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SEMIANNUAL MONITORING REPORT

OPERABLE UNIT NO. 4 - SITES 41 AND 74
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

REPORTING PERIOD JULY 1997 - DECEMBER 1997

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SEMIANNUAL MONITORING REPORT

The semiannual monitoring report which follows presents a summary of sampling activities, field observations, analytical results, and significant findings which pertain to the monitoring program at Operable Unit (OU) No. 4 (Sites 41 and 74), Marine Corps Base (MCB) Camp Lejeune, North Carolina. Conclusions and recommendations regarding the monitoring program are also presented within this report.

Semiannual monitoring activities at OU No. 4 commenced August 10, 1997 and concluded August 14, 1997. Groundwater samples at Site 41 were obtained from four shallow monitoring wells and one deep monitoring well. In addition to groundwater samples, surface water and sediment samples were obtained from eight sampling stations distributed throughout Site 41. Surface water samples from two of the eight locations were not obtained due to a lack of sufficient sample media. Groundwater samples at Site 74 were obtained from four shallow monitoring wells. Figure 1 depicts groundwater, surface water, and sediment sampling locations at Site 41. Figure 2 depicts groundwater sampling locations at Site 74. [Note that all tables and figures are provided after the text portion of this report.]

Sampling activities were conducted and subsequent laboratory analyses were performed according to procedures and methods specified in the Long-Term Monitoring Work Plans for OU No. 4 (Baker, 1996). The project work plans identify a select number of monitoring wells at Sites 41 and 74 for which continued periodic sampling is required. Tables 1 and 2 provide construction details of monitoring wells included in the monitoring program. As stipulated in the project work plans, measurements of pH, specific conductance, dissolved oxygen, temperature, and turbidity were recorded prior to sampling. Summaries of groundwater field parameters from Sites 41 and 74 are provided in Tables 3 and 4, respectively.

The monitoring program at Sites 41 and 74 was implemented to assess whether contamination, detected during previous investigations, remains present, has migrated, or has degraded through natural processes. Based upon previous analytical results and decision documents, volatile organic compounds (VOCs) and Target Analyte List (TAL) metals were identified as contaminants of concern at Site 41; metals were identified as a concern at Site 74. Tables 5 and 6 provide a summary of requested laboratory analyses and sample identifications.

Sample information, including well number, sample identification, time and date of sample collection, samplers, analytical parameters, and required laboratory turnaround time was recorded in a field logbook and on sample labels. Chain-of-custody documentation, provided in Attachment A, accompanied the samples to the laboratory.

Groundwater Elevation and Flow Direction

The following provides information concerning groundwater flow patterns at Sites 41 and 74. Groundwater elevations and flow directions for each site are presented separately.

Site 41

Water level measurements were obtained at Site 41 on August 18, 1997. Table 7 provides a summary of water level measurements. Figure 3 depicts the static elevations and approximate flow direction of groundwater at Site 41. In general, shallow groundwater flows radially from the central, topographically higher, portion of the study area toward adjacent surface water bodies. Groundwater

flow direction appears to mimic surface topography, it is influenced locally by natural surface features including intermittent streams and marsh areas.

Site 74

Water level measurements at Site 74 were obtained on August 11, 1997. Table 8 provides a summary of water level measurements. Figure 4 depicts the static elevations and approximate flow direction of groundwater at Site 74. Groundwater flow within the surficial aquifer at Site 74 is influenced by nearby drainages and, to a lesser extent, Wallace Creek which lies further to the south. As depicted in Figure 4, groundwater at Site 74 flows primarily in an east-southeasterly direction.

Field Observations

The following field observations were noted during the most recent semiannual sampling event at Sites 41 and 74. Recommendations regarding the field observations which follow are presented later within this report.

Monitoring wells installed at Sites 41 and 74 during the 1984 Confirmation Study have begun to exhibit signs of deterioration. Turbidity readings, obtained during sampling activities, suggest that soil material from the surrounding formation has begun to infiltrate the well screens and sand packs of older monitoring wells. Less than ideal sampling conditions may result when consistent readings of greater than 50 nephlometric turbidity units (NTUs) in groundwater are obtained. In general, it is preferable that groundwater samples be collected after turbidity readings stabilize at less than ten NTUs. Elevated turbidity readings are particularly of concern among groundwater samples submitted for metal analyses; naturally-occurring metals which adhere to soil particles are frequently reflected among groundwater results. Metal analyses were requested for groundwater samples obtained from both Sites 41 and 74. Future sampling results will be used to determine if corrective measures will be required.

ANALYTICAL RESULTS AND FINDINGS

The section which follows presents analytical results and findings from sampling performed at Sites 41 and 74 during the third calendar quarter of 1997. A summary of all analytical results compiled during the sampling event are presented in Attachment B and corresponding laboratory data sheets are provided in Attachment C.

Site 41

The analytical results and findings which follow are presented according to environmental media. Groundwater samples were obtained from five monitoring wells located throughout Site 41. In addition to groundwater samples, six surface water and eight sediment samples were also collected at Site 41 (refer to Figure 1 for sampling locations). Although planned, two surface water samples were not obtained due to a lack of surface water at the time of sample collection.

Two trip blanks were prepared prior to the sampling event and kept with the volatile samples from Site 41 during field collection, shipment, and laboratory analysis. As provided in Table 9, there were no detections of any organic compounds in either trip blank sample.

Groundwater Analytical Results

One volatile organic compound (VOC) was detected among the five groundwater samples obtained at Site 41. Benzene was detected in the sample obtained from shallow monitoring well 41-GW11 at an estimated concentration of 4 micrograms per liter (µg/L). The detection of benzene exceeded the applicable North Carolina Water Quality Standard (NCWQS) of 1 µg/L, but did not exceed the federal maximum contaminant level (MCL) for drinking water of 5 µg/L. A summary of groundwater analytical results is provided in Table 10. A positive detection summary of groundwater results is provided in Table 11.

As depicted in Figure 1, monitoring well 41-GW11 is located in the central portion of the study area, within 50 feet of deep monitoring well 41-GW11DW. The lack of positive VOC detections in the sample obtained from deep monitoring well 41-GW11DW suggests that volatile contaminants have not migrated from the surficial aquifer to the deeper Castle Hayne Aquifer. In addition, the lack of positive VOC detections in other samples obtained from the shallow aquifer at Site 41 suggests that the observed contaminants may be limited to the area surrounding monitoring well 41-GW11.

Positive VOC detections among groundwater samples obtained at Site 41 have been documented in the past. Previous sampling results from shallow monitoring well 41-GW11 and deep monitoring well 41-GW11DW have exhibited benzene and chlorobenzene concentrations similar to those presented here (i.e., less than 5 µg/L). Table 12 provides a summary of VOC and metal results from groundwater samples obtained during the past two years. Future sampling will be employed to determine the nature and persistence of observed VOCs and metals at Site 41.

As presented in Table 10, aluminum, iron, and manganese were the only metals detected at concentrations which exceeded either NCWQS or MCL among the five groundwater samples submitted for analyses from Site 41. Aluminum was detected in two of the five groundwater samples at concentrations of 122 µg/L and 619 µg/L; only the higher of the two detections exceeded the 200 µg/L secondary MCL. Iron and manganese were detected in each of the five groundwater samples obtained from Site 41. Iron concentrations ranged from 1,930 µg/L to 26,600 µg/L; all five positive iron detections exceeded the 300 µg/L NCWQS. Three of the five manganese detections exceeded the NCWQS of 50 µg/L. Manganese concentrations among the groundwater samples obtained from Site 41 ranged from 42.8 µg/L to 346 µg/L.

Iron and manganese have been detected consistently above applicable standards among groundwater samples obtained from Site 41. Soils found within the coastal plain of North Carolina are naturally rich in metals, particularly iron and manganese. The observed concentrations of iron and manganese, and to a lesser extent aluminum and lead, in groundwater may be due more to geologic conditions (i.e., naturally occurring metals bound to unconsolidated soil particles) and sample acquisition methods than to mobile metal concentrations in the aquifer. The presence of metals in groundwater is often the result of solids or colloids in aqueous samples. The metals detected among groundwater samples obtained from Site 41 may also be indicative of naturally occurring metals in the presence of acidic soils. Additional sampling will be required to statistically confirm the presence and concentration of various metals in groundwater at Site 41.

Both total suspended solid (TSS) and total dissolved solid (TDS) analyses were performed for each of the shallow groundwater samples obtained at Site 41. Suspended solids were detected at concentrations ranging from 10 to 33 milligrams per liter (mg/L) in 3 of the 5 samples. Dissolved

solids were detected in each of the shallow groundwater samples at concentrations ranging from 170 to 1,200 mg/L. Three of the positive TDS concentrations exceeded the NCWQS of 500 mg/L.

Surface Water Analytical Results

Three surface water samples were collected from both Tank Creek and an unnamed tributary to Tank Creek at Site 41 (refer to Figure 1). Two additional surface water samples were to be obtained from separate drainage ditches that flow into the unnamed tributary. Due to a lack of surface water in the drainage ditches; however, neither of the two additional samples were collected. Each of the remaining six surface water samples were submitted for volatile organic and total metal analyses. No organic compounds were detected among the six samples submitted for laboratory analyses. Metals were detected in each of the six surface water samples. Table 13 provides a summary of surface water analytical results. A positive detection summary of surface water results is presented in Table 14.

Laboratory analyses of the six surface water samples obtained from Site 41 indicate that 12 of 23 total metals were positively detected. As presented in Table 13, lead was the only metal identified at a concentration in excess of either state or federal comparison criteria. The surface water sample obtained at station 41-TC-SW12 had the only positive lead detection that exceeded a federal comparison criteria. The one lead detection slightly exceeded the USEPA Region IV Freshwater Aquatic Life Criteria of 1.32 µg/L, with a concentration of 2.5 µg/L. The North Carolina comparison criteria for lead in fresh surface water bodies is 25 µg/L. No other total metal concentrations among the six surface water samples exceeded either state or federal criteria.

Analytical results from previous investigations and results obtained during the monitoring program are relatively consistent. However, chlorobenzene has been detected among surface water samples collected in the past. Samples obtained from the two drainage ditches which empty into the unnamed tributary have had positive chlorobenzene detections of 4.0 µg/L and 1.0 µg/L. The two most recent sampling events, completed during the monitoring program, did not identify any organic compounds among the surface water samples obtained at Site 41, however.

Concentrations of various metals among surface water samples remain consistent, with little variation between the more recent detections and those during previous studies. Historical data show that the metals arsenic, iron, lead, and manganese have been present at concentrations which have exceeded state water quality standards. Due to the composition of regional soils, these metals are commonly detected among surface waters at concentrations which exceed applicable criteria.

Sediment Analytical Results

Eight sediment samples were collected in conjunction with the surface water samples. Each of the eight sediment samples were submitted for volatile organic and metal analyses. As presented in Table 15, two organic compounds were detected among the eight sediment samples. Acetone was detected in each of the eight samples at concentrations ranging from of 14 to 840 micrograms per kilogram (µg/kg). Only one positive detection of 2-butanone was observed among the eight sediment samples. The maximum concentrations of acetone and 2-butanone were detected in the sample obtained from station 41-UT-SD02. Various organic compounds have been detected in sediments obtained from Site 41 during previous investigations. In general, few organic compounds have been detected at relatively low concentrations. The only organic compounds detected during the monitoring program have been acetone and 2-butanone. As common laboratory contaminants, the presence of

both acetone and 2-butanone at the observed concentrations may be the result of sample acquisition, preparation, or handling.

Laboratory analyses of the sediment samples obtained from Tank Creek, an unnamed tributary to Tank Creek, and two separate drainage ditches indicate that 18 of 23 possible metals were positively detected. As indicated in Table 15, none of the metals identified among sediment samples were detected at concentrations in excess of applicable screening values. Aluminum, barium, chromium, copper, iron, lead, manganese, and zinc were detected in each of the eight samples. A positive detection summary of metals in sediment samples is presented in Table 16. The majority of both historical data and data generated during the monitoring program include metals (i.e., common analytes detected at similar concentrations). Concentrations of metals among sediment samples obtained at Site 41 are consistent with other samples collected at various sites throughout MCB, Camp Lejeune.

Site 74

Metals were detected in each of the four groundwater samples obtained at Site 74. Table 17 provides a summary of the groundwater analytical results. A positive detection summary of metals detected among groundwater samples obtained at Site 74 is presented in Table 18. Figure 6 depicts the locations and groundwater analytical results of total metals that were detected at concentrations in excess of either the NCWQS or MCL.

Aluminum and iron were the only metals detected among the four groundwater samples at concentrations in excess of either the NCWQS or MCL. Aluminum exceeded the secondary MCL of 200 µg/L in each of the four samples obtained from Site 74 (refer to Figure 6). Aluminum concentrations ranged from 279 µg/L in sample 74-GW07 to 2,900 µg/L in the sample obtained from 74-GW03A. Iron exceeded the NCWQS and secondary MCL of 300 µg/L in samples obtained from monitoring wells 74-GW03A and 74-GW07. Iron was detected at concentrations of 443 µg/L in 74-GW03A and 1,900 µg/L in 74-GW07.

Concentrations of both aluminum and iron in groundwater samples often exceed established water quality standards; the levels are generally characteristic of natural site conditions at MCB Camp Lejeune. Aluminum and iron were the only total metals identified among groundwater samples at concentrations which exceeded applicable water quality standards. Several hundred or even several thousand milligrams per liter of aluminum is not unusual for natural groundwater obtained from areas with slightly acidic soil conditions (USGS, 1992).

Previous sampling events at Site 74, completed prior to initiation of the monitoring program, have documented similar findings. The same metals have been detected consistently among groundwater samples obtained at Site 74. Specifically, a review of the historical data indicate that iron, lead, manganese, and selenium have been detected at concentrations which have exceeded applicable standards among groundwater samples. The previous results and findings also indicated that natural site conditions have contributed to the majority of the detected metal concentrations.

RECOMMENDATIONS

Based upon the observations and findings presented in this semiannual report, the following recommendations for the monitoring program at OU No. 4 are provided. If non-significant changes are made to a component of the selected remedy described in the ROD (Baker, 1995), the changes

must be recorded in a post-decision document file. If significant changes are made to a component of the selected remedy, the changes will need to be presented in an Explanation of Significant Differences document.

Details pertaining to implemented recommendations have been presented within previous semiannual reports. The intent of this report and future reports is to provide a thorough description of proposed recommendations and a brief listing of implemented actions.

Implemented Recommendations

Bollards and protective casings of monitoring wells installed during the 1984 Confirmation Study were repainted with weather resistant paint in February 1997. Rust and peeling paint were removed prior to application of the new paint. In addition, new padlocks which operate with a universal key were installed on each monitoring well at Sites 41 and 74.

Proposed Recommendations

Based upon the observations and findings presented in this monitoring report, no significant changes to the monitoring program are currently recommended. The lack of metal contamination at both Sites 41 and 74 and the lack of significant VOC contamination at Site 41 suggests that future semiannual monitoring may not be required. The need for additional sampling may be more accurately and statistically determined after a fourth semiannual event has been completed during July 1998. If after thorough examination of the resultant analytical data and determination that future risks of exposure are negligible, it may be recommended that sampling program activities be discontinued at both Sites 41 and 74.

REFERENCES

Baker Environmental, Inc. (Baker). May 1995. Record of Decision for Operable Unit No. 4 (Sites 41 and 74). Final. Prepared for the Navy Atlantic Division Naval Facilities Engineering Command, Norfolk, Virginia.

Baker Environmental, Inc. (Baker). December 1996. Long-Term Monitoring Work Plans for Remedial Investigation Sites. Prepared for the Navy Atlantic Division Naval Facilities Engineering Command, Norfolk, Virginia.

U.S. Geological Survey (USGS). 1992. Study and Interpretation of the Chemical Characteristics of Natural Water. Third Edition. Prepared by John D. Hem for the U.S. Department of the Interior.

TABLES

TABLE 1

SUMMARY OF WELL CONSTRUCTION DETAILS
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site 41 Well No.	Date Installed	Top of Casing Elevation (feet, msl)	Ground Surface Elevation (feet, msl)	Boring Depth (feet, bgs)	Well Depth (feet, bgs)	Screen Interval Depth (feet, bgs)	Sand Pack Interval Depth (feet, bgs)	Bentonite Interval Depth (feet, bgs)	Stick-Up (feet, ags)
41-GW02	NA	NA	NA	NA	NA	NA	NA	NA	NA
41-GW10	1994	13.93	12.1	14.0	13.0	3.0 - 13.0	1.5 - 14.0	0.5 - 1.5	1.8
41-GW11	1994	24.69	21.5	16.0	15.0	5.0 - 15.0	3.0 - 16.0	0.5 - 3.0	3.2
41-GW11DW	1994	23.63	21.5	52.0	50.0	40.0 - 50.0	37.0 52.0	35.0 - 37.0	2.1
41-GW12	1994	8.41	6.4	17.0	16.0	6.0 - 16.0	4.0 - 17.0	2.0 - 4.0	2.0

Notes:

ags = above ground surface
bgs = below ground surface
msl = mean sea level
NA = Information not available

TABLE 2

SUMMARY OF WELL CONSTRUCTION DETAILS
OPERABLE UNIT NO. 4 - SITE 74
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Site 74 Well No.	Date Installed	Top of Casing Elevation (feet, msl)	Ground Surface Elevation (feet, msl)	Boring Depth (feet, bgs)	Well Depth (feet, bgs)	Screen Interval Depth (feet, bgs)	Sand Pack Interval Depth (feet, bgs)	Bentonite Interval Depth (feet, bgs)	Stick-Up (feet, ags)
74-GW01	1984	NA	NA	NA	24.5	8.5 - 23.5	NA	NA	NA
74-GW02	1984	NA	NA	NA	26.5	12.5 - 27.5	NA	NA	NA
74-GW03A	1986	NA	NA	NA	26.5	11.5 - 26.5	NA	NA	NA
74-GW07	1994	34.52	32.4	17.0	16.5	6.5 - 16.5	3.5 - 17.0	1.5 - 3.5	2.1

Notes:

ags = above ground surface
bgs = below ground surface
msl = mean sea level
NA = Information not available

TABLE 3

SUMMARY OF GROUNDWATER FIELD PARAMETERS
OPERABLE UNIT NO. 4 - SITES 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number (Sample Date)	Measuring Time	Well Volumes	Field Parameters				
			Dissolved Oxygen (mg/L)	Specific Conductance (µmhos/cm)	Temperature (°C)	pH (S.U.)	Turbidity (N.T.U.)
41-GW02 (08-13-97)	1001	1.0	2.2	830	21.1	5.98	28.5
	1009	1.5	2.3	776	21.3	6.07	9.0
	1017	2.0	1.7	805	21.3	6.12	6.3
	1025	2.5	2.0	788	21.3	6.10	5.0
	1033	3.0	2.1	810	21.4	6.12	3.1
41-GW10 (08-12-97)	1400	3.0	2.5	280	20.9	7.12	68.3
	1409	4.0	2.4	251	19.7	7.00	45.5
	1417	5.0	2.7	248	19.9	7.02	27.4
	1421	6.0	2.7	245	20.0	7.01	19.4
	1427	7.0	2.3	243	19.9	7.05	14.5
	1431	8.0	2.5	252	19.9	7.10	10.5
41-GW11 (08-13-97)	0822	1.0	1.6	988	20.2	6.48	1.3
	0830	2.0	1.5	1029	20.3	6.57	1.3
	0838	3.0	1.5	1025	20.7	6.59	0.9
	0846	4.0	1.5	1079	20.7	6.59	0.7
41-GW11DW (08-13-97)	0754	1.0	2.5	140.	19.7	6.52	2.0
	0809	1.5	1.5	1649	18.9	6.51	0.6
	0824	2.0	1.5	1667	19.2	6.52	0.7
	0839	2.5	1.1	1664	19.3	6.53	0.5
	0854	3.0	1.7	1646	19.3	6.57	0.5
41-GW12 (08-13-97)	1118	1.0	2.7	304	21.1	6.02	3.6
	1125	1.5	2.4	297	21.2	6.06	3.0
	1132	2.0	2.9	300	21.2	6.21	3.0
	1139	2.5	2.9	302	21.2	6.24	1.8
	1146	3.0	2.8	303	21.2	6.25	1.7

Notes:

N.T.U. = Nephelometric Turbidity Units
S.U. = Standard Units
µmhos/cm = micro ohms per centimeter
°C = Degrees Centigrade
mg/L = milligrams per liter

TABLE 4

SUMMARY OF GROUNDWATER FIELD PARAMETERS
OPERABLE UNIT NO. 4 - SITE 74
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well Number (Sample Date)	Measuring Time	Well Volumes	Field Parameters				
			Dissolved Oxygen (mg/L)	Specific Conductance (µmhos/cm)	Temperature (°C)	pH (S.U.)	Turbidity (N.T.U.)
74-GW01 (08-11-97)	1530	1.0	2.9	66	20.9	4.68	14.1
	1540	2.0	1.5	66	20.7	4.65	4.3
	1550	3.0	2.9	66	21.9	4.58	3.7
74-GW02 (08-11-97)	1422	1.0	1.8	125	20.2	4.62	5.0
	1430	2.0	2.0	126	20.4	4.60	0.9
	1440	3.0	2.4	126	21.4	4.61	0.9
74-GW03A (08-11-97)	1326	1.0	2.3	109	22.8	3.92	23.8
	1334	1.5	2.5	109	22.2	3.89	15.4
	1342	2.0	2.8	110	22.2	4.01	7.9
	1350	2.5	2.3	109	22.2	4.11	9.6
	1358	3.0	2.4	114	22.3	4.13	2.6
74-GW07 (08-11-97)	1225	2.5	1.5	96	20.4	4.50	9.0
	1241	5.0	2.0	97	20.4	4.72	5.0
	1300	7.5	2.0	98	20.4	4.80	6.0
	1320	10.0	1.9	97	21.4	4.76	3.0

Notes:

N.T.U. = Nephelometric Turbidity Units
S.U. = Standard Units
µmhos/cm = micro ohms per centimeter
°C = Degrees Centigrade
mg/L = milligrams per liter

TABLE 5

SAMPLING SUMMARY - AUGUST 1997
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Location	Media	CLP Volatiles[1]	TAL Metals[2]	Total Dissolved Solids[3]	Total Suspended Solids[3]	Laboratory Sample Identification
41-GW02	Groundwater	X	X	X	X	IR41-GW02-97C
41-GW10	Groundwater	X	X	X	X	IR41-GW10-97C
41-GW11	Groundwater	X	X	X	X	IR41-GW11-97C
41-GW11DW	Groundwater	X	X	X	X	IR41-GW11DW-97C
41-GW12	Groundwater	X	X	X	X	IR41-GW12-97C
41-UT-SW01	Surface Water	X	X			IR41-UT-SW01-97C
41-UT-SW02	Surface Water	X	X			IR41-UT-SW02-97C
41-UT-SW03	Surface Water	X	X			IR41-UT-SW03-97C
41-TC-SW10	Surface Water	X	X			IR41-TC-SW10-97C
41-TC-SW11	Surface Water	X	X			IR41-TC-SW11-97C
41-TC-SW12	Surface Water	X	X			IR41-TC-SW12-97C
41-UT-SD01	Sediment	X	X			IR41-UT-SD01-97C
41-UT-SD02	Sediment	X	X			IR41-UT-SD02-97C
41-UT-SD03	Sediment	X	X			IR41-UT-SD03-97C
41-TC-SD10	Sediment	X	X			IR41-TC-SD10-97C
41-TC-SD11	Sediment	X	X			IR41-TC-SD11-97C
41-TC-SD12	Sediment	X	X			IR41-TC-SD12-97C
41-DD-SD01	Sediment	X	X			IR41-DD-SD01-97C
41-DD-SD02	Sediment	X	X			IR41-DD-SD02-97C

Notes:

(1) Target Compound List Volatiles by U.S. Environmental Protection Agency, Contract laboratory Program, Statement of Work, Document Number OLM01.8.

(2) Target Analyte List Metals by U.S. Environmental Protectoin Agency, Contract Laboratory Protocol, Statement of Work, Document Number ILM03.0.

(3) Total Suspended and Dissolved Solids by Solid Waste Method 160.1 and 160.2.

X = Requested analysis

TABLE 6

SAMPLING SUMMARY - FEBRUARY 1997
OPERABLE UNIT NO. 4 - SITE 74
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Location	Media	TAL Metals[1]	Total Dissolved Solids[2]	Total Suspended Solids[2]	Laboratory Sample Identification
74-GW01	Groundwater	X	X	X	IR74-GW01-97C
74-GW02	Groundwater	X	X	X	IR74-GW02-97C
74-GW03A	Groundwater	X	X	X	IR74-GW03A-97C
74-GW07	Groundwater	X	X	X	IR74-GW07-97C

Notes:

(1) Target Analyte List Metals by U.S. Environmental Protectoin Agency, Contract Laboratory Protocol, Statement of Work, Document Number ILM03.0.
(2) Total Suspended and Dissolved Solids by Solid Waste Method 160.1 and 160.2.

X = Requested analysis

TABLE 7

SUMMARY OF WATER LEVEL MEASUREMENTS
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well ID	Reference Elevation [1]	SWE (Date 02-28-97)	SWL (Date 08-13-97)	SWE (Date 08-13-97)
41-GW01	22.60	16.03	10.46	12.14
41-GW02	14.63	10.82	7.91	6.72
41-GW03	19.23	9.81	Well Dry	NA
41-GW04	11.99	6.35	8.17	3.82
41-GW07	22.73	14.48	12.26	10.47
41-GW08	19.48	12.45	12.66	6.82
41-GW09	25.98	17.76	12.80	13.13
41-GW10	13.93	9.48	7.75	6.18
41-GW11	24.69	15.62	10.75	13.94
41-GW11DW	23.63	11.80	15.56	16.69
41-GW12	8.41	4.90	6.94	1.47
41-GW13	16.19	NA	12.93	3.26

Notes:

[1] Top of well casing expressed in feet above mean sea level

SWL = Static water level taken from top of well casing
SWE = Static water elevation expressed in feet above mean sea level
NA = Data not available

TABLE 8

SUMMARY OF WATER LEVEL MEASUREMENTS
OPERABLE UNIT NO. 4 - SITE 74
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well ID	Reference Elevation [1]	SWE (Date 02-07-97)	SWL (Date 08-11-97)	SWE (Date 08-11-97)
74-GW01	35.88	26.51	14.75	21.13
74-GW02	35.23	24.80	15.52	19.71
74-GW03A	36.14	32.17	7.97	28.17
74-GW04	35.37	29.61	10.99	24.38
74-GW05	34.30	31.13	7.82	26.48
74-GW06	33.12	20.43	18.24	14.88
74-GW07	34.52	21.22	7.35	27.17
74-GW08	30.55	19.48	14.52	16.03

Notes:

[1] Top of well casing expressed in feet above mean sea level

SWL = Static water level taken from top of well casing
SWE = Static water elevation expressed in feet above mean sea level

TABLE 9

TRIP BLANK ANALYTICAL RESULTS
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR41-TB01-97C	IR41-TB02-97C
DATE SAMPLED	08/12/97	08/12/97
UNITS	ug/L	ug/L
VOLATILES		
CHLOROETHANE	10 U	10 U
METHYLENE CHLORIDE	10 U	10 U
ACETONE	10 U	10 U
CARBON DISULFIDE	10 U	10 U
1,1-DICHLOROETHENE	10 U	10 U
1,1-DICHLOROETHANE	10 U	10 U
1,2-DICHLOROETHENE (TOTAL)	10 U	10 U
CHLOROFORM	10 U	10 U
1,2-DICHLOROETHANE	10 U	10 U
2-BUTANONE	10 U	10 U
1,1,1-TRICHLOROETHANE	10 U	10 U
CARBON TETRACHLORIDE	10 U	10 U
BROMODICHLOROMETHANE	10 U	10 U
1,2-DICHLOROPROPANE	10 U	10 U
CIS-1,3-DICHLOROPROPENE	10 U	10 U
TRICHLOROETHENE	10 U	10 U
DIBROMOCHLOROMETHANE	10 U	10 U
1,1,2-TRICHLOROETHANE	10 U	10 U
BENZENE	10 U	10 U
TRANS-1,3-DICHLOROPROPENE	10 U	10 U
BROMOFORM	10 U	10 U
4-METHYL-2-PENTANONE	10 U	10 U
2-HEXANONE	10 U	10 U
TETRACHLOROETHENE	10 U	10 U
1,1,2,2-TETRACHLOROETHANE	10 U	10 U
TOLUENE	10 U	10 U
CHLOROBENZENE	10 U	10 U
ETHYLBENZENE	10 U	10 U
STYRENE	10 U	10 U
XYLENE (TOTAL)	10 U	10 U

U = Not detected
ug/L = Micrograms per liter

TABLE 10

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - AUGUST 1997
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Fraction	Detected Contaminants or Analytes	Comparison Criteria		Concentration Range		Location of Maximum Detection	Detection Frequency	Detections Above	
		NCWQS	MCL	Min.	Max.			NCWQS	MCL
Volatiles	Benzene	1	5	4 J	4 J	41-GW11	1/5	1	0
Total Metals	Aluminum	NE	200 (1)	122	619	41-GW10	2/5	NA	1
	Antimony	NE	6	1.9	1.9	41-GW02	1/5	NA	0
	Arsenic	50	50	3.0	3.0	41-GW11	1/5	0	0
	Barium	2,000	2,000	12.6	538	41-GW11	5/5	0	0
	Chromium	50	100	0.74	1.6	41-GW10	4/5	0	0
	Copper	1,000	1,300	0.92	1.1	41-GW11	4/5	0	0
	Iron	300	300 (1)	1,930	26,600	41-GW11	5/5	5	5
	Lead	15	15	2.6	2.6	41-GW02	1/5	0	0
	Manganese	50	50 (1)	42.8	346	41-GW02	5/5	3	3
	Nickel	100	100	2.7	6.8	41-GW11DW	2/5	0	0
	Zinc	2,100	5,000 (1)	1.2	10.9	41-GW11	5/5	0	0
Wet Chemistry	Total Dissolved Solids	500	500 (1)	170	1,200	41-GW11DW	5/5	3	3
	Total Suspended Solids	NE	NE	10	33	41-GW11	3/5	NA	NA

Notes:

Organic and Metal concentrations presented in micrograms per liter (µg/L) or parts per billion.
Wet chemistry concentrations presented in milligrams per liter (mg/L) or parts per million.

(1) - Secondary Federal Maximum Contaminant Level (Refer to MCL Note Below).

J = Estimated Value
MCL = Federal Maximum Contaminant Level. Maximum permissible level of a contaminant in water which is delivered users of public water systems (U.S. Environmental Protection Agency - Drinking Water Regulations and Health Advisories).
NA = Not Applicable
NCWQS = North Carolina Water Quality Standards (North Carolina Administrative Code, Title 15A, Subchapter 2L).
NE = Not Established

TABLE 11

POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR41-GW02-97C	IR41-GW10-97C	IR41-GW11-97C	IR41-GW11DW-97C	IR41-GW12-97C
DATE SAMPLED	08/13/97	08/12/97	08/13/97	08/13/97	08/13/97
VOLATILES (ug/L)					
BENZENE	10 U	10 U	4 J	10 U	10 U
TOTAL METALS (ug/L)					
ALUMINUM, TOTAL	122	619	28.6 U	28.6 U	28.6 U
ANTIMONY, TOTAL	1.9	1.9 U	1.9 U	1.9 U	1.9 U
ARSENIC, TOTAL	2.5 U	2.5 U	3	2.5 U	2.5 U
BARIUM, TOTAL	71.5	16.9	538	48.6	12.6
CALCIUM, TOTAL	116000	49400	87200	203000	57100
CHROMIUM, TOTAL	0.89	1.6	0.99	0.74	0.7 U
COBALT, TOTAL	2	0.7 U	0.7 U	0.7 U	2
COPPER, TOTAL	1	0.99	1.1	0.92	0.5 U
IRON, TOTAL	25300	2560	26600	2820	1930
LEAD, TOTAL	2.6	1.5 U	1.5 U	1.5 U	1.5 U
MAGNESIUM, TOTAL	19900	1780	18600	6670	2200
MANGANESE, TOTAL	346	47	181	121	42.8
NICKEL, TOTAL	0.8 U	0.8 U	2.7	6.8	0.8 U
POTASSIUM, TOTAL	19100	836	33000	2930	1610
SODIUM, TOTAL	27400	5770	42800	210000	5460
VANADIUM, TOTAL	0.8 U	0.97	0.8 U	0.8 U	0.8 U
ZINC, TOTAL	1.8	2.2	10.9	1.2	2.3
WET CHEMISTRY (mg/L)					
TOTAL DISSOLVED SOLIDS	530	170	510	1200	210
TOTAL SUSPENDED SOLIDS	30	10	33	4 U	4 U

U = Not detected
J = estimated value
ug/L = micrograms per liter
mg/L = milligrams per liter

TABLE 12

METALS AND VOLATILE COMPOUNDS IN GROUNDWATER
MARCH 1996 - AUGUST 1997
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Monitoring Well/ Volatile Compound	MCL	NCWQS	March, 1996	February, 1997	August, 1997
41-GW02					
Aluminum	200	NE	NA	205	NA
Iron	300	300	28,900	27,200	25,300
Manganese	50	50	432	376	346
41-GW10					
Aluminum	200	NE	2,860	1,390	619
Iron	300	300	NA	NA	2,560
41-GW11					
Benzene	5	1	4 J	4 J	4 J
Chlorobenzene	100	50	5 J	3 J	ND
Iron	300	300	60,200	32,700	26,600
Manganese	50	50	259	162	181
Lead	15	15	NA	20.9	NA
41-GW11DW					
Vinyl Chloride	2	0.015	1 J	ND	ND
1,2-Dichloroethene (total)	NE	NE	1 J	ND	ND
1,2-Dichloropropane	5	0.56	1 J	ND	ND
Benzene	5	1	1 J	ND	ND
Iron	300	300	3,340	2,810	2,820
Manganese	50	50	138	120	121
041-GW12					
Iron	300	300	4,820	5,400	1,930
Manganese	50	50	119	119	NA

Notes:

Concentrations expressed in micrograms per liter (μg/L) or parts per billion.
Samples collected using a peristaltic pump

MCL = Federal Maximum Contaminant Level. Maximum permissible level of a contaminant in water which is delivered to any user of a public water system. (U.S. Environmental Protection Agency - Drinking Water Regulations and Health Advisories.)
NA = Not applicable or analyte detected at a oncentration less than screening standard.
NCWQS = North Carolina Water Quality Standards. Values Applicable to Groundwater (North Carolina Administrative Code, Title 15A, Subchapter 2L).
ND = Not detected above screening value.
NE = Not Established

TABLE 13

SUMMARY OF SURFACE WATER ANALYTICAL RESULTS - AUGUST 1997
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Fraction	Detected Contaminants or Analytes	Comparison Criteria		Concentration Range		Location of Maximum Detection	Detection Frequency	Detections Above	
		NCWQS	Region IV	Min.	Max.			NCWQS	Region IV
Volatiles	ND						0/6	NA	NA
Total Metals	Aluminum	NE	NE	41.4	168	41-TC-SW10	6/6	NA	NA
	Barium	NE	NE	12.3	25.8	41-UT-SW01	6/6	NA	NA
	Copper	7.0	6.54	0.82	1.4	41-UT-SW02	6/6	0	0
	Iron	1,000	NE	534	976	41-TC-SW10	6/6	0	NA
	Lead	25	1.32	2.5	2.5	41-TC-SW12	1/6	0	1
	Manganese	NE	NE	15.2	32.4	41-TC-SW12	6/6	NA	NA
	Zinc	230	58.9	2.0	10.9	41-UT-SW03	6/6	0	0

Notes:

Concentrations presented in micrograms per liter (µg/L) or parts per billion.

NA = Not Applicable
NCWQS = North Carolina Water Quality Standards (North Carolina Administrative Code, Title 15A, Subchapter 2B, Rule .0211).
ND = Not Detected
NE = Not Established
Region IV = U.S. Environmental Protection Agency, Region IV - Surface Water Screening Values Protective of Freshwater Aquatic Life.

TABLE 14

POSITIVE DETECTIONS IN SURFACE WATER
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR41-TC-SW10-97C	IR41-TC-SW11-97C	IR41-TC-SW12-97C	IR41-UT-SW01-97C	IR41-UT-SW02-97C	IR41-UT-SW03-97C
DATE SAMPLED	08/12/97	08/12/97	08/12/97	08/12/97	08/12/97	08/12/97
TOTAL METALS (ug/L)						
ALUMINUM, TOTAL	168	42	82.3	57.9	41.4	49.7
BARIUM, TOTAL	13.1	12.3	13.5	25.8	20.8	19.8
CALCIUM, TOTAL	31200	30800	31100	61600	53200	51600
COPPER, TOTAL	1.2	1.1	0.82	0.93	1.4	1
IRON, TOTAL	976	550	616	534	960	879
LEAD, TOTAL	1.5 U	1.5 U	2.5	1.5 U	1.5 U	1.5 U
MAGNESIUM, TOTAL	1860	1860	1870	1870	1910	1890
MANGANESE, TOTAL	32.2	28.4	32.4	15.2	28.4	28.2
POTASSIUM, TOTAL	2990	2930	2910	1710	1880	1760
SODIUM, TOTAL	13100	13000	13000	13800	12100	12100
VANADIUM, TOTAL	0.87	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
ZINC, TOTAL	3	2	2.1	3.8	3.1	10.9

U = not detected
ug/L = micrograms per liter

TABLE 15

SUMMARY OF SEDIMENT ANALYTICAL RESULTS - AUGUST 1997
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Fraction	Detected Compounds or Analytes	NOAA	Concentration Range		Location of Maximum Detection	Detection Frequency	Detections Above Comparison Criteria
			Min.	Max.			
Volatiles	Acetone	NE	14	840	41-UT-SD02	8/8	NA
	2-Butanone	NE	180	180	41-UT-SD02	1/8	NA
Metals	Aluminum	NE	261	6,600	41-UT-SD02	8/8	NA
	Arsenic	8.2	2.4	2.4	41-UT-SD02	1/8	0
	Barium	NE	1.2	97.7	41-UT-SD02	8/8	NA
	Beryllium	NE	0.07	0.34	41-TC-SD11	4/8	NA
	Cadmium	1.2	0.68	0.68	41-UT-SD02	1/8	0
	Chromium	81	0.69	8.3	41-UT-SD02	8/8	0
	Copper	34	0.15	17.9	41-UT-SD02	8/8	0
	Iron	NE	153	69,400	41-UT-SD02	8/8	NA
	Lead	46.7	1.2	40.4	41-UT-SD01	8/8	0
	Manganese	NE	1.1	263	41-UT-SD02	8/8	NA
	Nickel	20.9	0.72	3.3	41-UT-SD02	3/8	0
	Zinc	150	3.8	81.1	41-UT-SD02	8/8	0

Notes:

Volatile Compound concentrations presented in micrograms per kilogram (µg/kg) or parts per billion.
Metal concentrations presented in milligrams per kilogram (mg/kg) or parts per million.

NA = Not Applicable
ND = Not Detected
NE = Not Established
NOAA = U.S. Environmental Protection Agency, Region IV - Adoption of Risk-Based Effects Range Low Values for Aquatic Life from the National Oceanic and Atmospheric Administration (NOAA).

TABLE 16

POSITIVE DETECTIONS IN SEDIMENT
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR41-DD-SD01-97C	IR41-DD-SD02-97C	IR41-TC-SD10-97C	IR41-TC-SD11-97C	IR41-TC-SD12-97C	IR41-UT-SD01-97C	IR41-UT-SD02-97C	IR41-UT-SD03-97C
DATE SAMPLED	08/12/97	08/12/97	08/12/97	08/12/97	08/12/97	08/12/97	08/12/97	08/12/97
VOLATILES (ug/kg)								
ACETONE	54	18	28	15	16	27	840	14
2-BUTANONE	22 U	12 U	16 U	13 U	14 U	12 U	180	12 U
TOTAL METALS (mg/kg)								
ALUMINUM, TOTAL	4650	261	3450	698	676	1580	6600	697
ARSENIC, TOTAL	0.82 U	0.57 U	0.82 U	0.5 U	0.62 U	0.5 U	2.4	0.53 U
BARIUM, TOTAL	37.1	1.2	23	8.8	6.8	6.4	97.7	3.5
BERYLLIUM, TOTAL	0.15	0.07 U	0.25	0.34	0.07 U	0.07	0.26 U	0.06 U
CADMIUM, TOTAL	0.13 U	0.09 U	0.13 U	0.08 U	0.1 U	0.08 U	0.68	0.09 U
CALCIUM, TOTAL	1900	228	1770	620	265	2360	11500	291
CHROMIUM, TOTAL	5.6	0.69	4.3	1.1	1.2	3.3	8.3	1
COBALT, TOTAL	0.54	0.16 U	0.82	0.24	0.53	0.14 U	9.7	0.45
COPPER, TOTAL	3.4	0.51	2.1	0.15	0.27	0.92	17.9	0.41
IRON, TOTAL	29300	153	1930	1110	761	2580	69400	540
LEAD, TOTAL	15.3	1.2	12.9	1.7	1.9	40.4	20.4	2.9
MAGNESIUM, TOTAL	169	10.9	148	26.4	28.1	80.3	498	23.8
MANGANESE, TOTAL	39.7	1.1	9.2	6.9	9.7	4.4	263	4.7
NICKEL, TOTAL	0.72	0.18 U	0.84	0.16 U	0.2 U	0.16 U	3.3	0.17 U
POTASSIUM, TOTAL	205	47	200	57.8	64.4	77.1	386	52.7
SODIUM, TOTAL	112	46.5 U	131	41.9	50.5 U	56.9	378	43.6 U
VANADIUM, TOTAL	8.1	0.44	6.1	1.1	1.1	3.4	17	1.1
ZINC, TOTAL	30.1	3.8	13.3	5.5	6.1	5.9	81.1	7.2

U = not detected
ug/kg = micrograms per kilogram
mg/kg = milligrams per kilogram

TABLE 17

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS - AUGUST 1997
OPERABLE UNIT NO. 4 - SITE 74
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Fraction	Detected Analytes	Comparison Criteria		Concentration Range		Location of Maximum Detection	Detection Frequency	Detections Above	
		NCWQS	MCL	Min.	Max.			NCWQS	MCL
Total Metals	Aluminum	NE	200 (1)	279	2,900	74-GW03A	4/4	NA	4
	Barium	2,000	2,000	40.8	90.6	74-GW07	4/4	0	0
	Chromium	50	100	1.2	1.2	74-GW03A	1/4	0	0
	Copper	1,000	1,300	1.1	1.3	74-GW02	4/4	0	0
	Iron	300	300 (1)	61.8	1,900	74-GW07	4/4	2	2
	Manganese	50	50 (1)	2.0	4.1	74-GW07	4/4	0	0
	Zinc	2100	5,000 (1)	1.2	2.6	74-GW03A	4/4	0	0
Wet Chemistry	Total Dissolved Solids	500	500 (1)	36	68	74-GW02	4/4	0	0

Notes:

Metal concentrations presented in micrograms per liter (µg/L) or parts per billion.
Wet chemistry concentrations presented in milligrams per liter (mg/L) or parts per million.

(1) - Secondary Federal Maximum Contaminant Level (Refer to MCL Note Below).

J = Estimated Value
MCL = Federal Maximum Contaminant Level. Maximum permissible level of a contaminant in water which is delivered users of public water systems (U.S. Environmental Protection Agency - Drinking Water Regulations and Health Advisories).
NA = Not Applicable
NCWQS = North Carolina Water Quality Standards (North Carolina Administrative Code, Title 15A, Subchapter 2L).
NE = Not Established

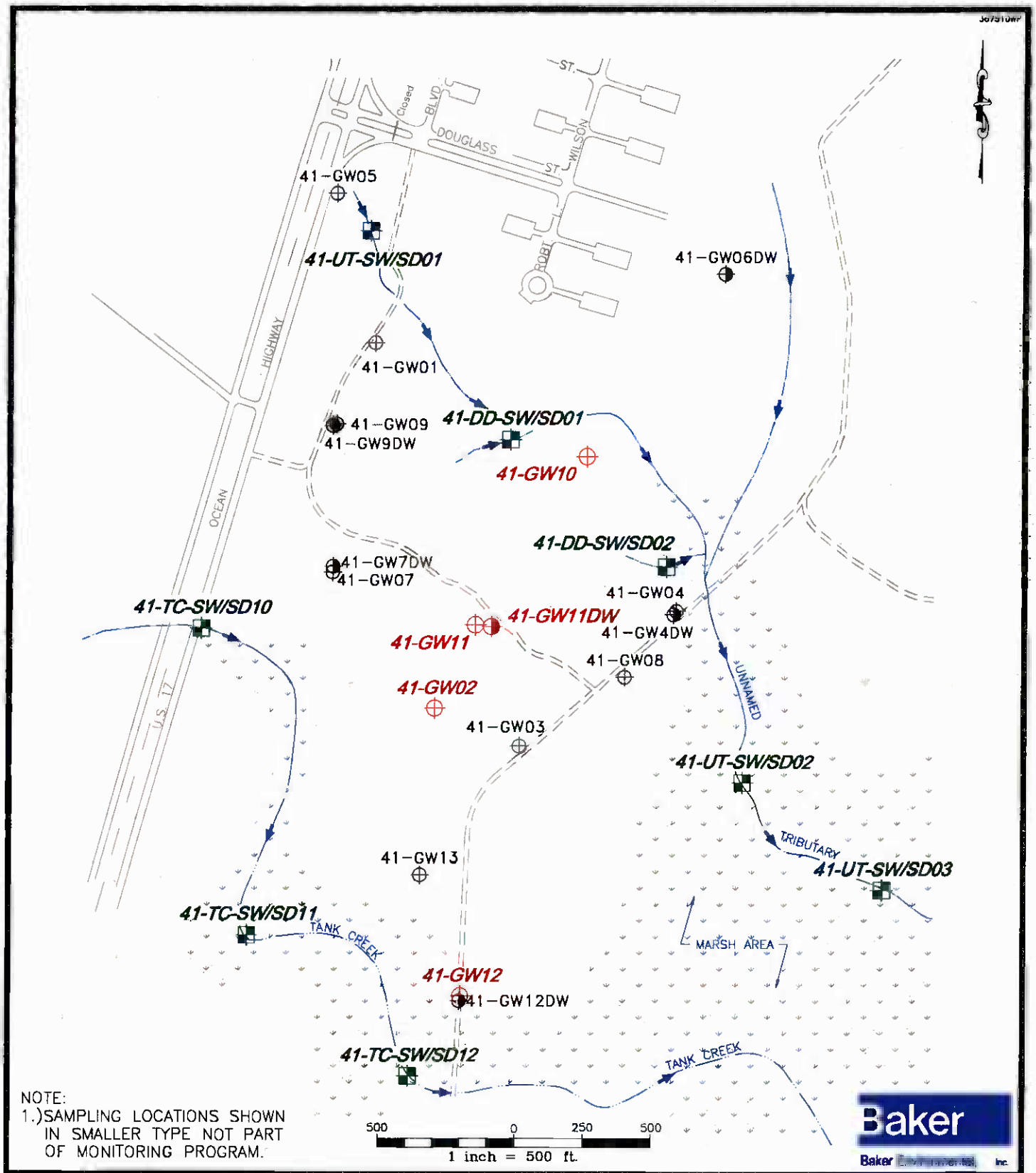
TABLE 18

POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 4 - SITE 74
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR74-GW01-97C	IR74-GW02-97C	IR74-GW03A-97C	IR74-GW07-97C
DATE SAMPLED	08/11/97	08/11/97	08/11/97	08/11/97
TOTAL METALS (ug/L)				
ALUMINUM, TOTAL	411	585	2900	279
BARIUM, TOTAL	40.8	42.5	54.1	90.6
CALCIUM, TOTAL	553	12000	192	358
CHROMIUM, TOTAL	0.7 U	0.7 U	1.2	0.7 U
COPPER, TOTAL	1.1	1.3	1.1	1.2
IRON, TOTAL	180	61.8	443	1900
MAGNESIUM, TOTAL	1170	1330	561	1920
MANGANESE, TOTAL	2.3	2.2	2	4.1
POTASSIUM, TOTAL	563	250	352	843
SODIUM, TOTAL	5420	2410	6970	7980
VANADIUM, TOTAL	0.8 U	0.8 U	3	3.5
ZINC, TOTAL	1.2	1.5	2.6	1.7
WET CHEMISTRY (mg/L)				
TOTAL DISSOLVED SOLIDS	36	68	40	52

U = Not detected
ug/L = micrograms per liter
mg/L = milligrams per liter

FIGURES

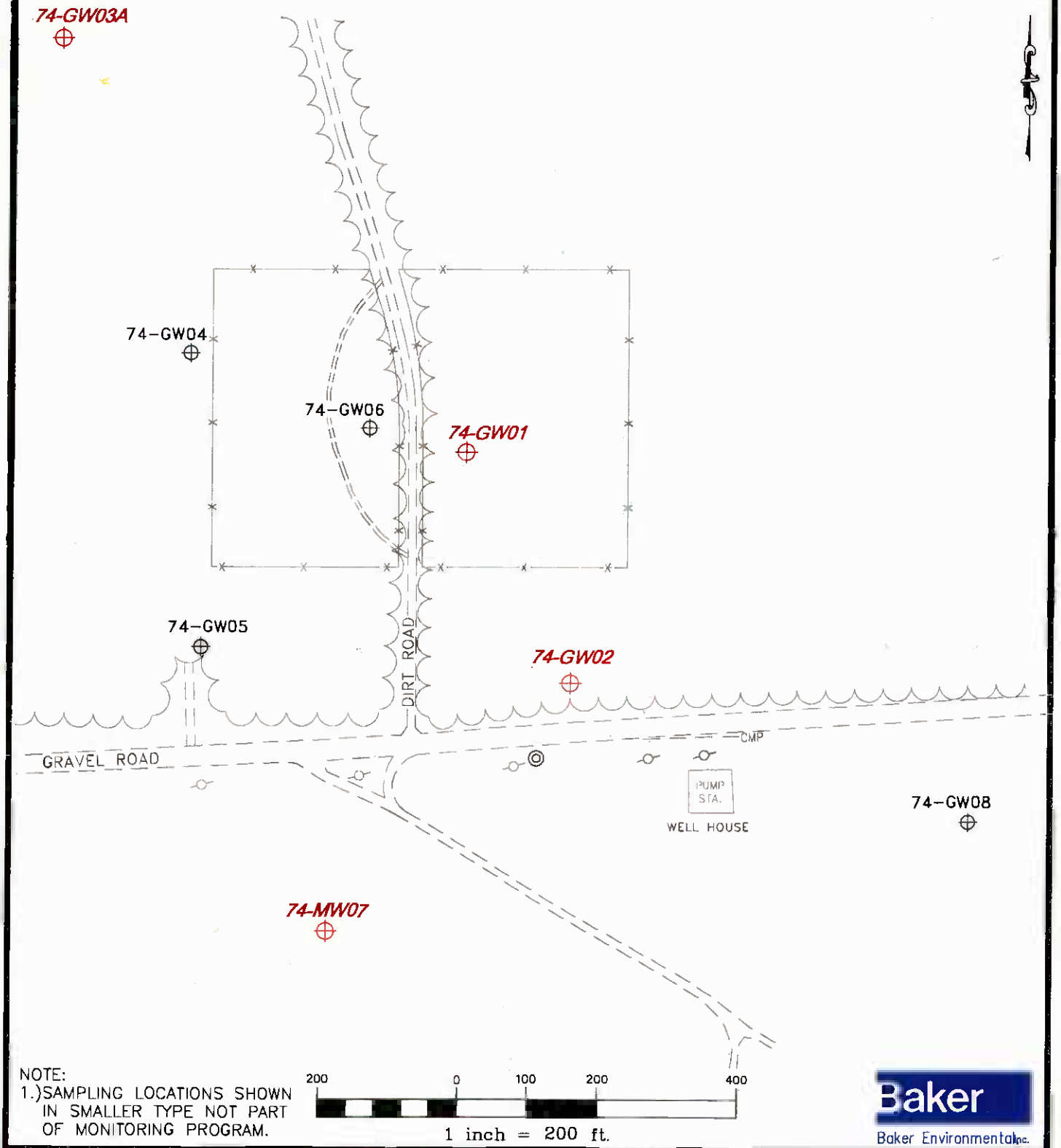


LEGEND

- 41-GW11DW – DEEP MONITORING WELL
- 41-GW01 – SHALLOW MONITORING WELL
- 41-TC-SW/SD01 – SURFACE WATER AND SEDIMENT SAMPLING STATIONS
- ROAD (IMPROVED)
- ROAD (UNIMPROVED)
- DIRECTION OF SURFACE WATER FLOW

SOURCE: LANTDIV, OCT. 1991

FIGURE 1
SAMPLING LOCATION MAP
OPERABLE UNIT NO. 4 – SITE 41
MONITORING AND O&M SUPPORT
CTO – 0367
MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA



NOTE:
1.)SAMPLING LOCATIONS SHOWN IN SMALLER TYPE NOT PART OF MONITORING PROGRAM.

200 0 100 200 400

1 inch = 200 ft.

Baker Environmental, Inc.

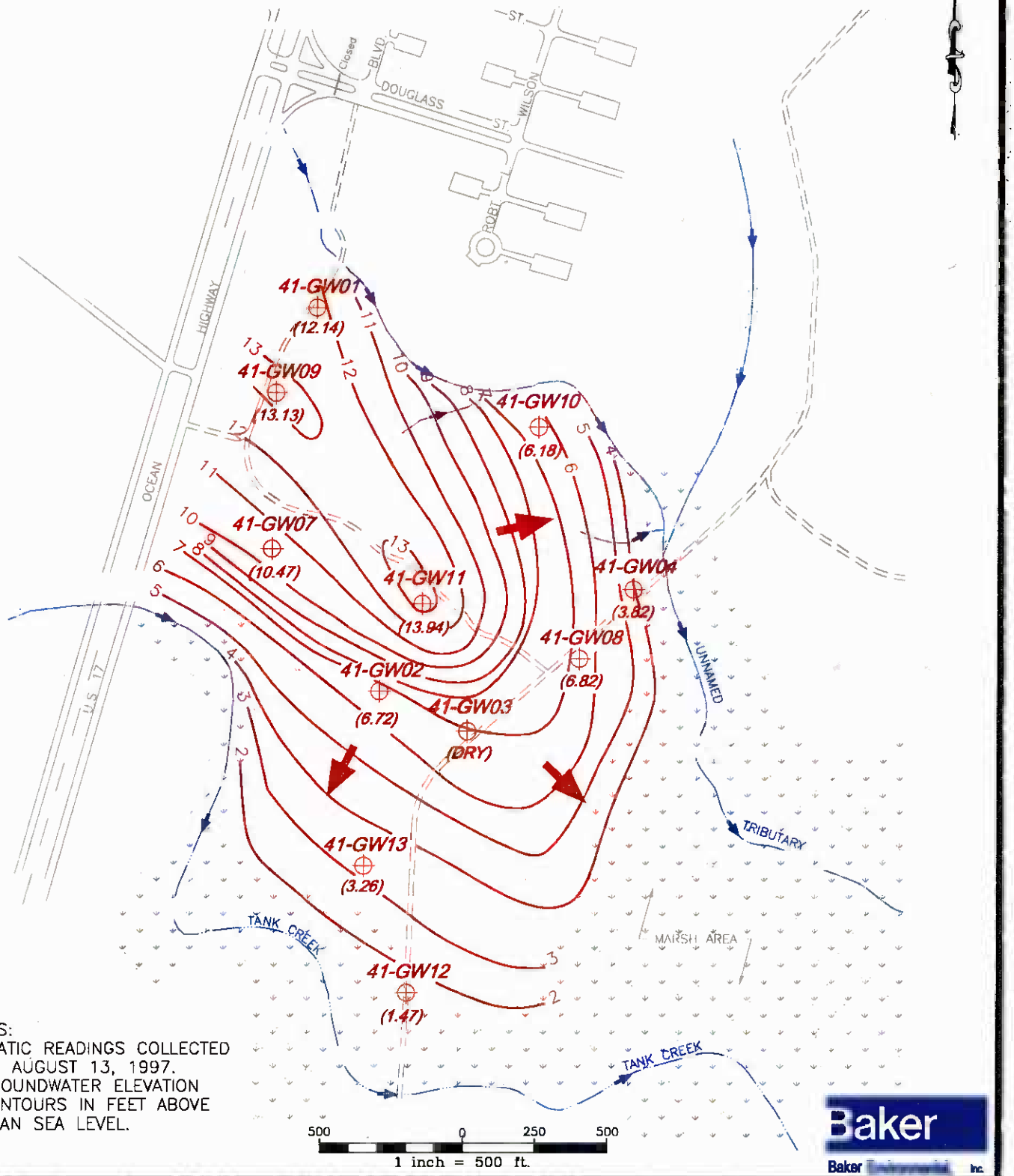
LEGEND

74-GW01 – SHALLOW MONITORING WELL
– SANITARY MANHOLE
– UTILITY POLE
– TREE LINE
– FENCE (APPROXIMATE)

SOURCE: LANTDIV. OCT. 1991

FIGURE 2
SAMPLING LOCATION MAP
OPERABLE UNIT NO. 4 – SITE 74
MONITORING AND O&M SUPPORT
CTO – 0367

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA



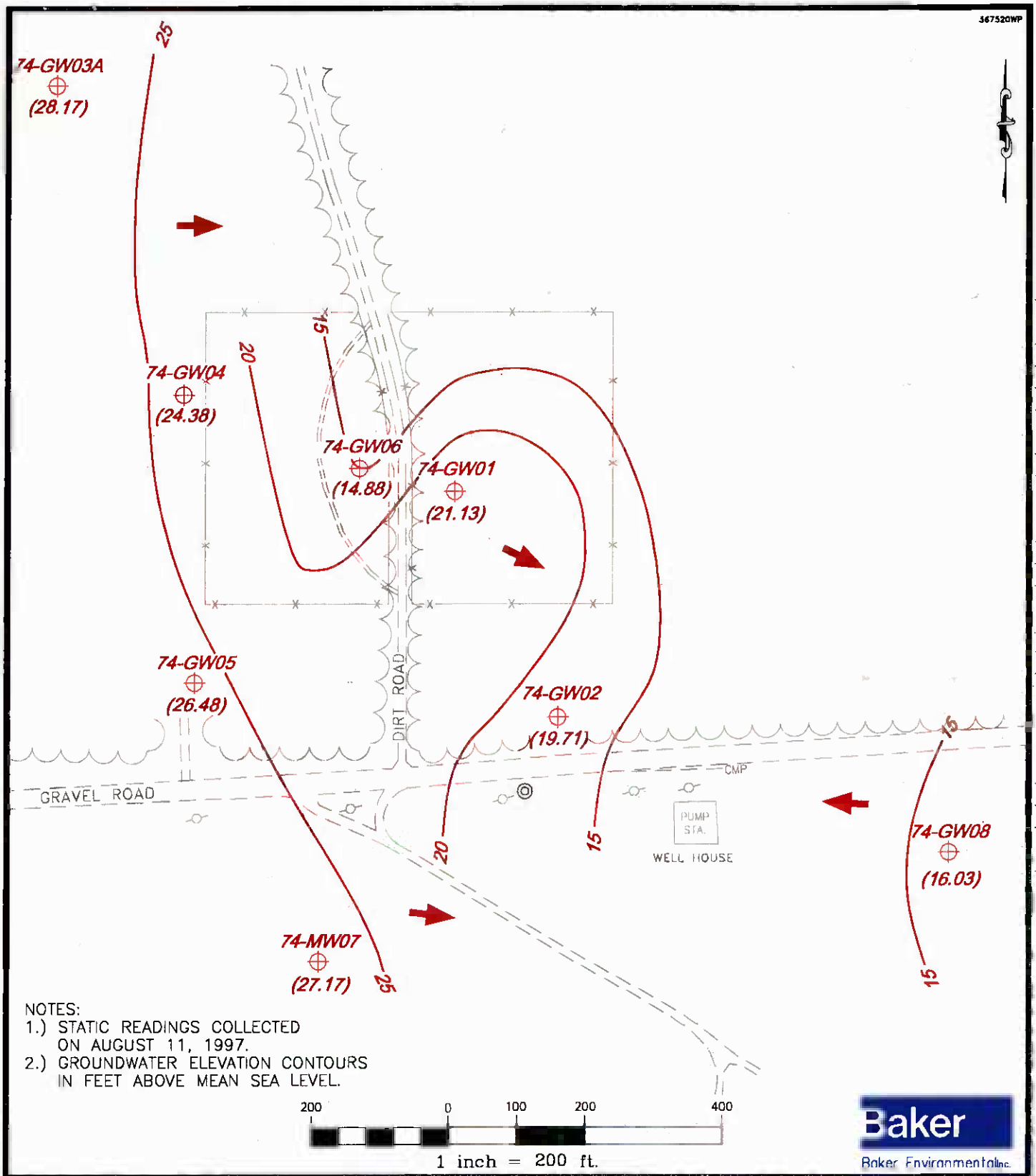
NOTES:
1.)STATIC READINGS COLLECTED ON AUGUST 13, 1997.
2.)GROUNDWATER ELEVATION CONTOURS IN FEET ABOVE MEAN SEA LEVEL.

LEGEND

- 41-GW01 ⊕ – SHALLOW MONITORING WELL
- (6.72) – GROUNDWATER ELEVATION
- 10.0 – GROUNDWATER ELEVATION CONTOUR
- → – APPROXIMATE DIRECTION OF GROUNDWATER FLOW
- → – DIRECTION OF SURFACE WATER FLOW

SOURCE: LANTDIV, OCT. 1991

FIGURE 3
SHALLOW GROUNDWATER CONTOUR MAP
OPERABLE UNIT NO. 4 – SITE 41
MONITORING AND O&M SUPPORT
CTO – 0367
MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA



LEGEND

74-GW01 ⊕ – SHALLOW MONITORING WELL

(27.17) – GROUNDWATER ELEVATION

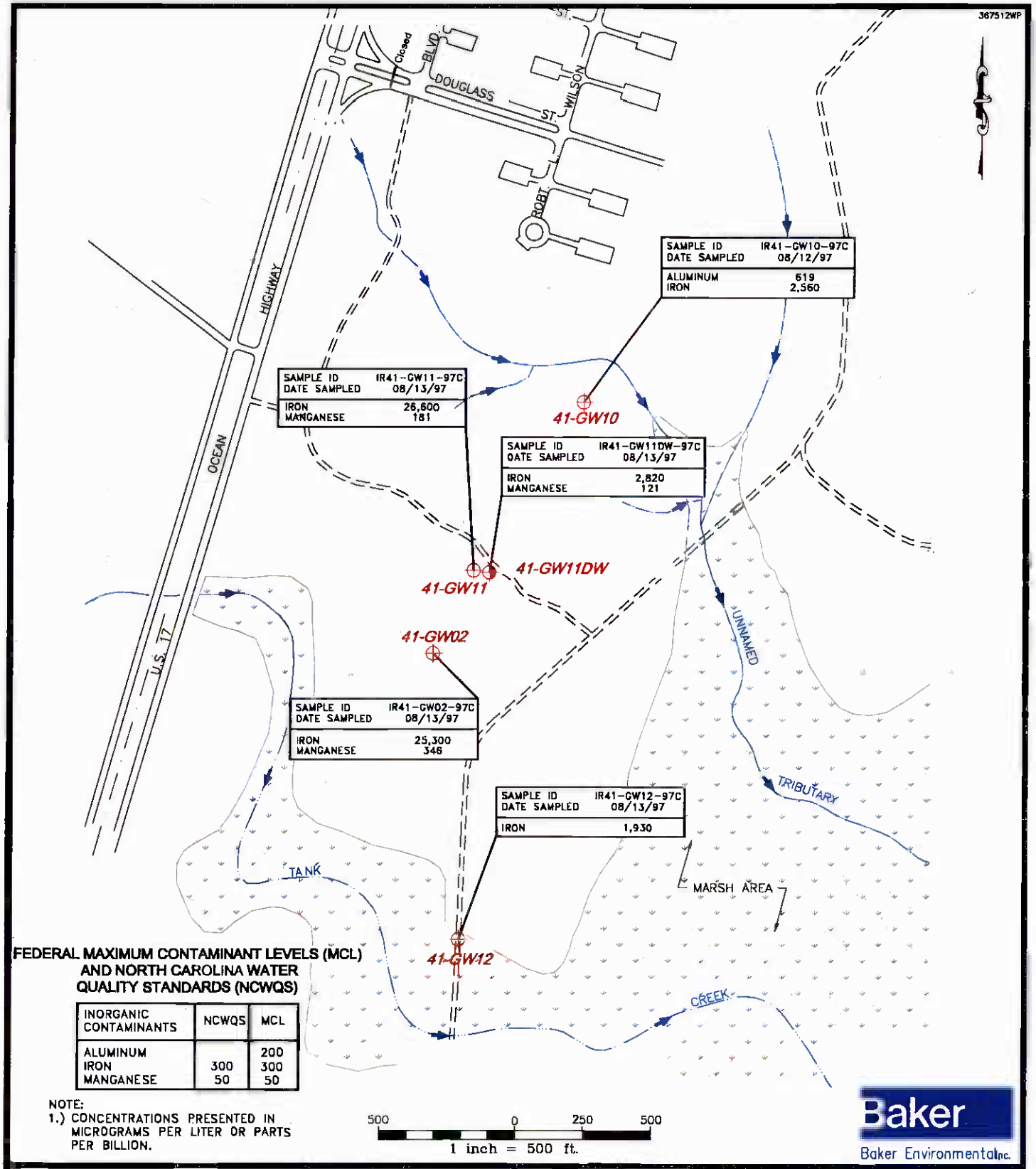
25 – GROUNDWATER ELEVATION CONTOUR

→ – APPROXIMATE DIRECTION OF GROUNDWATER FLOW

SOURCE: LANTDIV. OCT. 1991

FIGURE 4
SHALLOW GROUNDWATER CONTOUR MAP
OPERABLE UNIT NO. 4 – SITE 74
MONITORING AND O&M SUPPORT
CTO – 0367

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA



FEDERAL MAXIMUM CONTAMINANT LEVELS (MCL) AND NORTH CAROLINA WATER QUALITY STANDARDS (NCWQS)

INORGANIC CONTAMINANTS	NCWQS	MCL
ALUMINUM		200
IRON	300	300
MANGANESE	50	50

NOTE:
1.) CONCENTRATIONS PRESENTED IN MICROGRAMS PER LITER OR PARTS PER BILLION.

Baker
Baker Environmental, Inc.

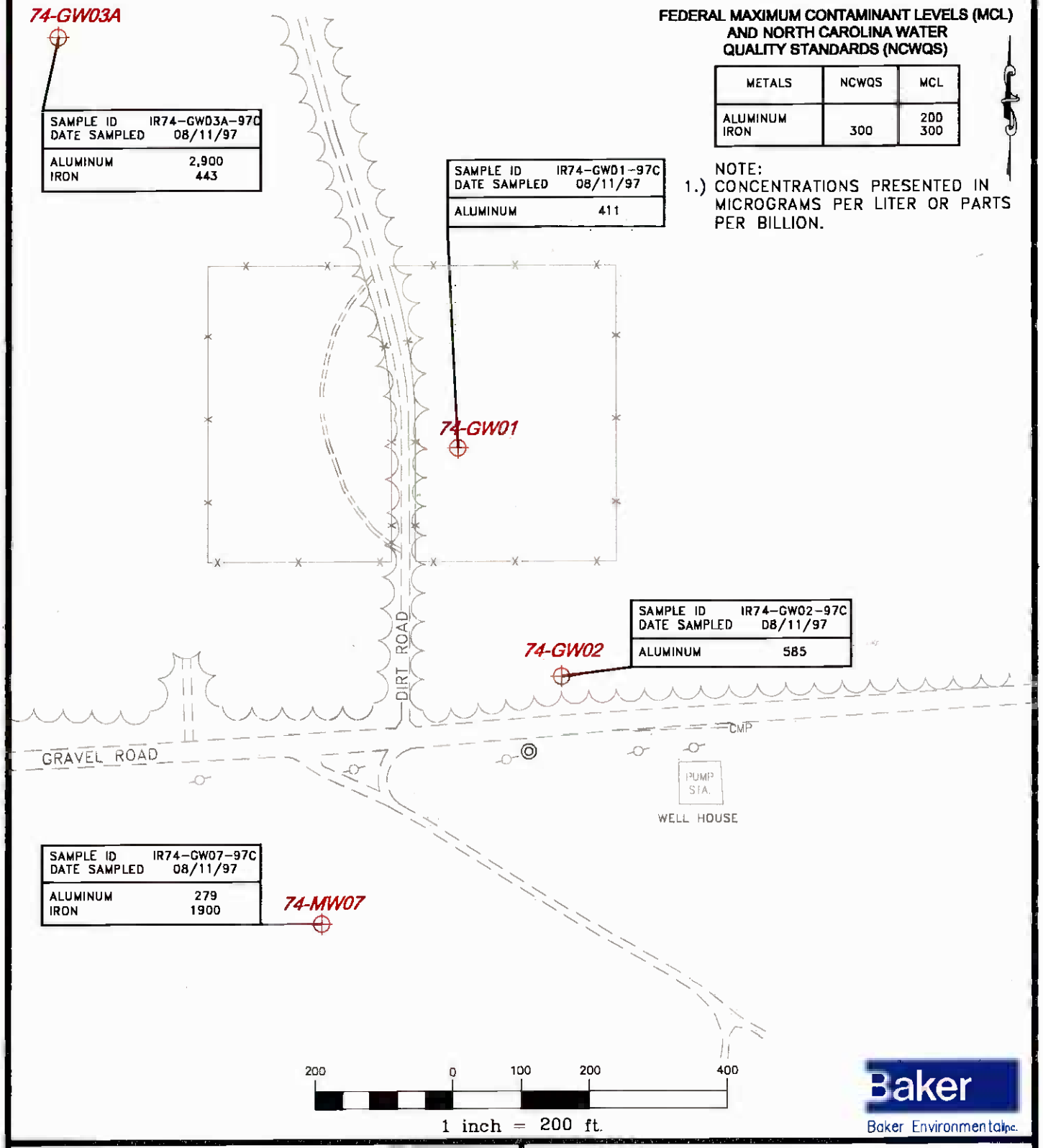
LEGEND

41-GW11DW – DEEP MONITORING WELL
41-GW01 – SHALLOW MONITORING WELL
– ROAD (IMPROVED)
– ROAD (UNIMPROVED)
– DIRECTION OF SURFACE WATER FLOW

SOURCE: LANTDIV, OCT. 1991

FIGURE 5
METALS IN GROUNDWATER ABOVE SCREENING STANDARDS
OPERABLE UNIT NO. 4 – SITE 41
MONITORING AND O&M SUPPORT
CTO – 0367

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA



FEDERAL MAXIMUM CONTAMINANT LEVELS (MCL) AND NORTH CAROLINA WATER QUALITY STANDARDS (NCWQS)

METALS	NCWQS	MCL
ALUMINUM		200
IRON	300	300

NOTE:
1.) CONCENTRATIONS PRESENTED IN MICROGRAMS PER LITER OR PARTS PER BILLION.

Baker
Baker Environmental Inc.

LEGEND

74-GW01 ⊕ – SHALLOW MONITORING WELL
◎ – SANITARY MANHOLE
–o– – UTILITY POLE
– TREE LINE
–x–x– – FENCE (APPROXIMATE)
– APPROXIMATE GROUNDWATER FLOW DIRECTION

SOURCE: LANTDIV. OCT. 1991

FIGURE 6
METALS IN GROUNDWATER ABOVE SCREENING STANDARDS
OPERABLE UNIT NO. 4 – SITE 74
MONITORING AND O&M SUPPORT
CTO – 0367
MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

ATTACHMENTS

ATTACHMENT A
CHAIN-OF-CUSTODY DOCUMENTATION

RECRA LabNet Use Only

COC # 367-4101

Custody Transfer Record/Lab Work Request

RECRA LabNet
a division of Recra Environmental, Inc.

Client Baker
Est. Final Proj. Sampling Date 8-22-97
Project # 367
Project Contact/Phone # Trebilcock 412-269-2051
RECRA Project Manager Ramirez
QC ____ Del ____ TAT ____
Date Rec'd ____ Date Due ____
Account # ____

Refrigerator #
#/Type Container — Liquid / Solid
Volume — Liquid / Solid
Preservatives
ANALYSES REQUESTED →

MATRIX CODES	Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected 1997	Time Collected	ORGANIC VOA	BNA	Pest/PCB	Herb	INORG Metal	CN	TSS & TDS	Turn
S - Soil, SE - Sediment, SO - Solid, SL - Sludge, W - Water, O - Oil, A - Air, DS - Drum Solids, DL - Drum Liquids, L - EP/TCLP Leachate, WI - Wipe, X - Other, F - Fish								RECRA LabNet Use Only							
		74-GW01-97C			W	8/11	1555					X		X	R
		74-GW02-97C			W	8/11	1445					X		X	R
		74-GW03A-97C			W	8/11	1400					X		X	R
		74-GW07-97C			W	8/11	1330					X		X	R
		~~41-TC-SW01-97~~													(1)
		41-TC-SW12-97C			W	8/12	0755	X				X			R
		41-TC-SD12-97C			SE	8/12	0755	X				X			R
		41-TC-SW11-97C			W	8/12	0823	X				X			R
		41-TC-SD11-97C			SE	8/12	0823	X				X			R
		~~41-TC-SW10~~													(1)

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:
Metals by CLP | VOA by CLP

FedEx 525313 5790

Turn = turnaround R = Routine

DATE/REVISIONS:
7.7.7 1. Errors
2.
3.
4.
5.
6.

RECRA LabNet Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___
Airbill # ____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

Relinquished by	Received by	Date	Time
7.7.7	FedEx	8/12/97	1700

Relinquished by	Received by	Date	Time

97P-1424

COC # 367-4101

RECRA LabNet Use Only

Custody Transfer Record/Lab Work Request

RECRA LabNet
a division of Recra Environmental, Inc.

Client: Baker
Est. Final Proj. Sampling Date: 8-22-97
Project #: 367
Project Contact/Phone #: Trebilcock 412-269-2951
RECRA Project Manager: Ramirez
QC ____ Del ____ TAT ____
Date Rec'd ____ Date Due ____
Account # ____

Refrigerator #
#/Type Container: Liquid / Solid
Volume: Liquid / Solid
Preservatives

ANALYSES REQUESTED → ORGANIC: VOA, BNA, Pest/PCB, Herb; INORG: Metal, CN; Turn

MATRIX CODES: S - Soil; SE - Sediment; SO - Solid; SL - Sludge; W - Water; O - Oil; A - Air; DS - Drum Solids; DL - Drum Liquids; L - EP/TCLP Leachate; WI - Wipe; X - Other; F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected 1997	Time Collected	VOA	BNA	Pest/PCB	Herb	Metal	CN	Turn
	41-UT-SW02-97C			W	8/12	0926	X				X		R
	41-UT-SD02-97C			SE	8/12	0926	X				X		R
	41-UT-SW03-97C			W	8/12	1050	X				X		R
	41-UT-SD03-97C			SE	8/12	1000	X				X		R
	41-DD-SD02-97C			SE	8/12	1030	X				X		R
	41-TB01-97C			W	8/12	0800	X						R

RECRA LabNet Use Only

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:

41-TB01-97C = Lab Blank
Metals by CLP, VOAs by CLP
FedEx 5253135790
R = Routine Turn = Turnaround

DATE/REVISIONS:

1. ____
2. ____
3. ____
4. ____
5. ____
6. ____

Relinquished by	Received by	Date	Time
T.T.T.	FedEx	8/12/97	1706

Relinquished by	Received by	Date	Time

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

RECRA LabNet Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___
Airbill # ____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

RECRA LabNet Use Only

COC # 367-4102

Custody Transfer Record/Lab Work Request

RECRA LabNet
a division of Recra Environmental, Inc.

Client: Baker
Est. Final Proj. Sampling Date: Today
Project #: 367
Project Contact/Phone #: Trebilcock 412-269-20x1
RECRA Project Manager: Ramirez
QC ____ Del ____ TAT ____
Date Rec'd ____ Date Due ____
Account # ____

Refrigerator #

#/Type Container	Liquid																		
	Solid																		
Volume	Liquid																		
	Solid																		
Preservatives																			

ANALYSES REQUESTED →

	ORGANIC							INORG							
	VOA	BNA	Pest/PCB	Herb				Metal	CN	TPH	TPH				Turn
RECRA LabNet Use Only															

MATRIX CODES: S - Soil, SE - Sediment, SO - Solid, SL - Sludge, W - Water, O - Oil, A - Air, DS - Drum Solids, DL - Drum Liquids, L - EP/TCLP Leachate, WI - Wipe, X - Other, F - Fish	Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected 1997	Time Collected												
		41-TC-SW10-97C			W	8/12	1212	X					X						R
		41-TC-SD10-97C		SE	~~SD~~	8/12	1212	X					X						
		41-UT-SW01-97C			W	8/12	1240	X					X						
		41-UT-SD01-97C			SE	8/12	1240	X					X						
		41-DD-SD01-97C			SE	8/12	1348	X					X						
		41-GW10-97C			W	8/12	1435	X					X		X				
		41-TB02-97C			W	8/12	1500	X					X						
		41-GW11-97C			W	8/13	0850	X					X		X				
		41-GW11DW-97C			W	8/13	0900	X					X		X				
		41-GW02-97C			W	8/13	1035	X					X		X				↓

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:
41-TB02-97C = Trip Blank
VOAs by CLP, Metals by CLP
Turn = turnaround R = Routine
FedEx # 5253135834

DATE/REVISIONS:
7.7.7 1. Sediment Sample
2. ____
3. ____
4. ____
5. ____
6. ____

RECRA LabNet Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___
Airbill # ____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

Relinquished by	Received by	Date	Time
7.7.7.	FedEx	8/13/97	1700

Relinquished by	Received by	Date	Time

97P-1424

RECRA LabNet Use Only

COC # 367-41102

Custody Transfer Record/Lab Work Request

RECRA LabNet
a division of Recra Environmental, Inc.

Client: Baker
Est. Final Proj. Sampling Date: 8-13-97
Project #: 367
Project Contact/Phone #: Trebilcock 412-269-2051
RECRA Project Manager: Ramirez
QC ____ Del ____ TAT ____
Date Rec'd ____ Date Due ____
Account # ____

Refrigerator #

		VOA	BNA	Pest/PCB	Herb				Metal	CN	TSS	FP					TUTN
#/Type Container	Liquid																
	Solid																
Volume	Liquid																
	Solid																
Preservatives																	
ANALYSES REQUESTED →		ORGANIC							INORG								

MATRIX CODES:	Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected 1997	Time Collected	RECRA LabNet Use Only											
S - Soil, SE - Sediment, SO - Solid, SL - Sludge, W - Water, O - Oil, A - Air, DS - Drum Solids, DL - Drum Liquids, L - EP/TCLP Leachate, WI - Wipe, X - Other, F - Fish		41-GW12-97C			W	8/13	1150	X						X		X			R

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:
VOAs by CLP, Metals by CLP
turn = turnaround, R = Routine
FedEx # 5253135834

DATE/REVISIONS:
1. ____
2. ____
3. ____
4. ____
5. ____
6. ____

RECRA LabNet Use Only

Samples were:
1) Shipped ___ or Hand Delivered ___
Airbill # ____
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was:
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N
COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Labels and COC Record? Y or N
NOTES:

Relinquished by	Received by	Date	Time
T.T.	FedEx	8/13/97	1700

Relinquished by	Received by	Date	Time

97P-1424

ATTACHMENT B
MONITORING PROGRAM ANALYTICAL RESULTS - AUGUST 1997

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	IR41-GW02-97C	IR41-GW10-97C	IR41-GW11-97C	IR41-GW11DW-97C	IR41-GW12-97C
DATE SAMPLED	08/13/97	08/12/97	08/13/97	08/13/97	08/13/97
VOLATILES (ug/L)					
CHLOROETHANE	10 U	10 U	10 U	10 U	10 U
METHYLENE CHLORIDE	10 U	10 U	10 U	10 U	10 U
ACETONE	10 U	10 U	10 U	10 U	10 U
CARBON DISULFIDE	10 U	10 U	10 U	10 U	10 U
1,1-DICHLOROETHENE	10 U	10 U	10 U	10 U	10 U
1,1-DICHLOROETHANE	10 U	10 U	10 U	10 U	10 U
1,2-DICHLOROETHENE (TOTAL)	10 U	10 U	10 U	10 U	10 U
CHLOROFORM	10 U	10 U	10 U	10 U	10 U
1,2-DICHLOROETHANE	10 U	10 U	10 U	10 U	10 U
2-BUTANONE	10 U	10 U	10 U	10 U	10 U
1,1,1-TRICHLOROETHANE	10 U	10 U	10 U	10 U	10 U
CARBON TETRACHLORIDE	10 U	10 U	10 U	10 U	10 U
BROMODICHLOROMETHANE	10 U	10 U	10 U	10 U	10 U
1,2-DICHLOROPROPANE	10 U	10 U	10 U	10 U	10 U
CIS-1,3-DICHLOROPROPENE	10 U	10 U	10 U	10 U	10 U
TRICHLOROETHENE	10 U	10 U	10 U	10 U	10 U
DIBROMOCHLOROMETHANE	10 U	10 U	10 U	10 U	10 U
1,1,2-TRICHLOROETHANE	10 U	10 U	10 U	10 U	10 U
BENZENE	10 U	10 U	4 J	10 U	10 U
TRANS-1,3-DICHLOROPROPENE	10 U	10 U	10 U	10 U	10 U
BROMOFORM	10 U	10 U	10 U	10 U	10 U
4-METHYL-2-PENTANONE	10 U	10 U	10 U	10 U	10 U
2-HEXANONE	10 U	10 U	10 U	10 U	10 U
TETRACHLOROETHENE	10 U	10 U	10 U	10 U	10 U
1,1,2,2-TETRACHLOROETHANE	10 U	10 U	10 U	10 U	10 U
TOLUENE	10 U	10 U	10 U	10 U	10 U
CHLOROBENZENE	10 U	10 U	10 U	10 U	10 U
ETHYLBENZENE	10 U	10 U	10 U	10 U	10 U
STYRENE	10 U	10 U	10 U	10 U	10 U
XYLENE (TOTAL)	10 U	10 U	10 U	10 U	10 U

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS AND WET CHEMISTRY

SAMPLE ID	IR41-GW02-97C	IR41-GW10-97C	IR41-GW11-97C	IR41-GW11DW-97C	IR41-GW12-97C
DATE SAMPLED	08/13/97	08/12/97	08/13/97	08/13/97	08/13/97
TOTAL METALS (ug/L)					
ALUMINUM, TOTAL	122	619	28.6 U	28.6 U	28.6 U
ANTIMONY, TOTAL	1.9	1.9 U	1.9 U	1.9 U	1.9 U
ARSENIC, TOTAL	2.5 U	2.5 U	3	2.5 U	2.5 U
BARIUM, TOTAL	71.5	16.9	538	48.6	12.6
BERYLLIUM, TOTAL	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
CADMIUM, TOTAL	0.4 U	0.4 U	0.4 U	0.4 U	0.4 U
CALCIUM, TOTAL	116000	49400	87200	203000	57100
CHROMIUM, TOTAL	0.89	1.6	0.99	0.74	0.7 U
COBALT, TOTAL	2	0.7 U	0.7 U	0.7 U	2
COPPER, TOTAL	1	0.99	1.1	0.92	0.5 U
IRON, TOTAL	25300	2560	26600	2820	1930
LEAD, TOTAL	2.6	1.5 U	1.5 U	1.5 U	1.5 U
MAGNESIUM, TOTAL	19900	1780	18600	6670	2200
MANGANESE, TOTAL	346	47	181	121	42.8
MERCURY, TOTAL	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
NICKEL, TOTAL	0.8 U	0.8 U	2.7	6.8	0.8 U
POTASSIUM, TOTAL	19100	836	33000	2930	1610
SELENIUM, TOTAL	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
SILVER, TOTAL	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
SODIUM, TOTAL	27400	5770	42800	210000	5460
THALLIUM, TOTAL	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
VANADIUM, TOTAL	0.8 U	0.97	0.8 U	0.8 U	0.8 U
ZINC, TOTAL	1.8	2.2	10.9	1.2	2.3
WET CHEMISTRY (mg/L)					
TOTAL DISSOLVED SOLIDS	530	170	510	1200	210
TOTAL SUSPENDED SOLIDS	30	10	33	4 U	4 U

SURFACE WATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	IR41-TC-SW10-97C	IR41-TC-SW11-97C	IR41-TC-SW12-97C	IR41-UT-SW01-97C	IR41-UT-SW02-97C	IR41-UT-SW03-97C
DATE SAMPLED	08/12/97	08/12/97	08/12/97	08/12/97	08/12/97	08/12/97
VOLATILES (ug/L)						
CHLOROETHANE	10 U	10 U	10 U	10 U	10 U	10 U
METHYLENE CHLORIDE	10 U	10 U	10 U	10 U	10 U	10 U
ACETONE	10 U	10 U	10 U	10 U	10 U	10 U
CARBON DISULFIDE	10 U	10 U	10 U	10 U	10 U	10 U
1,1-DICHLOROETHENE	10 U	10 U	10 U	10 U	10 U	10 U
1,1-DICHLOROETHANE	10 U	10 U	10 U	10 U	10 U	10 U
1,2-DICHLOROETHENE (TOTAL)	10 U	10 U	10 U	10 U	10 U	10 U
CHLOROFORM	10 U	10 U	10 U	10 U	10 U	10 U
1,2-DICHLOROETHANE	10 U	10 U	10 U	10 U	10 U	10 U
2-BUTANONE	10 U	10 U	10 U	10 U	10 U	10 U
1,1,1-TRICHLOROETHANE	10 U	10 U	10 U	10 U	10 U	10 U
CARBON TETRACHLORIDE	10 U	10 U	10 U	10 U	10 U	10 U
BROMODICHLOROMETHANE	10 U	10 U	10 U	10 U	10 U	10 U
1,2-DICHLOROPROPANE	10 U	10 U	10 U	10 U	10 U	10 U
CIS-1,3-DICHLOROPROPENE	10 U	10 U	10 U	10 U	10 U	10 U
TRICHLOROETHENE	10 U	10 U	10 U	10 U	10 U	10 U
DIBROMOCHLOROMETHANE	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-TRICHLOROETHANE	10 U	10 U	10 U	10 U	10 U	10 U
BENZENE	10 U	10 U	10 U	10 U	10 U	10 U
TRANS-1,3-DICHLOROPROPENE	10 U	10 U	10 U	10 U	10 U	10 U
BROMOFORM	10 U	10 U	10 U	10 U	10 U	10 U
4-METHYL-2-PENTANONE	10 U	10 U	10 U	10 U	10 U	10 U
2-HEXANONE	10 U	10 U	10 U	10 U	10 U	10 U
TETRACHLOROETHENE	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-TETRACHLOROETHANE	10 U	10 U	10 U	10 U	10 U	10 U
TOLUENE	10 U	10 U	10 U	10 U	10 U	10 U
CHLOROBENZENE	10 U	10 U	10 U	10 U	10 U	10 U
ETHYLBENZENE	10 U	10 U	10 U	10 U	10 U	10 U
STYRENE	10 U	10 U	10 U	10 U	10 U	10 U
XYLENE (TOTAL)	10 U	10 U	10 U	10 U	10 U	10 U

SURFACE WATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

SAMPLE ID	IR41-TC-SW10-97C	IR41-TC-SW11-97C	IR41-TC-SW12-97C	IR41-UT-SW01-97C	IR41-UT-SW02-97C	IR41-UT-SW03-97C
DATE SAMPLED	08/12/97	08/12/97	08/12/97	08/12/97	08/12/97	08/12/97
TOTAL METALS (ug/L)						
ALUMINUM, TOTAL	168	42	82.3	57.9	41.4	49.7
ANTIMONY, TOTAL	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
ARSENIC, TOTAL	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
BARIUM, TOTAL	13.1	12.3	13.5	25.8	20.8	19.8
BERYLLIUM, TOTAL	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
CADMIUM, TOTAL	0.4 U	0.4 U	0.4 U	0.4 U	0.91	0.4 U
CALCIUM, TOTAL	31200	30800	31100	61600	53200	51600
CHROMIUM, TOTAL	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
COBALT, TOTAL	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U	0.7 U
COPPER, TOTAL	1.2	1.1	0.82	0.93	1.4	1
IRON, TOTAL	976	550	616	534	960	879
LEAD, TOTAL	1.5 U	1.5 U	2.5	1.5 U	1.5 U	1.5 U
MAGNESIUM, TOTAL	1860	1860	1870	1870	1910	1890
MANGANESE, TOTAL	32.2	28.4	32.4	15.2	28.4	28.2
MERCURY, TOTAL	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
NICKEL, TOTAL	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
POTASSIUM, TOTAL	2990	2930	2910	1710	1880	1760
SELENIUM, TOTAL	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
SILVER, TOTAL	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U	0.6 U
SODIUM, TOTAL	13100	13000	13000	13800	12100	12100
THALLIUM, TOTAL	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
VANADIUM, TOTAL	0.87	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
ZINC, TOTAL	3	2	2.1	3.8	3.1	10.9

SEDIMENT ANALYTICAL RESULTS
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
VOLATILE ORGANICS

SAMPLE ID	IR41-DD-SD01-97C	IR41-DD-SD02-97C	IR41-TC-SD10-97C	IR41-TC-SD11-97C	IR41-TC-SD12-97C	IR41-UT-SD01-97C	IR41-UT-SD02-97C	IR41-UT-SD03-97C
DATE SAMPLED	08/12/97	08/12/97	08/12/97	08/12/97	08/12/97	08/12/97	08/12/97	08/12/97
VOLATILES (ug/kg)								
CHLOROMETHANE	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U
BROMOMETHANE	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U
VINYL CHLORIDE	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U
CHLOROETHANE	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U
METHYLENE CHLORIDE	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U
ACETONE	54	18	28	15	16	27	840	14
CARBON DISULFIDE	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U
1,1-DICHLOROETHENE	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U
1,1-DICHLOROETHANE	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U
1,2-DICHLOROETHENE (TOTAL)	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U
CHLOROFORM	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U
1,2-DICHLOROETHANE	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U
2-BUTANONE	22 U	12 U	16 U	13 U	14 U	12 U	180	12 U
1,1,1-TRICHLOROETHANE	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U
CARBON TETRACHLORIDE	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U
BROMODICHLOROMETHANE	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U
1,2-DICHLOROPROPANE	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U
CIS-1,3-DICHLOROPROPENE	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U
TRICHLOROETHENE	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U
DIBROMOCHLOROMETHANE	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U
1,1,2-TRICHLOROETHANE	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U
BENZENE	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U
TRANS-1,3-DICHLOROPROPENE	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U
BROMOFORM	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U
4-METHYL-2-PENTANONE	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U
2-HEXANONE	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U
TETRACHLOROETHENE	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U
1,1,2,2-TETRACHLOROETHANE	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U
TOLUENE	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U
CHLOROBENZENE	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U
ETHYLBENZENE	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U
STYRENE	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U
XYLENE (TOTAL)	22 U	12 U	16 U	13 U	14 U	12 U	44 U	12 U

SEDIMENT ANALYTICAL RESULTS
OPERABLE UNIT NO. 4 - SITE 41
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS

SAMPLE ID	IR41-DD-SD01-97C	IR41-DD-SD02-97C	IR41-TC-SD10-97C	IR41-TC-SD11-97C	IR41-TC-SD12-97C	IR41-UT-SD01-97C	IR41-UT-SD02-97C	IR41-UT-SD03-97C
DATE SAMPLED	08/12/97	08/12/97	08/12/97	08/12/97	08/12/97	08/12/97	08/12/97	08/12/97
TOTAL METALS (mg/kg)								
ALUMINUM, TOTAL	4650	261	3450	698	676	1580	6600	697
ANTIMONY, TOTAL	0.63 U	0.43 U	0.62 U	0.38 U	0.47 U	0.38 U	1.6 U	0.4 U
ARSENIC, TOTAL	0.82 U	0.57 U	0.82 U	0.5 U	0.62 U	0.5 U	2.4	0.53 U
BARIUM, TOTAL	37.1	1.2	23	8.8	6.8	6.4	97.7	3.5
BERYLLIUM, TOTAL	0.15	0.07 U	0.25	0.34	0.07 U	0.07	0.26 U	0.06 U
CADMIUM, TOTAL	0.13 U	0.09 U	0.13 U	0.08 U	0.1 U	0.08 U	0.68	0.09 U
CALCIUM, TOTAL	1900	228	1770	620	265	2360	11500	291
CHROMIUM, TOTAL	5.6	0.69	4.3	1.1	1.2	3.3	8.3	1
COBALT, TOTAL	0.54	0.16 U	0.82	0.24	0.53	0.14 U	9.7	0.45
COPPER, TOTAL	3.4	0.51	2.1	0.15	0.27	0.92	17.9	0.41
IRON, TOTAL	29300	153	1930	1110	761	2580	69400	540
LEAD, TOTAL	15.3	1.2	12.9	1.7	1.9	40.4	20.4	2.9
MAGNESIUM, TOTAL	169	10.9	148	26.4	28.1	80.3	498	23.8
MANGANESE, TOTAL	39.7	1.1	9.2	6.9	9.7	4.4	263	4.7
MERCURY, TOTAL	0.11 U	0.06 U	0.08 U	0.05 U	0.05 U	0.05 U	0.22 U	0.06 U
NICKEL, TOTAL	0.72	0.18 U	0.84	0.16 U	0.2 U	0.16 U	3.3	0.17 U
POTASSIUM, TOTAL	205	47	200	57.8	64.4	77.1	386	52.7
SELENIUM, TOTAL	0.72 U	0.5 U	0.72 U	0.44 U	0.54 U	0.44 U	1.9 U	0.47 U
SILVER, TOTAL	0.2 U	0.14 U	0.2 U	0.12 U	0.15 U	0.12 U	0.52 U	0.13 U
SODIUM, TOTAL	112	46.5 U	131	41.9	50.5 U	56.9	378	43.6 U
THALLIUM, TOTAL	0.69 U	0.48 U	0.69 U	0.42 U	0.52 U	0.42 U	1.8 U	0.45 U
VANADIUM, TOTAL	8.1	0.44	6.1	1.1	1.1	3.4	17	1.1
ZINC, TOTAL	30.1	3.8	13.3	5.5	6.1	5.9	81.1	7.2

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 4 - SITE 74
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA
TOTAL METALS AND WET CHEMISTRY

SAMPLE ID	IR74-GW01-97C	IR74-GW02-97C	IR74-GW03A-97C	IR74-GW07-97C
DATE SAMPLED	08/11/97	08/11/97	08/11/97	08/11/97
TOTAL METALS (ug/L)				
ALUMINUM, TOTAL	411	585	2900	279
ANTIMONY, TOTAL	1.9 U	1.9 U	1.9 U	1.9 U
ARSENIC, TOTAL	2.5 U	2.5 U	2.5 U	2.5 U
BARIUM, TOTAL	40.8	42.5	54.1	90.6
BERYLLIUM, TOTAL	0.3 U	0.3 U	0.3 U	0.3 U
CADMIUM, TOTAL	0.4 U	0.4 U	0.4 U	0.4 U
CALCIUM, TOTAL	553	12000	192	358
CHROMIUM, TOTAL	0.7 U	0.7 U	1.2	0.7 U
COBALT, TOTAL	0.7 U	0.7 U	0.7 U	0.7 U
COPPER, TOTAL	1.1	1.3	1.1	1.2
IRON, TOTAL	180	61.8	443	1900
LEAD, TOTAL	1.5 U	1.5 U	1.5 U	1.5 U
MAGNESIUM, TOTAL	1170	1330	561	1920
MANGANESE, TOTAL	2.3	2.2	2	4.1
MERCURY, TOTAL	0.1 U	0.1 U	0.1 U	0.1 U
NICKEL, TOTAL	0.8 U	0.8 U	0.8 U	0.8 U
POTASSIUM, TOTAL	563	250	352	843
SELENIUM, TOTAL	2.2 U	2.2 U	2.2 U	2.2 U
SILVER, TOTAL	0.6 U	0.6 U	0.6 U	0.6 U
SODIUM, TOTAL	5420	2410	6970	7980
THALLIUM, TOTAL	2.1 U	2.1 U	2.1 U	2.1 U
VANADIUM, TOTAL	0.8 U	0.8 U	3	3.5
ZINC, TOTAL	1.2	1.5	2.6	1.7
WET CHEMISTRY (mg/L)				
TOTAL DISSOLVED SOLIDS	36	68	40	52
TOTAL SUSPENDED SOLIDS	4 U	4 U	4 U	4 U

ATTACHMENT C
ANALYTICAL LABORATORY DATA SHEETS - AUGUST 1997

SITE 41

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

41-GW02-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) WATER Lab Sample ID: 9708G304-020

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CFR29

Level: (low/med) LOW Date Received: 08/14/97

% Moisture: not dec. _____ Date Analyzed: 08/27/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

41-GW02-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) WATER Lab Sample ID: 9708G304-020

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CFR29

Level: (low/med) LOW Date Received: 08/14/97

% Moisture: not dec. _____ Date Analyzed: 08/27/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN FREON	12.31	6	J
2.					
3.					
4.					
5.					
6.					
7.					
8.					
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29.					
30.					

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G30420

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G30401

Matrix (soil/water): WATER Lab Sample ID: 9708G304-020

Level (low/med): LOW__ Date Received: 08/14/97

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	122	B		P_
7440-36-0	Antimony_	1.9	B		P_
7440-38-2	Arsenic__	2.5	U		P_
7440-39-3	Barium___	71.5	B		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	0.40	U		P_
7440-70-2	Calcium__	116000			P_
7440-47-3	Chromium_	0.89	B		P_
7440-48-4	Cobalt___	2.0	B		P_
7440-50-8	Copper___	1.0	B		P_
7439-89-6	Iron_____	25300			P_
7439-92-1	Lead_____	2.6	B		P_
7439-95-4	Magnesium	19900			P_
7439-96-5	Manganese	346			P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	0.80	U		P_
7440-09-7	Potassium	19100			P_
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.60	U		P_
7440-23-5	Sodium___	27400			P_
7440-28-0	Thallium_	2.1	U		P_
7440-62-2	Vanadium_	0.80	U		P_
7440-66-6	Zinc_____	1.8	B		P_
_____	Cyanide__	_____			NR
_____	_____	_____			

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

41-GW02-97C_____

To: Baker-Lejeune #367
Airport Office Park, Bldg. 3
420 Rouser Road
Coraopolis, PA 15108

Attn: Ms. Karen Wood

Date: Friday September 5th, 1997

RE: 41-GW02-97C
Project # 00000-000-000-0000
Lab ID: 9708G304-020
Sample Date: 08/13/97
Date Received: 08/14/97

Inorganic Data Report

Parameters	Result	Units	Reporting Limit
Total Dissolved Solid	530	mg/L	10
Total Suspended Solid	30	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

41-GW10-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) WATER Lab Sample ID: 9708G304-016

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CFR19

Level: (low/med) LOW Date Received: 08/14/97

% Moisture: not dec. _____ Date Analyzed: 08/26/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

41-GW10-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) WATER Lab Sample ID: 9708G304-016

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CFR19

Level: (low/med) LOW Date Received: 08/14/97

% Moisture: not dec. _____ Date Analyzed: 08/26/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
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30.					

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G30416

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G30401

Matrix (soil/water): WATER Lab Sample ID: 9708G304-016

Level (low/med): LOW__ Date Received: 08/14/97

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	619			P_
7440-36-0	Antimony_	1.9	U		P_
7440-38-2	Arsenic__	2.5	U		P_
7440-39-3	Barium___	16.9	B		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	0.40	U		P_
7440-70-2	Calcium__	49400			P_
7440-47-3	Chromium_	1.6	B		P_
7440-48-4	Cobalt___	0.70	U		P_
7440-50-8	Copper___	0.99	B		P_
7439-89-6	Iron_____	2560			P_
7439-92-1	Lead_____	1.5	U		P_
7439-95-4	Magnesium	1780	B		P_
7439-96-5	Manganese	47.0			P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	0.80	U		P_
7440-09-7	Potassium	836	B		P_
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.60	U		P_
7440-23-5	Sodium___	5770			P_
7440-28-0	Thallium_	2.1	U		P_
7440-62-2	Vanadium_	0.97	B		P_
7440-66-6	Zinc_____	2.2	B		P_
_____	Cyanide__	_____	_	_____	NR
_____	_____	_____	_	_____	__

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

41-GW10-97C_____

To: Baker-Lejeune #367
Airport Office Park, Bldg. 3
420 Rouser Road
Coraopolis, PA 15108

Attn: Ms. Karen Wood

Date: Friday September 5th, 1997

RE: 41-GW10-97C
Project # 00000-000-000-0000
Lab ID: 9708G304-016
Sample Date: 08/12/97
Date Received: 08/14/97

Inorganic Data Report

Parameters	Result	Units	Reporting Limit
Total Dissolved Solid	170	mg/L	10
Total Suspended Solid	10	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

41-GW11-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) WATER Lab Sample ID: 9708G304-018

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CFR20

Level: (low/med) LOW Date Received: 08/14/97

% Moisture: not dec. _____ Date Analyzed: 08/26/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	4	J
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

41-GW11-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) WATER Lab Sample ID: 9708G304-018

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CFR20

Level: (low/med) LOW Date Received: 08/14/97

% Moisture: not dec. _____ Date Analyzed: 08/26/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G30418

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G30401

Matrix (soil/water): WATER Lab Sample ID: 9708G304-018

Level (low/med): LOW__ Date Received: 08/14/97

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	28.6	U		P_
7440-36-0	Antimony_	1.9	U		P_
7440-38-2	Arsenic__	3.0	B		P_
7440-39-3	Barium___	538			P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	0.40	U		P_
7440-70-2	Calcium__	87200			P_
7440-47-3	Chromium_	0.99	B		P_
7440-48-4	Cobalt___	0.70	U		P_
7440-50-8	Copper___	1.1	B		P_
7439-89-6	Iron_____	26600			P_
7439-92-1	Lead_____	1.5	U		P_
7439-95-4	Magnesium	18600			P_
7439-96-5	Manganese	181			P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	2.7	B		P_
7440-09-7	Potassium	33000			P_
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.60	U		P_
7440-23-5	Sodium___	42800			P_
7440-28-0	Thallium_	2.1	U		P_
7440-62-2	Vanadium_	0.80	U		P_
7440-66-6	Zinc_____	10.9	B		P_
_____	Cyanide__	_____	_		NR
_____	_____	_____	_		_

Color Before: YELLOW___ Clarity Before: CLEAR_ Texture: _____

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

41-GW11-97C_____

To: Baker-Lejeune #367
Airport Office Park, Bldg. 3
420 Rouser Road
Coraopolis, PA 15108

Attn: Ms. Karen Wood

Date: Friday September 5th, 1997

RE: 41-GW11-97C
Project # 00000-000-000-0000
Lab ID: 9708G304-018
Sample Date: 08/13/97
Date Received: 08/14/97

Inorganic Data Report

Parameters	Result	Units	Reporting Limit
Total Dissolved Solid	510	mg/L	10
Total Suspended Solid	33	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

41-GW11DW-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) WATER Lab Sample ID: 9708G304-019

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CFR31

Level: (low/med) LOW Date Received: 08/14/97

% Moisture: not dec. _____ Date Analyzed: 08/27/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

41-GW11DW-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) WATER Lab Sample ID: 9708G304-019

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CFR31

Level: (low/med) LOW Date Received: 08/14/97

% Moisture: not dec. _____ Date Analyzed: 08/27/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 3

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN FREON	12.30	14	J
2.	60-29-7	ETHER	17.92	8	NJ
3.		UNKNOWN	24.90	15	J
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G30419

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G30401

Matrix (soil/water): WATER Lab Sample ID: 9708G304-019

Level (low/med): LOW__ Date Received: 08/14/97

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	28.6	U		P
7440-36-0	Antimony_	1.9	U		P
7440-38-2	Arsenic__	2.5	U		P
7440-39-3	Barium___	48.6	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium__	0.40	U		P
7440-70-2	Calcium__	203000			P
7440-47-3	Chromium_	0.74	B		P
7440-48-4	Cobalt___	0.70	U		P
7440-50-8	Copper___	0.92	B		P
7439-89-6	Iron_____	2820			P
7439-92-1	Lead_____	1.5	U		P
7439-95-4	Magnesium	6670			P
7439-96-5	Manganese	121			P
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	6.8	B		P
7440-09-7	Potassium	2930	B		P
7782-49-2	Selenium_	2.2	U		P
7440-22-4	Silver___	0.60	U		P
7440-23-5	Sodium___	210000			P
7440-28-0	Thallium_	2.1	U		P
7440-62-2	Vanadium_	0.80	U		P
7440-66-6	Zinc_____	1.2	B		P
_____	Cyanide__	_____			NR
_____	_____	_____			

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

41-GW11DW-97C

To: **Baker-Lejeune #367**
Airport Office Park, Bldg. 3
420 Rouser Road
Coraopolis, PA 15108

Attn: **Ms. Karen Wood**

Date: Friday September 5th, 1997

RE: **41-GW11DW-97C**
Project # 00000-000-000-0000
Lab ID: **9708G304-019**
Sample Date: 08/13/97
Date Received: 08/14/97

Inorganic Data Report

Parameters	Result		Units	Reporting Limit
Total Dissolved Solid	1200		mg/L	10
Total Suspended Solid	4	u	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

41-GW12-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) WATER Lab Sample ID: 9708G304-021

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CFR30

Level: (low/med) LOW Date Received: 08/14/97

% Moisture: not dec. _____ Date Analyzed: 08/27/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

41-GW12-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) WATER Lab Sample ID: 9708G304-021

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CFR30

Level: (low/med) LOW Date Received: 08/14/97

% Moisture: not dec. _____ Date Analyzed: 08/27/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
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10.					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G30421

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G30401

Matrix (soil/water): WATER Lab Sample ID: 9708G304-021

Level (low/med): LOW__ Date Received: 08/14/97

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	28.6	U		P_
7440-36-0	Antimony_	1.9	U		P_
7440-38-2	Arsenic__	2.5	U		P_
7440-39-3	Barium___	12.6	B		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	0.40	U		P_
7440-70-2	Calcium__	57100			P_
7440-47-3	Chromium_	0.70	U		P_
7440-48-4	Cobalt___	2.0	B		P_
7440-50-8	Copper___	0.50	U		P_
7439-89-6	Iron____	1930			P_
7439-92-1	Lead____	1.5	U		P_
7439-95-4	Magnesium	2200	B		P_
7439-96-5	Manganese	42.8			P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	0.80	U		P_
7440-09-7	Potassium	1610	B		P_
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.60	U		P_
7440-23-5	Sodium___	5460			P_
7440-28-0	Thallium_	2.1	U		P_
7440-62-2	Vanadium_	0.80	U		P_
7440-66-6	Zinc____	2.3	B		P_
_____	Cyanide__	_____	_	_____	NR
_____	_____	_____	_	_____	__

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

41-GW12-97C_____

To: **Baker-Lejeune #367**
Airport Office Park, Bldg. 3
420 Rouser Road
Coraopolis, PA 15108

Attn: **Ms. Karen Wood**

Date: Friday September 5th, 1997

RE: **41-GW12-97C**
Project # 00000-000-000-0000
Lab ID: **9708G304-021**
Sample Date: 08/13/97
Date Received: 08/14/97

Inorganic Data Report

Parameters	Result		Units	Reporting Limit
Total Dissolved Solid	210		mg/L	10
Total Suspended Solid	4	u	mg/L	4

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

41-TC-SW10-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) WATER Lab Sample ID: 9708G304-011

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CFR17

Level: (low/med) LOW Date Received: 08/14/97

% Moisture: not dec. _____ Date Analyzed: 08/26/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

41-TC-SW10-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) WATER Lab Sample ID: 9708G304-011

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CFR17

Level: (low/med) LOW Date Received: 08/14/97

% Moisture: not dec. _____ Date Analyzed: 08/26/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
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9.					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G30411

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G30401

Matrix (soil/water): WATER Lab Sample ID: 9708G304-011

Level (low/med): LOW__ Date Received: 08/14/97

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	168	B		P_
7440-36-0	Antimony_	1.9	U		P_
7440-38-2	Arsenic__	2.5	U		P_
7440-39-3	Barium___	13.1	B		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	0.40	U		P_
7440-70-2	Calcium__	31200			P_
7440-47-3	Chromium_	0.70	U		P_
7440-48-4	Cobalt___	0.70	U		P_
7440-50-8	Copper___	1.2	B		P_
7439-89-6	Iron____	976			P_
7439-92-1	Lead____	1.5	U		P_
7439-95-4	Magnesium	1860	B		P_
7439-96-5	Manganese	32.2			P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	0.80	U		P_
7440-09-7	Potassium	2990	B		P_
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.60	U		P_
7440-23-5	Sodium___	13100			P_
7440-28-0	Thallium_	2.1	U		P_
7440-62-2	Vanadium_	0.87	B		P_
7440-66-6	Zinc____	3.0	B		P_
_____	Cyanide__				NR
_____	_____				

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

41-TC-SW10-97C_____

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

41-TC-SW11-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) WATER Lab Sample ID: 9708G304-003

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CFR25

Level: (low/med) LOW Date Received: 08/13/97

% Moisture: not dec. _____ Date Analyzed: 08/26/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

41-TC-SW11-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) WATER Lab Sample ID: 9708G304-003

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CFR25

Level: (low/med) LOW Date Received: 08/13/97

% Moisture: not dec. _____ Date Analyzed: 08/26/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G30403

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G30401

Matrix (soil/water): WATER Lab Sample ID: 9708G304-003

Level (low/med): LOW__ Date Received: 08/13/97

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	42.0	B		P
7440-36-0	Antimony_	1.9	U		P
7440-38-2	Arsenic__	2.5	U		P
7440-39-3	Barium___	12.3	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium__	0.40	U		P
7440-70-2	Calcium__	30800			P
7440-47-3	Chromium_	0.70	U		P
7440-48-4	Cobalt___	0.70	U		P
7440-50-8	Copper___	1.1	B		P
7439-89-6	Iron_____	550			P
7439-92-1	Lead_____	1.5	U		P
7439-95-4	Magnesium	1860	B		P
7439-96-5	Manganese	28.4			P
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	0.80	U		P
7440-09-7	Potassium	2930	B		P
7782-49-2	Selenium_	2.2	U		P
7440-22-4	Silver___	0.60	U		P
7440-23-5	Sodium___	13000			P
7440-28-0	Thallium_	2.1	U		P
7440-62-2	Vanadium_	0.80	U		P
7440-66-6	Zinc_____	2.0	B		P
_____	Cyanide__				NR
_____	_____				

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

41-TC-SW11-97C_____

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

41-TC-SW12-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) WATER Lab Sample ID: 9708G304-001

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CFR24

Level: (low/med) LOW Date Received: 08/13/97

% Moisture: not dec. _____ Date Analyzed: 08/26/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

41-TC-SW12-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) WATER Lab Sample ID: 9708G304-001

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CFR24

Level: (low/med) LOW Date Received: 08/13/97

% Moisture: not dec. _____ Date Analyzed: 08/26/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G30401

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G30401

Matrix (soil/water): WATER Lab Sample ID: 9708G304-001

Level (low/med): LOW__ Date Received: 08/13/97

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	82.3	B		P_
7440-36-0	Antimony_	1.9	U		P_
7440-38-2	Arsenic__	2.5	U		P_
7440-39-3	Barium___	13.5	B		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	0.40	U		P_
7440-70-2	Calcium__	31100			P_
7440-47-3	Chromium_	0.70	U		P_
7440-48-4	Cobalt___	0.70	U		P_
7440-50-8	Copper___	0.82	B		P_
7439-89-6	Iron_____	616			P_
7439-92-1	Lead_____	2.5	B		P_
7439-95-4	Magnesium	1870	B		P_
7439-96-5	Manganese	32.4			P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	0.80	U		P_
7440-09-7	Potassium	2910	B		P_
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.60	U		P_
7440-23-5	Sodium___	13000			P_
7440-28-0	Thallium_	2.1	U		P_
7440-62-2	Vanadium_	0.80	U		P_
7440-66-6	Zinc_____	2.1	B		P_
_____	Cyanide__	_____			NR
_____	_____	_____			

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

41-TC-SW12-97C_____

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

41-UT-SW01-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) WATER Lab Sample ID: 9708G304-013

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CFR18

Level: (low/med) LOW Date Received: 08/14/97

% Moisture: not dec. _____ Date Analyzed: 08/26/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

41-UT-SW01-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) WATER Lab Sample ID: 9708G304-013

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CFR18

Level: (low/med) LOW Date Received: 08/14/97

% Moisture: not dec. _____ Date Analyzed: 08/26/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G30413

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G30401

Matrix (soil/water): WATER Lab Sample ID: 9708G304-013

Level (low/med): LOW__ Date Received: 08/14/97

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	57.9	B		P
7440-36-0	Antimony_	1.9	U		P
7440-38-2	Arsenic__	2.5	U		P
7440-39-3	Barium___	25.8	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium__	0.40	U		P
7440-70-2	Calcium__	61600			P
7440-47-3	Chromium_	0.70	U		P
7440-48-4	Cobalt___	0.70	U		P
7440-50-8	Copper___	0.93	B		P
7439-89-6	Iron_____	534			P
7439-92-1	Lead_____	1.5	U		P
7439-95-4	Magnesium	1870	B		P
7439-96-5	Manganese	15.2			P
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	0.80	U		P
7440-09-7	Potassium	1710	B		P
7782-49-2	Selenium_	2.2	U		P
7440-22-4	Silver___	0.60	U		P
7440-23-5	Sodium___	13800			P
7440-28-0	Thallium_	2.1	U		P
7440-62-2	Vanadium_	0.80	U		P
7440-66-6	Zinc_____	3.8	B		P
_____	Cyanide__	_____	_		NR
_____	_____	_____	_		

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

41-UT-SW01-97C_____

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

41-UT-SW02-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) WATER Lab Sample ID: 9708G304-005

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CFR26

Level: (low/med) LOW Date Received: 08/13/97

% Moisture: not dec. _____ Date Analyzed: 08/26/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

41-UT-SW02-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) WATER Lab Sample ID: 9708G304-005

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CFR26

Level: (low/med) LOW Date Received: 08/13/97

% Moisture: not dec. _____ Date Analyzed: 08/26/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G30405

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G30401

Matrix (soil/water): WATER Lab Sample ID: 9708G304-005

Level (low/med): LOW__ Date Received: 08/13/97

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	41.4	B		P
7440-36-0	Antimony_	1.9	U		P
7440-38-2	Arsenic__	2.5	U		P
7440-39-3	Barium___	20.8	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium__	0.91	B		P
7440-70-2	Calcium__	53200			P
7440-47-3	Chromium_	0.70	U		P
7440-48-4	Cobalt___	0.70	U		P
7440-50-8	Copper___	1.4	B		P
7439-89-6	Iron_____	960			P
7439-92-1	Lead_____	1.5	U		P
7439-95-4	Magnesium	1910	B		P
7439-96-5	Manganese	28.4			P
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	0.80	U		P
7440-09-7	Potassium	1880	B		P
7782-49-2	Selenium_	2.2	U		P
7440-22-4	Silver___	0.60	U		P
7440-23-5	Sodium___	12100			P
7440-28-0	Thallium_	2.1	U		P
7440-62-2	Vanadium_	0.80	U		P
7440-66-6	Zinc_____	3.1	B		P
_____	Cyanide__	_____	_	_____	NR
_____	_____	_____	_	_____	___

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

41-UT-SW02-97C

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

41-UT-SW03-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) WATER Lab Sample ID: 9708G304-007

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CFR27

Level: (low/med) LOW Date Received: 08/13/97

% Moisture: not dec. _____ Date Analyzed: 08/26/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1;1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

41-UT-SW03-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) WATER Lab Sample ID: 9708G304-007

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CFR27

Level: (low/med) LOW Date Received: 08/13/97

% Moisture: not dec. _____ Date Analyzed: 08/26/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G30407

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G30401

Matrix (soil/water): WATER Lab Sample ID: 9708G304-007

Level (low/med): LOW__ Date Received: 08/13/97

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	49.7	B		P
7440-36-0	Antimony_	1.9	U		P
7440-38-2	Arsenic__	2.5	U		P
7440-39-3	Barium___	19.8	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium__	0.40	U		P
7440-70-2	Calcium__	51600			P
7440-47-3	Chromium_	0.70	U		P
7440-48-4	Cobalt___	0.70	U		P
7440-50-8	Copper___	1.0	B		P
7439-89-6	Iron_____	879			P
7439-92-1	Lead_____	1.5	U		P
7439-95-4	Magnesium	1890	B		P
7439-96-5	Manganese	28.2			P
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	0.80	U		P
7440-09-7	Potassium	1760	B		P
7782-49-2	Selenium_	2.2	U		P
7440-22-4	Silver___	0.60	U		P
7440-23-5	Sodium___	12100			P
7440-28-0	Thallium_	2.1	U		P
7440-62-2	Vanadium_	0.80	U		P
7440-66-6	Zinc_____	10.9	B		P
_____	Cyanide__	_____	_		NR
_____	_____	_____	_		_

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

41-UT-SW03-97C_____

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

41-DD-SD01-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) SOIL Lab Sample ID: 9708G304-015

Sample wt/vol: 5.0 (g/mL) G Lab File ID: CFR08

Level: (low/med) LOW Date Received: 08/14/97

% Moisture: not dec. 54 Date Analyzed: 08/25/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	22	U
74-83-9	Bromomethane	22	U
75-01-4	Vinyl Chloride	22	U
75-00-3	Chloroethane	22	U
75-09-2	Methylene Chloride	22	U
67-64-1	Acetone	54	B
75-15-0	Carbon Disulfide	22	U
75-35-4	1,1-Dichloroethene	22	U
75-34-3	1,1-Dichloroethane	22	U
540-59-0	1,2-Dichloroethene (total)	22	U
67-66-3	Chloroform	22	U
107-06-2	1,2-Dichloroethane	22	U
78-93-3	2-Butanone	22	U
71-55-6	1,1,1-Trichloroethane	22	U
56-23-5	Carbon Tetrachloride	22	U
75-27-4	Bromodichloromethane	22	U
78-87-5	1,2-Dichloropropane	22	U
10061-01-5	cis-1,3-Dichloropropene	22	U
79-01-6	Trichloroethene	22	U
124-48-1	Dibromochloromethane	22	U
79-00-5	1,1,2-Trichloroethane	22	U
71-43-2	Benzene	22	U
10061-02-6	trans-1,3-Dichloropropene	22	U
75-25-2	Bromoform	22	U
108-10-1	4-Methyl-2-pentanone	22	U
591-78-6	2-Hexanone	22	U
127-18-4	Tetrachloroethene	22	U
79-34-5	1,1,2,2-Tetrachloroethane	22	U
108-88-3	Toluene	22	U
108-90-7	Chlorobenzene	22	U
100-41-4	Ethylbenzene	22	U
100-42-5	Styrene	22	U
1330-20-7	Xylene (total)	22	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

41-DD-SD01-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) SOIL Lab Sample ID: 9708G304-015

Sample wt/vol: 5.0 (g/mL) G Lab File ID: CFR08

Level: (low/med) LOW Date Received: 08/14/97

% Moisture: not dec. 54 Date Analyzed: 08/25/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
G30415

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G30401

Matrix (soil/water): SOIL_ Lab Sample ID: 9708G304-015

Level (low/med): LOW__ Date Received: 08/14/97

% Solids: _46.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4650			P
7440-36-0	Antimony	0.63	U		P
7440-38-2	Arsenic	0.82	U		P
7440-39-3	Barium	37.1	B		P
7440-41-7	Beryllium	0.15	B		P
7440-43-9	Cadmium	0.13	U		P
7440-70-2	Calcium	1900			P
7440-47-3	Chromium	5.6			P
7440-48-4	Cobalt	0.54	B		P
7440-50-8	Copper	3.4	B		P
7439-89-6	Iron	29300			P
7439-92-1	Lead	15.3			P
7439-95-4	Magnesium	169	B		P
7439-96-5	Manganese	39.7			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	0.72	B		P
7440-09-7	Potassium	205	B		P
7782-49-2	Selenium	0.72	U		P
7440-22-4	Silver	0.20	U		P
7440-23-5	Sodium	112	B		P
7440-28-0	Thallium	0.69	U		P
7440-62-2	Vanadium	8.1	B		P
7440-66-6	Zinc	30.1			P
	Cyanide				NR

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:
41-DD-SD01-97C_____

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

41-DD-SD02-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) SOIL Lab Sample ID: 9708G304-009

Sample wt/vol: 5.0 (g/mL) G Lab File ID: CFR05

Level: (low/med) LOW Date Received: 08/13/97

% Moisture: not dec. 16 Date Analyzed: 08/23/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	12	U
67-64-1	Acetone	18	
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

41-DD-SD02-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) SOIL Lab Sample ID: 9708G304-009

Sample wt/vol: 5.0 (g/mL) G Lab File ID: CFR05

Level: (low/med) LOW Date Received: 08/13/97

% Moisture: not dec. 16 Date Analyzed: 08/23/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
G30409

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G30401

Matrix (soil/water): SOIL_ Lab Sample ID: 9708G304-009

Level (low/med): LOW__ Date Received: 08/13/97

% Solids: _83.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	261			P
7440-36-0	Antimony	0.43	U		P
7440-38-2	Arsenic	0.57	U		P
7440-39-3	Barium	1.2	B		P
7440-41-7	Beryllium	0.07	U		P
7440-43-9	Cadmium	0.09	U		P
7440-70-2	Calcium	228	B		P
7440-47-3	Chromium	0.69	B		P
7440-48-4	Cobalt	0.16	U		P
7440-50-8	Copper	0.51	B		P
7439-89-6	Iron	153			P
7439-92-1	Lead	1.2			P
7439-95-4	Magnesium	10.9	B		P
7439-96-5	Manganese	1.1	B		P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	0.18	U		P
7440-09-7	Potassium	47.0	B		P
7782-49-2	Selenium	0.50	U		P
7440-22-4	Silver	0.14	U		P
7440-23-5	Sodium	46.5	U		P
7440-28-0	Thallium	0.48	U		P
7440-62-2	Vanadium	0.44	B		P
7440-66-6	Zinc	3.8	B		P
	Cyanide				NR

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: COLORLESS Clarity After: _____ Artifacts: _____

Comments:
41-DD-SD02-97C

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

41-TC-SD10-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) SOIL Lab Sample ID: 9708G304-012

Sample wt/vol: 5.0 (g/mL) G Lab File ID: CFR10

Level: (low/med) LOW Date Received: 08/14/97

% Moisture: not dec. 39 Date Analyzed: 08/25/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	16	U
74-83-9	Bromomethane	16	U
75-01-4	Vinyl Chloride	16	U
75-00-3	Chloroethane	16	U
75-09-2	Methylene Chloride	16	U
67-64-1	Acetone	28	B
75-15-0	Carbon Disulfide	16	U
75-35-4	1,1-Dichloroethene	16	U
75-34-3	1,1-Dichloroethane	16	U
540-59-0	1,2-Dichloroethene (total)	16	U
67-66-3	Chloroform	16	U
107-06-2	1,2-Dichloroethane	16	U
78-93-3	2-Butanone	16	U
71-55-6	1,1,1-Trichloroethane	16	U
56-23-5	Carbon Tetrachloride	16	U
75-27-4	Bromodichloromethane	16	U
78-87-5	1,2-Dichloropropane	16	U
10061-01-5	cis-1,3-Dichloropropene	16	U
79-01-6	Trichloroethene	16	U
124-48-1	Dibromochloromethane	16	U
79-00-5	1,1,2-Trichloroethane	16	U
71-43-2	Benzene	16	U
10061-02-6	trans-1,3-Dichloropropene	16	U
75-25-2	Bromoform	16	U
108-10-1	4-Methyl-2-pentanone	16	U
591-78-6	2-Hexanone	16	U
127-18-4	Tetrachloroethene	16	U
79-34-5	1,1,2,2-Tetrachloroethane	16	U
108-88-3	Toluene	16	U
108-90-7	Chlorobenzene	16	U
100-41-4	Ethylbenzene	16	U
100-42-5	Styrene	16	U
1330-20-7	Xylene (total)	16	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

41-TC-SD10-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) SOIL Lab Sample ID: 9708G304-012

Sample wt/vol: 5.0 (g/mL) G Lab File ID: CFR10

Level: (low/med) LOW Date Received: 08/14/97

% Moisture: not dec. 39 Date Analyzed: 08/25/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G30412

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G30401

Matrix (soil/water): SOIL_ Lab Sample ID: 9708G304-012

Level (low/med): LOW__ Date Received: 08/14/97

% Solids: _61.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3450			P
7440-36-0	Antimony	0.62	U		P
7440-38-2	Arsenic	0.82	U		P
7440-39-3	Barium	23.0	B		P
7440-41-7	Beryllium	0.25	B		P
7440-43-9	Cadmium	0.13	U		P
7440-70-2	Calcium	1770			P
7440-47-3	Chromium	4.3			P
7440-48-4	Cobalt	0.82	B		P
7440-50-8	Copper	2.1	B		P
7439-89-6	Iron	1930			P
7439-92-1	Lead	12.9			P
7439-95-4	Magnesium	148	B		P
7439-96-5	Manganese	9.2			P
7439-97-6	Mercury	0.08	U		CV
7440-02-0	Nickel	0.84	B		P
7440-09-7	Potassium	200	B		P
7782-49-2	Selenium	0.72	U		P
7440-22-4	Silver	0.20	U		P
7440-23-5	Sodium	131	B		P
7440-28-0	Thallium	0.69	U		P
7440-62-2	Vanadium	6.1	B		P
7440-66-6	Zinc	13.3			P
	Cyanide				NR

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:

41-TC-SD10-97C_____

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

41-TC-SD11-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) SOIL Lab Sample ID: 9708G304-004

Sample wt/vol: 5.0 (g/mL) G Lab File ID: CFR02

Level: (low/med) LOW Date Received: 08/13/97

% Moisture: not dec. 21 Date Analyzed: 08/23/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	13	U
67-64-1	Acetone	15	
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	13	U
75-34-3	1,1-Dichloroethane	13	U
540-59-0	1,2-Dichloroethene (total)	13	U
67-66-3	Chloroform	13	U
107-06-2	1,2-Dichloroethane	13	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	13	U
56-23-5	Carbon Tetrachloride	13	U
75-27-4	Bromodichloromethane	13	U
78-87-5	1,2-Dichloropropane	13	U
10061-01-5	cis-1,3-Dichloropropene	13	U
79-01-6	Trichloroethene	13	U
124-48-1	Dibromochloromethane	13	U
79-00-5	1,1,2-Trichloroethane	13	U
71-43-2	Benzene	13	U
10061-02-6	trans-1,3-Dichloropropene	13	U
75-25-2	Bromoform	13	U
108-10-1	4-Methyl-2-pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	13	U
79-34-5	1,1,2,2-Tetrachloroethane	13	U
108-88-3	Toluene	13	U
108-90-7	Chlorobenzene	13	U
100-41-4	Ethylbenzene	13	U
100-42-5	Styrene	13	U
1330-20-7	Xylene (total)	13	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

41-TC-SD11-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) SOIL Lab Sample ID: 9708G304-004

Sample wt/vol: 5.0 (g/mL) G Lab File ID: CFR02

Level: (low/med) LOW Date Received: 08/13/97

% Moisture: not dec. 21 Date Analyzed: 08/23/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
G30404

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G30401

Matrix (soil/water): SOIL_ Lab Sample ID: 9708G304-004

Level (low/med): LOW__ Date Received: 08/13/97

% Solids: _78.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	698			P
7440-36-0	Antimony	0.38	U		P
7440-38-2	Arsenic	0.50	U		P
7440-39-3	Barium	8.8	B		P
7440-41-7	Beryllium	0.34	B		P
7440-43-9	Cadmium	0.08	U		P
7440-70-2	Calcium	620	B		P
7440-47-3	Chromium	1.1	B		P
7440-48-4	Cobalt	0.24	B		P
7440-50-8	Copper	0.15	B		P
7439-89-6	Iron	1110			P
7439-92-1	Lead	1.7			P
7439-95-4	Magnesium	26.4	B		P
7439-96-5	Manganese	6.9			P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	0.16	U		P
7440-09-7	Potassium	57.8	B		P
7782-49-2	Selenium	0.44	U		P
7440-22-4	Silver	0.12	U		P
7440-23-5	Sodium	41.9	B		P
7440-28-0	Thallium	0.42	U		P
7440-62-2	Vanadium	1.1	B		P
7440-66-6	Zinc	5.5			P
	Cyanide				NR

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: COLORLESS Clarity After: _____ Artifacts: _____

Comments:
41-TC-SD11-97C_____

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

41-TC-SD12-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) SOIL Lab Sample ID: 9708G304-002

Sample wt/vol: 5.0 (g/mL) G Lab File ID: CFR01

Level: (low/med) LOW Date Received: 08/13/97

% Moisture: not dec. 31 Date Analyzed: 08/23/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	14	U
67-64-1	Acetone	16	
75-15-0	Carbon Disulfide	14	U
75-35-4	1,1-Dichloroethene	14	U
75-34-3	1,1-Dichloroethane	14	U
540-59-0	1,2-Dichloroethene (total)	14	U
67-66-3	Chloroform	14	U
107-06-2	1,2-Dichloroethane	14	U
78-93-3	2-Butanone	14	U
71-55-6	1,1,1-Trichloroethane	14	U
56-23-5	Carbon Tetrachloride	14	U
75-27-4	Bromodichloromethane	14	U
78-87-5	1,2-Dichloropropane	14	U
10061-01-5	cis-1,3-Dichloropropene	14	U
79-01-6	Trichloroethene	14	U
124-48-1	Dibromochloromethane	14	U
79-00-5	1,1,2-Trichloroethane	14	U
71-43-2	Benzene	14	U
10061-02-6	trans-1,3-Dichloropropene	14	U
75-25-2	Bromoform	14	U
108-10-1	4-Methyl-2-pentanone	14	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	14	U
79-34-5	1,1,2,2-Tetrachloroethane	14	U
108-88-3	Toluene	14	U
108-90-7	Chlorobenzene	14	U
100-41-4	Ethylbenzene	14	U
100-42-5	Styrene	14	U
1330-20-7	Xylene (total)	14	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

41-TC-SD12-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) SOIL Lab Sample ID: 9708G304-002

Sample wt/vol: 5.0 (g/mL) G Lab File ID: CFR01

Level: (low/med) LOW Date Received: 08/13/97

% Moisture: not dec. 31 Date Analyzed: 08/23/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G30402

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G30401

Matrix (soil/water): SOIL_ Lab Sample ID: 9708G304-002

Level (low/med): LOW__ Date Received: 08/13/97

% Solids: _69.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	676			P
7440-36-0	Antimony	0.47	U		P
7440-38-2	Arsenic	0.62	U		P
7440-39-3	Barium	6.8	B		P
7440-41-7	Beryllium	0.07	U		P
7440-43-9	Cadmium	0.10	U		P
7440-70-2	Calcium	265	B		P
7440-47-3	Chromium	1.2	B		P
7440-48-4	Cobalt	0.53	B		P
7440-50-8	Copper	0.27	B		P
7439-89-6	Iron	761			P
7439-92-1	Lead	1.9			P
7439-95-4	Magnesium	28.1	B		P
7439-96-5	Manganese	9.7			P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	0.20	U		P
7440-09-7	Potassium	64.4	B		P
7782-49-2	Selenium	0.54	U		P
7440-22-4	Silver	0.15	U		P
7440-23-5	Sodium	50.6	U		P
7440-28-0	Thallium	0.52	U		P
7440-62-2	Vanadium	1.1	B		P
7440-66-6	Zinc	6.1			P
	Cyanide				NR

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: COLORLESS Clarity After: _____ Artifacts: _____

Comments:

41-TC-SD12-97C

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

41-UT-SD01-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) SOIL Lab Sample ID: 9708G304-014

Sample wt/vol: 5.0 (g/mL) G Lab File ID: CFR07

Level: (low/med) LOW Date Received: 08/14/97

% Moisture: not dec. 17 Date Analyzed: 08/25/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	12	U
67-64-1	Acetone	27	B
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

41-UT-SD01-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) SOIL Lab Sample ID: 9708G304-014

Sample wt/vol: 5.0 (g/mL) G Lab File ID: CFR07

Level: (low/med) LOW Date Received: 08/14/97

% Moisture: not dec. 17 Date Analyzed: 08/25/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G30414

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G30401

Matrix (soil/water): SOIL_ Lab Sample ID: 9708G304-014

Level (low/med): LOW__ Date Received: 08/14/97

% Solids: _82.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1580			P
7440-36-0	Antimony	0.38	U		P
7440-38-2	Arsenic	0.50	U		P
7440-39-3	Barium	6.4	B		P
7440-41-7	Beryllium	0.07	B		P
7440-43-9	Cadmium	0.08	U		P
7440-70-2	Calcium	2360			P
7440-47-3	Chromium	3.3			P
7440-48-4	Cobalt	0.14	U		P
7440-50-8	Copper	0.92	B		P
7439-89-6	Iron	2580			P
7439-92-1	Lead	40.4			P
7439-95-4	Magnesium	80.3	B		P
7439-96-5	Manganese	4.4			P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	0.16	U		P
7440-09-7	Potassium	77.1	B		P
7782-49-2	Selenium	0.44	U		P
7440-22-4	Silver	0.12	U		P
7440-23-5	Sodium	56.9	B		P
7440-28-0	Thallium	0.42	U		P
7440-62-2	Vanadium	3.4	B		P
7440-66-6	Zinc	5.9			P
	Cyanide				NR

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:

41-UT-SD01-97C

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

41-UT-SD02-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) SOIL Lab Sample ID: 9708G304-006

Sample wt/vol: 5.0 (g/mL) G Lab File ID: CFR03

Level: (low/med) LOW Date Received: 08/13/97

% Moisture: not dec. 78 Date Analyzed: 08/23/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	44	U
74-83-9	Bromomethane	44	U
75-01-4	Vinyl Chloride	44	U
75-00-3	Chloroethane	44	U
75-09-2	Methylene Chloride	44	U
67-64-1	Acetone	840	
75-15-0	Carbon Disulfide	44	U
75-35-4	1,1-Dichloroethene	44	U
75-34-3	1,1-Dichloroethane	44	U
540-59-0	1,2-Dichloroethene (total)	44	U
67-66-3	Chloroform	44	U
107-06-2	1,2-Dichloroethane	44	U
78-93-3	2-Butanone	180	
71-55-6	1,1,1-Trichloroethane	44	U
56-23-5	Carbon Tetrachloride	44	U
75-27-4	Bromodichloromethane	44	U
78-87-5	1,2-Dichloropropane	44	U
10061-01-5	cis-1,3-Dichloropropene	44	U
79-01-6	Trichloroethene	44	U
124-48-1	Dibromochloromethane	44	U
79-00-5	1,1,2-Trichloroethane	44	U
71-43-2	Benzene	44	U
10061-02-6	trans-1,3-Dichloropropene	44	U
75-25-2	Bromoform	44	U
108-10-1	4-Methyl-2-pentanone	44	U
591-78-6	2-Hexanone	44	U
127-18-4	Tetrachloroethene	44	U
79-34-5	1,1,2,2-Tetrachloroethane	44	U
108-88-3	Toluene	44	U
108-90-7	Chlorobenzene	44	U
100-41-4	Ethylbenzene	44	U
100-42-5	Styrene	44	U
1330-20-7	Xylene (total)	44	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

41-UT-SD02-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) SOIL Lab Sample ID: 9708G304-006

Sample wt/vol: 5.0 (g/mL) G Lab File ID: CFR03

Level: (low/med) LOW Date Received: 08/13/97

% Moisture: not dec. 78 Date Analyzed: 08/23/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

41-UT-SD
02-97CRE

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) SOIL Lab Sample ID: 9708G304-006

Sample wt/vol: 5.0 (g/mL) G Lab File ID: CFR09

Level: (low/med) LOW Date Received: 08/13/97

% Moisture: not dec. 78 Date Analyzed: 08/25/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	44	U
74-83-9	Bromomethane	44	U
75-01-4	Vinyl Chloride	44	U
75-00-3	Chloroethane	44	U
75-09-2	Methylene Chloride	44	U
67-64-1	Acetone	530	B
75-15-0	Carbon Disulfide	44	U
75-35-4	1,1-Dichloroethene	44	U
75-34-3	1,1-Dichloroethane	44	U
540-59-0	1,2-Dichloroethene (total)	44	U
67-66-3	Chloroform	44	U
107-06-2	1,2-Dichloroethane	44	U
78-93-3	2-Butanone	90	
71-55-6	1,1,1-Trichloroethane	44	U
56-23-5	Carbon Tetrachloride	44	U
75-27-4	Bromodichloromethane	44	U
78-87-5	1,2-Dichloropropane	44	U
10061-01-5	cis-1,3-Dichloropropene	44	U
79-01-6	Trichloroethene	44	U
124-48-1	Dibromochloromethane	44	U
79-00-5	1,1,2-Trichloroethane	44	U
71-43-2	Benzene	44	U
10061-02-6	trans-1,3-Dichloropropene	44	U
75-25-2	Bromoform	44	U
108-10-1	4-Methyl-2-pentanone	44	U
591-78-6	2-Hexanone	44	U
127-18-4	Tetrachloroethene	44	U
79-34-5	1,1,2,2-Tetrachloroethane	44	U
108-88-3	Toluene	44	U
108-90-7	Chlorobenzene	44	U
100-41-4	Ethylbenzene	44	U
100-42-5	Styrene	44	U
1330-20-7	Xylene (total)	44	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

41-UT-SD
02-97CRE

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) SOIL Lab Sample ID: 9708G304-006

Sample wt/vol: 5.0 (g/mL) G Lab File ID: CFR09

Level: (low/med) LOW Date Received: 08/13/97

% Moisture: not dec. 78 Date Analyzed: 08/25/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G30406

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G30401

Matrix (soil/water): SOIL_ Lab Sample ID: 9708G304-006

Level (low/med): LOW__ Date Received: 08/13/97

% Solids: _22.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	6600			P
7440-36-0	Antimony_	1.6	U		P
7440-38-2	Arsenic__	2.4	B		P
7440-39-3	Barium___	97.7	B		P
7440-41-7	Beryllium	0.26	U		P
7440-43-9	Cadmium__	0.68	B		P
7440-70-2	Calcium__	11500			P
7440-47-3	Chromium_	8.3	B		P
7440-48-4	Cobalt___	9.7	B		P
7440-50-8	Copper___	17.9	B		P
7439-89-6	Iron_____	69400			P
7439-92-1	Lead_____	20.4			P
7439-95-4	Magnesium	498	B		P
7439-96-5	Manganese	263			P
7439-97-6	Mercury__	0.22	U		CV
7440-02-0	Nickel___	3.3	B		P
7440-09-7	Potassium	386	B		P
7782-49-2	Selenium_	1.9	U		P
7440-22-4	Silver___	0.52	U		P
7440-23-5	Sodium___	378	B		P
7440-28-0	Thallium_	1.8	U		P
7440-62-2	Vanadium_	17.0	B		P
7440-66-6	Zinc_____	81.1			P
_____	Cyanide__	_____			NR
_____	_____	_____			

Color Before: BROWN____ Clarity Before: _____ Texture: COARSE

Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:

41-UT-SD02-97C_____

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

41-UT-SD03-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) SOIL Lab Sample ID: 9708G304-008

Sample wt/vol: 5.0 (g/mL) G Lab File ID: CFR04

Level: (low/med) LOW Date Received: 08/13/97

% Moisture: not dec. 20 Date Analyzed: 08/23/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	12	U
67-64-1	Acetone	14	
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

41-UT-SD03-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) SOIL Lab Sample ID: 9708G304-008

Sample wt/vol: 5.0 (g/mL) G Lab File ID: CFR04

Level: (low/med) LOW Date Received: 08/13/97

% Moisture: not dec. 20 Date Analyzed: 08/23/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
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U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G30408

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G30401

Matrix (soil/water): SOIL_ Lab Sample ID: 9708G304-008

Level (low/med): LOW__ Date Received: 08/13/97

% Solids: _80.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	697			P
7440-36-0	Antimony	0.40	U		P
7440-38-2	Arsenic	0.53	U		P
7440-39-3	Barium	3.5	B		P
7440-41-7	Beryllium	0.06	U		P
7440-43-9	Cadmium	0.09	U		P
7440-70-2	Calcium	291	B		P
7440-47-3	Chromium	1.00	B		P
7440-48-4	Cobalt	0.45	B		P
7440-50-8	Copper	0.41	B		P
7439-89-6	Iron	540			P
7439-92-1	Lead	2.9			P
7439-95-4	Magnesium	23.8	B		P
7439-96-5	Manganese	4.7			P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	0.17	U		P
7440-09-7	Potassium	52.7	B		P
7782-49-2	Selenium	0.47	U		P
7440-22-4	Silver	0.13	U		P
7440-23-5	Sodium	43.6	U		P
7440-28-0	Thallium	0.45	U		P
7440-62-2	Vanadium	1.1	B		P
7440-66-6	Zinc	7.2			P
	Cyanide				NR

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: COLORLESS Clarity After: _____ Artifacts: _____

Comments:

41-UT-SD03-97C

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

41-TB02-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) WATER Lab Sample ID: 9708G304-017

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CFR12

Level: (low/med) LOW Date Received: 08/14/97

% Moisture: not dec. _____ Date Analyzed: 08/26/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

41-TB02-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) WATER Lab Sample ID: 9708G304-017

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CFR12

Level: (low/med) LOW Date Received: 08/14/97

% Moisture: not dec. _____ Date Analyzed: 08/26/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

41-TB01-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) WATER Lab Sample ID: 9708G304-010

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CFR11

Level: (low/med) LOW Date Received: 08/13/97

% Moisture: not dec. _____ Date Analyzed: 08/26/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

41-TB01-97C

Lab Name: RECRA LABNET-CHICAGO Contract:

Lab Code: Case No.: SAS No.: SDG No.: 08G304

Matrix: (soil/water) WATER Lab Sample ID: 9708G304-010

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: CFR11

Level: (low/med) LOW Date Received: 08/13/97

% Moisture: not dec. _____ Date Analyzed: 08/26/97

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
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SITE 74

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G30301

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G30301

Matrix (soil/water): WATER Lab Sample ID: 9708G303-001

Level (low/med): LOW__ Date Received: 08/13/97

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	411			P
7440-36-0	Antimony_	1.9	U		P
7440-38-2	Arsenic__	2.5	U		P
7440-39-3	Barium___	40.8	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium__	0.40	U		P
7440-70-2	Calcium__	553	B		P
7440-47-3	Chromium_	0.70	U		P
7440-48-4	Cobalt___	0.70	U		P
7440-50-8	Copper___	1.1	B		P
7439-89-6	Iron____	180			P
7439-92-1	Lead____	1.5	U		P
7439-95-4	Magnesium	1170	B		P
7439-96-5	Manganese	2.3	B		P
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	0.80	U		P
7440-09-7	Potassium	563	B		P
7782-49-2	Selenium_	2.2	U		P
7440-22-4	Silver___	0.60	U		P
7440-23-5	Sodium___	5420			P
7440-28-0	Thallium_	2.1	U		P
7440-62-2	Vanadium_	0.80	U		P
7440-66-6	Zinc____	1.2	B		P
_____	Cyanide__	_____	_	_____	NR
_____	_____	_____	_	_____	__

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

74-GW01-97C_____

To: Baker-Lejeune #367
Airport Office Park, Bldg. 3
420 Rouser Road
Coraopolis, PA 15108

Attn: Ms. Karen Wood

Date: Thursday September 4th, 1997

RE: 74-GW01-97C
Project # 00000-000-000-0000
Lab ID: 9708G303-001
Sample Date: 08/11/97
Date Received: 08/13/97

Inorganic Data Report

Parameters	Result		Units	Reporting Limit
Total Dissolved Solid	36		mg/L	10
Total Suspended Solid	4	u	mg/L	4

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G30302

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G30301

Matrix (soil/water): WATER Lab Sample ID: 9708G303-002

Level (low/med): LOW__ Date Received: 08/13/97

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	585			P
7440-36-0	Antimony_	1.9	U		P
7440-38-2	Arsenic__	2.5	U		P
7440-39-3	Barium___	42.5	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium__	0.40	U		P
7440-70-2	Calcium__	12000			P
7440-47-3	Chromium_	0.70	U		P
7440-48-4	Cobalt___	0.70	U		P
7440-50-8	Copper___	1.3	B		P
7439-89-6	Iron_____	61.8	B		P
7439-92-1	Lead_____	1.5	U		P
7439-95-4	Magnesium	1330	B		P
7439-96-5	Manganese	2.2	B		P
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	0.80	U		P
7440-09-7	Potassium	250	B		P
7782-49-2	Selenium_	2.2	U		P
7440-22-4	Silver___	0.60	U		P
7440-23-5	Sodium___	2410	B		P
7440-28-0	Thallium_	2.1	U		P
7440-62-2	Vanadium_	0.80	U		P
7440-66-6	Zinc_____	1.5	B		P
_____	Cyanide__				NR
_____	_____				

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

74-GW02-97C_____

To: **Baker-Lejeune #367**
Airport Office Park, Bldg. 3
420 Rouser Road
Coraopolis, PA 15108

Attn: **Ms. Karen Wood**

Date: Thursday September 4th, 1997

RE: **74-GW02-97C**
Project # 00000-000-000-0000
Lab ID: **9708G303-002**
Sample Date: 08/11/97
Date Received: 08/13/97

Inorganic Data Report

Parameters	Result		Units	Reporting Limit
Total Dissolved Solid	68		mg/L	10
Total Suspended Solid	4	u	mg/L	4

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G30303

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G30301

Matrix (soil/water): WATER Lab Sample ID: 9708G303-003

Level (low/med): LOW__ Date Received: 08/13/97

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	2900			P
7440-36-0	Antimony_	1.9	U		P
7440-38-2	Arsenic__	2.5	U		P
7440-39-3	Barium___	54.1	B		P
7440-41-7	Beryllium	0.30	U		P
7440-43-9	Cadmium__	0.40	U		P
7440-70-2	Calcium__	192	B		P
7440-47-3	Chromium_	1.2	B		P
7440-48-4	Cobalt___	0.70	U		P
7440-50-8	Copper___	1.1	B		P
7439-89-6	Iron_____	443			P
7439-92-1	Lead_____	1.5	U		P
7439-95-4	Magnesium	561	B		P
7439-96-5	Manganese	2.0	B		P
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	0.80	U		P
7440-09-7	Potassium	352	B		P
7782-49-2	Selenium_	2.2	U		P
7440-22-4	Silver___	0.60	U		P
7440-23-5	Sodium___	6970			P
7440-28-0	Thallium_	2.1	U		P
7440-62-2	Vanadium_	3.0	B		P
7440-66-6	Zinc_____	2.6	B		P
_____	Cyanide__	_____			NR
_____	_____	_____			

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

74-GW03A-97C_____

_____

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_____

To: Baker-Lejeune #367
Airport Office Park, Bldg. 3
420 Rouser Road
Coraopolis, PA 15108

Attn: Ms. Karen Wood

Date: Thursday September 4th, 1997

RE: 74-GW03A-97C
Project # 00000-000-000-0000
Lab ID: 9708G303-003
Sample Date: 08/11/97
Date Received: 08/13/97

Inorganic Data Report

Parameters	Result		Units	Reporting Limit
Total Dissolved Solid	40		mg/L	10
Total Suspended Solid	4	u	mg/L	4

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

G30304

Lab Name: RECRA_LABNET_CHICAGO_____ Contract: _____

Lab Code: RECRA_ Case No.: _____ SAS No.: _____ SDG No.: G30301

Matrix (soil/water): WATER Lab Sample ID: 9708G303-004

Level (low/med): LOW__ Date Received: 08/13/97

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	279	_		P_
7440-36-0	Antimony_	1.9	U		P_
7440-38-2	Arsenic__	2.5	U		P_
7440-39-3	Barium___	90.6	B		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	0.40	U		P_
7440-70-2	Calcium__	358	B		P_
7440-47-3	Chromium_	0.70	U		P_
7440-48-4	Cobalt___	0.70	U		P_
7440-50-8	Copper___	1.2	B		P_
7439-89-6	Iron_____	1900	_		P_
7439-92-1	Lead_____	1.5	U		P_
7439-95-4	Magnesium	1920	B		P_
7439-96-5	Manganese	4.1	B		P_
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	0.80	U		P_
7440-09-7	Potassium	843	B		P_
7782-49-2	Selenium_	2.2	U		P_
7440-22-4	Silver___	0.60	U		P_
7440-23-5	Sodium___	7980	_		P_
7440-28-0	Thallium_	2.1	U		P_
7440-62-2	Vanadium_	3.5	B		P_
7440-66-6	Zinc_____	1.7	B		P_
_____	Cyanide__	_____	_		NR
_____	_____	_____	_		__

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

74-GW07-97C_____

To: Baker-Lejeune #367
Airport Office Park, Bldg. 3
420 Rouser Road
Coraopolis, PA 15108

Attn: Ms. Karen Wood

Date: Thursday September 4th, 1997

RE: 74-GW07-97C
Project # 00000-000-000-0000
Lab ID: 9708G303-004
Sample Date: 08/11/97
Date Received: 08/13/97

Inorganic Data Report

Parameters	Result		Units	Reporting Limit
Total Dissolved Solid	52		mg/L	10
Total Suspended Solid	4	u	mg/L	4