

***Quarterly IRM Progress Report
Quarter 1 of IRM Operation
2-PHASE™ Extraction System
Erdle Perforating Company
Rochester, New York***

Prepared for:

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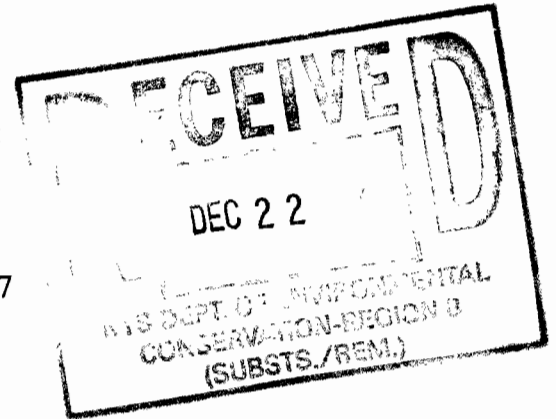
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December 17, 1997

Radian Engineering Inc.

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2-PHASE™ Extraction System
Erdle Perforating Company
Rochester, New York
Quarter 1 of IRM Operation 1997



Project #705-013

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1. INTRODUCTION

This document presents a summary of the first quarter of 2-PHASE Extraction system operation as the Interim Remedial Measure (IRM) at Erdle Perforating Company (Erdle). A final draft of this report will be submitted to the NYSDEC as stated in the Final Design Report/Start-Up, Operation & Maintenance Manual (March 31, 1997).

During the first quarter of IRM operation, relevant information has been collected by Radian to assess progress of the IRM. Weekly and Monthly Summary reports that contain uptime percentages, cumulative vapor/water production, and operational events are included in this document to quantify the mechanical performance of the 2-PHASE Extraction system.

Analytical results from system vapor/water streams and quarterly groundwater/soil samples are included in this report as the basis's for mass removal calculations and points of comparison with historical (pre-IRM) sampling events. Groundwater level data collected during the quarter is used in this document to depict water table depression as a result of 2-PHASE Extraction operation. The collection of information presented in this document shows the overall progress of the IRM in the first quarter of operation.

2. SYSTEM OPERATIONAL PERFORMANCE

The reporting period for the 1st Quarter of IRM operation in 1997 includes data from 6/30/97 to 9/28/97. Full operation of the 2-PHASE Extraction system began at 6:40 a.m. on July 2. The system ran for a total of 1,433.5 hours out of a possible 2,136 hours this quarter, thus having a 67.3% uptime. The majority of downtime during the first month of operation can be attributed to mechanical problems associated with start-up, and de-bugging of a new system. The majority of downtime in subsequent months of the reporting period can be attributed to plant power outages. During the reporting period, 25,651 gallons of water were removed from the subsurface at an average of 0.38 gallons per minute (gpm) from the four extraction wells. A total of 2,202,394 scfm of soil gas and aspiration air were treated during the reporting period with an average flow rate of 23.8 standard cubic feet per minute (scfm). Air and water flows were well within the

maximum system design parameters of 100 scfm and 20 gpm respectively. Operational details are provided in Weekly and Monthly Summary reports in Appendices A and B respectively.

3. OPERATIONAL EVENTS/MAINTENANCE ACTIVITIES

Operational events that caused downtime and maintenance activities during this reporting period are listed below in Table 1.

Table 1. Operational Events/Maintenance Activities 2-PHASE Extraction System Erdle Perforating, Rochester, New York System Start-up Date: July 2, 1997 1st Quarter of IRM Operation 1997	
Date	Operational Events/Maintenance Actions
7/2/97	2-PHASE Extraction system begins operation with vacuum pump No. 2 online.
7/3-7/20/97	System down on several occasions from high vacuum pump temperature. System also down from low oil reservoir caused by the oil reservoir return line containing some debris that was impeding flow. The oil return line was cleaned after each downtime associated with that alarm.
7/9-7/25/97	Both primary water carbon units were found to be bulging from water line vacuum in the discharge line. As a result, both barrel lids developed leaks which required patching. Both lids were replaced and vacuum breakers were installed on 7/25 to remedy the problem.
7/3-8/3/97	The system was found to be down on several occasions due to power outages at the plant during the month.
8/6/97	Vacuum pump No. 1 placed on-line.
8/11/97	Check valve installed on water discharge line to prevent reverse flow of water back into Inlet Separator.
8/14/97	System down due to power outage. System restarted and running normally.
8/21/97	System down due to power outage. System restarted and running normally.
9/3/97	System down due to power outage. System restarted and switched to vacuum pump no. 2.
9/28/97	Heat tracing construction on outdoor pipe runs initiated (Completed on 10/24).

4. ANALYTICAL RESULTS

Vapor stream samples were collected on July 9, July 17, August 21, September 5, and September 29. Samples were collected from (a) the inlet to the first vapor phase Granular Activated Carbon (GAC) unit, (b) between the outlet of the first vapor phase GAC unit and the inlet of the second vapor phase GAC unit, and (c) the outlet of the second vapor phase GAC unit. Samples were submitted to Microseeps laboratory in Pittsburgh, Pennsylvania for analysis for EPA Method 601/602 list compounds by gas chromatography using Method AM4.03. Table 2 lists the vapor phase analytical results for the two sampling events performed in July, the sampling event from August, and the two sampling events from September. Lab results from Microseeps can be found in Appendix C.

Water samples were collected this quarter on July 9, July 17, August 21, and September 29. Samples were taken from the primary carbon inlet, primary carbon outlet, and the secondary carbon outlet (discharge to sewer). The samples were composite samples from each parallel train (e.g., the volume of liquid in the tertiary outlet sample is approximately 50% from train 1 and 50% from train 2). Samples were submitted to RECRA in Amherst, New York for analysis of VOCs using EPA methods 8010/8020. Table 3 shows the analytical results from the samples collected on July 9, July 17, August 21, and September 29. Lab results from RECRA can be found in Appendix D.

Table 2. Vapor Phase Analytical Results (ppmv) 2-PHASE Extraction System Erdle Perforating, Rochester, New York System Start-up Date: July 2, 1997 1st Quarter of IRM Operation 1997					
	7/9/97	7/17/97	8/21/97	9/5/97	9/29/97
Primary Inlet					
Vinyl Chloride	12.00	14.00	8.00	5.00	ND
1,1-Dichloroethene	0.28	0.63	0.21	0.10	0.01
t-1,2-Dichloroethene	2.20	3.30	0.40	0.30	ND
1,1-Dichloroethane	0.35	0.16	0.35	0.11	0.03
1,1,1-Trichloroethane	0.24	0.12	0.06	0.04	0.02
Trichloroethylene	203.58	217.23	118.58	76.77	30.34
Toluene	0.10	0.08	ND	ND	ND
Perchloroethylene	0.34	0.31	0.07	0.03	0.03
Primary Outlet					
Vinyl Chloride	ND	ND	ND	ND	3.00
1,1-Dichloroethene	ND	ND	ND	ND	ND
t-1,2-Dichloroethene	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	0.01
Trichloroethylene	ND	ND	ND	0.52	ND
Toluene	ND	ND	ND	ND	ND
Perchloroethylene	ND	ND	ND	ND	ND
Secondary Outlet					
Vinyl Chloride	ND	ND	ND	ND	5.00
1,1-Dichloroethene	ND	ND	ND	ND	ND
t-1,2-Dichloroethene	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	0.02
Trichloroethylene	ND	ND	ND	0.98	ND
Toluene	ND	ND	ND	ND	ND
Perchloroethylene	ND	ND	ND	ND	ND

Note: "ND" = Not Detected.

Table 3. Liquid Phase Analytical Results (ug/l) 2-PHASE Extraction System Erdle Perforating, Rochester, New York System Start-up Date: July 2, 1997 1st Quarter of IRM Operation 1997				
	7/9/97	7/17/97	8/21/97	9/29/97
Primary Inlet				
Vinyl Chloride	ND	1.80	ND	ND
Methylene Chloride	ND	ND	ND	7.40
1,1-Dichloroethene	ND	ND	ND	ND
t-1,2-Dichloroethene	ND	1.30	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND
Trichloroethylene	470.00	280.00	160.00	230.00
Toluene	ND	ND	ND	ND
Perchloroethylene	ND	0.56	ND	ND
Primary Outlet				
Vinyl Chloride	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND
t-1,2-Dichloroethene	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND
Trichloroethylene	1.40	1.60	0.61	ND
Toluene	ND	ND	ND	ND
Perchloroethylene	ND	ND	ND	ND
Secondary Outlet				
Vinyl Chloride	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND
t-1,2-Dichloroethene	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND
Trichloroethylene	0.27	0.96	ND	ND
Toluene	ND	ND	ND	ND
Perchloroethylene	ND	ND	ND	ND

Note: "ND" = Not Detected.

5. MASS REMOVAL

Total mass removal for the quarter via the vapor phase was 78.74 lb. Vapor concentrations in parts per million volume (ppmv) are converted to pounds using compound molecular weights, daily flow rates in standard cubic feet, and the proper unit conversions. Concentration data for each sample is used to estimate concentrations for days preceding the sample up to the previous vapor stream sampling event. Figure 1 plots the mass removal during each of the three months of the quarter.

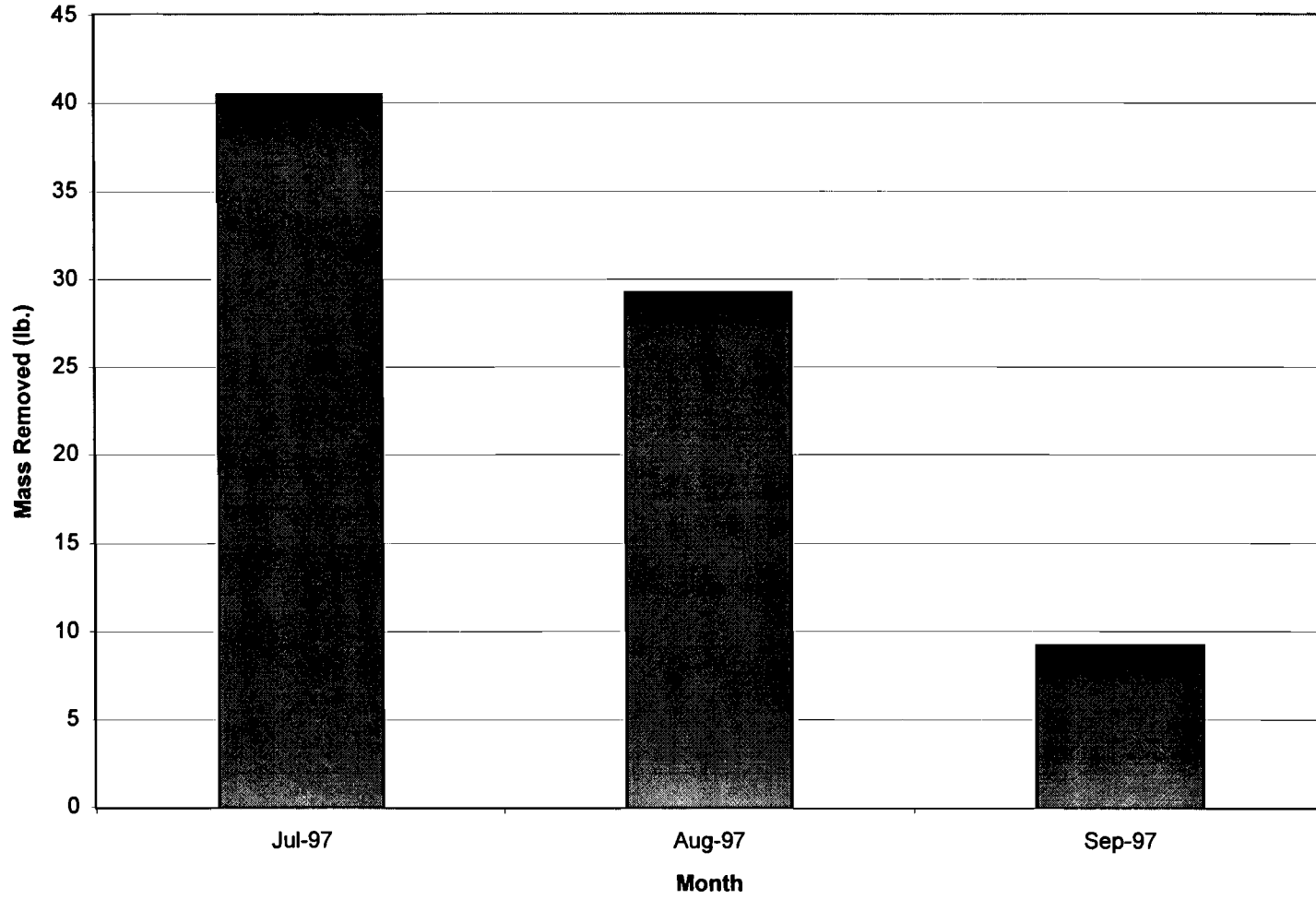
Table 4 shows the mass loading ratio on the Primary Vapor phase GAC unit since system start-up on July 2, 1997. The mass loading ratio is calculated by dividing the mass entering the Primary Vapor phase GAC unit by the mass exiting the Primary Vapor phase GAC unit.

Table 4. Air Emission Log: Mass accumulated from 7/2/97 to 9/28/97 Primary Vapor GAC Filter Cumulative Loading Rates 2-PHASE Extraction System Erdle Perforating, Gates, New York System Start-up Date: July 2, 1997 1st Quarter of IRM Operation 1997		
Compound	Total Mass In (lbs)	Total Mass Out
Vinyl Chloride	2.182	0.250
1,1-Dichloroethene	0.091	0.000
t-1,2-Dichloroethene	0.334	0.000
1,1-Dichloroethane	0.117	0.000
1,1,1-Trichloroethane	0.044	0.000
Trichloroethylene	75.886	0.283
Toluene	0.007	0.000
Perchloroethylene	0.078	0.000
Total Volatiles	78.740	0.533

- Notes: 1. "0.000" = Not detected.
 2. ".00000" denotes value less than 0.000005. vcg
 3. "0.00000" = Carbon loading ratio is zero.

Total mass removal for the quarter from the liquid phase was 0.03 lb. Liquid concentrations in ug/L are converted to pounds using water flow rates and the proper unit conversions.

Figure 1
Erdle Perforating
2-PHASE Extraction System
Mass Removal (lb.)
1st Quarter of IRM Operation 1997



Concentration data for each sample is used to estimate concentrations for days preceding the sample up to the previous liquid stream sampling event.

6. AIR/WATER VOC EMISSIONS AND SAFETY COMPLIANCE

At one time during the quarter (9/29/97), Vinyl Chloride concentrations exiting the secondary air carbon exceeded both the Annual Guideline Concentration (AGC) of 2.0×10^{-5} ug/L and the Short Term Guideline Concentration (SGC) of 1.3 ug/L from NYS Air Guide 1. The rest of the sampling events during the quarter were below both the AGC and SGC for Vinyl Chloride. At no time during the quarter did cis-1,2 Dichloroethene concentrations exceed either the AGC or SGC limits. On 9/5/97, Trichloroethylene concentrations exceeded the AGC limit of 4.5×10^{-4} but did not exceed the SGC limit of 33.0 ug/L. Analytical results from the outlet of the secondary vapor phase GAC unit show that 0.65 lb. of VOCs were exhausted to the atmosphere during the reporting period. Emission rates prior to the primary vapor phase GAC unit were not below AGC or SGC limits at any time during the reporting period, thus warranting the continued use of vapor phase GAC units.

At no time during the reporting period did water discharges to the sewer exceed MCPWD requirements. Analytical results from the outlet of the secondary liquid phase GAC unit show that 0.000025 lb. of VOCs were discharged to the Monroe County Pure Waters District (MCPWD) sewer during the reporting period.

During the reporting period, there were no environmental or safety incidents related to the Erdle Perforating IRM.

7. QUARTERLY GROUNDWATER/SOIL SAMPLING RESULTS

Quarterly groundwater and soil samples were collected on October 8 and 9 respectively. For the quarterly groundwater sampling event, monitoring wells MW-1, MW-1D, MW-3, MW-3D, and MW-6D were sampled as specified in the IRM Plan (March 1997). Quarterly soil samples were collected from 5 soil borings (CB-1 to CB-5). Boring logs for CB-1 to CB-5 are provided in Appendix E. Water and soil samples were analyzed by Recra using EPA Method SW8010/8020 and the results are given below in Tables 5 and 6. Results of the quarterly groundwater and soil sampling are also shown in Figures 2 and 3. Quarterly groundwater and soil analytical results can be found in Appendices F and G. Previous sampling events from the Phase I and II Remedial Investigations are included in Tables 5 and 6 for comparative purposes.

Table 5. Quarterly Groundwater Monitoring Results (ug/L) 2-PHASE Extraction System Erdle Perforating, Gates, New York System Start-up Date: July 2, 1997 1st Quarter of IRM Operation 1997				
Well ID	Compound	12/21/94	8/7/96	10/8/97
MW-1	Vinyl Chloride	13,000	2,200	1,400
	Trichloroethylene	6,400	420	460
	Methylene Chloride	ND	ND	520
	1,1,1-Trichloroethane	ND	ND	ND
	1,2-Dichloroethene	150,000	72	ND
	Toluene	ND	ND	ND
	Tetrachloroethene	ND	ND	ND
MW-1D	Vinyl Chloride	ND	ND	16
	Trichloroethylene	6,000	9,900	270
	Methylene Chloride	ND	ND	5.7
	1,1,1-Trichloroethane	ND	ND	5.6
	1,2-Dichloroethene	1,300	ND	ND
	Toluene	20	ND	ND
	Tetrachloroethene	41	ND	ND
MW-2	Vinyl Chloride	88	98	NS
	Trichloroethylene	1,600	1,000	NS
	Methylene Chloride	ND	ND	NS
	1,1,1-Trichloroethane	ND	ND	NS
	1,2-Dichloroethene	ND	ND	NS
	Toluene	ND	ND	NS
	Tetrachloroethene	ND	ND	NS

See Table 2 for...

Notes: ND = Not detected. NS = Not specified by IRM Plan.
 NA = Not available because well not constructed.

Table 5. Quarterly Groundwater Monitoring Results (ug/L) Continued 2-PHASE Extraction System Erdle Perforating, Gates, New York System Start-up Date: July 2, 1997 1st Quarter of IRM Operation 1997				
Well ID	Compound	12/21/94	8/7/96	10/8/97
MW-2D	Vinyl Chloride	NA	ND	NS
	Trichloroethylene	NA	13	NS
	Methylene Chloride	NA	ND	NS
	1,1,1-Trichloroethane	NA	3.9	NS
	1,2-Dichloroethene	NA	1	NS
	Toluene	NA	ND	NS
	Tetrachloroethene	NA	ND	NS
MW-3	Vinyl Chloride	ND	ND	ND
	Trichloroethylene	350,000	550,000	310,000
	Methylene Chloride	4,280	ND	9,000
	1,1,1-Trichloroethane	ND	ND	ND
	1,2-Dichloroethene	ND	ND	ND
	Toluene	ND	ND	ND
	Tetrachloroethene	ND	ND	ND
MW-3D	Vinyl Chloride	ND	ND	ND
	Trichloroethylene	380	850	51
	Methylene Chloride	ND	ND	2.7
	1,1,1-Trichloroethane	ND	ND	ND
	1,2-Dichloroethene	ND	ND	ND
	Toluene	ND	ND	ND
	Tetrachloroethene	ND	ND	ND
MW-4	Vinyl Chloride	37	18	NS
	Trichloroethylene	1.4	2.3	NS
	Methylene Chloride	ND	ND	NS
	1,1,1-Trichloroethane	ND	ND	NS
	1,2-Dichloroethene	ND	2.6	NS
	Toluene	ND	ND	NS
	Tetrachloroethene	ND	ND	NS

Notes: ND = Not detected.
 NA = Not available because well not constructed.
 NS = Not specified in IRM Plan.

Handwritten notes:
 1,1,1-Trichloroethane
 1,2-Dichloroethene
 Toluene
 Tetrachloroethene

Table 5. Quarterly Groundwater Monitoring Results Continued 2-PHASE Extraction System Erdle Perforating, Gates, New York System Start-up Date: July 2, 1997 1st Quarter of IRM Operation 1997				
Well ID	Compound	12/21/94	8/7/96	10/8/97
MW-4D	Vinyl Chloride	ND	ND	NS
	Trichloroethylene	13	29	NS
	Methylene Chloride	ND	ND	NS
	1,1,1-Trichloroethane	3.3	2.5	NS
	1,2-Dichloroethene	ND	ND	NS
	Toluene	ND	ND	NS
	Tetrachloroethene	ND	ND	NS
MW-6	Vinyl Chloride	NA	2.2	NS
	Trichloroethylene	NA	ND	NS
	Methylene Chloride	NA	ND	NS
	1,1,1-Trichloroethane	NA	ND	NS
	1,2-Dichloroethene	NA	ND	NS
	Toluene	NA	ND	NS
	Tetrachloroethene	NA	ND	NS
MW-6D	Vinyl Chloride	NA	ND	ND
	Trichloroethylene	NA	1,400	ND
	Methylene Chloride	NA	ND	ND
	1,1,1-Trichloroethane	NA	ND	ND
	1,2-Dichloroethene	NA	ND	ND
	Toluene	NA	ND	ND
	Tetrachloroethene	NA	ND	ND

Notes: ND = Not detected.
NA = Not available because well not constructed.
NS = Not specified in IRM Plan.

Table 6. Quarterly Soil Monitoring Results (ug/kg) 2-PHASE Extraction System Erdle Perforating Gates, New York System Start-up Date: July 2, 1997 1st Quarter of IRM Operation 1997			
Sample Point ID	Compound	4/21/97	10/9/97
CB-1	Vinyl Chloride	NA	1300
	Trichloroethylene	NA	1000
	Methylene Chloride	NA	22
	1,1,1-Trichloroethane	NA	ND
	1,1-Dichloroethene	NA	45
	1,2-Dichloroethene	NA	63
	1,1-Dichloroethane	NA	69
	Tetrachloroethene	NA	ND
CB-2	Vinyl Chloride	NA	ND
	Trichloroethylene	NA	4000
	Methylene Chloride	NA	60
	1,1,1-Trichloroethane	NA	ND
	1,1-Dichloroethene	NA	ND
	1,2-Dichloroethene	NA	ND
	1,1-Dichloroethane	NA	ND
	Tetrachloroethene	NA	ND
CB-3	Vinyl Chloride	NA	ND
	Trichloroethylene	NA	77
	Methylene Chloride	NA	ND
	1,1,1-Trichloroethane	NA	ND
	1,1-Dichloroethene	NA	ND
	1,2-Dichloroethene	NA	ND
	1,1-Dichloroethane	NA	ND
	Tetrachloroethene	NA	ND
CB-4	Vinyl Chloride	NA	ND
	Trichloroethylene	NA	340000
	Methylene Chloride	NA	6000
	1,1,1-Trichloroethane	NA	ND
	1,1-Dichloroethene	NA	ND
	1,2-Dichloroethene	NA	ND
	1,1-Dichloroethane	NA	ND
	Tetrachloroethene	NA	ND

*Proximate readings
7/1/97
add to
make
no place
prostate
add to*

*add
9/1/97
add to*

Table 6. Quarterly Soil Monitoring Results (ug/kg) Continued
2-PHASE Extraction System
Erdle Perforating, Gates, New York
System Start-up Date: July 2, 1997
1st Quarter of IRM Operation 1997

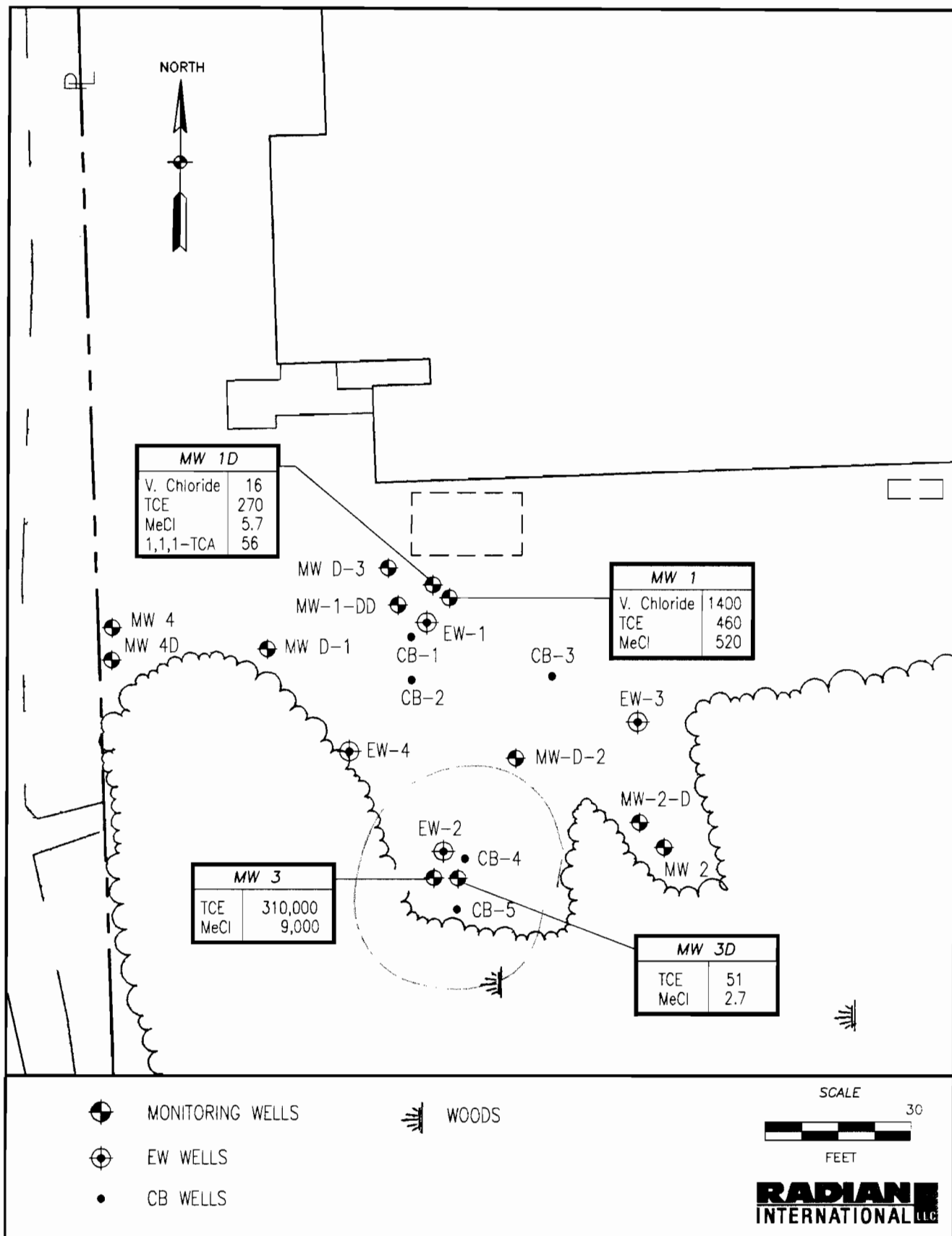
Sample Point ID	Compound	4/21/97	10/9/97
CB-5	Vinyl Chloride	NA	ND
	Trichloroethylene	NA	11000
	Methylene Chloride	NA	160
	1,1,1-Trichloroethane	NA	ND
	1,1-Dichloroethene	NA	ND
	1,2-Dichloroethene	NA	ND
	1,1-Dichloroethane	NA	ND
	Tetrachloroethene	NA	ND
EW-1	Vinyl Chloride	720	NA
	Trichloroethylene	2200	NA
	Methylene Chloride	ND	NA
	1,1,1-Trichloroethane	ND	NA
	1,1-Dichloroethene	ND	NA
	1,2-Dichloroethene	ND	NA
	1,1-Dichloroethane	ND	NA
	Tetrachloroethene	ND	NA
EW-2	Vinyl Chloride	ND	NA
	Trichloroethylene	170000	NA
	Methylene Chloride	ND	NA
	1,1,1-Trichloroethane	ND	NA
	1,1-Dichloroethene	ND	NA
	1,2-Dichloroethene	ND	NA
	1,1-Dichloroethane	ND	NA
	Tetrachloroethene	ND	NA
EW-3	Vinyl Chloride	ND	NA
	Trichloroethylene	170	NA
	Methylene Chloride	ND	NA
	1,1,1-Trichloroethane	ND	NA
	1,1-Dichloroethene	ND	NA
	1,2-Dichloroethene	ND	NA
	1,1-Dichloroethane	ND	NA
	Tetrachloroethene	ND	NA

*Sample
GM*

Table 6. Quarterly Soil Monitoring Results (ug/kg) Continued 2-PHASE Extraction System Erdle Perforating, Gates, New York System Start-up Date: July 2, 1997 1st Quarter of IRM Operation 1997			
Sample Point ID	Compound	4/21/97	10/9/97
EW-4	Vinyl Chloride	ND	NA
	Trichloroethylene	ND	NA
	Methylene Chloride	ND	NA
	1,1,1-Trichloroethane	ND	NA
	1,1-Dichloroethene	ND	NA
	1,2-Dichloroethene	ND	NA
	1,1-Dichloroethane	ND	NA
	Tetrachloroethene	ND	NA

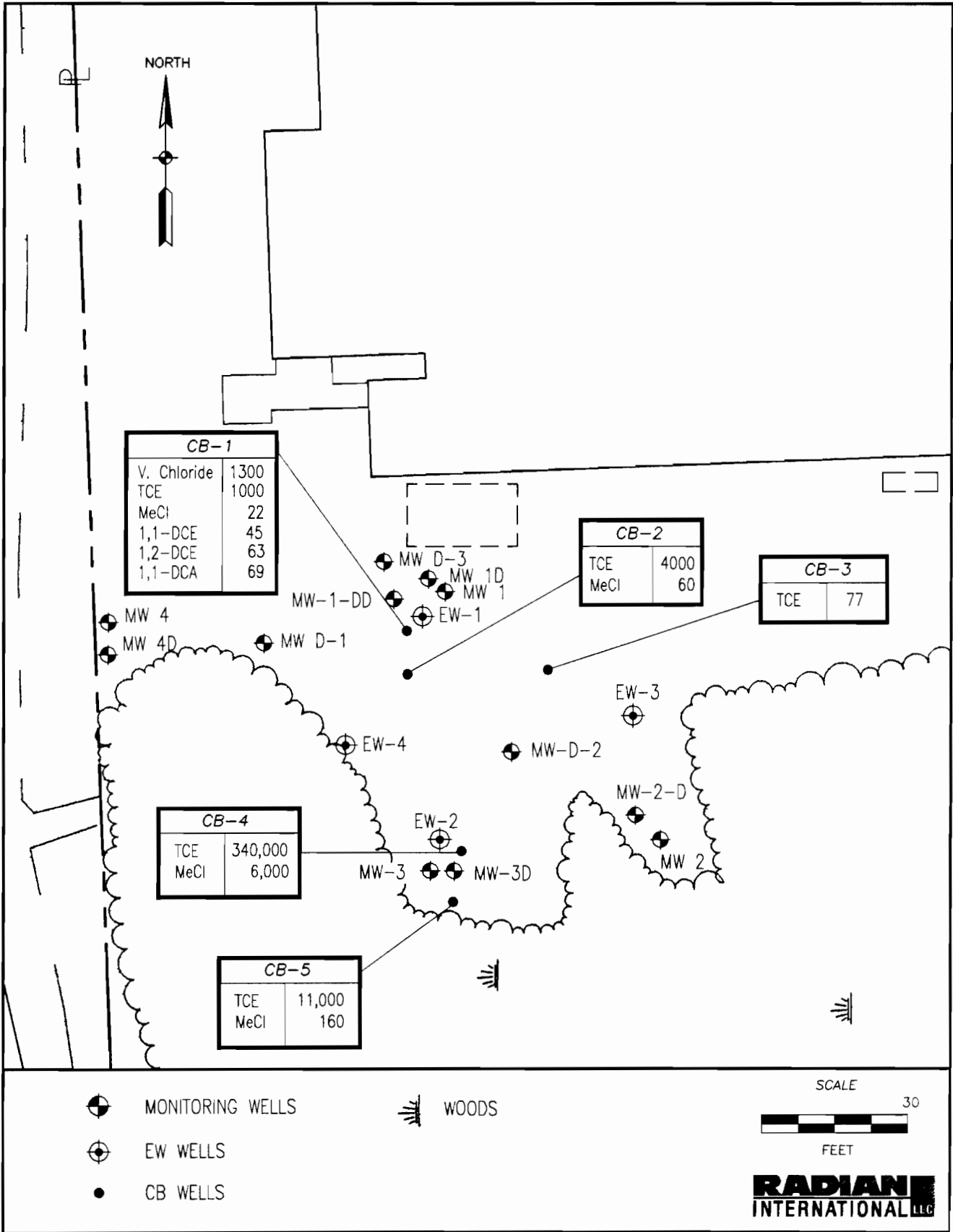
Notes: ND = Not Detected
 NA = Not Available or Not Applicable

Table 5 illustrates that significant VOC reduction has been realized in bedrock wells MW-1D, MW-3D, and MW-6D. This VOC reduction can be attributed to overburden groundwater extraction initiating upwelling and some groundwater removal from the bedrock. Also, deeper overburden concentrations have likely been reduced. However, in shallower overburden wells MW-1 and MW-3, VOC concentrations have only been slightly reduced. Soil samples collected from the CB monitoring points listed in Table 6 confirm that VOC concentrations in the shallow overburden are still elevated probably as a result of the 2-PHASE system's focus on the deeper overburden. The connection of existing wells MW-1, MW-3, and MW-D-2 is being considered to augment the 2-PHASE system's ability to address the shallow overburden.



705013-A1.DWG-MIL

FIGURE 2: QUARTERLY GROUNDWATER SAMPLING RESULTS (ug/L)

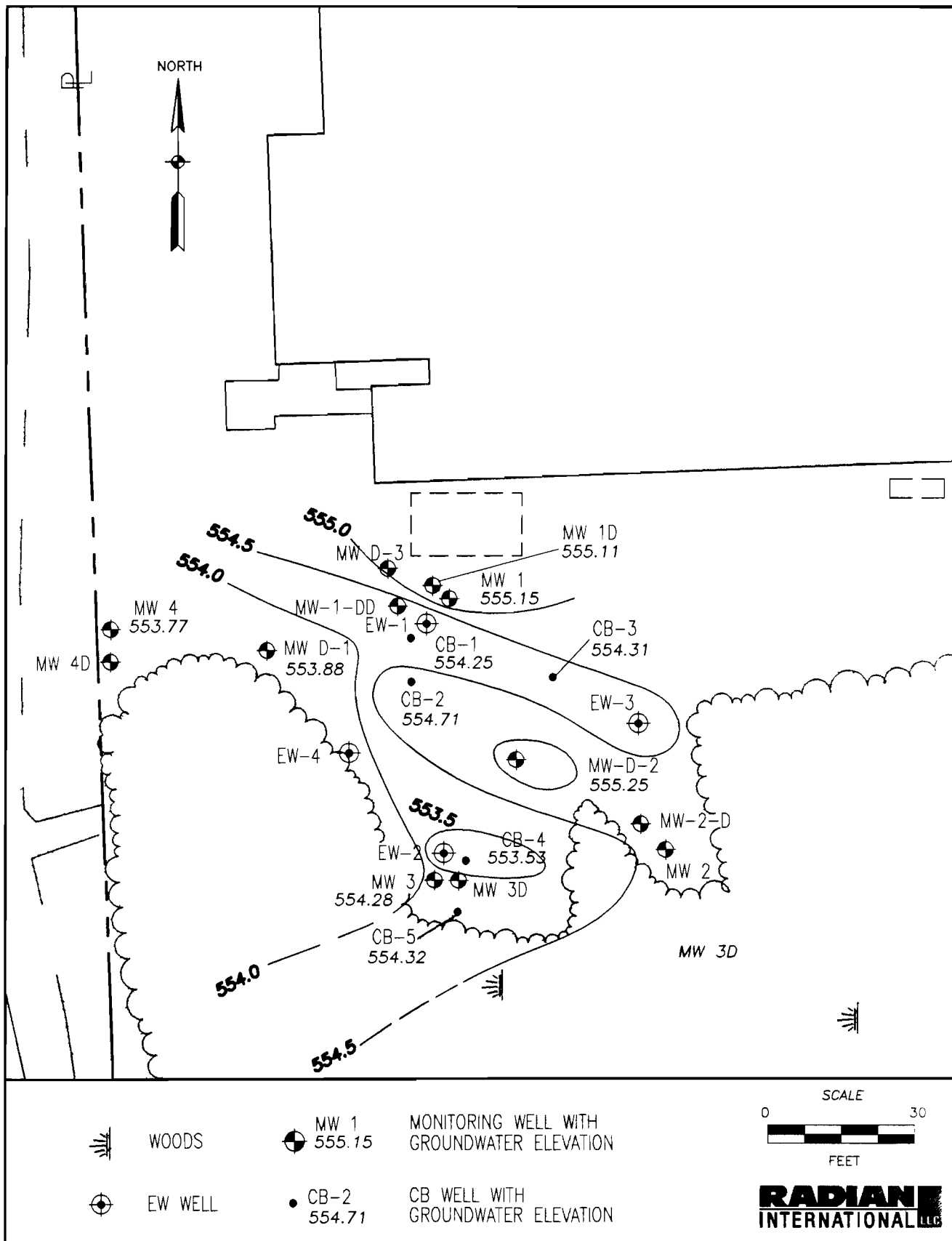


705013-A2.DWG-M/L

FIGURE 3: QUARTERLY SOIL SAMPLING RESULTS (ug/Kg)

8. GROUNDWATER DRAWDOWN

Throughout the 1st quarter of IRM operation, water levels from monitoring wells in the remediation area have been continuously monitored. Water elevations from November 12 are illustrated in Figure 4. Areas of water table drawdown on Figure 4 can be seen near CB-2 and also around CB-4, illustrating the effect of 2-PHASE operation on the overburden groundwater. The degree of overburden dewatering is less than originally expected, probably as a result of recharge from the bedrock groundwater. The bedrock water bearing zone is under artesian conditions, with piezometric levels only slightly below ground surface and approximately 1 foot higher than overburden piezometric levels.



705013-A3.DWG-MIL

FIGURE 4: GROUNDWATER ELEVATIONS ON 11/12/97.

DRAFT

Appendix A: Weekly Summary Reports

Weekly Summary Report

6/30/97 - 7/6/97

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
Dates Covered:	30-Jun	1-July	2-July	3-July	4-July	5-July	6-July	Total
1. Total Water Treated (gallons)			333				1478	1811
2. Total Vapor Treated/ Discharged (scf)			17581.77				110139.4	127721.2
3. System Uptime (hours)			16.2				97.9	114.1
Note: Shading indicates the days included in the numeric totals at the end of the shaded block.								
4. Explanation of System Downtime (if any)								
5. Extraction well vacuums (Formation/Wellhead)	EW-1: <u>24.5/24 in. Hg</u> EW-2: <u>25.5/29 in. Hg</u> EW-3: <u>26.5/28.5 in. Hg</u>		EW-4 Inlet Separator <u>25.5/24 in. Hg</u> <u>27.5 in. Hg</u> Note: Aspiration air open on all wells		Vacuum Pump #1 <u>Off-line</u> Vacuum Pump #2 <u>27.5 in. Hg</u>			
Comments: System begins operation at 06:40 a.m. on July 2, 1997.								
Date:	9/29/97							
Filed By:	Scott Daskiewich							

Weekly Summary Report

7/7/97 - 7/13/97

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
Dates Covered:	7-July	8-July	9-July	10-July	11-July	12-July	13-July	Total
1. Total Water Treated (gallons)		994	282				1008	2284
2. Total Vapor Treated/ Discharged (scf)		62164.4	11086.2				41265.7	114516.3
3. System Uptime (hours)		51.1	12.6				39.3	103
Note: Shading indicates the days included in the numeric totals at the end of the shaded block.								
4. Explanation of System Downtime (if any)	System down due to low oil reservoir level on 7/9. Three quarts of oil added to reservoir on 7/10 and system was restarted.							
5. Extraction well vacuums (Formation/Wellhead)	EW-1: <u>23.5/24 in. Hg</u> EW-2: <u>24/25.5 in. Hg</u> EW-3: <u>24.5/24 in. Hg</u>	EW-4 Inlet Separator	<u>24.5/23 in. Hg</u> <u>26.5 in. Hg</u>	Vacuum Pump #1 Vacuum Pump #2	<u>Off-line</u> <u>26 in. Hg</u>	Note: Aspiration air open on all wells.		
Comments: Primary water carbon lid leaking. Lid was patched with water weld and the vacuum hose placed in the carbon's secondary containment to remove any water from the leaking carbon.								
Date:	9/29/97							
Filed By:	Scott Daskiewich							

Weekly Summary Report

7/14/97 - 7/20/97

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
Dates Covered:	14-July	15-July	16-July	17-July	18-July	19-July	20-July	Total
1. Total Water Treated (gallons)			1022				528.7	1550.7
2. Total Vapor Treated/ Discharged (scf)			67841.2				25214.2	93055.34
3. System Uptime (hours)			42.4				25.3	67.7
Note: Shading indicates the days included in the numeric totals at the end of the shaded block.								
4. Explanation of System Downtime (if any)								
5. Extraction well vacuums (Formation/Wellhead)	EW-1: <u>25.5/22 in. Hg</u> EW-2: <u>21/27 in. Hg</u> EW-3: <u>25.5/25 in. Hg</u>		EW-4: <u>24.6/21 in. Hg</u> Inlet Separator <u>25.5 in. Hg</u> Note: Aspiration air open on all wells.		Vacuum Pump #1 <u>Off-line</u> Vacuum Pump #2 <u>On-line</u>			
Comments: Lids on both primary water carbons re-patched with water weld on 7/16.								
Date:	9/29/97							
Filed By:	Scott Daskiewich							

Weekly Summary Report

7/21/97 - 7/27/97

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
Dates Covered:	21-July	22-July	23-July	24-July	25-July	26-July	27-July	Total
1. Total Water Treated (gallons)		27.5		500.5			510.4	1038.4
2. Total Vapor Treated/ Discharged (scf)		2250		29828.43			37438.1	69516.6
3. System Uptime (hours)		1.25		22.75			23.2	47.2
Note: Shading indicates the days included in the numeric totals at the end of the shaded block.								
4. Explanation of System Downtime (if any)								
5. Extraction well vacuums (Formation/Wellhead)	EW-1: <u>21/20 in. Hg</u> EW-2: <u>23/21.5 in. Hg</u> EW-3: <u>21.5/21 in. Hg</u>		EW-4: <u>22/20.5 in. Hg</u> Inlet Separator <u>23.9 in. Hg</u> Note: Aspiration air open on all wells.		Vacuum Pump #1 <u>Off-line</u> Vacuum Pump #2 <u>23.9 in. Hg</u>			
Comments:								
Date:	9/29/97							
Filed By:	Scott Daskiewich							

Weekly Summary Report

7/28/97 - 8/3/97

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
Dates Covered:	28-July	29-July	30-July	31-July	1-Aug	2-Aug	3-Aug	Total
1. Total Water Treated (gallons)		726					2019.9	2745.9
2. Total Vapor Treated/ Discharged (scf)		63237.3					166909	230146
3. System Uptime (hours)		33					112.2	145.2
Note: Shading indicates the days included in the numeric totals at the end of the shaded block								
4. Explanation of System Downtime (if any)								
5. Extraction well vacuums (Formation/Wellhead)	EW-1: <u>NA</u>	EW-2: <u>NA</u>	EW-3: <u>NA</u>	EW-4: <u>NA</u>	Inlet Separator <u>23.8 in. Hg</u>	Vacuum Pump #1 <u>Off-line</u>	Vacuum Pump #2 <u>23.8 in. Hg</u>	NA: Not Measured this week.
<p>Comments: Water totalizer flowing backwards when discharge pump not in operation. A ball check valve was placed in the water line to correct this problem on 7/29.</p>								
Date:	9/29/97							
Filed By:	Scott Daskiewich							

Weekly Summary Report

8/4/97 - 8/10/97

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
Dates Covered:	4-Aug	5-Aug	6-Aug	7-Aug	8-Aug	9-Aug	10-Aug	Total
1. Total Water Treated (gallons)		807.9					2010.6	2818.5
2. Total Vapor Treated/ Discharged (scf)		66763.5					231434.1	298197.6
3. System Uptime (hours)		44.9					111.7	162.6
Note: Shading indicates the days included in the numeric totals at the end of the shaded block								
4. Explanation of System Downtime (if any)								
5. Extraction well vacuums (Formation/Wellhead)	EW-1: <u>22.1/NA in. Hg</u> EW-2: <u>25.3/NA in. Hg</u> EW-3: <u>23.5/NA in. Hg</u>		EW-4: <u>23.5/NA in. Hg</u> Inlet Separator <u>24.5 in. Hg</u> Note: Aspiration air open on all wells.		Vacuum Pump #1 <u>24.5 in. Hg</u> Vacuum Pump #2 <u>Off-line</u>			
Comments:								
Date:	9/29/97							
Filed By:	Scott Daskiewich							

Weekly Summary Report

8/11/97 - 8/17/97

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
Dates Covered:	11-Aug	12-Aug	13-Aug	14-Aug	15-Aug	16-Aug	17-Aug	Total
1. Total Water Treated (gallons)			901.8				743.1	1644.9
2. Total Vapor Treated/ Discharged (scf)			106658.8				98223.1	204881.9
3. System Uptime (hours)			50.1				49.9	100
Note: Shading indicates the days included in the numeric totals at the end of the shaded block								
4. Explanation of System Downtime (if any)								
5. Extraction well vacuums (Formation/Wellhead)	EW-1: <u>21/21 in. Hg</u> EW-2: <u>25/24.5 in. Hg</u> EW-3: <u>22/22 in. Hg</u>		EW-4: <u>23.6/20 in. Hg</u> Inlet Separator <u>23.8 in. Hg</u> Note: Aspiration air open on all wells.		Vacuum Pump #1 <u>23.8 in. Hg</u> Vacuum Pump #2 <u>Off-line</u>			
Comments:								
Date:	9/29/97							
Filed By:	Scott Daskiewich							

Weekly Summary Report

8/18/97 - 8/24/97

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday		
Dates Covered:	18-Aug	19-Aug	20-Aug	21-Aug	22-Aug	23-Aug	24-Aug	Total	
1. Total Water Treated (gallons)			557.3				1209	1766.3	
2. Total Vapor Treated/ Discharged (scf)			73667.3				143721	217388.4	
3. System Uptime (hours)			37.5				95	132.5	
Note: Shading indicates the days included in the numeric totals at the end of the shaded block									
4. Explanation of System Downtime (if any)									
5. Extraction well vacuums (Formation/Wellhead)	EW-1: <u>NA</u> EW-2: <u>NA</u> EW-3: <u>NA</u>	EW-4: <u>NA</u> Inlet Separator <u>NA</u> Note: Aspiration air open for all wells.	Vacuum Pump #1 <u>On-line</u> Vacuum Pump #2 <u>Off-line</u> NA: Not measured this week						
Comments:									
Date:	9/29/97								
Filed By:	Scott Daskiewich								

Weekly Summary Report

8/25/97 - 8/31/97

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
Dates Covered:	25-Aug	26-Aug	27-Aug	28-Aug	29-Aug	30-Aug	31-Aug	Total
1. Total Water Treated (gallons)		604.5					1525.1	2129.6
2. Total Vapor Treated/ Discharged (scf)		71860.5					118154	190014
3. System Uptime (hours)		47.5					106.5	154
Note: Shading indicates the days included in the numeric totals at the end of the shaded block								
4. Explanation of System Downtime (if any)								
5. Extraction well vacuums (Formation/Wellhead)	EW-1: <u>26.6/NA in. Hg</u> EW-2: <u>27.5/NA in. Hg</u> EW-3: <u>23.5/NA in. Hg</u>		EW-4: <u>28.5/NA in. Hg</u> Inlet Separator <u>27 in. Hg</u> Note: Aspiration air open on all wells.		Vacuum Pump #1 <u>On-line</u> Vacuum Pump #2 <u>Off-line</u>			
Comments:								
Date:	9/29/97							
Filed By:	Scott Daskiewich							

Weekly Summary Report

9/1/97 - 9/7/97

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
Dates Covered:	1-Sep	2-Sep	3-Sep	4-Sep	5-Sep	6-Sep	7-Sep	Total
1. Total Water Treated (gallons)		610					1296.7	1906.7
2. Total Vapor Treated/ Discharged (scf)		47261.5					94679.5	141941
3. System Uptime (hours)		42.6					65.3	107.9
Note: Shading indicates the days included in the numeric totals at the end of the shaded block								
4. Explanation of System Downtime (if any)	System down due to plant power outages between 8/30 and 9/1. System was restarted and running normally.							
5. Extraction well vacuums (Formation/Wellhead)	EW-1: <u>24/21.8 in. Hg</u> EW-2: <u>22.5/23 in. Hg</u> EW-3: <u>25.5/25 in. Hg</u>		EW-4: <u>26.8/22 in. Hg</u> Inlet Separator <u>25.4 in. Hg</u> Note: Aspiration air open on all wells.		Vacuum Pump #1 <u>Off-line</u> Vacuum Pump #2 <u>25.4 in. Hg</u>			
Comments:								
Date:	9/29/97							
Filed By:	Scott Daskiewich							

Weekly Summary Report

9/8/97 - 9/14/97

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday		
Dates Covered:	8-Sep	9-Sep	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	Total	
1. Total Water Treated (gallons)				1037.3			500.1	1537.4	
2. Total Vapor Treated/ Discharged (scf)				75743.6			44820.8	120564.4	
3. System Uptime (hours)				52.3			37.2	89.5	
Note: Shading indicates the days included in the numeric totals at the end of the shaded block									
4. Explanation of System Downtime (if any)									
5. Extraction well vacuums (Formation/Wellhead)	EW-1: <u>22/NA in. Hg</u> EW-2: <u>23/NA in. Hg</u> EW-3: <u>28/NA in. Hg</u>	EW-4: <u>22/NA in. Hg</u> Inlet Separator <u>26 in. Hg</u> Note: Aspiration air open on all wells.	Vacuum Pump #1 <u>Off-line</u> Vacuum Pump #2 <u>26 in. Hg</u>						
Comments:									
Date:	9/29/97								
Filed By:	Scott Daskiewich								

Weekly Summary Report

9/15-9/21/97

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday		
Dates Covered:	15-Sep	16-Sep	17-Sep	18-Sep	19-Sep	20-Sep	21-Sep	Total	
1. Total Water Treated (gallons)							1611.8	1611.8	
2. Total Vapor Treated/ Discharged (acf)							104582	104582	
3. System Uptime (hours)							87.2	87.2	
Note: Shading indicates the days included in the numeric totals at the end of the shaded block									
4. Explanation of System Downtime (if any)									
5. Extraction well vacuums (Formation/Wellhead)	EW-1: <u>NA/NA</u> EW-2: <u>NA/NA</u> EW-3: <u>NA/NA</u>	EW-4: <u>NA/NA</u> Inlet Separator <u>NA</u>	Note: Aspiration air open on all wells.				Vacuum Pump #1 <u>Off-line</u> Vacuum Pump #2 <u>NA</u>		
Comments:									
Date:	10/1/97								
Filed By:	Scott Daskiewich								

Weekly Summary Report

9/22-9/28/97

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	
Dates Covered:	22-Sep	23-Sep	24-Sep	25-Sep	26-Sep	27-Sep	28-Sep	Total
1. Total Water Treated (gallons)				921			1516.7	2437.7
2. Total Vapor Treated/ Discharged (scf)				59761			101732	161493
3. System Uptime (hours)				49.8			72.8	122.6
Note: Shading indicates the days included in the numeric totals at the end of the shaded block								
4. Explanation of System Downtime (if any)								
5. Extraction well vacuums (Formation/Wellhead)	EW-1: <u>21.5/26 in. Hg</u> EW-2: <u>22/NA in. Hg</u> EW-3: <u>27/27 in. Hg</u>		EW-4: <u>20.5/NA in. Hg</u> Inlet Separator <u>24.7 in. Hg</u> Note: Aspiration air open on all wells.		Vacuum Pump #1 <u>Off-line</u> Vacuum Pump #2 <u>24.7 in. Hg</u>			
Comments:								
Date:	10/1/97							
Filed By:	Scott Daskiewich							

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Appendix B: Monthly Summary Reports

Monthly Summary Report

July 1997 (6/30 – 8/3)

	Week 1	Week 2	Week 3	Week 4	Week 5	
Dates Covered	6/30-7/6/97	7/7-7/13/97	7/14-7/20/97	7/21-7/27/97	7/28-8/3/97	Total
1. Total Water Treated (gallons)	1811	2284	1550.7	1038.4	2745.9	9430
2. Total Vapor Treated/ Discharged (scf)	127721.2	114516.3	93055.3	69516.57	230146	681373
3. System Uptime (hours)	114.1	103	67.7	47.2	145.2	477.2
<p>Comments: System ran for 477.2 hours out of a possible 792 hours (60% uptime). Downtime this month was attributed to power interruptions at the plant and low oil reservoir levels due to a constricted oil return line. During the reporting period, 40.41 lb. of VOCs were removed from the vapor phase and 0.02 lb. removed from the liquid phase. There were 0.11 lb. of VOCs discharged to the atmosphere from the vapor phase this month. In the liquid phase, 0.00003 lb. of VOCs were discharged. Air flow during the month averaged 23.2 SCFM while water flow averaged 0.33 gpm.</p> <p>Maintenance activities this month included: Patching and eventual replacement of leaking water carbon barrel lids, installation of vacuum breakers on the water carbon lids to prevent reverse flow in the water line from buckling the lids, and cleaning of the oil return line from the reservoir to the vacuum pump.</p>						
Date:	10/1/97					
Filed By:	Scott Daskiewich					

Monthly Summary Report

August 1997 (8/4 – 8/31)

	Week 1	Week 2	Week 3	Week 4	Week 5	
Dates Covered	8/4-8/10/97	8/11-8/17/97	8/18-8/24/97	8/25-8/31/97	-	Total
1. Total Water Treated (gallons)	2818.5	1644.9	1766.3	2129.6	-	8359.3
2. Total Vapor Treated/ Discharged (scf)	298197.6	204881.9	217388.4	190014	-	977185
3. System Uptime (hours)	162.6	100	132.5	154	-	549.1
<p>Comments: System ran for 549.1 hours out of a possible 696 hours (79% uptime). Downtime this month was attributed to frequent power outages at the plant and low oil reservoir levels due to a constricted oil return line. During the reporting period, 29.2 lb. of VOCs were removed from the vapor phase and 0.004 lb. removed from the liquid phase. There were 0.13 lb. of VOCs discharged to the atmosphere from the vapor phase this month. In the liquid phase, 0.0 lb. of VOCs were discharged. Air flow during the month averaged 26.1 SCFM while water flow averaged 0.30 gpm.</p> <p>Maintenance activities this month included: Placement of a ball check on the water discharge line from the trailer to prevent water from flowing backwards to the system, and cleaning of the needle valve on the oil return line from the reservoir to the vacuum pump.</p>						
Date:	10/1/97					
Filed By:	Scott Daskiewich					

Monthly Summary Report

September 1997 (9/1 – 9/28)

	Week 1	Week 2	Week 3	Week 4	Week 5	
Dates Covered	9/1-9/7/97	9/8-9/14/97	9/15-9/21/97	9/22-9/28/97	-	Total
1. Total Water Treated (gallons)	1906.7	1537.4	1611.8	2437.7	-	7493.6
2. Total Vapor Treated/ Discharged (scf)	141941	120564.4	104582	161493	-	567304
3. System Uptime (hours)	107.9	89.5	87.2	122.6	-	407.2
<p>Comments: System ran for 407.2 hours out of a possible 672 hours (61% uptime). Downtime this month was attributed to power outages, there was no downtime associated with system mechanical problems. During the reporting period, 9.15 lb. of VOCs were removed from the vapor phase and 0.004 from the liquid phase. There were 0.42 lb. of VOC discharged to the atmosphere from the vapor phase this reporting period. In the liquid phase, 0.0 lb. of VOCs were discharged to the sewer. Air flow during the month averaged 23.8 scfm while water flow averaged 0.48 gpm.</p>						
Date:	10/6/97					
Filed By:	Scott Daskiewich					

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Appendix C: Vapor Phase Analytical Results

MICROSEEPS

RAD221-972842

----- RADIAN INTERNATIONAL LLC -----
 ----- PROJECT LOC: ERDL PERFORATING CO. -----
 ----- PROJECT NO: 705013.05 -----
 ----- 601/602 SCAN -----
 ----- CONCENTRATIONS IN PPMV -----

COMPOUND NAME	V-1-1	V-2-1	V-3-1	V-4-1	LDLs
CHLOROMETHANE	<1	<1	<1	<1	1
VINYL CHLORIDE	<1	12	<1	<1	1
BROMOMETHANE/CHLOROETHANE*	<1	<1	<1	<1	1
FLUOROTRICHLOROMETHANE	<.005	<.005	<.005	<.005	0.005
1,1 DICHLOROETHYLENE	<.01	0.28	<.01	<.01	0.01
METHYLENE CHLORIDE	<1	<1	<1	<1	1
TRANS-1,2 DICHLOROETHYLENE	<.1	2.2	<.1	<.1	0.1
1,1 DICHLOROETHANE	<.01	0.35	<.01	<.01	0.01
CHLOROFORM	<.005	<.005	<.005	<.005	0.005
1,1,1 TRICHLOROETHANE	<.005	0.240	<.005	<.005	0.005
CARBON TETRACHLORIDE	<.005	<.005	<.005	<.005	0.005
BENZENE	<.07	<.07	<.07	<.07	0.07
1,2 DICHLOROETHANE	<.01	<.01	<.01	<.01	0.01
TRICHLOROETHYLENE	<.005	203.579	<.005	<.005	0.005
1,2 DICHLOROPROPANE	<.01	<.01	<.01	<.01	0.01
BROMODICHLOROMETHANE	<.005	<.005	<.005	<.005	0.005
CIS-1,3 DICHLOROPROPYLENE	<.01	<.01	<.01	<.01	0.01
TOLUENE	<.07	0.10	<.07	<.07	0.07
TRANS-1,3 DICHLOROPROPYLENE	<.01	<.01	<.01	<.01	0.01
1,1,2 TRICHLOROETHANE	<.005	<.005	<.005	<.005	0.005
TETRACHLOROETHYLENE	<.005	0.340	<.005	<.005	0.005
CHLORODIBROMOMETHANE	<.005	<.005	<.005	<.005	0.005
CHLOROBENZENE	<.07	<.07	<.07	<.07	0.07
ETHYL BENZENE	<.07	<.07	<.07	<.07	0.07
BROMOFORM	<.005	<.005	<.005	<.005	0.005
1,1,2,2 TETRACHLOROETHANE	<.005	<.005	<.005	<.005	0.005
1,3 DICHLOROBENZENE	<.07	<.07	<.07	<.07	0.07
1,4 DICHLOROBENZENE	<.07	<.07	<.07	<.07	0.07
1,2 DICHLOROBENZENE	<.07	<.07	<.07	<.07	0.07
FILE NAME	W74 348	W74 349	W74 350	W74 351	
DATE SAMPLED	07/09/97	07/09/97	07/09/97	07/09/97	
DATE RECEIVED	07/11/97	07/11/97	07/11/97	07/11/97	
DATE ANALYZED	07/12/97	07/12/97	07/12/97	07/12/97	

* COMPOUNDS ELUTE TOGETHER ON ECD: VALUES REPRESENT EITHER OR A COMBINATION OF BOTH.

14-Jul-97

ANALYST INITIALS *[Signature]*

REVIEW *[Signature]*

MICROSEEPS

RAD226-972870

----- RADIAN INTERNATIONAL LLC -----
 ----- PROJECT LOC: ERDLE PERFORATING CO. -----
 ----- PROJECT NO: 705-013-05-01 -----
 ----- 601/602 SCAN -----
 ----- CONCENTRATIONS IN PPMV -----

COMPOUND NAME	V-1-2	V-2-2	V-3-2	V-4-2	LDLs
CHLOROMETHANE	<1	<1	<1	<1	1
VINYL CHLORIDE	14	<1	<1	14	1
BROMOMETHANE/CHLOROETHANE*	<1	<1	<1	<1	1
FLUOROTRICHLOROMETHANE	<.005	<.005	<.005	<.005	0.005
1,1 DICHLOROETHYLENE	0.63	<.01	<.01	0.66	0.01
METHYLENE CHLORIDE	<1	<1	<1	<1	1
TRANS-1,2 DICHLOROETHYLENE	3.3	<.1	<.1	3.4	0.1
1,1 DICHLOROETHANE	0.16	<.01	<.01	0.19	0.01
CHLOROFORM	<.005	<.005	<.005	<.005	0.005
1,1,1 TRICHLOROETHANE	0.121	<.005	<.005	0.131	0.005
CARBON TETRACHLORIDE	<.005	<.005	<.005	<.005	0.005
BENZENE	<.07	<.07	<.07	<.07	0.07
1,2 DICHLOROETHANE	<.01	<.01	<.01	<.01	0.01
TRICHLOROETHYLENE	217.232	<.005	<.005	219.084	0.005
1,2 DICHLOROPROPANE	<.01	<.01	<.01	<.01	0.01
BROMODICHLOROMETHANE	<.005	<.005	<.005	<.005	0.005
CIS-1,3 DICHLOROPROPYLENE	<.01	<.01	<.01	<.01	0.01
TOLUENE	0.08	<.07	<.07	0.07	0.07
TRANS-1,3 DICHLOROPROPYLENE	<.01	<.01	<.01	<.01	0.01
1,1,2 TRICHLOROETHANE	<.005	<.005	<.005	<.005	0.005
TETRACHLOROETHYLENE	0.309	<.005	<.005	0.326	0.005
CHLORODIBROMOMETHANE	<.005	<.005	<.005	<.005	0.005
CHLOROBENZENE	<.07	<.07	<.07	<.07	0.07
ETHYL BENZENE	<.07	<.07	<.07	<.07	0.07
BROMOFORM	<.005	<.005	<.005	<.005	0.005
1,1,2,2 TETRACHLOROETHANE	<.005	<.005	<.005	<.005	0.005
1,3 DICHLOROBENZENE	<.07	<.07	<.07	<.07	0.07
1,4 DICHLOROBENZENE	<.07	<.07	<.07	<.07	0.07
1,2 DICHLOROBENZENE	<.07	<.07	<.07	<.07	0.07
FILE NAME	W74 431	W74 432	W74 433	W74 434	
DATE SAMPLED	07/17/97	07/17/97	07/17/97	07/17/97	
DATE RECEIVED	07/18/97	07/18/97	07/18/97	07/18/97	
DATE ANALYZED	07/18/97	07/18/97	07/18/97	07/18/97	

* COMPOUNDS ELUTE TOGETHER ON ECD: VALUES REPRESENT EITHER OR A COMBINATION OF BOTH.

21-Jul-97

ANALYST INITIALS 

REVIEW 

MICROSEEPS

RAD243-973010

----- RADIAN INTERNATIONAL LLC -----
 ----- PROJECT LOC: ERDL PERFORATING CO. -----
 ----- PROJECT NO: 705-013-05-01 -----
 ----- 601/602 SCAN -----
 ----- CONCENTRATIONS IN PPMV -----

COMPOUND NAME	**		**		LDLs
	V-1-3	V-2-3	V-3-3	V-4-3	
CHLOROMETHANE	<2	<1	<2	<1	1
VINYL CHLORIDE	8	6	<2	<1	1
BROMOMETHANE/CHLOROETHANE*	<2	<1	<2	<1	1
FLUOROTRICHLOROMETHANE	<.010	<.005	<.010	<.005	0.005
1,1 DICHLOROETHYLENE	0.21	<.01	<.02	<.01	0.01
METHYLENE CHLORIDE	<2	<1	<2	<1	1
TRANS-1,2 DICHLOROETHYLENE	0.4	<.1	<.2	<.1	0.1
1,1 DICHLOROETHANE	0.35	<.01	<.02	<.01	0.01
CHLOROFORM	<.010	<.005	<.010	<.005	0.005
1,1,1 TRICHLOROETHANE	0.064	<.005	<.010	<.005	0.005
CARBON TETRACHLORIDE	<.010	<.005	<.010	<.005	0.005
BENZENE	<.14	<.07	<.14	<.07	0.07
1,2 DICHLOROETHANE	<.02	<.01	<.02	<.01	0.01
TRICHLOROETHYLENE	118.584	<.005	0.051	<.005	0.005
1,2 DICHLOROPROPANE	<.02	<.01	<.02	<.01	0.01
BROMODICHLOROMETHANE	<.010	<.005	<.010	<.005	0.005
CIS-1,3 DICHLOROPROPYLENE	<.02	<.01	<.02	<.01	0.01
TOLUENE	<.14	<.07	<.14	<.07	0.07
TRANS-1,3 DICHLOROPROPYLENE	<.02	<.01	<.02	<.01	0.01
1,1,2 TRICHLOROETHANE	<.010	<.005	<.010	<.005	0.005
TETRACHLOROETHYLENE	0.067	<.005	<.010	<.005	0.005
CHLORODIBROMOMETHANE	<.010	<.005	<.010	<.005	0.005
CHLOROBENZENE	<.14	<.07	<.14	<.07	0.07
ETHYL BENZENE	<.14	<.07	<.14	<.07	0.07
BROMOFORM	<.010	<.005	<.010	<.005	0.005
1,1,2,2 TETRACHLOROETHANE	<.010	<.005	<.010	<.005	0.005
1,3 DICHLOROBENZENE	<.14	<.07	<.14	<.07	0.07
1,4 DICHLOROBENZENE	<.14	<.07	<.14	<.07	0.07
1,2 DICHLOROBENZENE	<.14	<.07	<.14	<.07	0.07
FILE NAME	W75 433	W75 434	W75 435	W75 436	
DATE SAMPLED	08/21/97	08/21/97	08/21/97	08/21/97	
DATE RECEIVED	08/22/97	08/22/97	08/22/97	08/22/97	
DATE ANALYZED	08/22/97	08/22/97	08/22/97	08/22/97	

* COMPOUNDS ELUTE TOGETHER ON ECD: VALUES REPRESENT EITHER OR A COMBINATION OF BOTH.
 ** SAMPLES RECEIVED CONTAINING <3 PSI. VIALS PRESSURIZED WITH N2, DILUTION FACTOR 2. MDLs AND DATA CORRECTED FOR DILUTION.




RAD253-973095

----- RADIAN INTERNATIONAL LLC -----
----- PROJECT LOC: ERDLE PERFORATING CO. -----
----- PROJECT NO: 705 013.05XX -----
----- 601/602 SCAN -----
----- CONCENTRATIONS IN PPMV -----

COMPOUND NAME	SAMPLE ID	SAMPLE ID	SAMPLE ID	SAMPLE ID	LDLs
	ERDLE-VAP -001-1P	ERDLE-VAP -002-DP	ERDLE-VAP -001-OS	ERDLE-VAP -004-DP	
CHLOROMETHANE	<1	<1	<1	<1	1
VINYL CHLORIDE	5	<3	<3	<3	1
BROMOMETHANE/CHLOROETHANE*	<1	<1	<1	<1	1
FLUOROTRICHLOROMETHANE	<.005	<.005	<.005	<.005	0.005
1,1 DICHLOROETHYLENE	0.10	<.01	<.01	<.01	0.01
METHYLENE CHLORIDE	<1	<1	<1	<1	1
TRANS-1,2 DICHLOROETHYLENE	0.3	<.1	<.1	<.1	0.1
1,1 DICHLOROETHANE	0.11	<.01	<.01	<.01	0.01
CHLOROFORM	<.005	<.005	<.005	<.005	0.005
1,1,1 TRICHLOROETHANE	0.036	<.005	<.005	<.005	0.005
CARBON TETRACHLORIDE	<.005	<.005	<.005	<.005	0.005
BENZENE	<.07	<.07	<.07	<.07	0.07
1,2 DICHLOROETHANE	<.01	<.01	<.01	<.01	0.01
TRICHLOROETHYLENE	76.769	1.951	0.521	0.984	0.005
1,2 DICHLOROPROPANE	<.01	<.01	<.01	<.01	0.01
BROMODICHLOROMETHANE	<.005	<.005	<.005	<.005	0.005
CIS-1,3 DICHLOROPROPYLENE	<.01	<.01	<.01	<.01	0.01
TOLUENE	<.07	<.07	<.07	<.07	0.07
TRANS-1,3 DICHLOROPROPYLENE	<.01	<.01	<.01	<.01	0.01
1,1,2 TRICHLOROETHANE	<.005	<.005	<.005	<.005	0.005
TETRACHLOROETHYLENE	0.033	<.005	<.005	<.005	0.005
CHLORODIBROMOMETHANE	<.005	<.005	<.005	<.005	0.005
CHLOROBENZENE	<.07	<.07	<.07	<.07	0.07
ETHYL BENZENE	<.07	<.07	<.07	<.07	0.07
BROMOFORM	<.005	<.005	<.005	<.005	0.005
1,1,2,2 TETRACHLOROETHANE	<.005	<.005	<.005	<.005	0.005
1,3 DICHLOROBENZENE	<.07	<.07	<.07	<.07	0.07
1,4 DICHLOROBENZENE	<.07	<.07	<.07	<.07	0.07
1,2 DICHLOROBENZENE	<.07	<.07	<.07	<.07	0.07
FILE NAME	W76 266	W76 267	W76 268	W76 269	
DATE SAMPLED	09/05/97	09/05/97	09/05/97	09/05/97	
DATE RECEIVED	09/09/97	09/09/97	09/09/97	09/09/97	
DATE ANALYZED	09/09/97	09/10/97	09/10/97	09/10/97	

* COMPOUNDS ELUTE TOGETHER ON ECD: VALUES REPRESENT EITHER OR A COMBINATION OF BOTH.

10-Sep-97

ANALYST INITIALS



REVIEW



RAD261-973200

----- RADIAN INTERNATIONAL LLC -----
----- PROJECT LOC: ERDL PERFORATING CO. -----
----- PROJECT NO: 705-013-05-01 -----
----- 601/602 SCAN -----
----- CONCENTRATIONS IN PPMV -----

SAMPLE ID SAMPLE ID SAMPLE ID SAMPLE ID

COMPOUND NAME	V-1-5	V-2-5	V-3-5	V-4-5	LDLs
CHLOROMETHANE	<1	<1	<1	<1	1
VINYL CHLORIDE	<3	3	5	4	3
BROMOMETHANE/CHLOROETHANE*	<1	<1	<1	<1	1
FLUOROTRICHLOROMETHANE	<.005	<.005	<.005	<.005	0.005
1,1 DICHLOROETHYLENE	0.01	<.01	<.01	<.01	0.01
METHYLENE CHLORIDE	<1	<1	<1	<1	1
TRANS-1,2 DICHLOROETHYLENE	<.1	<.1	<.1	<.1	0.1
1,1 DICHLOROETHANE	0.03	<.01	<.01	<.01	0.01
CHLOROFORM	<.005	<.005	<.005	<.005	0.005
1,1,1 TRICHLOROETHANE	0.017	0.006	0.016	0.018	0.005
CARBON TETRACHLORIDE	<.005	<.005	<.005	<.005	0.005
BENZENE	<.07	<.07	<.07	<.07	0.07
1,2 DICHLOROETHANE	<.01	<.01	<.01	<.01	0.01
TRICHLOROETHYLENE	30.338	<.005	<.005	<.005	0.005
1,2 DICHLOROPROPANE	<.01	<.01	<.01	<.01	0.01
BROMODICHLOROMETHANE	<.005	<.005	<.005	<.005	0.005
CIS-1,3 DICHLOROPROPYLENE	<.01	<.01	<.01	<.01	0.01
TOLUENE	<.07	<.07	<.07	<.07	0.07
TRANS-1,3 DICHLOROPROPYLENE	<.01	<.01	<.01	<.01	0.01
1,1,2 TRICHLOROETHANE	<.005	<.005	<.005	<.005	0.005
TETRACHLOROETHYLENE	0.027	<.005	<.005	<.005	0.005
CHLORODIBROMOMETHANE	<.005	<.005	<.005	<.005	0.005
CHLOROBENZENE	<.07	<.07	<.07	<.07	0.07
ETHYL BENZENE	<.07	<.07	<.07	<.07	0.07
BROMOFORM	<.005	<.005	<.005	<.005	0.005
1,1,2,2 TETRACHLOROETHANE	<.005	<.005	<.005	<.005	0.005
1,3 DICHLOROBENZENE	<.07	<.07	<.07	<.07	0.07
1,4 DICHLOROBENZENE	<.07	<.07	<.07	<.07	0.07
1,2 DICHLOROBENZENE	<.07	<.07	<.07	<.07	0.07

FILE NAME	W77 123	W77 124	W77 125	W77 126
DATE SAMPLED	09/29/97	09/29/97	09/29/97	09/29/97
DATE RECEIVED	09/30/97	09/30/97	09/30/97	09/30/97
DATE ANALYZED	09/30/97	09/30/97	09/30/97	09/30/97

* COMPOUNDS ELUTE TOGETHER ON ECD: VALUES REPRESENT EITHER OR A COMBINATION OF BOTH.

06-Oct-97

ANALYST INITIALS 

REVIEW 

MICROSEEPS, Inc.

220 William Pitt Way, Pittsburgh, PA 15238

Phone: (412) 826-5245 Fax: (412) 826-3433

CHAIN-OF-CUSTODY RECORD

Note: Enter proper letters in Requested Analyses columns below.

Note: If analysis D,E, or K is selected, scratch (option) NOT wanted.

Company Name: Radian International
 Address: 155 Corporate Woods; Suite 100
 Proj. Manager: _____
 Proj. Location: Erdia Perforating Co.
 Proj. Number: 705013.05
 Phone #: (716) 292-1870 Fax #: (716) 292-1878

Analysis Options

* A	C1-C4	G	Chlorinated HC
* B	Hydrogen & Helium	H	BTEX
* C	Permanent Gases (CH ₄ , CO, CO ₂ , N ₂ , O ₂)	J	BTEX & C5 - C10
D	Mercury (Soil) or (Air **)	K	TPH (C5 - C10) or (C4 - C12)
E	TO-14 by GC/MS (Ambient) or (Source **)	L	C11 - C18
F	601 & 602 Compounds	Other	Specify below.

* An additional 22 ml vial of sample is required when requested in combination with another analysis.

** Available upon request.

Sampler's signature: [Signature]

Collection		Number of Containers	"Summa" # if Can. used	Sample Type	Sample Identification	Requested Analyses				(Other)	Remarks
Date	Time					F	G	H	J		
7/9/97	1400	1		Grab	V-1-1	F					601/602 by AM 4.03 ↓
	1405	1			V-2-1	F					
	1410	1			V-3-1	F					
	1415	1			V-4-1	F					

Results to: Radian

Invoice to: Radian - Per SUE Agreement

Relinquished by: <u>[Signature]</u>	Company: <u>Radian</u>	Date: <u>7/10/97</u>	Time: <u>14:00</u>	Received by: <u>Fed Ex</u>	Company: _____	Date: <u>7/10/97</u>	Time: <u>14:00</u>
Relinquished by: _____	Company: _____	Date: _____	Time: _____	Received by: _____	Company: _____	Date: _____	Time: _____
Relinquished by: _____	Company: _____	Date: _____	Time: _____	Received by: _____	Company: _____	Date: _____	Time: _____

MICROSEEPS, Inc.

220 William Pitt Way, Pittsburgh, PA 15238

Phone: (412) 826-5245 Fax: (412) 826-3433

CHAIN-OF-CUSTODY RECORD

1 of 1

Note: Enter proper letters in Requested Analyses columns below.

Analysis Options

Note: If analysis D, E, or K is selected, scratch (option) NOT wanted.

Company Name: Radion International LLC
 Address: 155 Corporate Woods, Suite 100 Rochester NY 14623
 Proj. Manager: James Baxter
 Proj. Location: Erdik Perforating
 Proj. Number: 705-013-05-81
 Phone #: 716 292 1870 Fax #: 716 292 1878

* A	C1 - C4	G	Chlorinated HC
* B	Hydrogen & Helium	H	BTEX
* C	Permanent Gases (CH ₄ , CO, CO ₂ , N ₂ , O ₂)	J	BTEX & C5 - C10
D	Mercury (Soil) or (Air **)	K	TPH (C5 - C10) or (C4 - C12)
E	TO-14 by GC/MS (Ambient) or (Source **)	L	C11 - C18
F	601 & 602 Compounds	Other	Specify below.

* An additional 22 ml vial of sample is required when requested in combination with another analysis.

** Available upon request.

Sampler's signature: Gett [Signature]

Collection		Number of Containers	"Summa" # if Can. used	Sample Type	Sample Identification	Requested Analyses					Remarks
Date	Time					(Other)					
7/17/97	1146	1		grab	V-1-2	F	-	-	-	-	Preserve 4°C
7/17/97	1140	1		grab	V-2-2	F	-	-	-	-	
7/17/97	1146	1		grab	V-3-2	F	-	-	-	-	
7/17/97	1140	1		grab	V-4-2	F	-	-	-	-	

Results to :	Invoice to :
--------------	--------------

Relinquished by: <u>Gett [Signature]</u>	Company: <u>Radion</u>	Date: <u>7/17/97</u>	Time: <u>11:30</u>	Received by:	Company:	Date:	Time:
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:

MICROSEEPS, Inc.

220 William Pitt Way, Pittsburgh, PA 15238

Phone: (412) 826-5245 Fax: (412) 826-3433

CHAIN-OF-CUSTODY RECORD 1 of 1

Note: Enter proper letters in Requested Analyses columns below.

Analysis Options

Note: If analysis D, E, or K is selected, scratch (option) NOT wanted.

Company Name: Radian International LLC
 Address: 155 Corporate Woods Suite 100 Buxton, NY 14023
 Proj. Manager: James Baxter
 Proj. Location: Ernie Perforating
 Proj. Number: 705-013-05-01
 Phone #: 716 242 1870 Fax #: 716 202 1878

* A	C1-C4	G	Chlorinated HC
* B	Hydrogen & Helium	H	BTEX
* C	Permanent Gases (CH ₄ , CO, CO ₂ , N ₂ , O ₂)	J	BTEX & C5 - C10
D	Mercury (Soil) or (Air **)	K	TPH (C5 - C10) or (C4 - C12)
E	TO-14 by GC/MS (Ambient) or (Source **)	L	C11 - C18
F	601 & 602 Compounds	Other	Specify below.

- * An additional 22 ml vial of sample is required when requested in combination with another analysis.
- ** Available upon request.

Sampler's signature: Scott Dasken

Collection		Number of Containers	"Summa" # if Can. used	Sample Type	Sample Identification	Requested Analyses					Remarks
Date	Time					(Other)					
8/21/97	1600	1		grab	V-1-3	F	-	-	-	-	
↓	↓	1		↓	V-2-3	F	-	-	-	-	
↓	↓	1		↓	V-3-3	F	-	-	-	-	
↓	↓	1		↓	V-4-3	F	-	-	-	-	

Results to: James Baxter Radian International 155 Corporate Woods Suite 100 Buxton NY 14023
 Invoice to:

Relinquished by: <u>Scott Dasken</u>	Company: <u>Radian</u>	Date: <u>8/21/97</u>	Time: <u>1600</u>	Received by:	Company:	Date:	Time:
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:

WHITE COPY: Laboratory to return.

YELLOW COPY: Laboratory

PINK COPY: Submitter

MICROSEEPS, Inc.

220 William Pitt Way, Pittsburgh, PA 15238

Phone: (412) 826-5245 Fax: (412) 826-3433

Company Name: Radian International
 Address: 155 Corporate Woods Suite 100 Rochester NY 14623
 Proj. Manager: Job Baxter
 Proj. Location: Erdle
 Proj. Number: 705 013 .05 XX
 Phone #: 716 292 1870 Fax #: 716 292-1278

Sampler's signature: Steven P. May

CHAIN-OF-CUSTODY RECORD

Note: Enter proper letters in Requested Analyses columns below.

Analysis Options

Note: If analysis D,E, or K is selected, scratch (option) NOT wanted.

*A	C1 -C4	G	Chlorinated HC
*B	Hydrogen & Helium	H	BTEX
*C	Permanent Gases (CH ₄ , CO, CO ₂ , N ₂ , O ₂)	J	BTEX & C5 - C10
D	Mercury (Soil) or (Air **)	K	TPH (C5 - C10) or (C4 -C12)
E	TO-14 by GC/MS (Ambient) or (Source **)	L	C11 - C18
F	601 & 602 Compounds	Other	Specify below.

- * An additional 22 ml vial of sample is required when requested in combination with another analysis.
- ** Available upon request.

Collection		Number of Containers	"Summa" # if Can. used	Sample Type	Sample Identification	Requested Analyses				(Other)	Remarks
Date	Time					A	B	C	D		
9-5-97	1100	1		VAPOR	Erdle-VAP-001-IP						
	1055	1		↓	Erdle-VAP-002-OP						
	1105	1		↓	Erdle-VAP-003-OS						
	1050	1		↓	Erdle-VAP-004-						

Results to : Above Invoice to : ✓

Relinquished by : <u>Steven May</u>	Company : <u>Radian</u>	Date : <u>9-5-97</u>	Time : <u>1300</u>	Received by : <u>Fed-ex</u>	Company :	Date :	Time :
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :
Relinquished by :	Company :	Date :	Time :	Received by :	Company :	Date :	Time :

WHITE COPY : Laboratory to return.

YELLOW COPY : Laboratory

PINK COPY : Submitter

MICROSEEPS, Inc.

220 William Pitt Way, Pittsburgh, PA 15238

Phone: (412) 826-5245 Fax: (412) 826-3433

CHAIN-OF-CUSTODY RECORD

Note: Enter proper letters in Requested Analyses columns below.

Note: If analysis D,E, or K is selected, scratch (option) NOT wanted.

Company Name: Radian International LLC
 Address: 155 Corporate Woods Suite 100 Rochester NY 14623
 Proj. Manager: James Keeler
 Proj. Location: Middle Park Learning
 Proj. Number: 205-013-05-01
 Phone #: 716-242-1870 Fax #: 716-242-1878

Analysis Options

* A	C1 - C4	G	Chlorinated HC
* B	Hydrogen & Helium	H	BTEX
* C	Permanent Gases (CH ₄ , CO, CO ₂ , N ₂ , O ₂)	J	BTEX & C5 - C10
D	Mercury (Soil) or (Air **)	K	TPH (C5 - C10) or (C4 - C12)
E	TO-14 by GC/MS (Ambient) or (Source **)	L	C11 - C18
F	601 & 602 Compounds	Other	Specify below.

* An additional 22 ml vial of sample is required when requested in combination with another analysis.

** Available upon request.

Sampler's signature: [Signature]

Collection		Number of	"Summa" #	Sample	Sample	Requested Analyses					(Other)	Remarks	
Date	Time	Containers	if Can. used	Type	Identification	A	B	C	D	E	F		
11/24/07	15:20	1		grab	V-1-5	F	-	-	-	-			
11/24/07	15:05	1		↓	V-2-5	F	-	-	-	-			
11/24/07	15:04	1		↓	V-3-5	F	-	-	-	-			
11/24/07	15:13	1		↓	V-4-5	F	-	-	-	-			

Results to: James Keeler
Radian International 155 Corporate Woods Suite 100
Rochester NY 14623

Invoice to:

Relinquished by: <u>[Signature]</u>	Company: <u>[Signature]</u>	Date: <u>11/24/07</u>	Time: <u>16:00</u>	Received by:	Company:	Date:	Time:
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:

DRAFT

Appendix D: Liquid Phase Analytical Results

RADIAN CORPORATION
 ERDLE SITE
 METHOD 8010 - HALOGENATED VOLATILE ORGANICS
 ANALYSIS DATA SHEET

000005

Client No

W-1-1

Lab Name: Recra LabNet

Contract: _____

Lab Code: RECNY

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: A7240401

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: 0B09245.TX0

Level: (low/med) Low

Date Samp/Recv: 07/09/97 07/10/97

% Moisture: not dec. _____

Date Analyzed: 07/11/97

GC Column: DB624 Dia: 0.53 (mm)

Dilution Factor: 20.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
75-27-4	Bromodichloromethane	4.0		U
75-25-2	Bromoform	16		U
74-83-9	Bromomethane	16		U
56-23-5	Carbon Tetrachloride	4.0		U
108-90-7	Chlorobenzene	8.0		U
75-00-3	Chloroethane	16		U
110-75-8	2-Chloroethylvinyl ether	10		U
67-66-3	Chloroform	4.0		U
74-87-3	Chloromethane	10		U
124-48-1	Dibromochloromethane	4.0		U
95-50-1	1,2-Dichlorobenzene	4.0		U
541-73-1	1,3-Dichlorobenzene	4.0		U
106-46-7	1,4-Dichlorobenzene	4.0		U
75-34-3	1,1-Dichloroethane	4.0		U
107-06-2	1,2-Dichloroethane	4.0		U
75-35-4	1,1-Dichloroethene	4.0		U
156-60-5	trans-1,2-Dichloroethene	4.0		U
78-87-5	1,2-Dichloropropane	4.0		U
10061-01-5	cis-1,3-Dichloropropene	4.0		U
10061-02-6	trans-1,3-Dichloropropene	4.0		U
75-09-2	Methylene chloride	4.0		U
79-34-5	1,1,2,2-Tetrachloroethane	4.0		U
127-18-4	Tetrachloroethene	4.0		U
71-55-6	1,1,1-Trichloroethane	4.0		U
79-00-5	1,1,2-Trichloroethane	4.0		U
79-01-6	Trichloroethene	760		E
75-69-4	Trichlorofluoromethane	4.0		U
75-01-4	Vinyl chloride	16		U

RADIAN CORPORATION
 ERDLE SITE
 METHOD 8010 - HALOGENATED VOLATILE ORGANICS
 ANALYSIS DATA SHEET

000006

Client No.

W-1-1

Lab Name: Recra LabNet Contract: _____

Lab Code: RECN Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: A7240401DL

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: OB09250.TX0

Level: (low/med) Low Date Samp/Recv: 07/09/97 07/10/97

Moisture: not dec. _____ Date Analyzed: 07/11/97

GC Column: DB624 Dia: 0.53 (mm) Dilution Factor: 40.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
75-27-4-----	Bromodichloromethane		8.0	U
75-25-2-----	Bromoform		32	U
74-83-9-----	Bromomethane		32	U
56-23-5-----	Carbon Tetrachloride		8.0	U
108-90-7-----	Chlorobenzene		16	U
75-00-3-----	Chloroethane		32	U
110-75-8-----	2-Chloroethylvinyl ether		20	U
67-66-3-----	Chloroform		8.0	U
74-87-3-----	Chloromethane		20	U
124-48-1-----	Dibromochloromethane		8.0	U
95-50-1-----	1,2-Dichlorobenzene		8.0	U
541-73-1-----	1,3-Dichlorobenzene		8.0	U
106-46-7-----	1,4-Dichlorobenzene		8.0	U
75-34-3-----	1,1-Dichloroethane		8.0	U
107-06-2-----	1,2-Dichloroethane		8.0	U
75-35-4-----	1,1-Dichloroethene		8.0	U
156-60-5-----	trans-1,2-Dichloroethene		8.0	U
78-87-5-----	1,2-Dichloropropane		8.0	U
10061-01-5----	cis-1,3-Dichloropropene		8.0	U
10061-02-6----	trans-1,3-Dichloropropene		8.0	U
75-09-2-----	Methylene chloride		8.0	U
79-34-5-----	1,1,2,2-Tetrachloroethane		8.0	U
127-18-4-----	Tetrachloroethene		8.0	U
71-55-6-----	1,1,1-Trichloroethane		8.0	U
79-00-5-----	1,1,2-Trichloroethane		8.0	U
79-01-6-----	Trichloroethene		470	U
75-69-4-----	Trichlorofluoromethane		8.0	U
75-01-4-----	Vinyl chloride		32	U

RADIANT CORPORATION
 ERDLE SITE
 METHOD 8020 - AROMATIC VOLATILE ORGANICS
 ANALYSIS DATA SHEET

000007

Client No.

W-1-1

Lab Name: Recra LabNet

Contract: _____

Lab Code: RECNV

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: A7240401

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: 0A09239.TX0

Level: (low/med) Low

Date Samp/Recv: 07/09/97 07/10/97

% Moisture: not dec. _____

Date Analyzed: 07/10/97

GC Column: DB624 Dia: 0.53 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
71-43-2-----	Benzene		0.20	U
108-90-7-----	Chlorobenzene		0.20	U
95-50-1-----	1,2-Dichlorobenzene		1.2	
541-73-1-----	1,3-Dichlorobenzene		0.40	U
106-46-7-----	1,4-Dichlorobenzene		0.40	U
100-41-4-----	Ethylbenzene		0.20	U
108-88-3-----	Toluene		0.20	U
108-38-3-----	m-Xylene		0.20	U
95-47-6-----	o-Xylene		0.20	U
106-42-3-----	p-Xylene		0.20	U

RADIAN CORPORATION
 ERDLE SITE
 METHOD 8010 - HALOGENATED VOLATILE ORGANICS
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000003

Client No.

W-2-1

Lab Name: Recra LabNet

Contract: _____

Lab Code: RECNY

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: A7240402

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: 0B09238.TX0

Level: (low/med) Low

Date Samp/Recv: 07/09/97 07/10/97

% Moisture: not dec. _____

Date Analyzed: 07/10/97

GC Column: DB624 Dia: 0.53 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
75-27-4-----	Bromodichloromethane		0.20	U
75-25-2-----	Bromoform		1.0	U
74-83-9-----	Bromomethane		1.0	U
56-23-5-----	Carbon Tetrachloride		0.20	U
108-90-7-----	Chlorobenzene		0.40	U
75-00-3-----	Chloroethane		1.0	U
110-75-8-----	2-Chloroethylvinyl ether		1.0	U
67-66-3-----	Chloroform		0.20	U
74-87-3-----	Chloromethane		1.0	U
124-48-1-----	Dibromochloromethane		0.20	U
95-50-1-----	1,2-Dichlorobenzene		0.40	U
541-73-1-----	1,3-Dichlorobenzene		0.40	U
106-46-7-----	1,4-Dichlorobenzene		0.40	U
75-34-3-----	1,1-Dichloroethane		0.20	U
107-06-2-----	1,2-Dichloroethane		0.20	U
75-35-4-----	1,1-Dichloroethene		0.20	U
156-60-5-----	trans-1,2-Dichloroethene		0.20	U
78-87-5-----	1,2-Dichloropropane		0.20	U
10061-01-5----	cis-1,3-Dichloropropene		0.20	U
10061-02-6----	trans-1,3-Dichloropropene		0.20	U
75-09-2-----	Methylene chloride		0.20	U
79-34-5-----	1,1,2,2-Tetrachloroethane		0.20	U
127-18-4-----	Tetrachloroethene		0.20	U
71-55-6-----	1,1,1-Trichloroethane		0.20	U
79-00-5-----	1,1,2-Trichloroethane		0.20	U
79-01-6-----	Trichloroethene		1.4	U
75-69-4-----	Trichlorofluoromethane		0.20	U
75-01-4-----	Vinyl chloride		1.0	U

RADIANT CORPORATION
 ERDLE SITE
 METHOD 8020 - AROMATIC VOLATILE ORGANICS
 ANALYSIS DATA SHEET

000009

Client No.

W-2-1

Lab Name: Recra LabNet

Contract: _____

Lab Code: RECNV

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: A7240402

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: 0A09238.TX0

Level: (low/med) Low

Date Samp/Recv: 07/09/97 07/10/97

% Moisture: not dec. _____

Date Analyzed: 07/10/97

GC Column: DB624 Dia: 0.53 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	<u>UG/L</u>	Q
71-43-2-----	Benzene		0.20	U
108-90-7-----	Chlorobenzene		0.20	U
95-50-1-----	1,2-Dichlorobenzene		0.40	U
541-73-1-----	1,3-Dichlorobenzene		0.40	U
106-46-7-----	1,4-Dichlorobenzene		0.40	U
100-41-4-----	Ethylbenzene		0.20	U
108-88-3-----	Toluene		0.20	U
108-38-3-----	m-Xylene		0.20	U
95-47-6-----	o-Xylene		0.20	U
106-42-3-----	p-Xylene		0.20	U

RADIAN CORPORATION
 ERDLE SITE
 METHOD 8010 - HALOGENATED VOLATILE ORGANICS
 ANALYSIS DATA SHEET

000010

Client No.

W-3-1

Lab Name: Recra LabNet Contract: _____

Lab Code: RECNV Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: A7240403

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: 0B09237.TX0

Level: (low/med) Low Date Samp/Recv: 07/09/97 07/10/97

Moisture: not dec. _____ Date Analyzed: 07/10/97

GC Column: DB624 Dia: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
75-27-4-----	Bromodichloromethane		0.20	U
75-25-2-----	Bromoform		1.0	U
74-83-9-----	Bromomethane		1.0	U
56-23-5-----	Carbon Tetrachloride		0.20	U
108-90-7-----	Chlorobenzene		0.40	U
75-00-3-----	Chloroethane		1.0	U
110-75-8-----	2-Chloroethylvinyl ether		1.0	U
67-66-3-----	Chloroform		0.20	U
74-87-3-----	Chloromethane		1.0	U
124-48-1-----	Dibromochloromethane		0.20	U
95-50-1-----	1,2-Dichlorobenzene		0.40	U
541-73-1-----	1,3-Dichlorobenzene		0.40	U
106-46-7-----	1,4-Dichlorobenzene		0.40	U
75-34-3-----	1,1-Dichloroethane		0.20	U
107-06-2-----	1,2-Dichloroethane		0.20	U
75-35-4-----	1,1-Dichloroethene		0.20	U
156-60-5-----	trans-1,2-Dichloroethene		0.20	U
78-87-5-----	1,2-Dichloropropane		0.20	U
10061-01-5----	cis-1,3-Dichloropropene		0.20	U
10061-02-6----	trans-1,3-Dichloropropene		0.20	U
75-09-2-----	Methylene chloride		0.20	U
79-34-5-----	1,1,2,2-Tetrachloroethane		0.20	U
127-18-4-----	Tetrachloroethene		0.20	U
71-55-6-----	1,1,1-Trichloroethane		0.20	U
79-00-5-----	1,1,2-Trichloroethane		0.20	U
79-01-6-----	Trichloroethene		0.27	U
75-69-4-----	Trichlorofluoromethane		0.20	U
75-01-4-----	Vinyl chloride		1.0	U

RADIANT CORPORATION
 ERDLE SITE
 METHOD 8020 - AROMATIC VOLATILE ORGANICS
 ANALYSIS DATA SHEET

000011

Client No.

W-3-1

Lab Name: Recra LabNet

Contract: _____

Lab Code: RECNV

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: A7240403

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: 0A09237.TX0

Level: (low/med) Low

Date Samp/Recv: 07/09/97 07/10/97

% Moisture: not dec. _____

Date Analyzed: 07/10/97

GC Column: DB624 Dia: 0.53 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
71-43-2-----	Benzene		0.20	U
108-90-7-----	Chlorobenzene		0.20	U
95-50-1-----	1,2-Dichlorobenzene		0.40	U
541-73-1-----	1,3-Dichlorobenzene		0.40	U
106-46-7-----	1,4-Dichlorobenzene		0.40	U
100-41-4-----	Ethylbenzene		0.20	U
108-88-3-----	Toluene		0.20	U
108-38-3-----	m-Xylene		0.20	U
95-47-6-----	o-Xylene		0.20	U
106-42-3-----	p-Xylene		0.20	U

RADIAN CORPORATION
 ERDLIE SITE
 METHOD 8010 - HALOGENATED VOLATILE ORGANICS
 ANALYSIS DATA SHEET

000012

Client No.

W-4-1

Lab Name: Recra LabNet Contract: _____
 Lab Code: RECN Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: A7240404
 Sample wt/vol: 5.00 (g/mL) ML Lab File ID: 0B09244.TX0
 Level: (low/med) Low Date Samp/Recv: 07/09/97 07/10/97
 Moisture: not dec. _____ Date Analyzed: 07/11/97
 GC Column: DB624 Dia: 0.53 (mm) Dilution Factor: 20.00
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
75-27-4	Bromodichloromethane		4.0	U
75-25-2	Bromoform		16	U
74-83-9	Bromomethane		16	U
56-23-5	Carbon Tetrachloride		4.0	U
108-90-7	Chlorobenzene		8.0	U
75-00-3	Chloroethane		16	U
110-75-8	2-Chloroethylvinyl ether		10	U
67-66-3	Chloroform		4.0	U
74-87-3	Chloromethane		10	U
124-48-1	Dibromochloromethane		4.0	U
95-50-1	1,2-Dichlorobenzene		4.0	U
541-73-1	1,3-Dichlorobenzene		4.0	U
106-46-7	1,4-Dichlorobenzene		4.0	U
75-34-3	1,1-Dichloroethane		4.0	U
107-06-2	1,2-Dichloroethane		4.0	U
75-35-4	1,1-Dichloroethene		4.0	U
156-60-5	trans-1,2-Dichloroethene		4.0	U
78-87-5	1,2-Dichloropropane		4.0	U
10061-01-5	cis-1,3-Dichloropropene		4.0	U
10061-02-6	trans-1,3-Dichloropropene		4.0	U
75-09-2	Methylene chloride		4.0	U
79-34-5	1,1,2,2-Tetrachloroethane		4.0	U
127-18-4	Tetrachloroethene		4.0	U
71-55-6	1,1,1-Trichloroethane		4.0	U
79-00-5	1,1,2-Trichloroethane		4.0	U
79-01-6	Trichloroethene		850	E
75-69-4	Trichlorofluoromethane		4.0	U
75-01-4	Vinyl chloride		16	U

RADIANT CORPORATION
 ERDLE SITE
 METHOD 8010 - HALOGENATED VOLATILE ORGANICS
 ANALYSIS DATA SHEET

000013

Client No. _____

W-4-1

Lab Name: Recra LabNet

Contract: _____

Lab Code: RECNV

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: A7240404DL

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: OB09252.TX0

Level: (low/med) Low

Date Samp/Recv: 07/09/97 07/10/97

% Moisture: not dec. _____

Date Analyzed: 07/11/97

GC Column: DB624 Dia: 0.53 (mm)

Dilution Factor: 40.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
75-27-4-----	Bromodichloromethane		8.0	U
75-25-2-----	Bromoform		32	U
74-83-9-----	Bromomethane		32	U
56-23-5-----	Carbon Tetrachloride		8.0	U
108-90-7-----	Chlorobenzene		16	U
75-00-3-----	Chloroethane		32	U
110-75-8-----	2-Chloroethylvinyl ether		20	U
67-66-3-----	Chloroform		8.0	U
74-87-3-----	Chloromethane		20	U
124-48-1-----	Dibromochloromethane		8.0	U
95-50-1-----	1,2-Dichlorobenzene		8.0	U
541-73-1-----	1,3-Dichlorobenzene		8.0	U
106-46-7-----	1,4-Dichlorobenzene		8.0	U
75-34-3-----	1,1-Dichloroethane		8.0	U
107-06-2-----	1,2-Dichloroethane		8.0	U
75-35-4-----	1,1-Dichloroethene		8.0	U
156-60-5-----	trans-1,2-Dichloroethene		8.0	U
78-87-5-----	1,2-Dichloropropane		8.0	U
10061-01-5----	cis-1,3-Dichloropropene		8.0	U
10061-02-6----	trans-1,3-Dichloropropene		8.0	U
75-09-2-----	Methylene chloride		8.0	U
79-34-5-----	1,1,2,2-Tetrachloroethane		8.0	U
127-18-4-----	Tetrachloroethene		8.0	U
71-55-6-----	1,1,1-Trichloroethane		8.0	U
79-00-5-----	1,1,2-Trichloroethane		8.0	U
79-01-6-----	Trichloroethene		480	U
75-69-4-----	Trichlorofluoromethane		8.0	U
75-01-4-----	Vinyl chloride		32	U

RADIAN CORPORATION
 ERDLE SITE
 METHOD 8020 - AROMATIC VOLATILE ORGANICS
 ANALYSIS DATA SHEET

000014

Client No.

W-4-1

Lab Name: Recra LabNet Contract: _____

Lab Code: RECN Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: A7240404

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: 0A09236.TX0

Level: (low/med) Low Date Samp/Recv: 07/09/97 07/10/97

% Moisture: not dec. _____ Date Analyzed: 07/10/97

GC Column: DB624 Dia: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
71-43-2-----	Benzene		0.20	U
108-90-7-----	Chlorobenzene		0.20	U
95-50-1-----	1,2-Dichlorobenzene		0.40	U
541-73-1-----	1,3-Dichlorobenzene		0.40	U
106-46-7-----	1,4-Dichlorobenzene		0.40	U
100-41-4-----	Ethylbenzene		0.20	U
108-88-3-----	Toluene		0.20	U
108-38-3-----	m-Xylene		0.20	U
95-47-6-----	o-Xylene		0.20	U
106-42-3-----	p-Xylene		0.20	U

RADIAN CORPORATION
 ERDLE SITE
 METHOD 8010 - HALOGENATED VOLATILE ORGANICS
 ANALYSIS DATA SHEET

000007

Client No.

W-1-2

Lab Name: Recra LabNet Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: A7251001

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: 0B10011.TX0

Level: (low/med) Low Date Samp/Recv: 07/17/97 07/18/97

% Moisture: not dec. _____ Date Analyzed: 07/19/97

GC Column: DB624 Dia: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
75-27-4	Bromodichloromethane		0.20	U
75-25-2	Bromoform		1.0	U
74-83-9	Bromomethane		1.0	U
56-23-5	Carbon Tetrachloride		0.20	U
108-90-7	Chlorobenzene		0.40	U
75-00-3	Chloroethane		1.0	U
110-75-8	2-Chloroethylvinyl ether		1.0	U
67-66-3	Chloroform		0.20	U
74-87-3	Chloromethane		1.0	U
124-48-1	Dibromochloromethane		0.20	U
95-50-1	1,2-Dichlorobenzene		0.40	U
541-73-1	1,3-Dichlorobenzene		0.40	U
106-46-7	1,4-Dichlorobenzene		0.40	U
75-34-3	1,1-Dichloroethane		0.20	U
107-06-2	1,2-Dichloroethane		1.5	
75-35-4	1,1-Dichloroethene		0.20	U
156-60-5	trans-1,2-Dichloroethene		1.3	
78-87-5	1,2-Dichloropropane		0.20	U
10061-01-5	cis-1,3-Dichloropropene		0.20	U
10061-02-6	trans-1,3-Dichloropropene		0.20	U
75-09-2	Methylene chloride		0.20	U
79-34-5	1,1,2,2-Tetrachloroethane		0.20	U
127-18-4	Tetrachloroethene		0.56	
71-55-6	1,1,1-Trichloroethane		0.20	U
79-00-5	1,1,2-Trichloroethane		0.35	
79-01-6	Trichloroethene		120	E
75-69-4	Trichlorofluoromethane		0.20	U
75-01-4	Vinyl chloride		1.8	

RADIAN CORPORATION
 ERDLE SITE
 METHOD 8010 - HALOGENATED VOLATILE ORGANICS
 ANALYSIS DATA SHEET

000008

Client No

W-1-2 DL

Lab Name: Recra LabNet

Contract: _____

Lab Code: RECNY

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: A7251001DL

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: 0B10009.TX0

Level: (low/med) Low

Date Samp/Recv: 07/17/97 07/18/97

% Moisture: not dec. _____

Date Analyzed: 07/19/97

GC Column: DB624 Dia: 0.53 (mm)

Dilution Factor: 40.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
75-27-4	Bromodichloromethane	8.0	U
75-25-2	Bromoform	32	U
74-83-9	Bromomethane	32	U
56-23-5	Carbon Tetrachloride	8.0	U
108-90-7	Chlorobenzene	16	U
75-00-3	Chloroethane	32	U
110-75-8	2-Chloroethylvinyl ether	20	U
67-66-3	Chloroform	8.0	U
74-87-3	Chloromethane	20	U
124-48-1	Dibromochloromethane	8.0	U
95-50-1	1,2-Dichlorobenzene	8.0	U
541-73-1	1,3-Dichlorobenzene	8.0	U
106-46-7	1,4-Dichlorobenzene	8.0	U
75-34-3	1,1-Dichloroethane	8.0	U
107-06-2	1,2-Dichloroethane	8.0	U
75-35-4	1,1-Dichloroethene	8.0	U
156-60-5	trans-1,2-Dichloroethene	8.0	U
78-87-5	1,2-Dichloropropane	8.0	U
10061-01-5	cis-1,3-Dichloropropene	8.0	U
10061-02-6	trans-1,3-Dichloropropene	8.0	U
75-09-2	Methylene chloride	16	B
79-34-5	1,1,2,2-Tetrachloroethane	8.0	U
127-18-4	Tetrachloroethene	8.0	U
71-55-6	1,1,1-Trichloroethane	8.0	U
79-00-5	1,1,2-Trichloroethane	8.0	U
79-01-6	Trichloroethene	280	U
75-69-4	Trichlorofluoromethane	8.0	U
75-01-4	Vinyl chloride	32	U

RADIAN CORPORATION
 ERDL E SITE
 METHOD 8010 - HALOGENATED VOLATILE ORGANICS
 ANALYSIS DATA SHEET

000009

Client No

W-2-2

Lab Name: Recra LabNet

Contract: _____

Lab Code: RECN Y Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: A7251002

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: 0B10007.TX0

Level: (low/med) Low

Date Samp/Recv: 07/17/97 07/18/97

Moisture: not dec. _____

Date Analyzed: 07/19/97

GC Column: DB624 Dia: 0.53 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
75-27-4	Bromodichloromethane		0.20	U
75-25-2	Bromoform		1.0	U
74-83-9	Bromomethane		1.0	U
56-23-5	Carbon Tetrachloride		0.20	U
108-90-7	Chlorobenzene		0.40	U
75-00-3	Chloroethane		1.0	U
110-75-8	2-Chloroethylvinyl ether		1.0	U
67-66-3	Chloroform		0.20	U
74-87-3	Chloromethane		1.0	U
124-48-1	Dibromochloromethane		0.20	U
95-50-1	1,2-Dichlorobenzene		0.40	U
541-73-1	1,3-Dichlorobenzene		0.40	U
106-46-7	1,4-Dichlorobenzene		0.40	U
75-34-3	1,1-Dichloroethane		0.20	U
107-06-2	1,2-Dichloroethane		0.20	U
75-35-4	1,1-Dichloroethene		0.20	U
156-60-5	trans-1,2-Dichloroethene		0.20	U
78-87-5	1,2-Dichloropropane		0.20	U
10061-01-5	cis-1,3-Dichloropropene		0.20	U
10061-02-6	trans-1,3-Dichloropropene		0.20	U
75-09-2	Methylene chloride		0.20	U
79-34-5	1,1,2,2-Tetrachloroethane		0.20	U
127-18-4	Tetrachloroethene		0.20	U
71-55-6	1,1,1-Trichloroethane		0.20	U
79-00-5	1,1,2-Trichloroethane		0.20	U
79-01-6	Trichloroethene		1.6	U
75-69-4	Trichlorofluoromethane		0.20	U
75-01-4	Vinyl chloride		1.0	U

RADIAN CORPORATION
 ERDLE SITE
 METHOD 8010 - HALOGENATED VOLATILE ORGANICS
 ANALYSIS DATA SHEET

000010

Client No

W-3-2

Lab Name: Recra LabNet

Contract: _____

Lab Code: RECN Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: A7251003

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: 0B10008.TX0

Level: (low/med) Low

Date Samp/Recv: 07/17/97 07/18/9

Moisture: not dec. _____

Date Analyzed: 07/19/97

GC Column: DB624 Dia: 0.53 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
75-27-4	Bromodichloromethane		0.20	U
75-25-2	Bromoform		1.0	U
74-83-9	Bromomethane		1.0	U
56-23-5	Carbon Tetrachloride		0.20	U
108-90-7	Chlorobenzene		0.40	U
75-00-3	Chloroethane		1.0	U
110-75-8	2-Chloroethylvinyl ether		1.0	U
67-66-3	Chloroform		0.20	U
74-87-3	Chloromethane		1.0	U
124-48-1	Dibromochloromethane		0.20	U
95-50-1	1,2-Dichlorobenzene		0.40	U
541-73-1	1,3-Dichlorobenzene		0.40	U
106-46-7	1,4-Dichlorobenzene		0.40	U
75-34-3	1,1-Dichloroethane		0.20	U
107-06-2	1,2-Dichloroethane		0.20	U
75-35-4	1,1-Dichloroethene		0.20	U
156-60-5	trans-1,2-Dichloroethene		0.20	U
78-87-5	1,2-Dichloropropane		0.20	U
10061-01-5	cis-1,3-Dichloropropene		0.20	U
10061-02-6	trans-1,3-Dichloropropene		0.20	U
75-09-2	Methylene chloride		0.20	U
79-34-5	1,1,2,2-Tetrachloroethane		0.20	U
127-18-4	Tetrachloroethene		0.20	U
71-55-6	1,1,1-Trichloroethane		0.20	U
79-00-5	1,1,2-Trichloroethane		0.20	U
79-01-6	Trichloroethene		0.96	U
75-69-4	Trichlorofluoromethane		0.20	U
75-01-4	Vinyl chloride		1.0	U

RADIAN CORPORATION
 ERDL E SITE
 METHOD 8010 - HALOGENATED VOLATILE ORGANICS
 ANALYSIS DATA SHEET

000011

Client No

W-4-2

Lab Name: Recra LabNet

Contract: _____

Lab Code: RECN Y

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: A7251004

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: 0B10013.TX0

Level: (low/med) Low

Date Samp/Recv: 07/17/97 07/18/97

% Moisture: not dec. _____

Date Analyzed: 07/19/97

GC Column: DB624 Dia: 0.53 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
75-27-4	Bromodichloromethane	0.20	U
75-25-2	Bromoform	1.0	U
74-83-9	Bromomethane	1.0	U
56-23-5	Carbon Tetrachloride	0.20	U
108-90-7	Chlorobenzene	0.40	U
75-00-3	Chloroethane	1.0	U
110-75-8	2-Chloroethylvinyl ether	1.0	U
67-66-3	Chloroform	0.20	U
74-87-3	Chloromethane	1.0	U
124-48-1	Dibromochloromethane	0.20	U
95-50-1	1,2-Dichlorobenzene	0.40	U
541-73-1	1,3-Dichlorobenzene	0.40	U
106-46-7	1,4-Dichlorobenzene	0.40	U
75-34-3	1,1-Dichloroethane	0.20	U
107-06-2	1,2-Dichloroethane	0.76	U
75-35-4	1,1-Dichloroethene	0.20	U
156-60-5	trans-1,2-Dichloroethene	1.2	U
78-87-5	1,2-Dichloropropane	0.20	U
10061-01-5	cis-1,3-Dichloropropene	0.20	U
10061-02-6	trans-1,3-Dichloropropene	0.20	U
75-09-2	Methylene chloride	0.20	U
79-34-5	1,1,2,2-Tetrachloroethane	0.20	U
127-18-4	Tetrachloroethene	2.3	U
71-55-6	1,1,1-Trichloroethane	0.20	U
79-00-5	1,1,2-Trichloroethane	0.22	U
79-01-6	Trichloroethene	110	E
75-69-4	Trichlorofluoromethane	0.20	U
75-01-4	Vinyl chloride	1.8	U

RADIAN CORPORATION
 ERDL E SITE
 METHOD 8010 - HALOGENATED VOLATILE ORGANICS
 ANALYSIS DATA SHEET

000012

Client No

W-4-2 DL

Lab Name: Recra LabNet

Contract: _____

Lab Code: RECN Y

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: A7251004DL

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: OB10010.TX0

Level: (low/med) Low

Date Samp/Recv: 07/17/97 07/18/9

% Moisture: not dec. _____

Date Analyzed: 07/19/97

GC Column: DB624 Dia: 0.53 (mm)

Dilution Factor: 40.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
75-27-4	Bromodichloromethane		8.0	U
75-25-2	Bromoform		32	U
74-83-9	Bromomethane		32	U
56-23-5	Carbon Tetrachloride		8.0	U
108-90-7	Chlorobenzene		16	U
75-00-3	Chloroethane		32	U
110-75-8	2-Chloroethylvinyl ether		20	U
67-66-3	Chloroform		8.0	U
74-87-3	Chloromethane		20	U
124-48-1	Dibromochloromethane		8.0	U
95-50-1	1,2-Dichlorobenzene		8.0	U
541-73-1	1,3-Dichlorobenzene		8.0	U
106-46-7	1,4-Dichlorobenzene		8.0	U
75-34-3	1,1-Dichloroethane		8.0	U
107-06-2	1,2-Dichloroethane		8.0	U
75-35-4	1,1-Dichloroethene		8.0	U
156-60-5	trans-1,2-Dichloroethene		8.0	U
78-87-5	1,2-Dichloropropane		8.0	U
10061-01-5	cis-1,3-Dichloropropene		8.0	U
10061-02-6	trans-1,3-Dichloropropene		8.0	U
75-09-2	Methylene chloride		15	B
79-34-5	1,1,2,2-Tetrachloroethane		8.0	U
127-18-4	Tetrachloroethene		8.0	U
71-55-6	1,1,1-Trichloroethane		8.0	U
79-00-5	1,1,2-Trichloroethane		8.0	U
79-01-6	Trichloroethene		230	
75-69-4	Trichlorofluoromethane		8.0	U
75-01-4	Vinyl chloride		32	U

RADIAN CORPORATION
 ERDLE SITE
 METHOD 8020 - AROMATIC VOLATILE ORGANICS
 ANALYSIS DATA SHEET

000008

Client No.

W-1-3

Lab Name: Recra LabNet

Contract: _____

Lab Code: RECN

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: A7292501

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: 0A11093.TX0

Level: (low/med) Low

Date Samp/Recv: 08/21/97 08/22/97

% Moisture: not dec. _____

Date Analyzed: 08/25/97

GC Column: DB624 Dia: 0.53 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

71-43-2	Benzene	0.20	U
108-90-7	Chlorobenzene	0.20	U
95-50-1	1,2-Dichlorobenzene	0.40	U
541-73-1	1,3-Dichlorobenzene	0.40	U
106-46-7	1,4-Dichlorobenzene	0.40	U
100-41-4	Ethylbenzene	0.51	
108-88-3	Toluene	0.20	U
108-38-3	m-Xylene	1.3	1
95-47-6	o-Xylene	0.58	
106-42-3	p-Xylene	0.20	1U

RADIAN CORPORATION
 ERDL E SITE
 METHOD 8010 - HALOGENATED VOLATILE ORGANICS
 ANALYSIS DATA SHEET

000003

Client No.

W-1-3

Lab Name: Recra LabNet

Contract: _____

Lab Code: RECNY

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: A7292501

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: 0B11093.TX0

Level: (low/med) Low

Date Samp/Recv: 08/21/97 08/22/97

Moisture: not dec. _____

Date Analyzed: 08/25/97

GC Column: DB624 Dia: 0.53 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
75-27-4	Bromodichloromethane	0.20	U
75-25-2	Bromoform	1.0	U
74-83-9	Bromomethane	1.0	U
56-23-5	Carbon Tetrachloride	0.20	U
108-90-7	Chlorobenzene	0.40	U
75-00-3	Chloroethane	1.0	U
110-75-8	2-Chloroethylvinyl ether	1.0	U
67-66-3	Chloroform	0.20	U
74-87-3	Chloromethane	1.0	U
124-48-1	Dibromochloromethane	0.20	U
95-50-1	1,2-Dichlorobenzene	0.40	U
541-73-1	1,3-Dichlorobenzene	0.40	U
106-46-7	1,4-Dichlorobenzene	0.40	U
75-34-3	1,1-Dichloroethane	0.65	
107-06-2	1,2-Dichloroethane	1.1	
75-35-4	1,1-Dichloroethene	0.20	U
156-60-5	trans-1,2-Dichloroethene	0.55	
78-87-5	1,2-Dichloropropane	0.20	U
10061-01-5	cis-1,3-Dichloropropene	0.20	U
10061-02-6	trans-1,3-Dichloropropene	0.61	
75-09-2	Methylene chloride	0.20	U
79-34-5	1,1,2,2-Tetrachloroethane	0.20	U
127-18-4	Tetrachloroethene	0.68	
71-55-6	1,1,1-Trichloroethane	1.3	
79-00-5	1,1,2-Trichloroethane	0.54	
79-01-6	Trichloroethene	120	E
75-69-4	Trichlorofluoromethane	0.20	U
75-01-4	Vinyl chloride	6.7	

RADIANT CORPORATION
 ERDLE SITE
 METHOD 8010 - HALOGENATED VOLATILE ORGANICS
 ANALYSIS DATA SHEET

000010

Client No.

W-1-3

Lab Name: Recra LabNet Contract: _____
 Lab Code: RECN Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: A7292501DL
 Sample wt/vol: 5.00 (g/mL) ML Lab File ID: 0B11095.TX0
 Level: (low/med) Low Date Samp/Recv: 08/21/97 08/22/97
 Moisture: not dec. _____ Date Analyzed: 08/25/97
 GC Column: DB624 Dia: 0.53 (mm) Dilution Factor: 10.00
 Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
75-27-4	Bromodichloromethane	2.0	U
75-25-2	Bromoform	8.0	U
74-83-9	Bromomethane	8.0	U
56-23-5	Carbon Tetrachloride	2.0	U
108-90-7	Chlorobenzene	4.0	U
75-00-3	Chloroethane	8.0	U
110-75-8	2-Chloroethylvinyl ether	5.0	U
67-66-3	Chloroform	2.0	U
74-87-3	Chloromethane	5.0	U
124-48-1	Dibromochloromethane	2.0	U
95-50-1	1,2-Dichlorobenzene	2.0	U
541-73-1	1,3-Dichlorobenzene	2.0	U
106-46-7	1,4-Dichlorobenzene	2.0	U
75-34-3	1,1-Dichloroethane	2.0	U
107-06-2	1,2-Dichloroethane	2.0	U
75-35-4	1,1-Dichloroethene	2.0	U
156-60-5	trans-1,2-Dichloroethene	2.0	U
78-87-5	1,2-Dichloropropane	2.0	U
10061-01-5	cis-1,3-Dichloropropene	2.0	U
10061-02-6	trans-1,3-Dichloropropene	2.0	U
75-09-2	Methylene chloride	2.0	U
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U
127-18-4	Tetrachloroethene	2.0	U
71-55-6	1,1,1-Trichloroethane	2.0	U
79-00-5	1,1,2-Trichloroethane	2.0	U
79-01-6	Trichloroethene	160	U
75-69-4	Trichlorofluoromethane	2.0	U
75-01-4	Vinyl chloride	8.0	U

RADIAN CORPORATION
 ERDLE SITE
 METHOD 8020 - AROMATIC VOLATILE ORGANICS
 ANALYSIS DATA SHEET

000011

Client No.

W-2-3

Lab Name: Recra LabNet

Contract: _____

Lab Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: A7292502

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: 0A11092.TX0

Level: (low/med) Low Date Samp/Recv: 08/21/97 08/22/97

% Moisture: not dec. _____ Date Analyzed: 08/25/97

GC Column: DB624 Dia: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
71-43-2-----	Benzene	0.20	U
108-90-7-----	Chlorobenzene	0.20	U
95-50-1-----	1,2-Dichlorobenzene	0.40	U
541-73-1-----	1,3-Dichlorobenzene	0.40	U
106-46-7-----	1,4-Dichlorobenzene	0.40	U
100-41-4-----	Ethylbenzene	0.20	U
108-88-3-----	Toluene	0.20	U
108-38-3-----	m-Xylene	0.20	U
95-47-6-----	o-Xylene	0.20	U
106-42-3-----	p-Xylene	0.20	U

RADIAN CORPORATION
 ERDLE SITE
 METHOD 8010 - HALOGENATED VOLATILE ORGANICS
 ANALYSIS DATA SHEET

000012

Client No.

W-2-3

Lab Name: Recra LabNet

Contract: _____

Lab Code: RECNY

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: A7292502

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: 0B11092.TX0

Level: (low/med) Low

Date Samp/Recv: 08/21/97 08/22/97

Moisture: not dec. _____

Date Analyzed: 08/25/97

GC Column: DB624 Dia: 0.53 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	UG/L	Q
75-27-4	Bromodichloromethane	0.20	U
75-25-2	Bromoform	1.0	U
74-83-9	Bromomethane	1.0	U
56-23-5	Carbon Tetrachloride	0.20	U
108-90-7	Chlorobenzene	0.40	U
75-00-3	Chloroethane	1.0	U
110-75-8	2-Chloroethylvinyl ether	1.0	U
67-66-3	Chloroform	0.20	U
74-87-3	Chloromethane	1.0	U
124-48-1	Dibromochloromethane	0.20	U
95-50-1	1,2-Dichlorobenzene	0.40	U
541-73-1	1,3-Dichlorobenzene	0.40	U
106-46-7	1,4-Dichlorobenzene	0.40	U
75-34-3	1,1-Dichloroethane	0.20	U
107-06-2	1,2-Dichloroethane	0.20	U
75-35-4	1,1-Dichloroethene	0.20	U
156-60-5	trans-1,2-Dichloroethene	0.20	U
78-87-5	1,2-Dichloropropane	0.20	U
10061-01-5	cis-1,3-Dichloropropene	0.20	U
10061-02-6	trans-1,3-Dichloropropene	0.20	U
75-09-2	Methylene chloride	0.20	U
79-34-5	1,1,2,2-Tetrachloroethane	0.20	U
127-18-4	Tetrachloroethene	0.20	U
71-55-6	1,1,1-Trichloroethane	0.20	U
79-00-5	1,1,2-Trichloroethane	0.20	U
79-01-6	Trichloroethene	0.61	U
75-69-4	Trichlorofluoromethane	0.20	U
75-01-4	Vinyl chloride	1.0	U

RADIAN CORPORATION
 ERDLE SITE
 METHOD 8020 - AROMATIC VOLATILE ORGANICS
 ANALYSIS DATA SHEET

000013

Client No.

W-3-3

Lab Name: Recra LabNet

Contract: _____

Lab Code: RECN

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: A7292503

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: 0A11091.TX0

Level: (low/med) Low

Date Samp/Recv: 08/21/97 08/22/97

% Moisture: not dec. _____

Date Analyzed: 08/25/97

GC Column: DB624 Dia: 0.53 (mm)

Dilution Factor: 1.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
71-43-2-----	Benzene		0.20	U
108-90-7-----	Chlorobenzene		0.20	U
95-50-1-----	1,2-Dichlorobenzene		0.40	U
541-73-1-----	1,3-Dichlorobenzene		0.40	U
106-46-7-----	1,4-Dichlorobenzene		0.40	U
100-41-4-----	Ethylbenzene		0.20	U
108-88-3-----	Toluene		0.20	U
108-38-3-----	m-Xylene		0.20	U
95-47-6-----	o-Xylene		0.20	U
106-42-3-----	p-Xylene		0.20	U

RADIAN CORPORATION
 ERDLE SITE
 METHOD 8010 - HALOGENATED VOLATILE ORGANICS
 ANALYSIS DATA SHEET

000014

Client No.

W-3-3

Lab Name: Recra LabNet

Contract: _____

Lab Code: RECN Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: A7292503

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: 0B11091.TX0

Level: (low/med) Low Date Samp/Recv: 08/21/97 08/22/97

% Moisture: not dec. _____ Date Analyzed: 08/25/97

GC Column: DB624 Dia: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
75-27-4	Bromodichloromethane	0.20		U
75-25-2	Bromoform	1.0		U
74-83-9	Bromomethane	1.0		U
56-23-5	Carbon Tetrachloride	0.20		U
108-90-7	Chlorobenzene	0.40		U
75-00-3	Chloroethane	1.0		U
110-75-8	2-Chloroethylvinyl ether	1.0		U
67-66-3	Chloroform	0.20		U
74-87-3	Chloromethane	1.0		U
124-48-1	Dibromochloromethane	0.20		U
95-50-1	1,2-Dichlorobenzene	0.40		U
541-73-1	1,3-Dichlorobenzene	0.40		U
106-46-7	1,4-Dichlorobenzene	0.40		U
75-34-3	1,1-Dichloroethane	0.20		U
107-06-2	1,2-Dichloroethane	0.20		U
75-35-4	1,1-Dichloroethene	0.20		U
156-60-5	trans-1,2-Dichloroethene	0.20		U
78-87-5	1,2-Dichloropropane	0.20		U
10061-01-5	cis-1,3-Dichloropropene	0.20		U
10061-02-6	trans-1,3-Dichloropropene	0.20		U
75-09-2	Methylene chloride	0.20		U
79-34-5	1,1,2,2-Tetrachloroethane	0.20		U
127-18-4	Tetrachloroethene	0.20		U
71-55-6	1,1,1-Trichloroethane	0.20		U
79-00-5	1,1,2-Trichloroethane	0.20		U
79-01-6	Trichloroethene	0.20		U
75-69-4	Trichlorofluoromethane	0.20		U
75-01-4	Vinyl chloride	1.0		U

Date: 10/29/97
Time: 09:19:12

RADIAN CORPORATION
ERDLE SITE
ANALYTICAL RESULTS

Rept: AN0353
Page: 1

Client Sample ID: W-1-4	W-2-4	W-3-4	W-4-4
Job Number & Lab Sample ID: A97-3492 A7349202	A97-3492 A7349203	A97-3492 A7349204	A97-3492 A7349205
Sample Date: 09/29/97	09/29/97	09/29/97	09/29/97

Analyte (UG/L)	RL	Result	Result	Result	Result
METHOD 8020 - AROMATIC VOLATILE ORGANICS					
Benzene	0.20	0.80 U	0.20 U	0.20 U	0.20 U
Chlorobenzene	0.20	0.80 U	0.20 U	0.20 U	0.20 U
1,2-Dichlorobenzene	0.40	0.80 U	0.40 U	0.40 U	0.40 U
1,3-Dichlorobenzene	0.40	0.80 U	0.40 U	0.40 U	0.40 U
1,4-Dichlorobenzene	0.40	0.80 U	0.40 U	0.40 U	0.40 U
Ethylbenzene	0.20	0.80 U	0.20 U	0.20 U	0.20 U
Toluene	0.20	0.80 U	0.20 U	0.20 U	0.20 U
m-Xylene	0.20	0.80 U	0.20 U	0.20 U	0.23 J
o-Xylene	0.20	0.80 U	0.20 U	0.20 U	0.14 J
p-Xylene	0.20	0.80 U	0.20 U	0.20 U	0.20 1U
SURROGATES					
m,m,m-Trifluorotoluene	66-131	98	97	98	99

Analyte (UG/L)	RL	Result	Result	Result	Result
METHOD 8010 - HALOGENATED VOLATILE ORGANICS					
Bromodichloromethane	0.20	4.0 U	0.20 U	0.20 U	0.20 U
Bromoform	1.0	16 U	1.0 U	1.0 U	1.0 U
Bromomethane	1.0	16 U	1.0 U	1.0 U	1.0 U
Carbon Tetrachloride	0.20	4.0 U	0.20 U	0.20 U	0.20 U
Chlorobenzene	0.20	8.0 U	0.40 U	0.40 U	0.40 U
Chloroethane	1.0	16 U	1.0 U	1.0 U	1.0 U
2-Chloroethylvinyl ether	1.0	10 U	1.0 U	1.0 U	1.0 U
Chloroform	0.20	4.0 U	0.20 U	0.20 U	0.20 U
Chloromethane	1.0	10 U	1.0 U	1.0 U	1.0 U
Dibromochloromethane	0.20	4.0 U	0.20 U	0.20 U	0.20 U
1,2-Dichlorobenzene	0.40	4.0 U	0.40 U	0.40 U	0.40 U
1,3-Dichlorobenzene	0.40	4.0 U	0.40 U	0.40 U	0.40 U
1,4-Dichlorobenzene	0.40	4.0 U	0.40 U	0.40 U	0.40 U
1,1-Dichloroethane	0.20	4.0 U	0.20 U	0.20 U	0.20 U
1,2-Dichloroethane	0.20	4.0 U	0.20 U	0.20 U	0.20 U
1,1-Dichloroethene	0.20	4.0 U	0.20 U	0.20 U	0.20 U
trans-1,2-Dichloroethene	0.20	4.0 U	0.20 U	0.20 U	0.20 U
1,2-Dichloropropene	0.20	4.0 U	0.20 U	0.20 U	0.20 U
cis-1,3-Dichloropropene	0.20	4.0 U	0.20 U	0.20 U	0.20 U
trans-1,3-Dichloropropene	0.20	4.0 U	0.20 U	0.20 U	0.20 U
Methylene chloride	0.20	7.4 U	0.20 U	0.20 U	0.20 U
1,1,2,2-Tetrachloroethane	0.20	4.0 U	0.20 U	0.20 U	0.20 U
Tetrachloroethene	0.20	4.0 U	0.20 U	0.20 U	0.20 U
1,1,1-Trichloroethane	0.20	4.0 U	0.20 U	0.20 U	0.20 U
1,1,2-Trichloroethane	0.20	4.0 U	0.20 U	0.20 U	0.20 U

* Indicates Result is Outside QC Limits
NA = Not Applicable

Recre LabNet

10/29/97 10:25

8

002/005

Date: 10/29/97
 Time: 09:19:12

RADJAN CORPORATION
 ERDLE SITE
 ANALYTICAL RESULTS

Rept: AN0353
 Page: 2

Client Sample ID: W-1-4		W-2-4		W-3-4		W-4-4	
Job Number & Lab Sample ID: A97-3492 A7349202		A97-3492 A7349203		A97-3492 A7349204		A97-3492 A7349205	
Sample Date: 09/29/97		09/29/97		09/29/97		09/29/97	
Analyte (UG/L)	RL	Result	Result	Result	Result	Result	Result
METHOD 8010 - HALOGENATED VOLATILE ORGANICS							
Trichloroethene	0.20	230	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Trichlorofluoromethane	0.20	4.0 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U
Vinyl chloride	1.0	16 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
SURROGATES							
Bromochloromethane	70-127	99	95	93	90	90	

* Indicates Result is Outside QC Limits
 NA = Not Applicable

Recre LabNet

10/29/97 10:28

003/005

RECRA ENVIRONMENTAL, INC. - for Radion International

CHAIN OF CUSTODY RECORD

PROJECT NO 7050130502					SITE NAME Erdle					NO OF CON TAINERS	<i>SW 8200/220</i>					REMARKS									
SAMPLERS (SIGNATURE) <i>Steve Howe</i>																									
STATION NO	DATE	TIME	COMP.	GRAB	STATION LOCATION																				
W-1-1	7/7/17	1330		X						2	X	In container pH < 2, HCl Ice, Temp < 4°C													
W-2-1	7/7/17	1339		X						2	X														
W-3-1	7/7/17	1340		X						2	X														
W-4-1	7/7/17	1330		X						2	X														
TB-1-1	N/A	N/A		X						2	X														
RELINQUISHED BY (SIGNATURE) <i>[Signature]</i>										DATE/TIME 7/9/17 1645		RECEIVED BY (SIGNATURE) <i>Fed Ex</i>					RELINQUISHED BY (SIGNATURE)		DATE/TIME		RECEIVED BY (SIGNATURE)				
RELINQUISHED BY (SIGNATURE)										DATE/TIME		RECEIVED BY (SIGNATURE)					RELINQUISHED BY (SIGNATURE)		DATE/TIME		RECEIVED BY (SIGNATURE)				
RELINQUISHED BY (SIGNATURE)										DATE/TIME		RECEIVED FOR LABORATORY BY (SIGNATURE)					DATE/TIME		REMARKS <i>Contact James Baxter (716) 292-1870</i>						

Distribution: Original accompanies shipment copy to coordinator field files

RECRA LABNET, a division of Recra Environmental, Inc.

CHAIN OF CUSTODY RECORD

PROJECT NO 705 013 05 01					SITE NAME Fiddle for Leasing		NO OF CONTAINERS	<div style="display: flex; justify-content: space-around;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SW 5010</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SW 5020</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">---</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">---</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">---</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">---</div> </div>						REMARKS
SAMPLERS (SIGNATURE)														
STATION NO	DATE	TIME	COMP	GRAB	STATION LOCATION									
TB-1	8/21/97	1500		X	Trip Blank		2	1	1	-	-	-	-	
W-1-3	↓	↓		X	Primary Inlet		2	1	1	-	-	-	-	
W-2-3	↓	↓		X	Primary Outlet		2	1	1	-	-	-	-	
W-3-3	↓	↓		X	Secondary Outlet		2	1	1	-	-	-	-	
RELINQUISHED BY (SIGNATURE) <i>Scott Daskarich</i>		DATE/TIME 8/21/97 1600		RECEIVED BY (SIGNATURE)			RELINQUISHED BY (SIGNATURE)		DATE/TIME		RECEIVED BY (SIGNATURE)			
RELINQUISHED BY (SIGNATURE)		DATE/TIME		RECEIVED BY (SIGNATURE)			RELINQUISHED BY (SIGNATURE)		DATE/TIME		RECEIVED BY (SIGNATURE)			
RELINQUISHED BY (SIGNATURE)		DATE/TIME		RECEIVED FOR LABORATORY BY (SIGNATURE)			DATE/TIME		REMARKS					

Distribution: Original accompanies shipment copy to coordinator field files

RECRA LABNET, a division of Recra Environmental, Inc.

CHAIN OF CUSTODY RECORD

PROJECT NO 705 013 05 01		SITE NAME Erdle Refractory				NO OF CONTAINERS	<div style="display: flex; justify-content: space-between;"> SW8010 SW8020 </div>					REMARKS
SAMPLERS (SIGNATURE):												
STATION NO	DATE	TIME	COMP	GRAB	STATION LOCATION							
TB-1	7/24	1500		X	Trip Blank	2	1	1	-	-	-	Preservation: pH < 2
W-1-4		505		X	Primary Inlet	2	1	1				Ice, T < 4°C
W-2-4		1510		X	Primary Outlet	2	1	1	-	-	-	
W-3-4		515		X	Secondary Outlet	2	1	1				
W-4-4		520		X		2	1	1				
RELINQUISHED BY (SIGNATURE) Gott		DATE/TIME 7/20/07 10:00		RECEIVED BY (SIGNATURE) K. Cox		RELINQUISHED BY (SIGNATURE)		DATE/TIME		RECEIVED BY (SIGNATURE)		
RELINQUISHED BY (SIGNATURE)		DATE/TIME		RECEIVED BY (SIGNATURE)		RELINQUISHED BY (SIGNATURE)		DATE/TIME		RECEIVED BY (SIGNATURE)		
RELINQUISHED BY (SIGNATURE)		DATE/TIME		RECEIVED FOR LABORATORY BY (SIGNATURE)		DATE/TIME		REMARKS Contact James Baxter 716 292 1870				

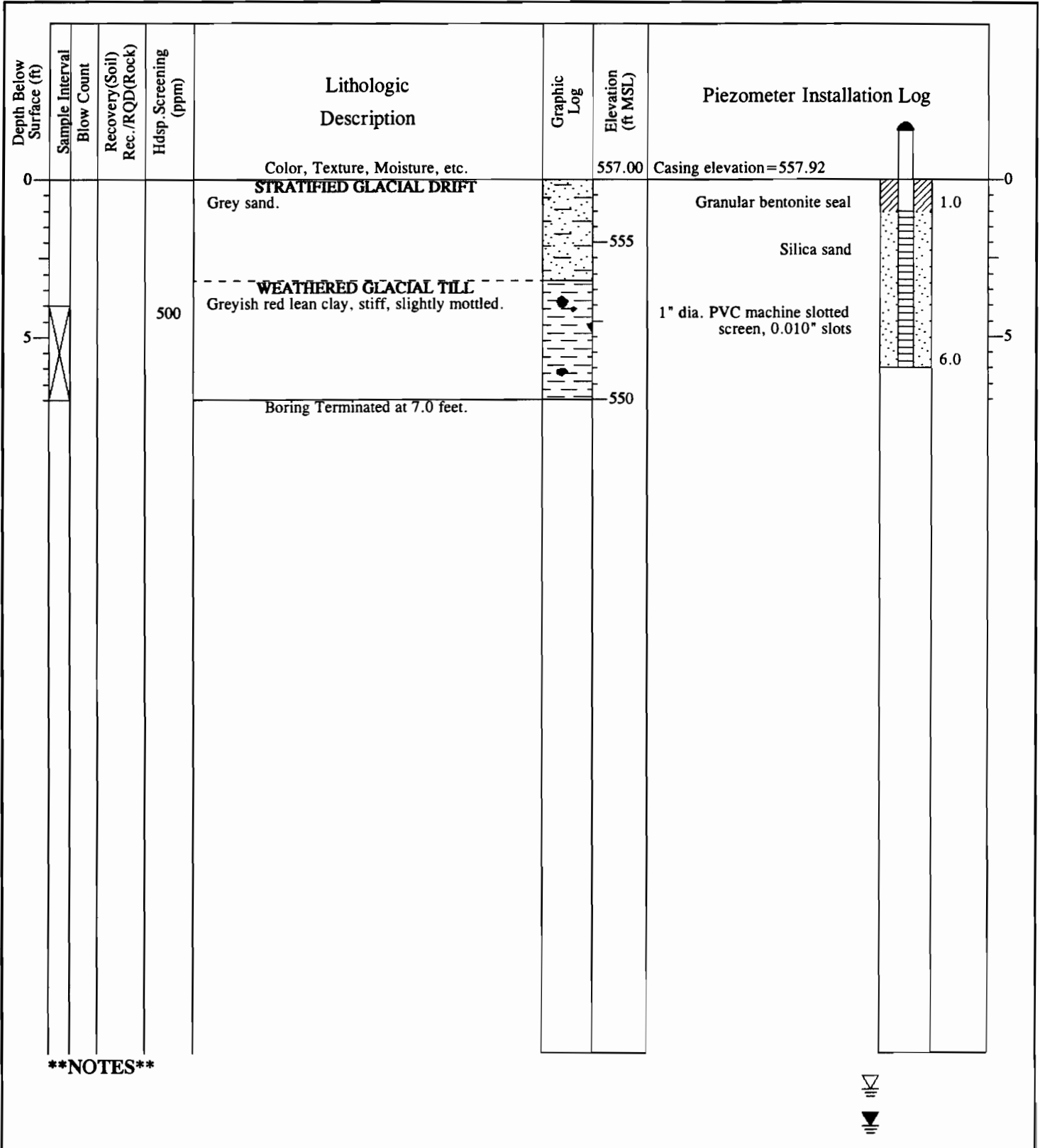
Distribution: Original accompanies shipment copy to coordinator field files

DRAFT

Appendix E: Soil Boring Logs for CB-1, CB-2, CB-3, CB-4, and CB-5

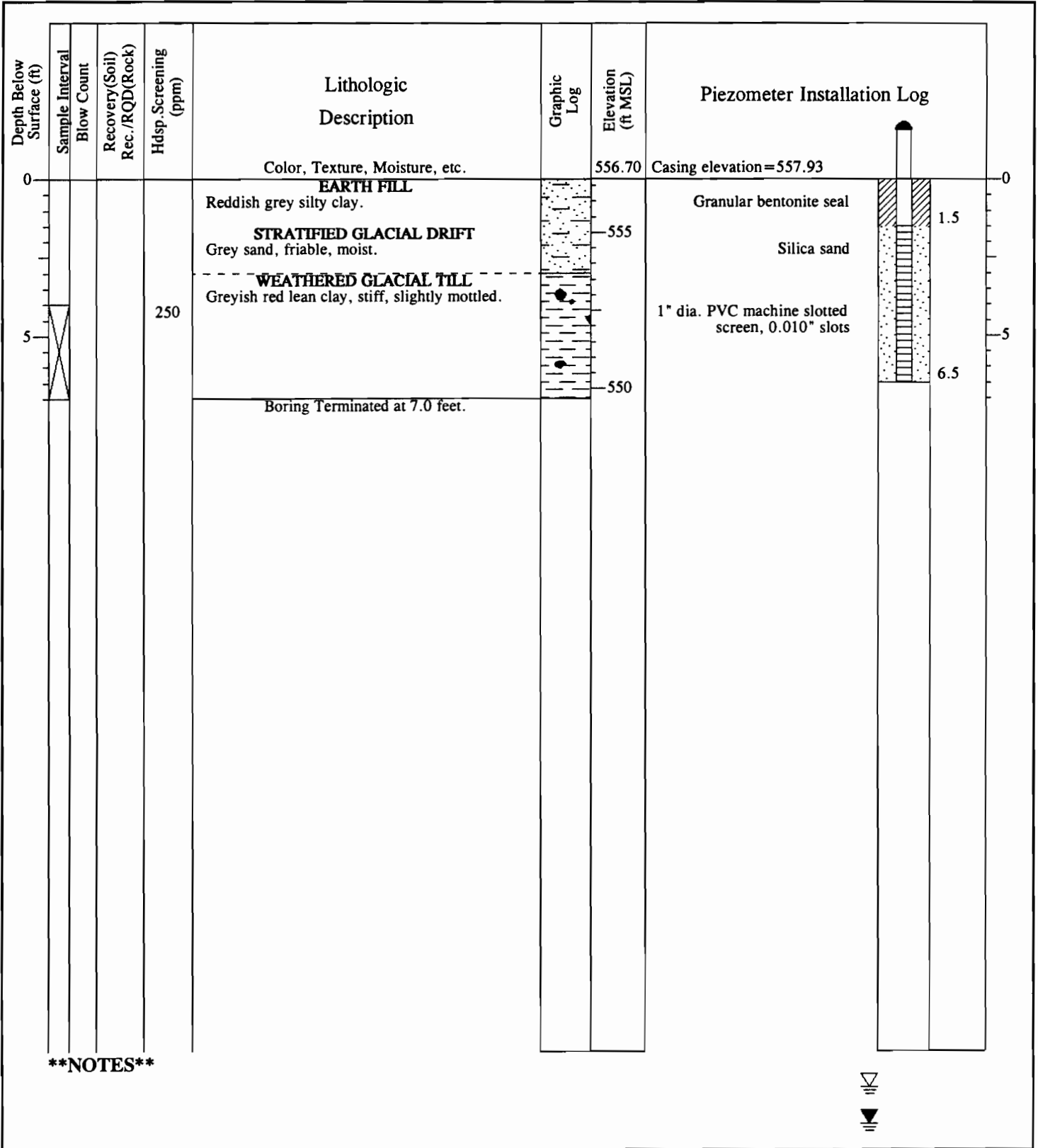
LOG OF DRILLING OPERATIONS

PROJECT	2-PHASE Extraction IRM		LOCATION	Erdle Facility	
TOTAL DEPTH	7.00	START DATE	10/9/97	FINISH DATE	10/9/97
GEOLOGIST	Baxter	APPROVED BY	N/A	R.G.#	N/A
DRILLING COMPANY	Marcor		DRILLER	Marcor	
DRILLING METHOD	Direct Push (Geoprobe)		EQUIPMENT	Geoprobe	
DRILL BIT TYPE AND SIZE					
BORING LOCATION (ST. ADDRESS OR DESCRIPTION)					



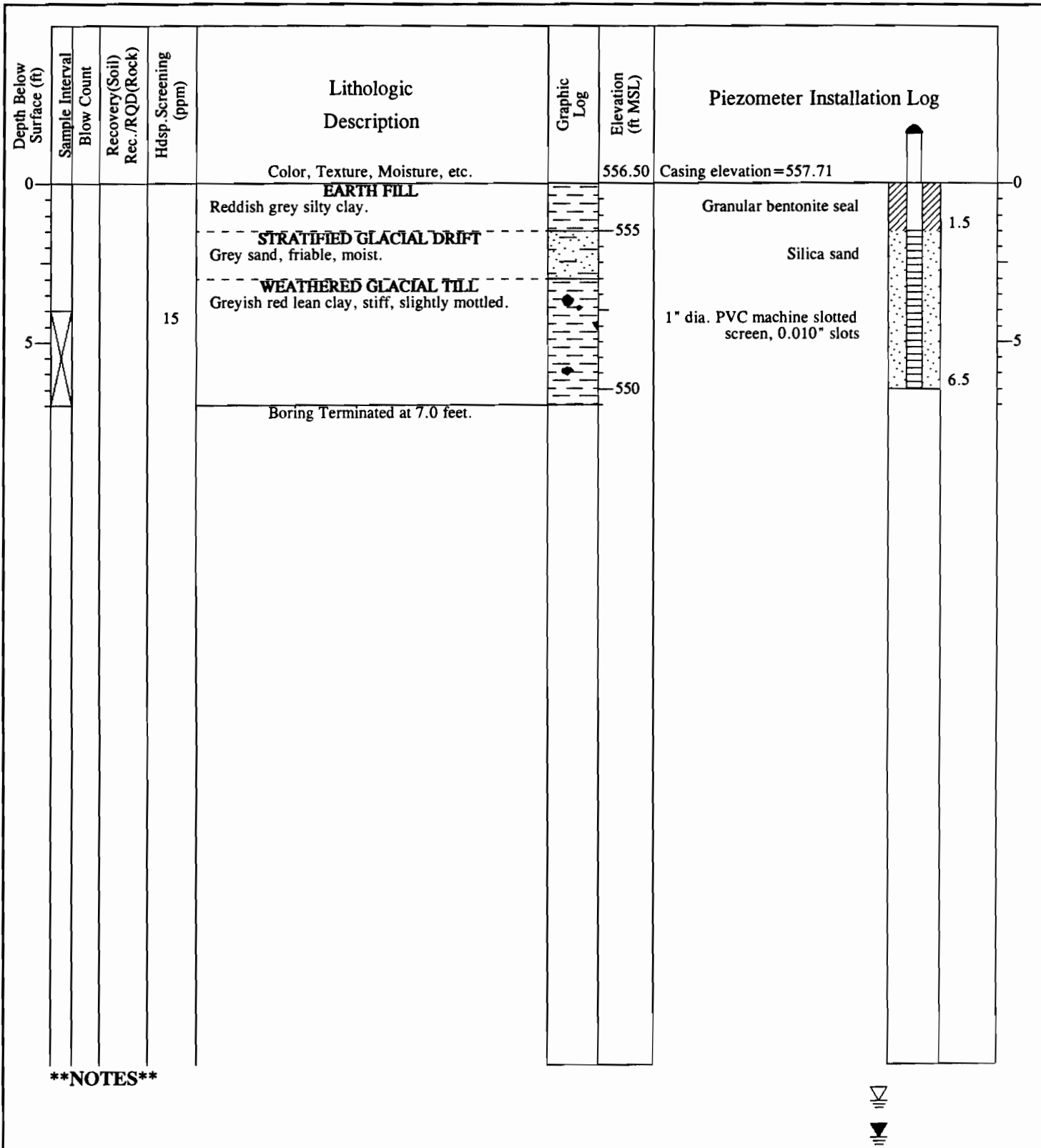
LOG OF DRILLING OPERATIONS

PROJECT	2-PHASE Extraction IRM	LOCATION	Erdle Facility
TOTAL DEPTH	7.00	START DATE	10/9/97
GEOLOGIST	Baxter	APPROVED BY	N/A
DRILLING COMPANY	Marcor	DRILLER	Marcor
DRILLING METHOD	Direct Push (Geoprobe)	EQUIPMENT	Geoprobe
DRILL BIT TYPE AND SIZE			
BORING LOCATION (ST. ADDRESS OR DESCRIPTION)			



LOG OF DRILLING OPERATIONS

PROJECT	2-PHASE Extraction IRM		LOCATION	Erdle Facility	
TOTAL DEPTH	7.00	START DATE	10/9/97	FINISH DATE	10/9/97
GEOLOGIST	Baxter	APPROVED BY	N/A	R.G.#	N/A
DRILLING COMPANY	Marcor		DRILLER	Marcor	
DRILLING METHOD	Direct Push (Geoprobe)		EQUIPMENT	Geoprobe	
DRILL BIT TYPE AND SIZE					
BORING LOCATION (ST. ADDRESS OR DESCRIPTION)					

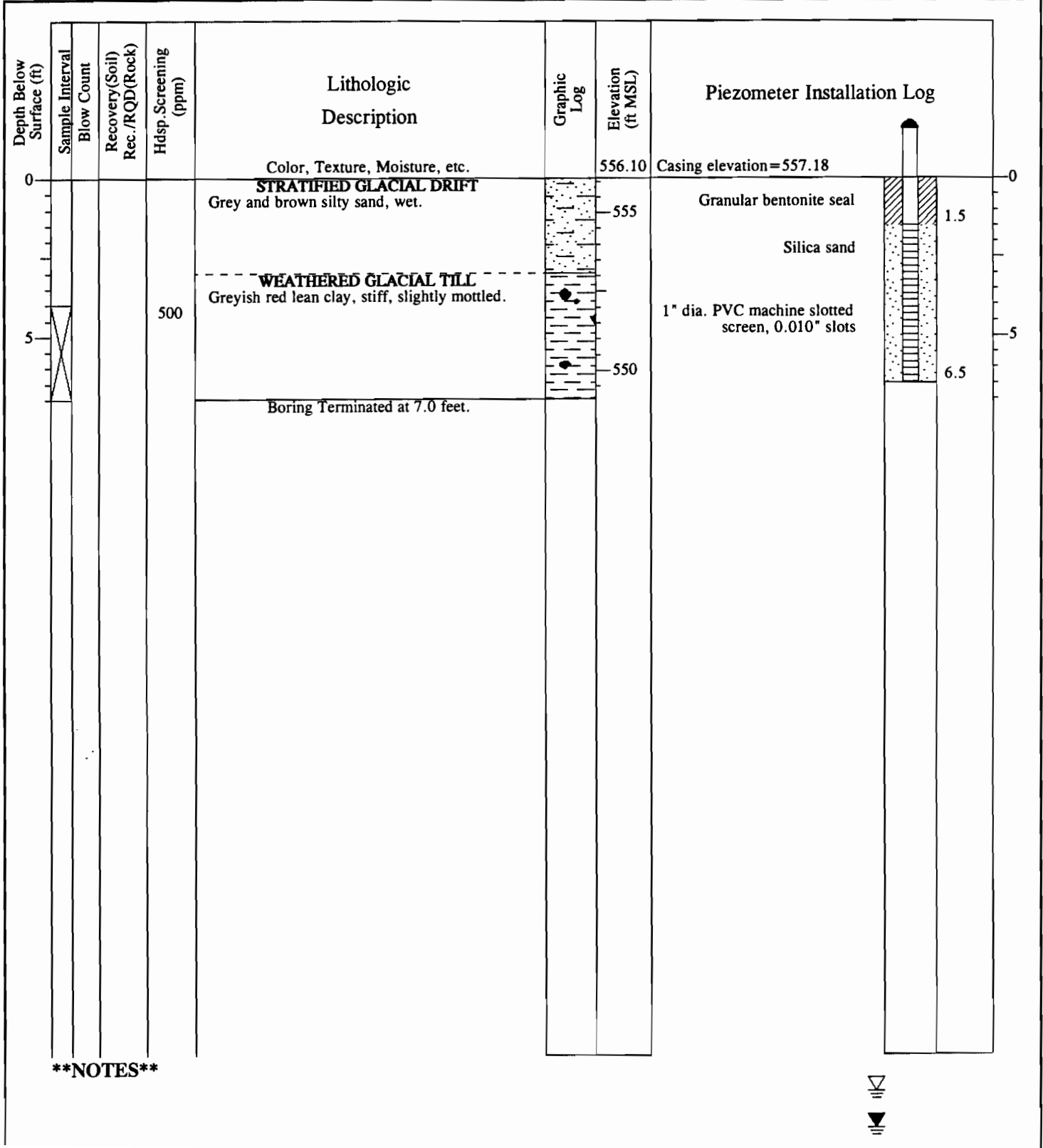


****NOTES****



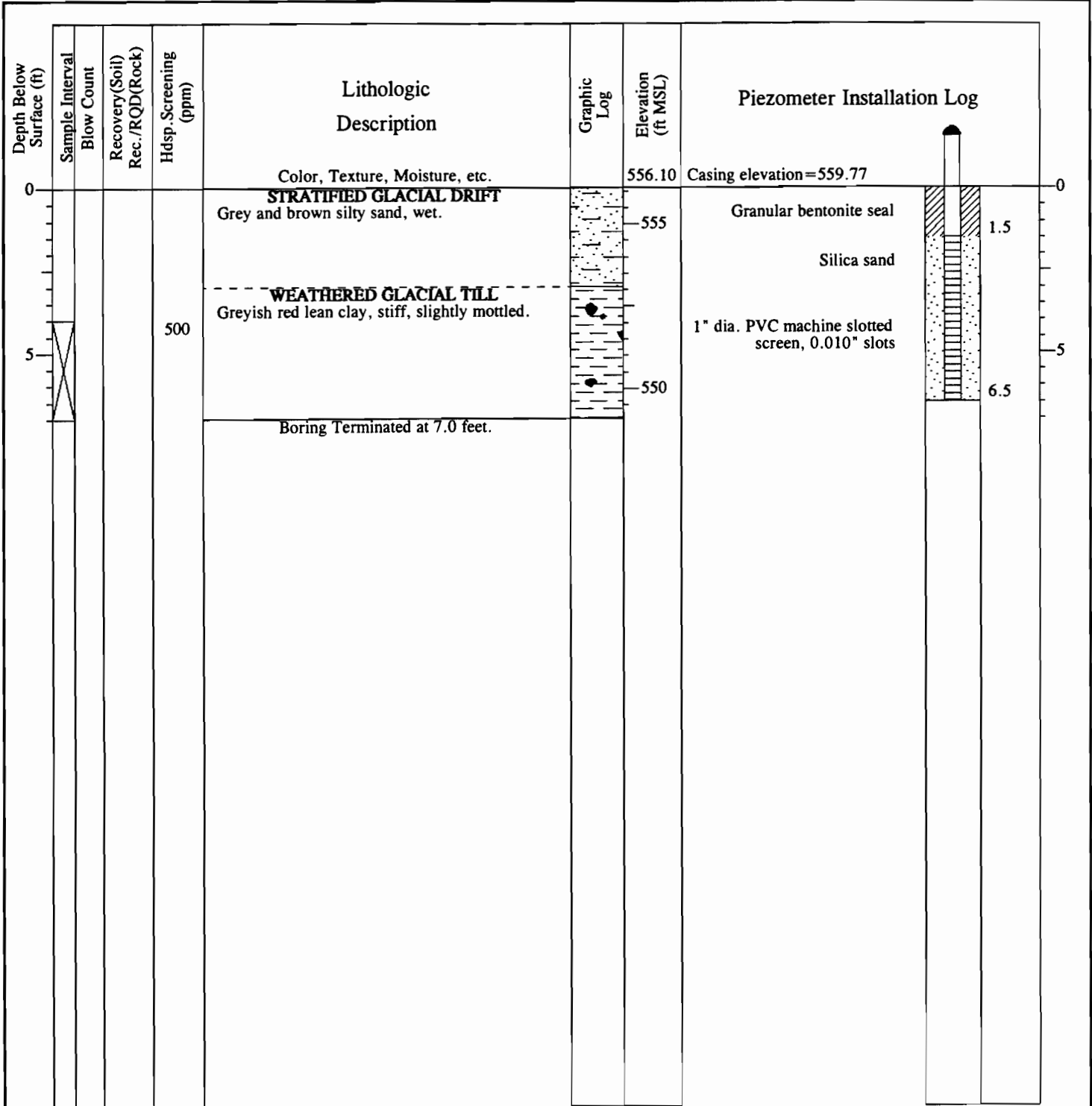
LOG OF DRILLING OPERATIONS

PROJECT	2-PHASE Extraction IRM		LOCATION	Erdle Facility	
TOTAL DEPTH	7.00	START DATE	10/9/97	FINISH DATE	10/9/97
GEOLOGIST	Baxter	APPROVED BY	N/A	R.G.#	N/A
DRILLING COMPANY	Marcor		DRILLER	Marcor	
DRILLING METHOD	Direct Push (Geoprobe)		EQUIPMENT	Geoprobe	
DRILL BIT TYPE AND SIZE					
BORING LOCATION (ST. ADDRESS OR DESCRIPTION)					



LOG OF DRILLING OPERATIONS

PROJECT	2-PHASE Extraction IRM	LOCATION	Erdle Facility
TOTAL DEPTH	7.00	START DATE	10/9/97
		FINISH DATE	10/9/97
GEOLOGIST	Baxter	APPROVED BY	N/A
		R.G.#	N/A
DRILLING COMPANY	Marcor	DRILLER	Marcor
DRILLING METHOD	Direct Push (Geoprobe)	EQUIPMENT	Geoprobe
DRILL BIT TYPE AND SIZE			
BORING LOCATION (ST. ADDRESS OR DESCRIPTION)			



****NOTES****



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Appendix F: Quarterly Groundwater Analytical Results

RADIANT CORPORATION
 ERDLE SITE
 METHOD 8010 - HALOGENATED VOLATILE ORGANICS
 ANALYSIS DATA SHEET

0 08

Client No.

MW-1

Name: Recra LabNet Contract: _____

Code: RECN Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: A7362203

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: OB12196.TX0

Level: (low/med) Low Date Samp/Recv: 10/08/97 10/09/97

Moisture: not dec. _____ Date Analyzed: 10/16/97

Column: DB624 Dia: 0.53 (mm) Dilution Factor: 1000.00

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/L Q

AS NO.	COMPOUND	UG/L	Q
5-27-4-----	Bromodichloromethane	200	U
5-25-2-----	Bromoform	800	U
4-83-9-----	Bromomethane	800	U
6-23-5-----	Carbon Tetrachloride	200	U
08-90-7-----	Chlorobenzene	400	U
5-00-3-----	Chloroethane	800	U
10-75-8-----	2-Chloroethylvinyl ether	500	U
7-66-3-----	Chloroform	200	U
4-87-3-----	Chloromethane	500	U
24-48-1-----	Dibromochloromethane	200	U
5-50-1-----	1,2-Dichlorobenzene	200	U
41-73-1-----	1,3-Dichlorobenzene	200	U
06-46-7-----	1,4-Dichlorobenzene	200	U
5-34-3-----	1,1-Dichloroethane	200	U
07-06-2-----	1,2-Dichloroethane	200	U
5-35-4-----	1,1-Dichloroethene	200	U
56-60-5-----	trans-1,2-Dichloroethene	200	U
8-87-5-----	1,2-Dichloropropane	610	U
0061-01-5----	cis-1,3-Dichloropropene	200	U
0061-02-6----	trans-1,3-Dichloropropene	200	U
5-09-2-----	Methylene chloride	520	U
9-34-5-----	1,1,2,2-Tetrachloroethane	200	U
27-18-4-----	Tetrachloroethene	200	U
1-55-6-----	1,1,1-Trichloroethane	200	U
9-00-5-----	1,1,2-Trichloroethane	200	U
9-01-6-----	Trichloroethene	460	U
5-69-4-----	Trichlorofluoromethane	200	U
5-01-4-----	Vinyl chloride	1400	U

RADIANT CORPORATION
 ERDLE SITE
 METHOD 8010 - HALOGENATED VOLATILE ORGANICS
 ANALYSIS DATA SHEET

0 09

Client No.

MW-1D

Name: Recra LabNet Contract: _____

Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: A7362202

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: 0B12186.TX0

Level: (low/med) Low Date Samp/Recv: 10/08/97 10/09/97

Moisture: not dec. _____ Date Analyzed: 10/15/97

Column: DB624 Dia: 0.53 (mm) Dilution Factor: 20.00

1 Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

S NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
5-27-4-----	Bromodichloromethane		4.0	U
5-25-2-----	Bromoform		16	U
1-83-9-----	Bromomethane		16	U
6-23-5-----	Carbon Tetrachloride		4.0	U
08-90-7-----	Chlorobenzene		8.0	U
5-00-3-----	Chloroethane		16	U
10-75-8-----	2-Chloroethylvinyl ether		10	U
7-66-3-----	Chloroform		4.0	U
4-87-3-----	Chloromethane		10	U
24-48-1-----	Dibromochloromethane		4.0	U
5-50-1-----	1,2-Dichlorobenzene		4.0	U
41-73-1-----	1,3-Dichlorobenzene		4.0	U
06-46-7-----	1,4-Dichlorobenzene		4.0	U
5-34-3-----	1,1-Dichloroethane		4.0	U
07-06-2-----	1,2-Dichloroethane		4.0	U
5-35-4-----	1,1-Dichloroethene		4.0	U
56-60-5-----	trans-1,2-Dichloroethene		4.0	U
8-87-5-----	1,2-Dichloropropane		4.0	U
0061-01-5----	cis-1,3-Dichloropropene		4.0	U
0061-02-6----	trans-1,3-Dichloropropene		4.0	U
5-09-2-----	Methylene chloride		5.7	
79-34-5-----	1,1,2,2-Tetrachloroethane		4.0	U
27-18-4-----	Tetrachloroethene		4.0	U
1-55-6-----	1,1,1-Trichloroethane		5.6	
79-00-5-----	1,1,2-Trichloroethane		4.0	U
79-01-6-----	Trichloroethene		270	
5-69-4-----	Trichlorofluoromethane		4.0	U
5-01-4-----	Vinyl chloride		16	

RADIAN CORPORATION
 ERDLE SITE
 METHOD 8010 - HALOGENATED VOLATILE ORGANICS
 ANALYSIS DATA SHEET

0 10

Client No.

MW-3

Name: Recra LabNet

Contract: _____

Code: RECN

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) WATER

Lab Sample ID: A7362206

Sample wt/vol: 5.00 (g/mL) ML

Lab File ID: 0B12202.TX0

Level: (low/med) Low

Date Samp/Recv: 10/08/97 10/09/97

Moisture: not dec. _____

Date Analyzed: 10/16/97

Column: DB624 Dia: 0.53 (mm)

Dilution Factor: 20000.00

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:

AS NO.	COMPOUND	(ug/L or ug/Kg)	UG/L	Q
75-27-4-----	Bromodichloromethane		4000	U
75-25-2-----	Bromoform		16000	U
4-83-9-----	Bromomethane		16000	U
6-23-5-----	Carbon Tetrachloride		4000	U
108-90-7-----	Chlorobenzene		8000	U
5-00-3-----	Chloroethane		16000	U
10-75-8-----	2-Chloroethylvinyl ether		10000	U
57-66-3-----	Chloroform		4000	U
74-87-3-----	Chloromethane		10000	U
24-48-1-----	Dibromochloromethane		4000	U
5-50-1-----	1,2-Dichlorobenzene		4000	U
541-73-1-----	1,3-Dichlorobenzene		4000	U
06-46-7-----	1,4-Dichlorobenzene		4000	U
5-34-3-----	1,1-Dichloroethane		4000	U
107-06-2-----	1,2-Dichloroethane		4000	U
75-35-4-----	1,1-Dichloroethene		4000	U
56-60-5-----	trans-1,2-Dichloroethene		4000	U
78-87-5-----	1,2-Dichloropropane		4000	U
10061-01-5-----	cis-1,3-Dichloropropene		4000	U
10061-02-6-----	trans-1,3-Dichloropropene		4000	U
75-09-2-----	Methylene chloride		9000	
79-34-5-----	1,1,2,2-Tetrachloroethane		4000	U
127-18-4-----	Tetrachloroethene		4000	U
71-55-6-----	1,1,1-Trichloroethane		4000	U
79-00-5-----	1,1,2-Trichloroethane		4000	U
79-01-6-----	Trichloroethene		310000	
75-69-4-----	Trichlorofluoromethane		4000	U
75-01-4-----	Vinyl chloride		16000	U

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RADIANT CORPORATION
 ERDLE SITE
 METHOD 8010 - HALOGENATED VOLATILE ORGANICS
 ANALYSIS DATA SHEET

Client No.

MW-3D

Name: Recra LabNet Contract: _____

Code: RECN Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: A7362205

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: 0B12188.TX0

Level: (low/med) Low Date Samp/Recv: 10/08/97 10/09/97

Moisture: not dec. _____ Date Analyzed: 10/15/97

Column: DB624 Dia: 0.53 (mm) Dilution Factor: 10.00

El Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg)

AS NO.	COMPOUND	UG/L	Q
5-27-4	Bromodichloromethane	2.0	U
5-25-2	Bromoform	8.0	U
1-83-9	Bromomethane	8.0	U
5-23-5	Carbon Tetrachloride	2.0	U
08-90-7	Chlorobenzene	4.0	U
5-00-3	Chloroethane	8.0	U
10-75-8	2-Chloroethylvinyl ether	5.0	U
7-66-3	Chloroform	2.0	U
4-87-3	Chloromethane	5.0	U
24-48-1	Dibromochloromethane	2.0	U
5-50-1	1,2-Dichlorobenzene	2.0	U
41-73-1	1,3-Dichlorobenzene	2.0	U
06-46-7	1,4-Dichlorobenzene	2.0	U
5-34-3	1,1-Dichloroethane	2.0	U
07-06-2	1,2-Dichloroethane	2.0	U
5-35-4	1,1-Dichloroethene	2.0	U
56-60-5	trans-1,2-Dichloroethene	2.0	U
8-87-5	1,2-Dichloropropane	2.0	U
0061-01-5	cis-1,3-Dichloropropene	2.0	U
0061-02-6	trans-1,3-Dichloropropene	2.0	U
5-09-2	Methylene chloride	2.7	
9-34-5	1,1,2,2-Tetrachloroethane	2.0	U
27-18-4	Tetrachloroethene	2.0	U
1-55-6	1,1,1-Trichloroethane	3.1	
9-00-5	1,1,2-Trichloroethane	2.0	U
9-01-6	Trichloroethene	51	
5-69-4	Trichlorofluoromethane	2.0	U
5-01-4	Vinyl chloride	8.0	U

RADIANT CORPORATION
 ERDLE SITE
 METHOD 8010 - HALOGENATED VOLATILE ORGANICS
 ANALYSIS DATA SHEET

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Client No.

MW-6D

Name: Recra LabNet Contract: _____

Code: RECN Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: A7362201
 Sample wt/vol: 5.00 (g/mL) ML Lab File ID: 0B12176.TX0
 Level: (low/med) Low Date Samp/Recv: 10/08/97 10/09/97
 Moisture: not dec. _____ Date Analyzed: 10/15/97
 Column: DB624 Dia: 0.53 (mm) Dilution Factor: 1.00
 1 Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/L Q

SAS NO.	COMPOUND	UG/L	Q
5-27-4	Bromodichloromethane	0.20	U
5-25-2	Bromoform	1.0	U
1-83-9	Bromomethane	1.0	U
5-23-5	Carbon Tetrachloride	0.20	U
08-90-7	Chlorobenzene	0.40	U
5-00-3	Chloroethane	1.0	U
10-75-8	2-Chloroethylvinyl ether	1.0	U
7-66-3	Chloroform	0.20	U
4-87-3	Chloromethane	1.0	U
24-48-1	Dibromochloromethane	0.20	U
5-50-1	1,2-Dichlorobenzene	0.40	U
41-73-1	1,3-Dichlorobenzene	0.40	U
06-46-7	1,4-Dichlorobenzene	0.40	U
5-34-3	1,1-Dichloroethane	0.20	U
07-06-2	1,2-Dichloroethane	0.20	U
5-35-4	1,1-Dichloroethene	0.20	U
56-60-5	trans-1,2-Dichloroethene	0.20	U
8-87-5	1,2-Dichloropropane	0.20	U
0061-01-5	cis-1,3-Dichloropropene	0.20	U
0061-02-6	trans-1,3-Dichloropropene	0.20	U
5-09-2	Methylene chloride	0.20	U
9-34-5	1,1,2,2-Tetrachloroethane	0.20	U
27-18-4	Tetrachloroethene	0.20	U
1-55-6	1,1,1-Trichloroethane	0.20	U
79-00-5	1,1,2-Trichloroethane	0.20	U
79-01-6	Trichloroethene	0.20	U
5-69-4	Trichlorofluoromethane	0.20	U
5-01-4	Vinyl chloride	1.0	U

RADIANT CORPORATION
 ERDLE SITE
 METHOD 8010 - HALOGENATED VOLATILE ORGANICS
 ANALYSIS DATA SHEET

0 13

Client No.

MW-7

Name: Recra LabNet Contract: _____

Code: RECN Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) WATER Lab Sample ID: A7362204

Sample wt/vol: 5.00 (g/mL) ML Lab File ID: 0B12187.TX0

Level: (low/med) Low Date Samp/Recv: 10/08/97 10/09/97

Moisture: not dec. _____ Date Analyzed: 10/15/97

Column: DB624 Dia: 0.53 (mm) Dilution Factor: 20.00

1 Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg)

AS NO.	COMPOUND	UG/L	Q
5-27-4	Bromodichloromethane	4.0	U
5-25-2	Bromoform	16	U
1-83-9	Bromomethane	16	U
5-23-5	Carbon Tetrachloride	4.0	U
08-90-7	Chlorobenzene	8.0	U
5-00-3	Chloroethane	16	U
10-75-8	2-Chloroethylvinyl ether	10	U
7-66-3	Chloroform	4.0	U
4-87-3	Chloromethane	10	U
24-48-1	Dibromochloromethane	4.0	U
5-50-1	1,2-Dichlorobenzene	4.0	U
41-73-1	1,3-Dichlorobenzene	4.0	U
06-46-7	1,4-Dichlorobenzene	4.0	U
5-34-3	1,1-Dichloroethane	4.0	U
07-06-2	1,2-Dichloroethane	4.0	U
5-35-4	1,1-Dichloroethene	4.0	U
56-60-5	trans-1,2-Dichloroethene	4.0	U
8-87-5	1,2-Dichloropropane	4.0	U
0061-01-5	cis-1,3-Dichloropropene	4.0	U
0061-02-6	trans-1,3-Dichloropropene	4.0	U
5-09-2	Methylene chloride	5.6	
9-34-5	1,1,2,2-Tetrachloroethane	4.0	U
27-18-4	Tetrachloroethene	4.0	U
1-55-6	1,1,1-Trichloroethane	5.3	
9-00-5	1,1,2-Trichloroethane	4.0	U
9-01-6	Trichloroethene	270	
5-69-4	Trichlorofluoromethane	4.0	U
5-01-4	Vinyl chloride	16	

Chain of Custody Record

PROJECT Erdle Pooling IRM				MS/MSD	NO. OF CONTAINERS	ANALYSES										REMARKS		
SITE																		
PREPARED BY (Signature) <i>[Signature]</i>																		
FIELD SAMPLE I.D.	SAMPLE MATRIX	DATE/TIME																
MU-6D	Water	10/1/97	11:35	2	X	X												
MU-1D		10/1/97	12:07	2	X	X												
MU-1		10/1/97	12:15	2	X	X												Potentially "h1"
MU-7		10/1/97	12:20	2	X	X												
MU-1 MS/MSD		10/1/97	12:15	X	2	X	X											MS/MSD
MU-10		10/1/97	12:35	2	X	X												Potentially "hot"
MU-3	↓	10/1/97	12:40	2	X	X												"
TB-21				2	X	X												
REMARKS												RELINQUISHED BY: <i>[Signature]</i>	DATE 10/1/97	TIME 15:15				
RECEIVED BY: <i>[Signature]</i>	DATE 10/1/97	TIME 12:45	RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME							

LAB USE ONLY

RECEIVED FOR LABORATORY BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP°C	SEAL #	CONDITION
REMARKS:									

DRAFT

Appendix G: Quarterly Soil Boring Analytical Results

RADIAN CORPORATION
 ERDLIE SITE
 METHOD 8010 - HALOGENATED VOLATILE ORGANICS
 ANALYSIS DATA SHEET

0008

Client No.

CB-1

Lab Name: Recra LabNet

Contract: _____

Lab Code: RECNV Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: A7364001

Sample wt/vol: 10.12 (g/mL) G Lab File ID: _____

Level: (low/med) Med Date Samp/Recv: 10/09/97 10/10/97

Moisture: not dec. 17.6 Date Analyzed: 10/11/97

Column: DB624 Dia: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100.00 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
5-27-4	Bromodichloromethane		12	U
75-25-2	Bromoform		50	U
74-83-9	Bromomethane		50	U
66-23-5	Carbon Tetrachloride		12	U
108-90-7	Chlorobenzene		24	U
75-00-3	Chloroethane		50	U
10-75-8	2-Chloroethylvinyl ether		50	U
67-66-3	Chloroform		12	U
74-87-3	Chloromethane		50	U
124-48-1	Dibromochloromethane		12	U
95-50-1	1,2-Dichlorobenzene		20	U
541-73-1	1,3-Dichlorobenzene		20	U
106-46-7	1,4-Dichlorobenzene		20	U
75-34-3	1,1-Dichloroethane		69	
107-06-2	1,2-Dichloroethane		12	U
75-35-4	1,1-Dichloroethene		45	
156-60-5	trans-1,2-Dichloroethene		63	
78-87-5	1,2-Dichloropropane		12	U
10061-01-5	cis-1,3-Dichloropropene		12	U
10061-02-6	trans-1,3-Dichloropropene		12	U
75-09-2	Methylene chloride		22	
79-34-5	1,1,2,2-Tetrachloroethane		12	U
127-18-4	Tetrachloroethene		12	U
71-55-6	1,1,1-Trichloroethane		12	U
79-00-5	1,1,2-Trichloroethane		12	U
79-01-6	Trichloroethene		1000	
75-69-4	Trichlorofluoromethane		12	U
75-01-4	Vinyl chloride		1300	

RADIANT CORPORATION
 ERDLE SITE
 METHOD 8020 - AROMATIC VOLATILE ORGANICS
 ANALYSIS DATA SHEET

0009

Client No.

CB-1

Name: Recra LabNet Contract: _____
 Lab Code: RECN Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: A7364001
 Sample wt/vol: 10.12 (g/mL) G Lab File ID: 0A12141.TX0
 Level: (low/med) Med Date Samp/Recv: 10/09/97 10/10/97
 Moisture: not dec. 17.6 Date Analyzed: 10/11/97
 GC Column: DB624 Dia: 0.53 (mm) Dilution Factor: 1.00
 Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100.00 (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg)

CAS NO.	COMPOUND	UG/KG	Q
71-43-2	Benzene	10	U
108-90-7	Chlorobenzene	10	U
105-50-1	1,2-Dichlorobenzene	20	U
105-41-7	1,3-Dichlorobenzene	20	U
106-46-7	1,4-Dichlorobenzene	20	U
100-41-4	Ethylbenzene	10	U
108-88-3	Toluene	10	U
108-38-3	m-Xylene	10	U
105-47-6	o-Xylene	10	U
106-42-3	p-Xylene	10	U

RADIAN CORPORATION
 ERDLE SITE
 METHOD 8010 - HALOGENATED VOLATILE ORGANICS
 ANALYSIS DATA SHEET

0010

Client No.

CB-2

Name: Recra LabNet Contract: _____

Code: RECNY Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: A7364002

Sample wt/vol: 5.10 (g/mL) G Lab File ID: _____

Level: (low/med) Med Date Samp/Recv: 10/09/97 10/10/97

Moisture: not dec. 16.5 Date Analyzed: 10/11/97

Column: DB624 Dia: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
75-27-4	Bromodichloromethane		12	U
75-25-2	Bromoform		50	U
4-83-9	Bromomethane		50	U
6-23-5	Carbon Tetrachloride		12	U
108-90-7	Chlorobenzene		23	U
75-00-3	Chloroethane		50	U
10-75-8	2-Chloroethylvinyl ether		50	U
57-66-3	Chloroform		12	U
74-87-3	Chloromethane		50	U
24-48-1	Dibromochloromethane		12	U
95-50-1	1,2-Dichlorobenzene		20	U
541-73-1	1,3-Dichlorobenzene		20	U
106-46-7	1,4-Dichlorobenzene		20	U
75-34-3	1,1-Dichloroethane		12	U
107-06-2	1,2-Dichloroethane		12	U
75-35-4	1,1-Dichloroethene		12	U
156-60-5	trans-1,2-Dichloroethene		18	
78-87-5	1,2-Dichloropropane		220	
10061-01-5	cis-1,3-Dichloropropene		12	U
10061-02-6	trans-1,3-Dichloropropene		12	U
75-09-2	Methylene chloride		21	
79-34-5	1,1,2,2-Tetrachloroethane		12	U
127-18-4	Tetrachloroethene		12	U
71-55-6	1,1,1-Trichloroethane		12	U
79-00-5	1,1,2-Trichloroethane		12	U
79-01-6	Trichloroethene		4200	E
75-69-4	Trichlorofluoromethane		12	U
75-01-4	Vinyl chloride		84	

RADIANT CORPORATION
 ERDLE SITE
 METHOD 8020 - AROMATIC VOLATILE ORGANICS
 ANALYSIS DATA SHEET

0011

Client No.

CB-2

Name: Recra LabNet

Contract: _____

Code: RECN Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: A7364002

Sample wt/vol: 5.10 (g/mL) G Lab File ID: 0A12144.TX0

Level: (low/med) Med Date Samp/Recv: 10/09/97 10/10/97

Moisture: not dec. 16.5 Date Analyzed: 10/11/97

Column: DB624 Dia: 0.53 (mm) Dilution Factor: 1.00

1 Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

CONCENTRATION UNITS:

AS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
08-43-2	Benzene		10	U
08-90-7	Chlorobenzene		10	U
03-50-1	1,2-Dichlorobenzene		20	U
01-73-1	1,3-Dichlorobenzene		20	U
06-46-7	1,4-Dichlorobenzene		20	U
00-41-4	Ethylbenzene		10	U
08-88-3	Toluene		10	U
08-38-3	m-Xylene		10	U
05-47-6	o-Xylene		10	U
06-42-3	p-Xylene		10	U

RADIAN CORPORATION
 ERDLE SITE
 METHOD 8010 - HALOGENATED VOLATILE ORGANICS
 ANALYSIS DATA SHEET

0012

Client No.

CB-2

Name: Recra LabNet

Contract: _____

Code: RECN

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: A7364002DL

Sample wt/vol: 5.90 (g/mL) G

Lab File ID: _____

Level: (low/med) Med

Date Samp/Recv: 10/09/97 10/10/97

Moisture: not dec. 16.5

Date Analyzed: 10/11/97

Column: DB624 Dia: 0.53 (mm)

Dilution Factor: 5.00

Soil Extract Volume: 5000 (uL)

Soil Aliquot Volume: 100.00 (uL)

CONCENTRATION UNITS:

AS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

AS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
75-27-4	Bromodichloromethane		51	U
75-25-2	Bromoform		200	U
4-83-9	Bromomethane		200	U
6-23-5	Carbon Tetrachloride		51	U
108-90-7	Chlorobenzene		100	U
75-00-3	Chloroethane		200	U
10-75-8	2-Chloroethylvinyl ether		130	U
57-66-3	Chloroform		51	U
74-87-3	Chloromethane		130	U
24-48-1	Dibromochloromethane		51	U
5-50-1	1,2-Dichlorobenzene		51	U
541-73-1	1,3-Dichlorobenzene		51	U
106-46-7	1,4-Dichlorobenzene		51	U
5-34-3	1,1-Dichloroethane		51	U
107-06-2	1,2-Dichloroethane		51	U
75-35-4	1,1-Dichloroethene		51	U
156-60-5	trans-1,2-Dichloroethene		51	U
78-87-5	1,2-Dichloropropane		51	U
10061-01-5	cis-1,3-Dichloropropene		51	U
10061-02-6	trans-1,3-Dichloropropene		51	U
75-09-2	Methylene chloride		60	
79-34-5	1,1,2,2-Tetrachloroethane		51	U
127-18-4	Tetrachloroethene		51	U
71-55-6	1,1,1-Trichloroethane		51	U
79-00-5	1,1,2-Trichloroethane		51	U
79-01-6	Trichloroethene		4000	
75-69-4	Trichlorofluoromethane		51	U
75-01-4	Vinyl chloride		200	U

0013

RADIANT CORPORATION
 ERDLE SITE
 METHOD 8010 - HALOGENATED VOLATILE ORGANICS
 ANALYSIS DATA SHEET

Client No.

CB-3

Lab Name: Recra LabNet Contract: _____

Lab Code: RECN Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: A7364003

Sample wt/vol: 5.90 (g/mL) G Lab File ID: _____

Level: (low/med) Med Date Samp/Recv: 10/09/97 10/10/97

Moisture: not dec. 17.5 Date Analyzed: 10/11/97

Column: DB624 Dia: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
75-27-4	Bromodichloromethane		10	U
75-25-2	Bromoform		50	U
74-83-9	Bromomethane		50	U
56-23-5	Carbon Tetrachloride		10	U
108-90-7	Chlorobenzene		20	U
75-00-3	Chloroethane		50	U
110-75-8	2-Chloroethylvinyl ether		50	U
67-66-3	Chloroform		10	U
74-87-3	Chloromethane		50	U
124-48-1	Dibromochloromethane		10	U
95-50-1	1,2-Dichlorobenzene		20	U
541-73-1	1,3-Dichlorobenzene		20	U
106-46-7	1,4-Dichlorobenzene		20	U
75-34-3	1,1-Dichloroethane		10	U
107-06-2	1,2-Dichloroethane		10	U
75-35-4	1,1-Dichloroethene		10	U
156-60-5	trans-1,2-Dichloroethene		10	U
78-87-5	1,2-Dichloropropane		10	U
10061-01-5	cis-1,3-Dichloropropene		10	U
10061-02-6	trans-1,3-Dichloropropene		10	U
75-09-2	Methylene chloride		10	U
79-34-5	1,1,2,2-Tetrachloroethane		10	U
127-18-4	Tetrachloroethene		10	U
71-55-6	1,1,1-Trichloroethane		10	U
79-00-5	1,1,2-Trichloroethane		10	U
79-01-6	Trichloroethene		77	U
75-69-4	Trichlorofluoromethane		10	U
75-01-4	Vinyl chloride		50	U

RADIANT CORPORATION
 ERDLE SITE
 METHOD 8020 - AROMATIC VOLATILE ORGANICS
 ANALYSIS DATA SHEET

0.14

Client No.

CB-3

Name: Recra LabNet Contract: _____
 Code: RECN Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: A7364003
 Sample wt/vol: 5.09 (g/mL) G Lab File ID: 0A12145.TX0
 Level: (low/med) Med Date Samp/Recv: 10/09/97 10/10/97
 Moisture: not dec. 17.5 Date Analyzed: 10/11/97
 Column: DB624 Dia: 0.53 (mm) Dilution Factor: 1.00
 Final Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg)

AS NO.	COMPOUND	UG/KG	Q
1-43-2-----	Benzene	10	U
08-90-7-----	Chlorobenzene	10	U
05-50-1-----	1,2-Dichlorobenzene	20	U
41-73-1-----	1,3-Dichlorobenzene	20	U
06-46-7-----	1,4-Dichlorobenzene	20	U
00-41-4-----	Ethylbenzene	10	U
08-88-3-----	Toluene	10	U
08-38-3-----	m-Xylene	10	U
5-47-6-----	o-Xylene	10	U
06-42-3-----	p-Xylene	10	U

RADIANT CORPORATION
 ERDLE SITE
 METHOD 8010 - HALOGENATED VOLATILE ORGANICS
 ANALYSIS DATA SHEET

0015

Client No.

CB-4

Name: Recra LabNet

Contract: _____

Code: RECN

Case No.: _____

SAS No.: _____

SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: A7364004

Sample wt/vol: 5.15 (g/mL) G

Lab File ID: _____

Level: (low/med) Med

Date Samp/Recv: 10/09/97 10/10/97

Moisture: not dec. 18.3

Date Analyzed: 10/11/97

Column: DB624 Dia: 0.53 (mm)

Dilution Factor: 1.00

Soil Extract Volume: 5000 (uL)

Soil Aliquot Volume: 100.00 (uL)

CONCENTRATION UNITS:

AS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
75-27-4-----	Bromodichloromethane		12	U
75-25-2-----	Bromoform		50	U
4-83-9-----	Bromomethane		50	U
76-23-5-----	Carbon Tetrachloride		12	U
108-90-7-----	Chlorobenzene		24	U
5-00-3-----	Chloroethane		50	U
10-75-8-----	2-Chloroethylvinyl ether		50	U
57-66-3-----	Chloroform		12	U
74-87-3-----	Chloromethane		50	U
24-48-1-----	Dibromochloromethane		12	U
75-50-1-----	1,2-Dichlorobenzene		20	U
541-73-1-----	1,3-Dichlorobenzene		20	U
06-46-7-----	1,4-Dichlorobenzene		20	U
5-34-3-----	1,1-Dichloroethane		12	U
107-06-2-----	1,2-Dichloroethane		12	U
75-35-4-----	1,1-Dichloroethene		12	U
156-60-5-----	trans-1,2-Dichloroethene		93	
78-87-5-----	1,2-Dichloropropane		12	U
10061-01-5----	cis-1,3-Dichloropropene		12	U
10061-02-6----	trans-1,3-Dichloropropene		12	U
75-09-2-----	Methylene chloride		25	
79-34-5-----	1,1,2,2-Tetrachloroethane		12	U
127-18-4-----	Tetrachloroethene		170	
71-55-6-----	1,1,1-Trichloroethane		12	U
79-00-5-----	1,1,2-Trichloroethane		430	
79-01-6-----	Trichloroethene		34000	E
75-69-4-----	Trichlorofluoromethane		12	U
75-01-4-----	Vinyl chloride		280	

RADIANT CORPORATION
 ERDLE SITE
 METHOD 8020 - AROMATIC VOLATILE ORGANICS
 ANALYSIS DATA SHEET

0016

Client No.

CB-4

Name: Recra LabNet

Contract: _____

Code: RECNV Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: A7364004

Sample wt/vol: 5.15 (g/mL) G Lab File ID: 0A12146.TX0

Level: (low/med) Med Date Samp/Recv: 10/09/97 10/10/97

Moisture: not dec. 18.3 Date Analyzed: 10/11/97

Column: DB624 Dia: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

CONCENTRATION UNITS:

SAS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
1-43-2-----	Benzene		10	U
08-90-7-----	Chlorobenzene		10	U
5-50-1-----	1,2-Dichlorobenzene		20	U
41-73-1-----	1,3-Dichlorobenzene		20	U
06-46-7-----	1,4-Dichlorobenzene		20	U
00-41-4-----	Ethylbenzene		27	
08-88-3-----	Toluene		39	
08-38-3-----	m-Xylene		140	1
05-47-6-----	o-Xylene		57	
06-42-3-----	p-Xylene		10	1U

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Client No.

CB-4

Name: Recra LabNet Contract: _____

Code: RECN Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: A7364004DL

Sample wt/vol: 5.15 (g/mL) G Lab File ID: _____

Level: (low/med) Med Date Samp/Recv: 10/09/97 10/10/97

Moisture: not dec. 18.3 Date Analyzed: 10/12/97

Column: DB624 Dia: 0.53 (mm) Dilution Factor: 400.00

Soil Extract Volume: 5000(uL) Soil Aliquot Volume: 100.00(uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG Q

AS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	<u>Q</u>
6-27-4	Bromodichloromethane	4800	U
5-25-2	Bromoform	19000	U
4-83-9	Bromomethane	19000	U
5-23-5	Carbon Tetrachloride	4800	U
08-90-7	Chlorobenzene	9500	U
75-00-3	Chloroethane	19000	U
10-75-8	2-Chloroethylvinyl ether	12000	U
7-66-3	Chloroform	4800	U
74-87-3	Chloromethane	12000	U
24-48-1	Dibromochloromethane	4800	U
5-50-1	1,2-Dichlorobenzene	4800	U
541-73-1	1,3-Dichlorobenzene	4800	U
106-46-7	1,4-Dichlorobenzene	4800	U
5-34-3	1,1-Dichloroethane	4800	U
107-06-2	1,2-Dichloroethane	4800	U
75-35-4	1,1-Dichloroethene	4800	U
56-60-5	trans-1,2-Dichloroethene	4800	U
8-87-5	1,2-Dichloropropane	4800	U
10061-01-5	cis-1,3-Dichloropropene	4800	U
10061-02-6	trans-1,3-Dichloropropene	4800	U
5-09-2	Methylene chloride	6000	
79-34-5	1,1,2,2-Tetrachloroethane	4800	U
127-18-4	Tetrachloroethene	4800	U
71-55-6	1,1,1-Trichloroethane	4800	U
79-00-5	1,1,2-Trichloroethane	4800	U
79-01-6	Trichloroethene	340000	
75-69-4	Trichlorofluoromethane	4800	U
75-01-4	Vinyl chloride	19000	U

RADIANT CORPORATION
 ERDLE SITE
 METHOD 8020 - AROMATIC VOLATILE ORGANICS
 ANALYSIS DATA SHEET

0018

Client No.

CB-4

Name: Recra LabNet

Contract: _____

Code: RECN Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: A7364004DL

Sample wt/vol: 5.15 (g/mL) G Lab File ID: 0A12152.TX0

Level: (low/med) Med Date Samp/Recv: 10/09/97 10/10/97

Moisture: not dec. 18.3 Date Analyzed: 10/11/97

Column: DB624 Dia: 0.53 (mm) Dilution Factor: 40.00

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

CONCENTRATION UNITS:

AS NO.	COMPOUND	(ug/L or ug/Kg)	<u>UG/KG</u>	Q
1-43-2-----	Benzene	95		U
08-90-7-----	Chlorobenzene	95		U
5-50-1-----	1,2-Dichlorobenzene	95		U
41-73-1-----	1,3-Dichlorobenzene	95		U
06-46-7-----	1,4-Dichlorobenzene	95		U
00-41-4-----	Ethylbenzene	95		U
08-88-3-----	Toluene	95		U
08-38-3-----	m-Xylene	95		U
05-47-6-----	o-Xylene	95		U
06-42-3-----	p-Xylene	95		U

RADIANT CORPORATION
 ERDLE SITE
 METHOD 8010 - HALOGENATED VOLATILE ORGANICS
 ANALYSIS DATA SHEET

0019

Client No.

CB-5

Name: Recra LabNet Contract: _____
 Code: RECN Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: A7364005
 Sample wt/vol: 5.12 (g/mL) G Lab File ID: _____
 Sensitivity: (low/med) Med Date Samp/Recv: 10/09/97 10/10/97
 Moisture: not dec. 16.2 Date Analyzed: 10/11/97
 Column: DB624 Dia: 0.53 (mm) Dilution Factor: 1.00
 Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg) UG/KG Q

AS NO.	COMPOUND	UG/KG	Q
5-27-4-----	Bromodichloromethane	12	U
5-25-2-----	Bromoform	50	U
4-83-9-----	Bromomethane	50	U
6-23-5-----	Carbon Tetrachloride	12	U
08-90-7-----	Chlorobenzene	23	U
5-00-3-----	Chloroethane	50	U
10-75-8-----	2-Chloroethylvinyl ether	50	U
7-66-3-----	Chloroform	12	U
4-87-3-----	Chloromethane	50	U
24-48-1-----	Dibromochloromethane	12	U
5-50-1-----	1,2-Dichlorobenzene	20	U
41-73-1-----	1,3-Dichlorobenzene	20	U
06-46-7-----	1,4-Dichlorobenzene	20	U
5-34-3-----	1,1-Dichloroethane	12	U
07-06-2-----	1,2-Dichloroethane	12	U
75-35-4-----	1,1-Dichloroethene	12	U
56-60-5-----	trans-1,2-Dichloroethene	27	U
8-87-5-----	1,2-Dichloropropane	3800	E
10061-01-5----	cis-1,3-Dichloropropene	12	U
10061-02-6----	trans-1,3-Dichloropropene	12	U
15-09-2-----	Methylene chloride	22	U
9-34-5-----	1,1,2,2-Tetrachloroethane	12	U
127-18-4-----	Tetrachloroethene	12	U
71-55-6-----	1,1,1-Trichloroethane	12	U
79-00-5-----	1,1,2-Trichloroethane	47	U
79-01-6-----	Trichloroethene	16000	E
75-69-4-----	Trichlorofluoromethane	12	U
75-01-4-----	Vinyl chloride	120	U

RADIAN CORPORATION
 ERDLE SITE
 METHOD 8020 - AROMATIC VOLATILE ORGANICS
 ANALYSIS DATA SHEET

0020

Client No.

CB-5

Name: Recra LabNet Contract: _____

Code: RECN Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: A7364005

Sample wt/vol: 5.12 (g/mL) G Lab File ID: 0A12147.TX0

Depth: (low/med) Med Date Samp/Recv: 10/09/97 10/10/97

Moisture: not dec. 16.2 Date Analyzed: 10/11/97

Column: DB624 Dia: 0.53 (mm) Dilution Factor: 1.00

Final Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

CONCENTRATION UNITS:

AS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	UG/KG Q
43-2-----	Benzene	10	U
48-90-7-----	Chlorobenzene	10	U
5-50-1-----	1,2-Dichlorobenzene	20	U
1-73-1-----	1,3-Dichlorobenzene	20	U
6-46-7-----	1,4-Dichlorobenzene	20	U
00-41-4-----	Ethylbenzene	10	U
08-88-3-----	Toluene	10	U
18-38-3-----	m-Xylene	19	1
5-47-6-----	o-Xylene	10	U
06-42-3-----	p-Xylene	10	1U

0021

RADIAN CORPORATION
ERDLE SITE
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ANALYSIS DATA SHEET

Client No.

CB-5

Name: Recra LabNet

Contract: _____

Code: RECN Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: A7364005DL

Sample wt/vol: 5.12 (g/mL) G

Lab File ID: _____

Level: (low/med) Med

Date Samp/Recv: 10/09/97 10/10/97

Moisture: not dec. 16.2

Date Analyzed: 10/12/97

Column: DB624 Dia: 0.53 (mm)

Dilution Factor: 10.00

Final Extract Volume: 5000 (uL)

Soil Aliquot Volume: 100.00 (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg)

AS NO.	COMPOUND	UG/KG	Q
5-27-4	Bromodichloromethane	120	U
5-25-2	Bromoform	470	U
4-83-9	Bromomethane	470	U
6-23-5	Carbon Tetrachloride	120	U
08-90-7	Chlorobenzene	230	U
5-00-3	Chloroethane	470	U
10-75-8	2-Chloroethylvinyl ether	290	U
7-66-3	Chloroform	120	U
4-87-3	Chloromethane	290	U
24-48-1	Dibromochloromethane	120	U
5-50-1	1,2-Dichlorobenzene	120	U
41-73-1	1,3-Dichlorobenzene	120	U
06-46-7	1,4-Dichlorobenzene	120	U
5-34-3	1,1-Dichloroethane	120	U
07-06-2	1,2-Dichloroethane	120	U
75-35-4	1,1-Dichloroethene	120	U
56-60-5	trans-1,2-Dichloroethene	120	U
8-87-5	1,2-Dichloropropane	120	U
10061-01-5	cis-1,3-Dichloropropene	120	U
0061-02-6	trans-1,3-Dichloropropene	120	U
5-09-2	Methylene chloride	160	U
79-34-5	1,1,2,2-Tetrachloroethane	120	U
127-18-4	Tetrachloroethene	120	U
71-55-6	1,1,1-Trichloroethane	120	U
79-00-5	1,1,2-Trichloroethane	120	U
79-01-6	Trichloroethene	11000	U
75-69-4	Trichlorofluoromethane	120	U
75-01-4	Vinyl chloride	470	U

RADIANT CORPORATION
 ERDLE SITE
 METHOD 8020 - AROMATIC VOLATILE ORGANICS
 ANALYSIS DATA SHEET

0022

Client No.

CB-5

Name: Recra LabNet Contract: _____
 Lab Code: RECN Case No.: _____ SAS No.: _____ SDG No.: _____
 Matrix: (soil/water) SOIL Lab Sample ID: A7364005DL
 Sample wt/vol: _____ 5.12 (g/mL) G Lab File ID: 0A12153.TX0
 Level: (low/med) Med Date Samp/Recv: 10/09/97 10/10/97
 Moisture: not dec. 16.2 Date Analyzed: 10/11/97
 Column: DB624 Dia: 0.53 (mm) Dilution Factor: 100.00
 Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 100.00 (uL)

CONCENTRATION UNITS:

AS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
1-43-2-----	Benzene		230	U
08-90-7-----	Chlorobenzene		230	U
5-50-1-----	1,2-Dichlorobenzene		230	U
41-73-1-----	1,3-Dichlorobenzene		230	U
06-46-7-----	1,4-Dichlorobenzene		230	U
00-41-4-----	Ethylbenzene		230	U
08-88-3-----	Toluene		230	U
08-38-3-----	m-Xylene		230	U
5-47-6-----	o-Xylene		230	U
06-42-3-----	p-Xylene		230	U

RADIANT CORPORATION
 ERDLE SITE
 METHOD 8010 - HALOGENATED VOLATILE ORGANICS
 ANALYSIS DATA SHEET

0023

Client No.

CB-6

Name: Recra LabNet Contract: _____

Code: RECN Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: A7364006

Sample wt/vol: 5.09 (g/mL) G Lab File ID: _____

Rel: (low/med) Med Date Samp/Recv: 10/09/97 10/10/97

Moisture: not dec. 14.7 Date Analyzed: 10/11/97

Column: DB624 Dia: 0.53 (mm) Dilution Factor: 1.00

Soil Extract Volume: 5000(uL) Soil Aliquot Volume: 100.00(uL)

CONCENTRATION UNITS:

AS NO.	COMPOUND	(ug/L or ug/Kg)	UG/KG	Q
5-27-4	Bromodichloromethane	12		U
5-25-2	Bromoform	50		U
4-83-9	Bromomethane	50		U
6-23-5	Carbon Tetrachloride	12		U
08-90-7	Chlorobenzene	23		U
5-00-3	Chloroethane	50		U
10-75-8	2-Chloroethylvinyl ether	50		U
7-66-3	Chloroform	12		U
4-87-3	Chloromethane	50		U
24-48-1	Dibromochloromethane	12		U
5-50-1	1,2-Dichlorobenzene	20		U
41-73-1	1,3-Dichlorobenzene	20		U
06-46-7	1,4-Dichlorobenzene	20		U
5-34-3	1,1-Dichloroethane	12		U
07-06-2	1,2-Dichloroethane	12		U
75-35-4	1,1-Dichloroethene	12		U
56-60-5	trans-1,2-Dichloroethene	12		U
8-87-5	1,2-Dichloropropane	12		U
10061-01-5	cis-1,3-Dichloropropene	12		U
10061-02-6	trans-1,3-Dichloropropene	12		U
5-09-2	Methylene chloride	21		
9-34-5	1,1,2,2-Tetrachloroethane	12		U
127-18-4	Tetrachloroethene	12		U
1-55-6	1,1,1-Trichloroethane	12		U
9-00-5	1,1,2-Trichloroethane	12		U
79-01-6	Trichloroethene	160		
75-69-4	Trichlorofluoromethane	12		U
75-01-4	Vinyl chloride	50		U

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 ERDLE SITE
 METHOD 8020 - AROMATIC VOLATILE ORGANICS
 ANALYSIS DATA SHEET

Client No.

CB-6

Name: Recra LabNet

Contract: _____

Code: RECN Case No.: _____ SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL

Lab Sample ID: A7364006

Sample wt/vol: 5.09 (g/mL) G

Lab File ID: 0A12148.TX0

Level: (low/med) Med

Date Samp/Recv: 10/09/97 10/10/97

Moisture: not dec. 14.7

Date Analyzed: 10/11/97

Column: DB624 Dia: 0.53 (mm)

Dilution Factor: 1.00

1 Extract Volume: 5000 (uL)

Soil Aliquot Volume: 100.00 (uL)

CONCENTRATION UNITS:
 (ug/L or ug/Kg)

AS NO.	COMPOUND	UG/KG	Q
1-43-2-----	Benzene	10	U
08-90-7-----	Chlorobenzene	10	U
5-50-1-----	1,2-Dichlorobenzene	20	U
41-73-1-----	1,3-Dichlorobenzene	20	U
06-46-7-----	1,4-Dichlorobenzene	20	U
00-41-4-----	Ethylbenzene	10	U
08-88-3-----	Toluene	10	U
08-38-3-----	m-Xylene	10	U
5-47-6-----	o-Xylene	10	U
06-42-3-----	p-Xylene	10	U