	9807907-02B	9807907-03B	9807907-04B
9807908-01C	9807908-02C	9807908-03C	9807908-04C
9807908-05C	9807B10-04H	9807B13-15H	9807B62-01C
9807B62-02C	9807B62-03C	9807B62-04C	9807B62-05C

COMMENTS: -

SPL LCS ID# 95535210-7



SPL QUALITY CONTROL REPORT

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

Matrix: Aqueous

Reported on: 07/30/98

Analyzed on: 07/30/98

Analyst: TW

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Sulfate
Method 375.4 *

SPL Sample	Method	Sample	Spike	Matrix Spike		Matrix Spike Duplicate		RPD	QC LIMITS (Advisory)	
ID Number	Blank	Result	Added	Result	Recovery	Result	Recovery	(%)	RPD	% REC
	mg/L	mg/L	mg/L	mg/L	%	mg/L	%		Max	
9807835-04C	ND	8.00	10.00	18.79	108	18.12	101	6.7	9.5	84 -120

-9807D65

Samples in batch:

9807835-03C	9807835-04C	9807835-05C	9807907-01B
9807907-02B	9807907-03B	9807907-04B	9807908-01C
9807908-02C	9807908-03C		

COMMENTS:



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

** SPL QUALITY CONTROL REPORT **

Matrix: Aqueous

Reported on: 07/23/98

Analyzed on: 07/22/98

Analyst: DS

This sample was randomly selected for use in the SPL quality control program. Samples chosen are fortified with a known concentration in duplicate. The results are as follows:

Total Dissolved Solids
Method 160.1 *

SPL Sample ID Number	Blank Value mg/L	LCS Concentration mg/L	Measured Concentration mg/L	% Recovery	QC Limits Recovery
LCS	ND	432.7	437	101	93 - 107

-9807A16

Samples in batch:

9807719-01F	9807719-02F	9807719-03F	9807731-01C
9807907-01B	9807907-02B	9807907-03B	9807907-04B

COMMENTS:

LCS SPL ID# 95535212-04

CHAIN OF CUSTODY
AND
SAMPLE RECEIPT CHECKLIST



HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TEXAS 77054
PHONE (713) 660-0901

** SPL QUALITY CONTROL REPORT **

Matrix: Aqueous

Reported on: 07/23/98

Analyzed on: 07/22/98

Analyst: DS

This sample was randomly selected for use in the SPL quality control program. The results are as follows:

Total Dissolved Solids
Method 160.1 *

-- DUPLICATE ANALYSIS --

SPL Sample ID	Original Sample Concentration mg/L	Duplicate Sample mg/L	RPD	RPD Max.
9807719-02F	884	878	0.7	5

-9807A15

Samples in batch:

9807719-01F	9807719-02F	9807719-03F	9807731-01C
9807907-01B	9807907-02B	9807907-03B	9807907-04B

COMMENTS:



SPL, Inc.

SPL Workorder No:

9807907

1 316

Analysis Request & Chain of Custody Record

page 1 of 1

Client Name: CYPRESS ENGINEERINGAddress/Phone: 10235 WEST LITTLE ROCK, SUITE 250
HOUSTON, TX 77040 (813) 856-7980Client Contact: Stanley Sharp (713) 696-7252Project Name: TWP WST-1 ER PIT AREA

Project Number:

Project Location:

Invoice To: GEORGE ROBINSON CO. (916) 855

SAMPLE ID DATE TIME comp grab

MW-4 7/16/98 1345 X W G 40 1 3 3 X

MW-4 7/16/98 1345 P 1 0 3 3 X

MW-16 7/16/98 1520 G 40 1 3 3 X

MW-16 7/16/98 1520 P 1 0 3 3 X

MW-16 7/16/98 1650 G 40 1 3 3 X

MW-16 7/16/98 1650 P 1 0 3 3 X

MW-7 7/16/98 1810 G 40 1 3 3 X

MW-7 7/16/98 1810 P 1 0 3 3 X

MW-7 7/16/98 1810 P 1 0 3 3 X

MW-7 7/16/98 1810 P 1 0 3 3 X

MW-7 7/16/98 1810 P 1 0 3 3 X

MW-7 7/16/98 1810 P 1 0 3 3 X

MW-7 7/16/98 1810 P 1 0 3 3 X

MW-7 7/16/98 1810 P 1 0 3 3 X

MW-7 7/16/98 1810 P 1 0 3 3 X

MW-7 7/16/98 1810 P 1 0 3 3 X

MW-7 7/16/98 1810 P 1 0 3 3 X

MW-7 7/16/98 1810 P 1 0 3 3 X

MW-7 7/16/98 1810 P 1 0 3 3 X

MW-7 7/16/98 1810 P 1 0 3 3 X

MW-7 7/16/98 1810 P 1 0 3 3 X

matrix bottle size pres.

Number of Containers

VOC'S 8260 INCLUDING
1,2 DICHLOROETHENE (CIS & TRANS)
DICHLOROBENZENE (O, M, & P)

TDS, CHLORIDE & SULFATE

NITRATE & NITRITE AS NITROGEN

TOTAL METALS

6010 Ba, Cd, Cr, Pb, Hg

As by GRAPHITE FURNACE 7000

Se by GRAPHITE FURNACE 7140

Requested Analysis

Temp:

Client/Consultant Remarks: SEE ELESTA BROWN W/ QUESTIONS
* ADD H₂SO₄ TO NITRATES AS NITROGEN 553.3 ASAP
* DO NOT FILTER METALS ADD HNO₃ FOR TOTAL METALS

Laboratory remarks:

RUSH 7/18Intact? ☒ Y ☐ N

Requested TAT

Special Reporting Requirements

Fax Results

Standard QC ☐ Level 3 QC ☒

Raw Data

Level 4 QC ☐

Special Detection Limits (specify):

PM review (initial):

24hr ☐ 72hr ☐48hr ☐ Standard ☒Other ☐1. Relinquished by Sample: Stanley Sharp2. Received by: Stanley Sharp3. Relinquished by: Stanley Sharp4. Received by: Stanley Sharp

page 1 of 1

SPL Houston Environmental Laboratory

Sample Login Checklist

Date: 7/18/98	Time: 1000
---------------	------------

SPL Sample ID: 9807907

		Yes	No
1	Chain-of-Custody (COC) form is present.	✓	
2	COC is properly completed.	✓	
3	If no, Non-Conformance Worksheet has been completed.		
4	Custody seals are present on the shipping container.	✓	
5	If yes, custody seals are intact.	✓	
6	All samples are tagged or labeled.	✓	
7	If no, Non-Conformance Worksheet has been completed.		
8	Sample containers arrived intact	✓	
9	Temperature of samples upon arrival:	5 C	
10	Method of sample delivery to SPL:	SPL Delivery	
		Client Delivery	
		FedEx Delivery (airbill #)	804039160392
		Other:	
11	Method of sample disposal:	SPL Disposal	✓
		HOLD	
		Return to Client	

Name: <i>Robert Stul</i>	Date: 7/18/98
--------------------------	---------------