

GW - 114

MONITORING REPORTS

DATE:

AUG 94 SOIL VAPOR
EXTRACTION

**QUARTERLY REPORT
SOIL VAPOR EXTRACTION SYSTEM
DOWELL SCHLUMBERGER INCORPORATED
ARTESIA, NEW MEXICO**

August, 1994

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- C - Laboratory Analytical Reports Ground-Water - July 20, 1994

1.0 INTRODUCTION

1.0 INTRODUCTION

Dowell Schlumberger Incorporated (Dowell) has been operating a remediation system at the Artesia, NM facility since February 1, 1994. This system was installed pursuant to an approved work plan dated October 26, 1993. A report to the State of New Mexico Environmental Department (NMED) dated March 29, 1994 detailed construction and startup of the remediation system. Pursuant to State of New Mexico Environmental Improvement Board "Underground Storage Tank Regulations" this report is the first of required quarterly reports.

2.0 REMEDIATION SYSTEM OPERATION

2.0 REMEDIATION SYSTEM OPERATION

The remediation system at the Artesia facility consists of two separate soil vapor extraction (SVE) systems (Figure 2-1). These systems are called the maintenance shop SVE system and the wash bay SVE system based on their proximity to these facility improvements. The maintenance shop SVE system consists of two zones, each with 7 vapor extraction wells. The wash bay SVE system consists of three zones, each with 7 vapor extraction wells. The systems have run almost continuously since startup.

2.1 Overall Operation

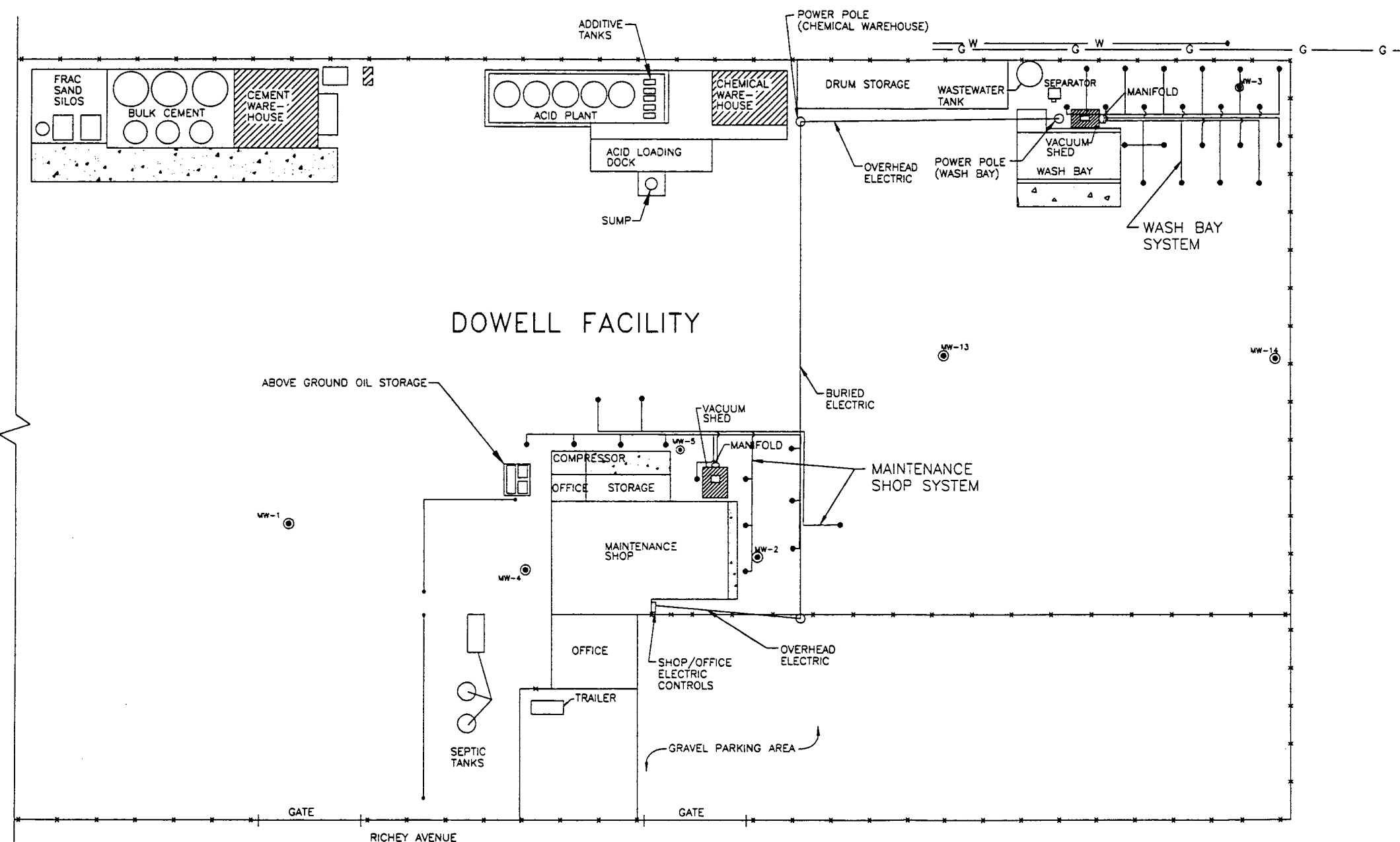
At startup the SVE systems were operated so that each zone had a vacuum applied to it for two hours at a time. Each zone was vented while the other zone(s) were on line. The system rotated through the zones continuously. On April 19, 1994, the length of each sequence was increased in an attempt to increase the radius of influence.

For the maintenance shop SVE system the new sequence was setup to favor Zone 2. Zone 2 has higher levels of volatile organics than Zone 1. Zone 1 is on for four hours followed by Zone 2 for eight hours. The sequence is repeated twice per day. At the wash bay SVE system each of the three zones are on for 8 hours during each day.

The system vacuum is measured at the blower and at the system manifold. These measurements are reported in Tables 2-1 and 2-2. The vacuum decreased slightly for the first 2 1/2 months. This is most likely due to drying of the soils and an increase in the unsaturated permeability. After that time, the vacuum increased. This increase may indicate that there is now a larger radius of influence.

At two occasions the vacuum has been measured at individual vacuum wells. It was found that the vacuum at all wells is the same as the manifold vacuum. This corresponds to the predication of negligible head loss in the system piping made during design.

The difference between the blower vacuum and manifold vacuum has remained constant at 1-3 inches of water. This verifies that there has been no plugging of the inline filters.



EXPLANATION	
●	WWC MONITORING WELL LOCATION AND IDENTIFICATION
•	SOIL VAPOR EXTRACTION (SVE) WELL
—	AIR PIPING WITH DIRECTION OF FLOW

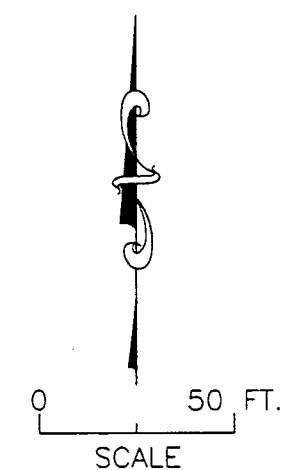


FIGURE 2-1
SITE PLAN

DOWELL SCHLUMBERGER INCORPORATED
ARTESIA, NEW MEXICO

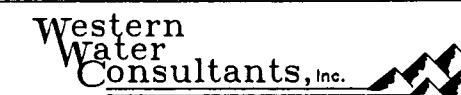


TABLE 2-1.

OPERATIONAL CONDITIONS
 MAINTENANCE SHOP SVE SYSTEM
 DOWELL SCHLUMBERGER INCORPORATED
 ARTESIA, NEW MEXICO

DATE	HOUR METER	VACUUM (INCHES OF WATER)			
		ZONE 1 MANIFOLD	ZONE 1 BLOWER	ZONE 2 MANIFOLD	ZONE 2 BLOWER
01/31/94	0.0				
02/01/94	5.1	44	48	48	50
02/02/94	23.2			48	50
02/03/94	47.8			41	46
02/10/94	219.4			43	45
02/16/94	362.1	30	35		
02/23/94	531.0			37	41
03/04/94	748.6	27	32		
03/11/94	915.3			37	41
03/18/94	1086.1	28	33		
03/28/94	1325.8	29	34		
04/08/94	1583.0			38	42
04/19/94	1857.6	31	36	33	38
05/06/94	2256.0	46	48	48	50
05/18/94				47	49
06/01/94				51	53
06/16/94	3099.9	49	52	48	51
07/06/94	3100.1	50	52	47	49
07/21/94	3457.6	44	49	52	54
08/09/94	3899.9	51	54	49	52

TABLE 2-2

OPERATIONAL CONDITIONS
WASH BAY SVE SYSTEM
DOWELL SCHLUMBERGER INCORPORATED
ARTESIA, NEW MEXICO

DATE	HOUR METER	VACUUM (INCHES OF WATER)					
		ZONE 1 MANIFOLD	ZONE 1 BLOWER	ZONE 2 MANIFLOD	ZONE 2 BLOWER	ZONE 3 MANIFOLD	ZONE 3 BLOWER
01/31/94	0.0						
02/01/94	5.3	43	44	41	42	43	44
02/02/94	20.6	40	42				
02/03/94	45.3	38	42			43	45
02/10/94	217.7	34	38				
02/16/94	359.7					41	43
02/23/94	528.5					39	42
03/04/94	746.2	32	36				
03/11/94	912.0					39	40
03/18/94	1083.9			33	37		
03/28/94	1322.8	32	36				
04/08/94	1581.2			32	36		
04/19/94	1855.2	31	34	33	36	35	38
05/06/94	2253.8	41	44	45	46	43	44
05/18/94						43	44
06/01/94		44	44				
06/16/94	3241.2	44	45	46	47	46	47
07/06/94	3712.1	43	44	44	45	45	45
07/21/94	3858.3	43	45	48	48	50	51
08/09/94	3859.7	43	44	45	46	45	46

2.2 Flow Rates

The vapor flow rates have been measured three times. Flow rates were determined by measuring vapor velocity with a hot-wire anemometer and calculating the flow rate. The flow rates vary between 60 and 90 standard cubic feet per minute (scfm) depending on the vacuum. These data are presented in Table 2-3.

2.3 Volatile Organics in Vapor

The concentration of volatile organics in the extracted soil vapor and exhausted vapor are measured during each site visit with a HNu photoionization detector (PID). These data are presented in Tables 2-4 and 2-5. The exhausted vapor is analyzed to detect break through of volatile organics in the carbon filters. Samples of the soil vapors have also been collected for laboratory analysis using EPA Method 8240. These data are presented in Appendix B and summarized in Table 2-6.

2.4 Maintenance

The systems have been relatively maintenance free. Minor problems have been corrected as they occur. Following is a list of maintenance activities:

- On 3/28/94 and 4/19/94 leaks in the surface seal at some of the vacuum wells were noticed. These leaks were repaired with cement grout. Since that time no additional leaks have been detected.
- On 4/8/94 it was noticed that the valve on Zone 1 of the maintenance shop SVE system was not functioning. The actuator was removed and the system set up to run on Zone 2 only. The actuator was repaired and reinstalled on 4/19/94.
- On 6/16/94 it was noticed that the hour meter at the maintenance shop SVE had stopped about six days previously. The hour meter was repaired and reinstalled on 7/6/94. The system was run continuously through this period.
- On 7/21/94 the wash bay SVE system was not functioning and according to the hour meter it was down for over 8 days. The problem apparently was an electrical storm which disturbed the control system. The controller was reprogrammed by the technician on site. On 8/9/94 it was noticed that the previous programming was in error and only operated the system for a few minutes a day. The controller was reprogrammed, tested, and verified.

TABLE 2-3.

VAPOR EXTRACTION RATES
SVE SYSTEMS
DOWELL SCHLUMBERGER INCORPORATED
ARTESIA, NEW MEXICO

DATE	SVE ZONE	BLOWER VACUUM (IN. H2O)	STACK VELOCITY (FPM)	FLOW RATE (SCFM)
02/01/93	MS-1	44	3000	65
	MS-2	48	3400	74
04/19/94	MS-1	38	4150	91
	MS-2	36	4160	91
06/16/94	MS-1	52	2760	60
	MS-2	51	2780	61
02/01/94	WB-1	36	3200	70
	WB-2	41	3300	72
	WB-3	39	3200	70
04/19/94	WB-1	34	4260	93
	WB-2	36	3780	82
	WB-3	38	3540	77
06/16/94	WB-1	47	2920	64
	WB-2	45	3080	67
	WB-3	47	3070	67

TABLE 2-4.

VOLATILE ORGANIC COMPOUNDS
MAINTENANCE SHOP SVE SYSTEM
DOWELL SCHLUMBERGER INCORPORATED
ARTESIA, NEW MEXICO

DATE	HOUR METER	HNU READING (PPM)		
		EXHAUST	ZONE 1	ZONE 2
02/03/94	47.8	0	4	35
02/10/94	219.4	0	1	12
02/16/94	362.1	0	1	6
02/23/94	531.0	3	3	8
03/04/94	748.6	0	1	6
03/11/94	915.3	3	3	7
03/18/94	1086.1	0	0	2
03/28/94	1325.8	0	0	2
04/08/94	1583.0	0	0	3.5
05/18/94		0		
07/06/94	3100.1	0	0	0
07/21/94	3457.6	0	0	0
08/09/94	3899.9	0	0	1

TABLE 2-5.

VOLATILE ORGANIC COMPOUNDS
WASH BAY SVE SYSTEM
DOWELL SCHLUMBERGER INCORPORATED
ARTESIA, NEW MEXICO

DATE	HOUR METER	HNU READING (PPM)			
		EXHAUST	ZONE 1	ZONE 2	ZONE 3
02/03/94	47.8	2	84	110	180
02/10/94	219.4	0	56	69	137
02/16/94	362.1	0	23	37	133
02/23/94	531.0	3	22	54	118
03/04/94	748.6	3	42	46	91
03/11/94	915.3	7	44	42	93
03/18/94	1086.1	40	33	44	77
03/28/94	1325.8	18	26	13	21
04/08/94	1583.0	7	29	39	67
05/18/94		0			
07/06/94	3100.1	1	24	66	135
07/21/94	3457.6	0	110	48	71
08/09/94	3899.9	1	31	67	126

TABLE 2-6. SUMMARY OF LABORATORY ANALYSES OF SOIL VAPOR SAMPLES,
DOWELL SCHLUMBERGER INCORPORATED, ARTESIA, NEW MEXICO

SVE ZONE	SAMPLE DATE	BENZENE (ug/L)	ETHYL- BENZENE (ug/L)	TOLUENE (ug/L)	XYLENES (ug/L)	1,1-DCA (ug/L)	1,2-DCA (ug/L)	1,1-DCE (ug/L)	1,1,1-TCA (ug/L)	1,1,2-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)	2-BUTANONE (ug/L)
MS-1	02/10/94	ND(1)	ND(1)	ND(1)	ND(1)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	7
	02/16/94	ND(1)	ND(1)	ND(1)	ND(1)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(1)	ND(2)
	02/23/94	ND(0.5)	ND(0.5)	0.51	ND(0.5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(0.5)	1.4
	03/04/94	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(0.5)	3
	03/11/94	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(0.5)	ND(1)
	03/18/94	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(0.5)	ND(1)
	03/28/94	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(0.5)	ND(1)
	04/20/94	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(0.5)	1.9
	05/06/94	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	05/18/94
	05/18/94	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(10)
	06/01/94	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	02/03/94	0.7	0.2	ND(0.5)	ND(0.5)	1.6	ND(0.5)	ND(0.5)	2.2	ND(0.5)	0.68	140	ND(2)
MS-2	02/10/94	ND(1)	ND(1)	ND(1)	ND(1)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	27.25	ND(2)
	02/16/94	ND(1)	ND(1)	ND(1)	ND(1)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	ND(2)	14.5	ND(2)
	02/23/94	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	50.2	1.8
	03/04/94	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	8.5	ND(1)
	03/11/94	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	17.6	ND(1)
	03/18/94	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	15.9	ND(1)
	03/28/94	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	6.9	ND(1)
	04/08/94	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(0.5)	ND(1)
	04/20/94	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	12.1	2.5
	05/06/94	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	6.8	ND(10)
	05/18/94	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	ND(1)	ND(0.5)	ND(0.5)	ND(0.5)	6.9	ND(10)
	06/01/94	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	12	ND(1)
WB-2	02/10/94	ND(1)	3.57	2.98	12.6	ND(2)	ND(2)	ND(2)	4.07	ND(2)	ND(2)	ND(2)	ND(2)
	02/16/94	ND(1)	1.2	1.1	10.4	ND(2)	ND(2)	ND(2)	3.7	ND(2)	ND(2)	14.5	9.1
	02/23/94	ND(0.5)	2.2	2.4	18.3	ND(1)	ND(1)	ND(1)	6.1	ND(1)	ND(1)	ND(0.5)	ND(1)
	03/04/94	ND(0.5)	2.6	2.5	21.2	ND(1)	ND(1)	ND(1)	6.6	ND(1)	ND(1)	ND(0.5)	ND(1)
	03/11/94	ND(0.5)	2.8	2.9	18.1	ND(1)	ND(1)	ND(1)	9.3	ND(1)	ND(1)	17.6	4.1
	03/18/94	ND(0.5)	14.6	1.8	ND(0.5)	ND(1)	ND(1)	ND(1)	3.5	ND(1)	ND(1)	ND(0.5)	21.3
	03/28/94	ND(0.5)	0.9	1.2	8	ND(1)	ND(1)	ND(1)	3.4	ND(1)	ND(1)	ND(0.5)	ND(1)
	04/08/94	ND(0.5)	ND(0.5)	ND(0.5)	4.6	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(0.5)	ND(1)
	04/20/94	ND(0.5)	ND(0.5)	ND(0.5)	5.9	ND(1)	ND(1)	ND(1)	2.8	ND(1)	ND(1)	ND(0.5)	1.2
	05/06/94	ND(0.5)	1.1	1.7	5.8	ND(0.5)	ND(0.5)	ND(1)	3.9	ND(0.5)	ND(0.5)	ND(0.5)	ND(10)
	05/18/94	ND(0.5)	0.8	ND(0.5)	8.4	ND(0.5)	ND(0.5)	ND(1)	1.8	ND(0.5)	ND(0.5)	ND(0.5)	ND(10)
	06/01/94	ND(1)	3	ND(1)	6	ND(1)	ND(1)	ND(1)	4	ND(1)	ND(1)	2	ND(1)
	07/06/94	ND(1)	5	1	11	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
WB-2	02/10/94	1.67	5.03	10.13	14.9	ND(2)	ND(2)	ND(2)	8.34	ND(2)	ND(2)	ND(2)	14.71
	02/16/94	ND(1)	3	4.8	29.9	ND(2)	ND(2)	ND(2)	6.5	ND(2)	ND(2)	14.5	6.7
	02/23/94	1.4	9.3	16.4	53.2	ND(1)	ND(1)	ND(1)	12.6	ND(1)	ND(1)	ND(0.5)	ND(1)
	03/04/94	ND(0.5)	5.3	9.5	39.7	ND(1)	ND(1)	ND(1)	12.1	ND(1)	ND(1)	ND(0.5)	ND(1)
	03/11/94	ND(0.5)	5.4	10.9	23.2	ND(1)	ND(1)	ND(1)	12.1	ND(1)	ND(1)	ND(0.5)	26.7
	03/18/94	0.7	4.8	9.6	28.1	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(0.5)	18.7
	03/28/94	ND(0.5)	1.9	3.5	12.8	ND(1)	ND(1)	ND(1)	5	ND(1)	ND(1)	ND(0.5)	ND(1)
	04/08/94	ND(0.5)	1.1	1.5	8.4	ND(1)	ND(1)	ND(1)	2	ND(1)	ND(1)	ND(0.5)	1.6
	04/20/94	ND(0.5)	4.1	5.8	27.5	ND(1)	ND(1)	ND(1)	6.8	ND(1)	ND(1)	ND(0.5)	ND(10)
	05/06/94	ND(0.5)	3.7	4.5	30	ND(0.5)	ND(0.5)	ND(1)	3	ND(0.5)	ND(0.5)	ND(0.5)	ND(10)
	05/18/94	ND(0.5)	5.3	6	44.2	ND(1)	ND(1)	ND(1)	2.8	ND(0.5)	ND(0.5)	ND(1)	ND(1)
	06/01/94	ND(1)	7	ND(1)	15	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)
	07/06/94	5	5	8	42	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)

TABLE 2-6. SUMMARY OF LABORATORY ANALYSES OF SOIL VAPOR SAMPLES,
DOWELL SCHLUMBERGER INCORPORATED, ARTESIA, NEW MEXICO

SVE ZONE	SAMPLE DATE	BENZENE (ug/L)	ETHYL- BENZENE (ug/L)	TOLUENE (ug/L)	XYLENES (ug/L)	1,1-DCA (ug/L)	1,2-DCA (ug/L)	1,1-DCE (ug/L)	1,1,1- TCA (ug/L)	1,1,2- TCA (ug/L)	TCE (ug/L)	PCE (ug/L)	2-BUTANONE (ug/L)
WB-3	02/03/94	5.5	22	78	153	1.2	ND(0.5)	2.8	26	ND(0.5)	ND(0.5)	5.2	ND(2)
	02/10/94	ND(1)	15.6	64.6	46.9	ND(2)	ND(2)	ND(2)	11.4	ND(2)	ND(2)	ND(2)	31.33
	02/16/94	ND(1)	ND(1)	25.7	44.5	ND(2)	ND(2)	ND(2)	11	ND(2)	ND(2)	ND(1)	ND(2)
	02/23/94	3.5	17.5	73.2	99.1	ND(1)	ND(1)	ND(1)	19.3	ND(1)	ND(1)	1.6	1.4
	03/04/94	2.1	10.6	44.9	60.9	ND(1)	ND(1)	ND(1)	14.7	ND(1)	ND(1)	ND(0.5)	ND(1)
	03/11/94	ND(0.5)	13.3	ND(0.5)	14.3	ND(1)	ND(1)	ND(1)	17.9	ND(1)	ND(1)	ND(0.5)	3.8
	03/18/94	ND(0.5)	10.1	38.3	57.2	ND(1)	ND(1)	ND(1)	11	ND(1)	ND(1)	ND(0.5)	46.4
	03/28/94	1.2	5.7	21.4	30.8	ND(1)	ND(1)	ND(1)	8.1	ND(1)	ND(1)	ND(0.5)	ND(1)
	04/08/94	ND(0.5)	1.5	2.4	9.4	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(1)	ND(0.5)	ND(1)
	04/20/94	ND(0.5)	10.6	27.6	31.8	ND(1)	ND(1)	ND(1)	11.1	ND(1)	ND(1)	ND(0.5)	13.3
	05/06/94	ND(0.5)	6.8	17.5	38.9	ND(0.5)	ND(0.5)	ND(1)	6	ND(0.5)	ND(0.5)	ND(0.5)	ND(10)
	05/18/94	ND(0.5)	6.2	8.1	43.9	ND(0.5)	ND(0.5)	ND(1)	1.9	ND(0.5)	ND(0.5)	ND(0.5)	ND(10)
	06/01/94	ND(1)	4	7	34	ND(1)	ND(1)	ND(1)	4	ND(1)	ND(1)	ND(1)	ND(1)
	07/06/94	ND(1)	11	22	73	ND(1)	ND(1)	ND(1)	3	ND(1)	ND(1)	ND(1)	ND(1)

NOTES: ND(1) = chemical not detected at detection limit
shown in parentheses
dup. = duplicate sample
* = minor amounts of other chemicals also detected
(see previous laboratory reports)
= minor amounts of other chemicals also detected
(see laboratory reports appended to this letter)
NA = not analyzed

CHEMICAL ABBREVIATIONS:
1,1-DCA = 1,1-dichloroethane
1,2-DCA = 1,2-dichloroethane
1,1-DCE = 1,1-dichloroethene
1,1,1-TCA = 1,1,1-trichloroethane
1,1,2-TCA = 1,1,2-trichloroethane
TCE = trichloroethene
PCE = tetrachloroethene

Carbon filters have been replaced at a rate of one per month at the wash bay SVE system. No carbon canisters have required replacement at the maintenance shop SVE system. A sample of the carbon was analyzed for hazardous characteristics and found to be nonhazardous. The laboratory analysis is included in Appendix A.

3.0 GROUND-WATER MONITORING RESULTS

3.0 GROUND-WATER MONITORING RESULTS

The quarterly ground-water monitoring event associated with the operation of the SVE system was conducted on July 19 and 20, 1994. Activities included measuring static water levels and collecting ground-water samples from all monitoring wells. Samples were collected according to standard WWC protocol, as documented in earlier site investigation reports. Ground-water samples were shipped overnight to HydroLogic Laboratories (formerly Cenref Labs) in Brighton, Colorado. Samples were analyzed for volatile hydrocarbons by EPA Method 8240.

3.1 Water Level Data

Measured static water levels and calculated water level elevations are presented in Table 3-1, along with previous data for comparison. A potentiometric surface map (Figure 3-1) for the July 1994 water level data indicates that the ground-water flow direction is to the northeast, consistent with earlier data.

3.2 Analytical Results

The results of the laboratory analyses of ground-water samples collected in July 1994 are summarized in Table 3-2. Previous analytical results from each monitoring well are included for comparison. Copies of laboratory analytical reports are presented in Appendix C.

**TABLE 3-1. GROUND-WATER MEASUREMENTS AND ELEVATIONS,
DOWELL SCHLUMBERGER INCORPORATED, ARTESIA, NEW MEXICO.**

WELL #	DATE	DEPTH TO GROUND WATER (ft)	MEASURING POINT ELEVATION* (ft)	GROUND-WATER ELEVATION* (ft)
MW-1	01/23/91	17.41	100.56	83.15
	09/13/91	16.04		84.52
	11/22/91	14.50		86.06
	03/16/93	13.72		86.84
	01/09/94	14.62		85.94
	04/19/94	14.48		86.08
	07/20/94	14.38		86.18
MW-2	01/23/91	16.95	99.56	82.61
	09/13/91	15.01		84.55
	11/22/91	13.76		85.80
	03/16/93	13.16		86.40
	01/09/94	13.91		85.65
	04/19/94	13.80		85.76
	07/20/94	13.65		85.91
MW-3	01/23/91	17.28	98.33	81.05
	09/13/91	14.66		83.67
	11/22/91	13.63		84.70
	03/16/93	12.89		85.44
	01/09/94	13.66		84.67
	04/19/94	NM		NM
	07/20/94	13.18		85.15
MW-4	01/23/91	20.17	103.18	83.01
	09/13/91	18.54		84.64
	11/22/91	17.15		86.03
	03/16/93	16.49		86.69
	01/09/94	17.28		85.90
	04/19/94	17.15		86.03
	07/20/94	16.99		86.19
MW-5	01/23/91	17.20	99.87	82.67
	09/13/91	15.52		84.35
	11/22/91	14.19		85.68
	03/16/93	13.47		86.40
	01/09/94	14.31		85.56
	04/19/94	14.17		85.70
	07/20/94	13.97		85.90
MW-6	01/23/91	19.59	100.84	81.25
	09/13/91	17.43		83.41
	11/21/91	16.30		84.54
	03/16/93	15.57		85.27
	01/09/94	16.42		84.42
	04/19/94	16.29		84.55
	07/19/94	15.79		85.05
MW-7	01/23/91	19.01	100.23	81.22
	09/13/91	17.43		82.80
	11/21/91	16.00		84.23
	03/16/93	14.91		85.32
	01/09/94	15.99		84.24
	04/19/94	15.83		84.40
	07/19/94	15.24		84.99
MW-8	01/23/91	20.16	101.47	81.31
	09/13/91	18.80		82.67
	11/21/91	17.29		84.18
	03/16/93	16.03		85.44
	01/09/94	17.23		84.24
	04/19/94	17.05		84.42
	07/19/94	16.50		84.97

**TABLE 3-1. GROUND-WATER MEASUREMENTS AND ELEVATIONS,
DOWELL SCHLUMBERGER INCORPORATED, ARTESIA, NEW MEXICO.**

WELL #	DATE	DEPTH TO GROUND WATER (ft)	MEASURING POINT ELEVATION* (ft)	GROUND-WATER ELEVATION* (ft)
MW-9	01/26/91	20.08	102.18	82.10
	09/13/91	18.93		83.25
	11/21/91	17.35		84.83
	03/16/93	16.19		85.99
	01/09/94	17.31		84.87
	04/19/94	17.33		84.85
	07/19/94	16.85		85.33
MW-10	01/26/91	19.68	101.34	81.66
	09/13/91	18.56		82.78
	11/21/91	16.96		84.38
	03/16/93	15.64		85.70
	01/09/94	16.89		84.45
	04/19/94	16.73		84.61
	07/19/94	16.29		85.05
MW-11	01/26/91	19.27	100.60	81.33
	09/13/91	17.81		82.79
	11/21/91	16.35		84.25
	03/16/93	15.20		85.40
	01/09/94	16.31		84.29
	04/19/94	16.17		84.43
	07/19/94	15.63		84.97
MW-12	01/26/91	19.24	100.69	81.45
	09/13/91	17.59		83.10
	11/21/91	16.21		84.48
	03/16/93	15.22		85.47
	01/09/94	16.25		84.44
	04/19/94	16.13		84.56
	07/19/94	15.63		85.06
MW-13	09/13/91	15.10	99.25	84.15
	11/21/91	13.95		85.30
	03/16/93	13.22		86.03
	01/09/94	14.03		85.22
	04/19/94	13.90		85.35
	07/20/94	13.70		85.55
MW-14	09/13/91	14.60	98.74	84.14
	11/21/91	13.61		85.13
	03/16/93	13.00		85.74
	01/09/94	13.71		85.03
	04/19/94	13.63		85.11
	07/20/94	13.39		85.35
MW-15	09/13/91	16.30	100.05	83.75
	11/21/91	15.01		85.04
	03/16/93	13.95		86.10
	01/09/94	14.91		85.14
	04/19/94	14.80		85.25
	07/20/94	14.56		85.49

NOTES:

* = measured from a temporary benchmark of arbitrary elevation = 100.00 feet.

Benchmark is located on the concrete right up against the east shop wall,
at the northeast corner of the shop.

NM = not measured

TABLE 3-2. RESULTS FROM LABORATORY ANALYSES OF GROUND-WATER SAMPLES, DOWELL SCHLUMBERGER INCORPORATED FACILITY, ARTESIA, NEW MEXICO

WELL NUMBER	SAMPLE DATE	BENZENE (mg/L)	ETHYL-BENZENE (mg/L)	TOLUENE (mg/L)	XYLENES (mg/L)	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	1,1,1-TCA (mg/L)	1,1,2-TCA (mg/L)	TCE (mg/L)	PCE (mg/L)	ACETONE (mg/L)
MW-1	01/26/91	0.033	ND(0.005)	0.029	0.13	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.05)
	08/15/91	ND(0.001)	ND(0.001)	0.002	0.009	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)
	11/22/91	0.026	ND(0.001)	0.007	0.014	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)
	03/16/93	0.016	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)
	01/10/94	0.006	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)
	04/19/94	0.035	0.001J	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.1)
	07/20/94	0.008	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.1)
MW-2	01/26/91	0.21	0.59	0.071	1.7	0.048	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	ND(0.01)	0.11	ND(0.1)
dup.	01/26/91	0.19	0.45	0.062	1.3	0.043	ND(0.01)	ND(0.01)	0.011	ND(0.01)	ND(0.01)	0.078	ND(0.1)
	08/15/91	0.12	0.05	0.006	0.69	0.1	ND(0.005)	0.005	0.023	ND(0.005)	ND(0.005)	0.15	ND(0.05)
*	11/22/91	0.033	0.001	0.001	0.088	0.11	ND(0.001)	0.007	0.016	ND(0.001)	ND(0.001)	0.064	ND(0.01)
	03/16/93	0.019	ND(0.001)	ND(0.001)	ND(0.005)	0.06	ND(0.001)	0.002	0.003	ND(0.001)	0.001	0.028	ND(0.01)
	01/10/94	0.024	ND(0.001)	0.001	ND(0.005)	0.039	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.001J	0.048	ND(0.1)
dup.	04/19/94	0.045	0.004J	ND(0.005)	ND(0.005)	0.028	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.001J	0.052	ND(0.1)
	04/19/94	0.043	0.005J	ND(0.005)	ND(0.005)	0.03	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.001J	0.021	ND(0.1)
	07/20/94	0.022	ND(0.005)	ND(0.005)	ND(0.005)	0.026	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)		
MW-3	01/26/91	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	08/15/91	0.2	1.2	1.2	14	ND(0.2)	ND(0.2)	ND(0.2)	0.33	ND(0.2)	ND(0.2)	ND(0.2)	3.7
*	11/22/91	0.11	0.68	0.53	6.8	0.094	0.004	0.19	0.11	0.002*	0.15	0.057	0.811
	03/16/93	ND(0.001)	1	0.65	8.6	ND(0.001)	ND(0.001)	ND(0.001)	0.26	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)
dup.	03/16/93	0.13	0.78	0.54	9	ND(0.001)	ND(0.001)	0.044	0.26	ND(0.001)	0.037	0.39	0.22
	01/10/94	0.14	1	0.7	11	0.19	ND(0.1)	ND(0.1)	0.21	ND(0.1)	ND(0.1)	ND(0.1)	ND(1)
	04/19/94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
#	07/20/94	0.092	0.46	0.16	3	0.077	0.002J	0.036	0.069	ND(0.005)	0.064	0.011	0.048J
MW-4	01/26/91	0.098	0.011	ND(0.001)	0.025	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)
	08/15/91	0.26	ND(0.002)	ND(0.002)	0.015	0.006	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.002)	ND(0.02)
	11/22/91	0.18	0.1	0.001	0.037	ND(0.001)	ND(0.001)	0.019	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)
	03/16/93	0.072	0.051	ND(0.001)	ND(0.005)	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)
	01/10/94	0.064	0.074	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)
	04/19/94	0.074	0.085	ND(0.005)	0.003J	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.1)
	07/20/94	0.1	0.053	ND(0.005)	0.005	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.1)
MW-5	01/26/91	0.014	ND(0.001)	ND(0.001)	ND(0.005)	0.004	ND(0.001)	0.002	0.001	ND(0.001)	ND(0.001)	0.01	ND(0.01)
	08/15/91	ND(0.001)	0.001	ND(0.001)	ND(0.005)	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.018	ND(0.01)
	11/22/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.018	ND(0.01)
	03/16/93	0.078	0.007	ND(0.001)	ND(0.005)	0.013	ND(0.001)	0.003	ND(0.001)	ND(0.001)	0.001	0.026	ND(0.01)
	01/10/94	0.025	ND(0.001)	ND(0.001)	ND(0.005)	0.008	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.026	ND(0.01)
	04/19/94	0.07	0.011	ND(0.005)	ND(0.005)	0.008	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.002J	0.015	ND(0.1)
	07/20/94	0.22	0.041	ND(0.005)	ND(0.005)	0.011	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.004J	0.025	ND(0.1)
dup.	07/20/94	0.32	0.076	ND(0.005)	0.001J	0.026	ND(0.005)	0.002J	ND(0.005)	ND(0.005)	0.006	0.039	ND(0.1)
MW-6	01/26/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.007	ND(0.001)	0.17	0.007	ND(0.001)	ND(0.001)	0.083	ND(0.01)
	08/15/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.006	ND(0.001)	0.084	ND(0.001)	ND(0.001)	ND(0.001)	0.043	ND(0.01)
	11/22/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.005	ND(0.001)	0.064	ND(0.001)	ND(0.001)	ND(0.001)	0.035	ND(0.01)
	03/16/93	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.007	ND(0.001)	0.098	0.001	ND(0.001)	ND(0.001)	0.056	ND(0.01)

TABLE 3-2. RESULTS FROM LABORATORY ANALYSES OF GROUND-WATER SAMPLES, DOWELL SCHLUMBERGER INCORPORATED FACILITY, ARTESIA, NEW MEXICO

WELL NUMBER	SAMPLE DATE	BENZENE (mg/L)	ETHYL-BENZENE (mg/L)	TOLUENE (mg/L)	XYLENES (mg/L)	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	1,1,1-TCA (mg/L)	1,1,2-TCA (mg/L)	TCE (mg/L)	PCE (mg/L)	ACETONE (mg/L)
dup.	01/10/94	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.017	ND(0.001)	0.14	0.002	ND(0.001)	ND(0.001)	0.12	ND(0.01)
	04/19/94	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.013	ND(0.005)	0.07	0.002J	ND(0.005)	ND(0.005)	0.072	ND(0.1)
	07/20/94	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.009	ND(0.005)	0.098	0.001J	ND(0.005)	ND(0.005)	0.065	ND(0.1)
	07/20/94	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.013	ND(0.005)	0.11	0.001J	ND(0.005)	ND(0.005)	0.073	ND(0.1)
MW-7	01/26/91	0.006	ND(0.001)	ND(0.001)	ND(0.005)	0.021	ND(0.001)	0.26	0.01	ND(0.001)	0.068	0.2	ND(0.01)
	09/15/91	0.009	ND(0.001)	ND(0.001)	ND(0.005)	0.038	ND(0.001)	0.32	0.005	ND(0.001)	0.069	0.27	ND(0.01)
	09/15/91	0.009	ND(0.001)	ND(0.001)	ND(0.005)	0.034	ND(0.001)	0.31	0.006	ND(0.001)	0.069	0.28	ND(0.01)
	11/22/91	0.009	ND(0.005)	ND(0.005)	ND(0.025)	0.035	ND(0.005)	0.36	ND(0.005)	ND(0.001)	0.053	0.31	ND(0.05)
dup.	03/16/93	0.007	ND(0.001)	ND(0.001)	ND(0.005)	0.027	ND(0.001)	0.28	0.002	ND(0.001)	0.05	0.16	ND(0.01)
	01/10/94	0.005	ND(0.001)	ND(0.001)	ND(0.005)	0.023	ND(0.001)	0.21	0.004	ND(0.001)	0.046	0.16	ND(0.01)
	04/19/94	0.007J	ND(0.005)	ND(0.005)	ND(0.005)	0.021	ND(0.005)	0.12	0.003J	ND(0.005)	0.038	0.12	ND(0.1)
	07/20/94	0.006	ND(0.005)	ND(0.005)	ND(0.005)	0.018	ND(0.005)	0.22	0.003J	ND(0.005)	0.04	0.16	ND(0.1)
MW-8	01/26/91	ND(0.001)	ND(0.001)	ND(0.001)	0.005	ND(0.001)	ND(0.001)	0.015	0.004	ND(0.001)	0.001	0.003	ND(0.01)
	09/15/91	0.007	ND(0.001)	ND(0.001)	ND(0.005)	0.017	ND(0.001)	0.101	0.007	ND(0.001)	0.039	0.05	ND(0.01)
	11/22/91	0.004	ND(0.001)	ND(0.001)	ND(0.005)	0.02	ND(0.001)	0.087	0.003	ND(0.001)	0.045	0.063	ND(0.01)
	03/16/93	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.004	ND(0.001)	0.054	0.005	ND(0.001)	0.006	0.009	ND(0.01)
MW-9	01/10/94	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.004	ND(0.001)	0.054	0.004	ND(0.001)	0.006	0.006	ND(0.01)
	01/10/94	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.005	ND(0.001)	0.073	0.004	ND(0.001)	0.008	0.01	ND(0.01)
	04/19/94	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.004J	ND(0.005)	0.039	0.004J	ND(0.005)	0.004J	0.007	ND(0.1)
	07/20/94	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.004J	ND(0.005)	0.069	0.005	ND(0.005)	0.006	0.011	ND(0.1)
MW-10	01/26/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.022	ND(0.001)	0.002	ND(0.001)	ND(0.001)	ND(0.001)	0.001	ND(0.01)
	09/15/91	0.002	0.032	ND(0.001)	ND(0.005)	0.035	ND(0.001)	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.019
	11/22/91	0.004	0.17	ND(0.001)	ND(0.005)	0.029	ND(0.001)	0.002	ND(0.001)	ND(0.001)	ND(0.001)	0.001	0.014
	03/16/93	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.012	ND(0.001)	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)
MW-11	01/10/94	ND(0.001)	ND(0.001)	0.002	ND(0.005)	0.012	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)
	04/19/94	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.01	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.1)
	07/20/94	ND(0.005)	ND(0.005)	ND(0.005)	0.001J	0.017	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.006J
	01/26/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	0.004	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	0.017
MW-11	09/15/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	0.012	0.002	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)
	11/22/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	0.029	0.005	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)
	03/16/93	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	0.025	0.001	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)
	01/10/94	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	ND(0.001)	ND(0.001)	0.021	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.01)
MW-11	04/19/94	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.022	0.001J	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.1)
	07/20/94	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.052	0.004J	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.1)
	01/26/91	0.01	ND(0.005)	ND(0.005)	ND(0.025)	0.045	ND(0.005)	0.31	ND(0.005)	ND(0.005)	0.14	0.36	ND(0.05)
	09/15/91	0.056	ND(0.001)	ND(0.001)	ND(0.005)	0.068	ND(0.001)	0.47	0.017	ND(0.001)	0.12	0.33	ND(0.01)
MW-11	11/22/91	0.048	ND(0.001)	ND(0.001)	ND(0.005)	0.052	ND(0.001)	0.39	0.018	ND(0.001)	0.11	0.32	ND(0.01)
	03/16/93	0.005	ND(0.001)	ND(0.001)	ND(0.005)	0.04	ND(0.001)	0.22	0.004	ND(0.001)	0.074	0.16	ND(0.01)
	01/10/94	0.005	ND(0.001)	ND(0.001)	ND(0.005)	0.042	ND(0.001)	0.25	ND(0.001)	ND(0.001)	0.083	0.32	ND(0.01)
	04/19/94	0.009	ND(0.005)	0.002J	ND(0.005)	0.042	ND(0.005)	0.17	0.006	ND(0.005)	0.079	0.17	ND(0.1)
MW-11	07/20/94	ND(0.025)	ND(0.025)	ND(0.025)	ND(0.025)	0.057	ND(0.025)	0.46	0.01J	ND(0.025)	0.12	0.36	ND(0.5)

TABLE 3-2. RESULTS FROM LABORATORY ANALYSES OF GROUND-WATER SAMPLES, DOWELL SCHLUMBERGER INCORPORATED FACILITY, ARTESIA, NEW MEXICO

WELL NUMBER	SAMPLE DATE	BENZENE (mg/L)	ETHYL-BENZENE (mg/L)	TOLUENE (mg/L)	XYLENES (mg/L)	1,1-DCA (mg/L)	1,2-DCA (mg/L)	1,1-DCE (mg/L)	1,1,1-TCA (mg/L)	1,1,2-TCA (mg/L)	TCE (mg/L)	PCE (mg/L)	ACETONE (mg/L)
MW-12	01/26/91	0.26	0.95	0.23	4.5	0.14	ND(0.025)	ND(0.025)	0.057	ND(0.025)	0.073	0.042	2.2
	08/15/91	0.15	0.82	0.83	2.2	0.12	ND(0.001)	0.3	0.11	ND(0.001)	0.2	0.061	0.29
*	11/22/91	0.11	0.43	0.034	0.81	0.11	0.002	0.24	0.1	ND(0.001)	0.26	0.051	0.058
*	03/16/93	0.16	0.8	0.014	1.0	0.12	ND(0.001)	0.039	0.055	ND(0.001)	0.036	0.018	0.017
	01/10/94	0.16	0.87	0.028	0.99	0.15	ND(0.01)	0.075	0.053	ND(0.01)	0.07	0.024	ND(0.1)
	04/19/94	0.11	0.11	0.049	0.25	0.11	0.002J	0.084	0.085	ND(0.005)	0.073	0.033	ND(0.1)
#	07/20/94	0.16	0.72	0.071	0.61	0.15	ND(0.025)	0.073	0.075	ND(0.025)	0.086	0.022J	ND(0.5)
MW-13	08/15/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.03	0.002	0.038	0.005	ND(0.001)	0.004	0.24	ND(0.01)
	11/22/91	0.43	ND(0.001)	ND(0.001)	ND(0.005)	0.016	0.001	0.025	0.002	ND(0.001)	0.002	0.11	ND(0.01)
	03/16/93	0.033	ND(0.001)	ND(0.001)	ND(0.005)	0.013	ND(0.001)	0.014	ND(0.001)	ND(0.001)	0.002	0.082	ND(0.01)
dup.	03/16/93	0.034	ND(0.001)	ND(0.001)	ND(0.005)	0.013	0.001	0.015	ND(0.001)	ND(0.001)	0.002	0.068	ND(0.01)
	01/10/94	0.022	ND(0.001)	ND(0.001)	ND(0.005)	0.016	ND(0.001)	0.007	ND(0.001)	ND(0.001)	0.003	0.055	ND(0.01)
	04/19/94	0.013	ND(0.005)	ND(0.005)	ND(0.005)	0.011	0.001J	0.003J	ND(0.005)	ND(0.005)	0.003J	0.032	ND(0.1)
	07/20/94	0.016	ND(0.005)	ND(0.005)	ND(0.005)	0.016	0.001J	0.005J	ND(0.005)	ND(0.005)	0.004J	0.034	ND(0.1)
MW-14	08/15/91	0.022	ND(0.001)	ND(0.001)	ND(0.005)	0.13	0.002	0.3	0.014	0.001	0.002	0.46	ND(0.01)
	11/22/91	0.002	ND(0.001)	ND(0.001)	ND(0.005)	0.14	0.002	0.31	0.008	ND(0.001)	0.002	0.4	ND(0.01)
dup.	03/16/93	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.11	0.002	0.32	0.01	ND(0.001)	ND(0.001)	0.44	ND(0.01)
	01/10/94	0.02	ND(0.001)	ND(0.001)	ND(0.005)	0.08	0.001	0.18	0.004	ND(0.001)	0.002	0.21	ND(0.01)
	04/19/94	0.011	ND(0.001)	ND(0.001)	ND(0.005)	0.057	ND(0.001)	0.1	ND(0.001)	ND(0.001)	0.002	0.3	0.011
	07/20/94	0.005	ND(0.005)	ND(0.005)	ND(0.005)	0.058	ND(0.005)	0.058	0.001J	ND(0.005)	ND(0.005)	0.16	ND(0.1)
		0.01J	ND(0.025)	ND(0.025)	ND(0.025)	0.072	ND(0.025)	0.11	ND(0.025)	ND(0.025)	ND(0.025)	0.21	ND(0.5)
MW-15	08/15/91	0.002	0.01	ND(0.001)	0.006	0.028	0.001	0.005	ND(0.001)	ND(0.001)	ND(0.001)	0.004	0.024
	11/22/91	ND(0.001)	ND(0.001)	ND(0.001)	ND(0.005)	0.033	0.001	0.009	ND(0.001)	ND(0.001)	0.003	0.008	ND(0.01)
*	03/16/93	0.001	0.002	ND(0.001)	ND(0.005)	0.082	0.001	0.013	ND(0.001)	ND(0.001)	0.006	0.008	ND(0.01)
	01/10/94	ND(0.001)	0.008	ND(0.001)	ND(0.005)	0.048	ND(0.001)	0.009	ND(0.001)	ND(0.001)	0.004	0.013	ND(0.01)
	04/19/94	0.001	0.009	0.002	ND(0.005)	0.054	ND(0.001)	0.01	ND(0.001)	ND(0.001)	0.004	0.015	ND(0.01)
	07/20/94	ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.027	ND(0.005)	0.005J	ND(0.005)	ND(0.005)	0.003J	0.008	ND(0.1)
		ND(0.005)	ND(0.005)	ND(0.005)	ND(0.005)	0.049	0.001J	0.006	ND(0.005)	ND(0.005)	0.004J	0.005	ND(0.1)

NOTES: ND(0.001) = chemical not detected at detection limit
 dup. = duplicate sample
 * = minor amounts of other chemicals also detected (see previous laboratory reports)
 # = minor amounts of other chemicals also detected (see laboratory reports appended to this letter)
 NA = not analyzed

CHEMICAL ABBREVIATIONS:
 TPH = total petroleum hydrocarbons
 1,1-DCA = 1,1-dichloroethane
 1,2-DCA = 1,2-dichloroethane
 1,1-DCE = 1,1-dichloroethene
 1,1,1-TCA = 1,1,1-trichloroethane
 1,1,2-TCA = 1,1,2-trichloroethane
 TCE = trichloroethene
 PCE = tetrachloroethene



APPENDIX A

**Laboratory Analytical Reports
Activated Carbon**



PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TEXAS 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NEW MEXICO 88240

0125-D

TCLP ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 4/29/94
Lab#: H1621

Project Name: 0125
Project Location: Artesia Dowell Yard
Sampled by: SG
Type of Sample: Solid

Date: 4/20/94
Sample Condition: VOA

Sample ID: Carbon

HAZARDOUS WASTE CHARACTERIZATION

Ignitability (Pensky-Martens Closed Cup)	>140 Degrees	F
Corrosivity, (pH)	9.61	
Reactivity-S	No Reaction (<0.01)	mg/kg
Reactivity-CN	No Reaction (<0.01)	mg/kg

METHODS: HWC - EPA SW 846

Michael R. Fowler

Date 4-29-94

WESTERN WATER CONSULTANTS, INC.
MAY - 3 1994
LARAMIE, WY 82070



PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TEXAS 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NEW MEXICO 88240

FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 4/29/94
Lab # H1621

Project Name: 0125

Project Location: Artesia Dowell Yard

Sampled by: SG

Type of Sample: Solid

Sample Condition: VOA

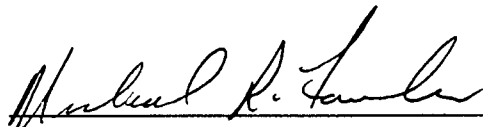
Date: 4/20/94

Sample ID: Carbon

TCLP VOLATILES

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Benzene	<0.100	mg/L
Carbon tetrachloride	<0.100	mg/L
Chlorobenzene	<0.100	mg/L
Chloroform	<0.100	mg/L
1,2-Dichloroethane	<0.100	mg/L
1,1-Dichloroethylene	<0.100	mg/L
Methyl ethyl ketone	<2.000	mg/L
Tetrachloroethylene	<0.100	mg/L
Trichloroethylene	<0.100	mg/L
Vinyl chloride	<0.200	mg/L

METHOD: TCLP VOLATILES - EPA 1311


Michael R. Fowler

Date 4-29-94

**Western
Water
Consultants, Inc.**

[illegible]



PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

INVOICE

CUSTOMER: Western Water Consultants

DATE: 04/29/94

ADDRESS: 611 Skyline Rd.

TAXABLE:

CITY ST: Laramie, WY

TERMS - Due upon receipt
Hobbs, Lea Co. NM

LAB NUMBER: H1621

TESTS REQUESTED: TCLP Volatiles, HWC

CUSTOMER JOB DESCRIPTION: 0125, Artesia Dowell Yard, Carbon

WAS CHAIN OF CUSTODY USED (y/n): yes

NUMBER OF SAMPLES: 1

INVOICE #: H1621

P. O. #:

[illegible]

NOTE - This is the only invoice you
will receive.
Please pay from this invoice.

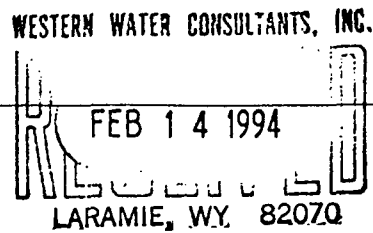
THANK YOU FOR YOUR BUSINESS!

For Office Use Only
D: A:

C: *P:*

APPENDIX B

**Soil Vapor Laboratory Data
February 3 through July 6, 1994**

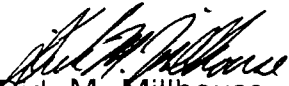


CASE NARRATIVE

On February 04, 1994, two air samples were received for analysis at Inter-Mountain Laboratories, Bozeman, Montana. The chain of custody form requested analysis by Method 8240. Client / Project name was listed as Western Water Consultants, Inc. / 0125.

Enclosed are the results of these analyses. Detectable levels of targeted analytes were present in the samples.

Limits of detection for each instrument/analysis are determined by sample matrix effects, instrument performance under standard conditions, and dilution requirements to maintain chromatography output within calibration ranges. Quantitations have been calculated on an as received basis.


Dirk M. Millhouse
IML-Bozeman

re:wwcf10a

EPA METHOD 8240
HSL VOLATILE COMPOUNDS

Client: WESTERN WATER CONSULTANTS, INC.

Sample ID: Zone 2

Date Reported: 02/10/94

Project ID: #0125

Date Sampled: 02/03/94

Laboratory ID: B941870

Date Received: 02/04/94

Sample Matrix: Air

Date Extracted: NA

Preservation: Cool

Date Analyzed: 02/04/94

Condition: Intact

Parameter	Analytical Result	Detection Limit	Units
1,1,1-Trichloroethane	2.2	0.5	mg/m3
1,1,2,2-Tetrachloroethane	ND	0.5	mg/m3
1,1,2-Trichloroethane	ND	0.5	mg/m3
1,1-Dichloroethane	1.6	0.5	mg/m3
1,1-Dichloroethene	ND	0.5	mg/m3
1,2-Dichloroethane	ND	0.5	mg/m3
1,2-Dichloropropane	ND	0.5	mg/m3
2-Butanone	ND	2	mg/m3
2-Hexanone	ND	0.5	mg/m3
4-Methyl-2-pentanone	ND	0.5	mg/m3
Acetone	ND	2	mg/m3
Benzene	0.7	0.5	mg/m3
Bromodichloromethane	ND	0.5	mg/m3
Bromoform	ND	0.5	mg/m3
Bromomethane	ND	0.5	mg/m3
Carbon Disulfide	ND	0.5	mg/m3
Carbon Tetrachloride	ND	0.5	mg/m3
Chlorobenzene	ND	0.5	mg/m3
Chloroethane	ND	0.5	mg/m3
Chloroform	ND	0.5	mg/m3
Chloromethane	ND	0.5	mg/m3
cis-1,3-Dichloropropene	ND	0.5	mg/m3
Dibromochloromethane	ND	0.5	mg/m3
Ethylbenzene	0.2 J	0.5	mg/m3
m,p-Xylene	ND	0.5	mg/m3
Methylene Chloride	ND	2	mg/m3
o-Xylene	ND	0.5	mg/m3
Styrene	ND	0.5	mg/m3

EPA METHOD 8240
HSL VOLATILE COMPOUNDS

Client: WESTERN WATER CONSULTANTS, INC.

Sample ID: Zone 2

Date Reported: 02/10/94

Laboratory ID: B941870

Date Sampled: 02/03/94

Sample Matrix: Air

Date Analyzed: 02/04/94

Parameter	Analytical Result	Detection Limit	Units
Tetrachloroethene	140	5	mg/m3
Toluene	ND	0.5	mg/m3
trans-1,2-Dichloroethene	ND	0.5	mg/m3
trans-1,3-Dichloropropene	ND	0.5	mg/m3
Trichloroethene	0.68	0.5	mg/m3
Vinyl Chloride	ND	0.5	mg/m3

ND - Compound not detected at stated Detection Limit.

J - Meets identification criteria, below Detection Limit.

B - Compound detected in method blank.

EPA METHOD 8240
TENTATIVELY IDENTIFIED COMPOUNDS

Client: WESTERN WATER CONSULTANTS, INC.
Sample ID: Zone 2
Laboratory ID: B941870
Sample Matrix: Air

Date Reported: 02/10/94
Date Sampled: 02/03/94
Date Analyzed: 02/04/94

Tentative Identification	Retention Time (min)	Concentration	Units
-----------------------------	-------------------------	---------------	-------

No additional compounds found at levels greater than 2mg/m3.

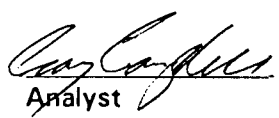
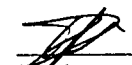
Unknown concentrations calculated assuming a Relative Response Factor = 1.

QUALITY CONTROL:

Surrogate Recovery	%	Air QC Limits
1,2-Dichloroethane-d4	103	70 - 121
Toluene-d8	103	81 - 117
Bromofluorobenzene	105	74 - 121

References:

Method 8240, Gas Chromatography/Mass Spectrometry for Volatile Organics,
Test Methods for Evaluating Solid Wastes, SW-846, United States
Environmental Protection Agency, Third Edition, November 1986.


Analyst
Reviewed

EPA METHOD 8240
HSL VOLATILE COMPOUNDS

Client: WESTERN WATER CONSULTANTS, INC.
Sample ID: N. Zone 3
Project ID: #0125
Laboratory ID: B941871
Sample Matrix: Air
Preservation: Cool
Condition: Intact

Date Reported: 02/10/94
Date Sampled: 02/03/94
Date Received: 02/04/94
Date Extracted: NA
Date Analyzed: 02/04/94

Parameter	Analytical Result	Detection Limit	Units
1,1,1-Trichloroethane	26	1	mg\m3
1,1,2,2-Tetrachloroethane	ND	0.5	mg\m3
1,1,2-Trichloroethane	ND	0.5	mg\m3
1,1-Dichloroethane	1.2	0.5	mg\m3
1,1-Dichloroethene	2.8	0.5	mg\m3
1,2-Dichloroethane	ND	0.5	mg\m3
1,2-Dichloropropane	ND	0.5	mg\m3
2-Butanone	ND	2	mg\m3
2-Hexanone	ND	0.5	mg\m3
4-Methyl-2-pentanone	ND	0.5	mg\m3
Acetone	ND	2	mg\m3
Benzene	5.5	0.5	mg\m3
Bromodichloromethane	ND	0.5	mg\m3
Bromoform	ND	0.5	mg\m3
Bromomethane	ND	0.5	mg\m3
Carbon Disulfide	0.65	0.5	mg\m3
Carbon Tetrachloride	ND	0.5	mg\m3
Chlorobenzene	ND	0.5	mg\m3
Chloroethane	ND	0.5	mg\m3
Chloroform	ND	0.5	mg\m3
Chloromethane	ND	0.5	mg\m3
cis-1,3-Dichloropropene	ND	0.5	mg\m3
Dibromochloromethane	ND	0.5	mg\m3
Ethylbenzene	22	5	mg\m3
m,p-Xylene	71	5	mg\m3
Methylene Chloride	ND	2	mg\m3
o-Xylene	82	5	mg\m3
Styrene	ND	0.5	mg\m3

EPA METHOD 8240
HSL VOLATILE COMPOUNDS

Client: WESTERN WATER CONSULTANTS, INC.
Sample ID: N. Zone 3
Laboratory ID: B941871
Sample Matrix: Air

Date Reported: 02/10/94
Date Sampled: 02/03/94
Date Analyzed: 02/04/94

Parameter	Analytical Result	Detection Limit	Units
Tetrachloroethene	5.2	0.5	mg\m3
Toluene	78	5	mg\m3
trans-1,2-Dichloroethene	ND	0.5	mg\m3
trans-1,3-Dichloropropene	ND	0.5	mg\m3
Trichloroethene	ND	0.5	mg\m3
Vinyl Chloride	ND	0.5	mg\m3

ND - Compound not detected at stated Detection Limit.

J - Meets identification criteria, below Detection Limit.

B - Compound detected in method blank.

EPA METHOD 8240
TENTATIVELY IDENTIFIED COMPOUNDS

Client: WESTERN WATER CONSULTANTS, INC.
Sample ID: N. Zone 3
Laboratory ID: B941871
Sample Matrix: Air

Date Reported: 02/10/94
Date Sampled: 02/03/94
Date Analyzed: 02/04/94

Tentative Identification	Retention Time (min)	Concentration	Units
Unknown hydrocarbon	11.70	60	mg/m3
Unknown aromatic	17.20	10	mg/m3
Unknown aromatic	17.82	10	mg/m3
Unknown hydrocarbon	19.06	20	mg/m3
Unknown hydrocarbon	19.29	10	mg/m3

Unknown concentrations calculated assuming a Relative Response Factor = 1.

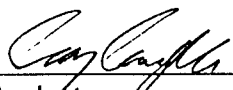
QUALITY CONTROL:

Surrogate Recovery	%	Air QC Limits
1,2-Dichloroethane-d4	107	70 - 121
Toluene-d8 *	135	81 - 117
Bromofluorobenzene	103	74 - 121

* low surrogate recovery due to matrix effect.

References:

Method 8240, Gas Chromatography/Mass Spectrometry for Volatile Organics,
Test Methods for Evaluating Solid Wastes, SW-846, United States
Environmental Protection Agency, Third Edition, November 1986.


Analyst


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QUALITY ASSURANCE / QUALITY CONTROL

EPA METHOD 8240
HSL VOLATILE COMPOUNDS
METHOD BLANK

Client: WESTERN WATER CONSULTANTS, INC.
Sample ID: Method Blank
Project ID: #0125
Laboratory ID: Q035B
Sample Matrix: Air
Preservation: NA
Condition: NA

Date Reported: 02/10/94
Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 02/04/94

Parameter	Analytical Result	Detection Limit	Units
1,1,1-Trichloroethane	ND	0.5	mg/m3
1,1,2,2-Tetrachloroethane	ND	0.5	mg/m3
1,1,2-Trichloroethane	ND	0.5	mg/m3
1,1-Dichloroethane	ND	0.5	mg/m3
1,1-Dichloroethene	ND	0.5	mg/m3
1,2-Dichloroethane	ND	0.5	mg/m3
1,2-Dichloropropane	ND	0.5	mg/m3
2-Butanone	ND	2	mg/m3
2-Hexanone	ND	0.5	mg/m3
4-Methyl-2-pentanone	ND	0.5	mg/m3
Acetone	ND	2	mg/m3
Benzene	ND	0.5	mg/m3
Bromodichloromethane	ND	0.5	mg/m3
Bromoform	ND	0.5	mg/m3
Bromomethane	ND	0.5	mg/m3
Carbon Disulfide	ND	0.5	mg/m3
Carbon Tetrachloride	ND	0.5	mg/m3
Chlorobenzene	ND	0.5	mg/m3
Chloroethane	ND	0.5	mg/m3
Chloroform	ND	0.5	mg/m3
Chloromethane	ND	0.5	mg/m3
cis-1,3-Dichloropropene	ND	0.5	mg/m3
Dibromochloromethane	ND	0.5	mg/m3
Ethylbenzene	ND	0.5	mg/m3
m,p-Xylene	ND	0.5	mg/m3
Methylene Chloride	ND	2	mg/m3
o-Xylene	ND	0.5	mg/m3
Styrene	ND	0.5	mg/m3

EPA METHOD 8240
HSL VOLATILE COMPOUNDS

Client: WESTERN WATER CONSULTANTS, INC.

Sample ID: Method Blank

Date Reported: 02/10/94

Laboratory ID: Q035B

Date Sampled: NA

Sample Matrix: Air

Date Analyzed: 02/04/94

Parameter	Analytical Result	Detection Limit	Units
Tetrachloroethene	ND	0.5	mg/m3
Toluene	ND	0.5	mg/m3
trans-1,2-Dichloroethene	ND	0.5	mg/m3
trans-1,3-Dichloropropene	ND	0.5	mg/m3
Trichloroethene	ND	0.5	mg/m3
Vinyl Chloride	ND	0.5	mg/m3

ND - Compound not detected at stated Detection Limit.

J - Meets identification criteria, below Detection Limit.

B - Compound detected in method blank.

EPA METHOD 8240
TENTATIVELY IDENTIFIED COMPOUNDS

Client:	WESTERN WATER CONSULTANTS, INC.	Date Reported:	02/10/94
Sample ID:	Method Blank	Date Sampled:	NA
Laboratory ID:	Q035B	Date Analyzed:	02/04/94
Sample Matrix:	Air		

Tentative Identification	Retention Time (min)	Concentration	Units
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No additional compounds found at detectable levels.

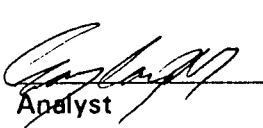
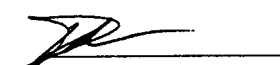
Unknown concentrations calculated assuming a Relative Response Factor = 1.

QUALITY CONTROL:

Surrogate Recovery	%	Air QC Limits
Dibromofluoromethane	109	70 - 121
Toluene-d8	99	81 - 117
Bromofluorobenzene	102	74 - 121

References:

Method 8240, Gas Chromatography/Mass Spectrometry for Volatile Organics,
Test Methods for Evaluating Solid Wastes, SW-846, United States
Environmental Protection Agency, Third Edition, November 1986.


Analyst
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EPA METHOD 8240
HSL VOLATILE COMPOUNDS
METHOD BLANK

Client: WESTERN WATER CONSULTANTS, INC.
Sample ID: Method Blank
Project ID: #0125
Laboratory ID: Q038A
Sample Matrix: Air
Preservation: NA
Condition: NA

Date Reported: 02/10/94
Date Sampled: NA
Date Received: NA
Date Extracted: NA
Date Analyzed: 02/07/94

Parameter	Analytical Result	Detection Limit	Units
1,1,1-Trichloroethane	ND	0.5	mg/m3
1,1,2,2-Tetrachloroethane	ND	0.5	mg/m3
1,1,2-Trichloroethane	ND	0.5	mg/m3
1,1-Dichloroethane	ND	0.5	mg/m3
1,1-Dichloroethene	ND	0.5	mg/m3
1,2-Dichloroethane	ND	0.5	mg/m3
1,2-Dichloropropane	ND	0.5	mg/m3
2-Butanone	ND	2	mg/m3
2-Hexanone	ND	0.5	mg/m3
4-Methyl-2-pentanone	ND	0.5	mg/m3
Acetone	ND	22	mg/m3
Benzene	ND	0.5	mg/m3
Bromodichloromethane	ND	0.5	mg/m3
Bromoform	ND	0.5	mg/m3
Bromomethane	ND	0.5	mg/m3
Carbon Disulfide	ND	0.5	mg/m3
Carbon Tetrachloride	ND	0.5	mg/m3
Chlorobenzene	ND	0.5	mg/m3
Chloroethane	ND	0.5	mg/m3
Chloroform	ND	0.5	mg/m3
Chloromethane	ND	0.5	mg/m3
cis-1,3-Dichloropropene	ND	0.5	mg/m3
Dibromochloromethane	ND	0.5	mg/m3
Ethylbenzene	ND	0.5	mg/m3
m,p-Xylene	ND	0.5	mg/m3
Methylene Chloride	ND	2	mg/m3
o-Xylene	ND	0.5	mg/m3
Styrene	ND	0.5	mg/m3

**EPA METHOD 8240
HSL VOLATILE COMPOUNDS**

Client: **WESTERN WATER CONSULTANTS, INC.**
Sample ID: Method Blank
Laboratory ID: Q038A
Sample Matrix: Air

Date Reported: 02/10/94
Date Sampled: NA
Date Analyzed: 02/07/94

Parameter	Analytical Result	Detection Limit	Units
Tetrachloroethene	ND	0.5	mg/m3
Toluene	ND	0.5	mg/m3
trans-1,2-Dichloroethene	ND	0.5	mg/m3
trans-1,3-Dichloropropene	ND	0.5	mg/m3
Trichloroethene	ND	0.5	mg/m3
Vinyl Chloride	ND	0.5	mg/m3

ND - Compound not detected at stated Detection Limit.

J - Meets identification criteria, below Detection Limit.

B - Compound detected in method blank.

EPA METHOD 8240
TENTATIVELY IDENTIFIED COMPOUNDS

Client: WESTERN WATER CONSULTANTS, INC.

Sample ID: Method Blank

Date Reported: 02/10/94

Laboratory ID: Q038A

Date Sampled: NA

Sample Matrix: Air

Date Analyzed: 02/07/94

Tentative Identification	Retention Time (min)	Concentration	Units
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No additional compounds found at detectable levels.

Unknown concentrations calculated assuming a Relative Response Factor = 1.

QUALITY CONTROL:

Surrogate Recovery	%	Air QC Limits
1,2-Dichloroethane-d4	94	70 - 121
Toluene-d8	102	81 - 117
Bromofluorobenzene	99	74 - 121

References:

Method 8240, Gas Chromatography/Mass Spectrometry for Volatile Organics,
Test Methods for Evaluating Solid Wastes, SW-846, United States
Environmental Protection Agency, Third Edition, November 1986.


Analyst
Reviewed

**Western
Water
Consultants, Inc.**

PROJECT NO. PROJECT NAME							CONTAINER TYPE						REMARKS
SAMPLE I.D.	DATE	TIME	COMP.	GRAB	SAMPLE TYPE		NO. OF CONTAINERS						
ZONE 2	2-3-94	1200	✓		Air	B941870	1				Analysis Requested on Both		
N, Zone 3	2-3-94	1215	✓		Air	B941871	1				Samples: 1) 8240		
Relinquished by: (signature)	Date / Time	Received by: (signature)			Relinquished by: (signature)			Date / Time			Received by: (signature)		
[Signature]	2-3-94 / 1230	UPS Carrier			UPS carrier			2/4/94 @ 1030 AM			Vallone Person		
Relinquished by: (signature)	Date / Time	Received by: (signature)			Relinquished by: (signature)			Date / Time			Received for Laboratory by: (signature)		
[Signature]													

DISTRIBUTION: White — ORIG. RETURN TO WWC

REMARKS: questions / comments contact
Catt Gustin 307-742-0031

color 15.2°
temp.



ARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 2/14/94
Lab # H1526-1

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: BM
Type of Sample: air
Sample ID: Zone 1

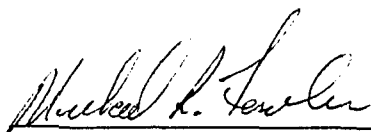
Sample Condition:

Date: 2/10/94

VOLATILES

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Dichlorodifluoromethane	<2.0	ug/L
Chloromethane	<2.0	ug/L
Vinyl Chloride	<2.0	ug/L
Chloroethane	<2.0	ug/L
Bromomethane	<2.0	ug/L
Trichlorofluoromethane	<2.0	ug/L
trans-1,2-Dichloroethene	<2.0	ug/L
Methylene Chloride	<2.0	ug/L
1,1-Dichloroethene	<2.0	ug/L
1,1-Dichloroethane	<2.0	ug/L
2-Butanone	7.0	ug/L
Chloroform	<2.0	ug/L
1,1,1-Trichloroethane	<2.0	ug/L
1,2-Dichloroethane	<2.0	ug/L
Carbon Tetrachloride	<2.0	ug/L
1,2-Dichloropropane	<2.0	ug/L
Trichloroethene	<2.0	ug/L
Bromodichloromethane	<2.0	ug/L
2-Chloroethylvinylether	<2.0	ug/L
1,3-Dichloropropene	<2.0	ug/L
1,1,2-Trichloroethane	<2.0	ug/L
Dibromochloromethane	<2.0	ug/L
Tetrachloroethene	<2.0	ug/L
Chlorobenzene	<2.0	ug/L
Bromoform	<2.0	ug/L
1,1,2,2-Tetrachloroethane	<2.0	ug/L
1,3-Dichlorobenzene	<1.0	ug/L
1,4-Dichlorobenzene	<1.0	ug/L
1,2-Dichlorobenzene	<1.0	ug/L
Benzene	<1.0	ug/L
Toluene	<1.0	ug/L
Ethyl Benzene	<1.0	ug/L
m,p-Xylene	<1.0	ug/L
o-Xylene	<1.0	ug/L

Methods - GCMS



Michael R. Fowler

Date 2-14-94



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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 2/14/94
Lab # H1526-2

Project Name: Dowell Schlumberger
Project Location: Artesia, NM

Sampled by: BM

Date: 2/10/94

Type of Sample: air

Sample Condition:

Sample ID: Zone 2

VOLATILES

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Dichlorodifluoromethane	<2.0	ug/L
Chloromethane	<2.0	ug/L
Vinyl Chloride	<2.0	ug/L
Chloroethane	<2.0	ug/L
Bromomethane	<2.0	ug/L
Trichlorofluoromethane	<2.0	ug/L
trans-1,2-Dichloroethene	<2.0	ug/L
Methylene Chloride	<2.0	ug/L
1,1-Dichloroethene	<2.0	ug/L
1,1-Dichloroethane	<2.0	ug/L
2-Butanone	<2.0	ug/L
Chloroform	<2.0	ug/L
1,1,1-Trichloroethane	<2.0	ug/L
1,2-Dichloroethane	<2.0	ug/L
Carbon Tetrachloride	<2.0	ug/L
1,2-Dichloropropane	<2.0	ug/L
Trichloroethene	<2.0	ug/L
Bromodichloromethane	<2.0	ug/L
2-Chloroethylvinylether	<2.0	ug/L
1,3-Dichloropropene	<2.0	ug/L
1,1,2-Trichloroethane	<2.0	ug/L
Dibromochloromethane	<2.0	ug/L
Tetrachloroethene	27.25	ug/L
Chlorobenzene	<2.0	ug/L
Bromoform	<2.0	ug/L
1,1,2,2-Tetrachloroethane	<2.0	ug/L
1,3-Dichlorobenzene	<1.0	ug/L
1,4-Dichlorobenzene	<1.0	ug/L
1,2-Dichlorobenzene	<1.0	ug/L
Benzene	<1.0	ug/L
Toluene	<1.0	ug/L
Ethyl Benzene	<1.0	ug/L
m,p-Xylene	<1.0	ug/L
o-Xylene	<1.0	ug/L

Methods - GCMS

Michael R. Fowler

Date 2-14-94



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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 2/14/94
Lab # H1526-3

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: BM
Type of Sample: air
Sample ID: N Zone 1

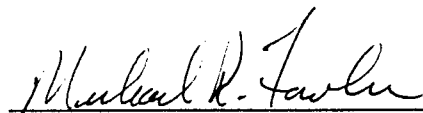
Sample Condition:

Date: 2/10/94

VOLATILES

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Dichlorodifluoromethane	<2.0	ug/L
Chloromethane	<2.0	ug/L
Vinyl Chloride	<2.0	ug/L
Chloroethane	<2.0	ug/L
Bromomethane	<2.0	ug/L
Trichlorofluoromethane	<2.0	ug/L
trans-1,2-Dichloroethene	<2.0	ug/L
Methylene Chloride	<2.0	ug/L
1,1-Dichloroethene	<2.0	ug/L
1,1-Dichloroethane	<2.0	ug/L
2-Butanone	<2.0	ug/L
Chloroform	<2.0	ug/L
1,1,1-Trichloroethane	4.07	ug/L
1,2-Dichloroethane	<2.0	ug/L
Carbon Tetrachloride	<2.0	ug/L
1,2-Dichloropropane	<2.0	ug/L
Trichloroethene	<2.0	ug/L
Bromodichloromethane	<2.0	ug/L
2-Chloroethylvinylether	<2.0	ug/L
1,3-Dichloropropene	<2.0	ug/L
1,1,2-Trichloroethane	<2.0	ug/L
Dibromochloromethane	<2.0	ug/L
Tetrachloroethene	<2.0	ug/L
Chlorobenzene	<2.0	ug/L
Bromoform	<2.0	ug/L
1,1,2,2-Tetrachloroethane	<2.0	ug/L
1,3-Dichlorobenzene	<1.0	ug/L
1,4-Dichlorobenzene	<1.0	ug/L
1,2-Dichlorobenzene	<1.0	ug/L
Benzene	<1.0	ug/L
Toluene	2.98	ug/L
Ethyl Benzene	3.57	ug/L
m,p-Xylene	12.60	ug/L
o-Xylene	<1.0	ug/L

Methods - GCMS



Michael R. Fowler

Date 2-14-94



ARDINAL LABORATORIES

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 2/14/94
Lab # H1526-4

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: BM
Type of Sample: air
Sample ID: N Zone 2

Sample Condition:

Date: 2/10/94

VOLATILES

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Dichlorodifluoromethane	<2.0	ug/L
Chloromethane	<2.0	ug/L
Vinyl Chloride	<2.0	ug/L
Chloroethane	<2.0	ug/L
Bromomethane	<2.0	ug/L
Trichlorofluoromethane	<2.0	ug/L
trans-1,2-Dichloroethene	<2.0	ug/L
Methylene Chloride	<2.0	ug/L
1,1-Dichloroethene	<2.0	ug/L
1,1-Dichloroethane	<2.0	ug/L
2-Butanone	14.71	ug/L
Chloroform	<2.0	ug/L
1,1,1-Trichloroethane	8.34	ug/L
1,2-Dichloroethane	<2.0	ug/L
Carbon Tetrachloride	<2.0	ug/L
1,2-Dichloropropane	<2.0	ug/L
Trichloroethene	<2.0	ug/L
Bromodichloromethane	<2.0	ug/L
2-Chloroethylvinylether	<2.0	ug/L
1,3-Dichloropropene	<2.0	ug/L
1,1,2-Trichloroethane	<2.0	ug/L
Dibromochloromethane	<2.0	ug/L
Tetrachloroethene	<2.0	ug/L
Chlorobenzene	<2.0	ug/L
Bromoform	<2.0	ug/L
1,1,2,2-Tetrachloroethane	<2.0	ug/L
1,3-Dichlorobenzene	<1.0	ug/L
1,4-Dichlorobenzene	<1.0	ug/L
1,2-Dichlorobenzene	<1.0	ug/L
Benzene	1.67	ug/L
Toluene	10.13	ug/L
Ethyl Benzene	5.03	ug/L
m,p-Xylene	14.9	ug/L
o-Xylene	<1.0	ug/L

Methods - GCMS

Michael R. Fowler

Date 2-14-94



ARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 2/14/94
Lab # H1526-5

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: BM
Type of Sample: air
Sample ID: N Zone 3

Sample Condition:

Date: 2/10/94

VOLATILES

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Dichlorodifluoromethane	<2.0	ug/L
Chloromethane	<2.0	ug/L
Vinyl Chloride	<2.0	ug/L
Chloroethane	<2.0	ug/L
Bromomethane	<2.0	ug/L
Trichlorofluoromethane	3.18	ug/L
trans-1,2-Dichloroethene	<2.0	ug/L
Methylene Chloride	<2.0	ug/L
1,1-Dichloroethene	<2.0	ug/L
1,1-Dichloroethane	<2.0	ug/L
2-Butanone	31.33	ug/L
Chloroform	<2.0	ug/L
1,1,1-Trichloroethane	11.40	ug/L
1,2-Dichloroethane	<2.0	ug/L
Carbon Tetrachloride	<2.0	ug/L
1,2-Dichloropropane	<2.0	ug/L
Trichloroethene	<2.0	ug/L
Bromodichloromethane	<2.0	ug/L
2-Chloroethylvinylether	<2.0	ug/L
1,3-Dichloropropene	<2.0	ug/L
1,1,2-Trichloroethane	<2.0	ug/L
Dibromochloromethane	<2.0	ug/L
Tetrachloroethene	<2.0	ug/L
Chlorobenzene	<2.0	ug/L
Bromoform	<2.0	ug/L
1,1,2,2-Tetrachloroethane	<2.0	ug/L
1,3-Dichlorobenzene	<1.0	ug/L
1,4-Dichlorobenzene	<1.0	ug/L
1,2-Dichlorobenzene	<1.0	ug/L
Benzene	<1.0	ug/L
Toluene	64.6	ug/L
Ethyl Benzene	15.6	ug/L
m,p-Xylene	46.9	ug/L
o-Xylene	<1.0	ug/L

Methods - GCMS

Michael R. Fowler

Date 2-14-94



CARDINAL LABORATORIES

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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 02/21/94
Lab # H1532-1

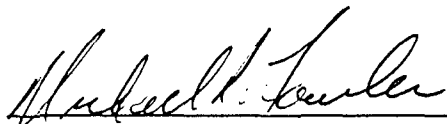
Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: BM
Type of Sample: Air
Sample ID: Zone 1

Date: 02/16/94
Sample Condition: Tedlar Bag

VOLATILES

PARAMETER	RESULT	UNITS
Dichlorodifluoromethane	<2.0	ug/L
Chloromethane	<2.0	ug/L
Vinyl Chloride	<2.0	ug/L
Chloroethane	<2.0	ug/L
Bromomethane	<2.0	ug/L
Trichlorofluoromethane	<2.0	ug/L
trans-1,2-Dichloroethene	<2.0	ug/L
Methylene Chloride	<2.0	ug/L
1,1-Dichloroethene	<2.0	ug/L
1,1-Dichloroethane	<2.0	ug/L
2-Butanone	<2.0	ug/L
Chloroform	<2.0	ug/L
1,1,1-Trichloroethane	<2.0	ug/L
1,2-Dichloroethane	<2.0	ug/L
Benzene	<1.0	ug/L
Carbon Tetrachloride	<2.0	ug/L
1,2-Dichloropropane	<2.0	ug/L
Trichloroethene	<2.0	ug/L
Bromodichloromethane	<2.0	ug/L
2-Chloroethylvinylether	<2.0	ug/L
1,3-Dichloropropene	<2.0	ug/L
Toluene	<1.0	ug/L
1,1,2-Trichloroethane	<2.0	ug/L
Dibromochloromethane	<2.0	ug/L
Tetrachloroethene	<1.0	ug/L
Chlorobenzene	<1.0	ug/L
Ethyl Benzene	<1.0	ug/L
Xylene (m,p,o)	<1.0	ug/L
Bromoform	<2.0	ug/L
1,1,2,2-Tetrachloroethane	<2.0	ug/L
1,3-Dichlorobenzene	<1.0	ug/L
1,4-Dichlorobenzene	<1.0	ug/L
1,2-Dichlorobenzene	<1.0	ug/L

Methods - GCMS



Michael R. Fowler

Date 2-21-94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 02/21/94
Lab # H1532-2

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: BM
Type of Sample: Air
Sample ID: Zone 2

Date: 02/16/94
Sample Condition: Tedlar Bag

VOLATILES

PARAMETER	RESULT	UNITS
Dichlorodifluoromethane	<2.0	ug/L
Chloromethane	<2.0	ug/L
Vinyl Chloride	<2.0	ug/L
Chloroethane	<2.0	ug/L
Bromomethane	<2.0	ug/L
Trichlorofluoromethane	<2.0	ug/L
trans-1,2-Dichloroethene	<2.0	ug/L
Methylene Chloride	<2.0	ug/L
1,1-Dichloroethene	<2.0	ug/L
1,1-Dichloroethane	<2.0	ug/L
2-Butanone	<2.0	ug/L
Chloroform	<2.0	ug/L
1,1,1-Trichloroethane	<2.0	ug/L
1,2-Dichloroethane	<2.0	ug/L
Benzene	<1.0	ug/L
Carbon Tetrachloride	<2.0	ug/L
1,2-Dichloropropane	<2.0	ug/L
Trichloroethene	<2.0	ug/L
Bromodichloromethane	<2.0	ug/L
2-Chloroethylvinylether	<2.0	ug/L
1,3-Dichloropropene	<2.0	ug/L
Toluene	<1.0	ug/L
1,1,2-Trichloroethane	<2.0	ug/L
Dibromochloromethane	<2.0	ug/L
Tetrachloroethene	14.5	ug/L
Chlorobenzene	<1.0	ug/L
Ethyl Benzene	<1.0	ug/L
Xylene (m,p,o)	<1.0	ug/L
Bromoform	<2.0	ug/L
1,1,2,2-Tetrachloroethane	<2.0	ug/L
1,3-Dichlorobenzene	<1.0	ug/L
1,4-Dichlorobenzene	<1.0	ug/L
1,2-Dichlorobenzene	<1.0	ug/L

Methods - GCMS

Michael R. Fowler

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Date 2-21-94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 02/21/94
Lab # H1532-3

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: BM
Type of Sample: Air
Sample ID: N Zone 1

Date: 02/16/94
Sample Condition: Tedlar Bag

VOLATILES

PARAMETER	RESULT	UNITS
Dichlorodifluoromethane	<2.0	ug/L
Chloromethane	<2.0	ug/L
Vinyl Chloride	<2.0	ug/L
Chloroethane	<2.0	ug/L
Bromomethane	<2.0	ug/L
Trichlorofluoromethane	<2.0	ug/L
trans-1,2-Dichloroethene	<2.0	ug/L
Methylene Chloride	<2.0	ug/L
1,1-Dichloroethene	<2.0	ug/L
1,1-Dichloroethane	<2.0	ug/L
2-Butanone	9.1	ug/L
Chloroform	<2.0	ug/L
1,1,1-Trichloroethane	3.7	ug/L
1,2-Dichloroethane	<2.0	ug/L
Benzene	<1.0	ug/L
Carbon Tetrachloride	<2.0	ug/L
1,2-Dichloropropane	<2.0	ug/L
Trichloroethene	<2.0	ug/L
Bromodichloromethane	<2.0	ug/L
2-Chloroethylvinylether	<2.0	ug/L
1,3-Dichloropropene	<2.0	ug/L
Toluene	1.1	ug/L
1,1,2-Trichloroethane	<2.0	ug/L
Dibromochloromethane	<2.0	ug/L
Tetrachloroethene	14.5	ug/L
Chlorobenzene	<1.0	ug/L
Ethyl Benzene	1.2	ug/L
Xylene (m,p,o)	10.4	ug/L
Bromoform	<2.0	ug/L
1,1,2,2-Tetrachloroethane	<2.0	ug/L
1,3-Dichlorobenzene	<1.0	ug/L
1,4-Dichlorobenzene	<1.0	ug/L
1,2-Dichlorobenzene	<1.0	ug/L

Methods - GCMS

Michael R. Fowler

Date

2-21-94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 02/21/94
Lab # H1532-4

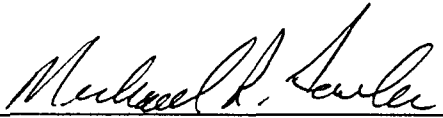
Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: BM
Type of Sample: Air
Sample ID: N Zone 2

Date: 02/16/94
Sample Condition: Tedlar Bag

VOLATILES

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Dichlorodifluoromethane	<2.0	ug/L
Chloromethane	<2.0	ug/L
Vinyl Chloride	<2.0	ug/L
Chloroethane	<2.0	ug/L
Bromomethane	<2.0	ug/L
Trichlorofluoromethane	<2.0	ug/L
trans-1,2-Dichloroethene	<2.0	ug/L
Methylene Chloride	<2.0	ug/L
1,1-Dichloroethene	<2.0	ug/L
1,1-Dichloroethane	<2.0	ug/L
2-Butanone	6.7	ug/L
Chloroform	<2.0	ug/L
1,1,1-Trichloroethane	6.5	ug/L
1,2-Dichloroethane	<2.0	ug/L
Benzene	<1.0	ug/L
Carbon Tetrachloride	<2.0	ug/L
1,2-Dichloropropane	<2.0	ug/L
Trichloroethene	<2.0	ug/L
Bromodichloromethane	<2.0	ug/L
2-Chloroethylvinylether	<2.0	ug/L
1,3-Dichloropropene	<2.0	ug/L
Toluene	4.8	ug/L
1,1,2-Trichloroethane	<2.0	ug/L
Dibromochloromethane	<2.0	ug/L
Tetrachloroethene	14.5	ug/L
Chlorobenzene	<1.0	ug/L
Ethyl Benzene	3.0	ug/L
Xylene (m,p,o)	29.9	ug/L
Bromoform	<2.0	ug/L
1,1,2,2-Tetrachloroethane	<2.0	ug/L
1,3-Dichlorobenzene	<1.0	ug/L
1,4-Dichlorobenzene	<1.0	ug/L
1,2-Dichlorobenzene	<1.0	ug/L

Methods - GCMS


Michael R. Fowler

Date 2-21-94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 02/21/94
Lab # H1532-5

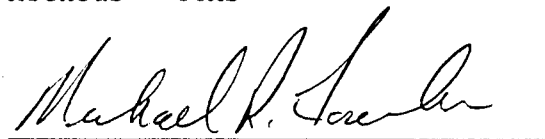
Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: BM
Type of Sample: Air
Sample ID: N Zone 3

Date: 02/16/94
Sample Condition: Tedlar Bag

VOLATILES

PARAMETER	RESULT	UNITS
Dichlorodifluoromethane	<2.0	ug/L
Chloromethane	<2.0	ug/L
Vinyl Chloride	<2.0	ug/L
Chloroethane	<2.0	ug/L
Bromomethane	<2.0	ug/L
Trichlorofluoromethane	<2.0	ug/L
trans-1,2-Dichloroethene	<2.0	ug/L
Methylene Chloride	<2.0	ug/L
1,1-Dichloroethene	<2.0	ug/L
1,1-Dichloroethane	<2.0	ug/L
2-Butanone	<2.0	ug/L
Chloroform	<2.0	ug/L
1,1,1-Trichloroethane	11.0	ug/L
1,2-Dichloroethane	<2.0	ug/L
Benzene	<1.0	ug/L
Carbon Tetrachloride	<2.0	ug/L
1,2-Dichloropropane	<2.0	ug/L
Trichloroethene	<2.0	ug/L
Bromodichloromethane	<2.0	ug/L
2-Chloroethylvinylether	<2.0	ug/L
1,3-Dichloropropene	<2.0	ug/L
Toluene	25.7	ug/L
1,1,2-Trichloroethane	<2.0	ug/L
Dibromochloromethane	<2.0	ug/L
Tetrachloroethene	<1.0	ug/L
Chlorobenzene	<1.0	ug/L
Ethyl Benzene	<1.0	ug/L
Xylene (m,p,o)	44.5	ug/L
Bromoform	<2.0	ug/L
1,1,2,2-Tetrachloroethane	<2.0	ug/L
1,3-Dichlorobenzene	<1.0	ug/L
1,4-Dichlorobenzene	<1.0	ug/L
1,2-Dichlorobenzene	<1.0	ug/L

Methods - GCMS



Michael R. Fowler

Date 2-21-94

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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 02/24/94
Lab # H1546-1

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: BM
Type of Sample: Air
Sample ID: Zone 1

Date: 02/23/94
Sample Condition: Tedlar Bag

VOLATILES

PARAMETER	RESULT	UNITS
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	1.4	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	<1.0	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	0.51	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
Xylene (m,p,o)	<0.5	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS

Michael R. Fowler

Michael R. Fowler

Date 2-24-94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 02/24/94
Lab # H1546-2

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: BM
Type of Sample: Air
Sample ID: Zone 2

Date: 02/23/94
Sample Condition: Tedlar Bag

VOLATILES

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	1.8	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	<1.0	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	<0.5	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	50.2	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
Xylene (m,p,o)	<0.5	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS

Michael R. Fowler

Date 2-24-94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 02/24/94
Lab # H1546-3

Project Name: Dowell Schlumberger
Project Location: Artesia, NM

Sampled by: BM
Type of Sample: Air
Sample ID: N Zone 1

Date: 02/23/94
Sample Condition: Tedlar Bag

VOLATILES

PARAMETER	RESULT	UNITS
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	<1.0	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	6.1	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	2.4	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	2.2	ug/L
Xylene (m,p,o)	18.3	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS

Michael R. Fowler

Michael R. Fowler

Date 2-24-94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 02/24/94
Lab # H1546-4

Project Name: Dowell Schlumberger
Project Location: Artesia, NM

Sampled by: BM

Date: 02/23/94

Type of Sample: Air
Sample ID: N Zone 2

Sample Condition: Tedlar Bag

VOLATILES

PARAMETER	RESULT	UNITS
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	<1.0	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	12.6	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	1.4	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	16.4	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	9.3	ug/L
Xylene (m,p,o)	53.2	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS

Michael R. Fowler

Date 2-24-94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 02/24/94
Lab # H1546-5

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: BM
Type of Sample: Air
Sample ID: N Zone 3

Date: 02/23/94
Sample Condition: Tedlar Bag

VOLATILES

PARAMETER	RESULT	UNITS
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	<1.0	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	19.3	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	3.5	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	73.2	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	1.6	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	17.5	ug/L
Xylene (m,p,o)	99.1	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS



Michael R. Fowler

Date 2-24-94

$$\begin{array}{r} 16091 \\ \times 33 \\ \hline \end{array}$$

CHAIN OF CUSTODY RECORD AND SAMPLING SHIPPING PAPERS



**Western
Water
Consultants, Inc.**

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ARDINAL LABORATORIES

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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 03/10/94
Lab # H1561-1

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: BM
Type of Sample: Air
Sample ID: Zone 1

Date: 03/04/94
Sample Condition: Tedlar Bag

VOLATILES

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	<1.0	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	<1.0	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	<0.5	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
Xylene (m,p,o)	<0.5	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS



Michael R. Fowler

Date 3-10-94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 03/10/94
Lab # H1561-2

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: BM
Type of Sample: Air
Sample ID: Zone 2

Date: 03/04/94
Sample Condition: Tedlar Bag

VOLATILES

PARAMETER	RESULT	UNITS
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	<1.0	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	<1.0	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	<0.5	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	8.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
Xylene (m,p,o)	<0.5	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS

Michael R. Fowler

Date 3-10-94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 03/10/94
Lab # H1561-3

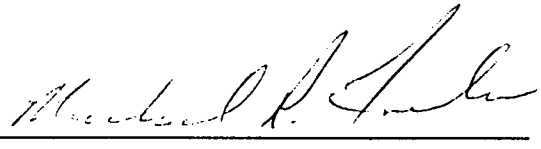
Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: BM
Type of Sample: Air
Sample ID: N Zone 1

Date: 03/04/94
Sample Condition: Tedlar Bag

VOLATILES

PARAMETER	RESULT	UNITS
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	<1.0	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	6.6	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	2.5	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	2.6	ug/L
Xylene (m,p,o)	21.2	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS


Michael R. Fowler

Date

3-10-94



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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 03/10/94
Lab # H1561-4

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: BM
Type of Sample: Air
Sample ID: N Zone 2

Date: 03/04/94
Sample Condition: Tedlar Bag

VOLATILES

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	<1.0	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	12.1	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	9.5	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	5.3	ug/L
Xylene (m,p,o)	39.7	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS

Michael R. Fowler

Date 3-10-94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 03/10/94
Lab # H1561-5

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: BM
Type of Sample: Air
Sample ID: N Zone 3

Date: 03/04/94
Sample Condition: Tedlar Bag

VOLATILES

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	<1.0	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	14.7	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	2.1	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	44.9	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	10.6	ug/L
Xylene (m,p,o)	60.9	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS



Michael R. Fowler

Date 3-10-94

REMARKS: Direct all questions, reports and invoices
to Scott Gustin 307-721-2913 fx.
307-742-0031 ph.



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 03/17/94
Lab # H1570-1

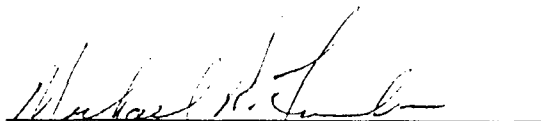
Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: BM
Type of Sample: Air
Sample ID: Zone 1

Date: 03/11/94
Sample Condition: Tedlar Bag

VOLATILES

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	3.0	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	<1.0	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	<0.5	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
Xylene (m,p,o)	<0.5	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS



Michael R. Fowler

Date 3-17-94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 03/17/94
Lab # H1570-2

Project Name: Dowell Schlumberger
Project Location: Artesia, NM

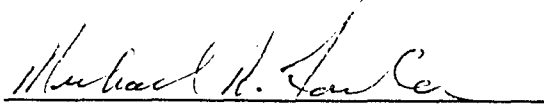
Sampled by: BM
Type of Sample: Air
Sample ID: Zone 2

Date: 03/11/94
Sample Condition: Tedlar Bag

VOLATILES

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	5.6	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	<1.0	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	<1.0	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	<0.5	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	17.6	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
Xylene (m,p,o)	<0.5	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS



Michael R. Fowler

Date 3-17-94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 03/17/94
Lab # H1570-3

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: BM
Type of Sample: Air
Sample ID: N Zone 1

Date: 03/11/94
Sample Condition: Tedlar Bag

VOLATILES

PARAMETER	RESULT	UNITS
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	4.4	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	4.1	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	9.3	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	2.9	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	17.6	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	2.6	ug/L
Xylene (m,p,o)	16.1	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS

Michael R. Fowler

Date 3-17-94



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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NEW MEXICO 88240

FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 03/18/94
Lab # H1570-4

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: BM
Type of Sample: Air
Sample ID: N Zone 2

Date: 03/11/94
Sample Condition: Tedlar Bag

VOLATILES

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	6.3	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	26.7	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	12.1	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	10.9	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	5.4	ug/L
Xylene (m,p,o)	23.2	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS

Michael R. Fowler

Michael R. Fowler

Date 3-18-94



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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NEW MEXICO 88240

FINAL ANALYSIS REPORT

Company: Western Water Consultants Date: 03/18/94
Address: 611 Skyline Lab # H1570-5
City, State: Laramie, WY 82070

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: BM Date: 03/11/94
Type of Sample: Air Sample Condition: Tedlar Bag
Sample ID: N Zone 3

VOLATILES

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	3.8	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	17.9	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	<0.5	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	13.3	ug/L
Xylene (m,p,o)	14.3	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS



Michael R. Fowler

Date 3-18-94

REMARKS: Direct all questions, reports and inquiries to Scott Gustin 307-721-2913 Fx. 307-742-0031 ph.



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 03/26/94
Lab # H1582-1

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: BM
Type of Sample: Air
Sample ID: Zone 1

Date: 03/18/94
Sample Condition: Tedlar Bag

VOLATILES

PARAMETER	RESULT	UNITS
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	<1.0	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	5.6	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	<0.5	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
Xylene (m,p,o)	<0.5	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS

Michael R. Fowler

Date 3-26-94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 03/26/94
Lab # H1582-2

Project Name: Dowell Schlumberger
Project Location: Artesia, NM

Sampled by: BM
Type of Sample: Air
Sample ID: Zone 2

Date: 03/18/94
Sample Condition: Tedlar Bag

VOLATILES

PARAMETER	RESULT	UNITS
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	<1.0	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	<1.0	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	<0.5	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	15.9	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
Xylene (m,p,o)	<0.5	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS

Michael R. Fowler

Date 3-26-94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 03/26/94
Lab # H1582-3

Project Name: Dowell Schlumberger
Project Location: Artesia, NM

Sampled by: BM
Type of Sample: Air
Sample ID: N Zone 1

Date: 03/18/94
Sample Condition: Tedlar Bag

VOLATILES

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	21.3	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	3.5	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	1.8	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	14.6	ug/L
Xylene (m,p,o)	<0.5	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS

Michael R. Fowler

Date 5-26-94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 03/26/94
Lab # H1582-4

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: BM
Type of Sample: Air
Sample ID: N Zone 2

Date: 03/18/94
Sample Condition: Tedlar Bag

VOLATILES

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	18.7	ug/L
Chloroform	9.0	ug/L
1,1,1-Trichloroethane	<1.0	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	0.7	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	9.6	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	4.8	ug/L
Xylene (m,p,o)	28.1	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS

Michael R. Fowler

Date

3.26.94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 03/26/94
Lab # H1582-5

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: BM
Type of Sample: Air
Sample ID: N Zone 3

Date: 03/18/94
Sample Condition: Tedlar Bag

VOLATILES

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	46.4	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	11.0	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	38.3	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	10.1	ug/L
Xylene (m,p,o)	57.2	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS

Michael R. Fowler

Date 3-26-94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 04/05/94
Lab # H1591-1

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: BM
Type of Sample: Air
Sample ID: Zone 1

Date: 03/28/94
Sample Condition: Tedlar Bag

VOLATILES

PARAMETER	RESULT	UNITS
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	<1.0	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	1.1	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	<0.5	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
Xylene (m,p,o)	<0.5	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS

Michael R. Fowler

Date 4-5-94



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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NEW MEXICO 88240

FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 04/05/94
Lab # H1591-2

Project Name: Dowell Schlumberger
Project Location: Artesia, NM

Sampled by: BM

Date: 03/28/94

Type of Sample: Air

Sample Condition: Tedlar Bag

Sample ID: Zone 2

VOLATILES

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	<1.0	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	1.2	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	<0.5	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	6.9	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
Xylene (m,p,o)	<0.5	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS

Michael R. Fowler

Date

4-5-94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants Date: 04/05/94
Address: 611 Skyline Lab # H1591-3
City, State: Laramie, WY 82070

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: BM Date: 03/28/94
Type of Sample: Air Sample Condition: Tedlar Bag
Sample ID: N Zone 1

VOLATILES

PARAMETER	RESULT	UNITS
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	<1.0	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	3.4	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	1.2	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	0.9	ug/L
Xylene (m,p,o)	8.0	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS

Michael R. Fowler

Date 4-5-94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 04/05/94
Lab # H1591-4

Project Name: Dowell Schlumberger
Project Location: Artesia, NM

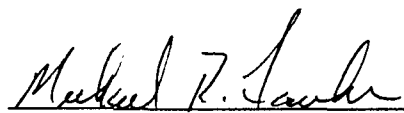
Sampled by: BM
Type of Sample: Air
Sample ID: N Zone 2

Date: 03/28/94
Sample Condition: Tedlar Bag

VOLATILES

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	<1.0	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	5.0	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	3.5	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	1.9	ug/L
Xylene (m,p,o)	12.8	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS



Michael R. Fowler

Date 4-5-94



PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TEXAS 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NEW MEXICO 88240

FINAL ANALYSIS REPORT

Company: Western Water Consultants Date: 04/05/94
Address: 611 Skyline Lab # H1591-5
City, State: Laramie, WY 82070

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: BM Date: 03/28/94
Type of Sample: Air Sample Condition: Tedlar Bag
Sample ID: N Zone 3

VOLATILES

PARAMETER	RESULT	UNITS
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	<1.0	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	8.1	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	1.2	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	21.4	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	5.7	ug/L
Xylene (m,p,o)	30.8	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS

Michael R. Fowler

Date 4-5-94



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FINAL ANALYSIS REPORT

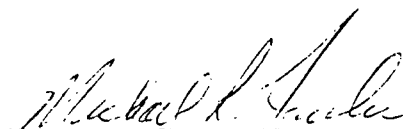
Company: Western Water Consultants Date: 04/11/94
Address: 611 Skyline Lab # H1605-1
City, State: Laramie, WY 82070

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: GP Date: 04/08/94
Type of Sample: Air Sample Condition: Tedlar Bag
Sample ID: Zone 2

VOLATILES

PARAMETER	RESULT	UNITS
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	<1.0	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	1.2	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	<0.5	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
Xylene (m,p,o)	<0.5	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS



Michael R. Fowler

Date 4-11-94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 04/11/94
Lab # H1605-2

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: GP
Type of Sample: Air
Sample ID: N Zone 1

Date: 04/08/94
Sample Condition: Tedlar Bag

VOLATILES

PARAMETER	RESULT	UNITS
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	<1.0	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	<1.0	ug/L
1,2-Dichloroethane	<1.0	ug/L
benzene	<0.5	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	<0.5	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
Xylene (m,p,o)	4.6	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS

Michael R. Fowler

Date

4-11-94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 04/11/94
Lab # H1605-3

Project Name: Dowell Schlumberger
Project Location: Artesia, NM

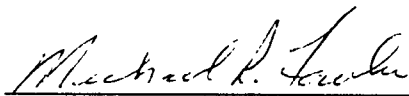
Sampled by: GP
Type of Sample: Air
Sample ID: N Zone 2

Date: 04/08/94
Sample Condition: Tedlar Bag

VOLATILES

PARAMETER	RESULT	UNITS
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	<1.0	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	2.0	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	1.5	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	1.1	ug/L
Xylene (m,p,o)	8.4	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS



Michael R. Fowler

Date 4-11-94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 04/11/94
Lab # H1605-4

Project Name: Dowell Schlumberger
Project Location: Artesia, NM

Sampled by: GP
Type of Sample: Air
Sample ID: N Zone 3

Date: 04/08/94
Sample Condition: Tedlar Bag

VOLATILES

PARAMETER	RESULT	UNITS
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	<1.0	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	<1.0	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	2.4	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	1.5	ug/L
Xylene (m,p,o)	9.4	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS

Michael R. Fowler

Date 4-11-94



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P. O. #:

C: *P:*

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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 04/21/94
Lab # H1622-1

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: SG
Type of Sample: Air
Sample ID: Zone 1

Date: 04/20/94
Sample Condition: Tedlar Bag

VOLATILES

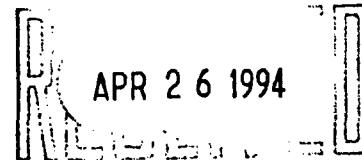
PARAMETER	RESULT	UNITS
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	1.9	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	21.3	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	<0.5	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
Xylene (m,p,o)	<0.5	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS

Michael R. Fowler

Date 4-21-94

WESTERN WATER CONSULTANTS, INC.



LARAMIE, WY 82070



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FINAL ANALYSIS REPORT

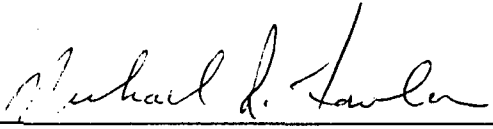
Company: Western Water Consultants Date: 04/21/94
Address: 611 Skyline Lab # H1622-2
City, State: Laramie, WY 82070

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: SG Date: 04/20/94
Type of Sample: Air Sample Condition: Tedlar Bag
Sample ID: Zone 2

VOLATILES

PARAMETER	RESULT	UNITS
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	2.5	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	2.5	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	<0.5	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	12.1	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
Xylene (m,p,o)	<0.5	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS



Michael R. Fowler

Date 4-21-94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 04/21/94
Lab # H1622-3

Project Name: Dowell Schlumberger
Project Location: Artesia, NM

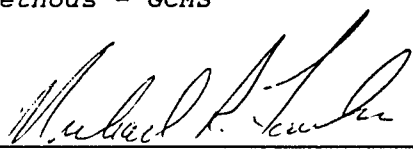
Sampled by: SG
Type of Sample: Air
Sample ID: N Zone 1

Date: 04/20/94
Sample Condition: Tedlar Bag

VOLATILES

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	1.2	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	2.8	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	<0.5	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
Xylene (m,p,o)	5.9	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS



Michael R. Fowler

Date 4-21-94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 04/21/94
Lab # H1622-4

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: SG
Type of Sample: Air
Sample ID: N Zone 2

Date: 04/20/94
Sample Condition: Tedlar Bag

VOLATILES

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	1.6	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	6.8	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	5.8	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	4.1	ug/L
Xylene (m,p,o)	27.5	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS

Michael R. Fowler

Date

4-21-94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 04/21/94
Lab # H1622-5

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: BM
Type of Sample: Air
Sample ID: N Zone 3

Date: 04/20/94
Sample Condition: Tedlar Bag

VOLATILES

PARAMETER	RESULT	UNITS
Dichlorodifluoromethane	<1.0	ug/L
Chloromethane	<1.0	ug/L
Vinyl Chloride	<1.0	ug/L
Chloroethane	<1.0	ug/L
Bromomethane	<1.0	ug/L
Trichlorofluoromethane	<1.0	ug/L
trans-1,2-Dichloroethene	<1.0	ug/L
Methylene Chloride	<1.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
1,1-Dichloroethane	<1.0	ug/L
2-Butanone	13.3	ug/L
Chloroform	<1.0	ug/L
1,1,1-Trichloroethane	11.1	ug/L
1,2-Dichloroethane	<1.0	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<1.0	ug/L
1,2-Dichloropropane	<1.0	ug/L
Trichloroethene	<1.0	ug/L
Bromodichloromethane	<1.0	ug/L
2-Chloroethylvinylether	<1.0	ug/L
1,3-Dichloropropene	<1.0	ug/L
Toluene	27.6	ug/L
1,1,2-Trichloroethane	<1.0	ug/L
Dibromochloromethane	<1.0	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	10.6	ug/L
Xylene (m,p,o)	61.8	ug/L
Bromoform	<1.0	ug/L
1,1,2,2-Tetrachloroethane	<1.0	ug/L
1,3-Dichlorobenzene	<0.5	ug/L
1,4-Dichlorobenzene	<0.5	ug/L
1,2-Dichlorobenzene	<0.5	ug/L

Methods - GCMS



Michael R. Fowler

Date 4-21-94

CHAIN OF CUSTODY RECORD AND SAMPLING SHIPPING PAPERS

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WESTERN WATER CONSULTANTS, INC.

MAY 16 1994

LARAMIE, WY 82070

FINAL ANALYSIS REPORT

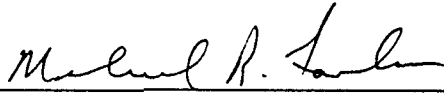
Company: Western Water Consultants Date: 05/09/94
Address: 611 Skyline Lab # H1648-1
City, State: Laramie, WY 82070

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: MF Date: 05/06/94
Type of Sample: Air Sample Condition: Tedlar Bag
Sample ID: Zone 1

VOLATILES

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Acetone	<10.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
Methylene Chloride	<0.5	ug/L
trans-1,2-Dichloroethene	<0.5	ug/L
1,1-Dichloroethane	<0.5	ug/L
2-Butanone	<10.0	ug/L
cis-1,2-Dichloroethene	2.0	ug/L
Chloroform	<0.5	ug/L
1,1,1-Trichloroethane	6.2	ug/L
1,2-Dichloroethane	<0.5	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<0.5	ug/L
1,2-Dichloropropane	<0.5	ug/L
Trichloroethene	<0.5	ug/L
Bromodichloromethane	<0.5	ug/L
cis-1,3-Dichloropropene	<0.5	ug/L
trans-1,3-Dichloropropene	<0.5	ug/L
Toluene	<0.5	ug/L
1,1,2-Trichloroethane	<0.5	ug/L
Dibromochloromethane	<0.5	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
m,p,o-Xylene	<0.5	ug/L
Bromoform	<0.5	ug/L
Styrene	<0.5	ug/L
1,1,2,2-Tetrachloroethane	<0.5	ug/L

Methods - GCMS


Michael R. Fowler

Date 5-9-94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 05/09/94
Lab # H1648-2

Project Name: Dowell Schlumberger

Project Location: Artesia, NM

Sampled by: MF

Date: 05/06/94

Type of Sample: Air

Sample Condition: Tedlar Bag

Sample ID: Zone 2

VOLATILES

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Acetone	<10.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
Methylene Chloride	<0.5	ug/L
trans-1,2-Dichloroethene	<0.5	ug/L
1,1-Dichloroethane	<0.5	ug/L
2-Butanone	<10.0	ug/L
cis-1,2-Dichloroethene	<0.5	ug/L
Chloroform	<0.5	ug/L
1,1,1-Trichloroethane	1.6	ug/L
1,2-Dichloroethane	<0.5	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<0.5	ug/L
1,2-Dichloropropane	<0.5	ug/L
Trichloroethene	<0.5	ug/L
Bromodichloromethane	<0.5	ug/L
cis-1,3-Dichloropropene	<0.5	ug/L
trans-1,3-Dichloropropene	<0.5	ug/L
Toluene	<0.5	ug/L
1,1,2-Trichloroethane	<0.5	ug/L
Dibromochloromethane	<0.5	ug/L
Tetrachloroethene	6.8	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
m,p,o-Xylene	<0.5	ug/L
Bromoform	<0.5	ug/L
Styrene	<0.5	ug/L
1,1,2,2-Tetrachloroethane	<0.5	ug/L

Methods - GCMS

Michael R. Fowler

Michael R. Fowler

Date

5-9-94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants Date: 05/09/94
Address: 611 Skyline Lab # H1648-3
City, State: Laramie, WY 82070

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: MF Date: 05/06/94
Type of Sample: Air Sample Condition: Tedlar Bag
Sample ID: N Zone 1

VOLATILES

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Acetone	<10.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
Methylene Chloride	<0.5	ug/L
trans-1,2-Dichloroethene	<0.5	ug/L
1,1-Dichloroethane	<0.5	ug/L
2-Butanone	<10.0	ug/L
cis-1,2-Dichloroethene	<0.5	ug/L
Chloroform	<0.5	ug/L
1,1,1-Trichloroethane	3.9	ug/L
1,2-Dichloroethane	<0.5	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<0.5	ug/L
1,2-Dichloropropane	<0.5	ug/L
Trichloroethene	<0.5	ug/L
Bromodichloromethane	<0.5	ug/L
cis-1,3-Dichloropropene	<0.5	ug/L
trans-1,3-Dichloropropene	<0.5	ug/L
Toluene	1.7	ug/L
1,1,2-Trichloroethane	<0.5	ug/L
Dibromochloromethane	<0.5	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	1.1	ug/L
m,p,o-Xylene	5.8	ug/L
Bromoform	<0.5	ug/L
Styrene	<0.5	ug/L
1,1,2,2-Tetrachloroethane	<0.5	ug/L

Methods - GCMS

Michael R. Fowler

Date 5-9-94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants Date: 05/09/94
Address: 611 Skyline Lab # H1648-4
City, State: Laramie, WY 82070
Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: MF Date: 05/06/94
Type of Sample: Air Sample Condition: Tedlar Bag
Sample ID: N Zone 2

VOLATILES

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Acetone	<10.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
Methylene Chloride	<0.5	ug/L
trans-1,2-Dichloroethene	<0.5	ug/L
1,1-Dichloroethane	<0.5	ug/L
2-Butanone	<10.0	ug/L
cis-1,2-Dichloroethene	<0.5	ug/L
Chloroform	<0.5	ug/L
1,1,1-Trichloroethane	3.0	ug/L
1,2-Dichloroethane	<0.5	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<0.5	ug/L
1,2-Dichloropropane	<0.5	ug/L
Trichloroethene	<0.5	ug/L
Bromodichloromethane	<0.5	ug/L
cis-1,3-Dichloropropene	<0.5	ug/L
trans-1,3-Dichloropropene	<0.5	ug/L
Toluene	4.5	ug/L
1,1,2-Trichloroethane	<0.5	ug/L
Dibromochloromethane	<0.5	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	3.7	ug/L
m,p,o-Xylene	30.0	ug/L
Bromoform	<0.5	ug/L
Styrene	<0.5	ug/L
1,1,2,2-Tetrachloroethane	<0.5	ug/L

Methods - GCMS

Michael R. Fowler

Date 5-9-94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants Date: 05/09/94
Address: 611 Skyline Lab # H1648-5
City, State: Laramie, WY 82070
Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: MF Date: 05/06/94
Type of Sample: Air Sample Condition: Tedlar Bag
Sample ID: N Zone 3

VOLATILES

PARAMETER	RESULT	UNITS
Acetone	<10.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
Methylene Chloride	<0.5	ug/L
trans-1,2-Dichloroethene	<0.5	ug/L
1,1-Dichloroethane	<0.5	ug/L
2-Butanone	<10.0	ug/L
cis-1,2-Dichloroethene	<0.5	ug/L
Chloroform	<0.5	ug/L
1,1,1-Trichloroethane	6.0	ug/L
1,2-Dichloroethane	<0.5	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<0.5	ug/L
1,2-Dichloropropane	<0.5	ug/L
Trichloroethene	<0.5	ug/L
Bromodichloromethane	<0.5	ug/L
cis-1,3-Dichloropropene	<0.5	ug/L
trans-1,3-Dichloropropene	<0.5	ug/L
Toluene	17.5	ug/L
1,1,2-Trichloroethane	<0.5	ug/L
Dibromochloromethane	<0.5	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	6.8	ug/L
m,p,o-Xylene	38.9	ug/L
Bromoform	<0.5	ug/L
Styrene	<0.5	ug/L
1,1,2,2-Tetrachloroethane	<0.5	ug/L

Methods - GCMS


Michael R. Fowler

Date 5-9-94

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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 05/20/94
Lab # H1666-1

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: SG
Type of Sample: Air
Sample ID: Zone 1

Date: 05/18/94
Sample Condition: Tedlar Bag

VOLATILES

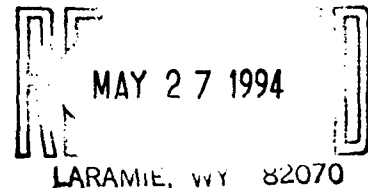
<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Acetone	<10.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
Methylene Chloride	<0.5	ug/L
trans-1,2-Dichloroethene	<0.5	ug/L
1,1-Dichloroethane	<0.5	ug/L
2-Butanone	<10.0	ug/L
cis-1,2-Dichloroethene	<0.5	ug/L
Chloroform	<0.5	ug/L
1,1,1-Trichloroethane	4.0	ug/L
1,2-Dichloroethane	<0.5	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<0.5	ug/L
1,2-Dichloropropane	<0.5	ug/L
Trichloroethene	<0.5	ug/L
Bromodichloromethane	<0.5	ug/L
cis-1,3-Dichloropropene	<0.5	ug/L
trans-1,3-Dichloropropene	<0.5	ug/L
Toluene	<0.5	ug/L
1,1,2-Trichloroethane	<0.5	ug/L
Dibromochloromethane	<0.5	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
m,p,o-Xylene	<0.5	ug/L
Bromoform	<0.5	ug/L
Styrene	<0.5	ug/L
1,1,2,2-Tetrachloroethane	<0.5	ug/L

Methods - GCMS

Michael R. Fowler

Date 5-20-94

WESTERN WATER CONSULTANTS, INC.



LARAMIE, WY 82070



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FINAL ANALYSIS REPORT

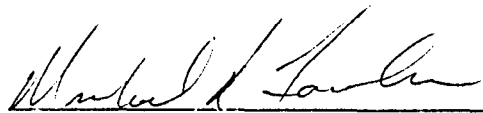
Company: Western Water Consultants Date: 05/20/94
Address: 611 Skyline Lab # H1666-2
City, State: Laramie, WY 82070

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: SG Date: 05/18/94
Type of Sample: Air Sample Condition: Tedlar Bag
Sample ID: Zone 2

VOLATILES

PARAMETER	RESULT	UNITS
Acetone	<10.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
Methylene Chloride	<0.5	ug/L
trans-1,2-Dichloroethene	<0.5	ug/L
1,1-Dichloroethane	<0.5	ug/L
2-Butanone	<10.0	ug/L
cis-1,2-Dichloroethene	<0.5	ug/L
Chloroform	<0.5	ug/L
1,1,1-Trichloroethane	4.0	ug/L
1,2-Dichloroethane	<0.5	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<0.5	ug/L
1,2-Dichloropropane	<0.5	ug/L
Trichloroethene	<0.5	ug/L
Bromodichloromethane	<0.5	ug/L
cis-1,3-Dichloropropene	<0.5	ug/L
trans-1,3-Dichloropropene	<0.5	ug/L
Toluene	<0.5	ug/L
1,1,2-Trichloroethane	<0.5	ug/L
Dibromochloromethane	<0.5	ug/L
Tetrachloroethene	6.9	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	<0.5	ug/L
m,p,o-Xylene	<0.5	ug/L
Bromoform	<0.5	ug/L
Styrene	<0.5	ug/L
1,1,2,2-Tetrachloroethane	<0.5	ug/L

Methods - GCMS


Michael R. Fowler

Date 5-20-94



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FINAL ANALYSIS REPORT

Company: Western Water Consultants Date: 05/20/94
Address: 611 Skyline Lab # H1666-3
City, State: Laramie, WY 82070

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: SG Date: 05/18/94
Type of Sample: Air Sample Condition: Tedlar Bag
Sample ID: N Zone 1

VOLATILES

PARAMETER	RESULT	UNITS
Acetone	<10.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
Methylene Chloride	<0.5	ug/L
trans-1,2-Dichloroethene	<0.5	ug/L
1,1-Dichloroethane	<0.5	ug/L
2-Butanone	<10.0	ug/L
cis-1,2-Dichloroethene	<0.5	ug/L
Chloroform	<0.5	ug/L
1,1,1-Trichloroethane	1.8	ug/L
1,2-Dichloroethane	<0.5	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<0.5	ug/L
1,2-Dichloropropane	<0.5	ug/L
Trichloroethene	<0.5	ug/L
Bromodichloromethane	<0.5	ug/L
cis-1,3-Dichloropropene	<0.5	ug/L
trans-1,3-Dichloropropene	<0.5	ug/L
Toluene	<0.5	ug/L
1,1,2-Trichloroethane	<0.5	ug/L
Dibromochloromethane	<0.5	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	0.8	ug/L
m,p,o-Xylene	8.4	ug/L
Bromoform	<0.5	ug/L
Styrene	<0.5	ug/L
1,1,2,2-Tetrachloroethane	<0.5	ug/L

Methods - GCMS


Michael R. Fowler

Date 5-20-94



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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NEW MEXICO 88240

FINAL ANALYSIS REPORT

Company: Western Water Consultants Date: 05/20/94
Address: 611 Skyline Lab # H1666-4
City, State: Laramie, WY 82070

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: SG Date: 05/18/94
Type of Sample: Air Sample Condition: Tedlar Bag
Sample ID: N Zone 2

VOLATILES

PARAMETER	RESULT	UNITS
Acetone	<10.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
Methylene Chloride	<0.5	ug/L
trans-1,2-Dichloroethene	<0.5	ug/L
1,1-Dichloroethane	<0.5	ug/L
2-Butanone	<10.0	ug/L
cis-1,2-Dichloroethene	<0.5	ug/L
Chloroform	<0.5	ug/L
1,1,1-Trichloroethane	2.8	ug/L
1,2-Dichloroethane	<0.5	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<0.5	ug/L
1,2-Dichloropropane	<0.5	ug/L
Trichloroethene	<0.5	ug/L
Bromodichloromethane	<0.5	ug/L
cis-1,3-Dichloropropene	<0.5	ug/L
trans-1,3-Dichloropropene	<0.5	ug/L
Toluene	6.0	ug/L
1,1,2-Trichloroethane	<0.5	ug/L
Dibromochloromethane	<0.5	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	5.3	ug/L
m,p,o-Xylene	44.2	ug/L
Bromoform	<0.5	ug/L
Styrene	<0.5	ug/L
1,1,2,2-Tetrachloroethane	<0.5	ug/L

Methods - GCMS


Michael R. Fowler

Date 5-20-94



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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NEW MEXICO 88240

FINAL ANALYSIS REPORT

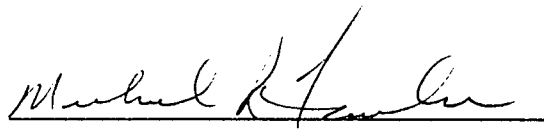
Company: Western Water Consultants Date: 05/20/94
Address: 611 Skyline Lab # H1666-5
City, State: Laramie, WY 82070

Project Name: Dowell Schlumberger
Project Location: Artesia, NM
Sampled by: SG Date: 05/18/94
Type of Sample: Air Sample Condition: Tedlar Bag
Sample ID: N Zone 3

VOLATILES

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Acetone	<10.0	ug/L
1,1-Dichloroethene	<1.0	ug/L
Methylene Chloride	<0.5	ug/L
trans-1,2-Dichloroethene	<0.5	ug/L
1,1-Dichloroethane	<0.5	ug/L
2-Butanone	<10.0	ug/L
cis-1,2-Dichloroethene	<0.5	ug/L
Chloroform	<0.5	ug/L
1,1,1-Trichloroethane	1.9	ug/L
1,2-Dichloroethane	<0.5	ug/L
Benzene	<0.5	ug/L
Carbon Tetrachloride	<0.5	ug/L
1,2-Dichloropropane	<0.5	ug/L
Trichloroethene	<0.5	ug/L
Bromodichloromethane	<0.5	ug/L
cis-1,3-Dichloropropene	<0.5	ug/L
trans-1,3-Dichloropropene	<0.5	ug/L
Toluene	8.1	ug/L
1,1,2-Trichloroethane	<0.5	ug/L
Dibromochloromethane	<0.5	ug/L
Tetrachloroethene	<0.5	ug/L
Chlorobenzene	<0.5	ug/L
Ethyl Benzene	6.2	ug/L
m,p,o-Xylene	43.9	ug/L
Bromoform	<0.5	ug/L
Styrene	<0.5	ug/L
1,1,2,2-Tetrachloroethane	<0.5	ug/L

Methods - GCMS


Michael R. Fowler

Date 5-20-94

Western
Water
Consultants, Inc.

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CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY

Date: 6/16/94
Lab #: H1685-1

Project Name: Dowell Schlumberger
Location: Artesia, NM
Sampled by: SG
Sample Type: Air
Sample ID: Shop Zone 1

Sample Date: 6/1/94
Sample Condition: Tedlar Bag

VOLATILES

PARAMETER	RESULT	UNITS
Acetone	<0.001	mg/L
1,1-Dichloroethene	<0.001	mg/L
Methylene Chloride	<0.001	mg/L
trans-1,2-Dichloroethene	<0.001	mg/L
1,1-Dichloroethane	<0.001	mg/L
2-Butanone	<0.001	mg/L
cis-1,2-Dichloroethene	<0.001	mg/L
Chloroform	<0.001	mg/L
1,1,1-Trichloroethane	0.004	mg/L
1,2-Dichloroethane	<0.001	mg/L
Benzene	<0.001	mg/L
Carbon Tetrachloride	<0.001	mg/L
Trichloroethene	<0.001	mg/L
Bromodichloromethane	<0.001	mg/L
trans-1,3-Dichloropropene	<0.001	mg/L
cis-1,3-Dichloropropene	<0.001	mg/L
Toluene	<0.001	mg/L
1,2-Dichloropropane	<0.001	mg/L
1,1,2-Trichloroethane	<0.001	mg/L
Tetrachloroethene	<0.001	mg/L
Dibromochloromethane	<0.001	mg/L
Chlorobenzene	<0.001	mg/L
Ethyl Benzene	<0.001	mg/L
m,p-Xylene	<0.001	mg/L
Bromoform	<0.001	mg/L
Styrene	<0.001	mg/L
o-Xylene	<0.001	mg/L
1,1,2,2-Tetrachloroethane	<0.001	mg/L

Methods - GCMS

Michael R. Fowler

Michael R. Fowler

7-27-94

Date



CARDINAL LABORATORIES

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PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY

Date: 6/16/94
Lab #: H1685-2

Project Name: Dowell Schlumberger
Location: Artesia, NM
Sampled by: SG
Sample Type: Air
Sample ID: Shop Zone 2

Sample Date: 6/1/94
Sample Condition: Tedlar Bag

VOLATILES

<u>PARAMETER</u>	<u>RESULT</u>	<u>UNITS</u>
Acetone	<0.001	mg/L
1,1-Dichloroethene	<0.001	mg/L
Methylene Chloride	<0.001	mg/L
trans-1,2-Dichloroethene	<0.001	mg/L
1,1-Dichloroethane	<0.001	mg/L
2-Butanone	<0.001	mg/L
cis-1,2-Dichloroethene	<0.001	mg/L
Chloroform	<0.001	mg/L
1,1,1-Trichloroethane	0.004	mg/L
1,2-Dichloroethane	<0.001	mg/L
Benzene	<0.001	mg/L
Carbon Tetrachloride	<0.001	mg/L
Trichloroethene	<0.001	mg/L
Bromodichloromethane	<0.001	mg/L
trans-1,3-Dichloropropene	<0.001	mg/L
cis-1,3-Dichloropropene	<0.001	mg/L
Toluene	<0.001	mg/L
1,2-Dichloropropane	<0.001	mg/L
1,1,2-Trichloroethane	<0.001	mg/L
Tetrachloroethene	0.012	mg/L
Dibromochloromethane	0.012	mg/L
Chlorobenzene	<0.001	mg/L
Ethyl Benzene	<0.001	mg/L
m,p-Xylene	<0.001	mg/L
Bromoform	<0.001	mg/L
Styrene	<0.001	mg/L
o-Xylene	<0.001	mg/L
1,1,2,2-Tetrachloroethane	<0.001	mg/L

Methods - GCMS



Michael R. Fowler

7-27-94
Date



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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY

Date: 6/16/94
Lab #: H1685-3

Project Name: Dowell Schlumberger
Location: Artesia, NM
Sampled by: SG
Sample Type: Air
Sample ID: Wash Bay Zone 1

Sample Date: 6/1/94
Sample Condition: Tedlar Bag

VOLATILES

PARAMETER	RESULT	UNITS
Acetone	<0.001	mg/L
1,1-Dichloroethene	<0.001	mg/L
Methylene Chloride	<0.001	mg/L
trans-1,2-Dichloroethene	<0.001	mg/L
1,1-Dichloroethane	<0.001	mg/L
2-Butanone	<0.001	mg/L
cis-1,2-Dichloroethene	<0.001	mg/L
Chloroform	<0.001	mg/L
1,1,1-Trichloroethane	0.004	mg/L
1,2-Dichloroethane	<0.001	mg/L
Benzene	<0.001	mg/L
Carbon Tetrachloride	<0.001	mg/L
Trichloroethene	<0.001	mg/L
Bromodichloromethane	<0.001	mg/L
trans-1,3-Dichloropropene	<0.001	mg/L
cis-1,3-Dichloropropene	<0.001	mg/L
Toluene	<0.001	mg/L
1,2-Dichloropropane	<0.001	mg/L
1,1,2-Trichloroethane	<0.001	mg/L
Tetrachloroethene	0.002	mg/L
Dibromochloromethane	0.001	mg/L
Chlorobenzene	<0.001	mg/L
Ethyl Benzene	0.003	mg/L
m,p-Xylene	0.004	mg/L
Bromoform	<0.001	mg/L
Styrene	<0.001	mg/L
o-Xylene	0.002	mg/L
1,1,2,2-Tetrachloroethane	<0.001	mg/L

Methods - GCMS

Michael R. Fowler

7-27-94
Date



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY

Date: 6/16/94
Lab #: H1685-4

Project Name: Dowell Schlumberger
Location: Artesia, NM
Sampled by: SG
Sample Type: Air
Sample ID: Wash Bay Zone 2

Sample Date: 6/1/94
Sample Condition: Tedlar Bag

VOLATILES

PARAMETER	RESULT	UNITS
Acetone	<0.001	mg/L
1,1-Dichloroethene	<0.001	mg/L
Methylene Chloride	<0.001	mg/L
trans-1,2-Dichloroethene	<0.001	mg/L
1,1-Dichloroethane	<0.001	mg/L
2-Butanone	<0.001	mg/L
cis-1,2-Dichloroethene	<0.001	mg/L
Chloroform	<0.001	mg/L
1,1,1-Trichloroethane	<0.001	mg/L
1,2-Dichloroethane	<0.001	mg/L
Benzene	<0.001	mg/L
Carbon Tetrachloride	<0.001	mg/L
Trichloroethene	<0.001	mg/L
Bromodichloromethane	<0.001	mg/L
trans-1,3-Dichloropropene	<0.001	mg/L
cis-1,3-Dichloropropene	<0.001	mg/L
Toluene	<0.001	mg/L
1,2-Dichloropropane	<0.001	mg/L
1,1,2-Trichloroethane	<0.001	mg/L
Tetrachloroethene	<0.001	mg/L
Dibromochloromethane	<0.001	mg/L
Chlorobenzene	<0.001	mg/L
Ethyl Benzene	0.007	mg/L
m,p-Xylene	0.009	mg/L
Bromoform	<0.001	mg/L
Styrene	<0.001	mg/L
o-Xylene	0.006	mg/L
1,1,2,2-Tetrachloroethane	<0.001	mg/L

Methods - GCMS

Michael R. Fowler

7-27-94
Date



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY

Date: 6/16/94
Lab #: H1685-5

Project Name: Dowell Schlumberger
Location: Artesia, NM
Sampled by: SG
Sample Type: Air
Sample ID: Wash Bay Zone 3

Sample Date: 6/1/94
Sample Condition: Tedlar Bag

VOLATILES

PARAMETER	RESULT	UNITS
Acetone	<0.001	mg/L
1,1-Dichloroethene	<0.001	mg/L
Methylene Chloride	<0.001	mg/L
trans-1,2-Dichloroethene	<0.001	mg/L
1,1-Dichloroethane	<0.001	mg/L
2-Butanone	<0.001	mg/L
cis-1,2-Dichloroethene	<0.001	mg/L
Chloroform	<0.001	mg/L
1,1,1-Trichloroethane	0.004	mg/L
1,2-Dichloroethane	<0.001	mg/L
Benzene	<0.001	mg/L
Carbon Tetrachloride	<0.001	mg/L
Trichloroethene	<0.001	mg/L
Bromodichloromethane	<0.001	mg/L
trans-1,3-Dichloropropene	<0.001	mg/L
cis-1,3-Dichloropropene	<0.001	mg/L
Toluene	0.007	mg/L
1,2-Dichloropropane	<0.001	mg/L
1,1,2-Trichloroethane	<0.001	mg/L
Tetrachloroethene	<0.001	mg/L
Dibromochloromethane	<0.001	mg/L
Chlorobenzene	<0.001	mg/L
Ethyl Benzene	0.004	mg/L
m,p-Xylene	0.021	mg/L
Bromoform	<0.001	mg/L
Styrene	<0.001	mg/L
o-Xylene	0.013	mg/L
1,1,2,2-Tetrachloroethane	<0.001	mg/L

Methods - GCMS

Michael R. Fowler

7-27-94
Date



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FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 7/15/94
Lab #: H1734-2

WESTERN WATER CONSULTANTS, INC.

AUG - 1 1994

LARAMIE, WY. 82070

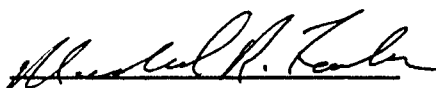
Project Name: Dowell Schlumberger
Location: Artesia, NM
Sampled by: RD
Sample Type: Air
Sample ID: WB Zone 1

Sample Date: 7/6/94
Sample Condition: Tedlar Bag

VOLATILES

PARAMETER	RESULT	UNITS
Acetone	<0.001	mg/L
1,1-Dichloroethene	<0.001	mg/L
Methylene Chloride	<0.001	mg/L
trans-1,2-Dichloroethene	<0.001	mg/L
1,1-Dichloroethane	<0.001	mg/L
2-Butanone	<0.001	mg/L
cis-1,2-Dichloroethene	<0.001	mg/L
Chloroform	<0.001	mg/L
1,1,1-Trichloroethane	<0.001	mg/L
1,2-Dichloroethane	<0.001	mg/L
Benzene	<0.001	mg/L
Carbon Tetrachloride	<0.001	mg/L
Trichloroethene	<0.001	mg/L
Bromodichloromethane	<0.001	mg/L
trans-1,3-Dichloropropene	<0.001	mg/L
cis-1,3-Dichloropropene	<0.001	mg/L
Toluene	0.001	mg/L
1,2-Dichloropropane	<0.001	mg/L
1,1,2-Trichloroethane	<0.001	mg/L
Tetrachloroethene	<0.001	mg/L
Dibromochloromethane	<0.001	mg/L
Chlorobenzene	<0.001	mg/L
Ethyl Benzene	0.005	mg/L
m,p-Xylene	0.007	mg/L
Bromoform	<0.001	mg/L
Styrene	<0.001	mg/L
o-Xylene	0.004	mg/L
1,1,2,2-Tetrachloroethane	<0.001	mg/L

Methods - GCMS


Michael R. Fowler

7-27-94
Date



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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 7/15/94
Lab #: H1734-3

Project Name: Dowell Schlumberger
Location: Artesia, NM
Sampled by: RD
Sample Type: Air
Sample ID: WB Zone 2

Sample Date: 7/6/94
Sample Condition: Tedlar Bag

VOLATILES

PARAMETER	RESULT	UNITS
Acetone	<0.001	mg/L
1,1-Dichloroethene	<0.001	mg/L
Methylene Chloride	<0.001	mg/L
trans-1,2-Dichloroethene	<0.001	mg/L
1,1-Dichloroethane	<0.001	mg/L
2-Butanone	<0.001	mg/L
cis-1,2-Dichloroethene	<0.001	mg/L
Chloroform	<0.001	mg/L
1,1,1-Trichloroethane	<0.001	mg/L
1,2-Dichloroethane	<0.001	mg/L
Benzene	<0.001	mg/L
Carbon Tetrachloride	<0.001	mg/L
Trichloroethene	<0.001	mg/L
Bromodichloromethane	<0.001	mg/L
trans-1,3-Dichloropropene	<0.001	mg/L
cis-1,3-Dichloropropene	<0.001	mg/L
Toluene	0.008	mg/L
1,2-Dichloropropane	<0.001	mg/L
1,1,2-Trichloroethane	<0.001	mg/L
Tetrachloroethene	<0.001	mg/L
Dibromochloromethane	<0.001	mg/L
Chlorobenzene	<0.001	mg/L
Ethyl Benzene	0.005	mg/L
m,p-Xylene	0.026	mg/L
Bromoform	<0.001	mg/L
Styrene	<0.001	mg/L
o-Xylene	0.016	mg/L
1,1,2,2-Tetrachloroethane	<0.001	mg/L

Methods - GCMS

Michael R. Fowler

7-27-94
Date



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PHONE (505) 326-4669 • 118 S. COMMERCIAL AVE. • FARMINGTON, NM 87401

FINAL ANALYSIS REPORT

Company: Western Water Consultants
Address: 611 Skyline
City, State: Laramie, WY 82070

Date: 7/15/94
Lab #: H1734-4

Project Name: Dowell Schlumberger
Location: Artesia, NM
Sampled by: RD
Sample Type: Air
Sample ID: WB Zone 3

Sample Date: 7/6/94
Sample Condition: Tedlar Bag

VOLATILES

PARAMETER	RESULT	UNITS
Acetone	<0.001	mg/L
1,1-Dichloroethene	<0.001	mg/L
Methylene Chloride	<0.001	mg/L
trans-1,2-Dichloroethene	<0.001	mg/L
1,1-Dichloroethane	<0.001	mg/L
2-Butanone	<0.001	mg/L
cis-1,2-Dichloroethene	<0.001	mg/L
Chloroform	<0.001	mg/L
1,1,1-Trichloroethane	0.003	mg/L
1,2-Dichloroethane	<0.001	mg/L
Benzene	<0.001	mg/L
Carbon Tetrachloride	<0.001	mg/L
Trichloroethene	<0.001	mg/L
Bromodichloromethane	<0.001	mg/L
trans-1,3-Dichloropropene	<0.001	mg/L
cis-1,3-Dichloropropene	<0.001	mg/L
Toluene	0.022	mg/L
1,2-Dichloropropane	<0.001	mg/L
1,1,2-Trichloroethane	<0.001	mg/L
Tetrachloroethene	<0.001	mg/L
Dibromochloromethane	<0.001	mg/L
Chlorobenzene	<0.001	mg/L
Ethyl Benzene	0.011	mg/L
m,p-Xylene	0.044	mg/L
Bromoform	<0.001	mg/L
Styrene	<0.001	mg/L
o-Xylene	0.029	mg/L
1,1,2,2-Tetrachloroethane	<0.001	mg/L

Methods - GCMS

Michael R. Fowler

7-27-94

Date

APPENDIX C

**Laboratory Analytical Reports
Ground-Water
July 20, 1994**

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941145

CENREF SAMPLE NUMBER: 5244

SAMPLE IDENTIFICATION: #0125-1.7/94

DATE SAMPLED: 7/20/94

DATE/TIME ANALYZED: 7/30/94 @ 1956

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	10	BDL
Bromomethane	74-83-9	10	BDL
Chloroethane	75-00-3	10	BDL
Methylene Chloride	75-09-2	5	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	5	BDL
1,1-Dichloroethane	75-34-3	5	BDL
Total-1,2-Dichloroethene	540-59-0	5	BDL
Chloroform	67-66-3	5	BDL
1,2-Dichloroethane	107-06-2	5	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	5	BDL
Carbon Tetrachloride	56-23-5	5	BDL
Vinyl Acetate	108-05-4	10	BDL
Bromodichloromethane	75-27-4	5	BDL
1,2-Dichloropropane	78-87-5	5	BDL
2-Chloroethyl-vinyl ether		10	BDL
Cis-1,3-Dichloropropene	10061-01-5	5	BDL
Trichloroethene	79-01-6	5	BDL
Dibromochloromethane	124-48-1	5	BDL
1,1,2-Trichloroethane	79-00-5	5	BDL
Benzene	71-43-2	5	8
Trans-1,3-Dichloropropene	10061-02-6	5	BDL
Bromoform	75-25-2	5	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	5	BDL
1,1,2,2-Tetrachloroethane	79-34-5	5	BDL
Toluene	108-88-3	5	BDL



Page 2 continued

COMPANY NAME: Western Water Consultants
CENREF PROJECT NUMBER: PR941145
CENREF SAMPLE NUMBER: 5244
SAMPLE IDENTIFICATION: #0125-1.7/94
DATE SAMPLED: 7/20/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	5	BDL
Ethylbenzene	100-41-4	5	BDL
Styrene	100-42-5	5	BDL
Xylenes (Total)	1330-20-7	5	BDL
Vinyl Chloride	75-01-4	10	BDL

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____



COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941145

CENREF SAMPLE NUMBER: 5245

SAMPLE IDENTIFICATION: #0125-2.7/94

DATE SAMPLED: 7/20/94

DATE/TIME ANALYZED: 7/30/94 @ 2035

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	10	BDL
Bromomethane	74-83-9	10	BDL
Chloroethane	75-00-3	10	BDL
Methylene Chloride	75-09-2	5	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	5	BDL
1,1-Dichloroethane	75-34-3	5	26
Total-1,2-Dichloroethene	540-59-0	5	BDL
Chloroform	67-66-3	5	BDL
1,2-Dichloroethane	107-06-2	5	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	5	BDL
Carbon Tetrachloride	56-23-5	5	BDL
Vinyl Acetate	108-05-4	10	BDL
Bromodichloromethane	75-27-4	5	BDL
1,2-Dichloropropane	78-87-5	5	BDL
2-Chloroethyl-vinyl ether		10	BDL
Cis-1,3-Dichloropropene	10061-01-5	5	BDL
Trichloroethene	79-01-6	5	BDL
Dibromochloromethane	124-48-1	5	BDL
1,1,2-Trichloroethane	79-00-5	5	BDL
Benzene	71-43-2	5	22
Trans-1,3-Dichloropropene	10061-02-6	5	BDL
Bromoform	75-25-2	5	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	5	21
1,1,2,2-Tetrachloroethane	79-34-5	5	BDL
Toluene	108-88-3	5	BDL



Page 2 continued

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941145

CENREF SAMPLE NUMBER: 5245

SAMPLE IDENTIFICATION: #0125-2.7/94

DATE SAMPLED: 7/20/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	5	BDL
Ethylbenzene	100-41-4	5	BDL
Styrene	100-42-5	5	BDL
Xylenes (Total)	1330-20-7	5	BDL
Vinyl Chloride	75-01-4	10	BDL

BDL = Below Sample Detection Limit

SDL = Sample Detection Limit

COMMENTS: _____

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941145

CENREF SAMPLE NUMBER: 5246

SAMPLE IDENTIFICATION: #0125-3.7/94

DATE SAMPLED: 7/20/94

DATE/TIME ANALYZED: 7/30/94 @ 2115

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	10	BDL
Bromomethane	74-83-9	10	BDL
Chloroethane	75-00-3	10	16
Methylene Chloride	75-09-2	5	BDL
Acetone	67-64-1	100	48 J
Carbon Disulfide	75-15-0	100	1 J
1,1-Dichloroethene	75-35-4	5	36
1,1-Dichloroethane	75-34-3	5	77
Total-1,2-Dichloroethene	540-59-0	5	BDL
Chloroform	67-66-3	5	BDL
1,2-Dichloroethane	107-06-2	5	2 J
2-Butanone	78-93-3	100	8 J
1,1,1-Trichloroethane	71-55-6	5	69
Carbon Tetrachloride	56-23-5	5	BDL
Vinyl Acetate	108-05-4	10	BDL
Bromodichloromethane	75-27-4	5	BDL
1,2-Dichloropropane	78-87-5	5	BDL
2-Chloroethyl-vinyl ether		10	BDL
Cis-1,3-Dichloropropene	10061-01-5	5	BDL
Trichloroethene	79-01-6	5	64
Dibromochloromethane	124-48-1	5	BDL
1,1,2-Trichloroethane	79-00-5	5	BDL
Benzene	71-43-2	5	92
Trans-1,3-Dichloropropene	10061-02-6	5	BDL
Bromoform	75-25-2	5	BDL
4-Methyl-2-Pentanone	108-10-1	50	10 J
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	5	11
1,1,2,2-Tetrachloroethane	79-34-5	5	BDL
Toluene	108-88-3	5	160



Page 2 continued

COMPANY NAME: Western Water Consultants
CENREF PROJECT NUMBER: PR941145
CENREF SAMPLE NUMBER: 5246
SAMPLE IDENTIFICATION: #0125-3.7/94
DATE SAMPLED: 7/20/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	5	BDL
Ethylbenzene	100-41-4	5	E
Styrene	100-42-5	5	BDL
Xylenes (Total)	1330-20-7	5	E
Vinyl Chloride	75-01-4	10	3 J

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.
E = Exceeds the linear range.



COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941145

CENREF SAMPLE NUMBER: 5246DL

SAMPLE IDENTIFICATION: #0125-3.7/94

DATE SAMPLED: 7/20/94

DATE/TIME ANALYZED: 8/2/94 @ 0241

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	100	BDL
Bromomethane	74-83-9	100	BDL
Chloroethane	75-00-3	100	16 J
Methylene Chloride	75-09-2	50	BDL
Acetone	67-64-1	1000	61 J
Carbon Disulfide	75-15-0	1000	BDL
1,1-Dichloroethene	75-35-4	50	35 J
1,1-Dichloroethane	75-34-3	50	120
Total-1,2-Dichloroethene	540-59-0	50	BDL
Chloroform	67-66-3	50	BDL
1,2-Dichloroethane	107-06-2	50	BDL
2-Butanone	78-93-3	1000	BDL
1,1,1-Trichloroethane	71-55-6	50	70
Carbon Tetrachloride	56-23-5	50	BDL
Vinyl Acetate	108-05-4	100	BDL
Bromodichloromethane	75-27-4	50	BDL
1,2-Dichloropropane	78-87-5	50	BDL
2-Chloroethyl-vinyl ether		100	BDL
Cis-1,3-Dichloropropene	10061-01-5	50	BDL
Trichloroethene	79-01-6	50	66
Dibromochloromethane	124-48-1	50	BDL
1,1,2-Trichloroethane	79-00-5	50	BDL
Benzene	71-43-2	50	110
Trans-1,3-Dichloropropene	10061-02-6	50	BDL
Bromoform	75-25-2	50	BDL
4-Methyl-2-Pentanone	108-10-1	500	BDL
2-Hexanone	591-78-6	500	BDL
Tetrachloroethene	127-18-4	50	BDL
1,1,2,2-Tetrachloroethane	79-34-5	50	BDL
Toluene	108-88-3	50	160

Page 2 continued

COMPANY NAME: Western Water Consultants
CENREF PROJECT NUMBER: PR941145
CENREF SAMPLE NUMBER: 5246DL
SAMPLE IDENTIFICATION: #0125-3.7/94
DATE SAMPLED: 7/20/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	50	BDL
Ethylbenzene	100-41-4	50	460
Styrene	100-42-5	50	BDL
Xylenes (Total)	1330-20-7	50	3000
Vinyl Chloride	75-01-4	100	BDL

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941145

CENREF SAMPLE NUMBER: 5247

SAMPLE IDENTIFICATION: #0125-4.7/94

DATE SAMPLED: 7/20/94

DATE/TIME ANALYZED: 7/30/94 @ 2154

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	10	BDL
Bromomethane	74-83-9	10	BDL
Chloroethane	75-00-3	10	BDL
Methylene Chloride	75-09-2	5	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	5	BDL
1,1-Dichloroethane	75-34-3	5	BDL
Total-1,2-Dichloroethene	540-59-0	5	BDL
Chloroform	67-66-3	5	BDL
1,2-Dichloroethane	107-06-2	5	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	5	BDL
Carbon Tetrachloride	56-23-5	5	BDL
Vinyl Acetate	108-05-4	10	BDL
Bromodichloromethane	75-27-4	5	BDL
1,2-Dichloropropane	78-87-5	5	BDL
2-Chloroethyl-vinyl ether		10	BDL
Cis-1,3-Dichloropropene	10061-01-5	5	BDL
Trichloroethene	79-01-6	5	BDL
Dibromochloromethane	124-48-1	5	BDL
1,1,2-Trichloroethane	79-00-5	5	BDL
Benzene	71-43-2	5	100
Trans-1,3-Dichloropropene	10061-02-6	5	BDL
Bromoform	75-25-2	5	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	5	BDL
1,1,2,2-Tetrachloroethane	79-34-5	5	BDL
Toluene	108-88-3	5	BDL



Page 2 continued

COMPANY NAME: Western Water Consultants
CENREF PROJECT NUMBER: PR941145
CENREF SAMPLE NUMBER: 5247
SAMPLE IDENTIFICATION: #0125-4.7/94
DATE SAMPLED: 7/20/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	5	BDL
Ethylbenzene	100-41-4	5	53
Styrene	100-42-5	5	BDL
Xylenes (Total)	1330-20-7	5	5
Vinyl Chloride	75-01-4	10	BDL

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: _____



COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941145

CENREF SAMPLE NUMBER: 5248

SAMPLE IDENTIFICATION: #0125-5.7/94

DATE SAMPLED: 7/20/94

DATE/TIME ANALYZED: 7/30/94 @ 2234

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	10	BDL
Bromomethane	74-83-9	10	BDL
Chloroethane	75-00-3	10	BDL
Methylene Chloride	75-09-2	5	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	5	BDL
1,1-Dichloroethane	75-34-3	5	11
Total-1,2-Dichloroethene	540-59-0	5	BDL
Chloroform	67-66-3	5	BDL
1,2-Dichloroethane	107-06-2	5	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	5	BDL
Carbon Tetrachloride	56-23-5	5	BDL
Vinyl Acetate	108-05-4	10	BDL
Bromodichloromethane	75-27-4	5	BDL
1,2-Dichloropropane	78-87-5	5	BDL
2-Chloroethyl-vinyl ether		10	BDL
Cis-1,3-Dichloropropene	10061-01-5	5	BDL
Trichloroethene	79-01-6	5	4 J
Dibromochloromethane	124-48-1	5	BDL
1,1,2-Trichloroethane	79-00-5	5	BDL
Benzene	71-43-2	5	220
Trans-1,3-Dichloropropene	10061-02-6	5	BDL
Bromoform	75-25-2	5	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	5	25
1,1,2,2-Tetrachloroethane	79-34-5	5	BDL
Toluene	108-88-3	5	BDL



Page 2 continued

COMPANY NAME: Western Water Consultants
CENREF PROJECT NUMBER: PR941145
CENREF SAMPLE NUMBER: 5248
SAMPLE IDENTIFICATION: #0125-5.7/94
DATE SAMPLED: 7/20/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	5	BDL
Ethylbenzene	100-41-4	5	41
Styrene	100-42-5	5	BDL
Xylenes (Total)	1330-20-7	5	BDL
Vinyl Chloride	75-01-4	10	BDL

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.



COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941145

CENREF SAMPLE NUMBER: 5259

SAMPLE IDENTIFICATION: #0125-18.7/94 Duplicate WW-5

DATE SAMPLED: 7/20/94

DATE/TIME ANALYZED: 8/2/94 @ 0044

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	10	BDL
Bromomethane	74-83-9	10	BDL
Chloroethane	75-00-3	10	BDL
Methylene Chloride	75-09-2	5	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	5	2 J
1,1-Dichloroethane	75-34-3	5	26
Total-1,2-Dichloroethene	540-59-0	5	BDL
Chloroform	67-66-3	5	BDL
1,2-Dichloroethane	107-06-2	5	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	5	BDL
Carbon Tetrachloride	56-23-5	5	BDL
Vinyl Acetate	108-05-4	10	BDL
Bromodichloromethane	75-27-4	5	BDL
1,2-Dichloropropane	78-87-5	5	BDL
2-Chloroethyl-vinyl ether		10	BDL
Cis-1,3-Dichloropropene	10061-01-5	5	BDL
Trichloroethene	79-01-6	5	6
Dibromochloromethane	124-48-1	5	BDL
1,1,2-Trichloroethane	79-00-5	5	BDL
Benzene	71-43-2	5	E
Trans-1,3-Dichloropropene	10061-02-6	5	BDL
Bromoform	75-25-2	5	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	5	39
1,1,2,2-Tetrachloroethane	79-34-5	5	BDL
Toluene	108-88-3	5	BDL

Page 2 continued

COMPANY NAME: Western Water Consultants
CENREF PROJECT NUMBER: PR941145
CENREF SAMPLE NUMBER: 5259
SAMPLE IDENTIFICATION: #0125-18.7/94 Duplicate WW-5
DATE SAMPLED: 7/20/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	5	BDL
Ethylbenzene	100-41-4	5	76
Styrene	100-42-5	5	BDL
Xylenes (Total)	1330-20-7	5	1 J
Vinyl Chloride	75-01-4	10	BDL

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.
E = Exceeds the linear range.



COMPANY NAME:

Western Water Consultants

CENREF PROJECT NUMBER:

PR941145

CENREF SAMPLE NUMBER:

5259DL Dilution

SAMPLE IDENTIFICATION:

#0125-18.7/94 Duplicate MW-5

DATE SAMPLED:

7/20/94

DATE/TIME ANALYZED:

8/3/94 @ 1521

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	100	BDL
Bromomethane	74-83-9	100	BDL
Chloroethane	75-00-3	100	BDL
Methylene Chloride	75-09-2	50	BDL
Acetone	67-64-1	1000	BDL
Carbon Disulfide	75-15-0	1000	BDL
1,1-Dichloroethene	75-35-4	50	BDL
1,1-Dichloroethane	75-34-3	50	16 J
Total-1,2-Dichloroethene	540-59-0	50	BDL
Chloroform	67-66-3	50	BDL
1,2-Dichloroethane	107-06-2	50	BDL
2-Butanone	78-93-3	1000	BDL
1,1,1-Trichloroethane	71-55-6	50	BDL
Carbon Tetrachloride	56-23-5	50	BDL
Vinyl Acetate	108-05-4	100	BDL
Bromodichloromethane	75-27-4	50	BDL
1,2-Dichloropropane	78-87-5	50	BDL
2-Chloroethyl-vinyl ether		100	BDL
Cis-1,3-Dichloropropene	10061-01-5	50	BDL
Trichloroethene	79-01-6	50	BDL
Dibromochloromethane	124-48-1	50	BDL
1,1,2-Trichloroethane	79-00-5	50	BDL
Benzene	71-43-2	50	320
Trans-1,3-Dichloropropene	10061-02-6	50	BDL
Bromoform	75-25-2	50	BDL
4-Methyl-2-Pentanone	108-10-1	500	BDL
2-Hexanone	591-78-6	500	BDL
Tetrachloroethene	127-18-4	50	32 J
1,1,2,2-Tetrachloroethane	79-34-5	50	BDL
Toluene	108-88-3	50	BDL



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COMPANY NAME: Western Water Consultants
CENREF PROJECT NUMBER: PR941145
CENREF SAMPLE NUMBER: 5259DL Dilution
SAMPLE IDENTIFICATION: #0125-18.7/94 Duplicate mw-5
DATE SAMPLED: 7/20/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	50	BDL
Ethylbenzene	100-41-4	50	56
Styrene	100-42-5	50	BDL
Xylenes (Total)	1330-20-7	50	BDL
Vinyl Chloride	75-01-4	100	BDL

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.



COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941145

CENREF SAMPLE NUMBER: 5249

SAMPLE IDENTIFICATION: #0125-6.7/94

DATE SAMPLED: 7/20/94

DATE/TIME ANALYZED: 7/30/94 @ 2313

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	10	BDL
Bromomethane	74-83-9	10	BDL
Chloroethane	75-00-3	10	BDL
Methylene Chloride	75-09-2	5	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	5	98
1,1-Dichloroethane	75-34-3	5	9
Total-1,2-Dichloroethene	540-59-0	5	BDL
Chloroform	67-66-3	5	BDL
1,2-Dichloroethane	107-06-2	5	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	5	1 J
Carbon Tetrachloride	56-23-5	5	BDL
Vinyl Acetate	108-05-4	10	BDL
Bromodichloromethane	75-27-4	5	BDL
1,2-Dichloropropane	78-87-5	5	BDL
2-Chloroethyl-vinyl ether		10	BDL
Cis-1,3-Dichloropropene	10061-01-5	5	BDL
Trichloroethene	79-01-6	5	BDL
Dibromochloromethane	124-48-1	5	BDL
1,1,2-Trichloroethane	79-00-5	5	BDL
Benzene	71-43-2	5	BDL
Trans-1,3-Dichloropropene	10061-02-6	5	BDL
Bromoform	75-25-2	5	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	5	65
1,1,2,2-Tetrachloroethane	79-34-5	5	BDL
Toluene	108-88-3	5	BDL

Page 2 continued

COMPANY NAME: Western Water Consultants
CENREF PROJECT NUMBER: PR941145
CENREF SAMPLE NUMBER: 5249
SAMPLE IDENTIFICATION: #0125-6.7/94
DATE SAMPLED: 7/20/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	5	BDL
Ethylbenzene	100-41-4	5	BDL
Styrene	100-42-5	5	BDL
Xylenes (Total)	1330-20-7	5	BDL
Vinyl Chloride	75-01-4	10	BDL

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.



COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941145

CENREF SAMPLE NUMBER: 5260

SAMPLE IDENTIFICATION: #0125-19.7/94 Duplicate MW-6

DATE SAMPLED: 7/20/94

DATE/TIME ANALYZED: 8/2/94 @ 0123

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	10	BDL
Bromomethane	74-83-9	10	BDL
Chloroethane	75-00-3	10	BDL
Methylene Chloride	75-09-2	5	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	5	110
1,1-Dichloroethane	75-34-3	5	13
Total-1,2-Dichloroethene	540-59-0	5	BDL
Chloroform	67-66-3	5	BDL
1,2-Dichloroethane	107-06-2	5	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	5	1 J
Carbon Tetrachloride	56-23-5	5	BDL
Vinyl Acetate	108-05-4	10	BDL
Bromodichloromethane	75-27-4	5	BDL
1,2-Dichloropropane	78-87-5	5	BDL
2-Chloroethyl-vinyl ether		10	BDL
Cis-1,3-Dichloropropene	10061-01-5	5	BDL
Trichloroethene	79-01-6	5	BDL
Dibromochloromethane	124-48-1	5	BDL
1,1,2-Trichloroethane	79-00-5	5	BDL
Benzene	71-43-2	5	BDL
Trans-1,3-Dichloropropene	10061-02-6	5	BDL
Bromoform	75-25-2	5	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	5	73
1,1,2,2-Tetrachloroethane	79-34-5	5	BDL
Toluene	108-88-3	5	BDL

Page 2 continued

COMPANY NAME: Western Water Consultants
CENREF PROJECT NUMBER: PR941145
CENREF SAMPLE NUMBER: 5260
SAMPLE IDENTIFICATION: #0125-19.7/94 Duplicate MW-6
DATE SAMPLED: 7/20/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	5	BDL
Ethylbenzene	100-41-4	5	BDL
Styrene	100-42-5	5	BDL
Xylenes (Total)	1330-20-7	5	BDL
Vinyl Chloride	75-01-4	10	BDL

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.



COMPANY NAME: Western Water Consultants
 CENREF PROJECT NUMBER: PR941145
 CENREF SAMPLE NUMBER: 5250
 SAMPLE IDENTIFICATION: #0125-7.7/94
 DATE SAMPLED: 7/20/94
 DATE/TIME ANALYZED: 7/30/94 @ 2352

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	10	BDL
Bromomethane	74-83-9	10	BDL
Chloroethane	75-00-3	10	BDL
Methylene Chloride	75-09-2	5	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	5	220
1,1-Dichloroethane	75-34-3	5	18
Total-1,2-Dichloroethene	540-59-0	5	BDL
Chloroform	67-66-3	5	BDL
1,2-Dichloroethane	107-06-2	5	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	5	3 J
Carbon Tetrachloride	56-23-5	5	BDL
Vinyl Acetate	108-05-4	10	BDL
Bromodichloromethane	75-27-4	5	BDL
1,2-Dichloropropane	78-87-5	5	BDL
2-Chloroethyl-vinyl ether		10	BDL
Cis-1,3-Dichloropropene	10061-01-5	5	BDL
Trichloroethene	79-01-6	5	40
Dibromochloromethane	124-48-1	5	BDL
1,1,2-Trichloroethane	79-00-5	5	BDL
Benzene	71-43-2	5	6
Trans-1,3-Dichloropropene	10061-02-6	5	BDL
Bromoform	75-25-2	5	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	5	160
1,1,2,2-Tetrachloroethane	79-34-5	5	BDL
Toluene	108-88-3	5	BDL

Page 2 continued

COMPANY NAME: Western Water Consultants
CENREF PROJECT NUMBER: PR941145
CENREF SAMPLE NUMBER: 5250
SAMPLE IDENTIFICATION: #0125-7.7/94
DATE SAMPLED: 7/20/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	5	BDL
Ethylbenzene	100-41-4	5	BDL
Styrene	100-42-5	5	BDL
Xylenes (Total)	1330-20-7	5	BDL
Vinyl Chloride	75-01-4	10	BDL

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.



COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941145

CENREF SAMPLE NUMBER: 5251

SAMPLE IDENTIFICATION: #0125-8.7/94

DATE SAMPLED: 7/20/94

DATE/TIME ANALYZED: 7/31/94 @ 0032

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	10	BDL
Bromomethane	74-83-9	10	BDL
Chloroethane	75-00-3	10	BDL
Methylene Chloride	75-09-2	5	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	5	69
1,1-Dichloroethane	75-34-3	5	4 J
Total-1,2-Dichloroethene	540-59-0	5	BDL
Chloroform	67-66-3	5	BDL
1,2-Dichloroethane	107-06-2	5	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	5	5
Carbon Tetrachloride	56-23-5	5	BDL
Vinyl Acetate	108-05-4	10	BDL
Bromodichloromethane	75-27-4	5	BDL
1,2-Dichloropropane	78-87-5	5	BDL
2-Chloroethyl-vinyl ether		10	BDL
Cis-1,3-Dichloropropene	10061-01-5	5	BDL
Trichloroethene	79-01-6	5	6
Dibromochloromethane	124-48-1	5	BDL
1,1,2-Trichloroethane	79-00-5	5	BDL
Benzene	71-43-2	5	BDL
Trans-1,3-Dichloropropene	10061-02-6	5	BDL
Bromoform	75-25-2	5	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	5	11
1,1,2,2-Tetrachloroethane	79-34-5	5	BDL
Toluene	108-88-3	5	BDL



Page 2 continued

COMPANY NAME: Western Water Consultants
CENREF PROJECT NUMBER: PR941145
CENREF SAMPLE NUMBER: 5251
SAMPLE IDENTIFICATION: #0125-8.7/94
DATE SAMPLED: 7/20/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	5	BDL
Ethylbenzene	100-41-4	5	BDL
Styrene	100-42-5	5	BDL
Xylenes (Total)	1330-20-7	5	BDL
Vinyl Chloride	75-01-4	10	BDL

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.



COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941145

CENREF SAMPLE NUMBER: 5252

SAMPLE IDENTIFICATION: #0125-9.7/94

DATE SAMPLED: 7/20/94

DATE/TIME ANALYZED: 8/1/94 @ 2011

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	10	BDL
Bromomethane	74-83-9	10	BDL
Chloroethane	75-00-3	10	BDL
Methylene Chloride	75-09-2	5	BDL
Acetone	67-64-1	100	9 J
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	5	BDL
1,1-Dichloroethane	75-34-3	5	17
Total-1,2-Dichloroethene	540-59-0	5	BDL
Chloroform	67-66-3	5	BDL
1,2-Dichloroethane	107-06-2	5	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	5	BDL
Carbon Tetrachloride	56-23-5	5	BDL
Vinyl Acetate	108-05-4	10	BDL
Bromodichloromethane	75-27-4	5	BDL
1,2-Dichloropropane	78-87-5	5	BDL
2-Chloroethyl-vinyl ether		10	BDL
Cis-1,3-Dichloropropene	10061-01-5	5	BDL
Trichloroethene	79-01-6	5	BDL
Dibromochloromethane	124-48-1	5	BDL
1,1,2-Trichloroethane	79-00-5	5	BDL
Benzene	71-43-2	5	BDL
Trans-1,3-Dichloropropene	10061-02-6	5	BDL
Bromoform	75-25-2	5	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	5	BDL
1,1,2,2-Tetrachloroethane	79-34-5	5	BDL
Toluene	108-88-3	5	BDL



Page 2 continued

COMPANY NAME: Western Water Consultants
CENREF PROJECT NUMBER: PR941145
CENREF SAMPLE NUMBER: 5252
SAMPLE IDENTIFICATION: #0125-9.7/94
DATE SAMPLED: 7/20/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	5	BDL
Ethylbenzene	100-41-4	5	BDL
Styrene	100-42-5	5	BDL
Xylenes (Total)	1330-20-7	5	1 J
Vinyl Chloride	75-01-4	10	BDL

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.



COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941145

CENREF SAMPLE NUMBER: 5253

SAMPLE IDENTIFICATION: #0125-10.7/94

DATE SAMPLED: 7/20/94

DATE/TIME ANALYZED: 8/1/94 @ 2050

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	10	BDL
Bromomethane	74-83-9	10	BDL
Chloroethane	75-00-3	10	BDL
Methylene Chloride	75-09-2	5	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	5	52
1,1-Dichloroethane	75-34-3	5	BDL
Total-1,2-Dichloroethene	540-59-0	5	BDL
Chloroform	67-66-3	5	BDL
1,2-Dichloroethane	107-06-2	5	BDL
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	5	4 J
Carbon Tetrachloride	56-23-5	5	BDL
Vinyl Acetate	108-05-4	10	BDL
Bromodichloromethane	75-27-4	5	BDL
1,2-Dichloropropane	78-87-5	5	BDL
2-Chloroethyl-vinyl ether		10	BDL
Cis-1,3-Dichloropropene	10061-01-5	5	BDL
Trichloroethene	79-01-6	5	BDL
Dibromochloromethane	124-48-1	5	BDL
1,1,2-Trichloroethane	79-00-5	5	BDL
Benzene	71-43-2	5	BDL
Trans-1,3-Dichloropropene	10061-02-6	5	BDL
Bromoform	75-25-2	5	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	5	BDL
1,1,2,2-Tetrachloroethane	79-34-5	5	BDL
Toluene	108-88-3	5	BDL



Page 2 continued

COMPANY NAME: Western Water Consultants
CENREF PROJECT NUMBER: PR941145
CENREF SAMPLE NUMBER: 5253
SAMPLE IDENTIFICATION: #0125-10.7/94
DATE SAMPLED: 7/20/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	5	BDL
Ethylbenzene	100-41-4	5	BDL
Styrene	100-42-5	5	BDL
Xylenes (Total)	1330-20-7	5	BDL
Vinyl Chloride	75-01-4	10	BDL

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.



COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941145

CENREF SAMPLE NUMBER: 5254

SAMPLE IDENTIFICATION: #0125-11.7/94

DATE SAMPLED: 7/20/94

DATE/TIME ANALYZED: 8/1/94 @ 2129

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	50	BDL
Bromomethane	74-83-9	50	BDL
Chloroethane	75-00-3	50	BDL
Methylene Chloride	75-09-2	25	BDL
Acetone	67-64-1	500	BDL
Carbon Disulfide	75-15-0	500	BDL
1,1-Dichloroethene	75-35-4	25	460
1,1-Dichloroethane	75-34-3	25	57
Total-1,2-Dichloroethene	540-59-0	25	BDL
Chloroform	67-66-3	25	BDL
1,2-Dichloroethane	107-06-2	25	BDL
2-Butanone	78-93-3	500	BDL
1,1,1-Trichloroethane	71-55-6	25	10 J
Carbon Tetrachloride	56-23-5	25	BDL
Vinyl Acetate	108-05-4	50	BDL
Bromodichloromethane	75-27-4	25	BDL
1,2-Dichloropropane	78-87-5	25	BDL
2-Chloroethyl-vinyl ether		50	BDL
Cis-1,3-Dichloropropene	10061-01-5	25	BDL
Trichloroethene	79-01-6	25	120
Dibromochloromethane	124-48-1	25	BDL
1,1,2-Trichloroethane	79-00-5	25	BDL
Benzene	71-43-2	25	BDL
Trans-1,3-Dichloropropene	10061-02-6	25	BDL
Bromoform	75-25-2	25	BDL
4-Methyl-2-Pentanone	108-10-1	250	BDL
2-Hexanone	591-78-6	250	BDL
Tetrachloroethene	127-18-4	25	360
1,1,2,2-Tetrachloroethane	79-34-5	25	BDL
Toluene	108-88-3	25	BDL



Page 2 continued

COMPANY NAME: Western Water Consultants
CENREF PROJECT NUMBER: PR941145
CENREF SAMPLE NUMBER: 5254
SAMPLE IDENTIFICATION: #0125-11.7/94
DATE SAMPLED: 7/20/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	25	BDL
Ethylbenzene	100-41-4	25	BDL
Styrene	100-42-5	25	BDL
Xylenes (Total)	1330-20-7	25	BDL
Vinyl Chloride	75-01-4	50	BDL

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.

COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941145

CENREF SAMPLE NUMBER: 5255

SAMPLE IDENTIFICATION: #0125-12.7/94

DATE SAMPLED: 7/20/94

DATE/TIME ANALYZED: 8/1/94 @ 2208

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	50	BDL
Bromomethane	74-83-9	50	BDL
Chloroethane	75-00-3	50	10 J
Methylene Chloride	75-09-2	25	BDL
Acetone	67-64-1	500	BDL
Carbon Disulfide	75-15-0	500	BDL
1,1-Dichloroethene	75-35-4	25	73
1,1-Dichloroethane	75-34-3	25	150
Total-1,2-Dichloroethene	540-59-0	25	BDL
Chloroform	67-66-3	25	BDL
1,2-Dichloroethane	107-06-2	25	BDL
2-Butanone	78-93-3	500	BDL
1,1,1-Trichloroethane	71-55-6	25	75
Carbon Tetrachloride	56-23-5	25	BDL
Vinyl Acetate	108-05-4	50	BDL
Bromodichloromethane	75-27-4	25	BDL
1,2-Dichloropropane	78-87-5	25	BDL
2-Chloroethyl-vinyl ether		50	BDL
Cis-1,3-Dichloropropene	10061-01-5	25	BDL
Trichloroethene	79-01-6	25	86
Dibromochloromethane	124-48-1	25	BDL
1,1,2-Trichloroethane	79-00-5	25	BDL
Benzene	71-43-2	25	160
Trans-1,3-Dichloropropene	10061-02-6	25	BDL
Bromoform	75-25-2	25	BDL
4-Methyl-2-Pentanone	108-10-1	250	BDL
2-Hexanone	591-78-6	250	BDL
Tetrachloroethene	127-18-4	25	22 J
1,1,2,2-Tetrachloroethane	79-34-5	25	BDL
Toluene	108-88-3	25	71



Page 2 continued

COMPANY NAME: Western Water Consultants
CENREF PROJECT NUMBER: PR941145
CENREF SAMPLE NUMBER: 5255
SAMPLE IDENTIFICATION: #0125-12.7/94
DATE SAMPLED: 7/20/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	25	BDL
Ethylbenzene	100-41-4	25	720
Styrene	100-42-5	25	BDL
Xylenes (Total)	1330-20-7	25	610
Vinyl Chloride	75-01-4	50	BDL

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.



COMPANY NAME:

Western Water Consultants

CENREF PROJECT NUMBER:

PR941145

CENREF SAMPLE NUMBER:

5256

SAMPLE IDENTIFICATION:

#0125-13.7/94

DATE SAMPLED:

7/20/94

DATE/TIME ANALYZED:

8/1/94 @ 2247

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	10	BDL
Bromomethane	74-83-9	10	BDL
Chloroethane	75-00-3	10	BDL
Methylene Chloride	75-09-2	5	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	5	5 J
1,1-Dichloroethane	75-34-3	5	16
Total-1,2-Dichloroethene	540-59-0	5	BDL
Chloroform	67-66-3	5	BDL
1,2-Dichloroethane	107-06-2	5	1 J
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	5	BDL
Carbon Tetrachloride	56-23-5	5	BDL
Vinyl Acetate	108-05-4	10	BDL
Bromodichloromethane	75-27-4	5	BDL
1,2-Dichloropropane	78-87-5	5	BDL
2-Chloroethyl-vinyl ether		10	BDL
Cis-1,3-Dichloropropene	10061-01-5	5	BDL
Trichloroethene	79-01-6	5	4 J
Dibromochloromethane	124-48-1	5	BDL
1,1,2-Trichloroethane	79-00-5	5	BDL
Benzene	71-43-2	5	16
Trans-1,3-Dichloropropene	10061-02-6	5	BDL
Bromoform	75-25-2	5	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	5	34
1,1,2,2-Tetrachloroethane	79-34-5	5	BDL
Toluene	108-88-3	5	BDL



Page 2 continued

COMPANY NAME: Western Water Consultants
CENREF PROJECT NUMBER: PR941145
CENREF SAMPLE NUMBER: 5256
SAMPLE IDENTIFICATION: #0125-13.7/94
DATE SAMPLED: 7/20/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	5	BDL
Ethylbenzene	100-41-4	5	BDL
Styrene	100-42-5	5	BDL
Xylenes (Total)	1330-20-7	5	BDL
Vinyl Chloride	75-01-4	10	BDL

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.



COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941145

CENREF SAMPLE NUMBER: 5257

SAMPLE IDENTIFICATION: #0125-14.7/94

DATE SAMPLED: 7/20/94

DATE/TIME ANALYZED: 8/1/94 @ 2326

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	50	BDL
Bromomethane	74-83-9	50	BDL
Chloroethane	75-00-3	50	BDL
Methylene Chloride	75-09-2	25	BDL
Acetone	67-64-1	500	BDL
Carbon Disulfide	75-15-0	500	BDL
1,1-Dichloroethene	75-35-4	25	110
1,1-Dichloroethane	75-34-3	25	72
Total-1,2-Dichloroethene	540-59-0	25	BDL
Chloroform	67-66-3	25	BDL
1,2-Dichloroethane	107-06-2	25	BDL
2-Butanone	78-93-3	500	BDL
1,1,1-Trichloroethane	71-55-6	25	BDL
Carbon Tetrachloride	56-23-5	25	BDL
Vinyl Acetate	108-05-4	50	BDL
Bromodichloromethane	75-27-4	25	BDL
1,2-Dichloropropane	78-87-5	25	BDL
2-Chloroethyl-vinyl ether		50	BDL
Cis-1,3-Dichloropropene	10061-01-5	25	BDL
Trichloroethene	79-01-6	25	BDL
Dibromochloromethane	124-48-1	25	BDL
1,1,2-Trichloroethane	79-00-5	25	BDL
Benzene	71-43-2	25	10 J
Trans-1,3-Dichloropropene	10061-02-6	25	BDL
Bromoform	75-25-2	25	BDL
4-Methyl-2-Pentanone	108-10-1	250	BDL
2-Hexanone	591-78-6	250	BDL
Tetrachloroethene	127-18-4	25	210
1,1,2,2-Tetrachloroethane	79-34-5	25	BDL
Toluene	108-88-3	25	BDL

Page 2 continued

COMPANY NAME: Western Water Consultants
CENREF PROJECT NUMBER: PR941145
CENREF SAMPLE NUMBER: 5257
SAMPLE IDENTIFICATION: #0125-14.7/94
DATE SAMPLED: 7/20/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	25	BDL
Ethylbenzene	100-41-4	25	BDL
Styrene	100-42-5	25	BDL
Xylenes (Total)	1330-20-7	25	BDL
Vinyl Chloride	75-01-4	50	BDL

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.



COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941145

CENREF SAMPLE NUMBER: 5258

SAMPLE IDENTIFICATION: #0125-15.7/94

DATE SAMPLED: 7/20/94

DATE/TIME ANALYZED: 8/2/94 @ 0005

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	10	BDL
Bromomethane	74-83-9	10	BDL
Chloroethane	75-00-3	10	BDL
Methylene Chloride	75-09-2	5	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	5	6
1,1-Dichloroethane	75-34-3	5	49
Total-1,2-Dichloroethene	540-59-0	5	BDL
Chloroform	67-66-3	5	BDL
1,2-Dichloroethane	107-06-2	5	1 J
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	5	BDL
Carbon Tetrachloride	56-23-5	5	BDL
Vinyl Acetate	108-05-4	10	BDL
Bromodichloromethane	75-27-4	5	BDL
1,2-Dichloropropane	78-87-5	5	BDL
2-Chloroethyl-vinyl ether		10	BDL
Cis-1,3-Dichloropropene	10061-01-5	5	BDL
Trichloroethene	79-01-6	5	4 J
Dibromochloromethane	124-48-1	5	BDL
1,1,2-Trichloroethane	79-00-5	5	BDL
Benzene	71-43-2	5	BDL
Trans-1,3-Dichloropropene	10061-02-6	5	BDL
Bromoform	75-25-2	5	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	5	5
1,1,2,2-Tetrachloroethane	79-34-5	5	BDL
Toluene	108-88-3	5	BDL

Page 2 continued

COMPANY NAME: Western Water Consultants
CENREF PROJECT NUMBER: PR941145
CENREF SAMPLE NUMBER: 5258
SAMPLE IDENTIFICATION: #0125-15.7/94
DATE SAMPLED: 7/20/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	5	BDL
Ethylbenzene	100-41-4	5	BDL
Styrene	100-42-5	5	BDL
Xylenes (Total)	1330-20-7	5	BDL
Vinyl Chloride	75-01-4	10	1 J

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.



COMPANY NAME: Western Water Consultants

CENREF PROJECT NUMBER: PR941145

CENREF SAMPLE NUMBER: 5258RR

SAMPLE IDENTIFICATION: #0125-15.7/94

DATE SAMPLED: 7/20/94

DATE/TIME ANALYZED: 8/1/94 @ 0302

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chloromethane	74-87-3	10	BDL
Bromomethane	74-83-9	10	BDL
Chloroethane	75-00-3	10	BDL
Methylene Chloride	75-09-2	5	BDL
Acetone	67-64-1	100	BDL
Carbon Disulfide	75-15-0	100	BDL
1,1-Dichloroethene	75-35-4	5	9
1,1-Dichloroethane	75-34-3	5	52
Total-1,2-Dichloroethene	540-59-0	5	BDL
Chloroform	67-66-3	5	BDL
1,2-Dichloroethane	107-06-2	5	2
2-Butanone	78-93-3	100	BDL
1,1,1-Trichloroethane	71-55-6	5	BDL
Carbon Tetrachloride	56-23-5	5	BDL
Vinyl Acetate	108-05-4	10	BDL
Bromodichloromethane	75-27-4	5	BDL
1,2-Dichloropropane	78-87-5	5	BDL
2-Chloroethyl-vinyl ether		10	BDL
Cis-1,3-Dichloropropene	10061-01-5	5	BDL
Trichloroethene	79-01-6	5	3 J
Dibromochloromethane	124-48-1	5	BDL
1,1,2-Trichloroethane	79-00-5	5	BDL
Benzene	71-43-2	5	BDL
Trans-1,3-Dichloropropene	10061-02-6	5	BDL
Bromoform	75-25-2	5	BDL
4-Methyl-2-Pentanone	108-10-1	50	BDL
2-Hexanone	591-78-6	50	BDL
Tetrachloroethene	127-18-4	5	7
1,1,2,2-Tetrachloroethane	79-34-5	5	BDL
Toluene	108-88-3	5	BDL



Page 2 continued

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CENREF PROJECT NUMBER: PR941145
CENREF SAMPLE NUMBER: 5258RR
SAMPLE IDENTIFICATION: #0125-15.7/94
DATE SAMPLED: 7/20/94

METHOD EPA 8240

<u>ANALYSIS</u>	<u>CAS NO.</u>	<u>SDL</u> (ug/l)	<u>RESULT</u> (ug/l)
Chlorobenzene	108-90-7	5	BDL
Ethylbenzene	100-41-4	5	BDL
Styrene	100-42-5	5	BDL
Xylenes (Total)	1330-20-7	5	1 J
Vinyl Chloride	75-01-4	10	BDL

BDL = Below Sample Detection Limit
SDL = Sample Detection Limit

COMMENTS: J = Estimated value detected below the reporting limit.

