06.07-08/20/99-02327

MONITORING REPORT

OPERABLE UNIT NO. 14 - SITE 69
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

REPORTING PERIOD APRIL 1999 – SEPTEMBER 1999

CONTRACT TASK ORDER 0367

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MONITORING REPORT

This monitoring report presents a summary of sampling activities, field observations, and analytical results that pertain to the monitoring program at Operable Unit (OU) No. 14 (Site 69), Marine Corps Base (MCB), Camp Lejeune, North Carolina. The report describes activities completed during the second quarter of calendar year 1999. Recommendations regarding the monitoring program at OU 14 are also presented within this report.

Monitoring activities at site 69 began in April, 1998 and is scheduled to continue on a semi-annual basis. The most recent sampling initiative was conducted on April 20 and 21, 1999. The monitoring program for Site 69 includes the collection of groundwater samples, the monitoring of natural attenuation processes, and the measurement of static groundwater levels. Groundwater samples were obtained from seven shallow monitoring wells and seven monitoring wells screened in the upper zone of the underlying Castle Hayne Aquifer. Figure 1 depicts the locations of all the monitoring wells at Site 69 and identifies those monitoring wells included in the monitoring program. Table 1 provides construction details of each monitoring well. [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 in accordance with procedures and methods specified in the Long Term Monitoring Work Plans (Baker 1996) for various sites, although Site 69 was added to the monitoring program after the work plan's completion. These procedures will remain in effect until an updated work plan, which will include Site 69, is submitted. As referenced in the work plans, field measurements of pH, specific conductance, dissolved oxygen, temperature, and turbidity, were recorded after each well volume or, in the case of large volumes, after each half volume of water was removed. These measurements verify that groundwater conditions have stabilized and are appropriate for sample collection. A minimum of three well volumes of water was purged from each monitoring well prior to groundwater collection. A summary of all groundwater field parameters for Site 69 is provided in Table 2.

Natural Attenuation Monitoring

This is the first sampling initiative at Site 69, which includes the sampling of Natural Attenuation (NA) parameters. Natural Attenuation is a process by which natural subsurface mechanisms reduce contaminant toxicity, mobility, or volume. These mechanisms include biodegradation, dispersion, dilution, sorption, volatilization, and chemical/biochemical stabilization. To evaluate the NA process at Site 69, eight of the 14 monitoring wells sampled were selected for additional analysis of NA-specific geochemical and biochemical parameters. The following is a list of the additional laboratory and field NA parameters collected at Site 69.

Laboratory Parameters

- Nitrate / Nitrite (substrate for microbial respiration)
- Sulfate (substrate for microbial respiration)
- Methane/Ethane/Ethene (confirmation of biological transformation of chlorinated solvents)
- Total Organic Carbon (used to classify plume)
- Total Organic Nitrogen (background condition parameter)

- Ammonia (background condition parameter)
- Orthophosphate (background condition parameter)

Field Parameters

- Iron (II) (anaerobic degradation process indicator)
- Chloride (sample confirmation of same aquifer system)
- Alkalinity (measures buffering capacity of groundwater)
- Oxidation-Reduction potential (used to identify reductive environments)

Table 3 summarizes requested laboratory analyses for both NA and non-natural attenuation sampling locations, and indicates sample identifications. Requested laboratory analyses were chosen based on the results of contaminants detected during previous investigations at OU 14. Contaminants of concern at Site 69 are Volatile Organic Compounds (VOCs). Additional laboratory analyses, listed above, were conducted to monitor natural attenuation and to determine site background conditions. Sample information, including well number, sample identification, time and date of sample collection, samplers, and analytical parameters, was recorded in a field logbook and on the sample labels. Chain-of-Custody documentation, provided in Attachment A, accompanied the samples to the laboratory.

Groundwater Elevation and Flow Direction

On April 21, 1999, a complete round of static groundwater level measurements were recorded from Site 69. A summary of the static groundwater levels and corresponding groundwater elevations are provided in Table 4. A groundwater contour map of this data is provided on Figure 2. The contour map indicates that groundwater is at its highest elevations in the central portion of Site 69. Groundwater flow is in a radial pattern away from this central area in all directions.

Field Observations

The following field observations were noted during this sampling event at Site 69. Site 69 is a remote site, and access to the site is via a 2.5 mile (approximate) one lane dirt road that originates from the near-by rifle range and meanders back into thick woods. The site area is heavily wooded and is secured by a chain-linked fence, which extends around the entire perimeter. Sections of this fence have been damaged by fallen trees. The area inside the fence has a flat topography. However, a topographically higher area exist to the east and a deep valley area is to the southeast. Some of the minor hardware, such as insulated wire and outlet boxes, still remain from the former treatment system. Electric service lines on utility poles are still present but there is currently no electric power available at Site 69.

ANALYTICAL RESULTS AND FINDINGS

This section presents analytical results from the groundwater sampling performed at Site 69 during the second quarter of 1999. 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.

Two trip blank samples were prepared prior to the sampling event, one for each day of sampling. The trip blanks accompanied groundwater samples during shipment to the laboratory. As provided in Table 5, there were no detections of any organic compounds in the trip blank samples.

Volatile Organic Compounds

Table 6 provides a summary of analytical results and applicable state and federal groundwater quality standards. Table 7 lists all positive detections of VOCs and natural attenuation parameters. Locations of VOC detections, including exceedances of applicable standards are depicted in Figure 3. A total of fifteen VOCs were detected among samples obtained from 14 monitoring wells sampled at Site 69. Samples from four monitoring wells contained VOCs in concentrations that exceeded North Carolina Water Quality Standards (NCWQS) and/or Federal Maximum Contaminant Levels (MCL). Water from well 69-GW03 contained cis-1,2, dichlorethene in concentrations exceeding state and federal standards (both 70 micrograms per liter (µg/L)). Samples from well 69-02GW exceeded state and federal standards for concentrations of the following VOCs (NCWQS and Federal MCL indicated in parenthesis, respectively): 1,1,2-trichloroethane (not estimated (NE), 5 µg/L), cis-1,2-dichloroethene (70 µg/L, 70 µg/L), trans-1,2-dichlorethene (70 µg/L, 100 µg/L), trichloroethene (NE, 5 µg/L), and vinyl chloride (0.015 µg/L, 2 µg/L). Concentrations of 1,2-dichlorethne in well 69-GW02 exceeded NCWQS of 0.38 µg/L, but did not exceed Federal MCLs. Well 69-GW15 contained concentrations of cis-1,2-dichlorethene, trans-1,2-dichloroethene, benzene, chlorobenzene, trichloroethene, and vinyl chloride in exceedance of both NCWQS and Federal MCLs. State and federal standards for benzene are 1 µg/L and 5 µg/L, respectively. State and federal standards for chlorobenzene are 50 µg/L and 100 µg/L, respectively. Samples from intermediate well 69-GW15IW contained cis-1,2-dichlorethene, trans-1,2-dichloroethene, trichloroethene, and vinyl chloride that exceeded both state and federal standards.

Monitored Natural Attenuation

Eight of the fourteen wells at Site 69 were measured for monitored natural attenuation parameters as indicated in Table 3. Table 7 provides a summary of these parameters for sampling quarters 98D and 99B. No discernable patterns exist for ferrous iron and alkalinity (CaCO3) measurements, while chloride levels tend to be decreasing in the monitored natural attenuation wells. While sulfate was measured in the field in 1998, beginning in 1999, samples were sent to the laboratory for sulfate analysis. Ferrous iron, alkalinity, and chloride will continue to be analyzed by field personnel.

RECOMMENDATIONS

Implemented Recommendations

Information pertaining to the recommendations that have been implemented is briefly presented in the paragraphs that follow. Details regarding each implemented recommendation may be found within previous monitoring reports.

Modified Sampling Analysis

In October 1998, monitoring of Natural Attenuation processes at Site 69 was initiated.

Proposed Recommendations

Based upon the observations and findings presented in this report, the following recommendations for the monitoring program at Site 69 are proposed.

Monitoring Point Reduction

There have been no detections of any VOCs in groundwater from monitoring well 69-GW10 for the past three sampling events. Well 69-GW10 is past the perimeter of the contaminant plume at Site 69 and is positioned slightly upgradient of the plume surrounding wells 69-GW15, 69-GW15IW, and 69-GW02. It is recommended that the absence of contamination from well 69-GW10 and it's upgradient position from contamination in the surficial aquifer be verified with additional monitoring. Subsequent to this verification, well 69-GW10 should be considered for removal from the monitoring program.

Well Security and Aesthetics

During each sampling event monitoring wells are inspected for accessibility, integrity, aesthetics, and security. Maintenance may include, clearing of vegetation, replacing broken water tight caps, painting of bullards, and replacing padlocks. Improvements are made to the monitoring wells on an "as needed" basis.

REFERENCES

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

Baker Environmental, Inc. (Baker). October 1998. Monitoring Reports Operable Unit No. 14 – Site 69. Prepared for the Navy Atlantic Division Naval Facilities Engineering Command, Norfolk, Virginia.

TABLES

TABLE 1

SUMMARY OF WELL CONSTRUCTION DETAILS
OPERABLE UNIT NO.14 - SITE 69
MONITORING AND O&M SUPPORT, CTO - 0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Monitoring Well Number	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)	Depth to Sand Pack (feet, bgs)	Depth to Bentonite (feet, bgs)	Stick-Up (feet, ags)
69-GW01	NA	32.14	NA	NA	NA	NA	NA	NA	NA
69-GW02	7/18/84	36.89	34.7	20.4	20.4	5.9 -20.4	4.7 - 20.4	3.6 - 4.7	3.1
69-GW02DW	NA	36.94	NA	NA	NA	NA	NA	NA	NA
69-GW03	7/18/84	36.66	34.7	20.4	20.4	5.8 -20.3	4.7 - 20.3	3.7 - 4.7	1.8
69-GW03DW	NA	37.56	35.1	NA	NA	NA	NA	NA	NA
69-GW10	1/9/94	41.89	39.0	17.0	16.0	6.0 - 16.0	4.0 - 17.0	0.0 - 4.0	2.9
69-GW12	1/6/94	11.15	8.4	13.5	12.5	2.0 - 12.5	1.5 - 13.5	0.0 - 1.5	2.8
69-GW12DW	1/22/94	9.38	7.5	60.0	58.0	48.0 - 58.0	45.0 - 60.0	43.0 - 45.0	1.9
69-GW13DW	NA	NA	NA	NA	NA	NA	NA	NA	NA
69-GW14	12/17/94	35.22	33.1	14.0	13.0	3.0 - 13.0	1.5 - 14.0	0.5 - 1.5	2.2
69-GW14IW	12/17/94	35.21	32.8	62.0	60.0	45.0 - 60.0	40.0 - 62.0	34.0 - 40.0	2.4
69-GW15	3/23/95	37.41	35.7	13.0	13.0	3.0 - 13.0	2.0 - 13.0	1.0 - 2.0	1.7
69-GW15IW	3/24/95	37.54	35.7	60.0	60.0	45.0 - 60.0	43.0 - 60.0	40.0 - 43.0	1.8
69-GW15DW	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

msl = Mean sea level
bgs = Below ground surface
NA = Data not available
ags = Above ground surface

TABLE 2

SUMMARY OF GROUNDWATER FIELD PARAMETERS
OPERABLE UNIT NO. 14 - SITE 69
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 (umhos/cm)	Temperature (°C)	pH (S.U.)	Turbidity (N.T.U.)	Redox (mV)
69-GW01 (04/20/99)	0949	1.0	0.1	165	16.6	4.46	11	264.9
	1001	2.0	0.1	166	16.5	4.51	0	249.6
	1016	3.0	0.1	164	16.6	4.61	0	234.8
69-GW02 (04/21/99)	0830	1.0	1.7	185	16.5	5.24	290	NA
	0845	2.0	1.4	168	16.2	5.08	111	NA
	1015	3.0	2.4	179	17.1	5.05	285	NA
	1030	4.0	1.7	174	17.1	5.05	15	NA
69-GW02DW (04/20/99)	1136	1.0	1.0	368	19.4	7.36	24	-116.2
	1145	2.0	1.4	368	19.6	7.75	8.0	-137.4
	1200	3.0	0.7	349	19.7	7.90	0	-129.4
	1212	4.0	1.2	356	19.9	7.97	0	-148.9
	1221	5.0	0.7	357	19.5	7.97	0	-137.0
69-GW03 (04/20/99)	1045	1.0	0.1	835	16.0	4.88	64	84.5
	1105	2.0	0.8	869	16.0	4.76	6.0	92.0
	1130	3.0	0.6	875	15.9	4.77	2.0	100.4
69-GW03DW (04/21/99)	1337	1.0	0.6	329	20.6	7.94	9	NA
	1347	2.0	0.4	328	20.8	7.98	0	NA
	1357	3.0	0.7	328	21.2	7.92	0	NA
69-GW10 (04/20/99)	1248	1.0	1.0	272	16.6	4.75	2.0	173.0
	1255	2.0	0.4	232	16.5	4.86	0	NA
	1303	3.0	1.3	324	16.5	4.68	3.0	128.0
	1312	4.0	2.6	365	16.9	4.61	4.0	148.8
69-GW12 (04/20/99)	1005	1.0	2.2	146	16.5	5.65	330	-97.6
	1033	2.0	5.5	136	17.1	5.89	145	-66.7
	1107	3.0	5.6	135	17.3	5.88	43	-63.1
	1139	4.0	5.6	134	17.6	5.87	23	-62.8
	1200	4.5	5.6	134	17.8	5.85	17	-63.0
	1216	5.0	5.6	134	17.6	5.83	15	-61.7
69-GW12DW (04/21/99)	1002	1.0	0.8	183	17.3	6.34	1.0	NA
	1017	1.5	0.8	168	17.5	6.78	1.0	NA
	1033	2.0	0.6	172	17.6	6.86	0	NA
	1049	2.5	1.7	170	17.8	6.89	1.0	NA
	1106	3.0	1.0	173	17.9	6.90	2.0	NA
69-GW13DW (04/21/99)	1155	1.0	0.2	443	20.1	7.62	50	NA
	1205	3.0	0.6	452	19.8	7.55	5.0	NA
	1215	5.0	0.2	456	19.5	7.66	0	NA
69-GW14 (04/21/99)	0755	1.0	1.2	174	15.2	4.81	17	NA
	0801	2.0	1.4	701	15.1	4.43	4.0	NA
	0807	3.0	1.3	664	15.0	4.06	14	NA
	0814	4.0	1.1	664	14.8	4.13	13	NA
	0821	5.0	1.5	672	14.8	4.08	2.0	NA
	0829	6.0	1.4	668	14.9	4.11	0	NA

TABLE 2 (Continued)

SUMMARY OF GROUNDWATER FIELD PARAMETERS
OPERABLE UNIT NO. 14 - SITE 69
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 (umhos/cm)	Temperature (°C)	pH (S.U.)	Turbidity (N.T.U.)	Redox (mV)
69-GW14IW (04/20/99)	1427	1.0	0.3	289	20.4	7.57	19	-112.5
	1436	1.5	0.4	267	19.7	7.83	9.0	-118.7
	1446	2.0	0.4	266	19.9	7.87	6.0	-121.4
	1456	2.5	0.3	267	19.6	7.89	2.0	-124.7
	1506	3.0	0.4	267	19.7	7.89	2.0	-140.3
69-GW15 (04/20/99)	0855	1.0	0.03	348	16.2	NA	70	-56.3
	0915	2.0	0.03	385	16.2	5.96	20	-42.1
	0930	3.0	0.01	392	16.1	6.10	4.0	-38.3
	0945	4.0	0.2	400	16.1	6.09	3.0	-43.2
69-GW15DW (04/21/99)	0825	1.0	0.8	451	19.0	8.06	11	NA
	0840	1.5	2.3	465	18.8	7.71	5.0	NA
	0908	2.0	0.3	477	19.0	7.59	5.0	NA
	0930	2.5	0.6	490	19.6	7.61	4.0	NA
	0950	3.0	0.3	509	19.9	7.72	4.0	NA
69-GW15IW (04/20/99)	0908	1.0	0.4	502	18.6	7.06	10	-134.4
	0923	2.0	0.3	482	18.7	6.98	1.0	-129.8
	0950	3.0	0.2	485	18.9	7.02	0	-126.0

Notes:

°C = Degrees Centigrade
S.U. = Standard Units
mg/L = milligrams per liter
umhos/cm = micro ohms per centimeter
N.T.U. = Nephlometric Turbidity Units
NA = Data not available

TABLE 3

SAMPLE SUMMARY
OPERABLE UNIT NO.14 - SITE 69
MONITORING AND O&M SUPPORT, CTO - 0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Location	Media	TCL Volatiles [1]	Natural Attenuation Parameters							Laboratory Sample Identification
			Dissolved Gases [2]	Nitrate [3]	TOC [4]	TON [5]	Nitrite [3]	Ammonia [6]	Orthophosphate [3]	
69-GW01	Groundwater	X	X	X	X	X	X	X	X	IR69-GW01-99B
69-GW02	Groundwater	X								IR69-GW02-99B
69-GW02DW	Groundwater	X	X	X						IR69-GW02DW-99B
69-GW03	Groundwater	X	X	X						IR69-GW03-99B
69-GW03DW	Groundwater	X								IR69-GW03DW-99B
69-GW10	Groundwater	X	X	X	X	X	X	X	X	IR69-GW10-99B
69-GW12	Groundwater	X	X	X	X	X	X	X	X	IR69-GW12-99B
69-GW12DW	Groundwater	X								IR69-GW12DW-99B
69-GW13DW	Groundwater	X								IR69-GW13DW-99B
69-GW14	Groundwater	X								IR69-GW14-99B
69-GW14IW	Groundwater	X	X	X	X	X	X	X	X	IR69-GW14IW-99B
69-GW15	Groundwater	X	X	X						IR69-GW15-99B
69-GW15IW	Groundwater	X	X	X						IR69-GW15IW-99B
69-GW15DW	Groundwater	X								IR69-GW15DW-99B

Notes:

[1] Target Compound List Volatile Organics by U.S. Environmental Protection Agency (EPA) Method 8260A. Speciate cis-, trans- 1,2-DCE.
[2] Ethane, Methane, and Ethene by Method RSK 175 .
[3] IC Method 300.0.
[4] Total Organic Carbon Method 9060 .
[5] Total Organic Nitrogen U.S. Environmental Protection Agency (EPA) Method 351.1/350.2.
[6] Ammonia U.S. Environmental Protection Agency (EPA) Method 350.2.

X = Requested Analysis

TABLE 4

SUMMARY OF WATER LEVEL MEASUREMENTS
OPERABLE UNIT NO. 14 - SITE 69
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

Well ID	Reference Elevation [1]	SWE 04/21/98	SWE 10/23/98	SWL 04/21/99	SWE 04/21/99
69-GW01	32.14	26.08	25.71	7.58	24.56
69-GW02	36.89	31.40	29.89	6.59	30.30
69-GW02BCH	36.79	9.44	NA	NA	NA
69-GW02DD	36.98	5.34	NA	NA	NA
69-GW02DW	36.94	8.68	34.84	28.75	8.19
69-GW03	36.66	15.66	28.99	6.49	30.17
69-GW03DW	37.56	8.73	7.86	29.43	8.13
69-GW03BCH	38.52	9.10	NA	NA	NA
69-GW04	41.45	34.22	33.04	8.39	33.06
69-GW05	37.12	26.92	26.66	10.57	26.55
69-GW06	30.57	6.51	5.14	24.99	5.58
69-GW07	19.76	6.23	4.65	14.40	5.36
69-GW08	37.28	28.98	NA	8.48	28.80
69-GW09	12.44	3.87	3.06	9.22	3.22
69-GW10	41.89	37.53	33.21	8.75	33.14
69-GW11	28.82	21.64	NA	9.36	19.46
69-GW12	11.15	7.12	6.14	4.56	6.59
69-GW12DW	9.38	4.95	4.33	4.75	4.63
69-GW13	38.12	33.10	31.57	6.18	31.94
69-GW13DW	NA	NA	NA	34.15	NA
69-GW14	35.22	27.57	27.58	8.71	26.51
69-GW14DW	35.17	5.53	4.78	30.14	5.03
69-GW14IW	35.21	9.04	8.30	27.72	7.49
69-GW15	37.41	34.12	32.31	4.23	33.18
69-GW15BCH	38.63	9.33	NA	NA	NA
69-GW15DW	NA	NA	NA	37.74	NA
69-GW15IW	37.54	8.31	7.63	29.70	7.84

Notes:

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

SWE = Static water elevation.
SWL= Static water level taken from top of well casing.
NA = Data not available.

TABLE 5

TRIP BLANK ANALYTICAL RESULTS
OPERABLE UNIT NO. 5 - SITE 2
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR69-TB01-99B	IR69-TB02-99B
SAMPLE DATE	04/20/99	04/21/99
VOLATILES (ug/L)		
Chloromethane	5 U	5 U
Bromomethane	5 U	5 U
Vinyl Chloride	5 U	5 U
Chloroethane	5 U	5 U
Methylene Chloride	5 U	5 U
Acetone	10 U	10 U
Carbon Disulfide	5 U	5 U
1,1-Dichloroethene	5 U	5 U
1,1-Dichloroethane	5 U	5 U
cis-1,2-Dichloroethene	5 U	5 U
Trans-1,2-Dichloroethene	5 U	5 U
Chloroform	5 U	5 U
1,2-Dichloroethane	5 U	5 U
2-Butanone	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U
Carbon Tetrachloride	5 U	5 U
Bromodichloromethane	5 U	5 U
1,2-Dichloropropane	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U
Trichloroethene	5 U	5 U
Dibromochloromethane	5 U	5 U
1,1,2-Trichloroethane	5 U	5 U
Benzene	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U
Bromoform	5 U	5 U
4-Methyl-2-Pentanone	10 U	10 U
2-Hexanone	10 U	10 U
Tetrachloroethene	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	5 U
Toluene	5 U	5 U
Chlorobenzene	5 U	5 U
Ethylbenzene	5 U	5 U
Styrene	5 U	5 U
Total Xylenes	15 U	15 U

U = not detected

ug/L = micrograms per liter

TABLE 6

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO.14 - SITE 69
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
Volatile Organics	1,1,2,2-Tetrachloroethane	NA	NA	2 J	98	IR69-GW02-99B	3/14	NA	NA
	1,1,2-Trichloroethane	NA	5	41	41	IR69-GW02-99B	1/14	NA	1
	1,2-Dichloroethane	0.38	5	2 J	2 J	IR69-GW02-99B	1/14	1	0
	2-Butanone	170	NA	7 J	100	IR69-GW03-99B	2/14	0	NA
	2-Hexanone	NA	NA	26 J	26 J	IR69-GW03-99B	1/14	NA	NA
	Acetone	700	NA	2 J	170	IR69-GW03-99B	6/14	0	NA
	Benzene	1	5	6 J	6 J	IR69-GW15-99B	1/14	1	1
	Chlorobenzene	50	100	17 J	580	IR69-GW15-99B	2/14	1	1
	Cis-,1,2-Dichloroethene	70	70	3 J	15,000	IR69-GW15IW-99B	8/14	4	4
	Methylene Chloride	5	NA	2 J	3 J	IR69-GW02-99B, IR69-GW12DW-99B, IR69-GW13DW-99B, IR69-GW14-99B	6/14	0	NA
	Toluene	1,000	1,000	6 J	6 J	IR69-GW15-99B	1/14	0	0
	Trans-1,2-Dichloroethene	70	100	1 J	200 D	IR69-GW02-99B	6/14	3	3
	Trichlorethene	2.8	5	3 J	260 J	IR69-GW15IW-99B	4/14	4	3
	Vinyl Chloride	0.015	2	32	1200	IR69-GW15IW-99B	3/14	3	3
	Xylenes, Total	530	10,000	7 J	17 J	IR69-GW03-99B	2/14	0	0

Notes:

Volatile organic concentrations presented in micrograms per liter (µg/L) or parts per billion.

J = Estimated Value
D = Dilution
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).
NCWQS = North Carolina Water Quality Standards (North Carolina Administrative Code, Title 15A, Subchapter 2L).
NA = Not Available

TABLE 7

POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 14 - SITE 69
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR69-GW01-99B	IR69-GW02-99B	IR69-GW02DW-99B	IR69-GW03-99B	IR69-GW03DW-99B	IR69-GW10-99B	IR69-GW12-99B
SAMPLE DATE	04/21/99	04/21/99	04/21/99	04/21/99	04/21/99	04/21/99	04/21/99
VOLATILES (ug/L)							
Vinyl Chloride	5 U	32	5 U	50 U	5 U	5 U	5 U
Methylene Chloride	5 U	3 J	5 U	78 B	2 J	5 U	5 U
Acetone	10 U	3 J	10 U	170	10 U	10 U	3 J
cis-1,2-Dichloroethene	5 U	590 D	9	790	5 U	5 U	3 J
Trans-1,2-Dichloroethene	5 U	200 D	1 J	14 J	5 U	5 U	5 U
1,2-Dichloroethane	5 U	2 J	5 U	50 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	100	10 U	10 U	10 U
Trichloroethene	5 U	16	5 U	50 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	41	5 U	50 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	50 U	5 U	5 U	5 U
2-Hexanone	10 U	10 U	10 U	26 J	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	5 U	98	5 U	50 U	2 J	5 U	5 U
Toluene	5 U	5 U	5 U	50 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	17 J	5 U	5 U	5 U
Total Xylenes	15 U	15 U	15 U	17 J	15 U	15 U	15 U

TABLE 7

POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 14 - SITE 69
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR69-GW12DW-99B	IR69-GW13DW-99B	IR69-GW14-99B	IR69-GW14IW-99B	IR69-GW15-99B	IR69-GW15DW-99B	IR69-GW15IW-99B
SAMPLE DATE	04/21/99	04/21/99	04/21/99	04/21/99	04/21/99	04/21/99	04/21/99
VOLATILES (ug/L)							
Vinyl Chloride	5 U	5 U	5 U	5 U	140	5 U	1200
Methylene Chloride	3 J	3 J	3 J	5 U	25 U	3 J	500 U
Acetone	3 J	10 U	20	10 U	50 U	2 J	1000 U
cis-1,2-Dichloroethene	5 U	23	7	5 U	130	5 U	15000
Trans-1,2-Dichloroethene	5 U	5 U	3 J	5 U	120	5 U	160 J
1,2-Dichloroethane	5 U	5 U	5 U	5 U	25 U	5 U	500 U
2-Butanone	10 U	10 U	7 J	10 U	50 U	10 U	1000 U
Trichloroethene	5 U	5 U	3 J	5 U	12 J	5 U	260 J
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U	25 U	5 U	500 U
Benzene	5 U	5 U	5 U	5 U	6 J	5 U	500 U
2-Hexanone	10 U	10 U	10 U	10 U	50 U	10 U	1000 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U	12 J	5 U	500 U
Toluene	5 U	5 U	5 U	5 U	6 J	5 U	500 U
Chlorobenzene	5 U	5 U	5 U	5 U	580	5 U	500 U
Total Xylenes	15 U	15 U	15 U	15 U	7 J	15 U	1500 U

TABLE 7

POSITIVE DETECTIONS IN GROUNDWATER
OPERABLE UNIT NO. 14 - SITE 69
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR69-GW01-99B	IR69-GW02DW-99B	IR69-GW03-99B	IR69-GW10-99B	IR69-GW12-99B	IR69-GW14IW-99B	IR69-GW15-99B	IR69-GW15IW-99B
SAMPLE DATE	04/20/99	04/20/99	04/20/99	04/20/99	04/20/99	04/20/99	04/20/99	04/20/99
Engineering Parameters (mg/l)								
Ammonia (as N)	0.16	NA	NA	0.1 U	0.16	0.14	NA	NA
Nitrate	0.05 U	0.06	0.08	0.06	0.16	0.22	0.05 U	0.2
O-Phosphate	0.1 U	NA	NA	0.1 U	0.1 U	0.21	NA	NA
Sulfate	14.5	2.39	0.87	4.57	3.5	13.8	13	0.47
Total Organic Carbon	3.7	NA	NA	2.3	8.9	2.1	NA	NA
Total Organic Nitrogen	0.2 U	NA	NA	0.29	1.15	0.2 U	NA	NA
Gases (ug/l)								
Ethane	1 U	1 U	1 U	1 U	1 U	1 U	760	320
Ethene	2 U	2 U	2 U	2 U	2 U	2 U	56	22
Methane	26	99	2600	2 U	160	18	12000	1100

TABLE 8

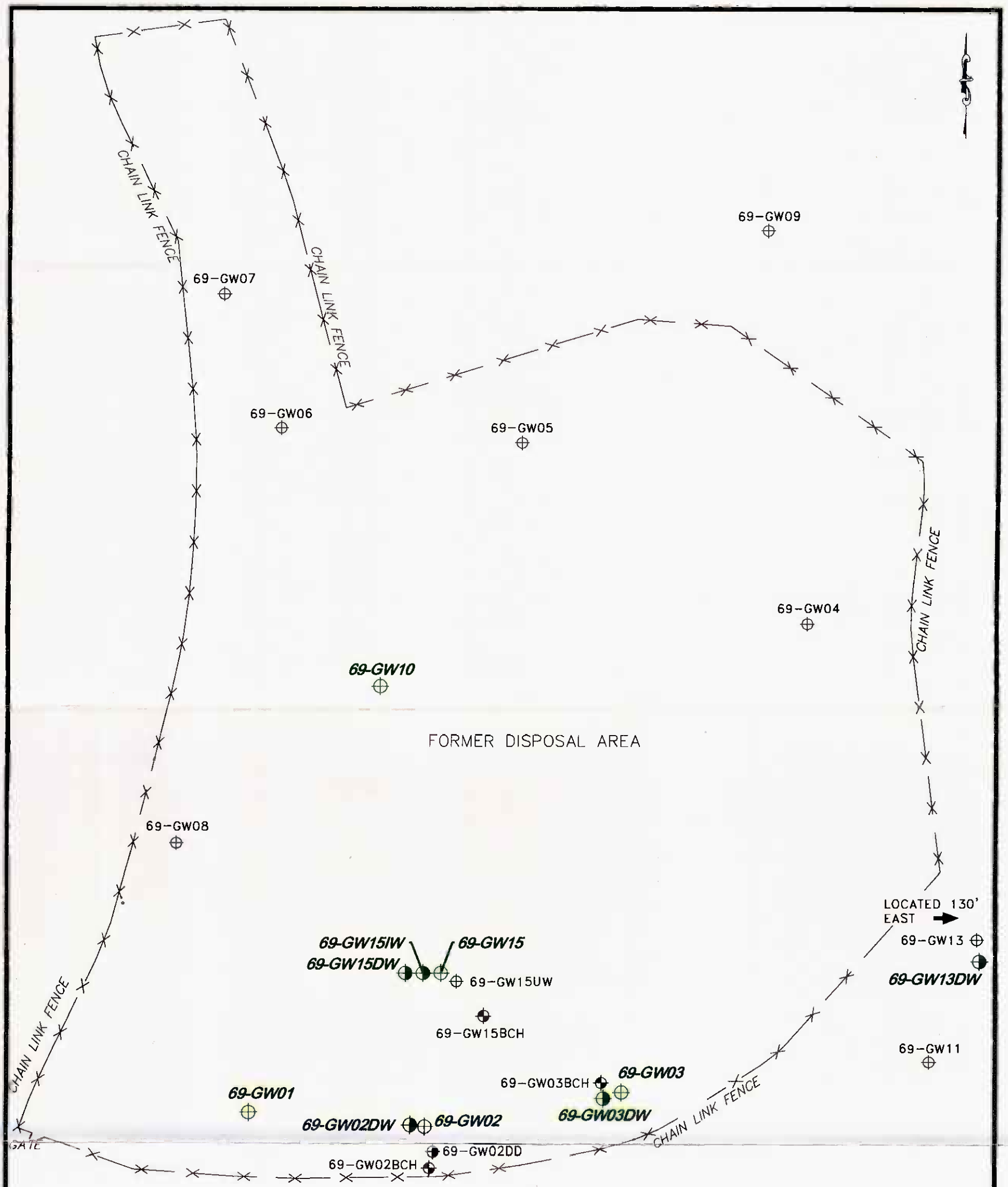
NATURAL ATTENUATION FIELD TEST RESULTS
OPERABLE UNIT NO. 14 - SITE 69
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

	Ferrous Iron (mg/L)		$CaCO_3$ (mg/L)		Chloride (mg/L)		Sulfur (mg/L)	
Sample ID	October 1998	April 1999	October 1998	April 1999	October 1998	April 1999	October 1998	April 1999
69-GW01	0.17	0.36	ND	ND	19.0	10.2	10	NA
69-GW02DW	0.24	0.02	63	104	21.0	15.4	0	NA
69-GW03	12.66	12.55	ND	ND	61.8	8.4	0	NA
69-GW10	0.00	0.12	ND	ND	15.2	9.1	0	NA
69-GW12	4.82	8.70	ND	ND	24.2	9.1	0	NA
69-GW14	1.18	NA	ND	NA	11.9	NA	16	NA
69-GW14IW	0.08	0.00	133	103	6.7	1.8	10	NA
69-GW15	61.53	85.02	182	ND	44.8	42.6	0	NA
69-GW15IW	2.95	2.29	144	131	41.4	21.8	0	NA

Notes:

NA = Not Analyzed
ND = The result is out of range of the field test method.

FIGURES



NOTES:
- ENTIRE AREA IS HEAVILY WOODED.
- WELLS SHOWN IN BLACK REGULAR FONT ARE NOT INCLUDED IN THE MONITORING PROGRAM.

367674MP

LEGEND

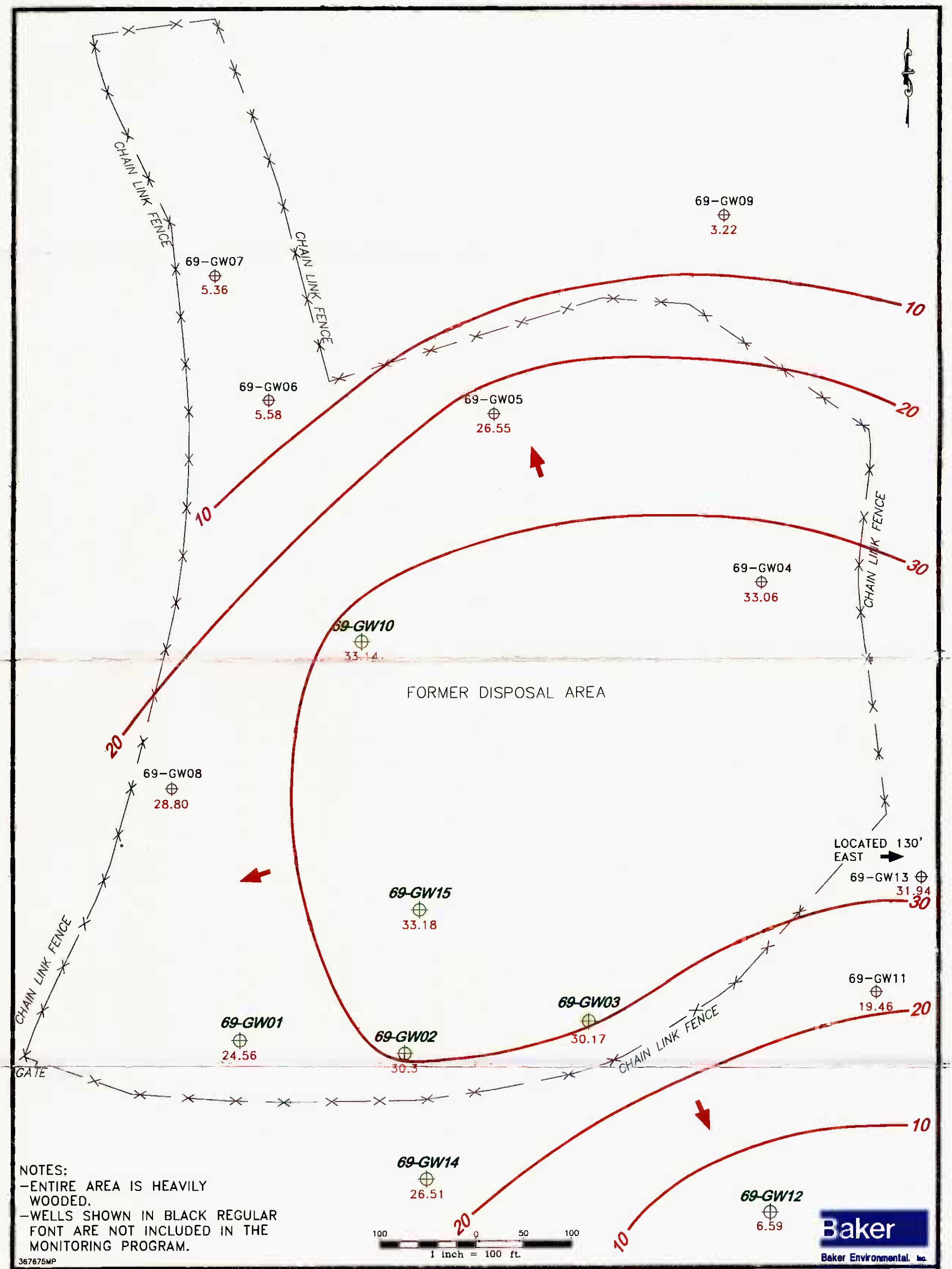
69GW15BCH	DEEP ZONE CASTLE HAYNE WELLS
69GW09	SHALLOW WELLS
69GW02DW	UPPER ZONE CASTLE HAYNE WELLS
69-GW02DD	INTERMEDIATE ZONE CASTLE HAYNE WELLS

SOURCE: REVISED FROM LANTDIV, OCT. 1991

FIGURE 1
SAMPLING LOCATION MAP
OPERABLE UNIT NO.14 – SITE 69
MONITORING AND O&M SUPPORT
CTO – 0367
MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

Baker
Baker Environmental, Inc.

02327IIBIY



NOTES:
- ENTIRE AREA IS HEAVILY WOODED.
- WELLS SHOWN IN BLACK REGULAR FONT ARE NOT INCLUDED IN THE MONITORING PROGRAM.

367675MP

Baker Environmental, Inc.

LEGEND

69-GW01 ⊕	SHALLOW MONITORING WELL
24.56	GROUNDWATER ELEVATION (MSL) MEASURED ON APRIL 21, 1999
—20—	GROUNDWATER ELEVATION CONTOUR
→	GROUNDWATER FLOW DIRECTION

SOURCE: REVISED FROM LANTDIV, OCT. 1991

FIGURE 2
SHALLOW GROUNDWATER CONTOUR MAP
OPERABLE UNIT NO.14 – SITE 69
MONITORING AND O&M SUPPORT
CTO – 0367

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

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

VOLATILE ORGANIC COMPOUNDS	NCWQS	MCL
1,1,2,2–Tetrachloroethone	NE	NE
1,1,2–Trichloroethane	NE	5
1,2–Dichloroethane	0.38	5
2–Butanone	NE	NE
2–Hexanone	NE	NE
Cis–1,2–Dichloroethene	70	70
Trans–1,2–Dichloroethene	70	100
Acetone	700	NE
Benzene	1	5
Chlorobenzene	50	100
Methylene Chloride	5	5
Toluene	1000	1000
Trichloroethene	NE	5
Vinyl Chloride	0.015	2
Xylene (Total)	530	10,000

NOTE:
1.) CONCENTRATIONS PRESENTED IN MICROGRAMS PER LITER OR PARTS PER BILLION
2.) EXCEED NCWQS SHOWN IN GREEN.
3.) EXCEED BOTH NCWQS AND MCL SHOWN IN RED.

NOTES:
- ENTIRE AREA IS HEAVILY WOODED.
- WELLS SHOWN IN BLACK REGULAR FONT ARE NOT INCLUDED IN THE MONITORING PROGRAM.

Sample ID	IR69–GW15–99B
Sample Date	4/21/99
1,1,2,2–Tetrachloroethane	12 J
Cis–1,2–Dichloroethene	130
Trans–1,2–Dichloroethene	120
Benzene	6 J
Chlorobenzene	580
Toluene	6 J
Trichloroethene	12 J
Vinyl Chloride	140
Xylenes, Total	7 J

Sample ID	IR69–GW15IW–99B
Sample Date	4/21/99
Cis–1,2–Dichloroethene	15,000
Trans–1,2–Dichloroethene	160 J
Trichloroethene	260 J
Vinyl Chloride	1200

Sample ID	IR69–GW13DW–99B
Sample Date	4/21/99
Cis–1,2–Dichloroethene	23
Methylene Chloride	3 J

Sample ID	IR69–GW15DW–99B
Sample Date	4/21/99
Acetone	2 J
Methylene Chloride	3 J

Sample ID	IR69–GW03DW–99B
Sample Date	4/21/99
1,1,2,2–Tetrachloroethane	2 J
Methylene Chloride	2 J

Sample ID	IR69–GW02–99B
Sample Date	4/21/99
1,1,2,2–Tetrachloroethane	98
1,1,2–Trichloroethane	41
1,2–Dichloroethane	2 J
Cis–1,2–Dichloroethene	590 D
Trans–1,2–Dichloroethene	200 D
Acetone	3 J
Methylene Chloride	3 J
Trichloroethene	16
Vinyl Chloride	32

Sample ID	IR69–GW03–99B
Sample Date	4/21/99
Cis–1,2–Dichloroethene	790
Trans–1,2–Dichloroethene	14 J
2–Butanone	100
2–Hexanone	26 J
Acetone	170
Chlorobenzene	17 J
Methylene Chloride	78 B
Xylenes, Total	17 J

Sample ID	IR69–GW02DW–99B
Sample Date	4/21/99
Cis–1,2–Dichloroethene	9
Trans–1,2–Dichloroethene	1 J

Sample ID	IR69–GW12DW–99B
Sample Date	4/21/99
Acetone	3 J
Methylene Chloride	3 J

Sample ID	IR69–GW14–99B
Sample Date	4/21/99
Cis–1,2–Dichloroethene	7
Trans–1,2–Dichloroethene	3 J
2–Butanone	7 J
Acetone	20
Methylene Chloride	3 J
Trichloroethene	3 J

Sample ID	IR69–GW12–99B
Sample Date	4/21/99
Cis–1,2–Dichloroethene	3 J
Acetone	3 J

69-GW10
FORMER DISPOSAL AREA
CHAIN LINK FENCE
LOCATED 130' EAST
69-GW15IW
69-GW15DW
69-GW15
69-GW15UW
69-GW13DW
69-GW11
69-GW03
69-GW03DW
69-GW01
69-GW02DW
69-GW02
CHAIN LINK FENCE
GATE
69-GW14
69-GW14IW
69-GW12
69-GW12DW

100 0 50 100
1 inch = 100 ft.

367681MP

Baker
Baker Environmental, Inc.

LEGEND

69GW09 — SHALLOW WELLS
69GW02DW — UPPER ZONE CASTLE HAYNE WELLS
69GW14IW — UPPER ZONE CASTLE HAYNE WELLS

SOURCE: REVISED FROM LANTDIV, OCT. 1991

FIGURE 3
VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER
OPERABLE UNIT NO.14 – SITE 69
MONITORING AND O&M SUPPORT
CTO – 0367
MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

ATTACHMENTS

ATTACHMENT A
CHAIN-OF-CUSTODY DOCUMENTATION

62470-367-06-99B

Chain [illegible]ustody

Original Chain of Custody goes to Laboratory

0( )0

Page 1 of ____

Project #	Project Name: Camp Lejeune LTM	Cooler Temp.
Samplers (please print): Ellen Bjerklie, Jon Edel, Heather Govenor		Cooler #

Lab ID	Date (1999)	Time	Comp. Grab	Sample Identification	Sample Matrix	No. of Containers	TCL Volatiles 8260	pH	Dissolved Gas RSK 175	pH	Nitrate 300	pH	Sulfate 300	pH	TAL Metals (CLP SOW ILM03.0)	pH		pH		pH	Remarks
	4/20	0945	grab	IR69-GW15-99B	water	7	X		X		X		X								
	4/20	1005	grab	IR69-GW15IW-99B	water	7	X		X		X		X								
	4/20	1135	grab	IR69-GW03-99B	water	7	X		X		X		X								
	4/20	1020	grab	IR69-GW01-99B-MS	water	3	X														
	4/20	1020	grab	IR69-GW01-99B-MSD	water	3	X														
	4/20	1330	grab	IR69-GW02DW-99B	water	7	X		X		X		X								
	4/20	1430	grab	IR69-TB01-99B	water	3	X														
	~~4/17~~	~~1520~~	~~grab~~	~~IR2[illegible]-GW02-99B~~	~~water~~	~~1~~									~~X~~						
	~~4/17~~	~~1425~~	~~grab~~	~~IR28-GW01-99B~~	~~water~~	~~1~~									~~X~~						
	~~4/17~~	~~1430~~	~~grab~~	~~IR28-GW07-99B~~	~~water~~	~~1~~									~~X~~						

Ceimic Project #	Relinquished by (signature): Ellen Bjerklie	Date/Time: 4/20/99 1700	Received by (signature)	Date/Time
	Relinquished by (signature)	Date/Time	Received by (signature)	Date/Time
Storage Location	Relinquished by (signature)	Date/Time	Received by Ceimic (signature)	Date/Time

Remarks: Airbill # 8013147[illegible]4550

▭ = Lab Use Only

62470 - 367-06B-99B

Chain of Custody

Original Chain of Custody goes to Laboratory

08

Page 2 of _____

Project #	Project Name	Cooler Temp.
	Camp Lejeune LTM	
Samplers (please print) Ellen Bjerkie, Jon Edel, Heather Governor		Cooler #

Lab ID	1999 Date	Time	Comp. / Grab	Sample Identification	Sample Matrix	No. of Containers	Analyses: TCL Volatiles 8260	pH	Dissolved Gas RSK 175	pH	Nitrate 300.0	pH	Sulfate 300.0	pH	Nitrite IC 300.0	pH	Orthophosphate IC-E 300.0	pH	TOC 9060	pH	Remarks
	4/20	1225	grab	IR69-GW12-99B	water	8	X		X		X		X		X		X		X		
	4/20	1308	grab	IR69-GW10-99B	water	8	X		X		X		X		X		X		X		
	4/20	1515	grab	IR69-GW14IW-99B	water	8	X		X		X		X		X		X		X		
	4/20	1020	grab	IR69-GW01-99B	water	8	X		X		X		X		X		X		X		
	4/17	1510	grab	IR69-GW01-99B	water	1															
	4/17	1520	grab	IR69-GW03-99B	water	1															
	4/17	1540	grab	IR69-GW02-99B	water	1															
	4/17	1105	grab	IR02-GW12-99B	water	3	X														
	4/17	1120	grab	IR02-GW05-99B	water	3	X														
	4/17	1140	grab	IR02-GW08-99B	water	3	X														

Ceimic Project #	Relinquished by (signature)	Date/Time	Received by (signature)	Date/Time
	Ellen Bjerkie	4/20/99 1700		
	Relinquished by (signature)	Date/Time	Received by (signature)	Date/Time
Storage Location				
	Relinquished by (signature)	Date/Time	Received by Ceimic (signature)	Date/Time

Remarks: Airbill # 801314754550

= Lab Use Only

Ceimic Corporation, 10 Dean Knauss Drive, Narragansett, RI 02882 - Tel: (401) 782-8900, Fax: (401) 782-8905

62170 - 362-06C-99B

Chain of Custody

Original Chain of Custody goes to Laboratory

08 2

Page 3 of _____

Project #	Project Name	Cooler Temp.
	Comprehensive LTM	
Samplers (please print)		Cooler #

Lab ID	Date	Time	Comp.	Grab	Sample Identification	Sample Matrix	No. of Containers	TON 351.1/353.2	pH	Ammonia 350.2	pH	TAL Metals CLP SOW ILM03.0	pH		pH		pH		pH		pH	Remarks
	4/20	1225		grab	IR69-GW12-99B	water		X		X												
	4/20	1308		grab	IR69-GW10-99B	water		X		X												
	4/20	1515		grab	IR69-GW14IW-99B	water		X		X												
	4/20	1620		grab	IR69-GW01-99B	water		X		X												
	4/17	1510		grab	IR26-GW01-99B	water	1					X										
	4/17	1610		grab	IR26-GW03-99B	water	1					X										
	4/17	1640		grab	IR26-GW02-99B	water	1					X										

Ceimic Project #	Relinquished by (signature)	Date/Time	Received by (signature)	Date/Time
Storage Location	Relinquished by (signature)	Date/Time	Received by (signature)	Date/Time
	Relinquished by (signature)	Date/Time	Received by Ceimic (signature)	Date/Time

Remarks: Airbill # 801314154550

= Lab Use Only

Ceimic Corporation, 10 Dean Knauss Drive, Narragansett, RI 02882 - Tel: (401) 782-8900, Fax: (401) 782-8905

62470-361-08-740

Company Name: Baker Environmental	Project Manager or Contact: Tom Trebilcock Phone: (412)269-2060
Project No. Dept.: Task:	Project Name: Camp Lejeune LTM
Sample Storage Location:	ATO Number:
Page 1 of 1	Report #:

Chain of Custody Record

EA Laboratories
19 Loveton Circle
Sparks, MD 21152
Telephone: (410) 771-4920
Fax: (410) 771-4407

Report Deliverables: 1 2 3 4 D E
EDD: Yes/No
DUE TO CLIENT: ______

Parameters/Method Numbers for Analysis

1999 Date	Time	Water	Soil	Sample Identification 19 Characters	No. of Containers	TCL Volatiles 8260	EA Labs Accession Number	Remarks
4/21	1035	X		IR69-GW02-99B	3	X		LPM:
4/21	1400	X		IR69-GW03DW-99B	3	X		
4/21	1110	X		IR69-GW12DW-99B	3	X		
4/21	1220	X		IR69-GW13DW-99B	3	X		
4/21	0930	X		IR69-GW14-99B	3	X		
~~4/21~~		~~X~~		~~IR69-GW15-99B~~	~~3~~	~~X~~		
4/21	0955	X		IR69-GW15DW-99B	3	X		
4/21	1400	X		IR69-TB02-99B	3	X		
~~[illegible]~~	~~1320~~	~~X~~		~~IR69-GW17-99B~~	~~3~~	~~X~~		
~~4/21~~	~~1135~~	~~X~~		~~IR69-TB01-99B~~	~~3~~	~~X~~		

Sampled by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Relinquished by: (Signature) Ellen Bystrike	Date/Time 4/21/99 1700	Received by Laboratory: (Signature)	Date/Time	Airbill Number: 801314754572	Sample Shipped by: (Circle) Fed Ex. Puro. UPS Hand Carried Other:

Cooler Temp. ____ C pH: ☐ Yes ☐ No Comments: Custody Seals Intact ☐ Yes ☐ No

NOTE: Please indicate method number for analyses requested. This will help clarify any questions with laboratory techniques.

WHITE—EA Laboratories YELLOW—EA Laboratories PINK—Project Manager *Shaded Areas for Lab Use Only*

ATTACHMENT B
MONITORING PROGRAM ANALYTICAL RESULTS

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 14 - SITE 69
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR69-GW01-99B	IR69-GW02-99B	IR69-GW02DW-99B	IR69-GW03-99B	IR69-GW03DW-99B	IR69-GW10-99B	IR69-GW12-99B
SAMPLE DATE	04/21/99	04/21/99	04/21/99	04/21/99	04/21/99	04/21/99	04/21/99
VOLATILES (ug/L)							
Chloromethane	5 U	5 U	5 U	50 U	5 U	5 U	5 U
Bromomethane	5 U	5 U	5 U	50 U	5 U	5 U	5 U
Vinyl Chloride	5 U	32	5 U	50 U	5 U	5 U	5 U
Chloroethane	5 U	5 U	5 U	50 U	5 U	5 U	5 U
Methylene Chloride	5 U	3 J	5 U	78 B	2 J	5 U	5 U
Acetone	10 U	3 J	10 U	170	10 U	10 U	3 J
Carbon Disulfide	5 U	5 U	5 U	50 U	5 U	5 U	5 U
1,1-Dichloroethene	5 U	5 U	5 U	50 U	5 U	5 U	5 U
1,1-Dichloroethane	5 U	5 U	5 U	50 U	5 U	5 U	5 U
cis-1,2-Dichloroethene	5 U	590 D	9	790	5 U	5 U	3 J
Trans-1,2-Dichloroethene	5 U	200 D	1 J	14 J	5 U	5 U	5 U
Chloroform	5 U	5 U	5 U	50 U	5 U	5 U	5 U
1,2-Dichloroethane	5 U	2 J	5 U	50 U	5 U	5 U	5 U
2-Butanone	10 U	10 U	10 U	100	10 U	10 U	10 U
1,1,1-Trichloroethane	5 U	5 U	5 U	50 U	5 U	5 U	5 U
Carbon Tetrachloride	5 U	5 U	5 U	50 U	5 U	5 U	5 U
Bromodichloromethane	5 U	5 U	5 U	50 U	5 U	5 U	5 U
1,2-Dichloropropane	5 U	5 U	5 U	50 U	5 U	5 U	5 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	50 U	5 U	5 U	5 U
Trichloroethene	5 U	16	5 U	50 U	5 U	5 U	5 U
Dibromochloromethane	5 U	5 U	5 U	50 U	5 U	5 U	5 U
1,1,2-Trichloroethane	5 U	41	5 U	50 U	5 U	5 U	5 U
Benzene	5 U	5 U	5 U	50 U	5 U	5 U	5 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	50 U	5 U	5 U	5 U
Bromoform	5 U	5 U	5 U	50 U	5 U	5 U	5 U
4-Methyl-2-Pentanone	10 U	10 U	10 U	100 U	10 U	10 U	10 U
2-Hexanone	10 U	10 U	10 U	26 J	10 U	10 U	10 U
Tetrachloroethene	5 U	5 U	5 U	50 U	5 U	5 U	5 U
1,1,2,2-Tetrachloroethane	5 U	98	5 U	50 U	2 J	5 U	5 U
Toluene	5 U	5 U	5 U	50 U	5 U	5 U	5 U
Chlorobenzene	5 U	5 U	5 U	17 J	5 U	5 U	5 U
Ethylbenzene	5 U	5 U	5 U	50 U	5 U	5 U	5 U
Styrene	5 U	5 U	5 U	50 U	5 U	5 U	5 U
Total Xylenes	15 U	15 U	15 U	17 J	15 U	15 U	15 U

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 14 - SITE 69
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR69-GW12DW-99B	IR69-GW13DW-99B	IR69-GW14-99B	IR69-GW14IW-99B	IR69-GW15-99B	IR69-GW15DW-99B	IR69-GW15IW-99B
SAMPLE DATE	04/21/99	04/21/99	04/21/99	04/21/99	04/21/99	04/21/99	04/21/99
VOLATILES (ug/L)							
Chloromethane	5 U	5 U	5 U	5 U	25 U	5 U	500 U
Bromomethane	5 U	5 U	5 U	5 U	25 U	5 U	500 U
Vinyl Chloride	5 U	5 U	5 U	5 U	140	5 U	1200
Chloroethane	5 U	5 U	5 U	5 U	25 U	5 U	500 U
Methylene Chloride	3 J	3 J	3 J	5 U	25 U	3 J	500 U
Acetone	3 J	10 U	20	10 U	50 U	2 J	1000 U
Carbon Disulfide	5 U	5 U	5 U	5 U	25 U	5 U	500 U
1,1-Dichloroethene	5 U	5 U	5 U	5 U	25 U	5 U	500 U
1,1-Dichloroethane	5 U	5 U	5 U	5 U	25 U	5 U	500 U
cis-1,2-Dichloroethene	5 U	23	7	5 U	130	5 U	15000
Trans-1,2-Dichloroethene	5 U	5 U	3 J	5 U	120	5 U	160 J
Chloroform	5 U	5 U	5 U	5 U	25 U	5 U	500 U
1,2-Dichloroethane	5 U	5 U	5 U	5 U	25 U	5 U	500 U
2-Butanone	10 U	10 U	7 J	10 U	50 U	10 U	1000 U
1,1,1-Trichloroethane	5 U	5 U	5 U	5 U	25 U	5 U	500 U
Carbon Tetrachloride	5 U	5 U	5 U	5 U	25 U	5 U	500 U
Bromodichloromethane	5 U	5 U	5 U	5 U	25 U	5 U	500 U
1,2-Dichloropropane	5 U	5 U	5 U	5 U	25 U	5 U	500 U
cis-1,3-Dichloropropene	5 U	5 U	5 U	5 U	25 U	5 U	500 U
Trichloroethene	5 U	5 U	3 J	5 U	12 J	5 U	260 J
Dibromochloromethane	5 U	5 U	5 U	5 U	25 U	5 U	500 U
1,1,2-Trichloroethane	5 U	5 U	5 U	5 U	25 U	5 U	500 U
Benzene	5 U	5 U	5 U	5 U	6 J	5 U	500 U
Trans-1,3-Dichloropropene	5 U	5 U	5 U	5 U	25 U	5 U	500 U
Bromoform	5 U	5 U	5 U	5 U	25 U	5 U	500 U
4-Methyl-2-Pentanone	10 U	10 U	10 U	10 U	50 U	10 U	1000 U
2-Hexanone	10 U	10 U	10 U	10 U	50 U	10 U	1000 U
Tetrachloroethene	5 U	5 U	5 U	5 U	25 U	5 U	500 U
1,1,2,2-Tetrachloroethane	5 U	5 U	5 U	5 U	12 J	5 U	500 U
Toluene	5 U	5 U	5 U	5 U	6 J	5 U	500 U
Chlorobenzene	5 U	5 U	5 U	5 U	580	5 U	500 U
Ethylbenzene	5 U	5 U	5 U	5 U	25 U	5 U	500 U
Styrene	5 U	5 U	5 U	5 U	25 U	5 U	500 U
Total Xylenes	15 U	15 U	15 U	15 U	7 J	15 U	1500 U

GROUNDWATER ANALYTICAL RESULTS
OPERABLE UNIT NO. 14 - SITE 69
MONITORING AND O&M SUPPORT, CTO-0367
MCB, CAMP LEJEUNE, NORTH CAROLINA

SAMPLE ID	IR69-GW01-99B	IR69-GW02DW-99B	IR69-GW03-99B	IR69-GW10-99B	IR69-GW12-99B	IR69-GW14IW-99B	IR69-GW15-99B	IR69-GW15IW-99B
SAMPLE DATE	04/20/99	04/20/99	04/20/99	04/20/99	04/20/99	04/20/99	04/20/99	04/20/99
Engineering Parameters (mg/l)								
Ammonia (as N)	0.16	NA	NA	0.1 U	0.16	0.14	NA	NA
Nitrate	0.05 U	0.06	0.08	0.06	0.16	0.22	0.05 U	0.2
Nitrite	0.05 U	NA	NA	0.05 U	0.05 U	0.05 U	NA	NA
O-Phosphate	0.1 U	NA	NA	0.1 U	0.1 U	0.21	NA	NA
Sulfate	14.5	2.39	0.87	4.57	3.5	13.8	13	0.47
Total Organic Carbon	3.7	NA	NA	2.3	8.9	2.1	NA	NA
Total Organic Nitrogen	0.2 U	NA	NA	0.29	1.15	0.2 U	NA	NA
Gases (ug/l)								
Ethane	1 U	1 U	1 U	1 U	1 U	1 U	760	320
Ethene	2 U	2 U	2 U	2 U	2 U	2 U	56	22
Methane	26	99	2600	2 U	160	18	12000	1100

ATTACHMENT C
ANALYTICAL LABORATORY DATA SHEETS

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR69GW0199

ab Name: CEIMIC CORP Contract: BAKER

ab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 69GW15

atrix: (soil/water) WATER Lab Sample ID: 990333-04

ample wt/vol: 5.0 (g/mL) ML Lab File ID: L1765

evel: (low/med) LOW Date Received: 04/21/99

Moisture: not dec. _____ Date Analyzed: 05/02/99

C Column: DB624 ID: 0.180 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl Chloride	5	U
75-00-3	Chloroethane	5	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR69GW0199

ab Name: CEIMIC CORP Contract: BAKER

ab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 69GW15

atrix: (soil/water) WATER Lab Sample ID: 990333-04

ample wt/vol: 5.0 (g/mL) ML Lab File ID: L1765

evel: (low/med) LOW Date Received: 04/21/99

Moisture: not dec. _____ Date Analyzed: 05/02/99

C Column: DB624 ID: 0.180 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1330-20-7	Xylene (total)	15	U

Headspace Analysis by GC/FID
SW846 Method 3810 Modified

Client: Baker Environmental

Client Sample ID: IR69-GW01-99B

Date Sampled: 04/20/99

Date Sample Received: 0504

Matrix: Aqueous

Laboratory ID: 990333-04

Date Sample Extracted: 05/04/99

Date Sample Analyzed: 05/04/99

Associated Method Blank: M0504-B1

Final Extract Volume (mL):1.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
METHANE	26	2
ETHANE	ND	1
ETHENE	ND	2

ND = Not detected

Reported by: HL

Approved by: HL

INORGANIC ANALYTES

Client: Baker Environmental

Client Sample ID: IR69-GW01-99B

Date Sampled: 04/20/99

Laboratory ID: 990333-04

Date Sample Received: 04/21/99

Matrix: Aqueous

Target Analyte	Result	Units	Method Reporting Limit	Date Prep'd	Date Analyzed
Ammonia (as N)	0.16	mg/L	0.10	05/11/99	05/11/99
Nitrate	ND	mg/L	0.05	04/21/99	04/21/99
Nitrite	ND	mg/L	0.05	04/21/99	04/21/99
ortho-Phosphate	ND	mg/L	0.10	04/21/99	04/21/99
Sulfate	14.5	mg/L	2.50	04/21/99	04/21/99
Total Organic Carbon	3.7	mg/L	1.0	05/10/99	05/10/99
Total Organic Nitrogen	ND	mg/L	0.20	05/11/99	05/11/99

ND = Not Detected

Reported by: Jeffrey D. Mayron

Approved by: Donald Tatarelli

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
IR69GW0299B

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 89GW02

Matrix: (soil/water) WATER Lab Sample ID: 990347-15

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FBX33

Level: (low/med) LOW Date Received: 04/23/99

% Moisture: not dec. _____ Date Analyzed: 05/04/99

GC Column: HP-624 ID: 0.530 (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	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl Chloride	32	
75-00-3	Chloroethane	5	U
75-09-2	Methylene Chloride	3	J
67-64-1	Acetone	3	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	700	E
156-60-5	trans-1,2-Dichloroethene	230	E
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	2	J
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	16	
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	41	
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	98	
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR69GW0299B

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 89GW02

Matrix: (soil/water) WATER Lab Sample ID: 990347-15

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FBX33

Level: (low/med) LOW Date Received: 04/23/99

% Moisture: not dec. _____ Date Analyzed: 05/04/99

GC Column: HP-624 ID: 0.530 (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
1330-20-7	Xylene (total)	15	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR69GW0299BDL

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 89GW02

Matrix: (soil/water) WATER Lab Sample ID: 990347-15DL

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FBX80

Level: (low/med) LOW Date Received: 04/23/99

% Moisture: not dec. ____ Date Analyzed: 05/05/99

GC Column: HP624 ID: 0.530 (mm) Dilution Factor: 10.0

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	50	U
74-83-9	Bromomethane	50	U
75-01-4	Vinyl Chloride	25	DJ
75-00-3	Chloroethane	50	U
75-09-2	Methylene Chloride	51	BD
67-64-1	Acetone	25	DJ
75-15-0	Carbon Disulfide	50	U
75-35-4	1,1-Dichloroethene	50	U
75-34-3	1,1-Dichloroethane	50	U
156-59-2	cis-1,2-Dichloroethene	590	D
156-60-5	trans-1,2-Dichloroethene	200	D
67-66-3	Chloroform	50	U
107-06-2	1,2-Dichloroethane	50	U
78-93-3	2-Butanone	100	U
71-55-6	1,1,1-Trichloroethane	50	U
56-23-5	Carbon Tetrachloride	50	U
75-27-4	Bromodichloromethane	50	U
78-87-5	1,2-Dichloropropane	50	U
10061-01-5	cis-1,3-Dichloropropene	50	U
79-01-6	Trichloroethene	14	DJ
124-48-1	Dibromochloromethane	50	U
79-00-5	1,1,2-Trichloroethane	36	DJ
71-43-2	Benzene	50	U
10061-02-6	trans-1,3-Dichloropropene	50	U
75-25-2	Bromoform	50	U
108-10-1	4-Methyl-2-Pentanone	100	U
591-78-6	2-Hexanone	100	U
127-18-4	Tetrachloroethene	50	U
79-34-5	1,1,2,2-Tetrachloroethane	87	D
108-88-3	Toluene	50	U
108-90-7	Chlorobenzene	50	U
100-41-4	Ethylbenzene	50	U
100-42-5	Styrene	50	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR69GW0299BDL

ab Name: CEIMIC CORP Contract: BAKER

ab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 89GW02

atrix: (soil/water) WATER Lab Sample ID: 990347-15DL

ample wt/vol: 5.0 (g/mL) ML Lab File ID: FBX80

evel: (low/med) LOW Date Received: 04/23/99

Moisture: not dec. _____ Date Analyzed: 05/05/99

C Column: HP624 ID: 0.530 (mm) Dilution Factor: 10.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1330-20-7	Xylene (total)	150	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR69GW02DW99B

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 69GW15

Matrix: (soil/water) WATER Lab Sample ID: 990333-05

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L1766

Level: (low/med) LOW Date Received: 04/21/99

% Moisture: not dec. ____ Date Analyzed: 05/02/99

GC Column: DB624 ID: 0.180 (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	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl Chloride	5	U
75-00-3	Chloroethane	5	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	9	
156-60-5	trans-1,2-Dichloroethene	1	J
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR69GW02DW99B

ab Name: CEIMIC CORP Contract: BAKER

ab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 69GW15

atrix: (soil/water) WATER Lab Sample ID: 990333-05

ample wt/vol: 5.0 (g/mL) ML Lab File ID: L1766

evel: (low/med) LOW Date Received: 04/21/99

Moisture: not dec. _____ Date Analyzed: 05/02/99

C Column: DB624 ID: 0.180 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1330-20-7	Xylene (total)	15	U

Headspace Analysis by GC/FID
SW846 Method 3810 Modified

Client: Baker Environmental
Client Sample ID: IR69-GW02DW-99B
Date Sampled: 04/20/99
Date Sample Received: 0504
Matrix: Aqueous

Laboratory ID: 990333-05
Date Sample Extracted: 05/04/99
Date Sample Analyzed: 05/04/99
Associated Method Blank: M0504-B1
Final Extract Volume (mL):1.0
Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
METHANE	99	2
ETHANE	ND	1
ETHENE	ND	2

ND = Not detected

Reported by: HL

Approved by: HL

CEIMIC
Corporation
"Analytical Chemistry for Environmental Management"

INORGANIC ANALYTES

Client: Baker Environmental

Client Sample ID: IR69-GW02DW-99B

Date Sampled: 04/20/99 Laboratory ID: 990333-05

Date Sample Received: 04/21/99

Matrix: Aqueous

Target Analyte	Result	Units	Method Reporting Limit	Date Prep'd	Date Analyzed
Nitrate	0.06	mg/L	0.05	04/21/99	04/21/99
Sulfate	2.39	mg/L	0.10	04/21/99	04/21/99

Reported by: Jeffrey D. Maymon Approved by: Donald Tatoll 559

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR69GW0399B

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 69GW15

Matrix: (soil/water) WATER Lab Sample ID: 990333-03

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FBX54

Level: (low/med) LOW Date Received: 04/21/99

% Moisture: not dec. _____ Date Analyzed: 05/04/99

GC Column: HP-624 ID: 0.530 (mm) Dilution Factor: 10.0

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	50	U
74-83-9	Bromomethane	50	U
75-01-4	Vinyl Chloride	50	U
75-00-3	Chloroethane	50	U
75-09-2	Methylene Chloride	78	B
67-64-1	Acetone	170	
75-15-0	Carbon Disulfide	50	U
75-35-4	1,1-Dichloroethene	50	U
75-34-3	1,1-Dichloroethane	50	U
156-59-2	cis-1,2-Dichloroethene	790	
156-60-5	trans-1,2-Dichloroethene	14	J
67-66-3	Chloroform	50	U
107-06-2	1,2-Dichloroethane	50	U
78-93-3	2-Butanone	100	U
71-55-6	1,1,1-Trichloroethane	50	U
56-23-5	Carbon Tetrachloride	50	U
75-27-4	Bromodichloromethane	50	U
78-87-5	1,2-Dichloropropane	50	U
10061-01-5	cis-1,3-Dichloropropene	50	U
79-01-6	Trichloroethene	50	U
124-48-1	Dibromochloromethane	50	U
79-00-5	1,1,2-Trichloroethane	50	U
71-43-2	Benzene	50	U
10061-02-6	trans-1,3-Dichloropropene	50	U
75-25-2	Bromoform	50	U
108-10-1	4-Methyl-2-Pentanone	100	U
591-78-6	2-Hexanone	26	J
127-18-4	Tetrachloroethene	50	U
79-34-5	1,1,2,2-Tetrachloroethane	50	U
108-88-3	Toluene	50	U
108-90-7	Chlorobenzene	17	J
100-41-4	Ethylbenzene	50	U
100-42-5	Styrene	50	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR69GW0399B

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 69GW15

Matrix: (soil/water) WATER Lab Sample ID: 990333-03

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FBX54

Level: (low/med) LOW Date Received: 04/21/99

% Moisture: not dec. _____ Date Analyzed: 05/04/99

GC Column: HP-624 ID: 0.530 (mm) Dilution Factor: 10.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1330-20-7	Xylene (total)	17	J

Headspace Analysis by GC/FID
SW846 Method 3810 Modified

Client: Baker Environmental

Client Sample ID: IR69-GW03-99B

Date Sampled: 04/20/99

Date Sample Received: 0504

Matrix: Aqueous

Laboratory ID: 990333-03

Date Sample Extracted: 05/04/99

Date Sample Analyzed: 05/04/99

Associated Method Blank: M0504-B1

Final Extract Volume (mL):1.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
METHANE	2600	2
ETHANE	ND	1
ETHENE	ND	2

ND = Not detected

Reported by: HL

Approved by: HL

CEIMIC
Corporation
"Analytical Chemistry for Environmental Management"

INORGANIC ANALYTES

Client: Baker Environmental

Client Sample ID: IR69-GW03-99B

Date Sampled: 04/20/99 Laboratory ID: 990333-03

Date Sample Received: 04/21/99

Matrix: Aqueous

Target Analyte	Result	Units	Method Reporting Limit	Date Prep'd	Date Analyzed
Nitrate	0.08	mg/L	0.05	04/21/99	04/21/99
Sulfate	0.87	mg/L	0.10	04/21/99	04/21/99

Reported by: Jeffrey D Maymon Approved by: Donald Tatsell

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR69GW03DW99B

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 89GW02

Matrix: (soil/water) WATER Lab Sample ID: 990347-16

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FBX34

Level: (low/med) LOW Date Received: 04/23/99

% Moisture: not dec. _____ Date Analyzed: 05/04/99

GC Column: HP-624 ID: 0.530 (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	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl Chloride	5	U
75-00-3	Chloroethane	5	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	2	J
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR69GW03DW99B

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 89GW02

Matrix: (soil/water) WATER Lab Sample ID: 990347-16

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FBX34

Level: (low/med) LOW Date Received: 04/23/99

% Moisture: not dec. _____ Date Analyzed: 05/04/99

GC Column: HP-624 ID: 0.530 (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
1330-20-7	Xylene (total)	15	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR69GW1099B

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 69GW15

Matrix: (soil/water) WATER Lab Sample ID: 990333-11

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L1768

Level: (low/med) LOW Date Received: 04/21/99

% Moisture: not dec. ____ Date Analyzed: 05/02/99

GC Column: DB624 ID: 0.180 (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	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl Chloride	5	U
75-00-3	Chloroethane	5	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR69GW1099B

ab Name: CEIMIC CORP Contract: BAKER

ab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 69GW15

atrix: (soil/water) WATER Lab Sample ID: 990333-11

ample wt/vol: 5.0 (g/mL) ML Lab File ID: L1768

evel: (low/med) LOW Date Received: 04/21/99

Moisture: not dec. ____ Date Analyzed: 05/02/99

C Column: DB624 ID: 0.180 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1330-20-7	Xylene (total)	15	U

Headspace Analysis by GC/FID
SW846 Method 3810 Modified

Client: Baker Environmental

Client Sample ID: IR69-GW10-99B

Date Sampled: 04/20/99

Date Sample Received: 0504

Matrix: Aqueous

Laboratory ID: 990333-11

Date Sample Extracted: 05/04/99

Date Sample Analyzed: 05/04/99

Associated Method Blank: M0504-B1

Final Extract Volume (mL):1.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
METHANE	ND	2
ETHANE	ND	1
ETHENE	ND	2

ND = Not detected

Reported by: HL

Approved by: HL

Form I

CEIMIC
Corporation
"Analytical Chemistry for Environmental Management"

INORGANIC ANALYTES

Client: Baker Environmental

Client Sample ID: IR69-GW10-99B

Date Sampled: 04/20/99 Laboratory ID: 990333-11

Date Sample Received: 04/21/99

Matrix: Aqueous

Target Analyte	Result	Units	Method Reporting Limit	Date Prep'd	Date Analyzed
Ammonia (as N)	ND	mg/L	0.10	05/11/99	05/11/99
Nitrate	0.06	mg/L	0.05	04/21/99	04/21/99
Nitrite	ND	mg/L	0.05	04/21/99	04/21/99
ortho-Phosphate	ND	mg/L	0.10	04/21/99	04/21/99
Sulfate	4.57	mg/L	0.10	04/21/99	04/21/99
Total Organic Carbon	2.3	mg/L	1.0	05/10/99	05/10/99
Total Organic Nitrogen	0.29	mg/L	0.20	05/11/99	05/11/99

ND = Not Detected

Reported by: Jeffrey D. Maymon

Approved by: Gerald Zatorski

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR69GW1299B

ab Name: CEIMIC CORP Contract: BAKER

ab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 69GW15

atrix: (soil/water) WATER Lab Sample ID: 990333-10

ample wt/vol: 5.0 (g/mL) ML Lab File ID: L1767

evel: (low/med) LOW Date Received: 04/21/99

Moisture: not dec. _____ Date Analyzed: 05/02/99

C Column: DB624 ID: 0.180 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl Chloride	5	U
75-00-3	Chloroethane	5	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	3	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	3	J
156-60-5	trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR69GW1299B

ab Name: CEIMIC CORP Contract: BAKER

ab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 69GW15

atrix: (soil/water) WATER Lab Sample ID: 990333-10

ample wt/vol: 5.0 (g/mL) ML Lab File ID: L1767

evel: (low/med) LOW Date Received: 04/21/99

Moisture: not dec. ____ Date Analyzed: 05/02/99

C Column: DB624 ID: 0.180 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1330-20-7	Xylene (total)	15	U

63A

Headspace Analysis by GC/FID
SW846 Method 3810 Modified

Client: Baker Environmental

Client Sample ID: IR69-GW12-99B

Date Sampled: 04/20/99

Date Sample Received: 0504

Matrix: Aqueous

Laboratory ID: 990333-10

Date Sample Extracted: 05/04/99

Date Sample Analyzed: 05/04/99

Associated Method Blank: M0504-B1

Final Extract Volume (mL):1.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
METHANE	160	2
ETHANE	ND	1
ETHENE	ND	2

ND = Not detected

Reported by: HC

Approved by: HC

Form I

CEIMIC
Corporation
"Analytical Chemistry for Environmental Management"

INORGANIC ANALYTES

Client: Baker Environmental

Client Sample ID: IR69-GW12-99B

Date Sampled: 04/20/99 Laboratory ID: 990333-10

Date Sample Received: 04/21/99

Matrix: Aqueous

Target Analyte	Result	Units	Method Reporting Limit	Date Prep'd	Date Analyzed
Ammonia (as N)	0.16	mg/L	0.10	05/11/99	05/11/99
Nitrate	0.16	mg/L	0.05	04/21/99	04/21/99
Nitrite	ND	mg/L	0.05	04/21/99	04/21/99
ortho-Phosphate	ND	mg/L	0.10	04/21/99	04/21/99
Sulfate	3.50	mg/L	0.10	04/21/99	04/21/99
Total Organic Carbon	8.9	mg/L	1.0	05/10/99	05/10/99
Total Organic Nitrogen	1.15	mg/L	0.20	05/11/99	05/11/99

ND = Not Detected

Reported by: Jeffrey D. Maynor

Approved by: Donald Tatoulis

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR69GW12DW99B

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 89GW02

Matrix: (soil/water) WATER Lab Sample ID: 990347-17

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FBX35

Level: (low/med) LOW Date Received: 04/23/99

% Moisture: not dec. _____ Date Analyzed: 05/04/99

GC Column: HP-624 ID: 0.530 (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	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl Chloride	5	U
75-00-3	Chloroethane	5	U
75-09-2	Methylene Chloride	3	J
67-64-1	Acetone	3	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR69GW12DW99B

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 89GW02

Matrix: (soil/water) WATER Lab Sample ID: 990347-17

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FBX35

Level: (low/med) LOW Date Received: 04/23/99

% Moisture: not dec. _____ Date Analyzed: 05/04/99

GC Column: HP-624 ID: 0.530 (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
1330-20-7	Xylene (total)	15	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
IR69GW13DW99B

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 89GW02

Matrix: (soil/water) WATER Lab Sample ID: 990347-18

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FBX36

Level: (low/med) LOW Date Received: 04/23/99

% Moisture: not dec. _____ Date Analyzed: 05/04/99

GC Column: HP-624 ID: 0.530 (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	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl Chloride	5	U
75-00-3	Chloroethane	5	U
75-09-2	Methylene Chloride	3	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	23	
156-60-5	trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR69GW13DW99B

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 89GW02

Matrix: (soil/water) WATER Lab Sample ID: 990347-18

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FBX36

Level: (low/med) LOW Date Received: 04/23/99

% Moisture: not dec. ____ Date Analyzed: 05/04/99

GC Column: HP-624 ID: 0.530 (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
1330-20-7	Xylene (total)	15	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR69GW1499B

ab Name: CEIMIC CORP Contract: BAKER

ab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 89GW02

atrix: (soil/water) WATER Lab Sample ID: 990347-19

ample wt/vol: 5.0 (g/mL) ML Lab File ID: FBX37

evel: (low/med) LOW Date Received: 04/23/99

Moisture: not dec. _____ Date Analyzed: 05/04/99

C Column: HP-624 ID: 0.530 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl Chloride	5	U
75-00-3	Chloroethane	5	U
75-09-2	Methylene Chloride	3	J
67-64-1	Acetone	20	
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	7	
156-60-5	trans-1,2-Dichloroethene	3	J
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	7	J
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	3	J
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR69GW1499B

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 89GW02

Matrix: (soil/water) WATER Lab Sample ID: 990347-19

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FBX37

Level: (low/med) LOW Date Received: 04/23/99

% Moisture: not dec. _____ Date Analyzed: 05/04/99

GC Column: HP-624 ID: 0.530 (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
1330-20-7	Xylene (total)	15	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
IR69GW14IW99B

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 69GW15

Matrix: (soil/water) WATER Lab Sample ID: 990333-12

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L1769

Level: (low/med) LOW Date Received: 04/21/99

% Moisture: not dec. _____ Date Analyzed: 05/02/99

GC Column: DB624 ID: 0.180 (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	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl Chloride	5	U
75-00-3	Chloroethane	5	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR69GW14IW99B

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 69GW15

Matrix: (soil/water) WATER Lab Sample ID: 990333-12

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L1769

Level: (low/med) LOW Date Received: 04/21/99

% Moisture: not dec. _____ Date Analyzed: 05/02/99

GC Column: DB624 ID: 0.180 (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
1330-20-7	Xylene (total)	15	U

Headspace Analysis by GC/FID
SW846 Method 3810 Modified

Client: Baker Environmental
Client Sample ID: IR69-GW14IW-99B
Date Sampled: 04/20/99
Date Sample Received: 0504
Matrix: Aqueous

Laboratory ID: 990333-12
Date Sample Extracted: 05/04/99
Date Sample Analyzed: 05/04/99
Associated Method Blank: M0504-B1
Final Extract Volume (mL):1.0
Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
METHANE	18	2
ETHANE	ND	1
ETHENE	ND	2

ND = Not detected

Reported by: HC

Approved by: HC

CEIMIC
Corporation
"Analytical Chemistry for Environmental Management"

INORGANIC ANALYTES

Client: Baker Environmental

Client Sample ID: IR69-GW14IW-99B

Date Sampled: 04/20/99 Laboratory ID: 990333-12

Date Sample Received: 04/21/99

Matrix: Aqueous

Target Analyte	Result	Units	Method Reporting Limit	Date Prep'd	Date Analyzed
Ammonia (as N)	0.14	mg/L	0.10	05/11/99	05/11/99
Nitrate	0.22	mg/L	0.05	04/21/99	04/21/99
Nitrite	ND	mg/L	0.05	04/21/99	04/21/99
ortho-Phosphate	0.21	mg/L	0.10	04/21/99	04/21/99
Sulfate	13.8	mg/L	2.50	04/21/99	04/21/99
Total Organic Carbon	2.1	mg/L	1.0	05/10/99	05/10/99
Total Organic Nitrogen	ND	mg/L	0.20	05/11/99	05/11/99

ND = Not Detected

Reported by: Jeffrey D. Maymon

Approved by: Harold Zatorelli

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR69GW1599B

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 69GW15

Matrix: (soil/water) WATER Lab Sample ID: 990333-01

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L1749

Level: (low/med) LOW Date Received: 04/21/99

% Moisture: not dec. _____ Date Analyzed: 05/01/99

GC Column: DB624 ID: 0.180 (mm) Dilution Factor: 5.0

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	25	U
74-83-9	Bromomethane	25	U
75-01-4	Vinyl Chloride	140	
75-00-3	Chloroethane	25	U
75-09-2	Methylene Chloride	25	U
67-64-1	Acetone	50	U
75-15-0	Carbon Disulfide	25	U
75-35-4	1,1-Dichloroethene	25	U
75-34-3	1,1-Dichloroethane	25	U
156-59-2	cis-1,2-Dichloroethene	130	
156-60-5	trans-1,2-Dichloroethene	120	
67-66-3	Chloroform	25	U
107-06-2	1,2-Dichloroethane	25	U
78-93-3	2-Butanone	50	U
71-55-6	1,1,1-Trichloroethane	25	U
56-23-5	Carbon Tetrachloride	25	U
75-27-4	Bromodichloromethane	25	U
78-87-5	1,2-Dichloropropane	25	U
10061-01-5	cis-1,3-Dichloropropene	25	U
79-01-6	Trichloroethene	12	J
124-48-1	Dibromochloromethane	25	U
79-00-5	1,1,2-Trichloroethane	25	U
71-43-2	Benzene	6	J
10061-02-6	trans-1,3-Dichloropropene	25	U
75-25-2	Bromoform	25	U
108-10-1	4-Methyl-2-Pentanone	50	U
591-78-6	2-Hexanone	50	U
127-18-4	Tetrachloroethene	25	U
79-34-5	1,1,2,2-Tetrachloroethane	12	J
108-88-3	Toluene	6	J
108-90-7	Chlorobenzene	580	
100-41-4	Ethylbenzene	25	U
100-42-5	Styrene	25	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR69GW1599B

ab Name: CEIMIC CORP Contract: BAKER

ab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 69GW15

atrix: (soil/water) WATER Lab Sample ID: 990333-01

ample wt/vol: 5.0 (g/mL) ML Lab File ID: L1749

evel: (low/med) LOW Date Received: 04/21/99

Moisture: not dec. ____ Date Analyzed: 05/01/99

C Column: DB624 ID: 0.180 (mm) Dilution Factor: 5.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1330-20-7	Xylene (total)	7	J

Headspace Analysis by GC/FID
SW846 Method 3810 Modified

Client: Baker Environmental
Client Sample ID: IR69-GW15-99B
Date Sampled: 04/20/99
Date Sample Received: 0504
Matrix: Aqueous

Laboratory ID: 990333-01
Date Sample Extracted: 05/04/99
Date Sample Analyzed: 05/04/99
Associated Method Blank: M0504-B1
Final Extract Volume (mL):1.0
Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
METHANE	12000	2
ETHANE	760	1
ETHENE	56	2

ND = Not detected

Reported by: _____ Approved by: _____

Form I

INORGANIC ANALYTES

Client: Baker Environmental

Client Sample ID: IR69-GW15-99B

Date Sampled: 04/20/99 Laboratory ID: 990333-01

Date Sample Received: 04/21/99

Matrix: Aqueous

Target Analyte	Result	Units	Method Reporting Limit	Date Prep'd	Date Analyzed
Nitrate	ND	mg/L	0.05	04/21/99	04/21/99
Sulfate	13.0	mg/L	2.50	04/21/99	04/21/99

ND = Not Detected

Reported by: Jeffrey D. Maymon Approved by: Donald Tatarelli

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR69GW15IW99B

ab Name: CEIMIC CORP Contract: BAKER

ab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 69GW15

atrix: (soil/water) WATER Lab Sample ID: 990333-02

ample wt/vol: 5.0 (g/mL) ML Lab File ID: L1750

evel: (low/med) LOW Date Received: 04/21/99

Moisture: not dec. _____ Date Analyzed: 05/01/99

C Column: DB624 ID: 0.180 (mm) Dilution Factor: 100.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	500	U
74-83-9	Bromomethane	500	U
75-01-4	Vinyl Chloride	1200	
75-00-3	Chloroethane	500	U
75-09-2	Methylene Chloride	500	U
67-64-1	Acetone	1000	U
75-15-0	Carbon Disulfide	500	U
75-35-4	1,1-Dichloroethene	500	U
75-34-3	1,1-Dichloroethane	500	U
156-59-2	cis-1,2-Dichloroethene	15000	
156-60-5	trans-1,2-Dichloroethene	160	J
67-66-3	Chloroform	500	U
107-06-2	1,2-Dichloroethane	500	U
78-93-3	2-Butanone	1000	U
71-55-6	1,1,1-Trichloroethane	500	U
56-23-5	Carbon Tetrachloride	500	U
75-27-4	Bromodichloromethane	500	U
78-87-5	1,2-Dichloropropane	500	U
10061-01-5	cis-1,3-Dichloropropene	500	U
79-01-6	Trichloroethene	260	J
124-48-1	Dibromochloromethane	500	U
79-00-5	1,1,2-Trichloroethane	500	U
71-43-2	Benzene	500	U
10061-02-6	trans-1,3-Dichloropropene	500	U
75-25-2	Bromoform	500	U
108-10-1	4-Methyl-2-Pentanone	1000	U
591-78-6	2-Hexanone	1000	U
127-18-4	Tetrachloroethene	500	U
79-34-5	1,1,2,2-Tetrachloroethane	500	U
108-88-3	Toluene	500	U
108-90-7	Chlorobenzene	500	U
100-41-4	Ethylbenzene	500	U
100-42-5	Styrene	500	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR69GW15IW99B

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 69GW15

Matrix: (soil/water) WATER Lab Sample ID: 990333-02

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L1750

Level: (low/med) LOW Date Received: 04/21/99

% Moisture: not dec. _____ Date Analyzed: 05/01/99

GC Column: DB624 ID: 0.180 (mm) Dilution Factor: 100.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1330-20-7	Xylene (total)	1500	U

Headspace Analysis by GC/FID
SW846 Method 3810 Modified

Client: Baker Environmental

Client Sample ID: IR69-GW15IW-99B

Date Sampled: 04/20/99

Date Sample Received: 0504

Matrix: Aqueous

Laboratory ID: 990333-02

Date Sample Extracted: 05/04/99

Date Sample Analyzed: 05/04/99

Associated Method Blank: M0504-B1

Final Extract Volume (mL):1.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
METHANE	1100	2
ETHANE	320	1
ETHENE	22	2

ND = Not detected

Reported by: HL

Approved by: HL

INORGANIC ANALYTES

Client: Baker Environmental

Client Sample ID: IR69-GW15IW-99B

Date Sampled: 04/20/99 Laboratory ID: 990333-02

Date Sample Received: 04/21/99

Matrix: Aqueous

Target Analyte	Result	Units	Method Reporting Limit	Date Prep'd	Date Analyzed
Nitrate	0.20	mg/L	0.05	04/21/99	04/21/99
Sulfate	0.47	mg/L	0.10	04/21/99	04/21/99

Reported by: Jeffrey D. Maymon Approved by: Donald Tortelli

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
IR69GW15DW99B

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 89GW02

Matrix: (soil/water) WATER Lab Sample ID: 990347-20

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FBX38

Level: (low/med) LOW Date Received: 04/23/99

% Moisture: not dec. _____ Date Analyzed: 05/04/99

GC Column: HP-624 ID: 0.530 (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	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl Chloride	5	U
75-00-3	Chloroethane	5	U
75-09-2	Methylene Chloride	3	J
67-64-1	Acetone	2	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR69GW15DW99B

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 89GW02

Matrix: (soil/water) WATER Lab Sample ID: 990347-20

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: FBX38

Level: (low/med) LOW Date Received: 04/23/99

% Moisture: not dec. _____ Date Analyzed: 05/04/99

GC Column: HP-624 ID: 0.530 (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
1330-20-7	Xylene (total)	15	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR69TB0199B

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 69GW15

Matrix: (soil/water) WATER Lab Sample ID: 990333-06

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L1748

Level: (low/med) LOW Date Received: 04/21/99

% Moisture: not dec. ____ Date Analyzed: 05/01/99

GC Column: DB624 ID: 0.180 (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	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl Chloride	5	U
75-00-3	Chloroethane	5	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR69TB0199B

ab Name: CEIMIC CORP Contract: BAKER

ab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 69GW15

atrix: (soil/water) WATER Lab Sample ID: 990333-06

ample wt/vol: 5.0 (g/mL) ML Lab File ID: L1748

evel: (low/med) LOW Date Received: 04/21/99

Moisture: not dec. _____ Date Analyzed: 05/01/99

C Column: DB624 ID: 0.180 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
1330-20-7	Xylene (total)	15	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR69TB0299B

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 89GW02

Matrix: (soil/water) WATER Lab Sample ID: 990347-21

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L1771

Level: (low/med) LOW Date Received: 04/23/99

% Moisture: not dec. _____ Date Analyzed: 05/02/99

GC Column: DB624 ID: 0.180 (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	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl Chloride	5	U
75-00-3	Chloroethane	5	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

IR69TB0299B

Lab Name: CEIMIC CORP Contract: BAKER

Lab Code: CEIMIC Case No.: 62470 SAS No.: _____ SDG No.: 89GW02

Matrix: (soil/water) WATER Lab Sample ID: 990347-21

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L1771

Level: (low/med) LOW Date Received: 04/23/99

% Moisture: not dec. _____ Date Analyzed: 05/02/99

GC Column: DB624 ID: 0.180 (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
1330-20-7	Xylene (total)	15	U