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**Remedial Investigation Report
Operable Unit No. 4
(Sites 41 and 74)**

**Marine Corps Base
Camp Lejeune, North Carolina**

**Appendices A through K
Volume 1 of 3**



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LIST OF ACRONYMS AND ABBREVIATIONS

AOC	Area of concern
AQUIRE	Aquatic Information Retrieval Database
ARARs	Applicable or Relevant and Appropriate Requirements
ASTM	American Society for Testing and Materials
AT	averaging time
ATV	all terrain vehicle
AWQC	Federal Ambient Water Quality Criteria
Baker	Baker Environmental, Inc.
BCF	bioconcentration factor
bgs	below ground surface
BI	biotoxic index
BOD	biological oxygen demand
BRA	baseline risk assessment
CaCO ₃	calcium carbonate
CAMA	Coastal Area Management Act
CDI	chronic daily intake
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CH	high plasticity clay
CL	low plasticity clay
CLEAN	Comprehensive Long-Term Environmental Action Navy
CLP	Contract Laboratory Program
CN	chloroacetophene
COE	Corps of Engineers
COPC	contaminant of potential concern
COD	chemical oxygen demand
CRAVE	Carcinogen Risk Assessment Verification Endeavor
CRQL	Contract Required Quantitation Limit
CSA	Chemical Storage Area
CSF	Cancer Slope Factor
CSM	chemical surety material
DON	Department of the Navy
DQOs	data quality objectives
1,2-DCE	1,2-dichloroethene
DEM	Division of Environmental Management
DDE	dichlorodiphenyldichloroethylene
DDT	diphenyltrichloroethane
DS	downslope
ECD	electron capture detector
ED	exposure duration
EF	exposure frequency
Eh	oxidation reduction potential
EM	electromagnetic

EMD	Environmental Management Department
EPIC	Environmental Photographic Interpretation Center
ERA	ecological risk assessment
ER-L	Effects Range - Low
ER-M	Effects Range-Median
ESE	Environmental Science and Engineering, Inc.
ETC	electromagnetic terrain conductivity
FAWQC	Federal Ambient Water Quality Criteria
FDA	Former Disposal Area
FFA	Federal Facilities Agreement
FID	flame ionization detector
FPA	Former Pesticide Control Area
FSAP	Field Sampling and Analysis Plan
FWS	Fish and Wildlife Service
FWQSV	Freshwater Water Quality Screening Values
gpd/ft	gallons per day per foot
gpm	gallons per minute
GP	GP Environmental Services
GPR	ground penetrating radar
GW	groundwater well
H'	Diversity Index
HA	health advisory
HEAST	Health Effects Assessment Summary Tables
HHAG	Human Health Assessment Group
HHI	Hardin and Huber, Inc.
HHRA	Human Health Risk Assessment
HI	hazard index
Hoggard-Eure	Hoggard-Eure Associates
HCl	hydrochloric acid
HNO ₃	nitric acid
HQ	hazard quotient
HQW	high quality water
HTH	high-test hypochlorite
i	hydraulic gradient
IAS	Initial Assessment Study
ICR	incremental cancer risk
ID	inside diameter
IDW	investigative derived wastes
IR	ingestion rate
IRA	interim remedial action
IRIS	Integrated Risk Information System
IRP	Installation Restoration Program
K	hydraulic conductivity
K _d	soil sorption coefficient
K _{oc}	organic carbon partition coefficient
K _{ow}	octanol-water partition coefficient

LANTDIV	Naval Facilities Engineering Command, Atlantic Division
LANTNAVFACENCOM	Naval Facilities Engineering Command, Atlantic Division
LEL	lower explosive limit
LOAEL	lowest observed adverse effect level
MBI	Macroinvertebrate Biotic Index
MCAS	Marine Corps Air Station
MCB	Marine Corps Base
MCL	maximum contaminant level
MEK	methylethyl ketone
MIBK	methyl isobutyl ketone
mg/kg	milligram per kilogram
mg/L	milligram per liter
MF	modifying factor
MH	plastic silt
MI	mobility index
ml	milliliter
ML	low plasticity silt
mL/g	milliliters per gram
mmhos/m	millimhos/meter
msl	mean sea level
MW	monitoring well
NACIP	Navy Assessment and Control of Installation Pollutants Program
NC DEHNR	North Carolina Department of Environment, Health and Natural Resources
NCMFC	North Carolina Marine Fisheries Commission
NCSPCS	North Carolina State Plane Coordinate System
NCWP	Near Coastal Waters Program
NCWQS	North Carolina Water Quality Standards
NCWRC	North Carolina Wildlife Resources Commission
N _e	effective porosity
NEESA	Naval Energy and Environmental Support Activity
NEP	National Estuary Program
NOAA	National Oceanic and Atmospheric Administration
NOAEL or NOEL	No observed adverse effect level
NPL	National Priorities List
NPS	National Park Service
NSW	nutrient sensitive waters
NWI	national wetlands inventory
OD	outside diameter
OS	on-site
OU	Operable Unit
PAH	polynuclear aromatic hydrocarbon
PA/SI	preliminary assessments/site investigations
PC	permeability constant
PCBs	polychlorinated biphenyls
PCE	tetrachloroethene
PDA	Potential Disposal Area

PEF	particulate emissions factor
PHA	public health assessment
PID	photoionization detector
POL	petroleum, oil, lubricants
ppb	parts per billion
ppm	parts per million
psi	pounds per square inch
PVC	polyvinyl chloride
QA/QC	quality assurance/quality control
QI	quotient index
RA	risk assessment
RBC	risk based concentrations
RCRA	Resource Conservation and Recovery Act
RfD	reference dose
RI/FS	remedial investigation/feasibility study
ROD	record of decision
S, S	storativity, water solubility
SA	site assessment or surface area
SARA	Superfund Amendments and Reauthorization Act
Sj	Jaccard Coefficient
Ss	Sorenson Index
SB	soil boring
SCS	Soil Conservation Service
SD	sediment
SMCL	Secondary Drinking Water Regulations
SQC	sediment quality criteria
SOPs	standard operating procedures
SSV	sediment screening value
STP	sewage treatment plant
SVOCs	semivolatile organic compounds
SW	surface water
SWQSVs	surface water quality screening values
T	transmissivity
TAL	target analyte list
TBC	to be considered
TCE	trichloroethene
TCL	target compound list
TCLP	toxicity characteristic leaching procedure
TDS	total dissolved solids
TEF	toxicity equivalency factor
TEU	Technical Escort Unit
TICs	tentatively identified compounds
TOC	total organic carbon or top of casing
trans-1,2-DCE	trans-1,2-dichloroethene
TRC	Technical Review Committee

TRVs	terrestrial reference values
TSS	total suspended solids
TVS	total volatile solids
UCL	upper confidence limit
UF	uncertainty factor
$\mu\text{g/g}$	micrograms per gram
$\mu\text{g/L}$	micrograms per liter
USAEC	United States Army Environmental Center
USATHAMA	United States Army Toxic and Hazardous Materials Agency
USDA	United States Department of Agriculture
USDI	United States Department of the Interior
USEPA	United States Environmental Protection Agency
USCS	Unified Soil Classification System
USGS	United States Geological Survey
USMC	United States Marine Corps
UST	underground storage tank
VOCs	volatile organic compounds
VP	vapor pressure
V_x	average seepage velocity
WAR	Water and Air Research, Inc.
Weston	Weston Geophysical Corporation
WOE	weight of evidence
WQS	water quality standards
WQSV	water quality screening values
WS	Wilderness Society

APPENDIX A
GEOPHYSICAL INVESTIGATIONS
SITES 41 AND 74

GEOPHYSICAL INVESTIGATION

SITE 41

**MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA**

CONTRACT TASK ORDER 0212

JULY __, 1994

Prepared For:

**DEPARTMENT OF THE NAVY
ATLANTIC DIVISION
NAVAL FACILITIES
ENGINEERING COMMAND
*Norfolk, Virginia***

Under the:

**LANTDIV CLEAN Program
Contract N62470-89-D-4814**

Prepared By:

**BAKER ENVIRONMENTAL, INC.
*Coraopolis, Pennsylvania***

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ATTACHMENT A
GENERAL SITE MAP WITH SURFACE FEATURES

1.0 INTRODUCTION AND PURPOSE

A geophysical survey at Marine Corps Base (MCB) Camp Lejeune, Jacksonville, North Carolina, has been conducted to locate an old disposal trench at Site 74 (Mess Hall Grease Disposal Area).

The field investigation was completed on June 18 to 19, 1992.

2.0 METHODS OF INVESTIGATION

To accomplish the specific project objective, the non-invasive geophysical investigation included electromagnetic terrain conductivity and ground penetrating radar techniques.

2.1 Survey Control

Geophysical data obtained during this survey were referenced by taped distance measurements to monitoring wells, roads, fences, and other physical and cultural features on site.

Survey traverses were staked and/or painted to facilitate subsequent identification by others.

2.2 Electromagnetic Terrain Conductivity

Electromagnetic (EM) terrain conductivity profiling was performed to map the lateral extent of buried waste and to identify buried metal objects and other debris on site. Instrumentation utilized for this survey included a Geonics model EM-31, with a maximum investigative depth of approximately 15 feet. EM-31 data were acquired in the vertical dipole mode at 5-foot intervals along each traverse. Conductivity and in-phase measurements were performed at each station to more confidently distinguish metallic objects from non-metallic wastes or natural earth materials with high electrical conductivity.

EM-31 data were recorded using a digital datalogger and downloaded to a portable computer for profiling and interpretation.

2.3 Ground Penetrating Radar

Ground penetrating radar (GPR) profiling was conducted over the area of the suspected disposal trench in an attempt to better define the limits of excavation and to characterize the buried waste materials.

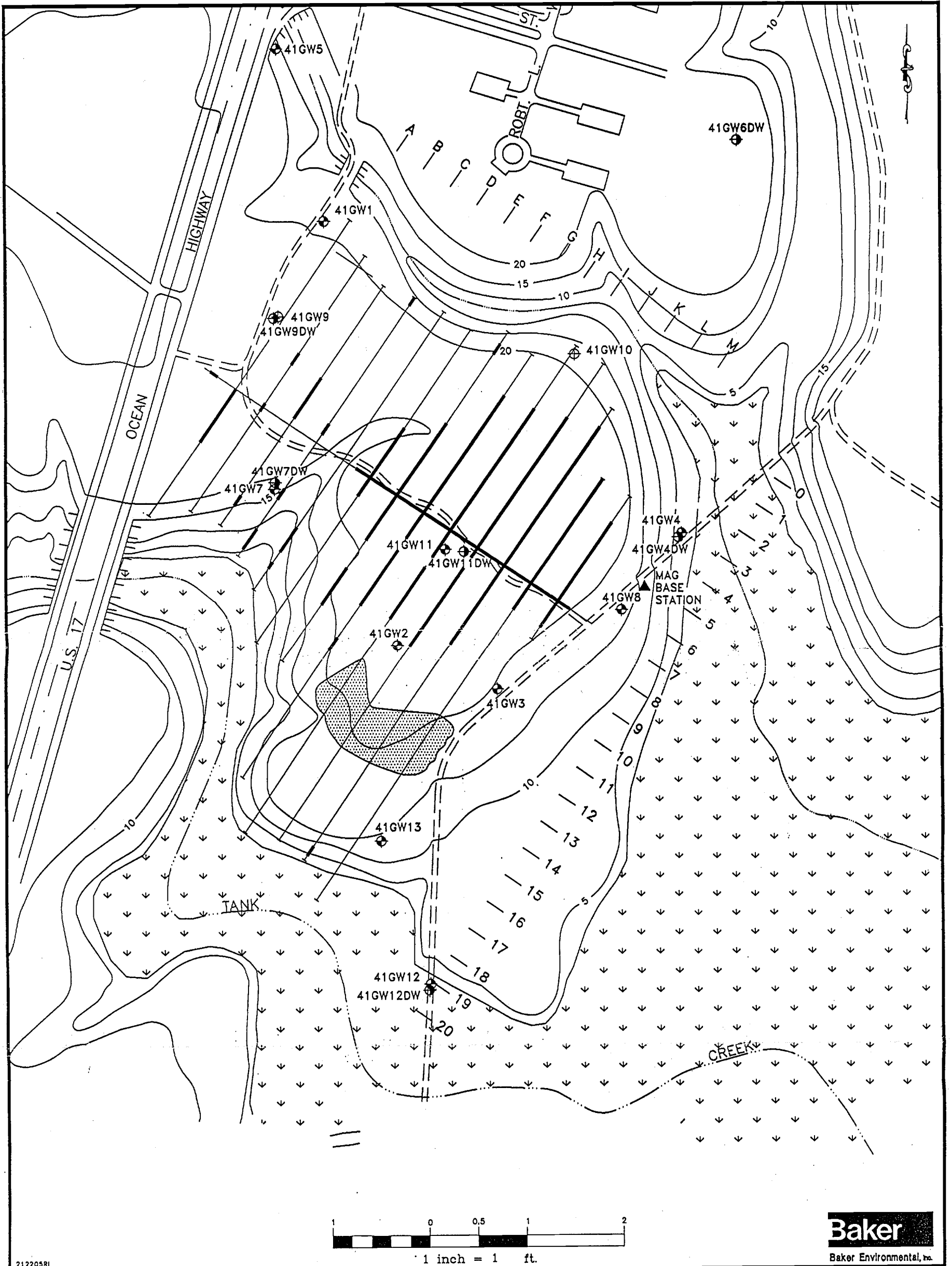
GPR profiling was completed with analog instrumentation that consisted of a GSSI SIR-7 mainframe, Adtek graphic recorder, and 500 megahertz antenna. This antenna was selected to provide high-resolution recordings of objects within a few feet of the ground surface.

3.0 RESULTS

The results of the geophysical survey at Site 74 are presented in the following subsection.

3.1 Site 74 - Mess Hall Grease Disposal Area

A large trench used for the disposal of grease was reported at this site. A geophysical survey grid was established at the intersection of two roadways, where the disposal trench was reported to be. Figure A3-1 shows surface features at Site 74 and lines of geophysical coverage.



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212205RI

LEGEND
 41GW1 EXISTING GROUNDWATER MONITORING WELL
 41GW4D PROPOSED DEEP MONITORING WELL
 — GEOPHYSICAL SURVEY LINE
 — AREA OF ANOMALOUS HIGH/LOW MAGNETIC INTENSITY AND CONDUCTIVITY INDICATIVE OF BURRIED FERROUS AND NON-FERROUS METAL.
 [Shaded Area] AREA OF HIGH CONDUCTIVITY INDICATIVE OF LANDFILL TYPE MATERIALS OR CLAY
 SOURCE: LANTDIV, FEB. 1992

FIGURE 2-1
GEOPHYSICAL GRID RESULTS
SITE 41 - CAMP GEIGER DUMP
NEAR FORMER TRAILER PARK
REMEDIAL INVESTIGATION CTO-0212
MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

01524 T01Z

EM measurements conducted along orthogonal traverses resulted in background conductivity values between 1 to 3 mmhos/m. The small fluctuation of lateral conductivity values observed across this area suggest little or no subsurface disturbance, indicating that the location of the trench may have been incorrectly reported. Figure A3-2 shows the four east-west EM conductivity profiles conducted on the southern portion of the site.

A visual inspection of the area north of the entrance to Site 74, noted a small pit containing deteriorated drums. An EM traverse was conducted across this area and a large change in conductivity was measured near the pit as shown on Figure A3-2, Line 4+60N. Reconnaissance EM measurements surrounding the area allowed for an approximate delineation of the feature, which is located between two roads, as shown on Figure A3-1. This may be the grease trench or another previously unknown disposal area. (The Site Summary Report indicated that drums and pesticide-soaked bags were disposed of near the grease trench.)

GPR was conducted across the suspected trench in an attempt to more accurately establish the limits of the trench and to further characterize any buried materials. Radar was not effective however in detecting the boundaries of the excavation nor any debris materials due to limited radar signal penetration.

4.0 CONCLUSIONS

A non-invasive geophysical survey was effective in delineating limits of disposal at Site 74. An area of waste burial was identified north of the originally reported location of the grease trench. Geophysical measurements indicated that metal objects had been included in the buried waste.

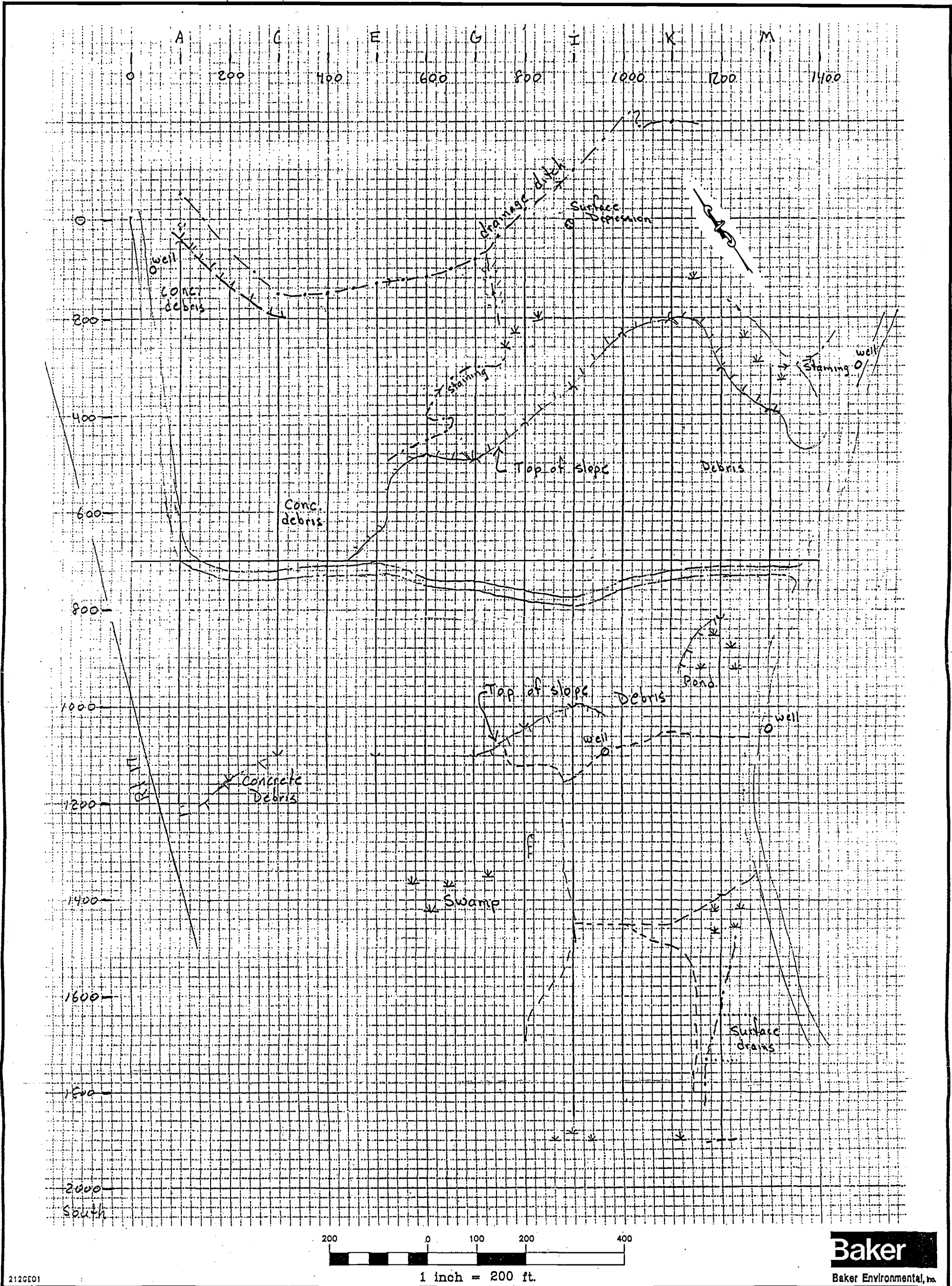


FIGURE A-1
GENERAL SITE MAP WITH
SURFACE FEATURES

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

01524T02Z

GEOPHYSICAL REPORT

**SITE 74
MESS HALL GREASE PIT DISPOSAL AREA**

**MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA**

CONTRACT TASK ORDER 0212

JULY __, 1994

Prepared For:

**DEPARTMENT OF THE NAVY
ATLANTIC DIVISION
NAVAL FACILITIES
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*Norfolk, Virginia***

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A3-2 Grease Disposal Area - Conductivity Profiles	4

1.0 INTRODUCTION AND INVESTIGATION OBJECTIVES

A surface geophysical survey was conducted from January 14 to 18, 1994, at Site 41 (Former Camp Geiger Dump near Former Trailer Park). The survey objectives were to characterize subsurface conditions by delineating areas of suspected disposal and by identifying locations of buried metal.

2.0 METHODS OF INVESTIGATION

2.1 Survey Control

Geophysical data obtained during this investigation were referenced to a survey grid established on the site by Hoggard/Eure Associates. A baseline was established along an old access road which bisects the site in a northwest to southeast orientation. Geophysical traverses were established perpendicular to the baseline at one hundred foot intervals. Heavy brush and understory necessitated significant cutting and clearing along most traverses. Figure 2-1 shows the site and the geophysical survey grid and traverses.

2.2 Electromagnetic Terrain Conductivity

Electromagnetic (EM) terrain conductivity profiling was performed to measure lateral variations in subsurface conductivity, indicative of previous disposal and backfilling, and to identify buried metallic objects and debris. The conductivity of subsurface materials is determined by measuring the response of the ground to an induced magnetic field. Factors affecting in-situ conductivity include porosity, moisture content, clay content, and the conductivity of subsurface fluids and materials. Former excavations or landfill boundaries may be detected through measurement of lateral variations in soil conductivity. This method may also be used to infer the presence of buried metal objects, such as drums, tanks, or utilities.

Instrumentation utilized for this survey included a Geonics model EM-31, with an effective penetration depth of approximately 15 feet operated in the vertical dipole mode (VDM). Both the quadrature-phase (terrain conductivity) and in-phase components of the EM field were measured in the vertical dipole mode. The quadrature-phase mode provides a measurement of soil conductivity, while the in-phase mode is responsive to the effects of highly conductive, buried metallic objects. Terrain conductivity is measured in millimhos/meter (mmhos/m) and the in-phase component is measured in parts per thousand (ppt) of the primary magnetic field.

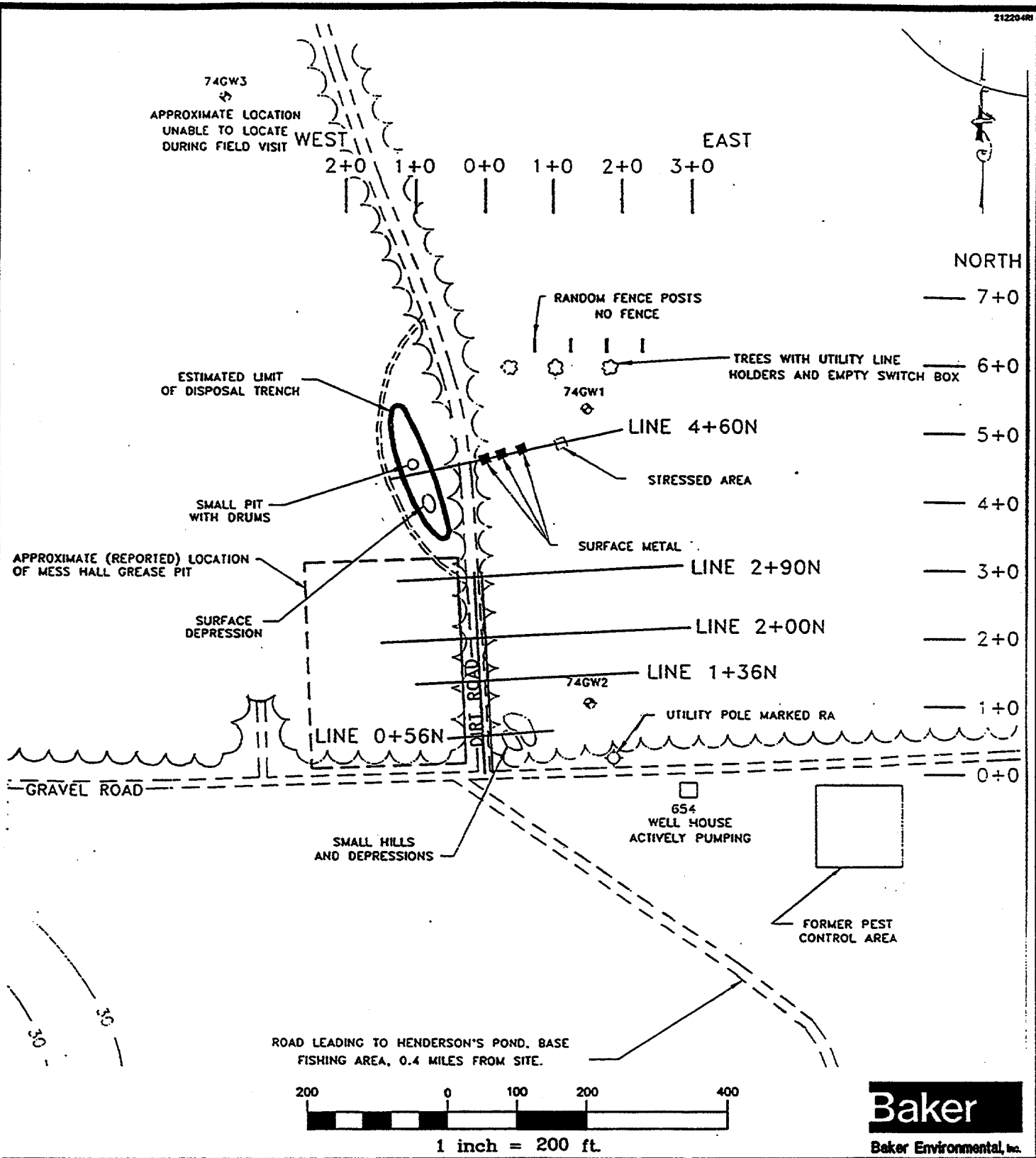
EM-31 data were acquired at 5-foot intervals along each geophysical traverse. Both conductivity and in-phase measurements were recorded using a digital data logger then downloaded to a portable computer for data processing and interpretation.

Calibration of the EM instrument was conducted in an area of relatively low conductivity east of the site. At the beginning of each day, readings were obtained at the base station to verify nominal instrument drift.

2.3 Magnetometry

Magnetic profiling was performed to complement the EM interpretation of subsurface objects and debris. A digital proton precession magnetometer (Geometrics model G-856X) was utilized for this geophysical investigation. Perturbations to the ambient magnetic field are indicative of nearby ferrous metal. The magnitude of these perturbations are primarily a function of the mass of the metal object and its distance from the sensor.

Magnetic data were acquired at 10-foot stations along each traverses, and a magnetic base station was reoccupied at approximately one hour intervals to facilitate adjustment of the data for natural daily variations due to solar activity.



LEGEND

— EM AND GPR SURVEY LINE

FIGURE A3-1
GEOPHYSICAL GRID RESULTS
SITE 74 - MESS HALL GREASE
PIT DISPOSAL AREA
REMEDIAL INVESTIGATION CTO-0212
MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

SOURCE: LANTDIV, FEB. 1992

The magnetic data were downloaded to a portable computer and compared to EM conductivity and in-phase data to determine whether specific geophysical anomalies were caused by ferrous or non-ferrous buried objects or fill.

3.0 RESULTS

3.1 Site Conditions

The geophysical investigation covered approximately 34 acres. The area of investigation was bounded on the west by Route 17, on the south by a swamp, on the east by an unpaved road, and on the north by unnamed tributary. The site is mostly wooded and brush covered which dictated the method of investigation. Significantly greater efforts to survey this site would have been required at any other time of year.

A sketch map of the site, including surface cultural features, was developed from notes obtained by the geophysical crew and is provided in Attachment A.

3.2 Subsurface Characterization

A combination of EM terrain conductivity and magnetometry was performed to delineate areas of suspected disposal and to identify locations of buried metal. EM data were acquired at 5-foot stations along 100-foot spaced traverses extending southwest to northeast across the area of investigation. Magnetic measurements were obtained at 10-foot stations along the same traverses.

EM measurements showed background conductivity levels ranging between 5 to 10 mmhos/m off the landfill. This is within the range of natural conductivities that would be expected for partially saturated sandy soils with some silt/clay content as anticipated for this area.

Total intensity values obtained during the magnetometry survey ranged from approximately 40,000 to 59,000 gammas. The ambient field at this location was 52,000 gammas, yielding magnetic anomalies ranging from -12,000 to +7,000 gammas; indicating substantial amounts of buried ferrous (steel and iron) metallic objects.

Figure 2-1 presents the summary results of the EM and magnetic surveys, depicting segments along the traverses where anomalous conductivity and magnetic intensity levels were measured. A broad area of anomalously high conductivity and magnetic intensity is prominent in the east-central portion of the site (Lines F to M). The geophysical data indicate widespread burial of ferrous and non-ferrous metallic objects, which could include construction debris, steel reinforced concrete, drums, fencing, or general scrap metal.

On the west side of the site, data indicate only scattered locations of buried metallic debris. Disposal may consist mostly of construction type materials, which were observed on the ground surface in this area.

Elevated levels of conductivity were encountered in the southern portion of the site (along Lines I to L between stations 12 to 14). The lateral change in subsurface conductivity may be indicative of isolated landfill type materials or due to a localized change in clay/moisture content.

4.0 SUMMARY AND CONCLUSIONS

Electromagnetic terrain conductivity (EM) and magnetometry (mag) were utilized in a geophysical investigation over Site 41 to delineate areas of suspected disposal and to identify locations of buried metal. The ability of these techniques to measure lateral changes in material conductivity and to distinguish

metallic objects provided the best means to characterize subsurface conditions in a non-invasive manner and to assist and focus a direct sampling program.

Geophysical data delineated an assemblage of metallic debris in the east-central portion of the site covering an area approximately 800 by 800 feet. This area generally corresponds to an abrupt change in the ground surface and may define the limits of the former dump. Changes in elevation at the landfill boundaries to the north and south were as much as 10 to 15 feet.

Boundaries to the west and east were not as well defined topographically. However, only limited buried metallic debris was detected west of Line F.

An area of increased subsurface conductivity was delineated south of the former dump. The presence of buried metal was not detected.

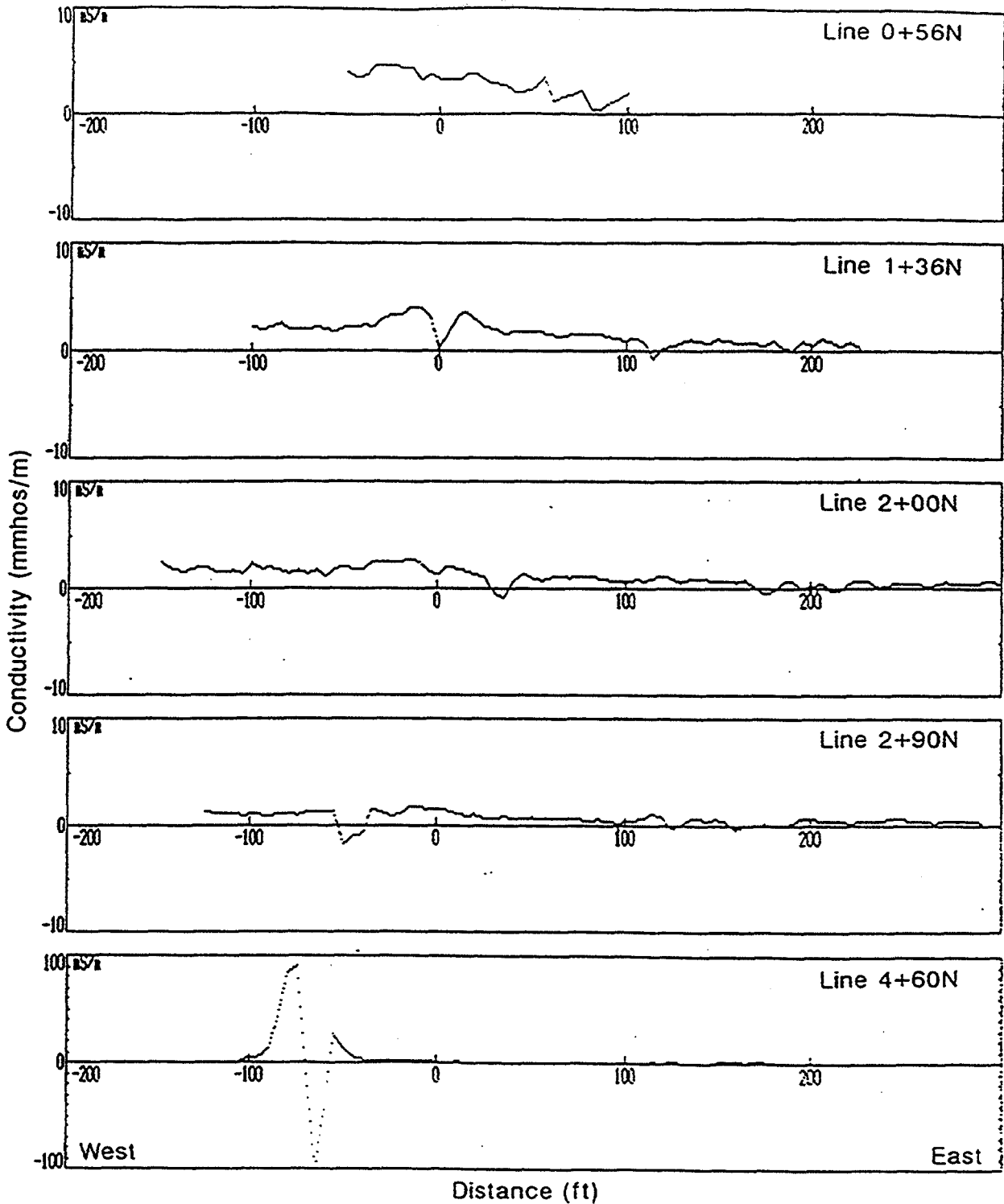


FIGURE A3-2

SITE 74
 MESS HALL GREASE PIT DISPOSAL AREA
 EM CONDUCTIVITY PROFILE PRINTOUTS
 REMEDIAL INVESTIGATION CTO-0212
 MARINE CORPS BASE, CAMP LEJEUNE, NC

APPENDIX B
TEST BORINGS

APPENDIX B.1
SITE 41 ON-SITE

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TEST BORING RECORD

PROJECT: Sites 69, 74, E41

S.O. NO.: 212

BORING NO.: 41-05-SB01

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATU #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>1-31-94</u>	<u>0-13.0</u>	<u>overcast, cold</u>	<u>11.5</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140 #</u>								
FALL	<u>30"</u>								
STICK UP	<u>—</u>								

REMARKS: Boring advanced to 13.0' (bgs). Hwu background is .5 ppm.

SAMPLE TYPE						DEFINITIONS		
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')		
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)		
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)		
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis		
N = No Sample								
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevatic	
1	<u>1.0</u>	<u>Sample # 01 is collected</u>	<u>—</u>	<u>—</u>	<u>.8</u>	<u>CLAYEY SAND, fine grained w/ root material. Yellowish orange, dense to stiff, damp.</u>		
2	<u>S-1</u>	<u>1.1</u> <u>2.0</u>	<u>4</u> <u>5</u> <u>6</u>		<u>BG</u>	<u>CLAY w/ trace sand, fine grained. Yellowish orange, stiff, damp. Faint orange staining is present</u>		
3	<u>3.0</u>	<u>55%</u>	<u>6</u>			<u>CLAY. Brown, stiff, damp</u>		
4		<u>Sample # 02 is collected</u>	<u>1.6</u> <u>2.0</u>	<u>5</u> <u>6</u> <u>10</u>	<u>BG</u>	<u>SANDY CLAY. Brown, loose, damp. orange staining is present.</u>		
5	<u>5.0</u>	<u>80%</u>	<u>15</u>					
6	<u>S-3</u>	<u>2.0</u> <u>2.0</u>	<u>10</u> <u>15</u> <u>17</u>		<u>BG</u>	<u>SAND, fine grained. Brown, dense, damp. orange staining w/ streaking is present.</u>		
7	<u>7.0</u>	<u>100%</u>	<u>14</u>					
8	<u>S-4</u>	<u>2.0</u> <u>2.0</u>	<u>6</u> <u>4</u> <u>7</u>		<u>BG</u>	<u>CLAY. Brow, stiff, damp to moist. orange staining</u>		
9	<u>9.0</u>	<u>100%</u>	<u>7</u>					
10		<u>Sample # 05 is collected</u>	<u>2.0</u> <u>2.0</u>	<u>4</u> <u>6</u>	<u>BG</u>	<u>SAND, fine grained. Brown, medium dense, moist. orange staining 9.0' to 11.0'</u>	<u>Match to Sheet 2</u>	

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: 41-05-SB01

SHEET 1 OF 1

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: 41-OS-SE

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample						SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevati
11	11.0 S-5	100%	7 9		BG	SAND fine grained. Brown, medium dense, moist to wet. Orange staining 11.0' to 11.5' (bgs)	
12	S-6	2.0 2.0	4 5 5 6		BG		
13	13.0	100%					End of Boring TD: 13.0' Boring is backfilled and grouted to surface.
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: 41-OS-SB01



TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41-05-SB02

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATU # 19									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		4 1/4" ID		2-1-94	0-9.0	cloudy, cold	8.0	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP	-								

REMARKS: Boring advanced to 9.0' (bgs). MUU background is .4 ppm.

SAMPLE TYPE						DEFINITIONS			
S	=	Split Spoon	A	=	Auger	SPT	=	Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T	=	Shelby Tube	W	=	Wash	RQD	=	Rock Quality Designation (%)	
R	=	Air Rotary	C	=	Core	Lab Class.	=	USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D	=	Denison	P	=	Piston	Lab Moist.	=	Moisture Content (ASTM D-2216) Dry Weight Basis	
N	=	No Sample							

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	1.0	Sample # 01 is collected	-	-	BG	SILTY SAND, fine grained w/ trace clay. Brown, very loose, damp	
2		1.5 / 2.0	5 / 6			SAND, fine grained w/ trace clay	
3	3.0	S-1	75%	8	BG	SAND, fine grained. Brown to light brown, medium dense damp. Orange staining 2.0' to 2.5' (bgs).	
4		2.0 / 2.0	5 / 5				
5	5.0	Sample # 02 is collected	100%	6	BG		
6		2.0 / 2.0	11 / 12				
7	7.0	Sample # 03 is collected	100%	15	BG	SAND, fine grained w/ trace clay. Brown, medium dense, moist to wet. Orange staining 5.0' to 7.0' (bgs). Orange streaking 8.0' to 9.0' (bgs).	
8		2.0 / 2.0	6 / 7				
9	9.0	S-4	100%	8	BG		
10						End of Boring	

TD: 9.0' Boring is backfilled and grouted to surface Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: 41-05-SB02 SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41-05-SB

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATU #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>2-1-94</u>	<u>0-5.0</u>	<u>Foggy, cold</u>	<u>4.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140#</u>								
FALL	<u>30"</u>								
STICK UP	<u>—</u>								

REMARKS: Boring advanced to 5.0' (bgs). HNu background is .6 ppm.

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Pt.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevati
1	<u>1.0</u> Sample #00 collected	—	—		BG	SAND, fine grained w/ some to little clay. Trace root material. Brown, very loose to loose, damp to moist to wet. orange staining 3.0 to 5.0'	
2	<u>2.0</u> Sample #01 is collected	<u>.8</u> <u>2.0</u>	<u>1</u> <u>2</u>		BG		
3	<u>3.0</u>	<u>40%</u>	<u>1</u> <u>2</u>				
4	<u>5-2</u>	<u>1.5</u> <u>2.0</u>	<u>1</u> <u>3</u>		BG		
5	<u>5.0</u>	<u>75%</u>	<u>5</u> <u>7</u>				
6						End of Boring	
7						TD: 5.0	
8						Boring is backfilled and grouted to surface	
9							
10							

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: 41-05-SB03

SHEET 1 OF

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, E41

S.O. NO.: 212

BORING NO.: 41-05-04

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATV #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>2-6-94</u>	<u>0-9.0</u>	<u>cool, overcast</u>	<u>8.5</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140 #</u>								
FALL	<u>30"</u>								
STICK UP	<u>-</u>								

REMARKS: Boring advanced to 9.0' (bgs). HNU background is .4 ppm.

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	<u>1.0</u>	<u>-</u>	<u>-</u>		<u>BG</u>	<u>SILTY SAND, fine grained. Brown, very loose, damp.</u>	
2	<u>S-1</u>	<u>.5</u>	<u>2</u>		<u>BG</u>		
3	<u>3.0</u>		<u>1</u>				
4	<u>Sample #02 is collected</u>	<u>1.6</u>	<u>12</u>		<u>BG</u>	<u>SAND, fine grained. Brown to light brown to light gray, very loose to dense, damp to moist to wet. Orange staining 1.0' to 3.0' (bgs). Yellow staining 3.5' to 4.5' (bgs).</u>	
5	<u>5.0</u>		<u>14</u>				
6	<u>Sample #03 is collected</u>	<u>1.0</u>	<u>12</u>		<u>BG</u>		
7	<u>7.0</u>		<u>11</u>				
8	<u>S-4</u>	<u>1.6</u>	<u>7</u>		<u>BG</u>		
9	<u>9.0</u>		<u>14</u>				
			<u>18</u>				
			<u>22</u>				
			<u>21</u>				
			<u>17</u>				
			<u>16</u>				
			<u>16</u>				
10						<u>End of Boring</u>	
						<u>TD: 9.0' Boring is backfilled and grouted to surface. Match to Sheet 2</u>	

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: 41-05-04

SHEET 1 OF 1

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Sites 69, 74, E 41

S.O. NO.: 212

BORING NO.: 41-05-SBC

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATU # 19									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		4 1/4" ID		2-1-94	0-5.0	cloudy, cold	4.0	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP	—								

REMARKS: Boring advanced to 5.0' (bgs). H2O background is .6 ppm.

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	1.0 Sample # 00 is collected	—	—		BG	SILTY SAND, fine grained w/ root material. Brown, very loose, damp.	
2		1.7 2.0	6 7			SAND, fine grained. Brown, medium dense, damp to moist to wet. orange streaking 4.0' to 5.0' (bgs).	
3	3.0 collected	85%	9 9		1.3		
4	S-2 2.0	1.9 2.0	5 9		BG		
5	5.0	95%	12			End of Boring	
6						TD: 5.0'	
7						Boring is backfilled and grouted to surface.	
8							
9							
10							

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc.

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: 41-05-SB05

SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41-05-SB06

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATU #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>2-6-94</u>	<u>0-9.0</u>	<u>cool, overcast</u>	<u>9.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140#</u>								
FALL	<u>30"</u>								
STICK UP	<u>-</u>								

REMARKS: Boring advanced to 9.0' (bgs). Hwu background is .5 ppm.

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevatic
1	<u>1.0</u> Sample #00 is collected	<u>-</u>	<u>-</u>		<u>.9</u>	<u>SILTY SAND, fine grained. Brown, very loose, damp.</u> <u>SAND, fine grained. Brown to light gray, loose to medium dense, damp to moist to wet. Orange staining 1.0' to 5.0' (bgs).</u>	
2	<u>2.0</u> Sample #01 is collected	<u>1.7</u> <u>2.0</u>	<u>8</u> <u>10</u>		<u>BG</u>		
3	<u>3.0</u>	<u>85%</u>	<u>8</u>		<u>BG</u>		
4	<u>5-2</u>	<u>1.2</u> <u>2.0</u>	<u>5</u> <u>4</u> <u>3</u>		<u>BG</u>		
5	<u>5.0</u>	<u>60%</u>	<u>4</u>		<u>BG</u>		
6	<u>6.0</u> Sample #03 is collected	<u>.6</u> <u>2.0</u>	<u>6</u> <u>8</u>		<u>BG</u>		
7	<u>7.0</u>	<u>30%</u>	<u>7</u> <u>6</u>		<u>BG</u>		
8	<u>5-4</u>	<u>.5</u> <u>2.0</u>	<u>7</u> <u>4</u>		<u>BG</u>		
9	<u>9.0</u>	<u>25%</u>	<u>21</u>		<u>BG</u>		
10							<u>TD: 9.0</u> <u>End of Boring</u> <u>Boring is backfilled and grouted to surface</u>

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: 41-05-SB06

SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41-05-SB

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATU # 19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>2-1-94</u>	<u>0-7.0</u>	<u>cloudy, cold</u>	<u>5.5</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140#</u>								
FALL	<u>30"</u>								
STICK UP	<u>-</u>								

REMARKS: Boring advanced 7.0' (bgs). HWU background is 3.3.

SAMPLETYPE

- S = Split Spoon A = Auger
- T = Shelby Tube W = Wash
- R = Air Rotary C = Core
- D = Denison P = Piston
- N = No Sample

DEFINITIONS

- SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
- RQD = Rock Quality Designation (%)
- Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
- Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	<u>Sample #00 is collected</u>	<u>-</u>	<u>-</u>		<u>BG</u>	<u>SILTY SAND, fine grained w/ root material. Brown, very loose, damp. Orange streaking/staining present</u>	
2	<u>Sample #01 is collected</u>	<u>1.4 / 2.0</u>	<u>9</u>		<u>BG</u>	<u>SAND, fine grained. Brown, medium dense, damp. Yellow staining 2.5' to 3.0' (bgs).</u>	
3		<u>70%</u>	<u>6</u>				
4	<u>Sample #02 is collected</u>	<u>1.0 / 2.0</u>	<u>3</u>		<u>BG</u>	<u>CLAY. Dark green to gray, stiff, moist. Hydrocarbon odor is present.</u>	
5		<u>50%</u>	<u>7</u>				
6	<u>S-3</u>	<u>1.1 / 2.0</u>	<u>2</u>		<u>BG</u>	<u>SAND, fine grained. Dark gray, loose, wet.</u>	
7		<u>55%</u>	<u>7</u>				
8						<u>End of Boring</u>	
9						<u>TD: 7.0'</u>	
10						<u>Boring is backfilled and grouted to surface</u>	
						<u>Match to Sheet 2</u>	

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: 41-05-SB07

SHEET 1 OF _____

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41-05-SB08

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATU # 19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>2-5-94</u>	<u>0-7.0</u>	<u>steady rain, mild</u>	<u>-</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>MSA</u>						
HAMMER WT.	<u>140#</u>								
FALL	<u>30"</u>								
STICK UP	<u>-</u>								

REMARKS: Boring advanced to 7.0' (bgs). MNA background is 1.2 ppm.

SAMPLE TYPE						DEFINITIONS			
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')			
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)			
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)			
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis			
N = No Sample									
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation		
1	<u>1.0</u> <small>Sample # 00 collected</small>	<u>-</u>	<u>1</u>		<u>BG</u>	<u>SILTY SAND, fine grained. Dark brown, very loose, damp.</u>			
2	<u>2.0</u> <small>Sample # 01 collected</small>	<u>1.0</u> <u>50%</u>	<u>1</u>		<u>BG</u>	<u>FILL material (glass shards) and burnt soil. Brown, medium dense, damp.</u>			
3	<u>3.0</u>								
4	<u>N</u>	<u>-</u>	<u>1</u>		<u>-</u>	<u>NO RECOVERY</u>			
5	<u>5.0</u>								
6	<u>N</u>	<u>-</u>	<u>1</u>		<u>-</u>	<u>NO RECOVERY</u>			
7	<u>7.0</u>					<u>End of Boring</u>			
8									
9						<u>TD: 7.0'</u>			
10						<u>Boring is backfilled and grouted to surface. Match to Sheet 2</u>			

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: 41-05-SB08

SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, E 41

S.O. NO.: 212

BORING NO.: 41-05-SRc

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATU #19									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		4 1/4" ID		2-1-94	0-3.0	cloudy, mild	—	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140*								
FALL	30"								
STICK UP	—								

REMARKS: Boring is advanced to 3.0' (bgs). HWu background is .6 ppm.

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	1.0 <small>Sample # 90 is collected</small>	—	—		BG	SILTY SAND, fine grained w/ root material. Brown, very loose, damp	
2		.8 2.0	—		BG	SAND, fine grained. Gray, loose, damp. Glass shards are at bottom of sample.	
3	3.0	40%				End of Boring	
4							
5							
6						TO: 3.0'	
7						Boring is backfilled and grouted to surface. An addition 6' were drilled in an attempt to find the water table. were both unsuccessful. Match to Sheet 2	
8							
9							
10							

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: 41-05-SR09

SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41-OS-SRIO

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATU #19</u>					DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
	SPLIT SPOON	CASING	AUGERS	CORE BARREL					
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>2-3-94</u>	<u>5.0</u>	<u>clear, cool</u>	<u>-</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140#</u>								
FALL	<u>30"</u>								
STICK UP	<u>-</u>								

REMARKS: Boring is advanced to 5.0' (bgs). H₂O background is .4 ppm

SAMPLE TYPE						DEFINITIONS			
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')			
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)			
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)			
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis			
N = No Sample									
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description			Elevation
1	<u>1.0</u> <small>Sample #00 is collected</small>	<u>-</u>	<u>-</u>		<u>1.1</u>	<u>SILTY SAND, fine grained w/ FILL material (metal wire). Dark brown, very loose, damp.</u>			
2	<u>2.0</u> <small>Sample #01 is collected</small>	<u>1.4 / 2.0</u>	<u>2</u>		<u>BG</u>	<u>SAND, fine grained. Brown to dark gray, loose to medium dense, damp to moist to wet.</u>			
3	<u>3.0</u>	<u>70%</u>	<u>1</u>						
4	<u>S-2</u>	<u>.4 / 2.0</u>	<u>7</u>		<u>BG</u>	<u>End of Boring</u>			
5	<u>5.0</u>	<u>20%</u>	<u>14</u>						
6						<u>TD: 5.0'</u> <u>Boring is backfilled and grouted to surface.</u>			
7									
8									
9									
10									

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc
DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
BORING NO.: 41-OS-SRIO SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, E 41

S.O. NO.: 212

BORING NO.: 41-OS-SB1

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATU # 19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>3/8" ID</u>		<u>4 1/4" ID</u>		<u>2-5-94</u>	<u>0-7.0</u>	<u>Light to steady rain, mild</u>	<u>5.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140"</u>								
FALL	<u>30"</u>								
STICK UP	<u>—</u>								

REMARKS: Boring advanced to 7.0' (bgs). MW background is .4 ppm.

SAMPLE TYPE						DEFINITIONS			
S	= Split Spoon	A	= Auger	SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')					
T	= Shelby Tube	W	= Wash	RQD = Rock Quality Designation (%)					
R	= Air Rotary	C	= Core	Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)					
D	= Denson	P	= Piston	Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis					
N	= No Sample								
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description			Elevation
1	1.0	Sample # 00 is collected	—	—	BG	SILTY SAND, fine grained w/ FILL material (plastic, steel, metal). Dark brown, very loose, damp. Orange staining is occasional.			
2		Sample # 01 is collected	1.2 / 2.0	6 / 12 / 10	BG	Burnt Soil w/ sand, fine grained w/ charcoal flecks and FILL material (brick) Black to dark gray, medium dense, damp			
3	3.0	collected	60%	7		SAND, fine grained. Dark brown, dense to medium dense, moist to wet.			
4		S-2	.3 / 2.0	8 / 9 / 28	BG				
5	5.0		15%	15					
6		S-3	.2 / 2.0	8 / 12 / 7	BG				
7	7.0		10%	7		End of Boring			
8						TD: 7.0'			
9						Boring is backfilled and			
10						grouted to surface Match to Sheet 2			

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: 41-OS-SB11

SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
S.O. NO.: 212
COORDINATES: EAST: _____
ELEVATION: SURFACE: _____

BORING NO.: 41-OS-SB12
NORTH: _____
TOP OF PVC CASING: _____

RIG: <u>ATV #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>2-1-94</u>	<u>0-7.0</u>	<u>Partly cloudy, mild</u>	<u>-</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140 #</u>								
FALL	<u>30"</u>								
STICK UP	<u>-</u>								

REMARKS: Boring is advanced to 7.0' (bgs). HNU background is .5 ppm.

SAMPLE TYPE		DEFINITIONS	
S = Split Spoon	A = Auger	SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash	RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core	Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston	Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample			

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	<u>1/0</u>	<u>-</u>	<u>-</u>		<u>BG</u>	<u>SILTY SAND, fine grained w/ little clay. FILL material (glass shards, pieces of metal, metal wire, rags). Dark brown to brown, very loose, damp.</u>	
2	<u>S-1</u>	<u>.2</u> <u>2.0</u>	<u>4</u> <u>4</u>		<u>1.8</u>	<u>SAND, fine grained. Dark gray, loose, moist</u>	
3	<u>3.0</u>	<u>10%</u>					
4	<u>Sample # 02 is collected</u>	<u>.9</u> <u>2.0</u>	<u>3</u> <u>6</u> <u>7</u>		<u>BG</u>	<u>SAND, fine grained w/ little clay. Dark gray, medium dense, moist.</u>	
5	<u>5.0</u>	<u>45%</u>					
6	<u>N</u>	<u>-</u>	<u>5</u> <u>4</u> <u>6</u> <u>8</u>		<u>-</u>	<u>NO RECOVERY</u>	
7	<u>7.0</u>					<u>End of Boring</u>	
8							
9						<u>TD: 7.0'</u>	
10						<u>Boring is backfilled and grouted to surface. Match to Sheet 2</u>	

DRILLING CO.: Hardin Huber, Inc
DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
BORING NO.: 41-OS-SB12 SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41-05-SB1

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATV #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>2-3-94</u>	<u>0-3.0</u>	<u>clear, cool</u>	<u>3.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140*</u>								
FALL	<u>30"</u>								
STICK UP	<u>—</u>								

REMARKS: Boring is advanced to 3.0' (bgs). H₂O background is .4 ppm.

SAMPLE TYPE						DEFINITIONS			
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')			
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)			
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)			
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis			
N = No Sample									
Depth (Pt.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description			Elevation
1	<u>1.0</u>	<u>—</u>	<u>—</u>		<u>BG</u>	<u>SILTY SAND, fine grained. Brown, very loose, damp to moist.</u>			
2	<u>S-1</u>	<u>.8 / 2.0</u>	<u>3 / 2</u>		<u>BG</u>	<u>SAND, fine grained. Brown, very loose, wet.</u>			
3	<u>3.0</u>	<u>40%</u>	<u>2</u>						
4						<u>End of Boring</u>			
5						<u>TD: 3.0'</u>			
6						<u>Boring is backfilled and grouted to surface</u>			
7									
8									
9									
10									

Match to Sheet 2

DRILLING CO.: Hardin Huber
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: 41-05-SB13

SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41-OS-SB14

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATU #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>3/8" ID</u>		<u>4 1/4" ID</u>		<u>2-3-94</u>	<u>0-7.0</u>	<u>clear, cool</u>	<u>6.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140*</u>								
FALL	<u>30"</u>								
STICK UP	<u>—</u>								

REMARKS: Boring is advanced to 7.0' (bgs). Hwu background is .4 ppm.

<p>SAMPLETYPE</p> <p>S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample</p>	<p>DEFINITIONS</p> <p>SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis</p>
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Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	<u>Sample #00 is collected</u>	<u>—</u>	<u>—</u>		<u>BG</u>	<u>SILTY SAND, fine grained. Brown to dark brown, very loose, damp.</u>	
2	<u>Sample #01 is collected</u>	<u>1.4 / 2.0</u>	<u>2</u>		<u>BG</u>	<u>Burnt Soil. Black, loose, damp.</u>	
3	<u>Sample #02 is collected</u>	<u>1.4 / 2.0</u>	<u>2</u>		<u>BG</u>	<u>SAND, fine grained. Light brown to brown to dark brown, loose to medium dense, damp to moist to wet.</u>	
4	<u>Sample #02 is collected</u>	<u>1.4 / 2.0</u>	<u>2</u>		<u>BG</u>		
5	<u>Sample #02 is collected</u>	<u>1.4 / 2.0</u>	<u>2</u>		<u>BG</u>	<u>Yellow staining 3.0' to 4.0' and at 7.0' (bgs). Orange staining 4.5' to 6.0' (bgs).</u>	
6	<u>Sample #02 is collected</u>	<u>1.4 / 2.0</u>	<u>2</u>		<u>BG</u>		
7	<u>Sample #02 is collected</u>	<u>1.9 / 2.0</u>	<u>3</u>		<u>BG</u>		
8						<u>—End of Boring</u>	
9						<u>TD: 7.0'</u>	
10						<u>Boring is backfilled and grouted to surface. Match to Sheet 2</u>	

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: 41-OS-SB14

SHEET 1 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41-05-SB13

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATU #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" IO</u>		<u>4 1/4" IO</u>		<u>2-4-94</u>	<u>0-7.0'</u>	<u>clear, mild</u>	<u>6.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140 #</u>								
FALL	<u>30"</u>								
STICK UP	<u>-</u>								

REMARKS: Boring advanced to 7.0' (bgs). HWU background is .3 ppm.

SAMPLE TYPE						DEFINITIONS			
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')			
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)			
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)			
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis			
N = No Sample									
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description			Elevation
1	<u>1.0</u> Sample # 00 is collected	-	-		BG	<u>SILTY SAND, fine grained w/ FILL material (metal and plastic). Brown, very loose, damp.</u>			
2	<u>3.0</u> Sample # 01 is collected	-	<u>3</u> <u>4</u> <u>25</u> <u>0</u>		BG	<u>SAND, fine grained. Brown to gray, very loose to medium dense, damp to moist to wet. FILL material (plastic, metal) at top only.</u>			
3									
4	<u>5.0</u> Sample # 02 is collected	<u>1.0</u> <u>2.0</u>	<u>3</u> <u>6</u> <u>5</u> <u>11</u>		BG				
5		<u>50%</u>	<u>11</u> <u>11</u> <u>15</u> <u>21</u>		BG				
6	<u>7.0</u> 5-3	<u>1.1</u> <u>2.0</u>			BG	<u>End of Boring</u> <u>TD: 7.0'</u> <u>Boring is backfilled and grouted to surface. Match to Sheet 2</u>			
7		<u>55%</u>							
8									
9									
10									

DRILLING CO.: Hardin Huber, Inc
DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
BORING NO.: 41-05-SB13

SHEET 1 OF

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41-OS-SB16

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>RTU #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>2-2-94</u>	<u>0-5.0</u>	<u>overcast, cold</u>	<u>4.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140 #</u>								
FALL	<u>30"</u>								
STICK UP	<u>—</u>								

REMARKS: Boring is advanced to 5.0' (logs). H₂O background is .5 ppm.

SAMPLE TYPE						DEFINITIONS			
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')			
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)			
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)			
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis			
N = No Sample									
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description			Elevation
1	<u>1.0</u> <small>Sample # 00 is collected</small>	<u>—</u>	<u>—</u>		<u>BG</u>	<u>SILTY SAND, fine grained. Brown, very loose, moist.</u>			
2	<u>2.0</u> <small>Sample # 01 is collected</small>	<u>.7 / 2.0</u>	<u>6</u>		<u>1.2</u>	<u>SAND, fine grained. Brown, medium dense, moist. Trace clay is evident. Yellow staining is evident 1.0' to 3.0' (logs)</u>			
3	<u>3.0</u>	<u>35%</u>	<u>4</u>						
4	<u>S-2</u>	<u>.5 / 2.0</u>	<u>12</u>		<u>BG</u>	<u>SAND, fine grained w/ wood splinters and chips. Brown, medium dense, wet. Trace clay</u>			
5	<u>5.0</u>	<u>25%</u>	<u>19</u>			<u>End of Boring</u>			
6						<u>TD: 5.0'</u>			
7						<u>Boring is backfilled and grouted to surface</u>			
8									
9									
10									

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: 41-OS-SB16

SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41-05-SB

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATU #19					DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	SPLIT SPOON	CASING	AUGERS	CORE BARREL					
LENGTH	2.0'		4 1/4" ID		2-2-94	0-9.0	overcast, cool	-	
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP	—								

REMARKS: Boring is advanced to 9.0' (bgs). H₂O background is .5 ppm.

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	1.0 Sample #00 is collected	—	—		BG	SAWD, fine grained w/ some silt and little clay. Brown, very loose, damp.	
2	2.0 Sample #01 is collected	1.8 2.0	12 9 10		BG	SAWD, fine grained. Brown to gray, medium dense, damp to moist. Dark gray banding at 5.0' (bgs).	
3	3.0	90%	12				
4	4.0 Sample #02 is collected	1.9 2.0	6 6 14		BG		
5	5.0	95%	20				
6	N	—	12 00		—	NO RECOVERY	
7	7.0		6 2				
8	N	—	6 00		—	NO RECOVERY	
9	9.0		15				
10						End of Boring TD: 9.0' Boring is backfilled and grouted to surface. Match to Sheet 2	

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: 41-05-SB17

SHEET 1 OF 2

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, E 41

S.O. NO.: 212

BORING NO.: 41-OS-SB18

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG:									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		4 1/4" ID		2-4-94	0-4.0	clear, mild	—	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP	—								

REMARKS: Boring advanced to 4.0' (bgs). H2O background is .4 ppm.

SAMPLE TYPE						DEFINITIONS			
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')			
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)			
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)			
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis			
N = No Sample									
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description			Elevation
1	1.0 <small>Sample #00 is collected</small>	—	—		BG	SILTY SAND, fine grained w/ FILL material (metal fragments, plastic). Brown, very loose, damp. orange staining is occasional.			
2		—	3			SAND, fine grained. Brown, very loose, damp. orange staining is occasional.			
3	3.0 <small>Sample #01 is collected</small>	—	2		BG				
4	4.0	N	—	—	—	End of Boring			
5						TD: 4.0' Boring is backfilled and grouted to surface.			
6									
7									
8									
9									
10									

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: 41-OS-SB18

SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41-OS-SB

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATV #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>2-2-94</u>	<u>0-7.0</u>	<u>overcast, cool</u>	<u>-</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140*</u>								
FALL	<u>30"</u>								
STICK UP	<u>-</u>								

REMARKS: Boring is advanced to 7.0' (bgs). H₂O background is 2.2 ppm.

SAMPLE TYPE						DEFINITIONS			
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')			
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)			
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)			
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis			
N = No Sample									
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation		
1	<u>1.0</u>	<u>Sample #00 is collected</u>	<u>-</u>	<u>-</u>	<u>BG</u>	<u>SILTY SAND, fine grained w/ fill material (glass shards, plastic, metal and wood splinters): brown, very loose, damp.</u>			
2	<u>2.0</u>	<u>Sample #01 is collected</u>	<u>2.0</u>	<u>5</u>	<u>BG</u>	<u>SILTY SAND, fine grained w/ wood chips. Brown to gray, medium dense, damp. Trace clay. Orange stain 1.5' to 2.5'</u>			
3	<u>3.0</u>	<u>35%</u>	<u>100</u>	<u>1</u>	<u>BG</u>				
4	<u>4.0</u>	<u>S-2</u>	<u>2.0</u>	<u>8</u>	<u>BG</u>	<u>SAND, fine grained w/ wood splinters, plastic and metal. Brown, medium dense, damp.</u>			
5	<u>5.0</u>	<u>15%</u>	<u>4</u>	<u>4</u>	<u>BG</u>				
6				<u>3</u>					
7	<u>7.0</u>	<u>N</u>	<u>-</u>	<u>5</u>	<u>-</u>	<u>NO RECOVERY</u>			
8				<u>5</u>					
9				<u>9</u>					
10				<u>9</u>					
						<u>End of Boring</u>			
						<u>TD: 7.0'</u>			
						<u>Boring is backfilled and grouted to surface.</u>			
						<u>Match to Sheet 2</u>			

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: 41-OS-SB19

SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74 & 41

S.O. NO.: 212

BORING NO.: 41-OS-SB20

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATU #19					DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
	SPLIT SPOON	CASING	AUGERS	CORE BARREL					
SIZE (DIAM.)	1 3/8" ID		4 1/4" ID		2-2-94	0-7.0	overcast, cool	-	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 #								
FALL	30"								
STICK UP	-								

REMARKS: Boring is advanced to 7.0' (bgs) H₂O background is .4 ppm.

SAMPLE TYPE						DEFINITIONS			
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')			
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)			
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)			
D = Denson	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis			
N = No Sample									
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description			Elevation
1	1.0	-	-		BG	SILTY SAND, fine grained w/ root and plant material. Little clay. Trace fill material (glass shards, aluminum, wire). Brown, v. loose, damp.			
2	S-1	.3 / 2.0	9		BG	SAND, fine grained w/ wood splinters and fill material (glass shards and plastic). Brown to dark brown, loose, damp, orange and blue staining present.			
3	3.0	15%			BG				
4	S-2	.5 / 2.0	4		BG	SAND, fine grained w/ trace clay. Fill material (plastic) is present. Dark brown to dark green, loose, damp to moist.			
5	5.0	25%	8						
6			7			NO RECOVERY			
7	7.0		26 / 4			End of Boring			
8						TD: 7.0'			
9						Boring is backfilled and grouted to surface.			
10						Match to Sheet 2			

DRILLING CO.: Hardin Huber, Inc
DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
BORING NO.: 41-OS-SB20 SHEET 1 OF 2

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41-05-SB2

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATV #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>2-3-94</u>	<u>0-5.0</u>	<u>clear, cold</u>	<u>5.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140*</u>								
FALL	<u>30"</u>								
STICK UP	<u>-</u>								

REMARKS: Boring is advanced to 5.0' (bgs). Hwu background is .3 ppm.

SAMPLE TYPE						DEFINITIONS			
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')			
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)			
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)			
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis			
N = No Sample									
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description			Elevation
1	<u>Sample # 00 is collected</u>	<u>-</u>	<u>-</u>		<u>BG</u>	<u>SILTY SAND, fine grained. Brown, very loose, damp.</u>			
2	<u>Sample # 01 is collected</u>	<u>1.4 / 2.0</u>	<u>2 / 3</u>		<u>BG</u>	<u>CLAY. Dark gray, medium stiff, moist.</u>			
3	<u>3.0</u>	<u>70%</u>	<u>4</u>			<u>CLAY w/ sand. Dark gray, medium stiff, moist.</u>			
4	<u>Sample # 02 is collected</u>	<u>1.4 / 2.0</u>	<u>2 / 3</u>		<u>BG</u>	<u>SANDY CLAY, fine grained. Dark gray</u>			
5	<u>5.0</u>	<u>70%</u>	<u>4</u>			<u>loose, wet.</u>			
6						<u>End of Boring</u>			
7						<u>TD: 5.0'</u>			
8						<u>Boring is backfilled and grouted to surfac.</u>			
9									
10									

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: 41-05-SB21

SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, E 41

S.O. NO.: 212

BORING NO.: 41-05-SB22

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATU # 19									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		4 1/4" ID		2-4-94	0-7.0	clear, cold	-	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 #								
FALL	30"								
STICK UP	-								

REMARKS: Boring is advanced to 7.0' (bgs). H₂O background is .3 ppm.

SAMPLE TYPE						DEFINITIONS			
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')			
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)			
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)			
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis			
N = No Sample									
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description			Elevation
1	1.0 Sample #00 is collected	-	-		BG	SILTY SAND, fine grained w/ trace clay. Brown, loose to medium dense, damp.			
2	2.0 Sample #01 is collected	.9 2.0	6 7 2 2		1.2				
3	3.0	45%	1						
4	N	-	3 4 6 8		-	NO RECOVERY			
5	5.0								
6	6.0 Sample #03 is collected	.2 2.0	3 2		BG	SAND, fine grained. Brown, very loose, wet.			
7	7.0	10%	5 7						
8						End of Boring			
9						TD: 7.0'			
10						Boring is backfilled and grouted to surface Match to Sheet 2			

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: 41-05-SB22

SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212
 COORDINATES: EAST: _____
 ELEVATION: SURFACE: _____

BORING NO.: 41-05-SB1
 NORTH: _____
 TOP OF PVC CASING: _____

RIG: <u>ATV #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT) ₃	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>2-2-94</u>	<u>0-3.0</u>	<u>overcast, cool</u>	<u>—</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140#</u>								
FALL	<u>30"</u>								
STICK UP	<u>—</u>								

REMARKS: Boring is advanced to 3.0' (bgs). Hwu background is .6 ppm.

<p>SAMPLE TYPE</p> <p>S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample</p>	<p>DEFINITIONS</p> <p>SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis</p>
--	--

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	<u>1.0</u> <small>Sample # 00 is collected</small>	<u>—</u>	<u>—</u>		<u>BG</u>	<u>SAND, fine grained w/ root and plant mat. Fill material (plastic, metal wire). Brown, very loose, damp.</u>	
2	<u>2.0</u> <small>Sample # 01 is collected</small>	<u>.8 / 2.0</u>	<u>3 / 4</u>		<u>BG</u>	<u>SAND, fine grained w/ some silt and little clay. Brown to green, medium dense, damp. Orange stain</u>	<u>Preserv</u>
3	<u>3.0</u>	<u>40%</u>	<u>S</u>			<u>End of Boring</u>	
4						<u>TD: 3.0'</u>	
5						<u>Boring is backfilled and grouted to surface</u>	
6							
7							
8							
9							
10							

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: 41-05-SB23 SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212
 COORDINATES: EAST: _____
 ELEVATION: SURFACE: _____

BORING NO.: 41-OS-SB24
 NORTH: _____
 TOP OF PVC CASING: _____

RIG: <u>ATU #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>2-4-94</u>	<u>0-7.0</u>	<u>clear, cold</u>	<u>6.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140*</u>								
FALL	<u>30"</u>								
STICK UP	<u>—</u>								

REMARKS: Boring advanced to 7.0' (bgs). H10u background is .4 ppm.

SAMPLE TYPE						DEFINITIONS			
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')			
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)			
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)			
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis			
N = No Sample									
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description			Elevation
1	<u>1.0</u>	<u>Sample # 00 is collected</u>	<u>—</u>	<u>—</u>	<u>BG</u>	<u>SILTY SAND, fine grained w/ rooted material. Dark brown, very loose, damp.</u>			
2		<u>Sample # 01 is collected</u>	<u>1.6</u>	<u>4</u>	<u>BG</u>	<u>SAND, fine grained w/ trace clay. Dark brown to brown, medium dense, damp.</u>			
3	<u>3.0</u>	<u>80%</u>	<u>6</u>						
4		<u>Sample # 02 is collected</u>	<u>1.7</u>	<u>3</u>	<u>BG</u>	<u>SAND, fine grained. Brown, loose, damp. Yellow staining 2.0' to 5.0' (bgs).</u>			
5	<u>5.0</u>	<u>85%</u>	<u>3</u>						
6		<u>S-3</u>	<u>1.4</u>	<u>1</u>	<u>BG</u>	<u>SAND, fine grained w/ little clay and organic material. Brown, loose, moist.</u>			
7	<u>7.0</u>	<u>70%</u>	<u>2</u>	<u>3</u>		<u>SAND, fine grained. Brown, loose, wet.</u>			
8						<u>End of Boring</u>			
9						<u>TD: 7.0'</u>			
10						<u>Boring is backfilled and grouted to surface Match to Sheet 2</u>			

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: 41-OS-SB24 SHEET 1 OF 1

APPENDIX B.2
SITE 41 MONITORING WELLS

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, E 41

S.O. NO.: 212

BORING NO.: 41-GW04 DW

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATU #, 5 19 E, 32									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		6 1/4" ID		2-7-94	0-20.0	cloudy, cool	3.0	
LENGTH	2.0		5.0'		2-8-94	20.0-42.0	Partly cloudy, cool		
TYPE	STD		HSA						
HAMMER WT.	140 ^{lb}								
FALL	30"								
STICK UP	2 1/2'								

REMARKS: Continuous sampling to 30.0' (bgs). Type II monitoring well set 2-8-94.

SAMPLE TYPE						DEFINITIONS			
S	=	Split Spoon	A	=	Auger	SPT	=	Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T	=	Shelby Tube	W	=	Wash	RQD	=	Rock Quality Designation (%)	
R	=	Air Rotary	C	=	Core	Lab Class.	=	USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D	=	Denison	P	=	Piston	Lab Moist.	=	Moisture Content (ASTM D-2216) Dry Weight Basis	
N	=	No Sample							

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	Sample # 01 is collected	2.0 / 2.0	3 / 7		BG	SILTY SAND, fine grained. Brown, medium dense, damp. Orange streaking 0-1.0' (bgs)	
2	2.0	100%	6 / 7		BG	SAND, fine grained. Brown, medium dense, damp.	
3	Sample # 02 is collected	2.0 / 2.0	5 / 5		BG	SAND, fine grained w/ trace silt. Brown, loose to medium dense, moist to wet. Orange stain.	
4	4.0	100%	4 / 3		BG		
5	5-3	1.6 / 2.0	2 / 2		BG	SAND, fine grained. Brown, loose, wet. Yellow staining is present.	
6	6.0	80%	2 / 2		BG		
7	7.0	1.2 / 2.0	1 / 4		BG	WOOD, dark brown	
8	8.0	60%	7 / 12"		BG	SAND, fine grained. Dark brown, loose to medium dense, wet.	
9	9.0	1.2 / 2.0	WOH / 6"		BG	WOOD, dark brown	
10	10.0	60%	3 / 6		BG	SAND, fine grained. Dark brown, loose to medium dense, wet	

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan / Jay Corron

BAKER REP.: J. Zimmerman / E. Kleinrauf
 BORING NO.: 41-GW04 DW SHEET 1 OF 3

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon		A = Auger		SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')		RQD = Rock Quality Designation (%)	
T = Shelby Tube		W = Wash		Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)		Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
R = Air Rotary		C = Core					
D = Denison		P = Piston					
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevat
11	S-6	1.2	1		BG	SAND, fine grained. Gray, loose, wet. Dark gray banding is evident.	
		2.0	2				
12.0		60%	4				
12	S-7	2.0	3		BG	SAND, medium grained. Gray, loose wet.	
		2.0	6				
14.0		100%	2				
13	S-8	2.0	9		BG	SAND, fine grained. Brown, loose, wet.	
		2.0	16				
15.0		100%	27				
14	S-9	2.0	15		BG	SAND, medium to fine grained. Brown, dense, wet. orange stain at 15' (bgs)	
		2.0	10				
16.0		100%	42				
15	S-10	2.0	15		BG	LITHIFIED LIMESTONE w/ shell material. Light green to white, dense, wet.	
		2.0	10				
17.0		100%	12				
16	S-11	2.0	13		BG	SAND, medium to fine grained. Brown, medium dense, wet.	
		2.0	10				
18.0		100%	15				
17	S-12	2.0	13		BG	LITHIFIED LIMESTONE w/ trace shell fragments. Light green to white, medium dense, wet.	
		2.0	17				
19.0		100%	10				
18	S-13	2.0	13		BG	SAND, fine grained. Limestone w/ shells material is present. Light green to white, dense wet.	
		2.0	17				
20.0		100%	10				
19	S-14	2.0	13		BG	SAND, fine grained w/ silt. Limestone w/ shell material present. Light green to white.	
		2.0	17				
21.0		100%	10				
20	S-15	24"	6		BG	SAND, fine grained. Limestone w/ shells material is present. Light green to white, dense wet.	
		24"	4				
22.0		100%	12				
21	S-16	24"	6		BG	SILTY SAND, fine grained w/ trace of shell and rock fragments. Light gray to tan to light greenish gray, loose to medium dense to stiff to hard, wet.	
		24"	29				
23.0		100%	33				
22	S-17	23"	18		BG	SAND, fine grained. Limestone w/ shells material is present. Light green to white, dense wet.	
		24"	31				
24.0		95%	28				
23	S-18	24"	6		BG	SAND, fine grained. Limestone w/ shells material is present. Light green to white, dense wet.	
		24"	14				
25.0		100%	21				
24	S-19	24"	6		BG	SAND, fine grained. Limestone w/ shells material is present. Light green to white, dense wet.	
		24"	14				
26.0		100%	21				
25	S-20	22"	9		BG	SAND, fine grained. Limestone w/ shells material is present. Light green to white, dense wet.	
		24"	15				
27.0		91%	19				
26	S-21	22"	9		BG	SAND, fine grained. Limestone w/ shells material is present. Light green to white, dense wet.	
		24"	15				
28.0		91%	19				
27	S-22	22"	9		BG	SAND, fine grained. Limestone w/ shells material is present. Light green to white, dense wet.	
		24"	15				
29.0		91%	19				
28	S-23	22"	9		BG	SAND, fine grained. Limestone w/ shells material is present. Light green to white, dense wet.	
		24"	15				
30.0		91%	19				

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: 41-GW04 DW

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
31							
32							
33							
34							
35	35.0						
36	S-16	24" 24"	7 10			SILTY SAND, fine grained w/ trace shell fragments. Greenish grey, medium dense, wet	
37	37.0	100%	14 28		BG		
38							
39							
40	40.0						
41	S-17	24" 24"	23 26			SILTY SAND, fine grained w/ trace shell fragments. Greenish grey, very dense, wet	
42	42.0	100%	27 52		BG		
End of Boring							
3						TD: 42.0' HNU background is .4 ppm HSA 0 to 20.0' (bgs). Mud rotary 20.0 to 42.0' (bgs).	
4							
5							
6							
7							
8							
9							
0							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan / Jay Corron

BAKER REP.: J. Zimmerman / E. Kleinkauf
 BORING NO.: 41-GW04 DW SHEET 3 OF 3

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41-GW06 DW

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATV #32

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>				<u>2-16-94</u>	<u>0-42.0</u>	<u>partly cloudy, mild</u>	<u>8.0</u>	
LENGTH	<u>2.0'</u>								
TYPE	<u>STD</u>								
HAMMER WT.	<u>140#</u>								
FALL	<u>30"</u>								
STICK UP	<u>2 1/2'</u>								

REMARKS: Continuous sampling to 26.0' (bgs). Type II monitoring well set 2-16-94.

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	S-1	23" 24"	3 4		BG	SILTY SAND, fine grained. Light brown to tan to brown to light grey, loose moist to wet.	
2		95%	5				
3	Sample #02 is collected	15" 24"	3 7		BG		
4		62%	14				
5	Sample #03 is collected	9" 24"	4 10		BG		
6		37%	14				
7	S-4	16" 24"	4 6		BG		
8		66%	9				
9	S-5	8" 24"	4 6		BG		
10		33%	7				

SILTY SAND, fine to fine to medium grained. Light brown, loose, wet. Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: E. Kleinkauf

DRILLER: Jay Corron

BORING NO.: 41-GW06 DW

SHEET 1 OF 3

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: 41-GW06

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevati
11	S-6		Woh 4 5 6		BG	CLAY and SAND, fine grained. Dark brown, loose, wet. organ?	
12		17" 24"	4 3			SILTY SAND, fine to fine to medium grained. Light reddish brown, loose wet.	
13	S-7	70%	6 4		BG	SILTY CLAY w/ #12 SAND, fine grained. Dark brown, wet.	
14		13" 24"	5 8 11 12		BG	SILTY SAND, fine grained. Light brown to light grey to tan, loose, wet.	
15	S-8	54%	6 6 2 3		BG	SILTY SAND, fine to fine to medium grained w/ trace of CLAY. Light brown, loose, wet.	
16	S-9	58%	2 1 2 2		BG	SILTY SAND, fine to fine to medium grained w/ trace of CLAY. Light brown, loose, wet.	
17		24" 24"	2 2 2 2		BG	SILTY SAND, fine to fine to medium grained w/ trace shell fragments and rock fragments and CLAY. Light greenish gray, wet	
18	S-10	100%	2 2 4 9		BG	SILTY SAND, fine grained w/ trace shell fragments. Light greenish gray, wet.	
19	S-11	66%			BG		
20	S-12	75%			BG		
21		20" 24"			BG		
22	S-13	83%			BG		
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf
 BORING NO.: 41-GW06 DW

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: 41-GW06 DW

SAMPLE TYPE						DEFINITIONS		
S = Split Spoon		A = Auger		SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')		RQD = Rock Quality Designation (%)		
T = Shelby Tube		W = Wash		Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)		Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis		
R = Air Rotary		C = Core		D = Denison		P = Piston		
D = Denison		P = Piston		N = No Sample				
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation	
31	S-14	24"	9		BG	SILTY SAND, fine grained w/ trace of shell fragments. Light greenish gray, wet.		
32		24"	7					
32		100%	14					
33			26					
34								
35	S-15	24"	12		BG	SILTY SAND, fine grained w/ trace of shell fragments. Light greenish gray, wet.		
36		24"	17					
37		100%	26					
38			36					
39								
40	S-16	21"	27		BG	SILTY SAND, fine grained w/ trace of shell fragments. Light greenish gray, wet.		
41		24"	21					
42		87%	22					
42			30					
3	End of Boring							
4	TD: 42.0'							
5	HWU background range .2 to .4 ppm.							
6	Mud rotary used from surface.							
7								
8								
9								
0								

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf
 BORING NO.: 41-GW06 DW SHEET 3 OF 3

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41-GW07S

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATU #32

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>6 1/4" ID</u>		<u>2-5-94</u>	<u>0-21.0</u>	<u>overcast, mild</u>	<u>5.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140*</u>								
FALL	<u>30"</u>								
STICK UP	<u>2 1/2'</u>								

REMARKS: Continuous sampling to 20.0' (bgs). Type II monitoring well set 2-5-94.

SAMPLETYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Sample Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	Sample #01 is collected	18" 24"	1 3 3		1.5	SILTY SAND, fine grained w/ trace clay and organics. Black, loose, damp	
2		75%	3				
3	S-2	16" 24"	2 4 3		.5	SILTY SAND, fine grained w/ trace clay. Light gray to light brown, loose, moist	
4		66%	3				
5	S-3	21" 24"	2 3 5		B6	SILTY SAND, fine grained. Light brown, loose, wet.	
6		87%	6				
7	Sample #04 is collected	22" 24"	3 4 5		B6	CLAY. Light gray to light brown to red, stiff, moist.	
8		91%	6				
9	S-5	12" 24"	3 8 8		B6	SILTY SAND, fine grained. Light brown to tan, loose, wet.	
10		50%	7				

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: E. Kleinkauf

DRILLER: Jay Corron

BORING NO.: 41-GW07S

SHEET 1 OF 2

TEST BORING RECORD

PROJECT: Sites 69, 74 & 41
 S.O. NO.: 212

BORING NO.: 41-GW07

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevatic
11	S-6	4" / 24"	2		BG	GARBAGE	
12		16%	2				
13	S-7				BG	SILTY SAND, fine grained. Light brown to tan, loose, wet.	
14							
15	S-8	18" / 24"			BG	CLAY, light gray to light brown	
16		75%				SILTY SAND, fine grained. Light brown to tan, loose, wet.	
17	S-9	24" / 24"			BG	SAND, loose, wet	
18		100%					
19	S-10	19" / 24"			BG		
20		79%					
21	N	-	-		-		
22						End of Boring	
23						TD: 21.0'	
24						HWU background range .1 to .4 ppm	
25						Sampled to 20' (bgs), overdrilled to 21' (bgs).	
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf
 BORING NO.: 41-GW07S



TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212 BORING NO.: 41-GW07I
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: <u>ATV #32</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>				<u>2-6-94</u>	<u>0-45.0</u>		<u>12.5</u>	
LENGTH	<u>2.0'</u>								
TYPE	<u>STD</u>								
HAMMER WT.	<u>140#</u>								
FALL	<u>30"</u>								
STICK UP	<u>2 1/2'</u>								

REMARKS: Continuous sampling to 40.0' (bgs). Type II monitoring well set 2-6-94

SAMPLE TYPE S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample			DEFINITIONS SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis		
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Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	S-1	14" / 24"	1			SILTY SAND, fine grained w/ trace CLAY. Black, loose, moist. Organic	
2		58%	2				
3	Sample # 02 is collected	17" / 24"	1			SILTY SAND, fine grained w/ little CLAY. Light brown, moist, slightly cohesive	
4		70%	5				
5	S-3	22" / 24"	4		BG	CLAY w/ trace of SAND, fine grained. Light gray to light brown, loose, moist.	
6		91%	8				
7	S-4	23" / 24"	2		BG	CLAY w/ trace of SAND, fine grained. Light gray to light brown, loose, moist.	
8		95%	4				
9	S-5	16" / 24"	2		BG	SILTY SAND, fine grained w/ trace CLAY. Black, moist	
10		66%	1				

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc BAKER REP.: E. Kleinkauf
 DRILLER: Jay Corron BORING NO.: 41-GW07 I SHEET 1 OF 3

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: 41-GW07

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevati
11	Sample # 06 is collected	20"	2		BG		
		24"	5				
12		83%	8				
13	S-7	6"	9		BG	SILTY SAND, fine grained. Light gray to tan, loose, wet.	
14		24"	14				
15	S-8	6"	9		BG		
16		24"	14				
17	S-9	13"	4		BG	SILTY SAND, fine grained w/ trace of CLAY. Light gray to tan, loose, wet.	
18		24"	2				
19	S-10	24"	1		BG	SILTY CLAY. Reddish brown, loose, wet.	
20		24"	WOH				
21	S-11	24"	2		BG	SILTY SAND, fine grained. Medium gray to greenish gray, loose, wet.	
22		24"	3				
23	S-12	24"	4		BG		
24		24"	7				
25	S-13	24"	7		BG	SILTY SAND, fine to fine to medium grained w/ trace of rock fragments and CLAY. Light gray to tan, loose, wet.	
26		24"	9				
27	S-14	24"	13		BG		
28		24"	14				
29	S-15	22"	7		BG		
30		24"	12				
		100%	13				
		100%	19				

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf
 BORING NO.: 41-GW07 I

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: 41-GW07 I

SAMPLETYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevatio
31	S-16	22" 24"	10 10 12		BG	SILTY SAND, fine grained w/ shell fragments and little rock fragments. Light gray to tan, loose, wet. Increase in coarseness between 36' and 38' (bgs).	
32		91%	28				
33	S-17	21" 24"	7 10 10		BG		
34		87%	12				
35	S-18	23" 24"	8 8 21		BG		
36		95%	28				
37	S-19	24" 24"	15 23 26		BG	SILTY SAND, coarser grained w/ shell fragments, some rock fragments and slightly CLAYEY. Light gray to tan, loose, wet.	
38		100%	31				
39	S-20	22" 24"	8 10 12		BG		
40		91%	6				
41							
42							
43							
44	S-21	21" 24"	31 34		BG		
45		87%	59" 6"				
45.0						End of Boring	
6							
7						TD: 45.0'	
8						H ₂ O background range .1 to .5 ppm	
9						Mud rotary used from 4.0' (bgs)	
0							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf
 BORING NO.: 41-GW07 I

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
S.O. NO.: 212
COORDINATES: EAST: _____
ELEVATION: SURFACE: _____

BORING NO.: 41GW-085
NORTH: _____
TOP OF PVC CASING: _____

RIG: <u>ATV # 19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>6 1/4" ID</u>		<u>2-7-94</u>	<u>0-16.0</u>	<u>Sunny 60's</u>	<u>5.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD.</u>		<u>HSA</u>						
HAMMER WT.	<u>140 #</u>								
FALL	<u>30"</u>								
STICK UP	<u>2.5'</u>								

REMARKS: Continuous sampling to 16.0' (bgs). Type II monitoring well set 2-7-

SAMPLE TYPE					DEFINITIONS				
S	=	Split Spoon	A	=	Auger	SPT	=	Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T	=	Shelby Tube	W	=	Wash	RQD	=	Rock Quality Designation (%)	
R	=	Air Rotary	C	=	Core	Lab Class.	=	USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D	=	Denison	P	=	Piston	Lab Moist.	=	Moisture Content (ASTM D-2216) Dry Weight Basis	
N	=	No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation		
1	Sample #01 is collected	1.8 / 2.0	3 / 5		BG	SILTY SAND, fine grained. Brown to light brown, medium dense, damp. orange stain			
2	2.0	90%	6			SAND, fine grained. Brown to light brown, medium dense, damp to moist. orange stain			
3	Sample #02 is collected	2.0 / 2.0	3 / 7		BG				
4	4.0	100%	8						
5	S-3	1.5 / 2.0	3 / 6		BG	SAND, medium grained. Light brown, medium dense, wet.			
6	6.0	75%	3						
7	S-4	1.7 / 2.0	1 / 2		BG	CLAY, soft. Dark gray, moist			
8	8.0	85%	2 / 1			SANDY CLAY. Dark gray, loose to soft, moist			
9	S-5	1.8 / 2.0	2 / 2		BG	SILTY CLAY, soft. Dark gray, wet			
10	10.0	90%	2 / 3			CLAY w/ organics (wood). Dark gray, soft, moist			

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc
DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
BORING NO.: 41GW-085

SHEET 1 OF 2

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: 41GW-085

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	
11	S-6	1.6 2.0	1 2 3		BG	SANDY CLAY. Greenish gray, soft to medium stiff, moist to wet.	
12		80%	6				
13	S-7	1.7 2.0	4 6 10		BG	SAND, medium grained. Gray, loose, wet.	
14		85%	6				
15	S-8	1.4 2.0	mm mm mm mm		BG	SILTY SAND, fine grained w/ organics (wood). Dark gray, loose, wet.	
16		70%	mm				
						End of Boring	
						TD: 16.0'	
						Well set @: 15.0'	
						H ₂ O background: .5 ppm	
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41-GW09S

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATV # 32									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	3/8" ID		6 1/4" ID		2-2-94	0-21.0	overcast, cold	10.0	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP	2 1/2								

REMARKS: Hand augered 0 to 4.0' (bgs). Continuous sampling from 4.0 to 20.0' (bgs)

Type II impnt. 4 Sep 2-2-

<p>SAMPLE TYPE</p> <p>S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample</p>	<p>DEFINITIONS</p> <p>SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis</p>
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Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
0.5	A-1	-	-		BG	CLAY and SAND, fine grained. Brown, moist to wet. cohesive. Note: Sample #02 is a composite of auger samples AS thru AB	
1.0	A-2	-	-		BG		
1.5	A-3	-	-		BG		
2.0	A-4	-	-		BG		
2.5	A-5	-	-		BG		
3.0	A-6	-	-		BG		
3.5	A-7	-	-		BG		
4.0	A-8	-	-		BG		
5.0	S-1	24" / 24"	6 / 12		BG	CLAYEY SAND / SANDY CLAY, fine grained. Brown, moist, organics present.	
6.0		100%	11				
7.0	Sample #04 is collected	24" / 24"	10 / 11		BG		
8.0		100%	14				
9.0	S-3	24" / 24"	6 / 11		BG	SILTY SAND, fine grained. Light brown to tan, loose, moist.	
10.0		100%	10				

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc
DRILLER: Jay Corran

BAKER REP.: E. Kleinkauf
BORING NO.: 41-GW09S

TEST BORING RECORD

PROJECT: Sites 69, 74, E 41
 S.O. NO.: 212

BORING NO.: 41-GW09

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevati
11	S-4	24" 24"	5 8 6		BG	SILTY SAND, fine grained. Tan, loose, wet.	
12		100%	12				
13	S-5	24" 24"	5 6 8		BG		
14		100%	15				
15	S-6	22" 24"	5 5 7		BG	SILTY SAND, fine grained. Tan, loose, wet. Occasional 1-2" brown, organic SILTY SAND, fine grained. lenses. Lenses also present from 18.4' to 20.0' (bgs)	
16		91%	8				
17	S-7	23" 24"	7 11 12		BG		
18		95%	15				
19	S-8	14" 24"	5 6 9		BG	End of Boring	
20		58%	11				
21	N						
22						TD: 21.0' Hvu Background range is .3 to .6 ppm. Hand auger used from surface to 4.0' (bgs). Sampled to 20' (bgs). Overdrilled to 21' (bgs).	
23							
24							
25							
26							
27							
28							
29							
30							

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41-GW09I

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATU #32									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID				2-3-94	0-45.0	clear, cold	10.5	
LENGTH	2.0'								
TYPE	STO								
HAMMER WT.	140#								
FALL	30"								
STICK UP	2 1/2'								

REMARKS: Continuous sampling to 45.0' (bgs). Type II monitoring well set 2-3

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	S-1	21" / 24"	1		BG	SILTY SAND, fine grained, dark brown, moist. Slightly organic CLAYEY SAND, fine grained, orangish brown, moist.	
2		87%	7				
3	Sample # 02 is collected	16" / 24"	2		BG	SILTY SAND, fine grained w/ trace to little CLAY. Light brown to light gray, moist	
4		66%	5				
5	N						
6	S-3	12" / 24"	5		BG	SILTY SAND, fine grained. Tan to light brown to orangish brown, moist.	
7		50%	14				
8	S-4	8" / 24"	7		BG		
9		33%	20				
10	Sample # 05 is collected	12" / 24"	8		BG		
		50%	7				

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: E. Kleinkauf

DRILLER: Jay Corron

BORING NO.: 41-GW09I

SHEET 1 OF 3

Baker Environmental, Inc

PROJECT: Sites 69, 74, E 41
 S.O. NO.: 212

BORING NO.: 41-GW09

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevati
11.0	S-5	50%	5 8		BG	CLAYEY SAND, fine grained. Light gray, wet. Cohesive.	
12.0		4" / 24"	Rod drop				
13.0	S-6	16%	6 9		BG	SILTY SAND, fine grained. Tan, loose, wet.	
14.0		12" / 24"	8 12				
15.0	S-7	50%	16 18		BG	SILTY SAND, fine to fine to coarse grained. Tan to light brown, loose, wet.	
16.0		11" / 24"	9 9				
17.0	S-8	45%	13 16		BG	SAND, fine grained and CLAY. Light grey, wet. Cohesive	
18.0		18" / 24"	7 7				
19.0	S-9	75%	11 11		BG	SILTY SAND, fine to fine to coarse grained. Light brown, loose, wet.	
20.0		18" / 24"	4 3				
21.0	S-10	75%	5 6		BG	SILTY SAND, fine grained w/ trace CLAY. Orangish brown, loose, wet.	
22.0		24" / 24"	3 3				
23.0	S-11	100%	2 2		BG	CLAY and SAND, fine grained. Light gray to light brown, wet	
24.0		24" / 24"	3 2				
25.0	S-12	100%	2 2		BG	SILTY SAND, fine grained. Orangish brown to green to gray, loose, moist to wet.	
26.0		23" / 24"	1 2				
27.0	S-13	95%	2 1		BG		
28.0		9" / 24"	1 1				
29.0	S-14	37%	WOK		BG		
30.0	S-15	22" / 24" 91%	5 10		BG		

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf
 BORING NO.: 41-GW09 I

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41-GW09 I

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (FT)	Sample Type and No.	Samp. Rec. (FT. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
31	S-15	91%	10 11		BG	SILTY SAND, fine to fine to medium grained w/ shell fragments, rock fragment and trace of CLAY. Light gray to tan, loose, wet. Zone of coarse fragments and SILT at 36' (bgs).	
32	S-16	10" 24"	3 4		BG		
33		41%	8 11				
34	S-17	21" 24"	3 19		BG		
35		87%	13 19				
36	S-18	22" 24"	6 18		BG		
37		91%	15 31				
38	S-19	20" 24"	10 16		BG		
39		83%	43 29				
40	S-20	24" 24"	5 10		BG		
41		100%	14				
42	S-21	24" 24"	9 24		BG		
43		100%	22 47				
44	S-22	22" 24"	22 26		BG		
45		91%	29 27				
6	End of Boring						
7	TD: 45.0'						
8	Hsu background range is .1 to .3 ppm.						
9	Mud rotary used from surface						
0	overdrilled to 45.0'. Missed 4.0 to 5.0' depth.						

DRILLING CO.: Hardin Huber, Inc

DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf

BORING NO.: 41-GW09 I

SHEET 3 OF 3

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41GW-10S

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATU #19									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		6 1/4" ID		2-4-94	0-14.0	Sunny, 60's	3.0	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140 #								
FALL	30"								
STICK UP	2.5'								

REMARKS: Continuous sampling to 14.0' (bgs). Type II monitoring well set 2-5-94.

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	Sample #01 is collected	1.8 / 2.0	2		BG	SILTY SAND, fine grained. Dark brown to brown, loose, damp	
2		90%	5				
3	S-2	1.7 / 2.0	5		BG	SAND, fine grained. Brown, loose to medium dense, moist to wet. Orange staining present.	
4		85%	4				
5	S-3	2.0 / 2.0	3		BG	CLAY lense	
6		100%	4				
7	S-4	1.4 / 2.0	2		BG	SAND, fine grained. Brown to gray, very loose, wet.	
8		70%	2				
9	S-5	1.8 / 2.0	12		BG	SILTY SAND, fine grained w/ trace clay. Brown, dense, wet.	
10		90%	31				
			17			LITHIFIED SANDSTONE w/ limestone. Light green, dense, wet	

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: 41GW-10S

SHEET 1 OF 1

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: 4IGW-10S

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevati
11	S-6	.4 2.0	12 13		BG	LITHIFIED SANDSTONE w/ Limestone. Light green, dense, wet.	
12		20%	WOH 12"				
13	S-7	2.0 2.0	5 12 19		BG	SAND, fine grained w/ trace silt. Dark brown, dense, wet	
14		100%	13			LITHIFIED SANDSTONE w/ Limestone w/ little clay. Light brown, dense, wet	
15						End of Boring	
16						TD: 14.0'	
17						well set @: 13.0'	
18						HWU background = .3 ppm	
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: 4IGW-10S SHEET 2 OF 2

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212
 COORDINATES: EAST: _____
 ELEVATION: SURFACE: _____

BORING NO.: 41GW-11S
 NORTH: _____
 TOP OF PVC CASING: _____

RIG: ATU #19					DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
	SPLIT SPOON	CASING	AUGERS	CORE BARREL					
SIZE (DIAM.)	1 3/8" IO		6 1/4" IO		2-6-94	0-16.0	Sunny, 70's	7.0	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140*								
FALL	30"								
STICK UP	2.5'								

REMARKS: continuous sampling to 16.0' (bgs). Type II monitoring well set 2-6-94

<p>SAMPLE TYPE</p> <p>S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample</p>	<p>DEFINITIONS</p> <p>SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis</p>
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Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	Sample #01 is collected	1.0 / 2.0	15		.8	Rooted Zone. Brown, loose, damp. FILL material (glass shards, burnt soil, metal). Brown to gray, loose to medium dense, damp orange stain.	
2	S-2	50%	8		BG	SILTY SAND, fine grained. Gray to brown, loose to medium dense, damp.	
3		.4 / 2.0	12		BG		
4	S-2	20%	8		BG	FILL material (brick, aluminum foil, plastic, glass shards). Dark gray, loose, moist to wet. SILTY SAND is matrix.	
5		1.2 / 2.0	4		BG		
6	Sample #03 is collected	60%	4		BG	SAND, fine grained. Dark gray, medium dense, wet.	
7	S-4	.3 / 2.0	2		BG		
8		15%	3		BG	Match to Sheet 2	
9	S-5	2.0 / 2.0	2		BG		
10		100%	12		BG		

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: 41GW-11S SHEET 1 OF 1

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: 41GW-115

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	S-6	.6 2.0	21		BG	SAND, fine to medium grained. Dark gray, dense, wet. Possible soluble paint chips or flecks of oyster shell are evident.	
			18				
			21				
12		30%	13				
13	S-7	1.6 2.0	2		BG	SILTY CLAY. Dark gray to dark green, soft, wet.	
			5				
			3				
14		80%	3			SAND, fine grained w/ some silt. Dark gray to dark green, loose, wet.	
15	S-8	1.8 2.0	21		BG	CLAY, stiff. Dark gray to green, moist.	
			7				
			5				
16		90%	7			End of Boring	
17						TD: 16.0'	
18						well set @: 15.0'	
19						Hnu background = .5 ppm	
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: 41GW-115 SHEET 2 OF 2

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41-GW11I

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATV # 32</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>				<u>2-7-94</u>	<u>0-52.0</u>	<u>Partly Cloudy, Cool</u>	<u>10.5</u>	
LENGTH	<u>2.0'</u>								
TYPE	<u>STD</u>								
HAMMER WT.	<u>140#</u>								
FALL	<u>30"</u>								
STICK UP	<u>2 1/2'</u>								

REMARKS: Continuous sampling to 30.0' (bgs). Type II monitoring well set 2-7-9.

SAMPLE TYPE						DEFINITIONS			
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')			
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)			
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)			
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis			
N = No Sample									
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation		
1	Sample # 01 is connected	12"	1		BG	SILTY SAND, fine grained Light gray to light brown to gray, loose, moist (FILL)			
2		24"	3						
2	2.0	50%	2						
3	S-2	12"	3		BG				
3		24"	3						
4	4.0	50%	2						
5	S-3	3"	4		BG				
5		24"	5						
6	6.0	12%	12						
7	S-4	1"	2		BG				
7		24"	4						
8	8.0	4%	8						
9	S-5	14"	35		BG				
9		24"	13						
10	10.0	58%	12						

SILTY SAND, fine grained w/ FILL?
Gray, loose, moist to wet.
Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: E. Kleinkauf

DRILLER: Jay Corron

BORING NO.: 41-GW11I

SHEET 1 OF 4

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: 41-GW11 I

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon		A = Auger		SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')		RQD = Rock Quality Designation (%)	
T = Shelby Tube		W = Wash		Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)		Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
R = Air Rotary		C = Core					
D = Denison		P = Piston					
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	Sample # 06 is collected	14"	6		BG	SILTY SAND, fine grained w/ FILL? Gray, loose, wet	
12		24"	8				
13		11"	10				
14	S-7	24"	11		BG		
15			14				
16	S-8	3" / 24"	3		BG		
17			4				
18	S-9	2" / 24"	2		BG	CLAY w/ SAND, fine grained. Gray, cohesive, wet.	
19			3				
20	S-10	18" / 24"	2		BG	SILTY SAND, fine grained. Light gray to tan to light brown loose, wet.	
21			3				
22	S-11	14" / 24"	4		BG	CLAY w/ some SAND, fine grained. Gray, cohesive, wet.	
23			4				
24	S-12	24" / 24"	1		BG		
25			2				
26	S-13	16" / 24"	3		BG	SILTY SAND, fine grained w/ little CLAY. Dark gray to dark brown, wet	
27			2				
28	S-14	21" / 24"	7		BG		
29			8				
30	S-15	15" / 24"	7		BG		
			8				
			21				

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf
 BORING NO.: 41-GW11 I

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74 & 41
 S.O. NO.: 212

BORING NO.: 41-GW11 I

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevati
31							
32							
33							
34							
35							
35.0							
36	S-16	22" 24"	20 24 27		BG	SILTY SAND, fine grained w/trace of CLAY and rock fragments. Light green to gray, slightly cohesive, wet	
37		91%	21				
37.0							
38							
39							
40							
40.0							
41	S-17	14" 24"	21 12 25		BG	SILTY SAND, fine grained w/trace of CLAY and little shell and rock fragments. Light green to gray, slightly cohesive, wet.	
42		58%	21				
42.0							
43							
44							
45							
45.0							
46	S-18	17" 24"	20 15 21		BG	SILTY SAND, fine grained w/trace CLAY and shell and rock fragments. Light green to gray, slightly cohesive, wet.	
47		70%	23				
47.0							
48							
49							
50							
50.0							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf
 BORING NO.: 41-GW11 I

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: 41-GW11 I

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample						SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
51	S-19	6" / 24"	18		BG	SILTY SAND, fine grained w/ shell and rock fragments. Light green to gray, slightly cohesive, wet. (slight increase in CLAY at 52' (bgs)).	
52		25%	23				
52		25%	28				
53						End of Boring	
54						TD: 52.0'	
55						HNU background range .3 to .5 ppm	
6						wash rotary used from surface to 4.0' (bgs). Mud rotary used from 4.0' (bgs) to 52.0' (bgs).	
7							
8							
9							
0							
1							
2							
3							
4							
5							
6							
7							
8							
9							
0							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf
 BORING NO.: 41-GW11 I

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41GW-125

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATU #19									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		6 1/4" ID		2-8-94	0-17.0	overcast, light rain. 60's		
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 #								
FALL	30"								
STICK UP	2.5'								

REMARKS: Continuous sampling to 16.0' (bgs). Type II monitoring well set 2-8-94

SAMPLE TYPE						DEFINITIONS			
S	=	Split Spoon	A	=	Auger	SPT	=	Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T	=	Shelby Tube	W	=	Wash	RQD	=	Rock Quality Designation (%)	
R	=	Air Rotary	C	=	Core	Lab Class.	=	USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D	=	Denison	P	=	Piston	Lab Moist.	=	Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample									
Depth (Ft.)	Sample Type and No.	Sample Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation		
						Rooted Zone			
						Rooted Zone. Brown, medium dense, damp			
1	Sample #01 is collected	1.3 2.0	2 4 6		.9	SILTY SAND, fine grained. Brown, loose to medium dense, damp. Yellow staining w/ orange streaking.			
2		65%	4						
3	Sample #02 is collected	1.5 2.0	4 3		BG				
4		75%	4 2						
5	S-3	1.6 2.0	3 4 5		BG				
6		80%	11						
7	S-4	1.6 2.0	6 9 11		BG	SAND, fine grained. Gray to brown, loose to medium dense, moist to wet. orange staining is occasional			
8		80%	8						
9	S-5	2.0 2.0	4 7 11		BG				
10		100%	3						

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: 41GW-125

SHEET 1 OF 1

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: 41GW-12S

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	S-6	1.6	4		BG	SAND, medium grained. Gray to brown, medium dense, wet. Dark orange and faint yellow staining are evident	
12		2.0	5				
13	S-7	80%	6		BG	LITHIFIED LIMESTONE w/shell fragments. Brown to light green, medium dense to dense, wet.	
14		2.0	3				
15	S-8	2.0	5		BG		
16		100%	9				
17		1.3	12		-		
18		2.0	15				
19		65%	20				
20			20				
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: 41GW-12S

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41-GW12DW

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATV # 32</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>				<u>2-15-94</u>	<u>0-40.0</u>	<u>clear, cool</u>	<u>6.0</u>	
LENGTH	<u>2.0'</u>								
TYPE	<u>STO</u>								
HAMMER WT.	<u>140#</u>								
FALL	<u>30"</u>								
STICK UP	<u>2 1/2'</u>								

REMARKS: Continuous sampling to 18.0' (bgs). Type II monitoring well set 2-15-94

SAMPLE TYPE						DEFINITIONS			
S	= Split Spoon	A	= Auger			SPT	= Standard Penetration Test (ASTM D-1586) (Blows/0.5')		
T	= Shelby Tube	W	= Wash			RQD	= Rock Quality Designation (%)		
R	= Air Rotary	C	= Core			Lab Class.	= USCS (ASTM D-2487) or AASHTO (ASTM D-3282)		
D	= Denison	P	= Piston			Lab Moist.	= Moisture Content (ASTM D-2216) Dry Weight Basis		
N	= No Sample								
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description			Elevation
1	S-1	22" 24"	1 2		BG	SILTY SAND, fine grained w/organics Dark brown, loose, moist			
2		91%	4						
3	Sample #02 is collected	20" 24"	1 3		BG	CLAYEY SAND, fine grained. Light brown to light gray, slightly stiff, moist			
4		83%	5						
5	Sample #03 is collected	20" 24"	2 14		BG	SILTY SAND, fine grained w/trace to little CLAY. Light gray to light brown, slightly loose, moist.			
6		83%	14						
7	S-4	21" 24"	3 5		BG	SILTY SAND, fine to fine to medium grained. Light grey to tan to light brown.			
8		87%	11						
9	S-5	18" 24"	4 4		BG				
10		75%	7						

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: E. Kleinkauf

DRILLER: Jay Corron

BORING NO.: 41-GW12DW

SHEET 1 OF 3

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, E 41
 S.O. NO.: 212

BORING NO.: 41-GW120

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevatic
11	S-6	16" 24"			BG	Root material at 11.6' (bgs).	
12		66%					
13	S-7	22" 24"	2 4 7		BG	SILTY SAND, fine to fine to coarse grained. Light gray to light reddish brown, loose, wet.	
14		91%	9				
15	S-8	24" 24"	14 15		BG	SILTY SAND, fine to fine to medium grained w/ trace of shell and rock fragments. Light greenish gray, slightly loose, wet.	
16		100%	32				
17	S-9	20" 24"	21 23 26		BG	SILTY SAND, fine to fine to coarse grained w/ little shell and rock fragments. Light greenish gray, loose, wet.	
18		83%	29				
19							
20							
21							
22							
23							
24	S-10	24" 24"	7 10 19		BG	SILTY SAND, fine grained w/ trace CLAY. Light grayish green, loose, moist to wet.	
25		100%	25				
26							
27							
28							
29	S-11	23" 24"	7 8 20		BG	SILTY SAND, fine grained w/ trace CLAY. Light grayish green, loose, moist to wet.	
30		95%	40				

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Carron

BAKER REP.: E. Kleinkauf
 BORING NO.: 41-GW120W

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41-GW12DW

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
31							
32							
33		33.0					
34	S-12		8 13 25 42		BG	SILTY SAND, fine grained w/ trace CLAY. Light grayish green, loose, moist to wet.	
35		35.0					
36							
37							
38		38.0					
39	S-13	24" 24"	10 14 20 44		BG	SILTY SAND, fine grained w/ trace CLAY. Light grayish green, loose, moist to wet.	
40		40.0	100%				
1						End of Boring	
2						TD: 40.0'	
3						HNu background range .2 to .4 ppm.	
4						Mud rotary used from surface.	
5							
6							
7							
8							
9							
0							

DRILLING CO.: Hardin Huber, Inc

DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf

BORING NO.: 41-GW12DW

SHEET 3 OF :

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41GW-135

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATV #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>6 1/4" ID</u>		<u>2-8-94</u>	<u>0-18.0</u>	<u>cloudy, 40's</u>	<u>7.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140*</u>								
FALL	<u>30"</u>								
STICK UP	<u>2.5'</u>								

REMARKS: Continuous sampling to 18.0' (bgs). Type II monitoring well set 2-8-94

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	Sample #01 is collected	1.7 2.0	3 4		BG	<u>Rooted zone w/organics. Brown, damp SILTY SAND, fine grained. Brown, medium dense, damp. Orange staining</u>	
2		85%	8				
3	S-2	1.7 2.0	5 6		BG	<u>SAND, fine grained w/trace silt. Brown, medium dense, damp. Orange staining is occasional</u>	
4		85%	10				
5	Sample #03 is collected	1.8 2.0	4 12		BG	<u>SAND, medium grained. Brown, medium dense, moist. Orange staining</u>	
6		90%	11				
7	S-4	1.9 2.0	4 6		BG	<u>SAND, fine grained. Brown, medium dense, wet.</u>	
8		95%	5				
9	S-5	1.0 2.0	Woh 6" 4		BG	<u>SILTY SAND, fine grained. Light brown, medium dense, wet. Faint orange staining</u>	
10		50%	3				

Match to Sheet 2

DRILLING CO.: Hardin Huber Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: 41GW-135

SHEET 1 OF

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: 41GW-13S

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevat
11	S-6	1.7 / 2.0	4		BG	SILTY SAND, fine grained. Light brown, medium dense, wet. orange staining	
12		85%	4				
13		1.6 / 2.0	4				
14	S-7	80%	2		BG	SAND, fine grained w/ silt. Light brown, loose to medium dense, wet. orange staining	
15		1.2 / 2.0	3				
16	S-8	60%	4		BG	SAND, fine grained. Brown, medium dense, wet.	
17		1.5 / 2.0	6				
18	S-9	75%	7		BG	SAND, medium grained. Gray, medium dense, wet. orange staining top of sample only	
19							
20	End of Boring						
21	TD: 18.0'						
22	wall sat @: 17.0'						
23	HW background: .5 ppm						
24							
25							
26							
27							
28							
29							
30							

APPENDIX B.3
SITE 41 DOWNSLOPE

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: RI/ES OU # 4 CAMP LETEUNE, NC
 S.O. NO.: 62470-212 BORING NO.: 41-DS-SG01
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: <u>HAND AUGER</u>					DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SPLIT SPOON	CASING	AUGERS	CORE BARREL						
SIZE (DIAM.)					<u>2/1/94</u>	<u>0-1'</u>	<u>—</u>	<u>—</u>	<u>—</u>
LENGTH									
TYPE									
HAMMER WT.									
FALL									
STICK UP									

REMARKS:

<p>SAMPLE TYPE</p> <p>S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample</p>	<p>DEFINITIONS</p> <p>SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis</p>
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Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	HA 00	—	—	—	-0.2 BG	0.0-0.3' BLACK SILTY f SAND, MOIST, LOOSE, ORGANIC	
2					-2.7 PS		
3					-1.8 BG		
4					1.4 PS	0.3-0.9' LIGHT YELLOWISH BROWN, SILTY f SAND, LITTLE CLAY MOIST COHESIVE	
5				-1.2 BG			
6					-1.8 PS	0.9-1.0' LIGHT TAN/BEIGE SILTY f SAND, TRACE CLAY, MOIST, LOOSE	
7				-2.0 BG			
8				-2.5 PS			
9							
10							

Match to Sheet 2

DRILLING CO.: N/A
 DRILLER: N/A

BAKER REP.: E. KLEINKAUF / W. PELKEY
 BORING NO.: 41-DS-SG01 SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: RI/FS OU # 4 CAMP LEJEUNE, N
S.O. NO.: 62470-212 BORING NO.: 41-DS-SB 04
COORDINATES: EAST: _____ NORTH: _____
ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: <u>HAND AUGER</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)					<u>2/1/94</u>	<u>0-1'</u>	<u>—</u>	<u>—</u>	<u>—</u>
LENGTH									
TYPE									
HAMMER WT.									
FALL									
STICK UP									

REMARKS:

SAMPLE TYPE S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample	DEFINITIONS SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis
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Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	HA 00	—	—	—	0.3 26 0.3 PS	0.0 - 0.3' BROWN SILTY f SAND, MOIST, LOOSE, SLIGHTLY ORGANIC	
2						0.3 - 1.0' LIGHT BROWN SILTY f SAND	
3						MOIST, LOOSE	
4							
5							
6							
7							
8							
9							
10							

Match to Sheet 2

DRILLING CO.: N/A
DRILLER: N/A

BAKER REP.: E. KLEINKAUF / W. PELKEY
BORING NO.: 41-DS-SB 04 SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: RI/FS OU #4 CAMP LEJEUNE, NC
S.O. NO.: 62470-212 BORING NO.: 41-DS-SB05
COORDINATES: EAST: _____ NORTH: _____
ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: <u>HAND AUGER</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)					2/1/94	0-1'	—	—	—
LENGTH									
TYPE									
HAMMER WT.									
FALL									
STICK UP									

REMARKS:

SAMPLE TYPE

S = Split Spoon A = Auger
T = Shelby Tube W = Wash
R = Air Rotary C = Core
D = Denison P = Piston
N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
RQD = Rock Quality Designation (%)
Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	HA 00	—	—	—	0.2 BG	0.0-1.0' BROWN SILTY F SAND, MOIST, LOOSE, SLIGHTLY ORGANIC	
2					0.3 PS		
3					0.2 BG		
4					0.2 PS		
5							
6							
7							
8							
9							
10							

Match to Sheet 2

DRILLING CO.: N/A
DRILLER: N/A

BAKER REP.: E. KLEINKAUF / W. PELKEY
BORING NO.: 41-DS-SB05 SHEET 1 OF 1

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: RI/ES OU #4 CAMP LEJEUNE, N
 S.O. NO.: 62470-212 BORING NO.: 41-DS-SB 06
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: <u>HAND AUGER</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)					<u>2/1/94</u>	<u>0-1'</u>	<u>—</u>	<u>—</u>	<u>—</u>
LENGTH									
TYPE									
HAMMER WT.									
FALL									
STICK UP									

REMARKS:

<p align="center">SAMPLE TYPE</p> <p>S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample</p>	<p align="center">DEFINITIONS</p> <p>SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis</p>
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Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	HA 00	—	—	—	0.2 86 0.3 PS	0.0-0.8' BROWN SILTY F SAND MOIST, LOOSE, SLIGHTLY ORGANIC	
2						0.8-1.0' LIGHT BROWN SILTY F SAND, MOIST, LOOSE	
3							
4							
5							
6							
7							
8							
9							
10							

Match to Sheet 2

DRILLING CO.: N/A
 DRILLER: N/A

BAKER REP.: E. KLEINKAUF / W. PELKEY
 BORING NO.: 41-DS-SB 06 SHEET 1 OF 1



TEST BORING RECORD

PROJECT: RI/ES OU # 4 CAMP LEJEUNE, NC.
 S.O. NO.: 6247D-212 BORING NO.: 41-DS-SB 07
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: <u>HAND AUGER</u>					DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SPLIT SPOON	CASING	AUGERS	CORE BARREL						
SIZE (DIAM.)					<u>2/1/94</u>	<u>0-1'</u>	<u>—</u>	<u>—</u>	<u>—</u>
LENGTH									
TYPE									
HAMMER WT.									
FALL									
STICK UP									

REMARKS:

<p>SAMPLE TYPE</p> <p>S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample</p>	<p>DEFINITIONS</p> <p>SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis</p>
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Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	HA 00	—	—	—	0.3 BG	0.0 - 0.8' BROWN SILTY f SAND, TRACE CLAY, WET, COHESIVE, SLIGHTLY ORGANIC	
2					0.2 PS		
3					0.2 BG	0.8 - 1.0' LIGHT BROWN / LIGHT DRANGISH BROWN SILTY f SAND, MOIST / WET, COHESIVE.	
4				0.2 PS			
5							
6							
7							
8							
9							
10							

Match to Sheet 2

DRILLING CO.: N/A
 DRILLER: N/A

BAKER REP.: E. KLEINKAUF / W. PELKEY
 BORING NO.: 41-DS-SB 07 SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: RI/FS OU # 4 CAMP LEJEUNE, NC
 S.O. NO.: 62470-212 BORING NO.: 41-DS-SB 09
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: <u>HAND AUGER</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)					<u>2/1/94</u>	<u>0-1'</u>	<u>—</u>	<u>—</u>	<u>—</u>
LENGTH									
TYPE									
HAMMER WT.									
FALL									
STICK UP									

REMARKS:

SAMPLE TYPE						DEFINITIONS		
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')		
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)		
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)		
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis		
N = No Sample								
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation	
1	MA 00	—	—	—	0.2 Bg 0.2 PS	0.0-0.4' MEDIUM GREY SILTY f SAND, MOIST, LOOSE, SLIGHTLY ORGANIC		
2								
3						0.4-1.0' MEDIUM-LIGHT GREY SILTY f SAND, MOIST, LOOSE		
4								
5								
6								
7								
8								
9								
10								

Match to Sheet 2

DRILLING CO.: N/A
 DRILLER: N/A

BAKER REP.: E. KLEINKAUF / W. PELKEY
 BORING NO.: 41-DS-SB 09 SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: RI/FS OU #4 CAMP LEJEUNE, NC
 S.O. NO.: 62470-212 BORING NO.: 41-DS-SB 10
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: <u>HAND AUGER</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)					<u>2/1/94</u>	<u>0-1'</u>	<u>—</u>	<u>—</u>	<u>—</u>
LENGTH									
TYPE									
HAMMER WT.									
FALL									
STICK UP									

REMARKS:

<p>SAMPLE TYPE</p> <p>S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample</p>	<p>DEFINITIONS</p> <p>SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis</p>
--	--

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	HA 00	—	—	—	0.2 BG 0.2 PS	0.0-0.5' DARK BROWN / BLACK SILTY f SAND, MOIST, LOOSE, ORGANIC	
2							
3						0.5-1.0' MEDIUM GREY-SILTY f SAND, MOIST, LOOSE	
4							
5							
6							
7							
8							
9							
10							

Match to Sheet 2

DRILLING CO.: N/A
 DRILLER: N/A

BAKER REP.: E. KLEINKAUF / W. PELKEY
 BORING NO.: 41-DS-SB 10 SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: RI/FS OU # 4 Camp Lejeune, N

S.O. NO.: 62470-212

BORING NO.: 41-DS-SB 11

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>HAND AUGER</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)					<u>2/1/94</u>	<u>0-1'</u>	<u>—</u>	<u>—</u>	<u>—</u>
LENGTH									
TYPE									
HAMMER WT.									
FALL									
STICK UP									

REMARKS:

<p>SAMPLE TYPE</p> <p>S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample</p>	<p>DEFINITIONS</p> <p>SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis</p>
--	--

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	HA 00	—	—	—	-0.6 BG 0.6 PS	0.0-0.3' BROWN SILTY f SAND MOIST, LOOSE, ORGANIC	
2					0.1 BG 0.2 PS	0.3-0.7' LIGHT BROWN SILTY f SAND, TRACE CLAY, MOIST	
3					0.1 BG 0.1 PS	0.7-1.0' LIGHT BROWN / TAN SILTY f SAND, MOIST, LOOSE	
4							
5							
6							
7							
8							
9							
10							

Match to Sheet 2

DRILLING CO.: N/A
DRILLER: N/A

BAKER REP.: E. KLEINKAUF / W. PELKEY
BORING NO.: 41-DS-SB 11 SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: RI/FS OU # 4 CAMP LEJEUNE, NC
 S.O. NO.: 02470 - 212 BORING NO.: 41-DS-SB 12
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: <u>HAND AUGER</u>					DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SPLIT SPOON	CASING	AUGERS	CORE BARREL						
SIZE (DIAM.)					<u>2/1/94</u>	<u>0-1'</u>	<u>-</u>	<u>-</u>	<u>-</u>
LENGTH									
TYPE									
HAMMER WT.									
FALL									
STICK UP									

REMARKS:

SAMPLE TYPE
 S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS
 SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	HA 00	-	-	-	-0.3 BG	0.0-0.3' BROWN SILTY & SAND MOIST, LOOSE, ORGANIC	
2					-0.5 PS		
3					-0.3 BG	0.3-0.7' LIGHT BROWN SILTY & SAND, MOIST, LOOSE	
4					-0.4 PS		
5					-0.3 BG	0.7-1.0' LIGHT BROWN / TAN SILTY & SAND, MOIST, LOOSE	
6					-0.4 PS		
7							
8							
9							
10							

Match to Sheet 2

DRILLING CO.: N/A
 DRILLER: N/A

BAKER REP.: E. KLEINKAUF / W. PELKEY
 BORING NO.: 41-DS-SB 12 SHEET 1 OF 1

APPENDIX B.4
SITE 74 FORMER DISPOSAL AREA

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: FDA-SB01

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATV #19

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>1-19-94</u>	<u>0-11.0</u>	<u>clear, cold</u>	<u>10.5</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140 #</u>								
FALL	<u>30"</u>								
STICK UP	<u>—</u>								

REMARKS: Boring advanced to 11.0' (bgs). HNU background range is .2 to .3 ppm.

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	1.0	—	—		BG	<u>SILTY SAND, fine grained w/ root material. Dark brown, very loose, moist to damp.</u>	
2	S-1	<u>.5</u> <u>2.0</u>	2		13		
3	3.0	<u>25%</u>	1				
4		<u>1.0</u> <u>2.0</u>	2		2.7	<u>SAND, fine grained. Dark brown to tan, very loose to loose, damp. Faint orange staining 5' to 7' only.</u>	
5	5.0	<u>50%</u>	2				
6	S-3	<u>1.8</u> <u>2.0</u>	2		.7		
7	7.0	<u>90%</u>	2				
8		<u>2.0</u> <u>2.0</u>	5		1.7	<u>SAND, fine grained w/ organic (wood) material. Light brown to dark brown, medium dense, moist</u>	
9	9.0	<u>100%</u>	11				
10	S-5	<u>1.1</u> <u>2.0</u> <u>55%</u>	3 6		BG	<u>SAND, fine grained. Light brown, medium dense, Match to Sheet 2</u>	

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: FDA-SB01

SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: FDA-SB01

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon T = Shelby Tube R = Air Rotary D = Denison N = No Sample			A = Auger W = Wash C = Core P = Piston			SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevati
11.0	S-5	55%	8 11		BG	wet.	
11						End of Boring	
12						TD: 11.0'	
13						Boring is backfilled and grouted to surface.	
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc.
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: FDA-SB01

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: FDA-SB02

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATU #19

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>1-19-94</u>	<u>0-13.0</u>	<u>clear, cold</u>	<u>12.5</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140#</u>								
FALL	<u>30"</u>								
STICK UP	<u>-</u>								

REMARKS: Boring advanced to 13.0' (bgs). H₂O background is .3 ppm.

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	1.0	-	-		BG	<u>SILTY SAND, fine grained w/ root and plant material. Dark brown, very loose to loose, damp.</u>	
2	S-1	<u>1.8</u> <u>2.0</u>	<u>3</u> <u>4</u>		BG		
3	3.0	<u>90%</u>	<u>5</u>			<u>SAND, fine grained. Dark brown to brown to yellowish brown to white to light gray, loose to medium dense, damp. Very faint orange staining 3' to 7' only.</u>	
4	Sample #02 is collected	<u>1.5</u> <u>2.0</u>	<u>3</u> <u>6</u>		1.5		
5	5.0	<u>75%</u>	<u>8</u>				
6	S-3	<u>1.8</u> <u>2.0</u>	<u>6</u> <u>10</u>		BG		
7	7.0	<u>90%</u>	<u>15</u>				
8	S-4	<u>1.3</u> <u>2.0</u>	<u>5</u> <u>6</u>		10.5		
9	9.0	<u>65%</u>	<u>5</u>				
10	Sample #05 is collected	<u>1.8</u> <u>2.0</u>	<u>3</u> <u>5</u>		9.7		

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: FDA-SB02

SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: FDA-SB02

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon		A = Auger		SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')		RQD = Rock Quality Designation (%)	
T = Shelby Tube		W = Wash		Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)		Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
R = Air Rotary		C = Core					
D = Denison		P = Piston					
N = No Sample							
Depth (Pt.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevat
11	11.0 S-5	90%	8 9		9.7	SAND, fine grained. Brown to light gray, medium dense to loose, moist to wet. Yellow staining 11' to 13' only	
12	S-6	1.3 2.0	3 4 4		1.7		
13	13.0	65%	6				
14						End of Boring	
15						TD: 13.0'	
16						Boring is backfilled and grouted to surface	
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: FDA-SB02

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: FDA-SB03

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATU #19									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		4 1/4" ID		1-19-94	0-13.0	clear, cold	13.0	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140*								
FALL	30"								
STICK UP	—								

REMARKS: Boring advanced to 13.0' (bgs). H₂O background is .3 ppm.

SAMPLE TYPE						DEFINITIONS			
S	=	Split Spoon	A	=	Auger	SPT	=	Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T	=	Shelby Tube	W	=	Wash	RQD	=	Rock Quality Designation (%)	
R	=	Air Rotary	C	=	Core	Lab Class.	=	USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D	=	Denison	P	=	Piston	Lab Moist.	=	Moisture Content (ASTM D-2216) Dry Weight Basis	
N	=	No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description			Elevation
1	1.0	Sample #00 is collected	—	—	BG	SAND, fine grained w/ root material. Dark brown, very loose, damp			
2			1.6	2		SAND, fine grained w/ some silt. Brown to yellowish brown, loose, damp.			
3	3.0		2.0	2	BG				
			80%	3					
4			1.4	3		SAND, fine grained. Brown to yellowish brown to dark brown to light gray to orange brown, loose to medium dense, damp. Faint orange staining 3' to 5' only.			
5	5.0		2.0	4	BG				
			70%	4					
6			2.0	7		SAND, fine grained. Light brown, medium dense, damp. Orange staining is Match to Sheet 2			
7	7.0	Sample #03 is collected	2.0	8	BG				
			100%	14					
8			1.6	4					
9	9.0		2.0	8	BG				
			80%	14					
10			1.8	4					
			2.0	6	.9				
			90%	6					

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: FDA-SB03

SHEET 1 OF 1

TEST BORING RECORD

PROJECT: Sites 69, 74, E 41
 S.O. NO.: 212

BORING NO.: FDA-SB03

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	11.0 S-5	90%	8		.9	occasional 9' to 11' only.	
12	Sample #06 is collected	1.8 2.0	woh 6" 7"		BG	SAND, fine grained. Light gray, medium dense, moist to wet.	
13	13.0	90%	10 13			End of Boring	
14							
15						TD: 13.0'	
16						Boring is backfilled and grouted to surface.	
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: FDA-SB03 SHEET 2 OF 2

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, E 41

S.O. NO.: 212

BORING NO.: FDA-SB04

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATU #19									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		4 1/4" ID		1-20-94	0-13.0	cloudy, cold	12.0	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140*								
FALL	30"								
STICK UP	—								

REMARKS: Boring advanced to 13.0' (bgs). HWU background is .3 ppm

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	1.0	—	—		BG	SILTY SAND, fine grained w/ root and plant organics. Dark brown to yellowish brown, very loose, damp. SAND, fine grained. Dark brown to yellowish brown to tan to brown to light brown, medium dense, damp. Orange staining is evident from 2' to 4' (bgs) and 6' to 9' (bgs). SAND, fine grained. Brown, medium dense, damp to moist	
2	S-1	1.7 / 2.0	4		BG		
3	3.0	85%	8		BG		
4		1.8 / 2.0	5		BG		
5	5.0	90%	16		BG		
6		1.8 / 2.0	8		BG		
7	7.0	90%	11		BG		
8		1.2 / 2.0	9		BG		
9	9.0	60%	14		BG		
10		1.3 / 2.0	6		BG		

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: FDA-SB04

SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: FDA-SB04

SAMPLE TYPE						DEFINITIONS		Elevati
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description		
11	11.0	S-5	65%	9 12	BG	SAND, fine grained. Brown, medium dense, moist to wet.		
12		S-6	1.8 2.0	7 10	BG			
13	13.0		90%	11 15				
14						END OF BORING		
15						TD: 13.0 FEET		
16						BORING IS BACKFILLED AND GROUTED TO SURFACE.		
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Hardin Huber Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: FDA-SB04

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: FDA-SB05

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATV #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>1-20-94</u>	<u>0-13.0</u>	<u>cloudy, cold</u>	<u>12.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140#</u>								
FALL	<u>30"</u>								
STICK UP	<u>-</u>								

REMARKS: Boring advanced to 13.0' (bgs). Hbu background .4 ppm.

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	<u>1.0</u>	<u>-</u>	<u>-</u>		<u>1.7</u>	<u>SILTY SAND, fine grained w/ root material. Dark brown to brown, VERY LOOSE, damp</u>	
2	<u>S-1</u>	<u>1.7 / 2.0</u>	<u>2</u>		<u>BG</u>	<u>SAND, fine grained w/ trace clay. Dk. brown to yellowish brown, loose, damp.</u>	
3	<u>3.0</u>	<u>85%</u>	<u>3</u>			<u>SAND, fine grained. Brown to tan to yellowish brown, medium dense, damp. Orange staining is evident</u>	
4	<u>S-2</u>	<u>1.6 / 2.0</u>	<u>3</u>		<u>-</u>		
5	<u>5.0</u>	<u>80%</u>	<u>8</u>				
6		<u>2.0 / 2.0</u>	<u>4</u>		<u>-</u>	<u>SAND, fine grained w/ trace clay. Yellowish brown to light brown, medium dense, damp. Orange staining w/ associated streaking throughout.</u>	
7	<u>7.0</u>	<u>100%</u>	<u>11</u>		<u>-</u>		
8	<u>S-4</u>	<u>1.8 / 2.0</u>	<u>6</u>		<u>-</u>		
9	<u>9.0</u>	<u>90%</u>	<u>7</u>		<u>-</u>		
10		<u>1.7 / 2.0</u>	<u>4</u>		<u>-</u>	<u>SAND, fine grained. Yellowish brown to brown to light brown, medium</u>	<u>Match to Sheet 2-</u>
	<u>Sample #03 is collected</u>	<u>2.0 / 2.0</u>	<u>11</u>		<u>-</u>		
	<u>Sample #05 is collected</u>	<u>1.7 / 2.0</u>	<u>4</u>		<u>-</u>		

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: FDA-SB05

SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74 & 41

S.O. NO.: 212

BORING NO.: FDA-SB05

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	11.0 S-5	85%	10		-	dense, moist to wet. orange staining throughout w/ associated orange streaking at bottom.	
12	2.0 S-6	2.0	8		-		
13	13.0	100%	15		-		
14						End of Boring	
15						TD: 13.0'	
16						Boring is backfilled and grouted to surface	
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc

DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman

BORING NO.: FDA-SB05

SHEET 2 OF 2

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: FDA-SB06

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATV #19									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" IO		4 1/4" IO		1-20-94	0-13.0	cloudy, cold	12.9	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP	-								

REMARKS: Boring advanced to 13.0' (bgs). Hwu background is 0 ppm.

SAMPLE TYPE						DEFINITIONS		
S	=	Split Spoon	A	=	Auger	SPT	=	Standard Penetration Test (ASTM D-1586) (Blows/0.5')
T	=	Shelby Tube	W	=	Wash	RQD	=	Rock Quality Designation (%)
R	=	Air Rotary	C	=	Core	Lab Class.	=	USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
D	=	Denison	P	=	Piston	Lab Moist.	=	Moisture Content (ASTM D-2216) Dry Weight Basis
N	=	No Sample						
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation	
1	1.0	Sample #00 is collected	-	-	.6	SILTY SAND, fine grained w/ trace root material. Bark brown, very loose, damp.		
2			2.0	2				
3	3.0	S-1	2.0	3	2.1	SAND, fine grained. Brown, loose, damp.		
4			100%	4				
5	5.0	Sample #02 is collected	1.6	3	1.8	SAND, fine grained w/ trace clay. Dark brown to brown to light brown, medium dense, damp. Yellow streaking/staining at bottom.		
6			2.0	4				
7	7.0	S-3	1.6	3	2.1	SAND, fine grained. Light brown to yellowish brown to brown, medium dense to loose, damp. Yellow staining/streaking is present.		
8			2.0	8				
9	9.0	S-4	1.8	5	1.8	Match to Sheet 2-		
10		Sample #05 is collected	2.0	4	1.6			

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: FDA-SB06

SHEET 1 OF 2

TEST BORING RECORD

PROJECT: Sites 69, 74, E 41
 S.O. NO.: 212

BORING NO.: FDA-SB06

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevat
11	11.0 S-5	90%	8 10		1.6	SAND, fine grained. Brown, medium dense to loose, moist to wet. Yellow staining / streaking is present.	
12		1.8 2.0	2 2				
13	13.0 S-6	90%	6 8		1.2		
14						End of Boring	
15						TD: 13.0'	
16						Boring is backfilled and grouted to surface	
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: FDA-SB06

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, E 41

S.O. NO.: 212

BORING NO.: FDA-5B07

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATU #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>1-20-94</u>	<u>0-13.0</u>	<u>Cloudy, cold</u>	<u>12.9</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140*</u>								
FALL	<u>30"</u>								
STICK UP	<u>—</u>								

REMARKS: Boring advanced to 13.0' (bgs). MWu background is .2 ppm.

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denson P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	1-0	—	—		BG	SILTY SAND, fine grained. Brown, very loose, damp	
2	S-1	1.5 / 2.0	4		BG		
3	3-0	75%	5			SAND, fine grained. Brown to yellowish brown to gray to light brown, loose to medium dense, damp. Yellow staining present at bottom 9.0' (bgs)	
4	Sample #02 is collected	1.8 / 2.0	3		1.4		
5	5-0	90%	6				
6	S-3	1.6 / 2.0	4		1		
7	7-0	80%	5				
8	S-4	1.9 / 2.0	6		1.4		
9	9-0	95%	5				
10	Sample #05 is collected	1.6 / 2.0	5		20	SAND, fine grained w/ trace clay. Light brown, medium dense, damp	

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: FDA-5B07

SHEET 1 OF 2

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212 BORING NO.: FDA-SB07

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevat
11	11.0 S-5	80%	5 8		20		
12		1.6 2.0	3 4			SAND, fine grained. Light brown to brown, medium dense, moist to wet. Yellow staining w/ streaking is present.	
13	13.0 S-6	80%	6 10		-		End of Boring
14						TD: 13.0'	
15						Boring is backfilled and grouted to surface.	
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: FDA-SB07 SHEET 2 OF 2

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: FDA-SB08

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATV #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>1-20-94</u>	<u>0-15.0</u>	<u>cloudy, cold</u>	<u>14.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140*</u>								
FALL	<u>30"</u>								
STICK UP	<u>-</u>								

REMARKS: Boring advanced to 15.0' (bgs). Hwu background is .2 ppm.

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	1.0	-	-		BG	<p><u>SILTY SAND, fine grained w/ trace root material. Dark brown, very loose, damp.</u></p> <p><u>SAND, fine grained. Dark brown to yellowish brown to brown to light brown, medium dense, damp.</u></p> <p><u>Yellow and orange staining is present from 2.5' to 9' (bgs).</u></p> <p><u>SAND, fine grained. Light brown, medium dense, damp. Orange staining w/ Match to Sheet 2</u></p>	
2	S-1	1.5 / 2.0	4				
3	3.0	75%	8				
4	S-2	1.6 / 2.0	5		2.2		
5	5.0	80%	11				
6	Sample #03 is collected	1.8 / 2.0	9		1.8		
7	7.0	90%	13				
8	S-4	1.7 / 2.0	6		2.8		
9	9.0	85%	12				
10	S-5	1.6 / 2.0	8		1.6		

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: FDA-SB08

SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: FDA-SB08

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon		A = Auger		SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')		RQD = Rock Quality Designation (%)	
T = Shelby Tube		W = Wash		Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)		Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
R = Air Rotary		C = Core		Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis			
D = Denison		P = Piston					
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	S-5	80%	6		1.6	Orange streaking only from 9.0' to 15.0' (bgs).	
12	Sample #06 is covered	1.6 / 2.0	7		1.4		
13		80%	7				
14	S-7	1.5 / 2.0	7		-		
15		75%	7			End of Boring	
16							
17						TD: 15.0'	
18						Boring backfilled and grouted to surface	
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: FDA-SB08

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: FDA-SB09

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATV #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>1-21-94</u>	<u>0-11.0</u>	<u>clear, cold</u>	<u>10.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140#</u>								
FALL	<u>30"</u>								
STICK UP	<u>—</u>								

REMARKS: Boring advanced to 11.0' (bgs). H2O background is .3 ppm.

SAMPLE TYPE
 S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS
 SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	<u>1.0</u>	<u>—</u>	<u>—</u>		<u>.5</u>	<u>SILTY SAND, fine grained w/ root and plant material. Dark brown, very loose, damp.</u>	
2	<u>S-1</u>	<u>1.6 / 2.0</u>	<u>6</u>		<u>.5</u>		
3	<u>3.0</u>	<u>80%</u>	<u>W</u>			<u>SAND, fine grained. Dark brown to brown to light brown to light gray, loose to medium dense, damp to moist. Yellow and faint orange staining 4' to 9' (bgs) only.</u>	
4		<u>1.6 / 2.0</u>	<u>6</u>		<u>.8</u>		
5	<u>5.0</u>	<u>80%</u>	<u>8</u>				
6	<u>S-3</u>	<u>1.8 / 2.0</u>	<u>9</u>		<u>BG</u>		
7	<u>7.0</u>	<u>90%</u>	<u>12</u>				
8		<u>1.2 / 2.0</u>	<u>9</u>		<u>BG</u>		
9	<u>9.0</u>	<u>60%</u>	<u>12</u>				
10	<u>S-5</u>	<u>1.4 / 2.0</u>	<u>5</u>		<u>BG</u>	<u>SAND, fine grained. Light brown, medium dense, moist.</u>	

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: FDA-SB09

SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 4)
 S.O. NO.: 212

BORING NO.: FDA-SB09

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample						SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	11.0 S-5	70%	7 9		BG	to wet. Faint yellow staining w/ orange streaking 9.0' to 11.0' (695) only	
12						End of Boring	
13						TD: 11.0'	
14						Boring is backfilled and grouted to surface.	
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc.
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: FDA-SB09

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74 & 41

S.O. NO.: 212

BORING NO.: FDA-SB10

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG:									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		4 1/4" ID		1-21-94	0-17.0	clear, cold	16.0	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140*								
FALL	30"								
STICK UP	—								

REMARKS: Boring advanced to 17.0' (bgs). Hwu background is .4 ppm.

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1		—	—		BG	SILTY SAND, fine grained w/ root material. Dark brown, very loose, damp	
2	S-1	1.4 / 2.0	2		.5		
3		70%	5			SAND, fine grained. Brown to light brown, medium dense, damp. Yellow and orange staining w/ orange streaking	
4	S-2	1.7 / 2.0	6		BG		
5		85%	10				
6	S-3	1.4 / 2.0	10		BG	SAND, fine grained w/ trace clay	
7		70%	11				
8	S-4	1.6 / 2.0	7		BG		
9		80%	10				
10	S-5	1.5 / 2.0	7		.7	SAND, fine grained. Brown, medium dense, damp. Yellow staining w/ occasional orange streaking	Match to Sheet 2

DRILLING CO.: Hardin Nubes, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: FDA-SB10

SHEET 1 OF 2

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: FDA-SB10

SAMPLE TYPE						DEFINITIONS		
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')		
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)		
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)		
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis		
N = No Sample								
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevatic	
11.0	S-5	75%	12 15		.7	SAND, fine grained. Brown, medium dense, damp. Yellow staining w/ orange streaking		
12.0	S-6	1.6 2.0	12 12		BG			
13.0		80%	11 10				SAND, fine grained w/ trace clay	
14.0	Sample #07 is collected	1.7 2.0	9 10		BG	SAND, fine grained. Brown, medium dense, damp to moist to wet. Yellow staining w/ occasional orange staining / streaking		
15.0		85%	10					
16.0	S-8	2.0 2.0	12 8		BG	End of Boring		
17.0		100%	7 5					
18.0						TD: 17.0' Boring is backfilled and grouted to surface.		
19.0								
20.0								
21.0								
22.0								
23.0								
24.0								
25.0								
26.0								
27.0								
28.0								
29.0								
30.0								

DRILLING CO.: Hardin Huber, Inc

DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman

BORING NO.: FDA-SB10

SHEET 2 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: FDA-SR11

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATU #19									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" IO		4 1/4" IO		1-21-94	0-13.0	clear, cold	12.0	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP	—								

REMARKS: Boring advanced to 13.0' (bgs). Mn background is .3 ppm.

<p>SAMPLE TYPE</p> <p>S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample</p>	<p>DEFINITIONS</p> <p>SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis</p>
--	--

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	1.0	—	—		BG	SILTY SAND, fine grained w/ root and plant material. Dark brown, very loose, damp	
2	S-1	1.6 / 2.0	5 / 7		BG		
3	3.0	80%	12			SAND, fine grained. Brown to light brown, medium dense, damp to moist. Faint yellow staining / streaking is evident 3.0' to 9.0' (bgs) only.	
4		1.6 / 2.0	9 / 13		.9		
5	5.0	80%	8				
6		1.6 / 2.0	5 / 9		.8		
7	7.0	80%	8				
8		1.9 / 2.0	5 / 6		.7		
9	9.0	95%	7				
10		1.5 / 2.0	6 / 10				SAND, fine grained. Brown to light gray, medium Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: FDA-SR11

SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: FOA-SB11

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11.0	S-5	75%	10 12		BG	dense, damp to moist to wet. Yellow and orange staining / streaking are evident 9.0' to 13.0' (bgs) only.	
12.0	S-6	1.6 2.0	6 12				
13.0		80%	8 7		BG		
13.0						End of Boring	
14.0							
15.0						TD: 13.0'	
16.0						Boring is backfilled and grouted to surface.	
17.0							
18.0							
19.0							
20.0							
21.0							
22.0							
23.0							
24.0							
25.0							
26.0							
27.0							
28.0							
29.0							
30.0							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: FOA-SB11 SHEET 2 OF 2

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: FDA-SB12

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATV #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>1-21-94</u>	<u>0-15.0</u>	<u>clear, cold</u>	<u>14.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140#</u>								
FALL	<u>30"</u>								
STICK UP	<u>-</u>								

REMARKS: Boring advanced to 15.0' (bgs). Hwu background is .3 ppm.

SAMPLE TYPE						DEFINITIONS			
S	=	Split Spoon	A	=	Auger	SPT	=	Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T	=	Shelby Tube	W	=	Wash	RQD	=	Rock Quality Designation (%)	
R	=	Air Rotary	C	=	Core	Lab Class.	=	USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D	=	Denison	P	=	Piston	Lab Moist.	=	Moisture Content (ASTM D-2216) Dry Weight Basis	
N	=	No Sample							

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	<u>1.0</u>	<u>Sample #00 is collected</u>	<u>-</u>	<u>-</u>	<u>BG</u>	<u>SILTY SAND, fine grained w/ root and plant material. Yellowish brown, very loose, damp</u> <u>SAND, fine grained. Brown to light brown, loose to medium dense, damp. Yellow staining at 3.0' and 8.0' to 9.0' (bgs). Faint orange streaking at 9.0' (bgs).</u> <u>SAND, fine grained</u>	
2	<u>S-1</u>	<u>1.5 / 2.0</u>	<u>3</u>		<u>BG</u>		
3	<u>3.0</u>	<u>75%</u>	<u>4</u>				
4	<u>S-2</u>	<u>1.5 / 2.0</u>	<u>7</u>		<u>BG</u>		
5	<u>5.0</u>	<u>75%</u>	<u>9</u>				
6	<u>6.0</u>	<u>Sample #03 is collected</u>	<u>10</u>		<u>BG</u>		
7	<u>7.0</u>	<u>65%</u>	<u>11</u>				
8	<u>S-4</u>	<u>1.7 / 2.0</u>	<u>15</u>		<u>BG</u>		
9	<u>9.0</u>	<u>85%</u>	<u>16</u>				
10	<u>S-5</u>	<u>1.6 / 2.0</u>	<u>7</u>				
		<u>80%</u>	<u>9</u>				

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: FDA-SB12

SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: FDA-SB12

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample						SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	S-5	80%	9		BG	Brown to light brown, medium dense, damp to moist to wet. Yellow staining w/ orange staining / streaking is evident from 9.0' to 15.0' (bgs) only.	
12	Sample # 06 is collected	1.4 / 2.0	5 / 10		BG		
13		70%	7				
14	S-7	1.8 / 2.0	8 / 12		BG		
15		90%	9			End of Boring	
16						TD: 15.0'	
17						Boring is backfilled and grouted to surface.	
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: FDA-SB12

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: FDA-SB13

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATV #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>1-21-94</u>	<u>0-11.0</u>	<u>clear. cold</u>	<u>10.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140#</u>								
FALL	<u>30"</u>								
STICK UP	<u>-</u>								

REMARKS: Boring advanced to 11.0' (bgs). HMM background is .4 ppm.

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Sampl. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	<u>1.0</u> <small>Sample #00 is collected</small>	<u>-</u>	<u>-</u>		<u>BG</u>	<u>SILTY SAND, fine grained w/ root and plant material. Dark brown, very loose, damp.</u>	
2	<u>S-1</u>	<u>.7</u> <u>2.0</u>	<u>3</u> <u>2</u>		<u>BG</u>		
3	<u>3.0</u>	<u>35%</u>	<u>1</u>				
4	<u>4.0</u> <small>Sample #02 is collected</small>	<u>1.8</u> <u>2.0</u>	<u>5</u> <u>4</u>		<u>BG</u>	<u>SAND, fine grained. Dark brown to brown, loose to medium dense, damp. Yellow staining 4.0' to 5.0' (bgs) and yellow streaking 7.0' to 8.0' (bgs) only.</u>	
5	<u>5.0</u>	<u>90%</u>	<u>3</u> <u>3</u>				
6	<u>S-3</u>	<u>2.0</u> <u>2.0</u>	<u>4</u> <u>5</u>		<u>BG</u>		
7	<u>7.0</u>	<u>100%</u>	<u>8</u>				
8	<u>8.0</u> <small>Sample #04 is collected</small>	<u>1.6</u> <u>2.0</u>	<u>4</u> <u>7</u>		<u>BG</u>		
9	<u>9.0</u>	<u>80%</u>	<u>6</u>				
10	<u>S-5</u>	<u>1.5</u> <u>2.0</u> <u>75%</u>	<u>4</u> <u>7</u>		<u>BG</u>	<u>SAND, fine grained. Light brown to brown, medium</u> Match to Sheet 2	

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: FDA-SB13

SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74 E 41
 S.O. NO.: 212

BORING NO.: FDA-SB13

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	11.0 S-5	75%	10		BG	dense, damp to moist to wet. orange staining 11.0' (bgs) only.	
12						End of Boring	
13						TD: 11.0'	
14						Boring backfilled and grouted to surface.	
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: FDA-SB13 SHEET 2 OF 2

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: FDA-SB14

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATV #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>1-22-94</u>	<u>0-19.0</u>	<u>clear, cold</u>	<u>18.0</u>	
LENGTH	<u>2.0</u>		<u>5.0</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140*</u>								
FALL	<u>30"</u>								
STICK UP	<u>—</u>								

REMARKS: Boring advanced to 19.0' (bgs). H2O background is .3 ppm.

SAMPLE TYPE
 S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS
 SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Sample Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	1.0	—	—		1	<u>SILTY SAND, fine grained w/ root and plant material. Dark brown, very loose, damp.</u>	
2	S-1	<u>1.4</u> <u>2.0</u>	<u>2</u> <u>3</u>		BG		
3	3.0	<u>70%</u>	<u>4</u>			<u>SAND, fine grained. Dark brown to brown to light brown, loose to medium dense, damp to moist. Orange staining 5.0' to 6.0' (bgs) and at 9.0' (bgs) only.</u>	
4	S-2	<u>1.6</u> <u>2.0</u>	<u>7</u> <u>7</u>		BG		
5	5.0	<u>80%</u>	<u>8</u> <u>7</u>				
6	S-3	<u>1.5</u> <u>2.0</u>	<u>5</u> <u>8</u> <u>11</u>		.8		
7	7.0	<u>75%</u>	<u>15</u>				
8	S-4	<u>1.6</u> <u>2.0</u>	<u>6</u> <u>7</u> <u>10</u>		BG		
9	9.0	<u>80%</u>	<u>12</u>			<u>SAND, fine grained. Light brown, medium</u> Match to Sheet 2	
10	S-5	<u>1.6</u> <u>2.0</u> <u>80%</u>	<u>10</u> <u>15</u>		.9		

DRILLING CO.: Hasdin Huber Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: FDA-SB14

SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: FDA-SB14

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon		A = Auger		SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')		RQD = Rock Quality Designation (%)	
T = Shelby Tube		W = Wash		Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)		Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
R = Air Rotary		C = Core					
D = Denison		P = Piston					
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11.0	S-5	80%	16		.9	dense to dense, damp. orange staining at 11.0' (bgs) only.	
12.0	S-6	1.5 / 2.0 75%	7 / 10 11		BG	SAND, fine grained w/ trace clay. Light brown, medium dense to dense, damp. Orange and yellow staining / streaking are present.	
13.0			15				
14.0	S-7	1.6 / 2.0 80%	13 / 15 17		BG		
15.0			12				
16.0	sample #08 is collected	1.6 / 2.0 80%	5 / 6 9		BG	SAND, fine grained. Light brown, medium dense, damp to moist to wet. Orange and yellow staining / streaking are present.	
17.0							
18.0	S-9	1.6 / 2.0 80%	6 / 8 8		BG		
19.0						End of Boring	
20.0							
21.0						TD: 19.0'	
22.0						Boring is backfilled and grouted to surface.	
23.0							
24.0							
25.0							
26.0							
27.0							
28.0							
29.0							
30.0							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: FDA-SB14

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212
 COORDINATES: EAST: _____
 ELEVATION: SURFACE: _____

BORING NO.: FDA-SB15
 NORTH: _____
 TOP OF PVC CASING: _____

RIG: <u>ATV #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>1-22-94</u>	<u>0-17.0</u>	<u>clear, cold</u>	<u>16.5</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140*</u>								
FALL	<u>30"</u>								
STICK UP	<u>-</u>								

REMARKS: Boring advanced to 17.0' (bgs). Hwu background is .3 ppm.

SAMPLE TYPE						DEFINITIONS			
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')			
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)			
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)			
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis			
N = No Sample									
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description			Elevation
1	<u>1.0</u>	<u>Sample #00 is collected</u>	<u>-</u>	<u>-</u>	<u>BG</u>	<u>SAND, fine grained w/ some silt. Root and plant material present. Dark brown to brown, very loose, damp.</u> <u>SAND, fine grained. Brown to light brown, medium dense, damp. orange streaking/staining is present from 3.0' to 9.0' (bgs).</u> <u>SAND, fine grained. Light brown, medium dense, Match to Sheet 2</u>			
2		<u>1.5</u>	<u>7</u>						
3	<u>S-1</u>	<u>2.0</u>	<u>7</u>		<u>BG</u>				
4		<u>75%</u>	<u>9</u>						
5		<u>1.4</u>	<u>7</u>						
6	<u>S-2</u>	<u>2.0</u>	<u>8</u>		<u>BG</u>				
7		<u>70%</u>	<u>10</u>						
8		<u>1.7</u>	<u>6</u>						
9		<u>2.0</u>	<u>10</u>		<u>BG</u>				
10		<u>85%</u>	<u>10</u>						
11		<u>11.8</u>	<u>6</u>						
12	<u>S-4</u>	<u>2.0</u>	<u>8</u>		<u>BG</u>				
13		<u>90%</u>	<u>8</u>						
14		<u>1.6</u>	<u>4</u>						
15	<u>S-5</u>	<u>2.0</u>	<u>7</u>		<u>BG</u>				
16		<u>80%</u>							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: FDA-SB15 SHEET 1 OF 2

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: FDA-SBIS

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11.0	S-5	80%	8 11		BG	damp. orange staining / streaking is persistent from 9.0' to 14.0' (bgs).	
12.0	S-6	1.8 2.0 90%	6 9 11		BG		
13.0							
14.0	Sample # 07 is collected	1.8 2.0 90%	8 9 14		BG		
15.0						CLAY, stiff, damp	
16.0	S-8	1.8 2.0 90%	5 9 4		BG	SAND, fine grained. Light brown, medium dense, moist to wet. Orange staining 15.0' to 16.0' (bgs) only. Yellow staining 16.0' to 17.0' (bgs) only.	
17.0						End of Boring	
18.0							
19.0						TD: 17.0'	
20.0						Boring backfilled and grouted to surface.	
21.0							
22.0							
23.0							
24.0							
25.0							
26.0							
27.0							
28.0							
29.0							
30.0							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: FDA-SBIS



TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212 BORING NO.: FDA-SB16
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: <u>ATV #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>1-22-94</u>	<u>0-15.0</u>	<u>clear, cold</u>	<u>14.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140 #</u>								
FALL	<u>30"</u>								
STICK UP	<u>—</u>								

REMARKS: Boring advanced to 15.0' (bgs). HNU background is .3 ppm.

SAMPLE TYPE S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample	DEFINITIONS SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis
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Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	<u>1.0</u>	<u>—</u>	<u>—</u>		<u>BG</u>	<u>SILTY SAND, fine grained. Root and plant material are occasional. Yellowish brown, very loose, damp.</u> <u>SAND, fine grained. Yellowish brown to brown to light brown, loose to medium dense, damp. Orange streaking w/ yellow staining from 3.0' (bgs).</u>	
2	<u>S-1</u>	<u>1.8</u>	<u>3</u>		<u>BG</u>		
3	<u>3.0</u>	<u>90%</u>	<u>5</u>				
4	<u>S-2</u>	<u>2.0</u>	<u>12</u>		<u>BG</u>		
5	<u>5.0</u>	<u>75%</u>	<u>12</u>				
6	<u>Sample #03 is collected</u>	<u>1.6</u>	<u>10</u>		<u>BG</u>		
7	<u>7.0</u>	<u>80%</u>	<u>16</u>				
8	<u>S-4</u>	<u>1.9</u>	<u>7</u>		<u>BG</u>		
9	<u>9.0</u>	<u>95%</u>	<u>10</u>				
10	<u>S-5</u>	<u>1.7</u>	<u>7</u>		<u>BG</u>		

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc BAKER REP.: J. Zimmerman
 DRILLER: Pat Callahan BORING NO.: FDA-SB16 SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: FDA-SB16

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon		A = Auger		SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')		RQD = Rock Quality Designation (%)	
T = Shelby Tube		W = Wash		Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)		Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
R = Air Rotary		C = Core		N = No Sample			
D = Denison		P = Piston					
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11.0	S-5	85%	7		BG	SAND, fine grained. Light brown, medium dense, damp to moist to wet. Yellow staining is persistent. Orange streaking ends at 13.0' (bgs).	
12.0	Sample #06 is collected	1.6 2.0	6 7		BG		
13.0		80%	6				
14.0	S-7	1.8 2.0	6 7		BG		
15.0		90%	10			End of Boring	
16.0						TD: 15.0'	
17.0						Boring backfilled and grouted to surface	
18.0							
19.0							
20.0							
21.0							
22.0							
23.0							
24.0							
25.0							
26.0							
27.0							
28.0							
29.0							
30.0							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: FDA-SB16

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, E 41

S.O. NO.: 212

BORING NO.: FDA-SB17

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATU #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>1-22-94</u>	<u>0-11.0</u>	<u>clear, cold</u>	<u>8.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140#</u>								
FALL	<u>30"</u>								
STICK UP	<u>—</u>								

REMARKS: Boring advanced to 11.0' (bgs). HWu background is .3 ppm.

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Pt.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	<u>Sample # 00 is collected</u>	<u>—</u>	<u>—</u>		<u>BG</u>	<u>SILTY SAND, fine grained w/ root material. Dark brown, very loose, damp.</u>	
2	<u>Sample # 01 is collected</u>	<u>1.6 / 2.0</u>	<u>2 / 3</u>		<u>BG</u>	<u>SAND, fine grained. Dark brown to brown, loose, damp.</u>	
3	<u>Sample # 02 is collected</u>	<u>80%</u>	<u>4</u>			<u>PEAT material w/ roots. Dark brown</u>	
4	<u>S-2</u>	<u>1.6 / 2.0</u>	<u>3 / 4</u>		<u>BG</u>	<u>SAND, fine grained. Dark brown to brown, loose to medium dense, damp. Yellow staining from 5.0' (bgs).</u>	
5	<u>Sample # 03 is collected</u>	<u>80%</u>	<u>5</u>		<u>BG</u>		
6	<u>Sample # 03 is collected</u>	<u>1.6 / 2.0</u>	<u>7 / 8</u>		<u>BG</u>	<u>WOOD material</u>	
7	<u>Sample # 03 is collected</u>	<u>80%</u>	<u>9</u>				
8	<u>S-4</u>	<u>1.2 / 2.0</u>	<u>12 / 7</u>		<u>BG</u>	<u>SAND, fine grained. Light brown to brown, medium dense, moist to wet.</u>	
9	<u>Sample # 03 is collected</u>	<u>60%</u>	<u>8</u>				
10	<u>S-5</u>	<u>1.1 / 2.0</u>	<u>10 / 11</u>		<u>BG</u>	<u>Match to Sheet 2</u>	

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: FDA-SB17

SHEET 1 OF 2

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: FDA-SB17

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample						SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	11.0 S-5	55%	11 7		BG	Yellow staining is persistent to 11.0' (bgs).	
12						End of Boring	
13						TD: 11.0'	
14						Boring backfilled and grouted to surface.	
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: FDA-SB17

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212 BORING NO.: FDA-SB18
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: ATU #19					DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
	SPLIT SPOON	CASING	AUGERS	CORE BARREL					
SIZE (DIAM.)	1 3/8" ID		4 1/4" ID		1-22-94	0-11.0	clear, cold	10.0	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 #								
FALL	30"								
STICK UP	—								

REMARKS: Boring advanced to 11.0' (bgs). HNu background is .3 ppm

SAMPLE TYPE S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample	DEFINITIONS SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis
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Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	1.0	—	—		BG	SILTY SAND, fine grained w/ root material. Dark brown, very loose, damp. SAND, fine grained. Brown to light brown, loose to dense, damp. Yellow staining from 1.0' to 5.0' (bgs) only. SAND, fine grained. Light brown, medium	
2	S-1	1.6 2.0	3 4		BG		
3	3.0	80%	5				
4		1.6 2.0	8 16		—		
5	5.0	80%	15				
6	S-3	1.4 2.0	10 17		—		
7	7.0	70%	16				
8		1.5 2.0	7 12		—		
9	9.0	75%	18				
10	S-5	1.3 2.0 65%	7 7		—		

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc BAKER REP.: J. Zimmerman
 DRILLER: Pat Callahan BORING NO.: FDA-SB18 SHEET 1 OF 2

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: FDA-SB18

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevatic
11	11.0 S-5	65%	8 11		-	dense, moist to wet.	
12						End of Boring	
13						TD: 11.0'	
14						Boring backfilled and grouted to surface	
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: FDA-SB18

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: FDA-SB19

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATV #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>1-22-94</u>	<u>0-13.0</u>	<u>clear, cold</u>	<u>12.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140*</u>								
FALL	<u>30"</u>								
STICK UP	<u>—</u>								

REMARKS: Boring advanced to 13.0' (bgs). Hwu background is .4 ppm.

SAMPLE TYPE						DEFINITIONS		
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')		
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)		
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)		
D = Denson	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis		
N = No Sample								
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation	
1	<u>1.0</u> <small>Sample #00 collected</small>	<u>—</u>	<u>—</u>		<u>BG</u>	<u>SAWD, fine grained w/some silt. Brown, very loose, damp.</u> <u>SAWD, fine grained. Brown to light brown, medium dense, damp to moist. Yellow and orange staining is occasional w/occasional orange streaking from 1.0' to 9.0' (bgs).</u>		
2	<u>S-1</u>	<u>1.4</u> <u>2.0</u>	<u>6</u>		<u>BG</u>			
3	<u>3.0</u>	<u>70%</u>	<u>12</u>		<u>BG</u>			
4	<u>4.0</u> <small>Sample #02 collected</small>	<u>1.6</u> <u>2.0</u>	<u>8</u>		<u>BG</u>			
5	<u>5.0</u>	<u>80%</u>	<u>10</u>		<u>BG</u>			
6	<u>S-3</u>	<u>1.6</u> <u>2.0</u>	<u>6</u>		<u>BG</u>			
7	<u>7.0</u>	<u>80%</u>	<u>11</u>		<u>BG</u>			
8	<u>S-4</u>	<u>1.6</u> <u>2.0</u>	<u>11</u>		<u>BG</u>			
9	<u>9.0</u>	<u>80%</u>	<u>17</u>		<u>BG</u>			
10	<u>10.0</u> <small>Sample #05 collected</small>	<u>1.4</u> <u>2.0</u>	<u>8</u>		<u>BG</u>			

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: FDA-SB19

SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: FDA-SB19

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	11.0 S-5	70%	12 16		BG	SAND, fine grained. Brown, medium dense, moist to wet. Orange staining w/ streaking 9.0' to 13.0' (bgs) only.	
12		1.7 2.0	7 10		BG		
13	13.0 S-6	85%	11 8				
14						End of Boring	
15						TD: 13.0'	
16						Boring is backfilled and grouted to surface.	
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: FDA-SB19

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212 BORING NO.: FDA-SB20
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: ATU #19					DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
	SPLIT SPOON	CASING	AUGERS	CORE BARREL					
SIZE (DIAM.)	1 3/8" ID		4 1/4" ID		1-22-94	0-19.0	clear, cold	18.0	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 #								
FALL	30"								
STICK UP	—								

REMARKS: Boring advanced to 19.0' (bgs). Hwu background is .4 ppm.

SAMPLE TYPE						DEFINITIONS			
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')			
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)			
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)			
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis			
N = No Sample									
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description			Elevation
1	1.0	—	—		BG	SAND, fine grained w/ little silt. Brown, very loose, damp.			
2	S-1	1.9 2.0	6 7		BG				
3	3.0	95%	8						
4	S-2	1.8 2.0	13 13		1	SAND, fine grained. Brown to light brown, medium dense, damp to moist. orange staining from 10' to 8.0' (bgs) only.			
5	5.0	90%	11						
6	S-3	1.9 2.0	7 10		1				
7	7.0	95%	15						
8	Sample #04 is collected	1.5 2.0	24 17		1				
9	9.0	75%	18 19						
10	S-5	1.9 2.0	15 15		BG				

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc BAKER REP.: J. Zimmerman
 DRILLER: Pat Callahan BORING NO.: FDA-SB20 SHEET 1 OF 1



TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212 BORING NO.: FDA-SB2C

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	11.0 S-5	95%	12 14		BG	SAND, fine grained. Light brown, medium dense, damp to moist to wet.	
12		1.8 2.0	8 8		BG		
13	13.0 S-6	90%	11 15		BG		
14		1.8 2.0	15 15		BG		
15	15.0 S-7	90%	19 19		BG		
16		1.4 2.0	3 3		BG		
17	17.0 Sample #08 is covered	70%	15		BG		
18		1.5 2.0	15 15		BG		
19	19.0 S-9	75%	12 10		BG		
20						End of Boring	
21						TD: 19.0'	
22						Boring backfilled and grouted to surface.	
23							
24							
25							
26							
27							
28							
29							
30							



TEST BORING RECORD

PROJECT: Sites 69, 7A, & 41
 S.O. NO.: 212 BORING NO.: FDA-SB21
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: ATU # 19									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		4 1/4" ID		1-23-94	0-9.0'	Clear, Cold	8.0	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP	-								

REMARKS: Boring advanced to 9.0' (bgs). MW background is .4 ppm.

<p>SAMPLE TYPE</p> <p>S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample</p>	<p>DEFINITIONS</p> <p>SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis</p>
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Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	1.0 Sample #00 is collected	-	-		BG	SILTY SAND, fine grained w/ root and plant material. Dark brown to brown, very loose, damp.	
2	2.0 Sample #01 is collected	1.6 / 2.0	3 / 3		BG	SAND, fine grained. Brown, loose damp. Yellow staining at 2.5' (bgs) organic material (wood)	
3	3.0 Sample #02 is collected	80%	6		BG		
4	4.0 S-2	1.7 / 2.0	7 / 7		BG		
5	5.0 Sample #03 is collected	85%	11		BG	SAND, fine grained. Brown to light brown to white, medium dense, dry to moist to wet. Orange staining w/ streaking is occasional from 3.0' to 9.0' (bgs) only.	
6	6.0 Sample #03 is collected	1.4 / 2.0	5 / 7		BG		
7	7.0 Sample #03 is collected	70%	11		BG		
8	8.0 S-4	1.5 / 2.0	7 / 7		BG		
9	9.0 S-4	75%	5 / 6		BG		
10						End of Boring TD: 9.0' Boring is backfilled and grouted to surface. Match to Sheet 2	

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: FDA-SB22

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATV # 19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>1-23-94</u>	<u>0-9.0</u>	<u>clear, cold</u>	<u>8.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140 #</u>								
FALL	<u>30"</u>								
STICK UP	<u>—</u>								

REMARKS: Boring advanced to 9.0' (bgs). Hwu background is .6 ppm.

SAMPLE TYPE						DEFINITIONS			
S	= Split Spoon	A	= Auger	SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')					
T	= Shelby Tube	W	= Wash	RQD = Rock Quality Designation (%)					
R	= Air Rotary	C	= Core	Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)					
D	= Denison	P	= Piston	Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis					
N = No Sample									
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation		
1	Sample #00 is collected	-	-		1.6	<p>SAND, fine grained w/ silt. Root material is occasional. Dark brown to brown, very loose, damp to moist</p> <p>SAND, fine grained. Brown to light brown, loose to medium dense, damp to moist to wet. Yellow staining is evident from 1.0' to 4.0' (bgs) and from 7.0' to 8.0' (bgs). Orange streaking is occasional</p> <p>End of Boring</p> <p>TD: 9.0' Boring backfilled and grouted to surface. Match to Sheet 2</p>			
2	Sample #01 is collected	1.6 2.0	5 5		BG				
3	Sample #02 is collected	80%	5		BG				
4	S-2	1.6 2.0	5 8		BG				
5		80%	12						
6	Sample #03 is collected	1.6 2.0	8 10		BG				
7		80%	14						
8	S-4	1.4 2.0	8 8		BG				
9		70%	8						
10									

DRILLING CO.: Hardin Huber, Inc
DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
BORING NO.: FDA-SB22

SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: FDA-SB23

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATU #19									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		4 1/4" ID		1-23-94	0-9.0	clear, cold	8.0	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP	-								

REMARKS: Boring advanced to 9.0' (bgs). Hwu background is .3 ppm

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	1/0 Sample #00 is collected	-	-		BG	SILTY SAND, fine grained. Dark brown, very loose, damp. SAND, fine grained. Brown to light brown, medium dense, damp to moist to wet. Orange staining from 1.0' to 2.0' (bgs). Yellow staining from 5.0' to 9.0' (bgs). Orange streaking is occasional from 1.0' (bgs). End of Boring	
2	#01 is collected	1.3 / 2.0	4		BG		
3	3.0	65%	9		BG		
4	S-2	1.5 / 2.0	7		BG		
5	5.0	75%	14		BG		
6	Sample #03 is collected	1.5 / 2.0	4		BG		
7	7.0	75%	10		BG		
8	S-4	1.4 / 2.0	7		BG		
9	9.0	70%	6		BG		
10						TD: 9.0' Boring is backfilled and grouted to surface Match to Sheet 2	

DRILLING CO.: Hardin Huber Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: FDA-SB23

SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: FDA-SB24

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATV #19

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>1-24-94</u>	<u>0-11.0</u>	<u>clear, cold</u>	<u>10.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140#</u>								
FALL	<u>30"</u>								
STICK UP	<u>—</u>								

REMARKS: Boring advanced to 11.0' (bgs). Hwu background is .5 ppm.

SAMPLE TYPE
 S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS
 SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Pt.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	1.0 <small>Sample #00 is collected</small>	—	—		BG	<u>SILTY SAND, fine grained. Brown, very loose, moist</u> <u>SAND, fine grained. Brown to light brown, medium dense, damp. Yellow staining from 1.0' to 4.0' (bgs) only. Yellow staining w/ orange streaking 7.0' to 9.0' (bgs) only.</u> <u>SAND, fine grained. Light brown, medium</u>	
2	5-1	1.4 / 2.0	8		BG		
3	3.0	70%	10				
4	<small>Sample #02 is collected</small>	1.5 / 2.0	6		.8		
5	5.0	75%	10				
6	5-3	1.7 / 2.0	8		BG		
7	7.0	85%	8				
8	<small>Sample #04 is collected</small>	1.7 / 2.0	6		BG		
9	9.0	85%	7				
10	5-5	1.5 / 2.0 75%	5 6		BG		

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: FDA-SB24

SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, E 41
 S.O. NO.: 212

BORING NO.: FDA-SB24

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample						SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevati
11	11.0 S-5	75%	7 5		BG	dense, moist to wet. orange streaking/staining are present End of Boring	
12						TD: 11.0'	
13						Boring backfilled and grouted	
14						to surface	
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: FDA-SB24

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: FDA-SB25

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATU #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>1-24-94</u>	<u>0-9.0</u>	<u>clear, cold</u>	<u>8.0</u>	
LENGTH	<u>2.0</u>		<u>5.0</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140#</u>								
FALL	<u>30"</u>								
STICK UP	<u>—</u>								

REMARKS: Boring advanced to 9.0' (bgs). Mn background is .4 ppm.

SAMPLE TYPE						DEFINITIONS			
S	= Split Spoon	A	= Auger			SPT	= Standard Penetration Test (ASTM D-1586) (Blows/0.5')		
T	= Shelby Tube	W	= Wash			RQD	= Rock Quality Designation (%)		
R	= Air Rotary	C	= Core			Lab Class.	= USCS (ASTM D-2487) or AASHTO (ASTM D-3282)		
D	= Denison	P	= Piston			Lab Moist.	= Moisture Content (ASTM D-2216) Dry Weight Basis		
N	= No Sample								
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description			Elevation
1	<u>1.0</u>	<u>Sample #01 is collected</u>	<u>—</u>	<u>—</u>	<u>BG</u>	<u>SILTY SAND, fine grained w/ root and plant material. Dark brown, very loose, damp.</u>			
2	<u>S-1</u>	<u>1.8</u> <u>2.0</u>	<u>4</u> <u>3</u>		<u>BG</u>				
3	<u>3.0</u>	<u>90%</u>	<u>3</u>			<u>SAND, fine grained. Dark brown to brown to light brown, loose to medium dense, damp to moist to wet. Yellow streaking is occasional 1.0' to 3.0' (bgs) and 9.0' (bgs) only. Yellow staining w/ orange streaking 6.0' to 7.0' (bgs) only.</u>			
4		<u>Sample #02 is collected</u>	<u>1.5</u> <u>2.0</u>	<u>4</u> <u>4</u>	<u>2.5</u>				
5	<u>5.0</u>	<u>75%</u>	<u>4</u> <u>6</u>						
6		<u>Sample #03 is collected</u>	<u>1.6</u> <u>2.0</u>	<u>6</u> <u>8</u>	<u>6.2</u>				
7	<u>7.0</u>	<u>80%</u>	<u>10</u>						
8		<u>Sample #04 is collected</u>	<u>1.7</u> <u>2.0</u>	<u>7</u> <u>8</u>	<u>16</u>				
9	<u>9.0</u>	<u>85%</u>	<u>5</u>						
10						<u>End of Boring</u>			
						<u>Boring is backfilled and grouted to surface</u>			
						<u>Match to Sheet 2</u>			

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: FDA-SB25

SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: FDA-SB26

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATU #19

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		4 1/4" ID		1-24-94	0-9.0'	clear, cold	8.0	
LENGTH	2.0		5.0						
TYPE	STD		HSA						
HAMMER WT.	140*								
FALL	30"								
STICK UP	—								

REMARKS: Boring advanced to 9.0' (bgs). Hwu background is .4 ppm

SAMPLE TYPE
 S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS
 SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	1.0	—	—		.8	<p>SILTY SAND, fine grained w/ little root material. Dark brown, very loose, damp.</p> <p>SAND, fine grained. Brown to light brown, medium dense, damp to moist to wet. Yellow staining/streaking from 5.0' to 9.0' (bgs). Orange streaking from 7.0' (bgs) only</p> <p>End of Boring</p> <p>TD: 9.0' Boring is backfilled and grouted to surface. Match to Sheet 2</p>	
2	S-1	.8 / 2.0	6		BG		
3	3.0	40%	9		BG		
4	Sample # 02 is collected	1.5 / 2.0	12		BG		
5	5.0	75%	15		BG		
6	Sample # 03 is collected	1.5 / 2.0	17		BG		
7	7.0	75%	21		BG		
8		1.6 / 2.0	16		BG		
9	S-4	80%	13		BG		
10	9.0	6	8		BG		

DRILLING CO.: Hardin Huber, Inc
DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
BORING NO.: FDA-SB26

SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: FDA-SR27

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATV # 19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>1-24-94</u>	<u>0-7.0</u>	<u>clear, cold</u>	<u>6.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140*</u>								
FALL	<u>30"</u>								
STICK UP	<u>-</u>								

REMARKS: Boring advanced to 7.0' (bgs). H2O background is .5 ppm.

SAMPLE TYPE						DEFINITIONS			
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')			
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)			
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)			
D = Denson	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis			
N = No Sample									
Depth (FL)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description			Elevation
1	<u>1.0</u> Sample #00 is collected	-	-		BG	<u>SILTY SAND, fine grained. Brown, very loose, moist</u>			
2	<u>2.0</u> Sample #01 is collected	<u>1.6</u> <u>2.0</u>	<u>5</u> <u>10</u>		BG	<u>SAND, fine grained. Brown to light brown, medium dense, damp to moist to wet. Orange staining / streaking 1.0' to 3.0' (bgs). Yellow and orange staining w/ orange streaking 3.0' to 7.0' (bgs) only.</u>			
3	<u>3.0</u> Sample #02 is collected	<u>80%</u> <u>2.0</u>	<u>10</u> <u>15</u>		BG				
4	<u>4.0</u> Sample #02 is collected	<u>1.4</u> <u>2.0</u>	<u>5</u> <u>6</u>		BG				
5	<u>5.0</u> Sample #02 is collected	<u>70%</u> <u>2.0</u>	<u>6</u> <u>12</u>		BG				
6	<u>6.0</u> S-3	<u>1.6</u> <u>2.0</u>	<u>5</u> <u>12</u>		BG				
7	<u>7.0</u>	<u>80%</u> <u>1.5</u>	<u>15</u>			<u>End of Boring</u>			
8						<u>TD: 7.0'</u>			
9						<u>Boring is backfilled and grouted to surface</u>			
10						<u>Match to Sheet 2</u>			

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: FDA-SR27

SHEET 1 OF 2

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: FDA-SB28

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATV #19 / Hand Augering</u>					DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>	CASING	<u>4 1/4" ID</u>	CORE BARREL	<u>1-24-94</u>	<u>0-5.0</u>	<u>clear, cold</u>		
LENGTH	<u>2.0'</u>		<u>5.0'</u>		<u>1-25-94</u>	<u>5.0-9.0</u>	<u>clear, cool</u>	<u>8.5</u>	
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140 #</u>								
FALL	<u>30"</u>								
STICK UP	<u>-</u>								

REMARKS: Boring advanced to 9.0'(bgs). Hand augering from 5.0'(bgs). (Knu background -6 ppi)

SAMPLE TYPE S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample	DEFINITIONS SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis
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Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	<u>1.0</u>	<u>Sample #00 is collected</u>	-	-	<u>BG</u>	<u>SILTY SAND, fine grained w/ root material and coarse gravel. Brown, very loose, damp.</u>	
2		<u>1.4</u>	<u>14</u>			<u>SAND, fine grained. Brown to light brown, medium dense, damp. Yellowish orange staining w/ orange streaking 1.0' to 5.0' (bgs) only.</u>	
3	<u>3.0</u>	<u>S-1</u>	<u>2.0</u>	<u>10</u>	<u>BG</u>		
4		<u>70%</u>	<u>11</u>				
5	<u>5.0</u>	<u>Sample #02 is collected</u>	<u>1.6</u>	<u>10</u>	<u>BG</u>		
6		<u>2.0</u>	<u>11</u>			<u>SAND, fine grained. Light brown, very loose, damp to moist to wet. Orange staining w/ streaking 7.0' to 9.0' (bgs) only.</u>	
7	<u>7.0</u>	<u>Sample #03 is collected</u>	-	-	<u>BG</u>		
8		<u>80%</u>	<u>9</u>				
9	<u>9.0</u>	<u>S-4</u>	-	-	<u>BG</u>		
10						<u>End of Boring</u>	
						<u>TD: 9.0' Boring is backfilled and grouted to surface</u>	
						<u>Match to Sheet 2</u>	

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: FDA-SB28

SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: FDA-SB29

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>Hand Augering</u>					DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
	SPLIT SPOON	CASING	AUGERS	CORE BARREL					
SIZE (DIAM.)					1-25-94	0-5.0	clear, cool	5.0	
LENGTH									
TYPE									
HAMMER WT.									
FALL									
STICK UP									

REMARKS: Boring advanced to 5.0' (bgs) with hand auger. Know background is .7 ppm

<p>SAMPLE TYPE</p> <p>S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample</p>	<p>DEFINITIONS</p> <p>SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis</p>
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Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	1.0 Sample # 00 is collected	-	-		BG	SILTY SAND, fine grained w/ root material. Brown, very loose, damp.	
2	2.0 Sample # 01 is collected	-	-		BG	SAND, fine grained w/ some silt. Brown, very loose, damp. Orange staining throughout.	
3	3.0 Sample # 02 is collected	-	-		BG	SAND, fine grained. Brown, very loose, damp to moist to wet. Orange staining is present.	
4							
5	5.0					End of Boring	
6							
7							
8							
9							
10							

TD: 5.0'

Boring is backfilled and grouted to surface.

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: FDA-SB29

SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: FDA-SB30

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>Hand Augering</u>					DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	SPLIT SPOON	CASING	AUGERS	CORE BARREL	<u>1-25-94</u>	<u>0-5.0</u>	<u>clear, cool</u>	<u>5.0</u>	
LENGTH									
TYPE									
HAMMER WT.									
FALL									
STICK UP									

REMARKS: Boring advanced to 5.0'(bgs) with hand auger. HNU background is .9 ppm

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	<u>1.5</u> Sample #00 collected	—	—		7.5	<u>SILTY SAND, fine grained. Brown, very loose, damp</u>	
2	<u>2.0</u> Sample #01 is collected	—	—		9	<u>SAND, fine grained w/ some silt. Brown, very loose, damp</u>	
3	<u>3.0</u> Sample #02 is collected	—	—		13	<u>SAND, fine grained. Light brown, very loose, moist to wet.</u>	
4							
5	<u>5.0</u> Sample #02 is collected	—	—				
6						<u>End of Boring</u>	
7						<u>TD: 5.0'</u>	
8						<u>Boring is backfilled and grouted to surface.</u>	
9							
10							

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J Zimmerman

DRILLER: Pat Callahan

BORING NO.: FDA-SB30

SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: FDA-SB31

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: Hand Augering

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)					1-25-94	0-7.0	clear, cool	6.0	
LENGTH									
TYPE									
HAMMER WT.									
FALL									
STICK UP									

REMARKS: Boring advanced to 7.0' (bgs) with hand auger. HNU background -NA-

SAMPLE TYPE
 S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS
 SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Pt.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	1.0 Sample #00 is collected	—	—		—	SILTY SAND, fine grained. Brown, very loose, damp.	
2	2.0 Sample #01 is collected	—	—		—	SAND, fine grained. Brown to light brown, very loose, damp to moist to wet. Orange staining w/ streaking 1.0' to 3.0' (bgs) only. Orange staining 3.0' to 5.0' (bgs) only. Orange / yellow staining w/ orange streaking 5.0' to 7.0' (bgs) only.	
3	3.0 Sample #02 is collected	—	—		—		
4	4.0 Sample #03 is collected	—	—		—		
5	5.0	—	—		—		
6	5-3	—	—		—		
7	7.0					End of Boring	
8							
9						TD: 7.0'	
10						Boring is backfilled and grouted to surface.	

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: FDA-SB31

SHEET 1 OF 1



TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212
 COORDINATES: EAST: _____
 ELEVATION: SURFACE: _____

BORING NO.: FDA-SB32
 NORTH: _____
 TOP OF PVC CASING: _____

RIG: <u>Hand Augering</u>					DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SPLIT SPOON	CASING	AUGERS	CORE BARREL						
SIZE (DIAM.)					<u>1-25-94</u>	<u>0-7.0</u>	<u>clear, cool</u>	<u>7.0</u>	
LENGTH									
TYPE									
HAMMER WT.									
FALL									
STICK UP									

REMARKS: Boring advanced to 7.0' (bgs) with hand auger. HWu background is .4 ppm

SAMPLE TYPE S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample	DEFINITIONS SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis
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Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevatic
1	<u>1.0</u> <small>Sample #00 is collected</small>	—	—		<u>.4</u>	<u>SILTY SAND, fine grained w/ root material. Brown, very loose, damp.</u>	
2	<u>S-1</u>	—	—		<u>.4</u>	<u>SAND, fine grained. Brown to light brown, very loose, damp to moist to wet. Yellow staining 3.0' to 5.0' (bgs) only. Orange staining w/ streaking 5.0' to 7.0' (bgs) only.</u>	
3	<u>3.0</u>	—	—				
4	<u>Sample #02 is collected</u>	—	—		<u>BG</u>		
5	<u>5.0</u>	—	—		<u>BG</u>		
6	<u>Sample #03 is collected</u>	—	—		<u>BG</u>		
7	<u>7.0</u>	—	—			<u>End of Boring</u>	
8							
9						<u>TO: 7.0'</u>	
10						<u>Boring is backfilled and grouted to surface.</u>	

Match to Sheet 2

DRILLING CO.: HARDIN HUBER INC
 DRILLER: PAT CALLAHAN

BAKER REP.: J. ZIMMERMAN
 BORING NO.: 74-FDA-SB32 SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: RI/FS OU#4 CAMP LEBEUNE, NC
 S.O. NO.: 62470-212 BORING NO.: 74-FDA-SB33
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: <u>HAND AUGER</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TI
SIZE (DIAM.)					<u>1/19/94</u>	<u>0-1'</u>	<u>-</u>	<u>-</u>	<u>-</u>
LENGTH									
TYPE									
HAMMER WT.									
FALL									
STICK UP									

REMARKS:

<p align="center">SAMPLE TYPE</p> <p>S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample</p>	<p align="center">DEFINITIONS</p> <p>SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis</p>
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Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elev.
1	HA D	—	—	—	0.6	0.0-0.5 BLACK SILTY f/fm SAND, MOIST, LOOSE, ORGANIC	
0.6							
2					PS	0.5-1.0 TAN/LIGHT BROWN SILTY f/fm SAND, MOIST, LOOSE	
3							
4							
5							
6							
7							
8							
9							
10							

Match to Sheet 2

DRILLING CO.: N/A
 DRILLER: N/A

BAKER REP.: E. KLEINKAUF/W. PELKEY
 BORING NO.: 74-FDA-SB33 SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: RI/FS OU #4 CAMP LETEUNE, NC
 S.O. NO.: 62470-212 BORING NO.: 74-FDA-1
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: <u>HAND AUGER</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIN
SIZE (DIAM.)					<u>1/19/94</u>	<u>0-1'</u>	<u>-</u>	<u>-</u>	<u>-</u>
LENGTH									
TYPE									
HAMMER WT.									
FALL									
STICK UP									

REMARKS:

<p>SAMPLE TYPE</p> <p>S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample</p>	<p>DEFINITIONS</p> <p>SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis</p>
--	--

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Eleva
1	HA 00	—	—	—	0.6 B4 0.6 PS	0.0-0.3 BLACK SILTY f/fm SAND, MOIST, LOOSE, ORGANIC	
2						0.3-0.5 LIGHT GREY SILTY f/fm SAND MOIST, LOOSE	
3						0.5-1.0 DARK REDDISH BROWN SILTY f/fm SAND, TR. CLAY, MOIST, SLIGHTLY COHESIVE.	
4							
5							
6							
7							
8							
9							
10							

Match to Sheet 2

DRILLING CO.: N/A BAKER REP.: E. KLEINIKAU / W. PELKEY
 DRILLER: N/A BORING NO.: 74-FDA-SB34 SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: RI/FS 00#4 CAMP LEJEUNE, NC
 S.O. NO.: 62470 - 212 BORING NO.: 74-FDA-SB3
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: <u>HAND AUGER</u>					DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIP
SIZE (DIAM.)	SPLIT SPOON	CASING	AUGERS	CORE BARREL					
LENGTH					<u>1/19/94</u>	<u>0 - 1'</u>	<u>—</u>	<u>—</u>	<u>—</u>
TYPE									
HAMMER WT.									
FALL									
STICK UP									

REMARKS:

<p>SAMPLE TYPE</p> <p>S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample</p>	<p>DEFINITIONS</p> <p>SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis</p>
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Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Eleva
1	HA 00	—	—	—	0.5 BG 0.5 PS	0.0 - 0.5 DARK BROWN SILTY f/fm SAND MOIST, LOOSE, ORGANIC	
2						0.5 - 1.0 LIGHT GREY SILTY f/fm SAND, MOIST, LOOSE	
3							
4							
5							
6							
7							
8							
9							
10							

Match to Sheet 2

DRILLING CO.: N/A
 DRILLER: N/A

BAKER REP.: E. KLEINBAUF / W. PELKEY
 BORING NO.: 74-FDA-SB35 SHEET 1 OF

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: RI/FS OU #4 CAMP LEJEUNE, NC
 S.O. NO.: 62470-212 BORING NO.: 74-FDA-5
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: <u>HAND AUGER</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIM
SIZE (DIAM.)					<u>1/19/94</u>	<u>0-1'</u>	<u>—</u>	<u>—</u>	<u>—</u>
LENGTH									
TYPE									
HAMMER WT.									
FALL									
STICK UP									

REMARKS:

<p>SAMPLE TYPE</p> <p>S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample</p>	<p>DEFINITIONS</p> <p>SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis</p>
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Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Eleva:
1	HA 00	—	—	—	0.5 BG 0.5 PS	0.0-0.3 BLACK/DARK BROWN SILTY f/fm SAND, MOIST, LOOSE	
2						0.3-0.8 LIGHT GREY / MEDIUM GREY SILTY f/fm SAND, MOIST, LOOSE	
3							
4						0.8-1.0 DARK REDDISH BROWN SILTY f/fm SAND, TRACE CLAY, MOIST, SLIGHTLY COHESIVE, OCCASIONAL HARD SAND PIECES	
5							
6							
7							
8							
9							
10							

Match to Sheet 2

DRILLING CO.: N/A
 DRILLER: N/A

BAKER REP.: E. KLEINKAUF / W. PELKEY
 BORING NO.: 74-FDA-5B36 SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: RI/FS OU#4 CAMP LEJEUNE, NC
 S.O. NO.: 62470-212 BORING NO.: 74-FDA-SB37
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: <u>HAND AUGER</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIM
SIZE (DIAM.)					<u>1/19/94</u>	<u>0-1'</u>	<u>—</u>	<u>—</u>	<u>—</u>
LENGTH									
TYPE									
HAMMER WT.									
FALL									
STICK UP									

REMARKS:

SAMPLE TYPE S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample	DEFINITIONS SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis
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Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Eleva
1	HA 00	—	—	—	0.4 B9 0.4 PS	0.0-0.8 DARK BROWN SILTY f/fm SAND, MOIST, LOOSE	
2						0.8-1.0 TAN/LIGHT BROWN SILTY f/fm SAND, MOIST, LOOSE	
3							
4							
5							
6							
7							
8							
9							
10							

Match to Sheet 2

DRILLING CO.: N/A BAKER REP.: E. KLEINKAUF / W. PELKEY
 DRILLER: N/A BORING NO.: 74-FDA-SB37 SHEET 1 OF 1

APPENDIX B.5
SITE 74 FORMER PESTICIDE AREA

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Sites 69, 74 & 41

S.O. NO.: 212

BORING NO.: FPA-SB01

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATV # 19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>2-21-94</u>	<u>0-17.0</u>	<u>cloudy, mild</u>	<u>16.5</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140 #</u>								
FALL	<u>30"</u>								
STICK UP	<u>-</u>								

REMARKS: Boring advanced to 17.0' (bgs). MWU background is 1.2 ppm.

SAMPLE TYPE						DEFINITIONS			
S	= Split Spoon	A	= Auger	SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')					
T	= Shelby Tube	W	= Wash	RQD = Rock Quality Designation (%)					
R	= Air Rotary	C	= Core	Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)					
D	= Denson	P	= Piston	Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis					
N	= No Sample								
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation		
1	<u>1.0</u>	<u>-</u>	<u>-</u>		<u>BG</u>	<u>SILTY SAND, fine grained. Dark brown to brown, very loose, damp.</u> <u>SAND, fine grained. Brown to light brown, loose to medium dense, damp. Orange staining 5.5' to 6.5' (bgs).</u>			
2	<u>S-1</u>	<u>1.6 / 2.0</u>	<u>3</u>		<u>BG</u>				
3	<u>3.0</u>	<u>80%</u>	<u>3</u>						
4	<u>S-2</u>	<u>1.5 / 2.0</u>	<u>3</u>		<u>BG</u>				
5	<u>5.0</u>	<u>75%</u>	<u>8</u>						
6	<u>Sample # 03 is collected</u>	<u>1.6 / 2.0</u>	<u>3</u>		<u>2.1</u>				
7	<u>7.0</u>	<u>80%</u>	<u>8</u>						
8	<u>S-4</u>	<u>2.0 / 2.0</u>	<u>5</u>		<u>2.0</u>				
9	<u>9.0</u>	<u>100%</u>	<u>9</u>						
10	<u>S-5</u>	<u>1.9 / 2.0</u>	<u>6</u>		<u>BG</u>				

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Jay Corson

BORING NO.: FPA-SB01

SHEET 1 OF 2

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: FPA-SB01

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11.0	S-5	95%	7		BG	SAND, fine grained. Light brown, medium dense, moist to wet. Yellow staining 11.0' to 12.0' (bgs).	
12.0	S-6	1.7 / 2.0	10		BG		
13.0		85%	11				
14.0	Sample # 07 is collected	1.9 / 2.0	8		BG		
15.0		95%	13				
16.0	S-8	1.6 / 2.0	10		BG		
17.0		80%	10			End of Boring	
18.0						TD: 17.0'	
19.0						Boring backfilled and grouted to surface.	
20.0							
21.0							
22.0							
23.0							
24.0							
25.0							
26.0							
27.0							
28.0							
29.0							
30.0							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: J. Zimmerman
 BORING NO.: FPA-SB01

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: FPA-SB02

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATU #19									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		4 1/4" ID		2-21-94	0-15.0	cloudy, mild	14.0	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP	—								

REMARKS: Boring advanced to 17.0' (bgs). H2O background is .4 ppm.

SAMPLETYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	1.0	—	—			SILTY SAND, fine grained. Dark brown to brown, very loose, damp.	
2	S-1	1.5 / 2.0	7			SAND, fine grained w/ some silt. Brown to dark brown, medium dense, damp.	
3	3.0	75%	7				
4	S-2	1.6 / 2.0	3			SAND, fine grained. Brown, loose to medium dense, damp. orange streaking 5.5' to 6.5' (bgs).	
5	5.0	80%	4				
6	Sample #03 is collected	1.3 / 2.0	2				
7	7.0	65%	2				
8	S-4	1.9 / 2.0	2				
9	9.0	95%	3				
10	S-5	1.0 / 2.0	5				
		50%	5				

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Jay Corran

BORING NO.: FPA-SB02

SHEET 1 OF 2

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212 BORING NO.: FPA-SB02

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample						SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	5-5	50%	5		BG	SAND, fine grained. Light brown, medium dense, damp to moist to wet. Orange staining w/streaking 13.0' to 15.0' (bgs)	
12	Sample # 06 is collected	1.9 2.0	6		BG		
13		95%	9				
14	5-7	2.0 2.0	5		BG		
15	15.0	100%	9			End of Boring	
16						TD: 15.0'	
17						Boring backfilled and grouted to surface.	
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, E 41

S.O. NO.: 212

BORING NO.: FPA-SB03

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATV # 19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>2-21-94</u>	<u>0-15.0</u>	<u>overcast, light rain</u>	<u>14.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140*</u>								
FALL	<u>30"</u>								
STICK UP	<u>-</u>								

REMARKS: Boring advanced to 15.0' (bgs). HNu background is .4 ppm.

SAMPLE TYPE
 S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS
 SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	<u>1.0</u>	<u>Sample # 02 is collected</u>	<u>-</u>		<u>BG</u>	<u>SILTY SAND, fine grained. Dark brown to brown, very loose, damp.</u>	
2		<u>1.8</u> <u>2.0</u>	<u>2</u> <u>2</u>		<u>BG</u>		
3	<u>3.0</u>	<u>90%</u>	<u>2</u>				
4		<u>1.8</u> <u>2.0</u>	<u>3</u> <u>3</u>		<u>BG</u>		
5	<u>5.0</u>	<u>90%</u>	<u>7</u>				
6		<u>1.8</u> <u>2.0</u>	<u>5</u> <u>5</u>		<u>BG</u>		
7	<u>7.0</u>	<u>90%</u>	<u>5</u>				
8		<u>1.8</u> <u>2.0</u>	<u>7</u> <u>9</u>		<u>-</u>		
9	<u>9.0</u>	<u>90%</u>	<u>9</u>				
10	<u>5-5</u>	<u>1.8</u> <u>2.0</u> <u>90%</u>	<u>7</u> <u>9</u>		<u>-</u>		

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Jay Corran

BORING NO.: FPA-SB03

SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: FPA-SB03

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample						SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	S-5	90%	8 7		-	SAND, fine grained. Light brown, medium dense, damp to moist to wet. Orange staining w/ streaking 10.5' to 12.0' (bgs). Orange stain 13.0 to 15.0 (bgs). End of Boring TD: 15.0' Boring backfilled and grouted to surface	
12	Sample # 06 is collected	2.0 2.0	4 4 6		-		
13		100%	6				
14	S-7	1.5 2.0	4 4		-		
15		75%	6				
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corson

BAKER REP.: J. Zimmerman
 BORING NO.: FPA-SB03

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: FPA-SB04

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATV # 19									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		4 1/4" ID		2-21-94	0-19.0	Foggy, mild	18.0	
LENGTH	2.0'		5.0'						
TYPE	STD								
HAMMER WT.	140#								
FALL	30"								
STICK UP	—								

REMARKS: Boring advanced to 19.0' (bgs). H₂O background is .4 ppm.

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	1.0 <small>Sample #03 is collected</small>	—	—		BG	SILTY SAND, fine grained. Dark brown, to brown, very loose, damp. SAND, fine grained. Brown to light brown, loose to medium dense, damp to moist. Orange staining w/ streaking 3.0' to 5.0' (bgs). Orange streaking 8.0' to 11.0' (bgs).	
2	S-1	1.6 / 2.0	2		BG		
3	3.0	80%	3		BG		
4	S-2	1.5 / 2.0	3		BG		
5	5.0	75%	5		BG		
6	S-3	1.8 / 2.0	5		BG		
7	7.0	90%	8		BG		
8	8.0 <small>Sample #04 is collected</small>	1.7 / 2.0	7		BG		
9	9.0	85%	10		BG		
10	S-5	1.7 / 2.0	8		BG		

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Jay Corran

BORING NO.: FPA-SB04

SHEET 1 OF 2

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: FPA-SB04

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevatio
11	11.0 S-5	85%	11 10		BG	SAND, fine grained. Light brown, medium dense, moist to wet. Yellow staining 13.0' to 15.0' (bgs). Orange staining 15.5' to 16.5' (bgs).	
12		1.7 2.0	9 11				
13	13.0 S-6	85%	10 13		BG		
14		1.8 2.0	7 10				
15	15.0 S-7	90%	10 11		BG		
16		2.0 2.0	9 11		BG		
17	17.0 Sample # 08 is collected	100%	11 11				
18		1.1 2.0	11 13		BG		
19	19.0 S-9	55%	9				
20						End of Boring	
21						TD: 19.0'	
22						Boring is backfilled and grouted to surface.	
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: J. Zimmerman
 BORING NO.: FPA-SB04

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, E 41

S.O. NO.: 212

BORING NO.: FPA-SR05

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATV #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>3/8" ID</u>		<u>4 1/4" ID</u>		<u>2-20-94</u>	<u>0-7.0</u>	<u>Partly cloudy, mild</u>		
LENGTH	<u>2.0'</u>		<u>5.0'</u>		<u>2-21-94</u>	<u>7.0-15.0</u>	<u>Foggy, mild</u>	<u>14.0</u>	
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140#</u>								
FALL	<u>30"</u>								
STICK UP	<u>-</u>								

REMARKS: Boring advanced to 15.0' (bgs). HNU background is .6 ppm.

SAMPLE TYPE			DEFINITIONS		
S = Split Spoon	A = Auger		SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')		
T = Shelby Tube	W = Wash		RQD = Rock Quality Designation (%)		
R = Air Rotary	C = Core		Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)		
D = Denison	P = Piston		Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis		
N = No Sample					

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	<u>1.0</u>	<u>Sample # 02 is collected</u>	<u>-</u>	<u>-</u>	<u>BG</u>	<u>SILTY SAND, fine grained. Dark brown to brown, very loose, damp.</u>	
2		<u>1.6</u> <u>2.0</u>	<u>3</u> <u>3</u>		<u>BG</u>		
3	<u>3.0</u>	<u>80%</u>	<u>3</u>		<u>BG</u>		
4		<u>1.7</u> <u>2.0</u>	<u>4</u> <u>4</u>		<u>BG</u>		
5	<u>5.0</u>	<u>85%</u>	<u>4</u>		<u>BG</u>		
6		<u>1.7</u> <u>2.0</u>	<u>4</u> <u>5</u>		<u>BG</u>		
7	<u>7.0</u>	<u>85%</u>	<u>8</u>		<u>BG</u>		
8		<u>1.7</u> <u>2.0</u>	<u>4</u> <u>7</u>		<u>BG</u>		
9	<u>9.0</u>	<u>85%</u>	<u>9</u>		<u>BG</u>		
10		<u>1.8</u> <u>2.0</u> <u>90%</u>	<u>4</u> <u>8</u>		<u>BG</u>		

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc
DRILLER: Jay Corran

BAKER REP.: J. Zimmerman
BORING NO.: FPA-SR05

SHEET 1 OF 2

TEST BORING RECORD

PROJECT: Sites 69, 74, E 41
 S.O. NO.: 212

BORING NO.: FPA-SBOS

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample						SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	S-5	90%	10		BG	SAND, fine grained. Light brown, medium dense, moist to wet.	
12	Sample # 06 is collected	1.9 2.0	5 8		BG		
13		95%	6				
14	S-7	2.0 2.0	7 8		BG		
15		100%	6			End of Boring	
16						TD: 15.0'	
17						Boring is backfilled and grouted to surface	
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber Inc
 DRILLER: Jay Corran

BAKER REP.: J. Zimmerman
 BORING NO.: FPA-SBOS

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74 & A1
 S.O. NO.: 212 BORING NO.: FPA-SBOG
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: <u>ATV #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>2-20-94</u>	<u>0-13.0</u>	<u>partly cloudy, mild</u>	<u>12.5</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140 #</u>								
FALL	<u>30"</u>								
STICK UP	<u>—</u>								

REMARKS: Boring advanced to 13.0' (bgs). HNU background is .6 ppm.

SAMPLE TYPE S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample	DEFINITIONS SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis
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Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	<u>1.0</u>	<u>—</u>	<u>—</u>		<u>BG</u>	<u>SILTY SAND, fine grained. Dark brown to brown, very loose, damp.</u> <u>SAND, fine grained. Brown, loose to medium dense, damp. orange staining 5.0' to 8.0' (bgs).</u> <u>Match to Sheet 2</u>	
2	<u>S-1</u>	<u>1.2 / 2.0</u>	<u>3</u>		<u>BG</u>		
3	<u>3.0</u>	<u>60%</u>	<u>2</u>				
4	<u>S-2</u>	<u>1.9 / 2.0</u>	<u>2</u>		<u>BG</u>		
5	<u>5.0</u>	<u>95%</u>	<u>2</u>				
6	<u>Sample #03 is collected</u>	<u>1.6 / 2.0</u>	<u>3</u>		<u>BG</u>		
7	<u>7.0</u>	<u>80%</u>	<u>4</u>				
8	<u>S-4</u>	<u>1.8 / 2.0</u>	<u>3</u>		<u>BG</u>		
9	<u>9.0</u>	<u>90%</u>	<u>4</u>				
10	<u>Sample #05 is collected</u>	<u>1.8 / 2.0</u>	<u>3</u>		<u>BG</u>		

DRILLING CO.: Hardin Huber, Inc BAKER REP.: J. Zimmerman
 DRILLER: Jay Corron BORING NO.: FPA-SBOG SHEET 1 OF 2

TEST BORING RECORD

PROJECT: Sites 69, 74, E 41
 S.O. NO.: 212

BORING NO.: FPA-SB06

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon		A = Auger		SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')		RQD = Rock Quality Designation (%)	
T = Shelby Tube		W = Wash		Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)		Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
R = Air Rotary		C = Core					
D = Denison		P = Piston					
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	11.0 S-5	90%	3 3		BG	SAND, fine grained. Light brown, medium dense, moist to wet.	
12	S-6	1.8 2.0	4 6		BG		
13	13.0	90%	4				
14						End of Boring	
15						TD: 13.0'	
16						Boring is backfilled and grouted to surface	
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc.
 DRILLER: Jay Corron

BAKER REP.: J. Zimmerman
 BORING NO.: FPA-SB06



TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: FPA-SB07

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATV # 19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>2-20-94</u>	<u>0-17.0</u>	<u>Partly cloudy, mild</u>	<u>16.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140#</u>								
FALL	<u>30"</u>								
STICK UP	<u>-</u>								

REMARKS: Boring is advanced to 17.0' (bgs). MUU background is .6 ppm.

SAMPLE TYPE						DEFINITIONS			
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')			
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)			
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)			
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis			
N = No Sample									
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description			Elevation
1	<u>1.0</u>	<u>-</u>	<u>-</u>		<u>BG</u>	<u>SILTY SAND, fine grained. Dark brown to brown, very loose, damp.</u> <u>SAND, fine grained. Brown to light brown, loose to medium dense, damp to moist. Yellow staining 6.0' to 7.0' (bgs). Orange streaking 7.5' to 8.5' (bgs).</u>			
2	<u>S-1</u>	<u>1.5 / 2.0</u>	<u>2</u>		<u>BG</u>				
3	<u>3.0</u>	<u>75%</u>	<u>5</u>						
4	<u>S-2</u>	<u>1.5 / 2.0</u>	<u>5</u>		<u>BG</u>				
5	<u>5.0</u>	<u>75%</u>	<u>5</u>						
6	<u>Sample #03 is collected</u>	<u>1.0 / 2.0</u>	<u>7</u>		<u>BG</u>				
7	<u>7.0</u>	<u>50%</u>	<u>7</u>						
8	<u>S-4</u>	<u>1.6 / 2.0</u>	<u>7</u>		<u>BG</u>				
9	<u>9.0</u>	<u>80%</u>	<u>10</u>						
10	<u>S-5</u>	<u>1.7 / 2.0</u>	<u>8</u>		<u>BG</u>				

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Jay Corran

BORING NO.: FPA-SB07

SHEET 1 OF 2

TEST BORING RECORD

PROJECT: Sites 69, 74, E 41
 S.O. NO.: 212

BORING NO.: FPA-SB07

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	S-5	85%	9		BG	SAND, fine grained. Light brown, medium dense, moist to wet. Orange staining w/ streaking 11.0' to 14.0' (bgs).	
12	S-6	1.6 2.0	9		BG		
13		80%	11 13				
14	Sample #07 is collected	1.4 2.0	6		BG		
15		70%	11 13				
16	S-8	1.8 2.0	6		BG		
17		90%	00-16			End of Boring	
18						TD: 17.0'	
19						Boring is backfilled and grouted to surface.	
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Sites 69, 74, E 41

S.O. NO.: 212

COORDINATES: EAST: _____

ELEVATION: SURFACE: _____

BORING NO.: FPA-SB08

NORTH: _____

TOP OF PVC CASING: _____

RIG: ATU #19

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		4 1/4" ID		2-20-94	0-17.0	Partly cloudy, mild	16.75	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140*								
FALL	30"								
STICK UP	—								

REMARKS: Boring advanced to 17.0' (bgs). Mn background is .6 ppm

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	1.0 Sample #02 collected	—	—		BG	SILTY SAND, fine grained. Dark brown to brown, very loose, damp. SAND, fine grained. Brown to light brown, loose to medium dense, damp to moist.	
2	S-1	1.4 2.0	2 3		BG		
3	3.0	70%	4				
4	S-2	1.6 2.0	3 4		BG		
5	5.0	80%	4				
6	Sample #03 is collected	1.6 2.0	6 7		BG		
7	7.0	80%	7				
8	S-4	1.7 2.0	7 10		BG		
9	9.0	85%	12				
10	S-5	1.7 2.0	7 6		BG		

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

DRILLER: Jay Coffon

BAKER REP.: J. Zimmerman

BORING NO.: FPA-SB08

SHEET 1 OF 2

TEST BORING RECORD

PROJECT: Sites 69, 74 & 41
 S.O. NO.: 212

BORING NO.: FPA-SB08

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11.0	S-5	85%	11		BG	SAND, fine grained. Light brown, medium dense, moist to wet.	
12.0	S-6	1.7 2.0	10		BG		
13.0	Sample # 07 is collected	85%	10		BG		
14.0		1.7 2.0	10		BG		
15.0		85%	10		BG		
16.0	S-8	1.7 2.0	4		BG		
17.0		85%				End of Boring	
18.0						TD: 17.0	
19.0						Boring is backfilled and grouted to surface	
20.0							
21.0							
22.0							
23.0							
24.0							
25.0							
26.0							
27.0							
28.0							
29.0							
30.0							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: J. Zimmerman
 BORING NO.: FPA-SB08



TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212
 COORDINATES: EAST: _____
 ELEVATION: SURFACE: _____

BORING NO.: FPA-SB09
 NORTH: _____
 TOP OF PVC CASING: _____

RIG: ATU #19									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		4 1/4" ID		2-20-94	0-17.0	partly cloudy, mild	16.5	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 #								
FALL	30"								
STICK UP	—								

REMARKS: Boring advanced to 17.0' (bgs). H₂O background is 1.0 ppm.

<p>SAMPLE TYPE</p> <p>S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample</p>	<p>DEFINITIONS</p> <p>SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis</p>
--	--

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	1.0	—	—		BG	SILTY SAND, fine grained. Dark brown to brown, very loose, damp. SAND, fine grained. Brown to light brown, loose to medium dense, damp. Yellow staining w/ streaking 7.0' to 9.0' (bgs).	
2	S-1	1.7 / 2.0	2		BG		
3	3.0	85%	3				
4	S-2	1.5 / 2.0	2		BG		
5	5.0	75%	3				
6	S-3	1.9 / 2.0	4		BG		
7	7.0	95%	5				
8	S-4	1.7 / 2.0	4		BG		
9	9.0	85%	4				
10	S-5	1.8 / 2.0	3		BG		

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: J. Zimmerman
 BORING NO.: FPA-SB09

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: FPA-SB09

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevatic
11	11.0 S-5	90%	7		86	SAND fine grained. Light brown, medium dense, moist to wet. Orange streaking 10.0' to 11.0' (bgs).	
12	12.0 S-6	1.9 / 2.0	7		1.4		
13	13.0	95%	11				
14	14.0 Sample #07 is collected	1.4 / 2.0	5		1.2		
15	15.0	70%	8				
16	16.0 S-8	1.7 / 2.0	5		86		
17	17.0	85%	6			End of Boring	
18						TD: 17.0	
19						Boring is backfilled and grouted to surface.	
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber Inc
 DRILLER: Jay Corran

BAKER REP.: J. Zimmerman
 BORING NO.: FPA-SB09 SHEET 2 OF 2

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: PDA-SB01

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATV #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>2-19-94</u>	<u>0-7.0</u>	<u>clear, mild</u>	<u>6.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140^{lb}</u>								
FALL	<u>30"</u>								
STICK UP	<u>—</u>								

REMARKS: Boring advanced to 7.0' (bgs). H2O background is .6 ppm.

SAMPLE TYPE
 S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS
 SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	1.0	Sample #01 is collected	—	—	BG	SILTY SAND, fine grained. Dark brown to brown, very loose, damp. SAND, fine grained. Brown to light brown, medium dense, damp to moist to wet. Orange staining at approx 3.0' (bgs) and 6.5' (bgs) only.	
2		Sample #01 is collected	2.0	3			
3	3.0	100%	7		BG		
4		Sample #02 is collected	1.9	6			
5	5.0	95%	11		BG		
6		Sample #02 is collected	1.8	6			
7	7.0	90%	14		BG		
8						End of Boring	
9						TD: 7.0'	
10						Boring backfilled and grouted to surface.	

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: J. Zimmerman
 BORING NO.: PDA-SB01

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: PDA-SB02

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATU # 19

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>2-19-94</u>	<u>0-9.0</u>	<u>clear, mild</u>	<u>8.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140#</u>								
FALL	<u>30"</u>								
STICK UP	<u>—</u>								

REMARKS: Boring advanced to 8.0' (bgs). H₂O background is .8 ppm.

SAMPLE TYPE
 S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS
 SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	1.0 Sample #00 is collected	—	—		BG	<p><u>SILTY SAND, fine grained. Dark brown to brown, very loose, damp.</u></p> <p><u>SAND, fine grained. Brown to light brown, medium dense, damp to moist to wet. Orange staining 4.5' to 5.5' (bgs) only. Yellow staining w/ orange streaking 7.0' to 8.0' (bgs) only.</u></p> <p><u>End of Boring</u></p> <p><u>Boring is backfilled and grouted to surface. Match to Sheet 2</u></p>	
2	2.0 Sample #01 is collected	<u>1.8</u> <u>2.0</u>	<u>3</u> <u>5</u>		BG		
3	3.0	<u>90%</u>	<u>4</u>				
4	4.0 S-2	<u>1.7</u> <u>2.0</u>	<u>5</u> <u>8</u>		1.1		
5	5.0	<u>85%</u>	<u>8</u>				
6	6.0 Sample #03 is collected	<u>1.9</u> <u>2.0</u>	<u>6</u> <u>8</u>		1.1		
7	7.0	<u>95%</u>	<u>8</u>				
8	8.0 S-4	<u>1.6</u> <u>2.0</u>	<u>3</u> <u>4</u> <u>7</u>		BG		
9	9.0	<u>80%</u>	<u>7</u>				
10							

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Jay Corron

BORING NO.: PDA-SB02

SHEET 1 OF 1

APPENDIX B.6
SITE 74 PESTICIDE DISPOSAL AREA

APPENDIX B.7
SITE 74 MONITORING WELLS

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 74-GW03A

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATV #32</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>6 1/4" ID</u>		<u>1-18-94</u>	<u>0-18.5</u>		<u>7.8</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140#</u>								
FALL	<u>30"</u>								
STICK UP	<u>2 1/2'</u>								

REMARKS: Continuous sampling to 18.0' (bgs). Type II monitoring well set 1-18-94.

<p>SAMPLE TYPE</p> <p>S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample</p>	<p>DEFINITIONS</p> <p>SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis</p>
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Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	S-1	18" / 24"	2		1.6	SILTY SAND, fine grained. Black, moist, loose.	
2		75%	4				
3	S-2	24" / 24"	3		1.6		
4		100%	5				
5		Sample #03 is collected	24" / 24"	6			
6	Sample #04 is collected	24" / 24"	9		1.2	SILTY SAND, fine to fine to medium grained. Light to medium gray to tan to light brown, moist, loose.	
7		24" / 24"	12				
8	100%	15		2.3			
9	S-5	22" / 24"	4		1.8		
10		91%	9				

Match to Sheet 2

DRILLING CO.: Hardin Huber Inc.
DRILLER: Jay Corran

BAKER REP.: E. Kleinkauf
BORING NO.: 74-GW03A



TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212 BORING NO.: 74-GW03A

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample						SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	S-6	20" 24"	2 3 7		BG	SILTY SAND, fine to fine to medium grained. Tan to light brown, loose, wet. streaking 14' to 16' (bgs)	
12		83%	9				
13	S-7	16" 24"	11 19 25		BG		
14		66%	32				
15	S-8		12 21 18		BG		
16			14				
17	S-9		6 4		BG	SANDY CLAY w/ trace silt. Medium gray	
18			Woh Woh		-		
19						End of Boring	
20						TD: 18.5'	
21						H ₂ O background is: .5 ppm	
22						Sampled to 18' (bgs). Overdrilled to 18.5' (bgs).	
23							
24							
25							
26							
27							
28							
29							
30							



TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212 BORING NO.: 74-GW04
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: ATU # 32					DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
	SPLIT SPOON	CASING	AUGERS	CORE BARREL					
SIZE (DIAM.)	1 3/8" ID		6 1/4" ID		1-18-94	0-20.0		9.5	
LENGTH	2.0'		5.0'						
TYPE	STO		HSA						
HAMMER WT.	140*								
FALL	30"								
STICK UP	2 1/2'								

REMARKS: Continuous sampling to 20' (bgs). Type II monitoring well set 1-18-94

SAMPLE TYPE S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample	DEFINITIONS SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis
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Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	S-1	12" / 24"	3		2.5	SILTY SAND, fine grained. Black, organic	
2		50%	4				
3		5					
4	S-2	12" / 24"	5		10	SILTY SAND, fine grained. Tan, moist, loose. Slightly cohesive from 2' to 4' (bgs).	
5		50%	3				
6		5					
6	Sample # 03 is collected	20" / 24"	6		8.3	SILTY SAND, fine grained. Light brown to reddish brown, moist. Small CLAYEY lenses.	
7		8					
8		14					
8	S-4	14" / 24"	15		3.7	SILTY SAND, fine to fine to medium grained. Tan to light brown, moist, loose.	
9		58%	12				
10		15					
9	Sample # 05 is collected	20" / 24"	6		BG	SILTY SAND, fine to fine to medium grained w/ occasional CLAYEY lenses. Tan to light brown, moist Match to Sheet 2 to wet.	
10		83%	8				

DRILLING CO.: Hardin Huber, Inc BAKER REP.: E. Kleinkauf
 DRILLER: Jay Corron BORING NO.: 74-GW04 SHEET 1 OF 2

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: 74-GW04

SAMPLE TYPE						DEFINITIONS		
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')		
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)		
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)		
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis		
N = No Sample								
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation	
11	S-6	20" / 24" / 83%	6 / 9 / 12		BG	SILTY SAND, fine to fine to medium grained w/ occasional CLAYEY lenses. Tan to light brown, moist to wet		
12								
13	S-7	21" / 24" / 87%	5 / 5 / 5		BG	SILTY SAND, fine to fine to medium grained w/ occasional CLAYEY lenses. Tan to light brown, very wet.		
14								
15	S-8	20" / 24" / 83%	8 / 20 / 5		BG	SILTY SAND, fine grained. Tan, loose, wet.		
16								
17	S-9	24" / 24" / 100%	7 / 7 / 4		BG			
18								
19	S-10	22" / 24" / 91%	2 / 3 / 1		BG	SAND, fine grained & CLAY. Tan, wet. End of Boring		
20								
21								
22						TD: 20.0'		
23						HWu background is .5 ppm		
24								
25								
26								
27								
28								
29								
30								

DRILLING CO.: Hardin Huber Inc
 DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf
 BORING NO.: 74-GW04

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: _____
 S.O. NO.: _____ BORING NO.: 74-GW05
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: <u>Mobale B-47</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIM
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>1-11-94</u>	<u>0.0 to</u>	<u>Sunny high 40's</u>		
LENGTH	<u>20'</u>		<u>5.0'</u>						
TYPE	<u>Std</u>		<u>HKA</u>						
HAMMER WT.	<u>140 lbs</u>								
FALL	<u>36"</u>								
STICK UP									

REMARKS: Back Ground (BG) is 0.5 parts per million (ppm)

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Eleva
1	<u>S-1</u> <u>74-GW05-01</u>	<u>1.3</u> <u>65%</u>	<u>4</u> <u>6</u> <u>5</u> <u>3</u>	<u>1206</u>	<u>BG</u>	<u>Five sand and silt, leaves, pine needles, and decaying vegetation in first few inches, DAMP, medium dense Black to 1.0 feet</u> <u>Brownish Gray to yellowish brown from 1.0 feet</u>	
2	<u>2.6</u>						
3	<u>S-2</u>	<u>1.7</u> <u>85%</u>	<u>6</u> <u>7</u> <u>8</u> <u>10</u>	<u>1210</u>	<u>BG</u>		
4	<u>4.0</u>						
5	<u>S-3</u>	<u>1.7</u> <u>85%</u>	<u>7</u> <u>10</u> <u>11</u>	<u>1216</u>	<u>BG</u>	<u>Five to medium sand, little to some silt, gray DAMP to wet, loose to medium dense</u> <u>trace clay from 5.0 to 6.0 feet</u>	<u>4.5'</u>
6	<u>6.0</u>						
7	<u>S-4</u> <u>74-GW05-04</u>	<u>1.5</u> <u>75%</u>	<u>9</u> <u>7</u> <u>5</u> <u>8</u>	<u>1401</u>	<u>BG</u>	<u>water at approximately 8.0 feet</u>	
8	<u>8.0</u>						
9	<u>S-5</u>	<u>1.6</u> <u>80%</u>	<u>5</u> <u>5</u> <u>4</u> <u>4</u>	<u>1406</u>	<u>BG</u>		
10	<u>10.0</u>						

Match to Sheet 2

DRILLING CO.: Hendrix - Huber, Inc
 DRILLER: P. (A.L.G.)

BAKER REP.: S. M. Felt
 BORING NO.: 74-GW05 SHEET 1 OF 0

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon		A = Auger		SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')			
T = Shelby Tube		W = Wash		RQD = Rock Quality Designation (%)			
R = Air Rotary		C = Core		Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)			
D = Denison		P = Piston		Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis			
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Flow Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevati
11	S-6	1.9 95%	5 5 6 4	1411	BG	FINE TO MEDIUM SAND, LITTLE TO SOME SILT, WET LOOSE TO MEDIUM DENSE YELLOW BROWN FROM 10.0 TO 11.0 FEET DARK GRAY FROM 11.0 FEET	
12							
13	C-7	1.0 50%	4 7 7 8	1420	BG		
14							
15	S-8	1.2 60%	4 5 7 8	1426	BG		
16							
17	S-4	1.8 90%	5 6 8 7	1442	BG		
18							
19	AW					Bottom of Borehole at 19.0 Feet	19.0'
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: _____
 S.O. NO.: _____ BORING NO.: 74-GW04
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: <u>Mobile B-47</u>					DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIM
SPLIT SPOON	CASING	AUGERS	CORE BARREL						
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>1-10-94</u>	<u>0.0 to 16.0</u>	<u>Sunny low 40's</u>		
LENGTH	<u>20'</u>		<u>5.0'</u>		<u>1-11-94</u>	<u>16.0 to 26</u>	<u>Sunny high 30's</u>		
TYPE	<u>S00</u>		<u>HSA</u>						
HAMMER WT.	<u>140 lbs</u>								
FALL	<u>30"</u>								
STICK UP									

REMARKS: BACKGROUND (BG) is 0.5 parts per million (ppm)

<p>SAMPLE TYPE</p> <p>S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample</p>	<p>DEFINITIONS</p> <p>SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis</p>
--	--

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Flow Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevat
1	S-1	1.0 50%	2 4	1532	B6	Fine sand and silt, leaves, pine needles and debris vegetation in first few inches, DAMP, loose to medium dense Black to 1.0 feet Yellowish brown from 1.0 feet	
2							
3	S-2	1.7 85%	2 7	1530	B6		
4	<u>74-GW06-02</u>	0.2	6				<u>4.0'</u>
5	S-3	1.8 90%	8 11	1547	3.2	Fine to medium sand, little to some silt, gray DAMP, medium dense to dense	
6			10				
7	S-4	1.6 80%	8 10	1555	B6		
8			10				
9	S-5	1.8 90%	5 8	1602	B6		
10	<u>74-GW06-05</u>		12				

Match to Sheet 2

DRILLING CO.: Hamm - Niles Inc BAKER REP.: S. Moffett
 DRILLER: P. Callahan BORING NO.: 74-GW04 SHEET 1 OF

Baker Environmental, Inc

PROJECT: _____

S.O. NO.: _____

BORING NO.: 74-GW06

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Time Lab. Class. or Ren. Rate	PID (ppm)	Visual Description	Eleva
11	S-6	1.8 90%	6 8 10 9	1608	BG	Fine to medium sand, little some silt, gray DAMP to WET, Medium Dense to dense Water at approximately 15.0 feet	
12							
13	S-7	1.8 90%	7 8 11 4	1617	BG		
14							
15	S-8	1.7 88%	4 7 2 3	1627	BG		
16							
17	S-9	1.3 65%	11 17 20 20	0944	BG		
18							
19	S-10	1.6 80%	8 18 28 28	0854	BG		
20							
21	S-11	1.1 55%	8 22 29 26	0964	BG		
22							
23	S-12	1.7 85%	14 18 30 30	0915	BG		
24							
25	A-N						
26						Bottom of borehole at 26.0 feet	26.0'
27							
28							
29							
30							

DRILLING CO.: Harris-Huber, Inc
 DRILLER: P. Callahan

BAKER REP.: S. Moffett
 BORING NO.: 74GW06 SHEET 2 OF

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 74GW-07

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATU #19

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		6 1/4" ID		2-18-94	0-17.0	Sunny, 60's	6.5	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 #								
FALL	30"								
STICK UP	2.5'								

REMARKS: Continuous Sampling to 16.0' (bgs). Type II monitoring well set 2-18-94

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	Sample #01 is collected	1.4 / 2.0	1 / 2 / 3 / 5		BG	Rooted Zone. Brown, loose, damp. plant mat. SILTY SAND, fine grained. Dark brown to brown, loose, damp.	
2		70%					
3	Sample #02 is collected	2.0 / 2.0	3 / 3 / 3 / 3		BG	SAND, fine grained. Brown, loose, damp to moist. Orange streaking .9' to 1.7' only.	
4		100%					
5	S-3	1.4 / 2.0	4 / 6 / 8		.5	SAND, fine grained. Brown to light brown, medium dense, moist to wet. Orange streaking at 1.2' only.	
6		70%					
7	S-4	2.0 / 2.0	3 / 5 / 4		BG	SAND, fine grained w/ trace silt. Brown to gray, loose to medium dense, wet.	
8		100%					
9	S-5	2.0 / 2.0	4 / 5 / 3		BG	SAND, fine grained. Brown to gray, loose to medium dense, wet.	
10		100%					

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc.

BAKER REP.: J. Zimmerman

DRILLER: Jay Cotton

BORING NO.: 74GW-07

SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212 BORING NO.: 74GW-07

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	S-6	1.4 / 2.0	3 4 0 0		BG	SAND, fine grained. Gray, medium dense, wet	
12		70%	0 0				
13	S-7	1.8 / 2.0	5 9 0 0		BG		
14		90%	9				
15	S-8	2.0 / 2.0	3 5 0 0		BG		
16		100%	0				
17						End of Boring	
18						TD: 17.0'	
19						well set @: 16.5'	
20						Borehole sampled to 16.0'	
21						HW background = .3 ppm	
22							
23							
24							
25							
26							
27							
28							
29							
30							

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 74GW-08

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATU #19									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		6 1/4" ID		2-18-94	0-24.0	Sunny, 60's	13.0	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 #								
FALL	30"								
STICK UP	2.5'								

REMARKS: Continuous Sampling to 24.0' (bgs). Type II monitoring well set 2-18-94.

<p>SAMPLE TYPE</p> <p>S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample</p>	<p>DEFINITIONS</p> <p>SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis</p>
--	--

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	S-1	1.1 / 2.0	1		BG	Rotted zone. Brown, loose, damp. Plant mat. SILTY SAND, fine grained. Dark brown to brown, loose, damp. SAND, fine grained. Light brown, medium dense, wet. Match to Sheet 2	
2		55%	2				
3	S-2	1.4 / 2.0	2		BG		
4		70%	3				
5		1.5 / 2.0	3		BG		
6		75%	4				
7	S-4	1.7 / 2.0	5		BG		
8		85%	6				
9	S-5	1.5 / 2.0	7		BG		
10		75%	8				

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Jay Corran

BORING NO.: 74GW-08

SHEET 1 OF 2

TEST BORING RECORD

PROJECT: Sites 69, 74, E 41
 S.O. NO.: 212

BORING NO.: - 74-GW-01

SAMPLE TYPE						DEFINITIONS		
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')		
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)		
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)		
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis		
N = No Sample								
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation	
11	Sample #06 is collected	1.3	6			SAND, fine grained. Light brown, medium dense, wet.		
12		2.0	10		BG			
12		65%	7					
13	S-7	1.7	6					
14		2.0	6		BG			
14		85%	7					
15	S-8	2.0	7					
16		2.0	7		BG			
16		100%	4					
17	S-9	2.0	4				SAND, fine grained w/ trace silt. Very light brown, medium dense, wet.	
18		2.0	6		BG			
18		100%	19					
19	S-10	1.9	8					
20		2.0	15		BG			
20		95%	18					
21	S-11	2.0	8					
22		2.0	4		BG			
22		100%	17					
23	S-12	2.0	4					
24		2.0	7		BG			
24		100%	7					
24			9			End of Boring		
25								
26						TD: 24.0'		
27						well set @: 23.0'		
28						HNu background = .5 ppm		
29								
30								

APPENDIX B.8
SITE 74 BACKGROUND

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: RI/FS OU #4 CAMP LEJEUNE, NC
 S.O. NO.: 62470-212 BORING NO.: 74-BB-SB01
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: <u>HAND AUGER</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)					<u>1/23/94</u>	<u>0-1'</u>	<u>—</u>	<u>—</u>	<u>—</u>
LENGTH									
TYPE									
HAMMER WT.									
FALL									
STICK UP									

REMARKS:

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Eleva
1	HA 00	—	—	—	0.3 86 0.3 PS	0.0-0.6' MEDIUM GREY SILTY f SAND MOIST, LOOSE	
2					0.3 86 0.9 PS	0.6-1.0' MEDIUM BROWN SILTY f SAND MOIST, LOOSE	
3							
4							
5							
6							
7							
8							
9							
10							

Match to Sheet 2

DRILLING CO.: N/A
 DRILLER: N/A

BAKER REP.: E. KLEINKAUF / W. PELKEY
 BORING NO.: 74-BB-SB01 SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: RI/FS OU#4 CAMP LEJEUNE, NC
 S.O. NO.: 62470-212 BORING NO.: 74-BB-SB
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: <u>HAND AUGER</u>					DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIN
SPLIT SPOON	CASING	AUGERS	CORE BARREL						
SIZE (DIAM.)					<u>1/23/94</u>	<u>0-1'</u>	<u>-</u>	<u>-</u>	<u>-</u>
LENGTH									
TYPE									
HAMMER WT.									
FALL									
STICK UP									

REMARKS:

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Eleva
1	HA 00	-	-	-	0.3 BG 0.6 PS	0.0-1.0' MEDIUM GREY SILTY f SAND, MDIST, LOOSE, MANY ROOTS.	
2					0.3 BG		
3					1.1 PS		
4							
5							
6							
7							
8							
9							
10							

Match to Sheet 2

DRILLING CO.: N/A
 DRILLER: N/A

BAKER REP.: E. KLEINKAUF / W. PELKEY
 BORING NO.: 74-BB-SB02 SHEET 1 OF

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: RI/FS DU#4 CAMP LEBEVNE, NC
 S.O. NO.: 62470-212 BORING NO.: 74-BB-SB03
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: <u>HAND AUGER</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIN
SIZE (DIAM.)					<u>1/23/94</u>	<u>0-1'</u>	<u>-</u>	<u>-</u>	<u>-</u>
LENGTH									
TYPE									
HAMMER WT.									
FALL									
STICK UP									

REMARKS:

<p>SAMPLE TYPE</p> <p>S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample</p>	<p>DEFINITIONS</p> <p>SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis</p>
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Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Eleva
1	<u>NA</u> <u>00</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>0.3</u> <u>BA</u> <u>0.3</u> <u>PS</u>	<u>0.0-0.5'</u> LIGHT GREY SILTY f SAND <u>MOIST, LOOSE, ORGANIC AT TOP.</u>	
2						<u>0.5-1.0'</u> LIGHT BROWN SILTY f SAND, moist, loose.	
3							
4							
5							
6							
7							
8							
9							
10							

Match to Sheet 2

DRILLING CO.: N/A
 DRILLER: N/A

BAKER REP.: E. KLEINKAUF / W. PELKEY
 BORING NO.: 74-BB-SB03 SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: RI/FS OU #4 CAMP LEJEUNE, N
 S.O. NO.: 62470-212 BORING NO.: 74-BB-SL
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: <u>HAND AUGER</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TI
SIZE (DIAM.)					<u>1/23/94</u>	<u>0-1'</u>	<u>—</u>	<u>—</u>	<u>—</u>
LENGTH									
TYPE									
HAMMER WT.									
FALL									
STICK UP									

REMARKS:

<p>SAMPLE TYPE</p> <p>S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample</p>	<p>DEFINITIONS</p> <p>SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis</p>
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Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Eleva
1	HA 00	—	—	—	0.4 BG	0.0-0.8' DARK BROWN SILTY f/fm SAND, MOIST, LOOSE, ORGANIC	
2					0.4 PS	0.8-1.0' MEDIUM GREY/TAN SILTY f/fm SAND, MOIST, LOOSE	
3							
4							
5							
6							
7							
8							
9							
10							

Match to Sheet 2

DRILLING CO.: N/A
 DRILLER: N/A

BAKER REP.: E. KLEINKAUF / W. PELKEY
 BORING NO.: 74-BB-SB04 SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212
 COORDINATES: EAST: _____
 ELEVATION: SURFACE: _____

BORING NO.: POA-SB03
 NORTH: _____
 TOP OF PVC CASING: _____

RIG: ATU #19									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		4 1/4" ID		2-19-94	0-11.0	clear, mild	10.5	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 #								
FALL	30"								
STICK UP	—								

REMARKS: Boring advanced to 11.0' (bgs). Hwu background is .8 ppm

SAMPLE TYPE
 S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS
 SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	1.0	Sample #00 is collected	—	—	BG	SILTY SAND, fine grained. Dark brown to brown, very loose, damp. SAND, fine grained. Brown to light gray, loose to medium dense, damp to moist to wet. Orange staining 3.0' to 5.0' (bgs) only. 5.0' to 7.0' (bgs) orange staining w/ streaking (only). Yellow staining 10.5' to 11.0' (bgs).	
2		1.6	2				
3	S-1	2.0	3		BG		
4		80%	4				
5		1.6	5				
6		2.0	6		BG		
7		80%	6				
8		2.0	7				
9	S-3	2.0	9		BG		
10		100%	13				
1		1.7	9				
2		2.0	11		BG		
3		2.0	12				
4		85%	15				
5		1.6	7				
6	S-5	2.0	9		BG		

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: J. Zimmerman
 BORING NO.: POA-SB03

SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: PDA-SB03

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	11.0 S-5	80%	6		BG		
12						End of Boring	
13						TD: 11.0'	
14						Boring backfilled and grouted to surface.	
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: J. Zimmerman
 BORING NO.: PDA-SB03 SHEET 2 OF 2

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: PDA-SB04

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATU #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>2-19-94</u>	<u>0-15.0</u>	<u>clear, mild</u>	<u>14.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140#</u>								
FALL	<u>30"</u>								
STICK UP	<u>—</u>								

REMARKS: Boring advanced to 15.0' (bgs). Hwu background is .6 ppm

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1		—	—		1.2	<u>SILTY SAND, fine grained. Dark brown to brown, very loose, damp</u> <u>SAND, fine grained. Brown to light brown, loose to medium dense, damp to moist.</u>	
2	S-1	1.9 / 2.0	3		.8		
3		95%	4				
4	S-2	1.9 / 2.0	4		.7		
5		95%	5				
6	S-3	1.8 / 2.0	10		BG		
7		90%	10				
8	S-4	1.3 / 2.0	5		BG		
9		65%	11				
10	Sample #05 is collected	1.3 / 2.0	5		1.2		

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Jay Corron

BORING NO.: PDA-SB04

SHEET 1 OF 2

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: POA-SB04

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon		A = Auger		SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')		RQD = Rock Quality Designation (%)	
T = Shelby Tube		W = Wash		Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)		Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
R = Air Rotary		C = Core					
D = Denison		P = Piston					
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	11.0 S-5	65%	6 9		1.2	SAND, fine grained. Light brown, medium dense, moist to wet. Yellow & orange staining w/ streaking 12.0' to 14.0' (bgs) only.	
12	Sample # 06 is collected	1.0 2.0	4 5 4		.7		
13	13.0	50%	4				
14	S-7	1.7 2.0	4 5 9		1.2		
15	15.0	85%	11				
16						End of Boring	
17						TD: 15.0'	
18						Boring is backfilled and grouted to surface	
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: J. Zimmerman
 BORING NO.: POA-SB04

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: PDA-SB05

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATU #19									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		4 1/4" ID		2-19-94	0-9.0	clear, mild	8.0	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 #								
FALL	30"								
STICK UP	—								

REMARKS: Boring advanced to 9.0' (bgs). H₂O background is .6 ppm

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	Sample #00 is collected	—	—		1.2	SILTY SAND, fine grained. Dark brown to brown, very loose, damp.	
2	Sample #01 is collected	2.0 / 2.0	3 / 4		BG	SAND, fine grained. Dark brown to brown, loose to medium dense, damp to moist to wet. Orange staining 3.0' to 4.0' (bgs) and 5.5' to 6.5' (bgs) only	
3		100%	5 / 7		BG		
4	S-2	1.8 / 2.0	4 / 7		BG		
5		90%	10		BG		
6	Sample #03 is collected	1.8 / 2.0	10 / 13		BG		
7		90%	15		BG		
8	S-4	1.8 / 2.0	10 / 11		BG		
9		90%	12		BG		
10							End of Boring Boring is backfilled and grouted to surface. Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Jay Corron

BORING NO.: PDA-SB05

SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, E 41

S.O. NO.: 212

BORING NO.: PDA-SB06

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATU #19									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		4 1/4" ID		2-19-94	0-11.0	clear, mild	9.5	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 #								
FALL	30"								
STICK UP	—								

REMARKS: Boring advanced to 11.0' (bgs). K_w background is .5 ppm

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	1.0	—	—		2.0	SILTY SAND, fine grained. Dark brown to brown, very loose, damp SAND, fine grained. Brown to light brown, loose to medium dense, damp to moist to wet. Yellow staining is present from 7.0' to 9.0' (bgs) only. Match to Sheet 2	
2	S-1	1.7 / 2.0	3 / 3		BG		
3	3.0	85%	4				
4	Sample # 02 is collected	1.7 / 2.0	4 / 4		BG		
5	5.0	85%	5 / 5				
6	S-3	1.5 / 2.0	5 / 5		BG		
7	7.0	75%	7				
8	Sample # 04 is collected	1.5 / 2.0	7 / 11		BG		
9	9.0	75%	14				
10	S-5	2.0 / 2.0	15 / 9		BG		

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Jay Corran

BORING NO.: PDA-SB06

SHEET 1 OF 2

TEST BORING RECORD

PROJECT: Sites 69, 74 & 41
 S.O. NO.: 212

BORING NO.: PDA-SBO6

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevati
11	11.0 S-5	100%	7		BG	End of Boring	
12						TD: 11.0'	
13						Boring is backfilled and grouted to surface.	
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corren

BAKER REP.: J. Zimmerman
 BORING NO.: PDA-SBO6

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, E 41

S.O. NO.: 212

BORING NO.: PDA-SB07

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATU #19</u>					DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	SPLIT SPOON	CASING	AUGERS	CORE BARREL					
LENGTH	2.0'		5.0'		2-20-94	0-13.0	clear, mild	12.5	
TYPE	STD		HSA						
HAMMER WT.	140 #								
FALL	30"								
STICK UP	—								

REMARKS: Boring advanced to 13.0' (bgs). H₂O background is .5 ppm.

SAMPLETYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	1.0	Sample # 05 is collected	—	—	BG	SILTY SAND, fine grained. Dark brown to brown, very loose, damp SAND, fine grained. Brown to light brown, loose to medium dense, damp. Orange streaking 3.5' to 4.5' (bgs). Yellow staining w/ orange streaking 5.0' to 7.0' (bgs). Match to Sheet 2	
2		Sample # 01 is collected	1.7 2.0	2 2	115		
3	3.0	85%	2				
4	S-2	1.6 2.0	3 3		110		
5	5.0	80%	3				
6	S-3	2.0 2.0	4 1		BG		
7	7.0		13				
8	S-4	1.6 2.0	10 11		BG		
9	9.0	80%	19				
10		Sample # 05 is collected	1.7 2.0	7 7	BG		

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Jay Corron

BORING NO.: PDA-SB07

SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: PDA-SR07

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	11.0 S-5	85%	14 17		BG	SAND, fine grained. Light brown, damp to moist to wet. Yellow staining 10.0' to 11.5' and 12.5' (bag)	
12	S-6	1.8 2.0	9 9		BG		
13	13.0	90%	9				
14						End of Boring	
15						TD: 13.0'	
16						Boring backfilled and grouted to surface.	
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corran

BAKER REP.: J. Zimmerman
 BORING NO.: PDA-SR07

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74 & 41
 S.O. NO.: 212
 COORDINATES: EAST: _____
 ELEVATION: SURFACE: _____

BORING NO.: PDA-SB08
 NORTH: _____
 TOP OF PVC CASING: _____

RIG: <u>ATV # 19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>2-19-94</u>	<u>0-11.0</u>	<u>clear, mild</u>	<u>9.5</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140 #</u>								
FALL	<u>30"</u>								
STICK UP	<u>-</u>								

REMARKS: Boring advanced to 11.0' (bgs). Hsuu background is .8 ppm

SAMPLE TYPE
 S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS
 SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	<u>1.0</u> <small>Sample # 00 is collected</small>	<u>-</u>	<u>-</u>		<u>BG</u>	<u>SILTY SAND, fine grained. Dark brown to brown, very loose, damp.</u> <u>SAND, fine grained. Brown to light brown, loose to medium dense, damp to moist to wet.</u> <u>6.5' to 7.0' (bgs) orange staining only.</u>	
2	<u>S-1</u>	<u>1.4</u> <u>2.0</u>	<u>2</u> <u>3</u> <u>3</u>		<u>BG</u>		
3	<u>3.0</u>	<u>70%</u>	<u>3</u>				
4	<u>Sample # 02 is collected</u>	<u>1.8</u> <u>2.0</u>	<u>3</u> <u>3</u>		<u>BG</u>		
5	<u>5.0</u>	<u>90%</u>	<u>4</u> <u>4</u>				
6	<u>S-3</u>	<u>1.8</u> <u>2.0</u>	<u>4</u> <u>6</u> <u>7</u>		<u>BG</u>		
7	<u>7.0</u>	<u>90%</u>	<u>6</u>				
8	<u>Sample # 04 is collected</u>	<u>1.7</u> <u>2.0</u>	<u>10</u> <u>13</u> <u>14</u>		<u>BG</u>		
9	<u>9.0</u>	<u>85%</u>	<u>10</u>				
10	<u>S-5</u>	<u>1.7</u> <u>2.0</u> <u>85%</u>	<u>13</u> <u>13</u>		<u>BG</u>		

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corson

BAKER REP.: J. Zimmerman
 BORING NO.: PDA-SB08

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212 BORING NO.: PDA-SB08

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevati
11	11.0 S-5	85%	14 15		BG		
12						End of Boring	
13						TD: 11.0'	
14						Boring is backfilled and grouted to surface	
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74 & 41

S.O. NO.: 212

BORING NO.: PDA-SB09

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATU #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>2-20-94</u>	<u>0-15.0</u>	<u>clear, mild</u>	<u>14.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STO</u>		<u>HSA</u>						
HAMMER WT.	<u>140#</u>								
FALL	<u>30"</u>								
STICK UP	<u>-</u>								

REMARKS: Boring advanced to 15.0' (bgs). Hwu background is .7 ppm.

SAMPLE TYPE
 S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS
 SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1		-	-		BG	<u>SILTY SAND, fine grained. Dark brown to brown, very loose, damp</u> <u>SAND, fine grained. Brown to light brown, loose to medium dense, damp to moist to wet</u>	
2	S-1	1.5 / 2.0	2 / 2		BG		
3		75%	3				
4	S-2	1.3 / 2.0	4 / 5		BG		
5		65%	5				
6		1.2 / 2.0	2 / 5		BG		
7		60%	5 / 7				
8	S-4	1.8 / 2.0	5 / 6		BG		
9		90%	12				
10	S-5	1.1 / 2.0	4 / 8		BG		

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Jay Corran

BORING NO.: PDA-SB09

SHEET 1 OF 2

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: PDA-SB09

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample						SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevatic
11	11.0 S-5	55%	7 11		BG	Yellow staining / streaking 11.0' to 11.5' (bgs) and 14.0' to 14.5' (bgs) only.	
12	Sample # 06 is collected	1.9 2.0	7 13 20		BG		
13	13.0	95%	19				
14	14.0 S-7	1.6 2.0	11 14 17 22		BG		
15	15.0	80%				End of Boring	
16						TD: 15.0'	
17						Boring backfilled and grouted to surface.	
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: J. Zimmerman
 BORING NO.: PDA-SB09 SHEET 2 OF 2

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: PDA-SB10

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATV #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>4 1/4" ID</u>		<u>2-20-94</u>	<u>0-19.0</u>	<u>clear, mild</u>	<u>18.0</u>	
LENGTH	<u>2.0</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140#</u>								
FALL	<u>30"</u>								
STICK UP	<u>-</u>								

REMARKS: Boring advanced to 19.0' (bgs). H2O background is .7 ppm

SAMPLE TYPE						DEFINITIONS			
S	=	Split Spoon	A	=	Auger	SPT	=	Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T	=	Shelby Tube	W	=	Wash	RQD	=	Rock Quality Designation (%)	
R	=	Air Rotary	C	=	Core	Lab Class.	=	USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D	=	Denison	P	=	Piston	Lab Moist.	=	Moisture Content (ASTM D-2216) Dry Weight Basis	
N	=	No Sample							

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	<u>1.0</u>	<u>-</u>	<u>-</u>		<u>BG</u>	<u>SILTY SAND, fine grained. Dark brown to brown, very loose, damp</u>	
2	<u>S-1</u>	<u>1.6 / 2.0</u>	<u>3</u>		<u>BG</u>		
3	<u>3.0</u>	<u>80%</u>	<u>5</u>				
4	<u>S-2</u>	<u>1.6 / 2.0</u>	<u>2</u>		<u>BG</u>		
5	<u>5.0</u>	<u>80%</u>	<u>4</u>			<u>SAND, fine grained</u>	
6		<u>1.3 / 2.0</u>	<u>3</u>			<u>Brown to light brown,</u>	
7	<u>7.0</u>	<u>65%</u>	<u>5</u>			<u>loose to medium dense,</u>	
8		<u>1.8 / 2.0</u>	<u>6</u>		<u>1.1</u>	<u>damp.</u>	
9	<u>9.0</u>	<u>90%</u>	<u>9</u>				
10	<u>S-5</u>	<u>1.4 / 2.0</u>	<u>7</u>		<u>1.1</u>		
		<u>70%</u>	<u>9</u>				

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Jay Corron

BORING NO.: PDA-SB10

SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: PDA-SB10

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	11.0 S-5	70%	8 12		1.1	SAND, fine grained. Light brown, medium dense, moist to wet.	
12	12.0 S-6	1.6 2.0 80%	9 13 15		.9		
13	13.0						
14	14.0 S-7	1.7 2.0 85%	8 11 12 9		1.1		
15	15.0						
16	16.0 Sample #08 is collected	1.7 2.0 85%	5 7 9		1		
17	17.0						
18	18.0 S-9	1.1 2.0 55%	5 10 5		1.2		
19	19.0						
20						End of Boring	
21						TD: 19.0'	
22						Boring is backfilled and grouted to surface.	
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: J. Zimmerman
 BORING NO.: PDA-SB10 SHEET 2 OF 2

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: RI/FS OU #4 CAMP LEJEUNE, NC
 S.O. NO.: 62470-212 BORING NO.: 74-PDA-SB 11
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: <u>HAND AUGER</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)					<u>1/24/94</u>	<u>0-1'</u>	<u>—</u>	<u>—</u>	<u>—</u>
LENGTH									
TYPE									
HAMMER WT.									
FALL									
STICK UP									

REMARKS:

<p>SAMPLE TYPE</p> <p>S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample</p>	<p>DEFINITIONS</p> <p>SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis</p>
--	--

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	HA 00	—	—	—	0.3 BG 0.3 PS	0.0-0.5' LIGHT/MEDIUM GREY SILTY f SAND, MOIST, LOOSE, SLIGHTLY ORGANIC	
2							
3						0.5-1.0' MEDIUM BROWN SILTY f SAND, MOIST, LOOSE	
4							
5							
6							
7							
8							
9							
10							

Match to Sheet 2

DRILLING CO.: N/A
 DRILLER: N/A

BAKER REP.: E. KLEINKAUF / W. PELKEY
 BORING NO.: 74-PDA-SB 11 SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: RI/FS DU #4 CAMP. LEJEUNE, 1
S.O. NO.: 62470-212 BORING NO.: 74-PDA-SB12
COORDINATES: EAST: _____ NORTH: _____
ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: <u>HAND AUGER</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)					<u>1/24/94</u>				
LENGTH									
TYPE									
HAMMER WT.									
FALL									
STICK UP									

REMARKS:

SAMPLE TYPE S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample	DEFINITIONS SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis
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Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	HA 00	-	-	-	0.3 BG 0.3 PS	0.0-0.3' MEDIUM GREY SILTY F SAND MOIST, LOOSE, SLIGHTLY ORGANIC	
2							
3						0.3-0.8' MEDIUM BROWN / LIGHT REDDISH BROWN SILTY F SAND MOIST, LOOSE	
4							
5							
6						0.8-1.0' LIGHT BROWN SILTY F SAND, MOIST, LOOSE	
7							
8							
9							
10							

Match to Sheet 2

DRILLING CO.: N/A
DRILLER: N/A

BAKER REP.: E. KLEINKAUF / W. PELKEY
BORING NO.: 74-PDA-SB12 SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: RI/FS OU#4 CAMP LEJEUNE, NC
 S.O. NO.: 62470-212 BORING NO.: 74-PDA-SB13
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: <u>HAND AUGER</u>					DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SPLIT SPOON	CASING	AUGERS	CORE BARREL						
SIZE (DIAM.)					<u>1/24/94</u>	<u>0-1'</u>	<u>—</u>	<u>—</u>	<u>—</u>
LENGTH									
TYPE									
HAMMER WT.									
FALL									
STICK UP									

REMARKS:

<p>SAMPLE TYPE</p> <p>S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample</p>	<p>DEFINITIONS</p> <p>SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis</p>
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Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	HA 00	—	—	—	0.4	0.0-0.6' DARK BROWN SANDY SILTY CLAY, BRICK FRAGMENTS, MOIST (FILL)	
					0.4		
2					0.3	0.6-1.0' MEDIUM BROWN / TAN SILTY F SAND, MOIST, LOOSE.	
3					0.3		
4					PS		
5							
6							
7							
8							
9							
10							

Match to Sheet 2

DRILLING CO.: N/A
 DRILLER: N/A

BAKER REP.: E. KLEINKAUF / W. PELKEY
 BORING NO.: 74-PDA-SB13 SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: RI/FS OV #4 CAMP LEJEUNE, NC
S.O. NO.: 62470-212 BORING NO.: 74-PDA-SB15
COORDINATES: EAST: _____ NORTH: _____
ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: <u>HAND AUGER</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)					<u>1/24/94</u>	<u>0-1'</u>	<u>—</u>	<u>—</u>	<u>—</u>
LENGTH									
TYPE									
HAMMER WT.									
FALL									
STICK UP									

REMARKS:

SAMPLE TYPE S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample	DEFINITIONS SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis
---	---

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	HA 00	—	—	—	0.3 86 1.2 PS	0.0-0.6' DARK BROWN SILTY f/fm SAND, TR/LITTLE CLAY, MOIST, SLIGHTLY COHESIVE	
2					0.2 86		
3					0.3 86 PS	0.6-1.0' BROWN SILTY f SAND, MOIST, LOOSE	
4							
5							
6							
7							
8							
9							
10							

Match to Sheet 2

DRILLING CO.: N/A
DRILLER: N/A

BAKER REP.: E. KLEINKAUF / W. PELKEY
BORING NO.: 74-PDA-SB15 SHEET 1 OF 1

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: RE/FS OU #4 CAMP LEJEUNE, NC
 S.O. NO.: 62470-212 BORING NO.: 74-PDA-SB14
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: <u>HAND AUGER</u>					DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SPLIT SPOON	CASING	AUGERS	CORE BARREL						
SIZE (DIAM.)					<u>1/24/94</u>	<u>0-1'</u>	<u>—</u>	<u>—</u>	<u>—</u>
LENGTH									
TYPE									
HAMMER WT.									
FALL									
STICK UP									

REMARKS:

SAMPLE TYPE						DEFINITIONS		
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')		
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)		
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)		
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis		
N = No Sample								
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation	
1	HA 00	—	—	—	0.4 BG	0.0-0.5' LIGHT GREY SILTY f SAND, MOIST, LOOSE		
2					0.4 PS	0.5-1.0' LIGHT BROWN/TAN SILTY f SAND, MOIST, LOOSE		
3								
4								
5								
6								
7								
8								
9								
10								

Match to Sheet 2

DRILLING CO.: N/A
 DRILLER: N/A

BAKER REP.: E. KLEINKAUF / W. PELKEY
 BORING NO.: 74-PDA-SB14 SHEET 1 OF 2

APPENDIX C
TEST BORING AND WELL LOGS

APPENDIX C.1
SITE 41

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212 BORING NO.: 41-GW04 DW
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: ATU #, 19 & 32					DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	SPLIT SPOON	CASING	AUGERS	CORE BARREL					
	1 3/8" IO		6 1/4" IO		2-7-94	0-20.0	cloudy, cool	3.0	
LENGTH	2.0		5.0'		2-8-94	20.0-42.0	partly cloudy, cool		
TYPE	STD		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP	2 1/2'								

REMARKS: Continuous sampling to 30.0' (bgs). Type II monitoring well set 2-8-94.

SAMPLE TYPE S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample			DEFINITIONS SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis		
---	--	--	---	--	--

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	Sample # 01 is collected	2.0 / 2.0	3 / 7		BG	SILTY SAND, fine grained. Brown, medium dense, damp. orange streaking 0-1.0' (bgs)	
2		100%	6 / 7			SAND, fine grained. Brown, medium dense, damp.	
3	Sample # 02 is collected	2.0 / 2.0	5 / 5		BG	SAND, fine grained w/ trace silt. Brown, loose to medium dense, moist to wet. orange stain.	
4		100%	4 / 3				
5	S-3	1.6 / 2.0	2 / 2		BG	SAND, fine grained. Brown, loose, wet. Yellow staining is present.	
6		80%	2				
7	S-4	1.2 / 2.0	4 / 7		BG	WOOD, dark brown	
8		60%	12"			SAND, fine grained. Dark brown, loose to medium dense, wet.	
9	S-5	1.2 / 2.0	1 / 6"		BG	WOOD, dark brown	
10		60%	7 / 3"			SAND, fine grained. Dark brown, loose to medium dense, wet	

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc BAKER REP.: J. Zimmerman / E. Kleinrauf
 DRILLER: Pat Callahan / Jay Corron BORING NO.: 41-GW04 DW SHEET 1 OF 3

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: 41-GW04

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	S-6	1.2	1		BG	SAND, fine grained. Gray, loose, wet. Dark gray banding is evident	
		2.0	2				
		60%	4				
12	S-7	2.0	3		BG	SAND, medium grained. Gray, loose wet.	
		2.0	6				
		100%	2				
13	S-8	2.0	9		BG	SAND, fine grained. Brown, loose, wet.	
		2.0	16				
		100%	27				
14	S-9	2.0	15		BG	SAND, medium to fine grained. Brown, dense, wet. orange stain at 15' (bgs)	
		2.0	10				
		100%	12				
15	S-10	2.0	13		BG	LITHIFIED LIMESTONE w/ shell material. Light green to white, loose, wet.	
		2.0	17				
		100%	19				
16	S-11	2.0	15		BG	SAND, medium to fine grained. Brown, medium dense, wet	
		2.0	10				
		100%	12				
17	S-12	2.0	13		BG	LITHIFIED LIMESTONE w/ trace shell fragments. Light green to white, medium dense, wet.	
		2.0	17				
		100%	10				
18	S-13	2.0	13		BG	SAND, fine grained. Limestone w/ shells material is present. Light green to white, dense wet.	
		2.0	17				
		100%	10				
19	S-14	2.0	6		BG	SAND, fine grained w/ silt. Limestone w/ shell material present. Light green to white	
		24"	4				
		100%	6				
20	S-15	24"	6		BG	SILTY SAND, fine grained w/ trace of shell and rock fragments.	
		24"	29				
		100%	33				
21	S-16	23"	18		BG	Light gray to tan to light greenish gray, loose to medium dense to stiff to hard, wet.	
		24"	31				
		95%	27				
22	S-17	24"	6		BG		
		24"	14				
		100%	13				
23	S-18	22"	9		BG		
		24"	15				
		91%	22				
24	S-19	22"	9		BG		
		24"	15				
		91%	19				
25	S-20	22"	9		BG		
		24"	15				
		91%	19				

DRILLING CO.: Hardin Huber Inc.
 DRILLER: Pat Callahan / Jay Corron

BAKER REP.: J. Zimmerman / E. Kleinlauf
 BORING NO.: 41-GW04 DW SHEET 2 OF 2

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: 41-GW04 DW

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger			SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')			
T = Shelby Tube	W = Wash			RQD = Rock Quality Designation (%)			
R = Air Rotary	C = Core			Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)			
D = Denison	P = Piston			Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis			
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
31							
32							
33							
34							
35	35.0						
36	S-16	24" / 24"	7 / 10 / 14 / 28		BG	SILTY SAND, fine grained w/ trace shell fragments. Greenish grey, medium dense, wet	
37	37.0	100%					
38							
39							
40	40.0						
41	S-17	24" / 24"	23 / 26 / 27 / 52		BG	SILTY SAND, fine grained w/ trace shell fragments. Greenish grey, very dense, wet	
42	42.0	100%					
End of Boring							
3							
4						TD: 42.0'	
5						HNU background is .4 ppm	
6						HSA 0 to 20.0' (bgs). Mud rotary	
7						20.0 to 42.0' (bgs).	
8							
9							
0							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan / Jay Corron

BAKER REP.: J. Zimmerman / E. Kleinkauf
 BORING NO.: 41-GW04 DW SHEET 3 OF 3

FIELD WELL CONSTRUCTION LOG

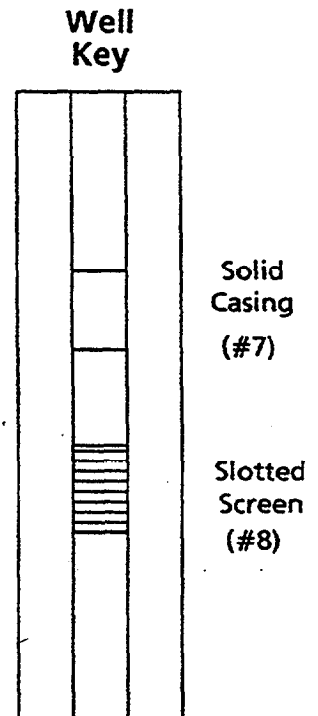
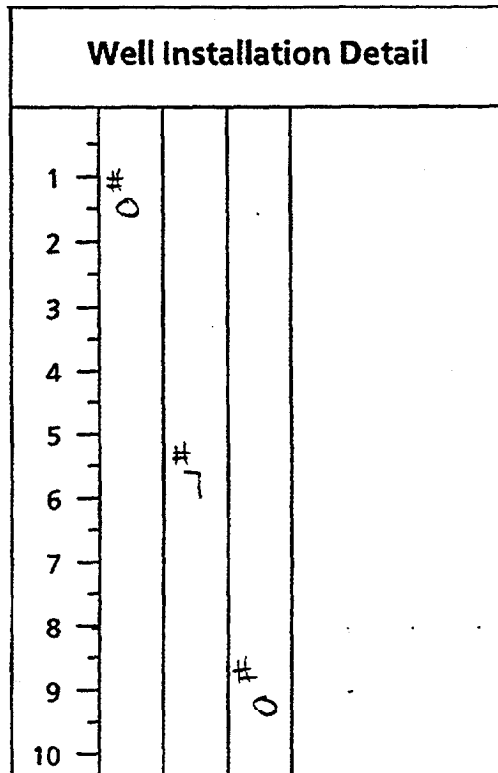
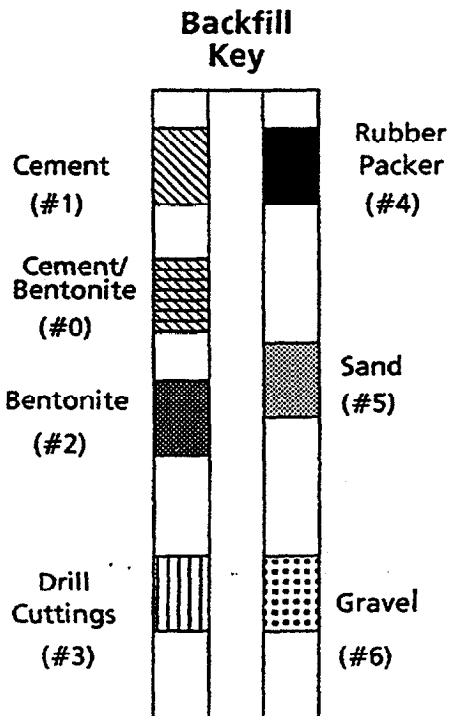
Baker

Baker Environmental, Inc.

PROJECT: Sites 69, 74, & 41 DATE: 2-8-94
 CTO NO.: 212 BORING NO.: 41-GW04-DW
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF STEEL CASING: _____

Pay Items			
Item	Quantity	Unit	Remarks
Sand	9 bags		#1 Sand
Bentonite Pellets	1 bucket		
PVC Pipe	42.5'		10' of screen
(1) steel surface protective casing			
(4) bollards and (1) 5x5 cement pad			

WELL INFORMATION	DIAM. (INCHES)	TYPE	TOP DEPTH (FT.)	BOTTOM DEPTH (FT.)
Well Casing	2.0"	Schedule 40 PVC	+2.5' (bgs)	30.0' (bgs)
Well Screen	2.0"	Schedule 40 PVC 10 slot	30.0' (bgs)	40.0' (bgs)



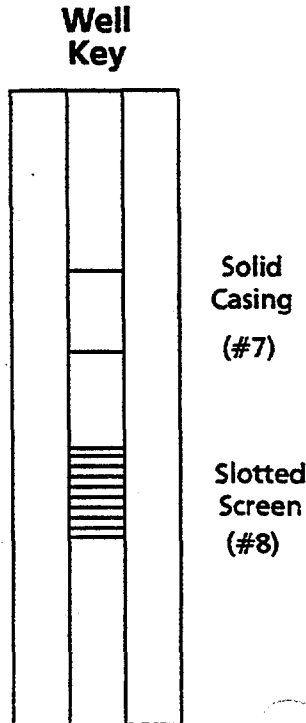
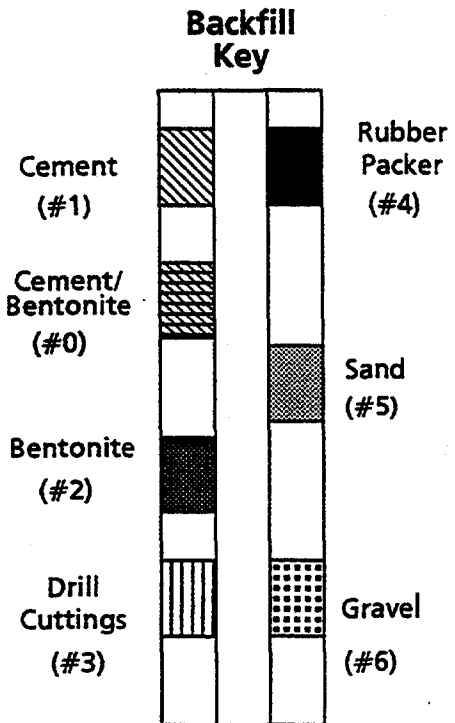
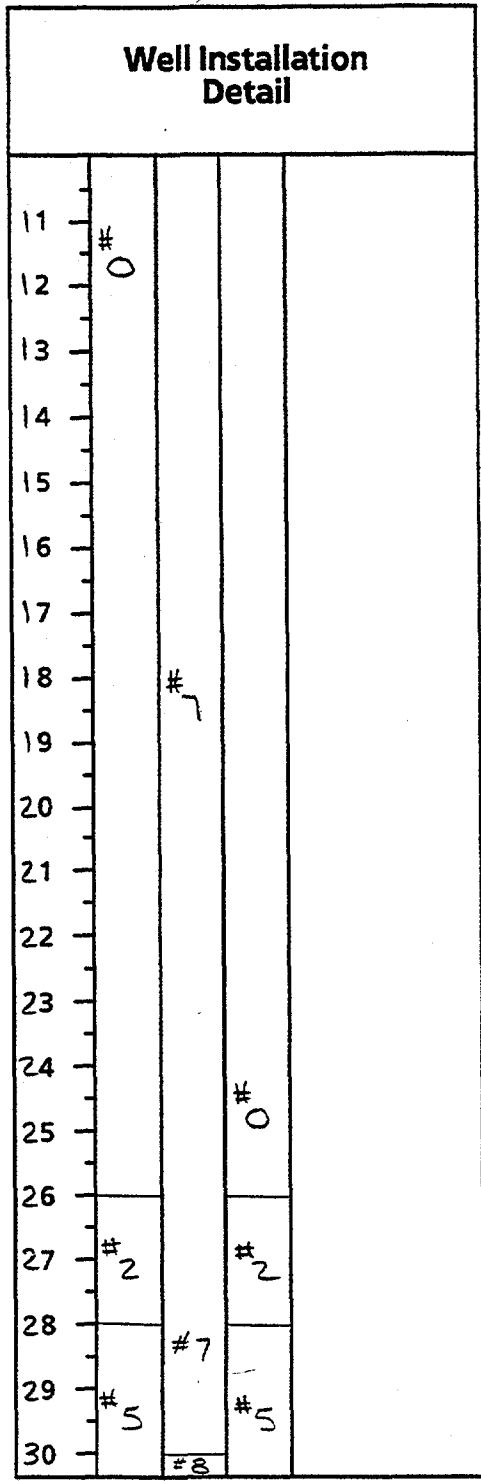
DRILLING CO.: Hardin Huber, Inc BAKER REP.: E. Kleinkauf
 DRILLER: Jay Corron BORING NO.: 41-GW04-DW SHEET 1 OF 3



FIELD WELL CONSTRUCTION LOG

PROJECT: Sites 69, 74 & 41
 S.O. NO.: 212

BORING NO.: 41-GW04 DW



DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf
 BORING NO.: 41-GW04 DW SHEET 2 OF 3

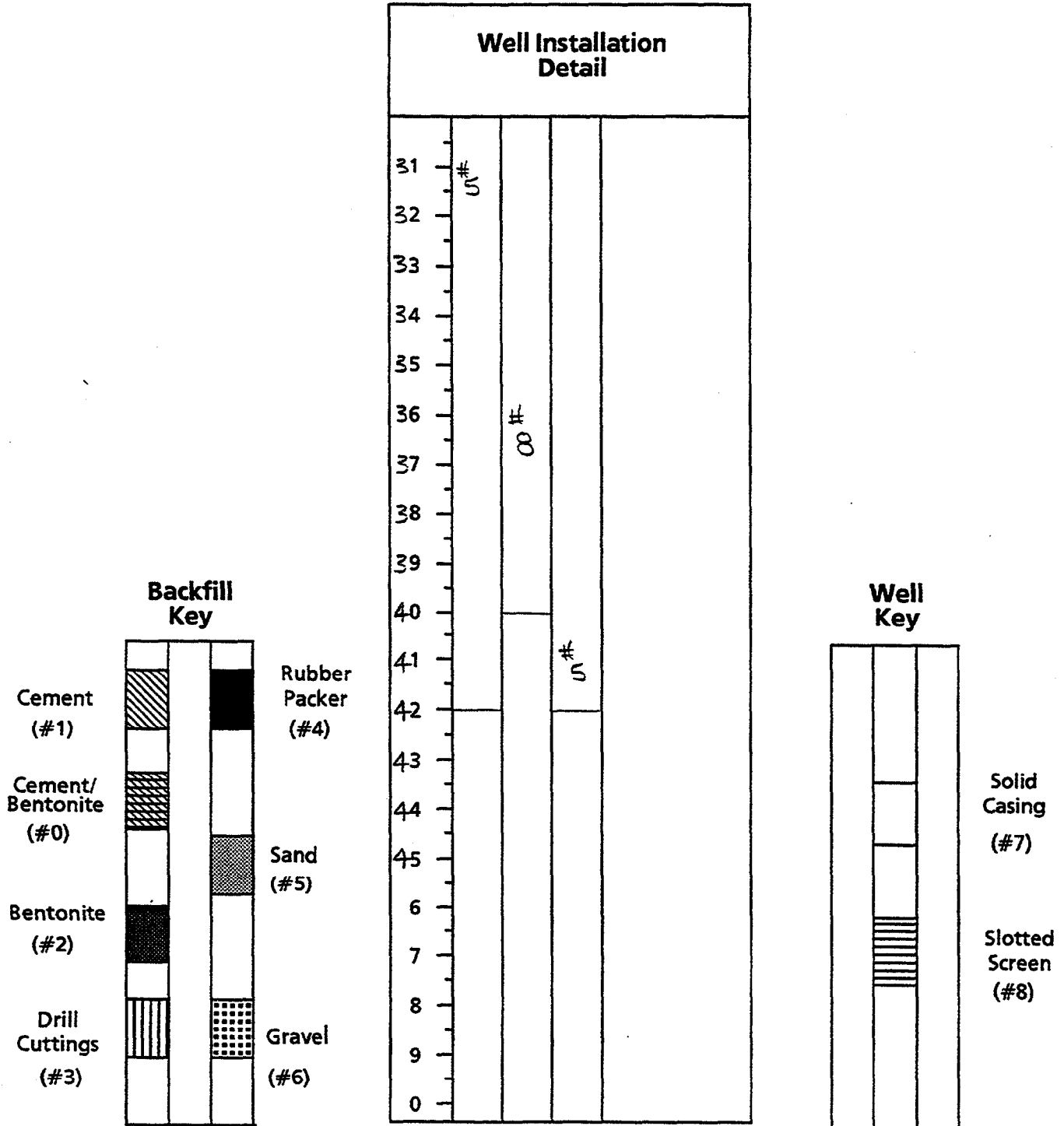


FIELD WELL CONSTRUCTION LOG

PROJECT: Sites 69, 74, E 41

S.O. NO.: 212

BORING NO.: 41-GW04 DW



DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Carron

BAKER REP.: E. Kleinkauf
 BORING NO.: 41-GW04 DW SHEET 3 OF 3

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41-GW06 DW

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATV #32</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>				<u>2-16-94</u>	<u>0-42.0</u>	<u>partly cloudy, mild</u>	<u>8.0</u>	
LENGTH	<u>2.0'</u>								
TYPE	<u>STD</u>								
HAMMER WT.	<u>140#</u>								
FALL	<u>30"</u>								
STICK UP	<u>2 1/2'</u>								

REMARKS: Continuous sampling to 26.0' (bgs). Type II monitoring well set 2-16-94.

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denson P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	S-1	23" 24"	3 4 4			SILTY SAND, fine grained. Light brown to tan to brown to light grey, loose moist to wet.	
2		75%	5		BG		
3	Sample #02 is collected	15" 24"	3 7 10				
4		62%	14		BG		
5	Sample #03 is collected	9" 24"	4 10 14				
6		37%	14		BG		
7	S-4	16" 24"	4 6 9				
8		66%	9		BG		
9	S-5	8" 24"	4 6 7				
10		33%	7		BG		

SILTY SAND, fine to fine to medium grained. Light brown, loose, wet.
 Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: E. Kleinkauf

DRILLER: Jay Corron

BORING NO.: 41-GW06 DW

SHEET 1 OF 3

PROJECT: Sites 69, 74 & 41
 S.O. NO.: 212

BORING NO.: 41-GW06

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevatic
11	S-6		WOK 4 5 6		BG	CLAY and SAND, fine grained. Dark brown, loose, wet. organ?	
12		17" 24"	4 3 6		BG	SILTY SAND, fine to fine to medium grained. Light reddish brown, loose wet.	
13	S-7	70%	4		BG	SILTY CLAY w/ little SAND, fine grained. Dark brown, wet.	
14		13" 24"	5 8 11		BG	SILTY SAND, fine grained. Light brown to light grey to tan, loose, wet.	
15	S-8	54%	6 6 2 3		BG	SILTY SAND, fine to fine to medium grained w/ trace of CLAY. Light brown, loose, wet.	
16		14" 24"	2 1 2 2		BG	SILTY SAND, fine to fine to medium grained w/ trace of CLAY. Light brown, loose, wet.	
17	S-9	58%	2 2 2 2		BG	SILTY SAND, fine to fine to medium grained w/ trace of CLAY. Light brown, loose, wet.	
18		24" 24"	2 1 2 2		BG	SILTY SAND, fine to fine to medium grained w/ trace of CLAY. Light brown, loose, wet.	
19	S-10	100%	2 2 2 2		BG	SILTY SAND, fine to fine to medium grained w/ trace of CLAY. Light brown, loose, wet.	
20		16" 24"	2 2 2 2		BG	SILTY SAND, fine to fine to medium grained w/ trace of CLAY. Light brown, loose, wet.	
21	S-11	66%	2 2 2 2		BG	SILTY SAND, fine to fine to medium grained w/ trace of CLAY. Light brown, loose, wet.	
22		18" 24"	2 2 2 2		BG	SILTY SAND, fine to fine to medium grained w/ trace of CLAY. Light brown, loose, wet.	
23	S-12	75%	2 2 2 2		BG	SILTY SAND, fine to fine to medium grained w/ trace of CLAY. Light brown, loose, wet.	
24		20" 24"	2 2 2 2		BG	SILTY SAND, fine to fine to medium grained w/ trace of CLAY. Light brown, loose, wet.	
25	S-13	83%	2 2 2 2		BG	SILTY SAND, fine to fine to medium grained w/ trace of CLAY. Light brown, loose, wet.	
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf
 BORING NO.: 41-GW06 DW

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74 & 41
 S.O. NO.: 212

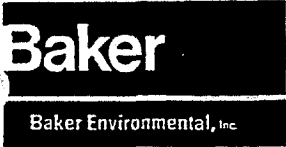
BORING NO.: 41-GW06 DW

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample						SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
31	S-14	24"	9		BG	SILTY SAND, fine grained w/ trace of shell fragments. Light greenish gray, wet.	
32		24"	7				
		100%	14				
			26				
35.0	S-15	24"	12		BG	SILTY SAND, fine grained w/ trace of shell fragments. Light greenish gray, wet.	
36		24"	17				
37		26	26				
		100%	36				
40.0	S-16	21"	27		BG	SILTY SAND, fine grained w/ trace of shell fragments. Light greenish gray, wet.	
41		24"	21				
42		22	22				
		87%	30				
3						End of Boring	
4						TD: 42.0'	
5						HWU background range .2 to .4 ppm.	
6						Mud rotary used from surface.	
7							
8							
9							
0							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf
 BORING NO.: 41-GW06 DW

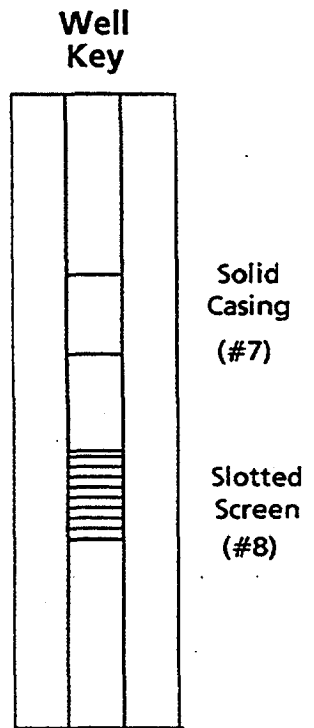
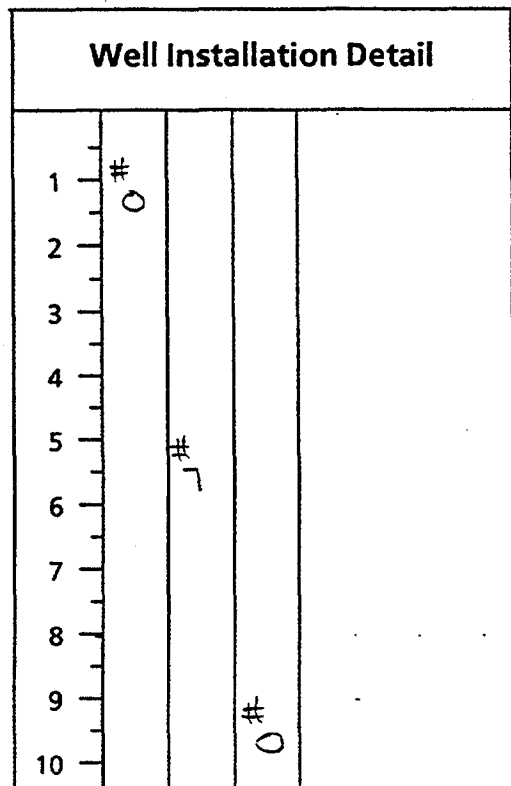
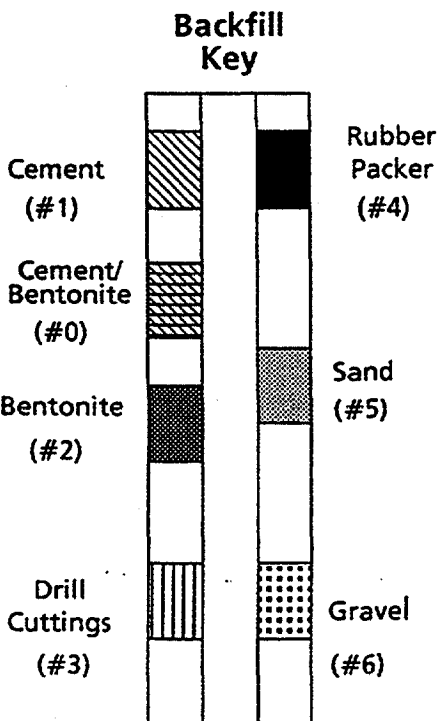
FIELD WELL CONSTRUCTION LOG



PROJECT: Sites 69, 74 & 41 DATE: 2-16-94
 CTO NO.: 212 BORING NO.: 41-GW06 DW
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF STEEL CASING: _____

Pay Items			
Item	Quantity	Unit	Remarks
Sand	8 1/2 bags		#1 screen
Bentonite Pellets	1 bucket		
PVC Pipe	42.5'		10' of screen
(1) steel surface protective casing			
(4) bollards and (1) 5x5 cement pad			

WELL INFORMATION	DIAM. (INCHES)	TYPE	TOP DEPTH (FT.)	BOTTOM DEPTH (FT.)
Well Casing	2.0"	Schedule 40 PVC	+ 2.5' (bgs)	30.0' (bgs)
Well Screen	2.0"	Schedule 40 PVC 10 slot	30.0' (bgs)	40.0' (bgs)



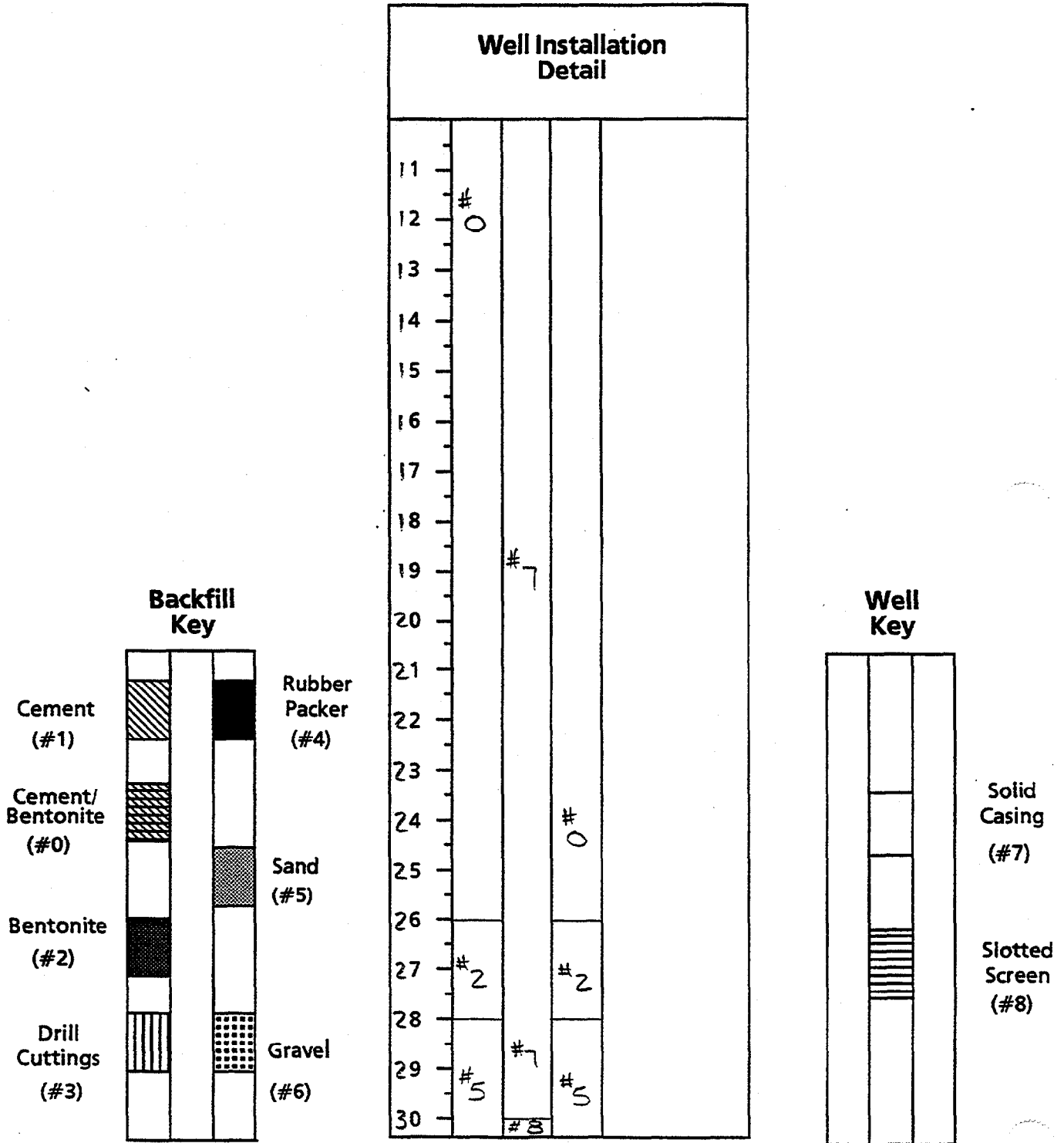
DRILLING CO.: Hardin Huber, Inc BAKER REP.: E. Kleinkauf
 DRILLER: Jay Corron BORING NO.: 41-GW06 DW SHEET 1 OF 3

FIELD WELL CONSTRUCTION LOG

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41-GW06 DW-



DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

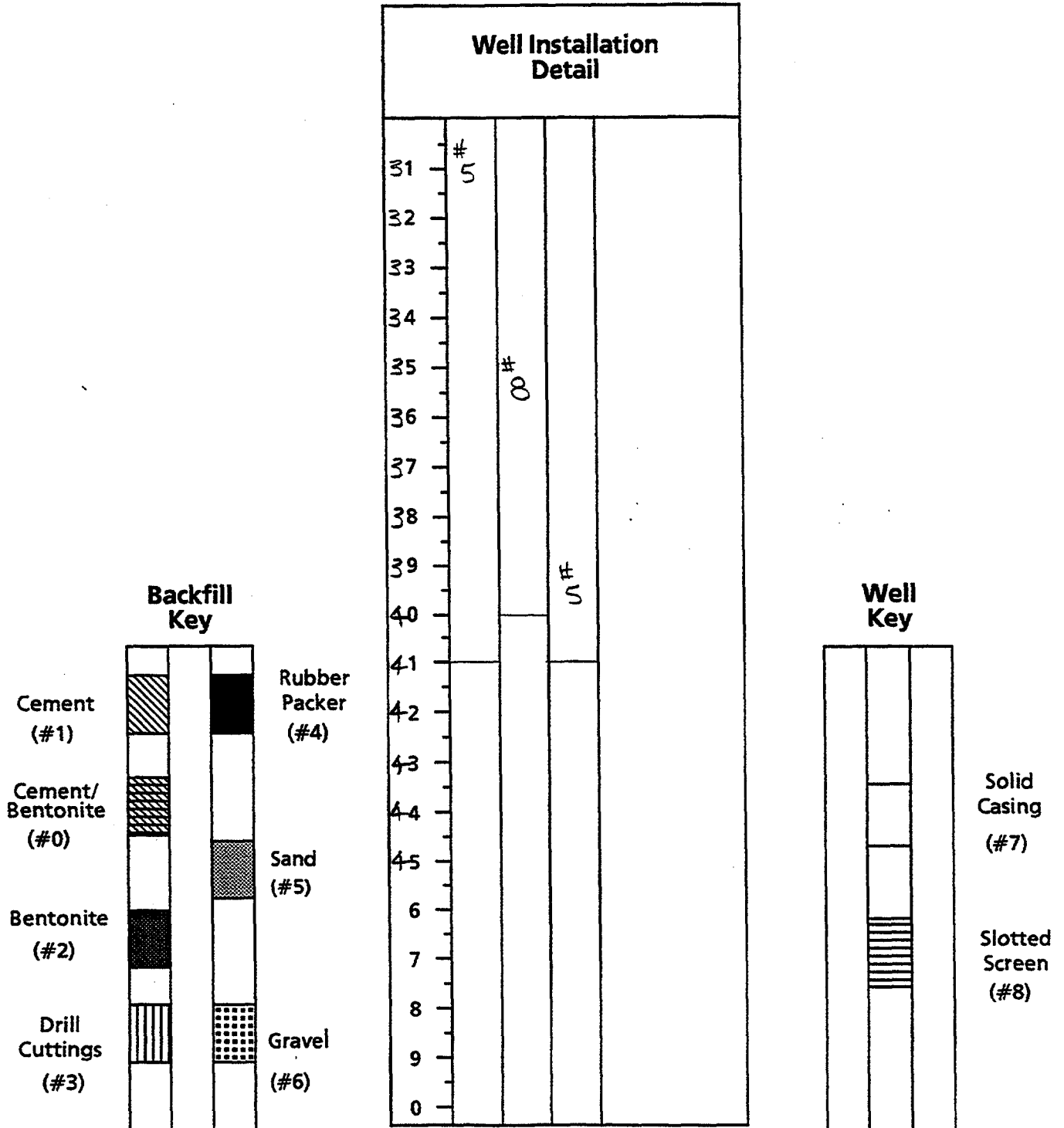
BAKER REP.: E. Kleinkauf
 BORING NO.: 41-GW06 DW

FIELD WELL CONSTRUCTION LOG

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41-GW06 DW



DRILLING CO.: Hardin Huber, Inc

DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf

BORING NO.: 41-GW06 DW

SHEET 3 OF 3

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, E 41

S.O. NO.: 212

BORING NO.: 41-GW07S

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATU #32									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" IO		6 1/4" IO		2-5-94	0-21.0	overcast, mild	5.0	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 #								
FALL	30"								
STICK UP	2 1/2'								

REMARKS: Continuous sampling to 20.0' (bgs). Type II monitoring well set 2-5-94.

SAMPLE TYPE						DEFINITIONS		
S = Split Spoon	A = Auger				SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')			
T = Shelby Tube	W = Wash				RQD = Rock Quality Designation (%)			
R = Air Rotary	C = Core				Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)			
D = Denison	P = Piston				Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis			
N = No Sample								
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description		Elevation
1	Sample #01 is collected	18" / 24"	1 / 3		1.5	SILTY SAND, fine grained w/ trace clay and organics. Black, loose, damp		
2		75%	3 / 3					
3	S-2	16" / 24"	2 / 4		.5	SILTY SAND, fine grained w/ trace clay. Light gray to light brown, loose, moist		
4		66%	3 / 3					
5	S-3	21" / 24"	2 / 3		BG	SILTY SAND, fine grained. Light brown, loose, wet.		▼
6		87%	5 / 6					
7	Sample #04 is collected	22" / 24"	3 / 4		BG	CLAY. Light gray to light brown to red, stiff, moist.		
8		91%	5 / 6					
9	S-5	12" / 24"	3 / 8		BG	SILTY SAND, fine grained. Light brown to tan, loose, wet.		
10		50%	8 / 7					

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: E. Kleinkauf

DRILLER: Jay Corran

BORING NO.: 41-GW07S

SHEET 1 OF 2



TEST BORING RECORD

PROJECT: Sites 69, 74 & 41
 S.O. NO.: 212 BORING NO.: 41-GW07S

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	S-6	4" 24"	2 2		BG	GARBAGE	
12		16%	2				
13	S-7				BG	SILTY SAND, fine grained. Light brown to tan, loose, wet.	
14							
15	S-8	18" 24"			BG	CLAY, light gray to light brown	
16		75%				SILTY SAND, fine grained. Light brown to tan, loose, wet.	
17	S-9	24" 24"			BG	SAND, loose, wet	
18		100%					
19	S-10	19" 24"			BG		
20		79%					
21	N	-	-		-		
22						End of Boring	
23						TD: 21.0'	
24						HWU background range .1 to .4 ppm	
25						Sampled to 20' (bgs). overdrilled to 21' (bgs).	
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf
 BORING NO.: 41-GW07S SHEET 2 OF 2

FIELD WELL CONSTRUCTION LOG

Baker

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41

DATE: 2-5-94

CTO NO.: 212

BORING NO.: 41-GW075

COORDINATES: EAST: _____

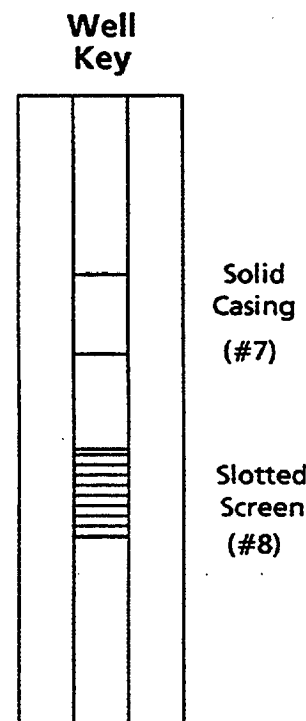
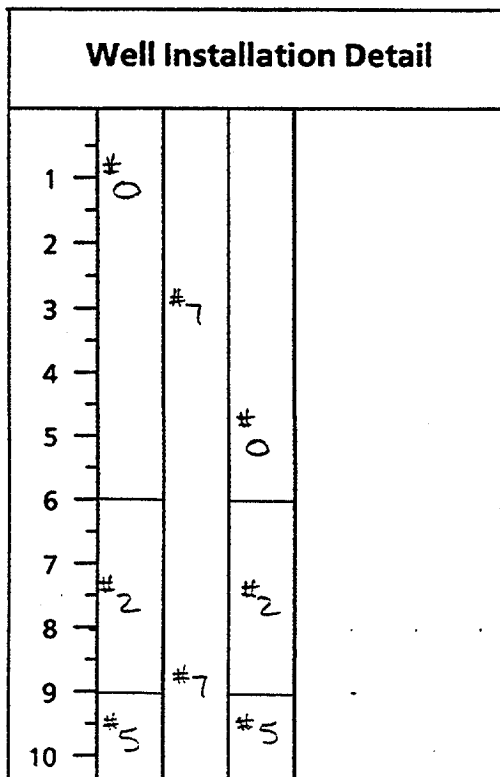
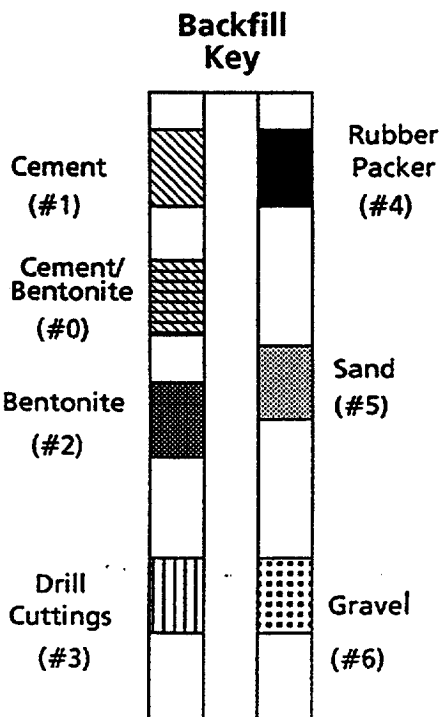
NORTH: _____

ELEVATION: SURFACE: _____

TOP OF STEEL CASING: _____

Pay Items			
Item	Quantity	Unit	Remarks
Sand	7 bags		#1 Sand
Bentonite Pellets	1 bucket		
PVC Pipe	23.0'		10' of screen
(1) steel surface protective casing			
(4) bollards and (1) 5x5 cement pad			

WELL INFORMATION	DIAM. (INCHES)	TYPE	TOP DEPTH (FT.)	BOTTOM DEPTH (FT.)
Well Casing	2.0"	Schedule 40 PVC	+2.5' (bgs)	10.5' (bgs)
Well Screen	2.0"	Schedule 40 PVC 10 slot	10.5' (bgs)	20.5' (bgs)



DRILLING CO.: Hardin Huber, Inc

BAKER REP.: E. Klein Kauf

DRILLER: Jay Corran

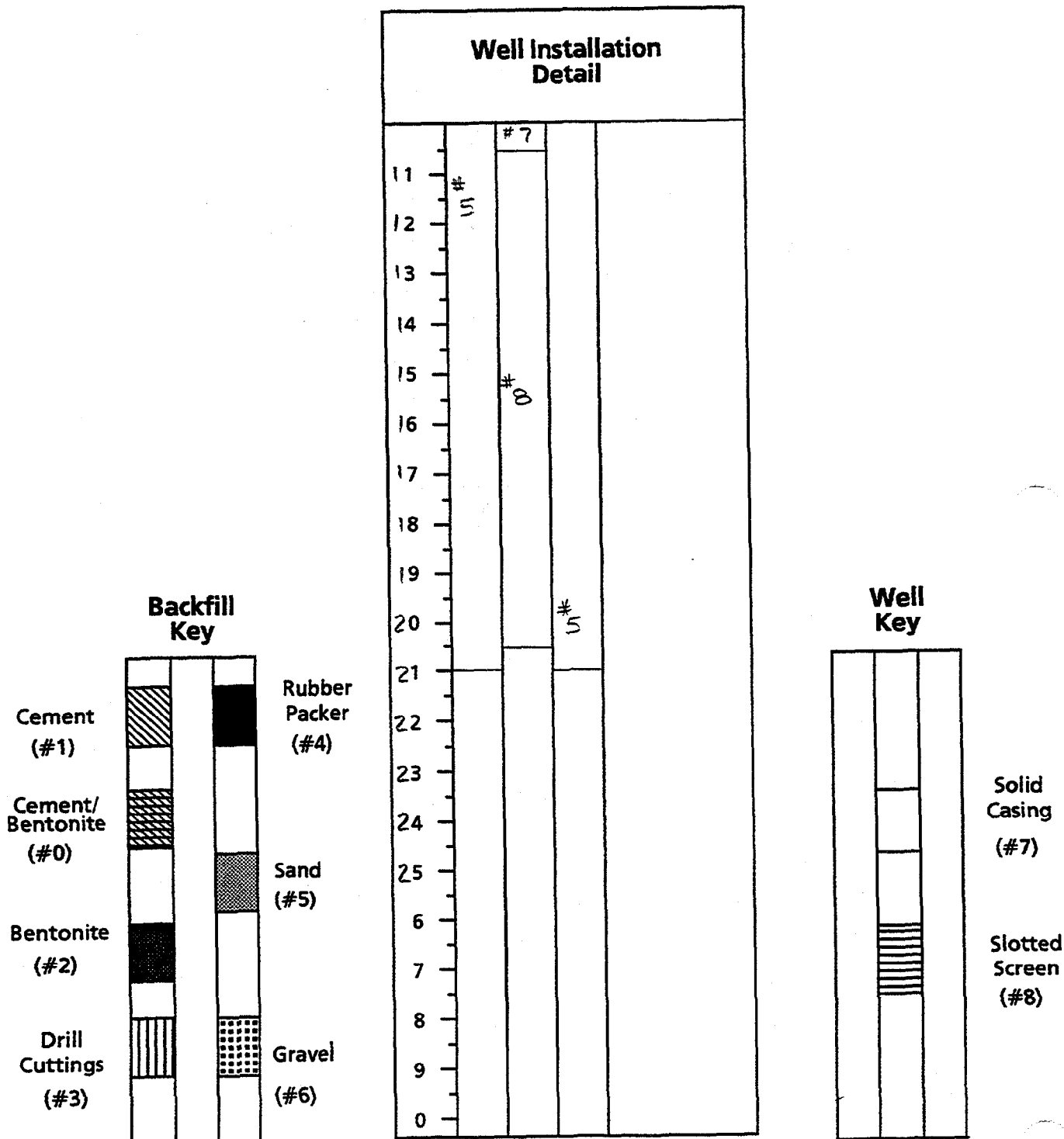
BORING NO.: 41-GW075 SHEET 1 OF 2

FIELD WELL CONSTRUCTION LOG

PROJECT: Sites 69 74 E 41

S.O. NO.: 212

BORING NO.: 41-GW07S



DRILLING CO.: Hardin Huber, Inc

DRILLER: Jay Corran

BAKER REP.: E. Kleinkauf

BORING NO.: 41-GW07S

SHEET 2 OF 2

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41-GW07I

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATV #32

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID				2-6-94	0-45.0		12.5	
LENGTH	2.0'								
TYPE	STD								
HAMMER WT.	140#								
FALL	30"								
STICK UP	2 1/2'								

REMARKS: Continuous sampling to 40.0' (bgs). Type II monitoring well set 2-6-9

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	S-1	14" / 24" 58%	1 2 4		-	SILTY SAND, fine grained w/ trace CLAY. Black, loose, moist. Organic	
2			7				
3	Samples # 02 & 15 collected	17" / 24" 70%	1 5 7 9		-	SILTY SAND, fine grained w/ little CLAY. Light brown, moist, slightly cohesive	
4							
5	S-3	22" / 24" 91%	4 8 6 8		BG	CLAY w/ trace of SAND, fine grained. Light gray to light brown, loose, moist.	
6							
7	S-4	23" / 24" 95%	2 4 6 8		BG	SILTY SAND, fine grained w/ trace CLAY. Black, moist	
8							
9	S-5	16" / 24" 66%	2 1 1 2		BG		
10							

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: E. Kleinkauf

DRILLER: Jay Carron

BORING NO.: 41-GW07 I

SHEET 1 OF 3

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: 41-GW07

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	Sample # 06 is collected	20"	2		BG		
		24"	5				
12		83%	8				
13	S-7	6"	9		BG	SILTY SAND, fine grained. Light gray to tan, loose, wet.	
14		24"	14				
15	S-8	6"	9		BG		
16		24"	14				
17	S-9	13"	4		BG	SILTY SAND, fine grained w/ trace of CLAY. Light gray to tan, loose, wet.	
18		24"	2				
19	S-10	24"	1		BG	SILTY CLAY. Reddish brown, loose, wet.	
20		100%	WOH				
21	S-11	24"	2		BG	SILTY SAND, fine grained. Medium gray to greenish gray, loose, wet.	
22		24"	3				
23		100%	4				
24	S-12	24"	2		BG		
25		24"	4				
26	S-13	24"	7		BG	SILTY SAND, fine to fine to medium grained w/ trace of rock fragments and CLAY. Light gray to tan, loose, wet.	
27		100%	9				
28	S-14	24"	7		BG		
29		24"	13				
30	S-15	22"	7		BG		
		24"	12				
		100%	13				
			19				

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf
 BORING NO.: 41-GW07 I

Baker Environmental, Inc

PROJECT: Sites 69, 74, E 41
 S.O. NO.: 212

BORING NO.: 41-GW07 I

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
31	S-16	22" 24"	10 10 12		BG	SILTY SAND, fine grained w/ shell fragments and little rock fragments. Light gray to tan, loose, wet. Increase in coarseness between 36' and 38' (bgs).	
32		91%	28				
33	S-17	21" 24"	7 10 10		BG		
34		87%	12				
35	S-18	23" 24"	8 8 21		BG		
36		95%	28				
37	S-19	24" 24"	15 23 26		BG		
38		100%	31				
39	S-20	22" 24"	8 10 12		BG		
40		91%	6				
41						SILTY SAND, coarser grained w/ shell fragments, some rock fragments and slightly CLAYEY. Light gray to tan, loose, wet.	
42							
43							
44	S-21	21" 24"	31 34 59		BG		
45		87%	16"				
6						End of Boring	
7						TD: 45.0'	
8						HWU background range .1 to .5 ppm	
9						Mud rotary used from 4.0' (bgs)	
0							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf
 BORING NO.: 41-GW07 I

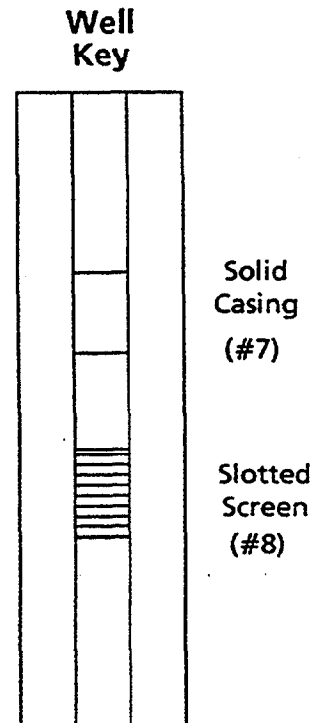
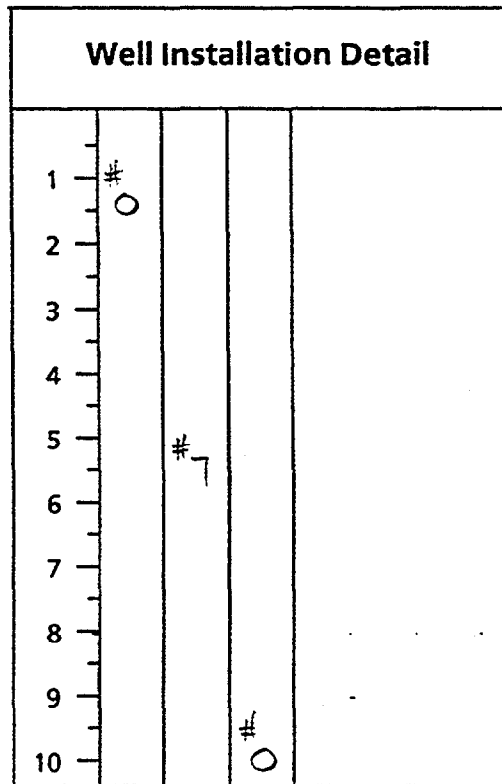
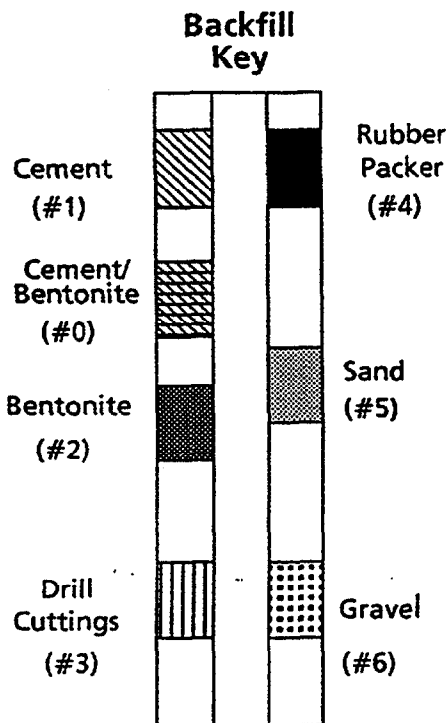
FIELD WELL CONSTRUCTION LOG



PROJECT: Sites 69, 74, E 41 DATE: 2-6-94
 CTO NO.: 212 BORING NO.: 41-GW07 I
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF STEEL CASING: _____

Pay Items			
Item	Quantity	Unit	Remarks
Sand	7 bags		#1 sand
Bentonite Pellets	1 1/2 buckets		
PVC Pipe	46.5'		10' of screen
(1) steel surface protective casing			
(4) ballards and (1) 5x5 cement pad			

WELL INFORMATION	DIAM. (INCHES)	TYPE	TOP DEPTH (FT.)	BOTTOM DEPTH (FT.)
Well Casing	2.0"	Schedule 40 PVC	+2.5' (bgs)	34.0' (bas)
Well Screen	2.0"	Schedule 40 PVC 10 slot	34.0' (bgs)	44.0' (bas)

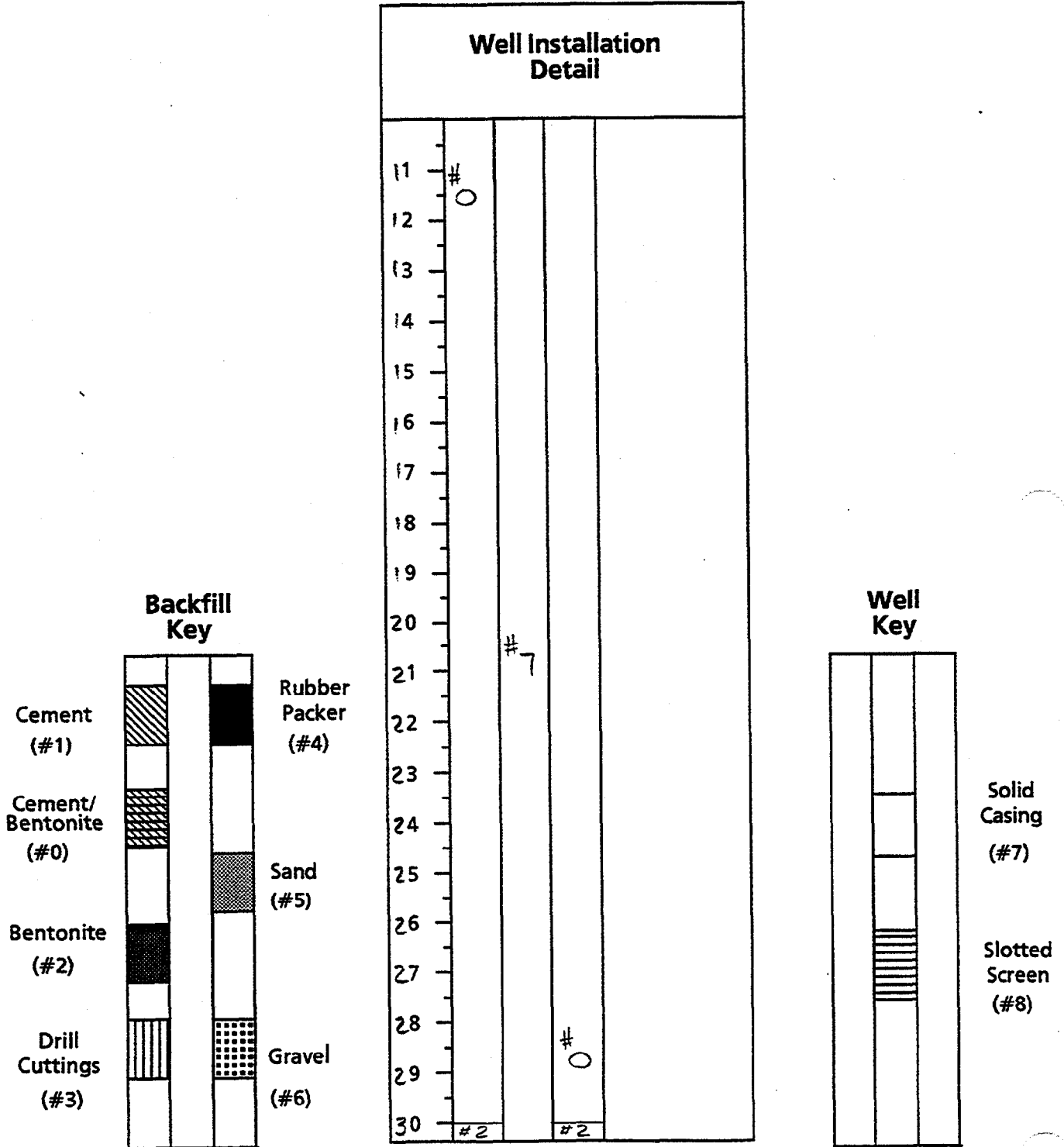


DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corran

BAKER REP.: E. Kleinkauf
 BORING NO.: 41-GW07 I SHEET 1 OF 3

FIELD WELL CONSTRUCTION LOG

PROJECT: Sites 69, 74, & 41
S.O. NO.: 212 BORING NO.: 41-GW07 I



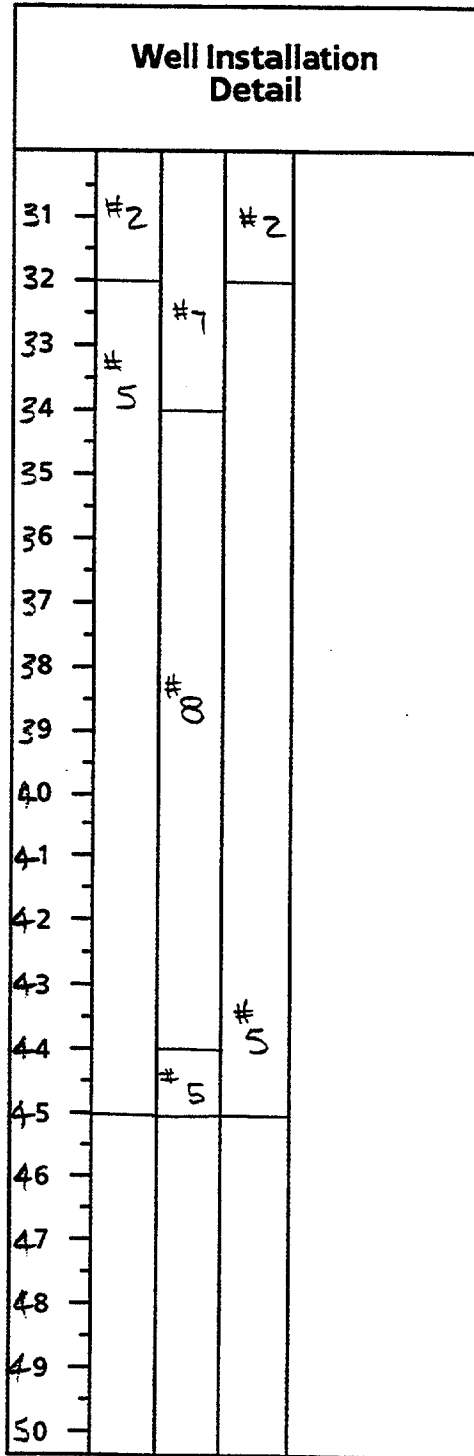
DRILLING CO.: Hardin Huber, Inc
DRILLER: Jay Corran

BAKER REP.: E. Kleinkauf
BORING NO.: 41-GW07 I SHEET 2 OF 3

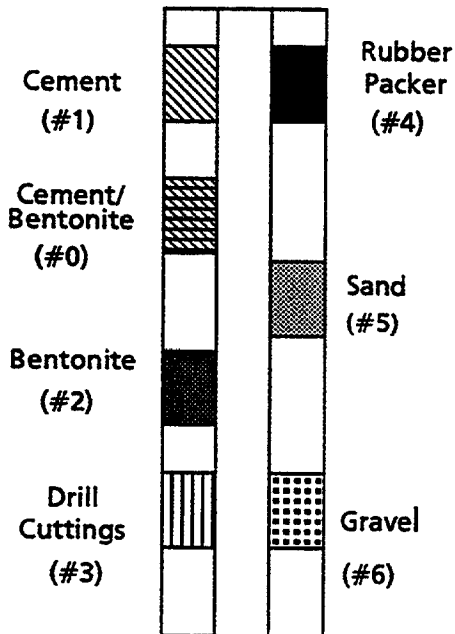
FIELD WELL CONSTRUCTION LOG

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

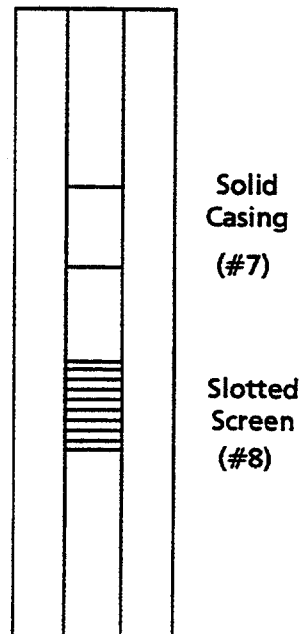
BORING NO.: 41-GW07 I



Backfill Key



Well Key



DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf
 BORING NO.: 41-GW07 I

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41GW-085

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATV #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>6 1/4" ID</u>		<u>2-7-94</u>	<u>0-16.0</u>	<u>Sunny 60's</u>	<u>5.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD.</u>		<u>HSA</u>						
HAMMER WT.	<u>140 #</u>								
FALL	<u>30"</u>								
STICK UP	<u>2.5'</u>								

REMARKS: Continuous sampling to 16.0' (bgs). Type II monitoring well set 2-7-94

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	Sample #01 is collected	1.8 / 2.0	3		BG	SILTY SAND, fine grained. Brown to light brown, medium dense, damp. orange stain	
2		90%	5				
3	Sample #02 is collected	2.0 / 2.0	3		BG	SAND, fine grained. Brown to light brown, medium dense, damp to moist. orange stain	
4		100%	7				
5	S-3	1.5 / 2.0	3		BG	SAND, medium grained. Light brown, medium dense, wet.	
6		75%	6				
7	S-4	1.7 / 2.0	1		BG	CLAY, soft. Dark gray, moist	
8		85%	2			SANDY CLAY - Dark gray, loose to soft, moist	
9		1.8 / 2.0	2		BG	SILTY CLAY, soft. Dark gray, wet	
10	S-5	1.8 / 2.0	2			CLAY w/ organics (wood). Dark gray, soft, moist	
		90%	3				

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: 41GW-085

SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: 41GW-085

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	S-6	1.6 2.0	1 3		BG	SANDY CLAY. Greenish gray, soft to medium stiff, moist to wet.	
12		80%	6				
13	S-7	1.7 2.0	4 6		BG	SAND, medium grained. Gray, loose, wet.	
14		85%	10 6				
15	S-8	1.4 2.0	3 3 3		BG	SILTY SAND, fine grained w/ organics (wood). Dark gray, loose, wet.	
16		70%				End of Boring	
17						TD: 16.0'	
18						Wall set @: 15.0'	
19						H ₂ O background: .5 ppm	
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: 41GW-085

FIELD WELL CONSTRUCTION LOG

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41GW-085

COORDINATES: EAST: _____

NORTH: _____

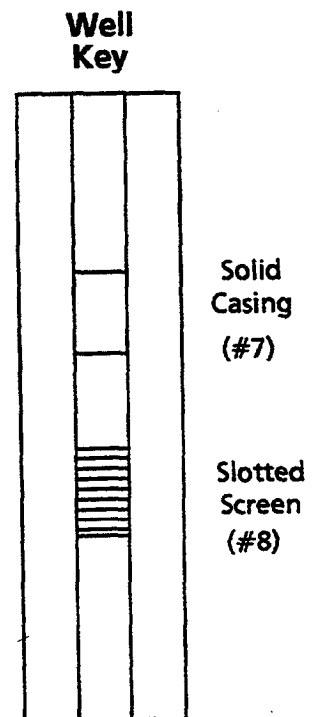
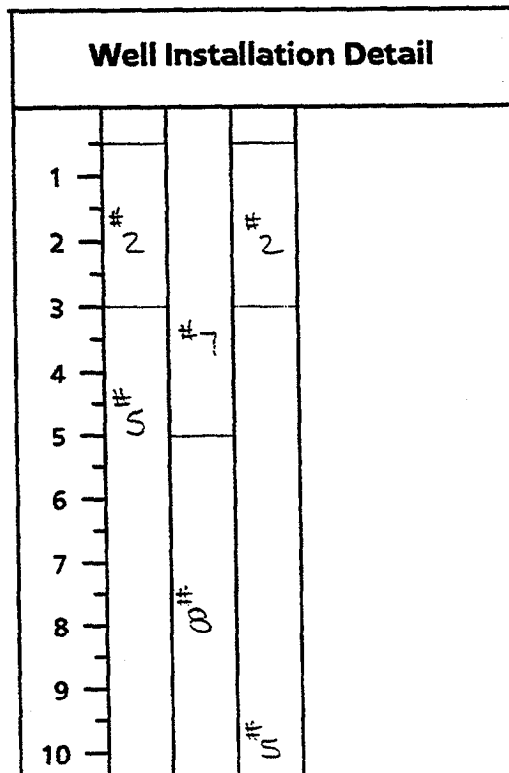
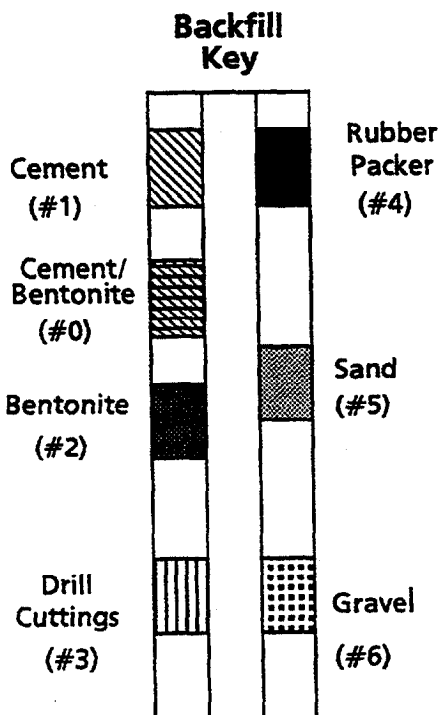
ELEVATION: SURFACE: _____

TOP OF STEEL CASING: _____

Well Development _____

Pay Items			
Item	Quantity	Unit	Remarks
Sand	6 bags		#1 sand
Bentonite Pellets	1 bucket		
PVC Pipe	17 1/2'		10' of screen
(1) steel surface protective casing			
(4) bollards and (1) 5x5 cement pad			

WELL INFORMATION	DIAM. (INCHES)	TYPE	TOP DEPTH (FT.)	BOTTOM DEPTH (FT.)
Well Casing	2.0"	Schedule 40 PVC	+ 2.5'	5.0' (bgs)
Well Screen	2.0"	Schedule 40 PVC 10 Slot	5.0' (bgs)	15.0' (bgs)



DRILLING CO.: Hardin Huber, Inc.

BAKER REP.: John Zimmerman

DRILLER: Pat Callahan

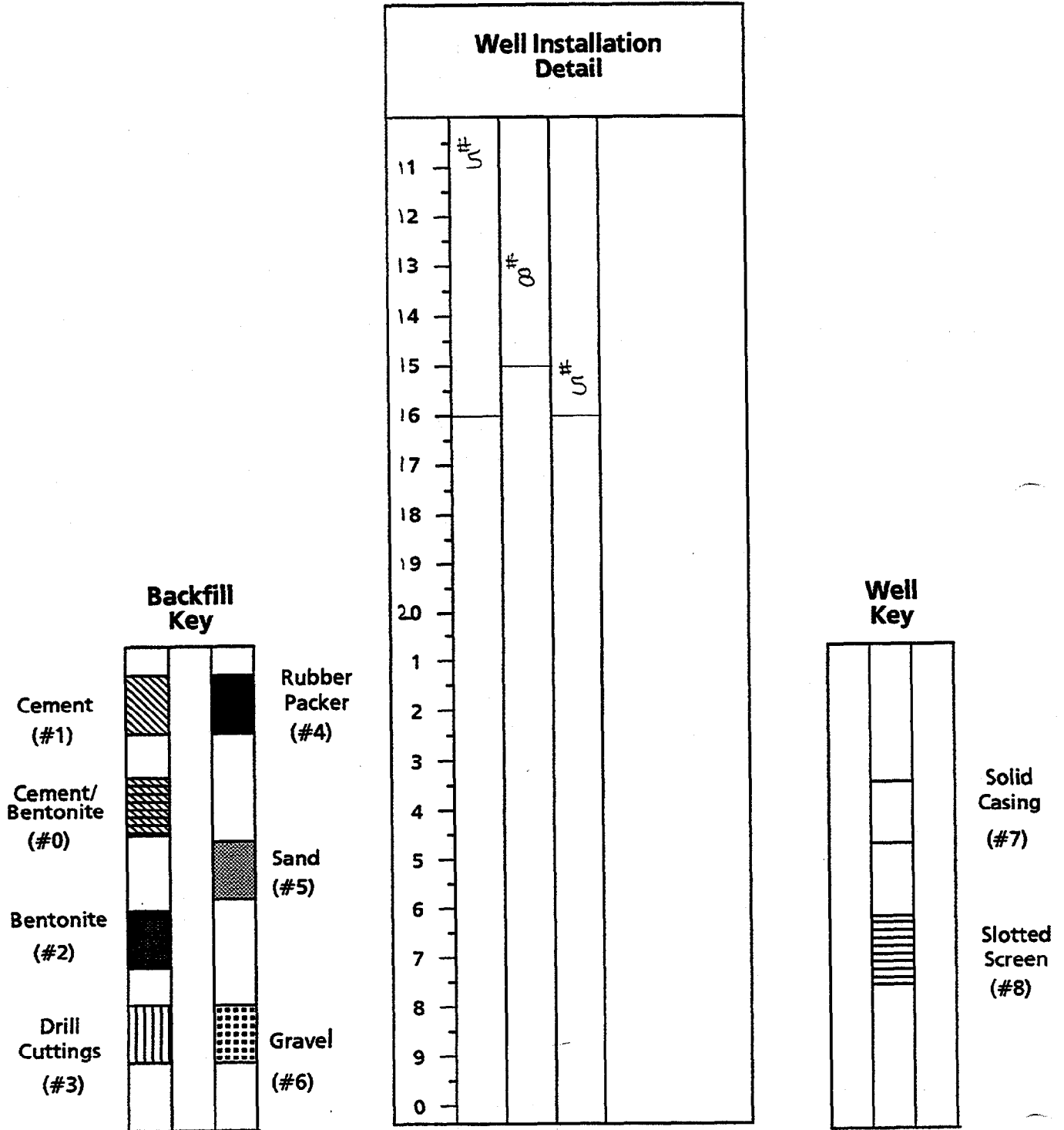
BORING NO.: 41GW-085

SHEET 1 OF 2



FIELD WELL CONSTRUCTION LOG

PROJECT: Sites 69, 7A, E 41
 S.O. NO.: 212 BORING NO.: 41GW-08S



DRILLING CO.: Hardin Huber, Inc.
 DRILLER: Pat Callahan

BAKER REP.: John Zimmerman
 BORING NO.: 41GW-08S SHEET 2 OF 2

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, E 41
 S.O. NO.: 212 BORING NO.: 41-GW09S
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: ATV # 32					DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	SPLIT SPOON	CASING	AUGERS	CORE BARREL	2-2-94	0-21.0	overcast, cold	10.0	
LENGTH	2.0'		6 1/4" ID						
TYPE	STO		HSA						
HAMMER WT.	140#								
FALL	30"								
STICK UP	2 1/2								

REMARKS: was augered 0 to 4.0' (bgs). Continuous sampling from 4.0' to 20.0' (bgs) Type II mont. well Sep 2-2-94

SAMPLE TYPE
 S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS
 SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
0.5	A-1	-	-		BG	SILTY SAND, fine grained w/ little CLAY. Dark brown, moist, organic. CLAY and SAND, fine grained. Brown, moist to wet. cohesive. Note: Sample #02 is a composite of auger samples A5 thru A8	
1.0	A-2	-	-		BG		
1.5	A-3	-	-		BG		
2.0	A-4	-	-		BG		
2.5	A-5	-	-		BG		
3.0	A-6	-	-		BG		
3.5	A-7	-	-		BG		
4.0	A-8	-	-		BG		
5.0	S-1	24" / 24"	6 / 12		BG	CLAYEY SAND / SANDY CLAY, fine grained. Brown, moist, organics present. SILTY SAND, fine grained. Light brown to tan, loose, moist.	
6.0		100%	11				
7.0	Sample #04 is collected	24" / 24"	10 / 11		BG		
8.0		100%	14				
9.0		24" / 24"	6 / 11				
10.0	S-3	100%	10		BG		

Match to Sheet 2

DRILLING CO.: Hardin Huber Inc BAKER REP.: E. Kleinkauf
 DRILLER: Jay Corran BORING NO.: 41-GW09S SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, E 41
 S.O. NO.: 212

BORING NO.: 41-GW09S

SAMPLE TYPE						DEFINITIONS			
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')			
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)			
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)			
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis			
N = No Sample									
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevatic		
11	S-4	24"	5		BG	SILTY SAND, fine grained. Tan, loose, wet.			
11.5		24"	8						
12		100%	12						
12	S-5	24"	5		BG		SILTY SAND, fine grained. Tan, loose, wet. Occasional 1-2" brown organic SILTY SAND, fine grained. lenses. Lenses also present from 18.4' to 20.0' (bgs)		
12.5		24"	6						
13		100%	8						
13	S-6	24"	5		BG			SILTY SAND, fine grained. Tan, loose, wet. Occasional 1-2" brown organic SILTY SAND, fine grained. lenses. Lenses also present from 18.4' to 20.0' (bgs)	
13.5		24"	6						
14		100%	15						
14	S-7	22"	5		BG	SILTY SAND, fine grained. Tan, loose, wet. Occasional 1-2" brown organic SILTY SAND, fine grained. lenses. Lenses also present from 18.4' to 20.0' (bgs)			
14.5		24"	5						
15		91%	7						
15	S-8	23"	7		BG		SILTY SAND, fine grained. Tan, loose, wet. Occasional 1-2" brown organic SILTY SAND, fine grained. lenses. Lenses also present from 18.4' to 20.0' (bgs)		
15.5		24"	11						
16		95%	15						
16	S-8	14"	5		BG			SILTY SAND, fine grained. Tan, loose, wet. Occasional 1-2" brown organic SILTY SAND, fine grained. lenses. Lenses also present from 18.4' to 20.0' (bgs)	
16.5		24"	6						
17		58%	9						
17	N					SILTY SAND, fine grained. Tan, loose, wet. Occasional 1-2" brown organic SILTY SAND, fine grained. lenses. Lenses also present from 18.4' to 20.0' (bgs)			
17.5									
18									
18	N						SILTY SAND, fine grained. Tan, loose, wet. Occasional 1-2" brown organic SILTY SAND, fine grained. lenses. Lenses also present from 18.4' to 20.0' (bgs)		
18.5									
19									
19	N							SILTY SAND, fine grained. Tan, loose, wet. Occasional 1-2" brown organic SILTY SAND, fine grained. lenses. Lenses also present from 18.4' to 20.0' (bgs)	
19.5									
20									
20	N					SILTY SAND, fine grained. Tan, loose, wet. Occasional 1-2" brown organic SILTY SAND, fine grained. lenses. Lenses also present from 18.4' to 20.0' (bgs)			
20.5									
21									
21	N						SILTY SAND, fine grained. Tan, loose, wet. Occasional 1-2" brown organic SILTY SAND, fine grained. lenses. Lenses also present from 18.4' to 20.0' (bgs)		
21.5									
22									
22	N							SILTY SAND, fine grained. Tan, loose, wet. Occasional 1-2" brown organic SILTY SAND, fine grained. lenses. Lenses also present from 18.4' to 20.0' (bgs)	
22.5									
23									
23	N					SILTY SAND, fine grained. Tan, loose, wet. Occasional 1-2" brown organic SILTY SAND, fine grained. lenses. Lenses also present from 18.4' to 20.0' (bgs)			
23.5									
24									
24	N						SILTY SAND, fine grained. Tan, loose, wet. Occasional 1-2" brown organic SILTY SAND, fine grained. lenses. Lenses also present from 18.4' to 20.0' (bgs)		
24.5									
25									
25	N							SILTY SAND, fine grained. Tan, loose, wet. Occasional 1-2" brown organic SILTY SAND, fine grained. lenses. Lenses also present from 18.4' to 20.0' (bgs)	
25.5									
26									
26	N					SILTY SAND, fine grained. Tan, loose, wet. Occasional 1-2" brown organic SILTY SAND, fine grained. lenses. Lenses also present from 18.4' to 20.0' (bgs)			
26.5									
27									
27	N						SILTY SAND, fine grained. Tan, loose, wet. Occasional 1-2" brown organic SILTY SAND, fine grained. lenses. Lenses also present from 18.4' to 20.0' (bgs)		
27.5									
28									
28	N							SILTY SAND, fine grained. Tan, loose, wet. Occasional 1-2" brown organic SILTY SAND, fine grained. lenses. Lenses also present from 18.4' to 20.0' (bgs)	
28.5									
29									
29	N					SILTY SAND, fine grained. Tan, loose, wet. Occasional 1-2" brown organic SILTY SAND, fine grained. lenses. Lenses also present from 18.4' to 20.0' (bgs)			
29.5									
30									

DRILLING CO.: Hardin Huber, Inc.
 DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf
 BORING NO.: 41-GW09S

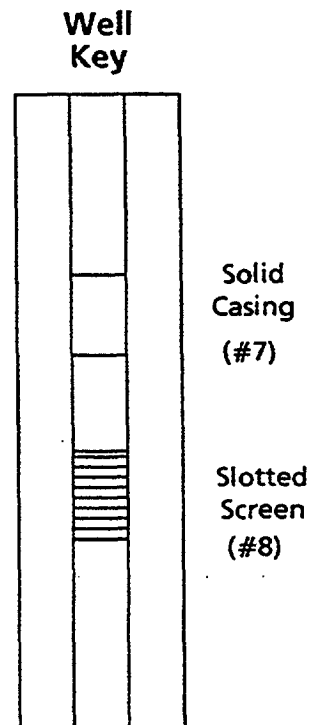
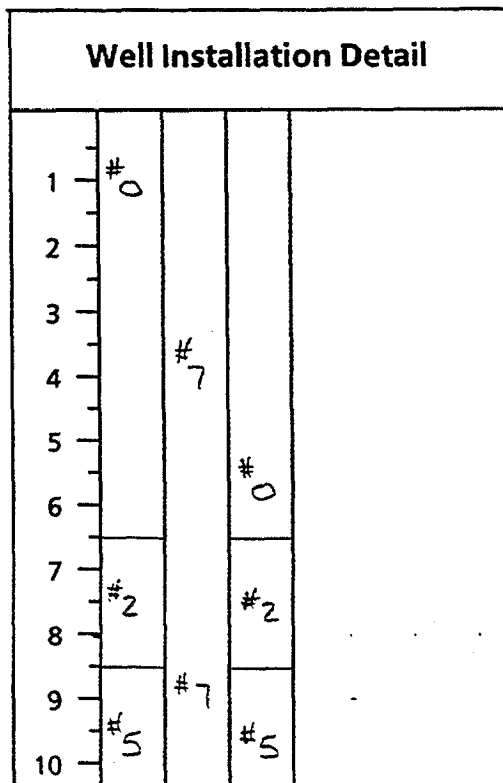
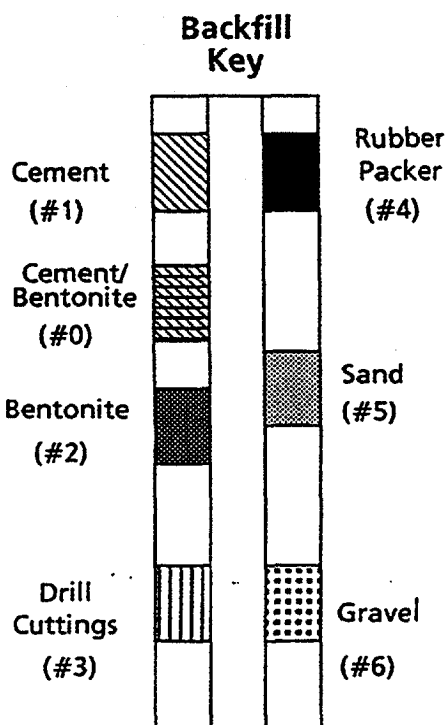
FIELD WELL CONSTRUCTION LOG



PROJECT: Sites 69, 74, E 41 DATE: 2-2-94
 CTO NO.: 212 BORING NO.: 41-GW09S
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF STEEL CASING: _____

Pay Items			
Item	Quantity	Unit	Remarks
Sand	5 bags		#1 Sand
Bentonite Pellets	1 bucket		
PVC Pipe	23.5'		10' of screen
(1) steel surface protective casing			
(4) bollards and (1) 5x5 cement pad.			

WELL INFORMATION	DIAM. (INCHES)	TYPE	TOP DEPTH (FT.)	BOTTOM DEPTH (FT.)
Well Casing	2.0"	Schedule 40 PVC	+ 2.5' (bgs)	10.5' (bgs)
Well Screen	2.0"	Schedule 40 PVC 10 slot	10.5' (bgs)	20.5' (bgs)

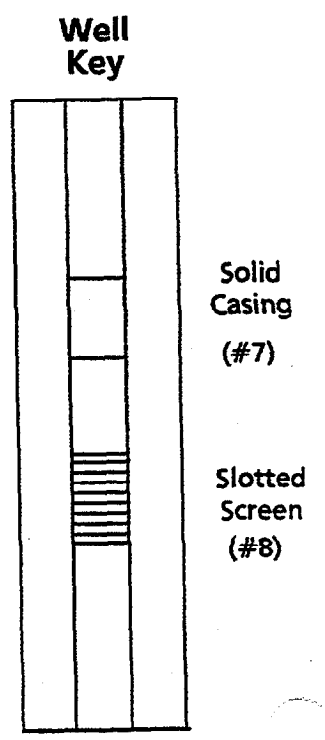
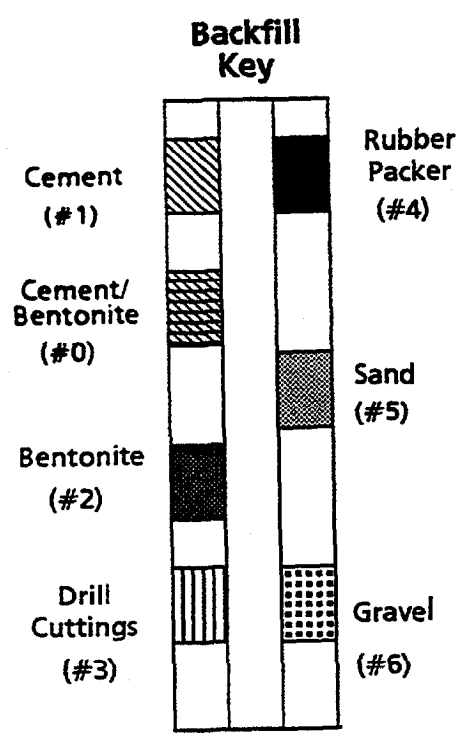
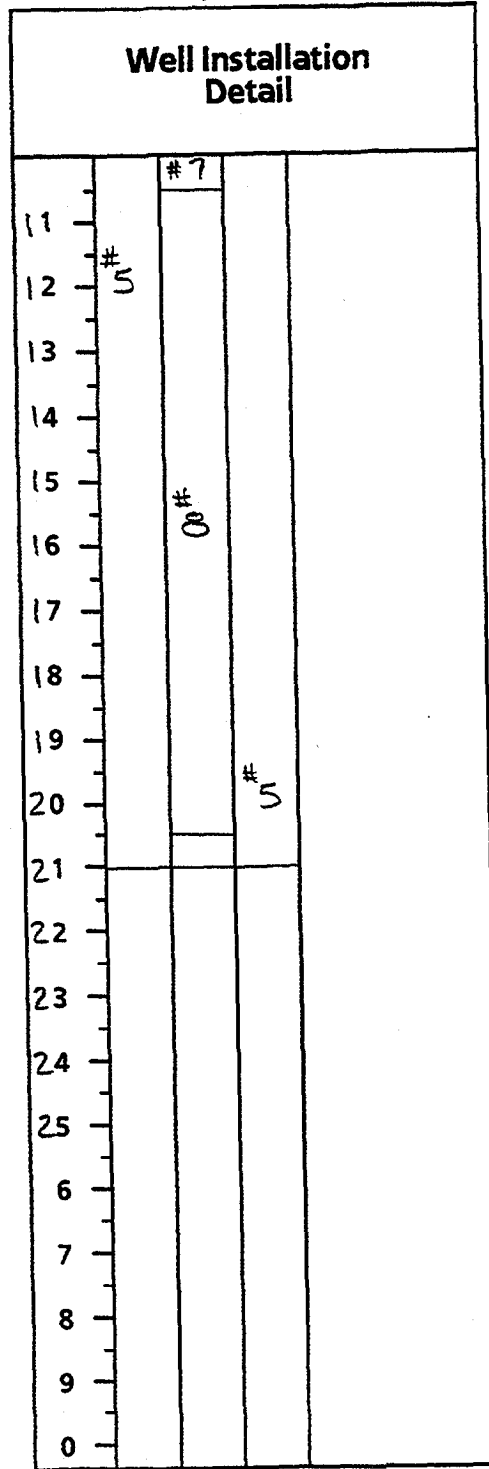


DRILLING CO.: Hardin Huber, Inc BAKER REP.: E. Kleinkauf
 DRILLER: Jay Corron BORING NO.: 41-GW09S SHEET 1 OF 2



FIELD WELL CONSTRUCTION LOG

PROJECT: Sites 69, 74 & 41
 S.O. NO.: 212 BORING NO.: 41-GW095



DRILLING CO.: Hardin Huber, Inc BAKER REP.: E. Kleinkauf
 DRILLER: Jay Corron BORING NO.: 41-GW095 SHEET 2 OF 2

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, 541

S.O. NO.: 212

BORING NO.: 41-GW09I

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATU #32</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>				<u>2-3-94</u>	<u>0-45.0</u>	<u>clear, cold</u>	<u>10.5</u>	
LENGTH	<u>2.0'</u>								
TYPE	<u>STD</u>								
HAMMER WT.	<u>140#</u>								
FALL	<u>30"</u>								
STICK UP	<u>2 1/2'</u>								

REMARKS: Continuous sampling to 45.0' (bgs). Type II monitoring well set 2-3.

SAMPLE TYPE						DEFINITIONS					
S	=	Split Spoon	A	=	Auger	SPT	=	Standard Penetration Test (ASTM D-1586) (Blows/0.5')			
T	=	Shelby Tube	W	=	Wash	RQD	=	Rock Quality Designation (%)			
R	=	Air Rotary	C	=	Core	Lab Class.	=	USCS (ASTM D-2487) or AASHTO (ASTM D-3282)			
D	=	Denison	P	=	Piston	Lab Moist.	=	Moisture Content (ASTM D-2216) Dry Weight Basis			
N	=	No Sample									
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description			Elevation		
1	S-1	21" / 24"	1		BG	SILTY SAND, fine grained. Dark brown, moist. Slightly organic					
		4				CLAYEY SAND, fine grained. orangish brown, moist.					
2	2.0	87%	7			SILTY SAND, fine grained w/ trace to little CLAY. Light brown to light gray, moist					
3	Sample # 02 is collected	16" / 24"	2		BG						
4		4.0	66%	5							
5	5.0	N	7								
6	S-3	12" / 24"	5		BG	SILTY SAND, fine grained. Tan to light brown to orangish brown, moist.					
		14									
7	7.0	50%	17								
8	S-4	8" / 24"	7		BG						
		20									
9		9.0	33%	22							
10	Sample # 05 is collected	12" / 24"	8		BG						
		7									

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: E. Kleinkauf

DRILLER: Jay Corron

BORING NO.: 41-GW09I

SHEET 1 OF 3

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69 74 E 41
 S.O. NO.: 212

BORING NO.: 41-GW09

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	S-5	50%	5 8		BG	CLAYEY SAND, fine grained. Light gray, wet. Cohesive.	
12		4" / 24"	Red drop				
13	S-6	16%	6 9		BG	SILTY SAND, fine grained. Tan, loose, wet.	
14		12" / 24"	8 12				
15	S-7	50%	16 18		BG	SILTY SAND, fine to fine to coarse grained. Tan to light brown, loose, wet.	
16		11" / 24"	9 9				
17	S-8	45%	13 16		BG	SAND, fine grained and CLAY. Light grey, wet. Cohesive	
18		18" / 24"	7 7				
19	S-9	75%	11 11		BG	SILTY SAND, fine to fine to coarse grained. Light brown, loose, wet.	
20		18" / 24"	4 3				
21	S-10	75%	5 6		BG	SILTY SAND, fine grained w/ trace CLAY. Orangish brown, loose, wet.	
22		24" / 24"	3 3				
23	S-11	100%	2 2		BG	CLAY and SAND, fine grained. Light gray to light brown, wet	
24		24" / 24"	3 2				
25	S-12	100%	2 2		BG	SILTY SAND, fine grained. Orangish brown to green to gray, loose, moist to wet.	
26		23" / 24"	1 2				
27	S-13	95%	2 1		BG		
28		9" / 24"	1 1				
29	S-14	37%	1 woh		BG		
30	S-15	22" / 24" 51%	5 10		BG		

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf
 BORING NO.: 41-GW09 I

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
31	S-15	91%	10 11		BG	SILTY SAND, fine to fine to medium grained w/ shell fragments, rock fragment and trace of CLAY. Light gray to tan, loose, wet. Zone of coarse fragments and SILT at 36' (bgs).	
32	S-16	10" 24"	3 4		BG		
33		41%	8 11				
34	S-17	21" 24"	3 19		BG		
35		87%	13 19				
36	S-18	22" 24"	6 18		BG		
37		91%	15 31				
38	S-19	20" 24"	10 16		BG		
39		83%	43 29				
40	S-20	24" 24"	5 10		BG		
41		100%	14				
42	S-21	24" 24"	9 24		BG		
43		100%	22 47				
44	S-22	22" 24"	22 26		BG		
45		91%	29 27				
6	End of Boring						
7	TD: 45.0'						
8	Hsu background range is .1 to .3 ppm.						
9	Mud rotary used from surface						
0	overdrilled to 45.0'. Missed 4.0 to 5.0' depth.						

FIELD WELL CONSTRUCTION LOG

Baker

Baker Environmental, Inc.

PROJECT: Sites 69, 74, E 41

DATE: 2-4-94

CTO NO.: 212

BORING NO.: 41-GW09 I

COORDINATES: EAST: _____

NORTH: _____

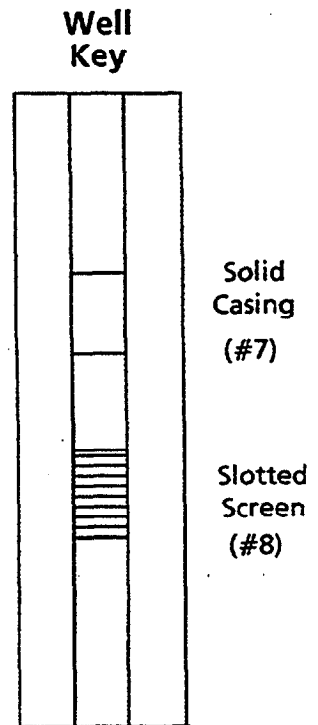
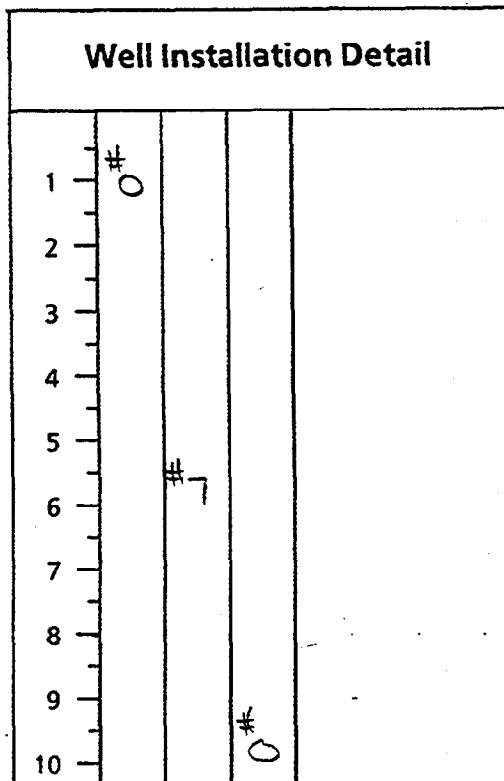
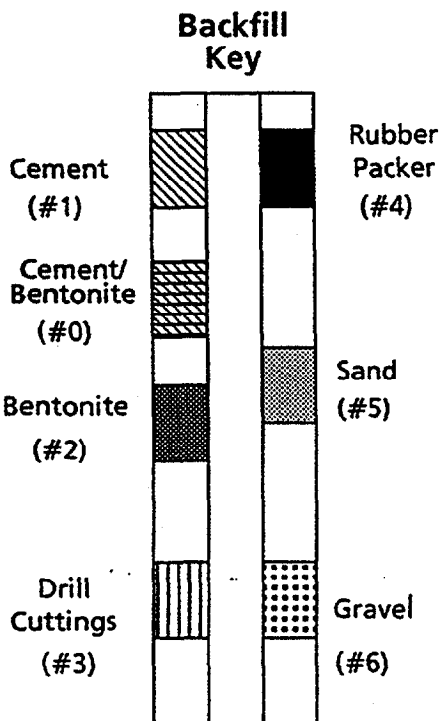
ELEVATION: SURFACE: _____

TOP OF STEEL CASING: _____

Pay Items

Item	Quantity	Unit	Remarks
Sand	9 bags		# 1 Sand
Bentonite Pellets	1 bucket		
PVC Pipe	47.5'		10' of screen
(1) Steel surface protective casing			
(4) bollards and (1) 5x5 cement pad			

WELL INFORMATION	DIAM. (INCHES)	TYPE	TOP DEPTH (FT.)	BOTTOM DEPTH (FT.)
Well Casing	2.0"	Schedule 40 PVC	+2.5' (bgs)	35.0' (bgs)
Well Screen	2.0"	Schedule 40 PVC 10 Slot	35.0' (bgs)	45.0' (bgs)



DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

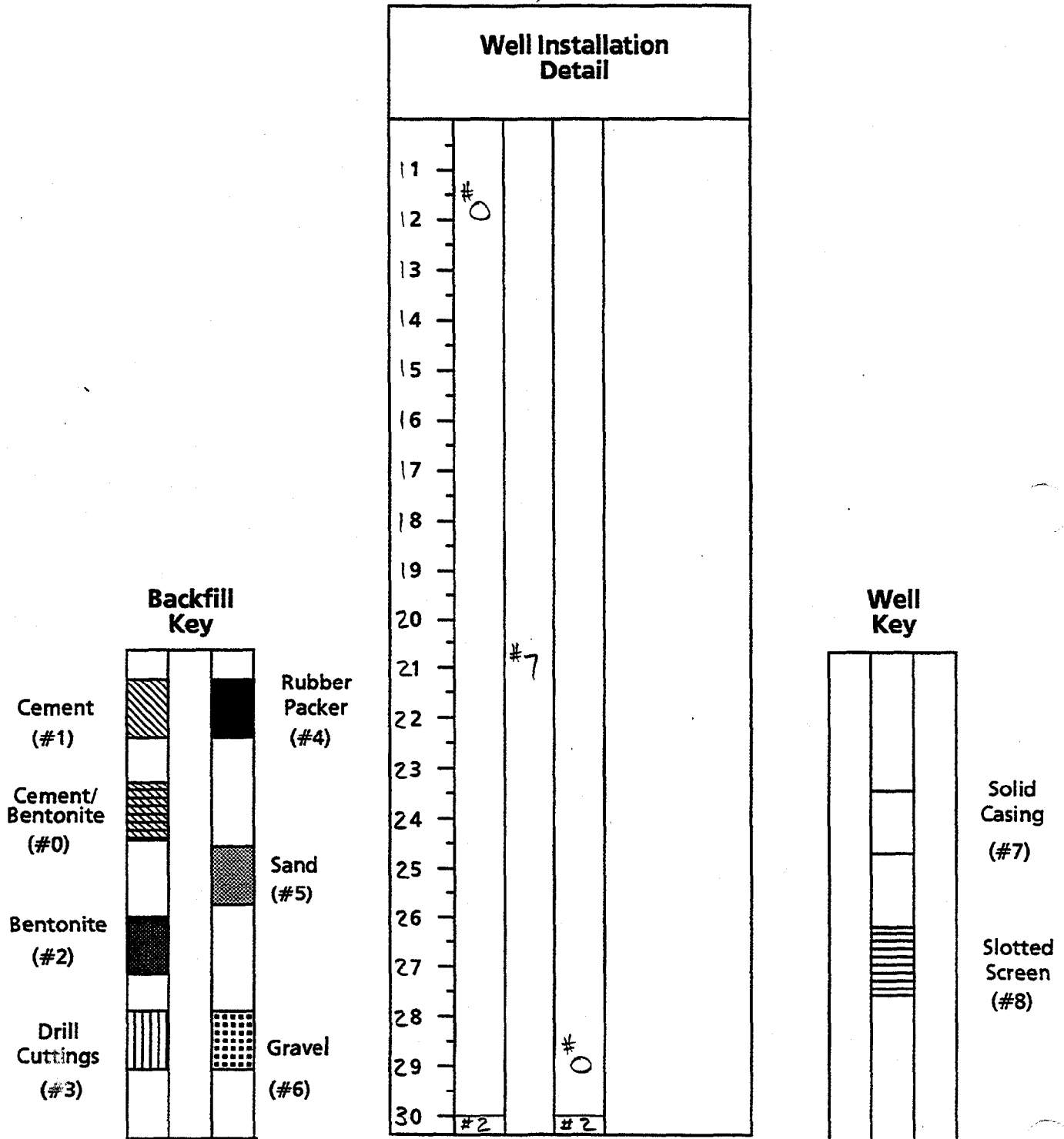
BAKER REP.: E. Kleinkauf
 BORING NO.: 41-GW09 I SHEET 1 OF 3

FIELD WELL CONSTRUCTION LOG

PROJECT: Sites 69 74. E 41

S.O. NO.: 212

BORING NO.: 41-GW09 I



DRILLING CO.: Hardin Huber, Inc
DRILLER: Jay Corron

BAKER REP.: E. Klein Kauf
BORING NO.: 41-GW09 I

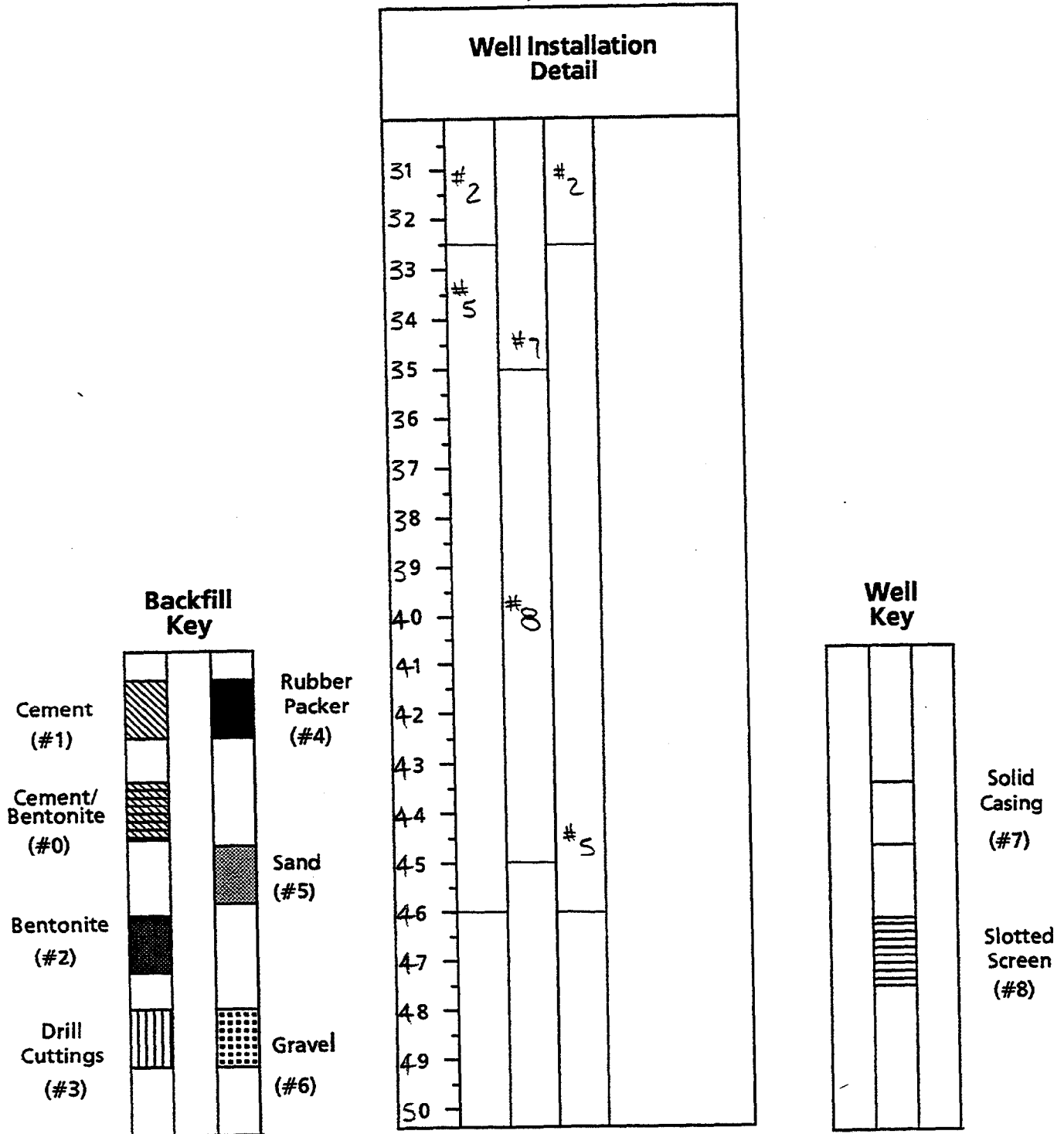
Baker

Baker Environmental, Inc.

FIELD WELL CONSTRUCTION LOG

PROJECT: Sites 69, 74, & 41
S.O. NO.: 212

BORING NO.: 41-GW09 I



DRILLING CO.: Hardin Huber, Inc
DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf
BORING NO.: 41-GW09 I

SHEET 3 OF 3

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212
 COORDINATES: EAST: _____
 ELEVATION: SURFACE: _____

BORING NO.: 41GW-10S
 NORTH: _____
 TOP OF PVC CASING: _____

RIG: ATU #19									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		6 1/4" ID		2-4-94	0-14.0	Sunny, 60's	3.0	
LENGTH	2.0'		5.0'						
TYPE	STD.		HSA						
HAMMER WT.	140 #								
FALL	30"								
STICK UP	2.5'								

REMARKS: Continuous sampling to 14.0' (bgs). Type II monitoring well set 2-5-94.

SAMPLETYPE
 S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS
 SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	Sample #01 is collected	1.8 / 2.0	2		BG	SILTY SAND, fine grained. Dark brown to brown, loose, damp	
2		2.0	5				
3	S-2	1.7 / 2.0	5		BG	SAND, fine grained. Brown, loose to medium dense, moist to wet. orange staining present.	
4		4.0	4				
5	S-3	2.0 / 2.0	3		BG	CLAY lense	
6		6.0	5				
7	S-4	1.4 / 2.0	2		BG	SAND, fine grained. Brown to gray, very loose, wet.	
8		8.0	1				
9	S-5	1.8 / 2.0	1		BG	SILTY CLAY	
10		10.0	2				
		1.8 / 2.0	12			SILTY SAND, fine grained w/ trace clay. Brown, dense, wet.	
		2.0 / 2.0	31			LITHIFIED SANDSTONE w/ limestone. Light green, dense, wet	
		2.0 / 2.0	17				

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: 41GW-10S SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: 41GW-10S

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	S-6	.4	12		BG	LITHOFIED SANDSTONE w/ Limestone. Light green, dense, wet.	
12		2.0	13				
13	S-7	2.0	5		BG	SAND, fine grained w/ trace silt. Dark brown, dense, wet LITHOFIED SANDSTONE w/ Limestone w/ little clay. Light brown, dense, wet	
14		2.0	12				
14		100%	19				
14			13			End of Boring	
15						TD: 14.0'	
16						well set @: 13.0'	
17						HWU background = .3 ppm	
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: 41GW-10S SHEET 2 OF 2

FIELD WELL CONSTRUCTION LOG

PROJECT: S-10569, 74 E 41

S.O. NO.: 212

BORING NO.: 41GW-105

COORDINATES: EAST: _____

NORTH: _____

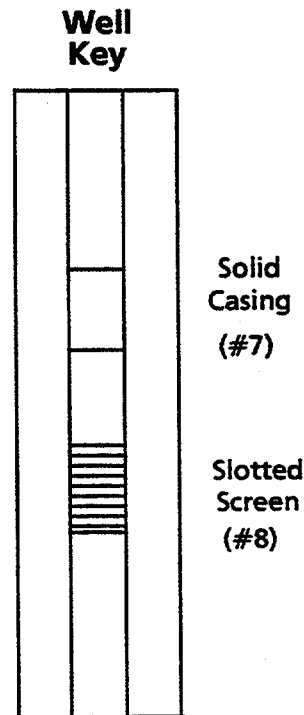
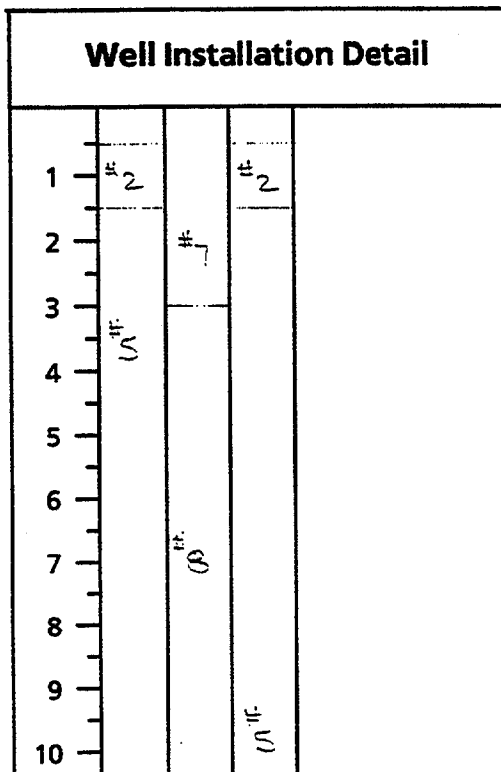
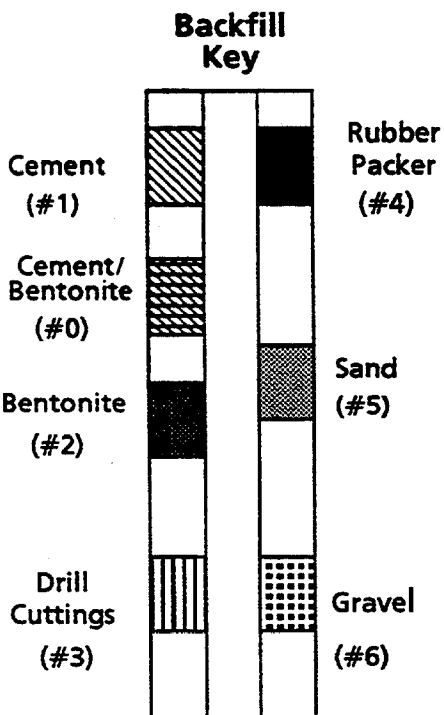
ELEVATION: SURFACE: _____

TOP OF STEEL CASING: _____

Well Development

Pay Items			
Item	Quantity	Unit	Remarks
Sand	13 bags		#1 sand
Bentonite Pellets	1 1/4 bucket		
PVC Pipe	15 1/2'		10' of screen
(1) steel surface protective casing			
(4) bags and (1) 5x5 cement pad			

WELL INFORMATION	DIAM. (INCHES)	TYPE	TOP DEPTH (FT.)	BOTTOM DEPTH (FT.)
Well Casing	2.0"	Schedule 40 PVC	+2.5'	3.0' (bgs)
Well Screen	2.0"	Schedule 40 PVC 10 slot	3.0' (bgs)	13.0' (bgs)



DRILLING CO.: Hardin Huber, Inc

BAKER REP.: John Zimmerman

DRILLER: Pat Callahan

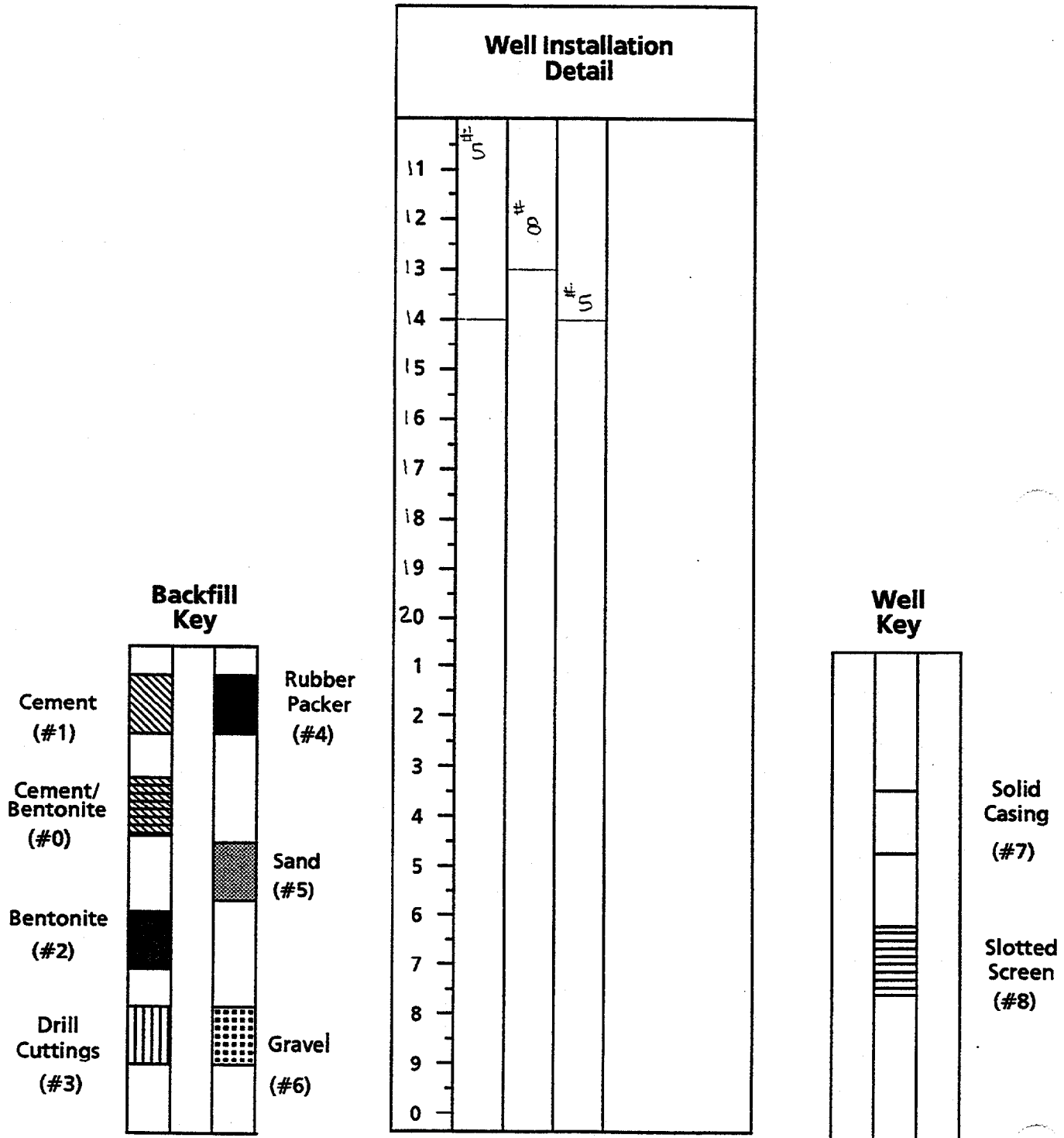
BORING NO.: 41GW-105

SHEET 1 OF 2

FIELD WELL CONSTRUCTION LOG

PROJECT: Sites 69, 74 & 41
 S.O. NO.: 212

BORING NO.: 41GW-10S



DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: John Zimmerman
 BORING NO.: 41GW-10S

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41GW-11S

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATU #19									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		6 1/4" ID		2-6-94	0-16.0	Sunny, 70's	7.0	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140*								
FALL	30"								
STICK UP	2.5'								

REMARKS: Continuous sampling to 16.0' (bgs). Type II monitoring well set 2-6-94

SAMPLETYPE
 S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS
 SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	Sample #01 is collected	1.0 / 2.0	1 / 5		.8	Rotted zone. Brown, loose, damp. FILL material (glass shards, burnt soil, metal). Brown to gray, loose to medium dense, damp orange stain.	
2	S-2	50%	8				
3		.4 / 2.0	12 / 20		BG	SILTY SAND, fine grained. Gray to brown, loose to medium dense, damp.	
4	S-2	20%	8 / 7				
5	Sample #03 is collected	1.2 / 2.0	4 / 4		BG	FILL material (brick, aluminum foil, plastic, glass shards). Dark gray, loose, moist to wet. SILTY SAND is matrix.	
6	S-4	60%	4				
7		.3 / 2.0	2 / 3		BG	SAND, fine grained. Dark gray, medium dense, wet.	
8	S-4	15%	3 / 3				
9	S-5	2.0 / 2.0	2 / 12		BG		
10		100%	9				

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc
DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
BORING NO.: 41GW-11S

SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: 41GW-115

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	S-6	.6 2.0	21		BG	SAND, fine to medium grained. Dark gray, dense, wet. Possible soluble paint chips or flecks of oyster shell are evident.	
12			18				
12		30%	13				
13	S-7	1.6 2.0	2		BG	SILTY CLAY. Dark gray to dark green, soft, wet.	
14			5				
14		80%	3				
15	S-8	1.8 2.0	21		BG	SAND, fine grained w/ some silt. Dark gray to dark green, loose, wet.	
16			7				
16		90%	5			CLAY, stiff. Dark gray to green, moist.	
17						End of Boring	
18						TD: 16.0'	
19						well set @: 15.0'	
20						H ₂ O background = .5 ppm	
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: 41GW-115

FIELD WELL CONSTRUCTION LOG

PROJECT: Site 69, 74, E 41

S.O. NO.: 212

BORING NO.: 41GW-11S

COORDINATES: EAST: _____

NORTH: _____

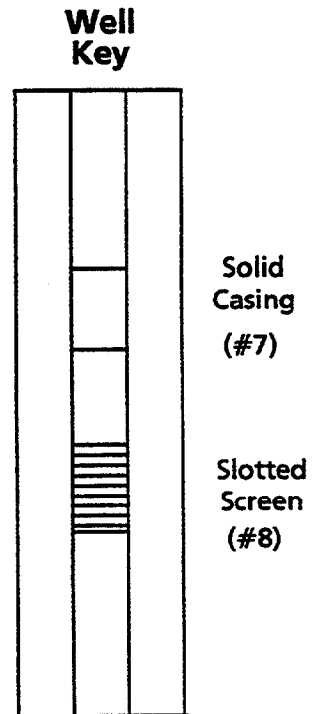
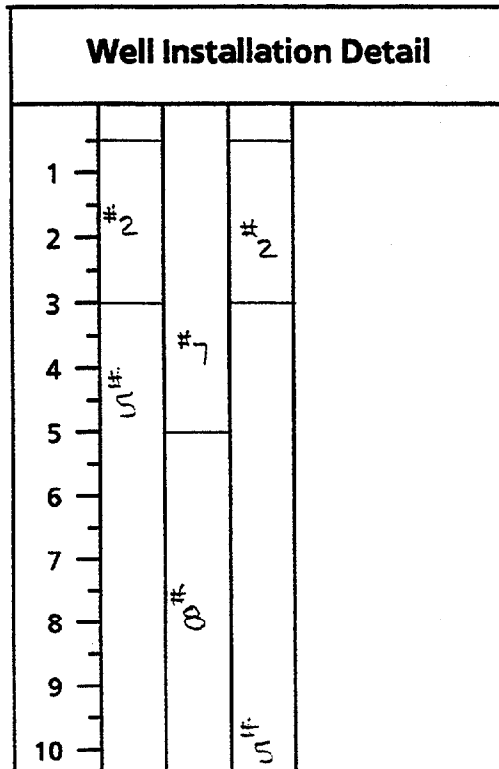
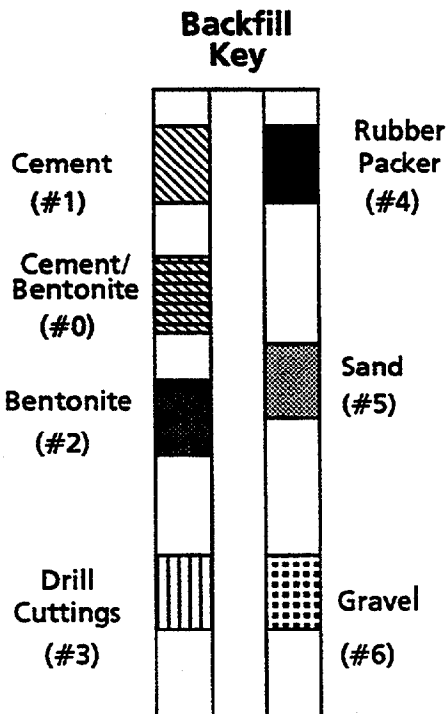
ELEVATION: SURFACE: _____

TOP OF STEEL CASING: _____

Well Development _____

Pay Items			
Item	Quantity	Unit	Remarks
Sand	6 1/2 bags		#1 sand
Bentonite Pellets	2 buckets		
PVC Pipe	17 1/2'		10' of screen
(1) steel surface protective casing			
(4) bollards and (1) 5X5 cement pad			

WELL INFORMATION	DIAM. (INCHES)	TYPE	TOP DEPTH (FT.)	BOTTOM DEPTH (FT.)
Well Casing	2.0"	Schedule 40 PVC	+2.5'	5.0' (bgs)
Well Screen	2.0"	Schedule 40 PVC 10 slot	5.0' (bgs)	15.0' (bgs)



DRILLING CO.: Hardin Huber, Inc.

BAKER REP.: John Zimmerman

DRILLER: Pat Callahan

BORING NO.: 41GW-11S

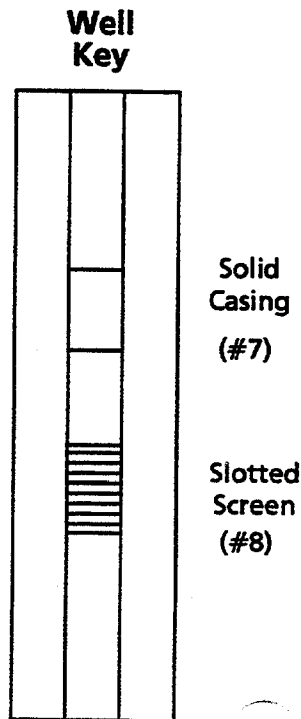
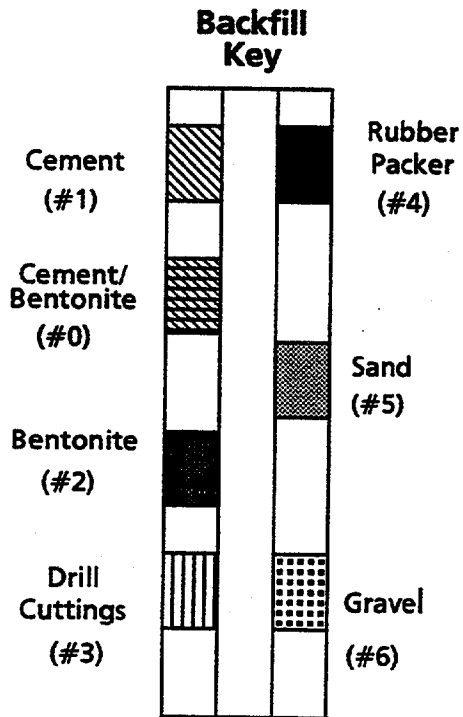
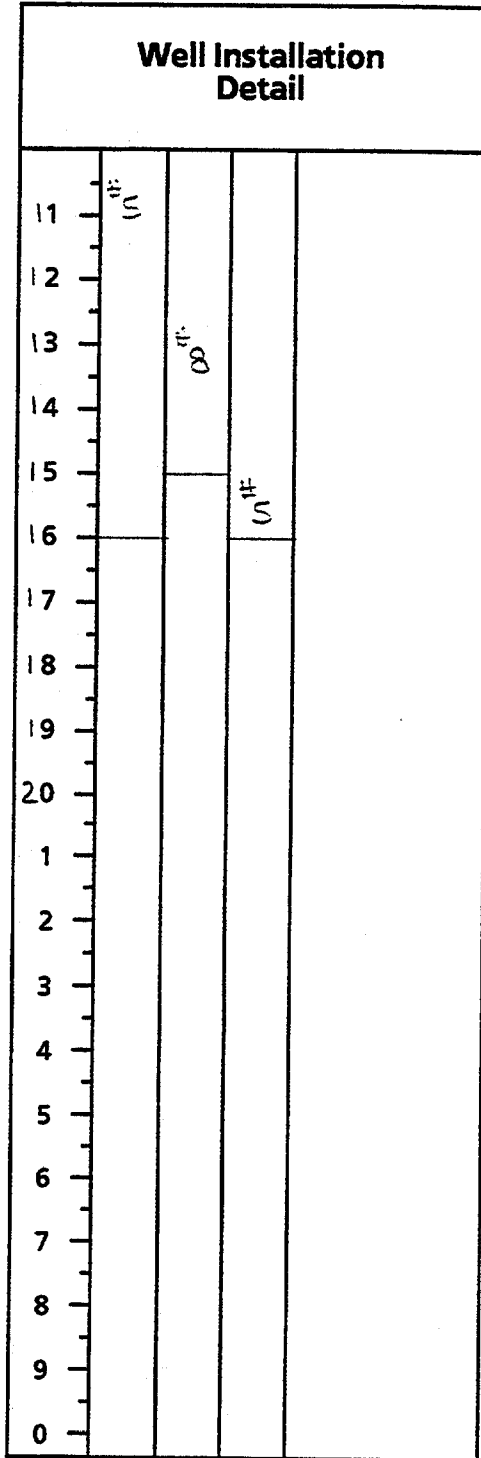
SHEET 1 OF 2



FIELD WELL CONSTRUCTION LOG

PROJECT: Sites 69 7A E 41
 S.O. NO.: 212

BORING NO.: 41GW-115



DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: John Zimmerman
 BORING NO.: 41GW-115 SHEET 2 OF 2

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74 & 41

S.O. NO.: 212

BORING NO.: 41-GW11I

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATV # 32					DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	SPLIT SPOON	CASING	AUGERS	CORE BARREL	2-7-94	0-52.0	Partly cloudy, Cool	10.5	
LENGTH	2.0'								
TYPE	STD								
HAMMER WT.	140#								
FALL	30"								
STICK UP	2 1/2'								

REMARKS: Continuous sampling to 30.0' (bgs). Type II monitoring well set 2-7-9.

<p>SAMPLE TYPE</p> <p>S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample</p>	<p>DEFINITIONS</p> <p>SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis</p>
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Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	Sample #01 is corrected	12" / 24"	1			SILTY SAND, fine grained Light gray to light brown to gray, loose, moist (FILL)	
2		50%	2		BG		
3	S-2	12" / 24"	3				
4		50%	2		BG		
5	S-3	3" / 24"	4			TRASH (FILL)	
6		12%	12		BG		
7	S-4	1" / 24"	2			SILTY SAND, fine grained w/ FILL Gray, loose, moist to wet. Match to Sheet 2	
8		4%	8		BG		
9	S-5	14" / 24"	35				
10		58%	12		BG		

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: E. Kleinkauf

DRILLER: Jay Corron

BORING NO.: 41-GW11I

SHEET 1 OF 4

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevati
11	Sample # 06 is collected	14" / 24"	6 8 7 10		BG	SILTY SAND, fine grained w/ FILL? Gray, loose, wet	
12							
13	S-7	11" / 24"	10 11 14 18		BG		
14							
15	S-8	3" / 24"	3 4 3 3		BG		
16							
17	S-9	2" / 24"	2 2 2 2		BG	CLAY w/ SAND, fine grained. Gray, cohesive, wet.	
18							
19	S-10	18" / 24"	2 2 2 4		BG	SILTY SAND, fine grained. Light gray to tan to light brown loose, wet.	
20							
21	S-11	14" / 24"	4 4 2 2		BG	CLAY w/ some SAND, fine grained. Gray, cohesive, wet.	
22							
23	S-12	24" / 24"	1 2 2 12		BG		
24							
25	S-13	16" / 24"	3 2 5 6		BG	SILTY SAND, fine grained w/ little CLAY. Dark gray to dark brown, wet	
26							
27	S-14	21" / 24"	7 8 8 21		BG		
28							
29	S-15	15" / 24"	7 8 8 21		BG		
30							

Baker Environmental, Inc

PROJECT: Sites 69, 74 & 41
 S.O. NO.: 212

BORING NO.: 41-GW11 I

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevati
31							
32							
33							
34							
35							
35.0							
36	S-16	22" 24"	20 24 27		BG	SILTY SAND, fine grained w/trace of CLAY and rock fragments. Light green to gray, slightly cohesive, wet	
37		91%	21				
37.0							
38							
39							
40							
40.0							
41	S-17	14" 24"	21 12 25		BG	SILTY SAND, fine grained w/trace of CLAY and little shell and rock fragments. Light green to gray, slightly cohesive, wet.	
42		58%	21				
42.0							
43							
44							
45							
45.0							
46	S-18	17" 24"	20 15 21		BG	SILTY SAND, fine grained w/trace CLAY and shell and rock fragments. Light green to gray, slightly cohesive, wet.	
47		70%	23				
47.0							
48							
49							
50							
50.0							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf
 BORING NO.: 41-GW11 I

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: 41-GW11 I

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample						SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevatio
51	5-19	6" / 24"	18		B6	SILTY SAND, fine grained w/ shell and rock fragments. Light green to gray, slightly cohesive, wet. (slight increase in CLAY at 52' (bgs)).	
52		25%	23	28			34
53						End of Boring	
54						TD: 52.0'	
55						HNU background range .3 to .5 ppm	
6						wash rotary used from surface to 4.0' (bgs). Mud rotary used from 4.0' (bgs) to 52.0' (bgs).	
7							
8							
9							
0							
1							
2							
3							
4							
5							
6							
7							
8							
9							
0							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf
 BORING NO.: 41-GW11 I SHEET 4 OF 4

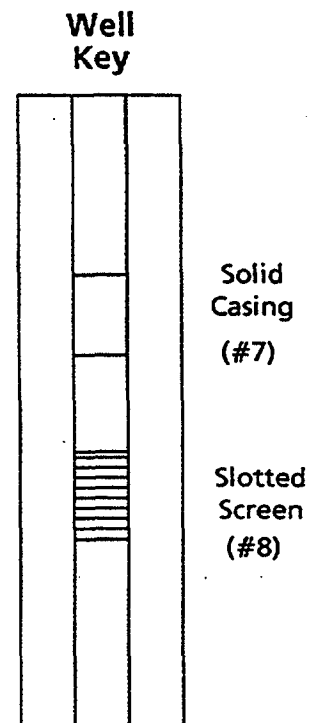
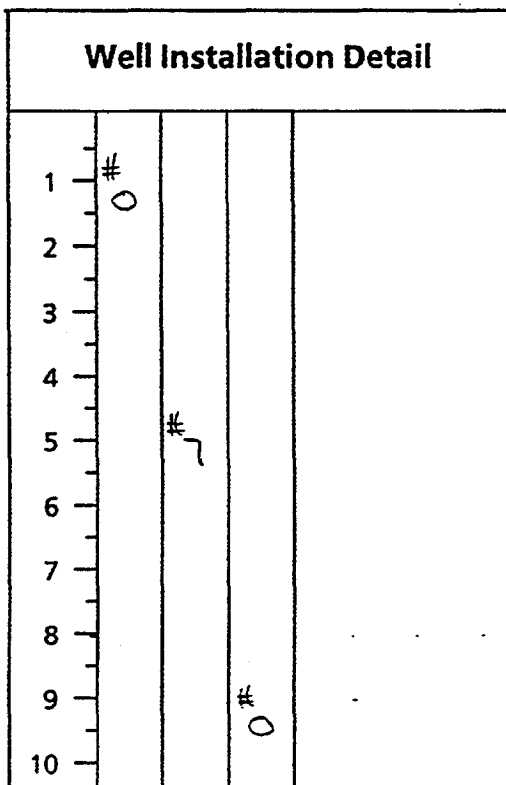
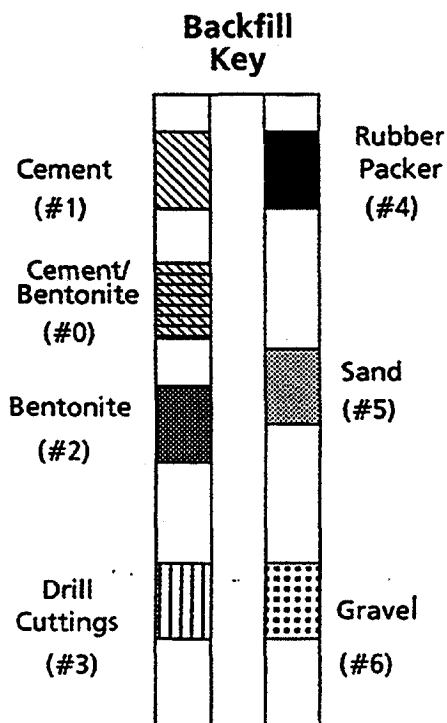
FIELD WELL CONSTRUCTION LOG



PROJECT: Sites 69, 74, & 41 DATE: 2-7-94
 CTO NO.: 212 BORING NO.: 41-GW11I
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF STEEL CASING: _____

Pay Items			
Item	Quantity	Unit	Remarks
Sand	9 bags		#1 sand
Bentonite Pellets	1 bucket		
PVC Pipe	52.5'		10' of screen
(1) steel surface protective casing			
(4) bollards and (1) 5x5 cement pad			

WELL INFORMATION	DIAM. (INCHES)	TYPE	TOP DEPTH (FT.)	BOTTOM DEPTH (FT.)
Well Casing	2.0"	Schedule 40 PVC	+ 2.5' (bgs)	40.0' (bgs)
Well Screen	2.0"	Schedule 40 PVC 10 slot	40.0' (bgs)	50.0' (bgs)



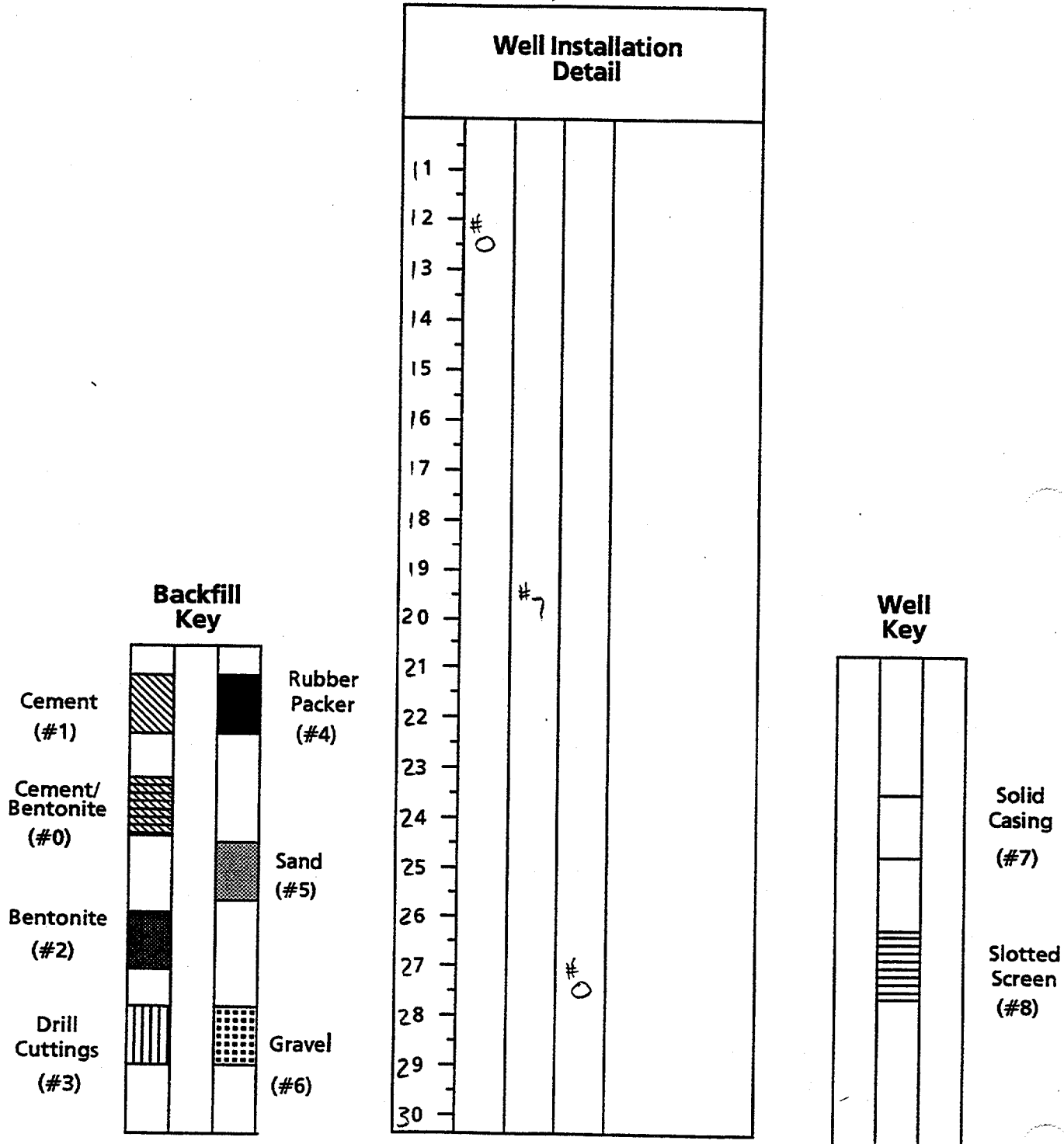
DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf
 BORING NO.: 41-GW11I SHEET 1 OF 4

FIELD WELL CONSTRUCTION LOG

PROJECT: Sites 69, 74 E 41
S.O. NO.: 212

BORING NO.: 41-GW11 I



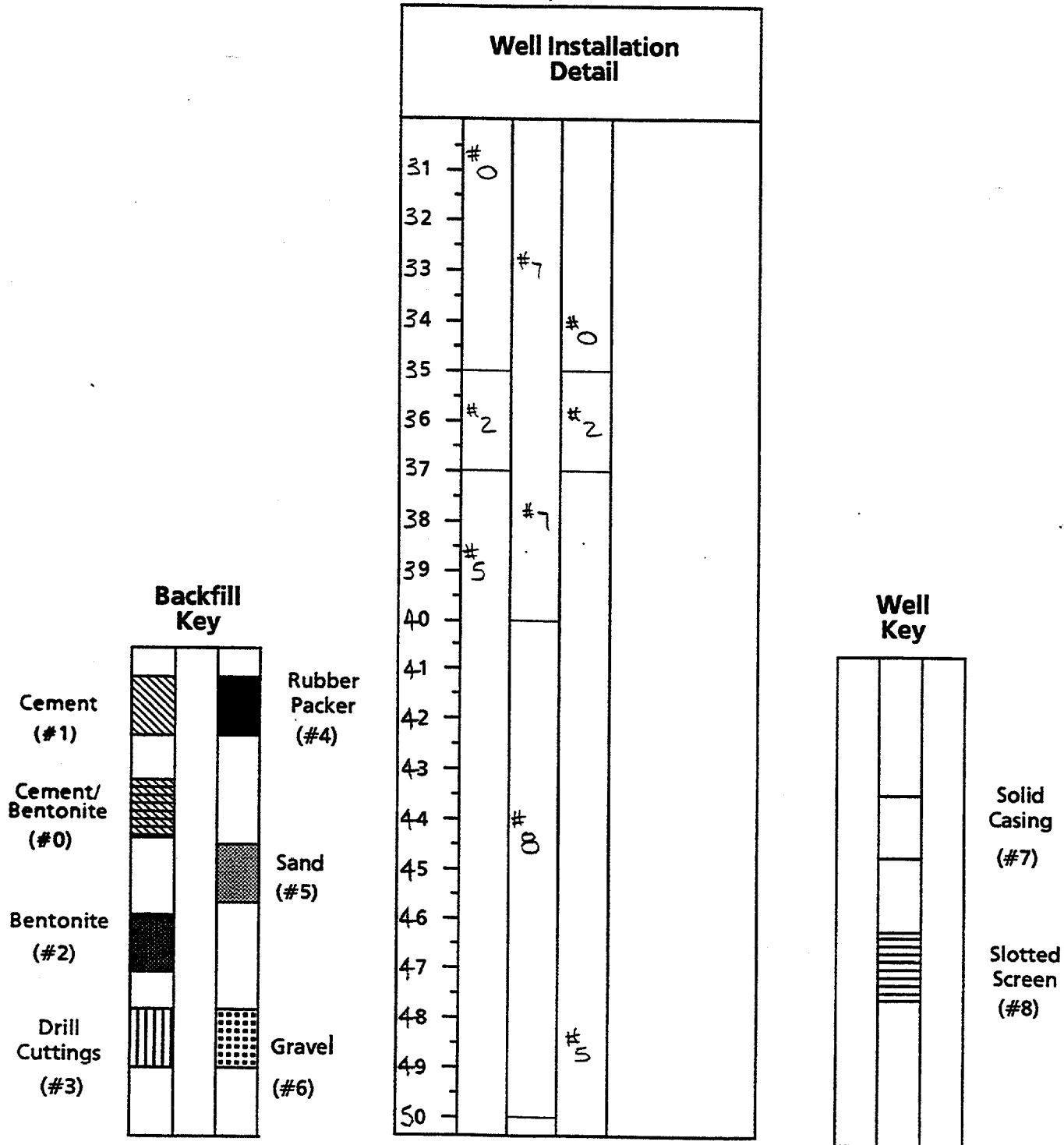
DRILLING CO.: Hardin Huber, Inc
DRILLER: Jay Corran

BAKER REP.: E. Kleinkauf
BORING NO.: 41-GW11 I

FIELD WELL CONSTRUCTION LOG

PROJECT: Sites 69, 74, & 41.
 S.O. NO.: 212

BORING NO.: 41-GW11I



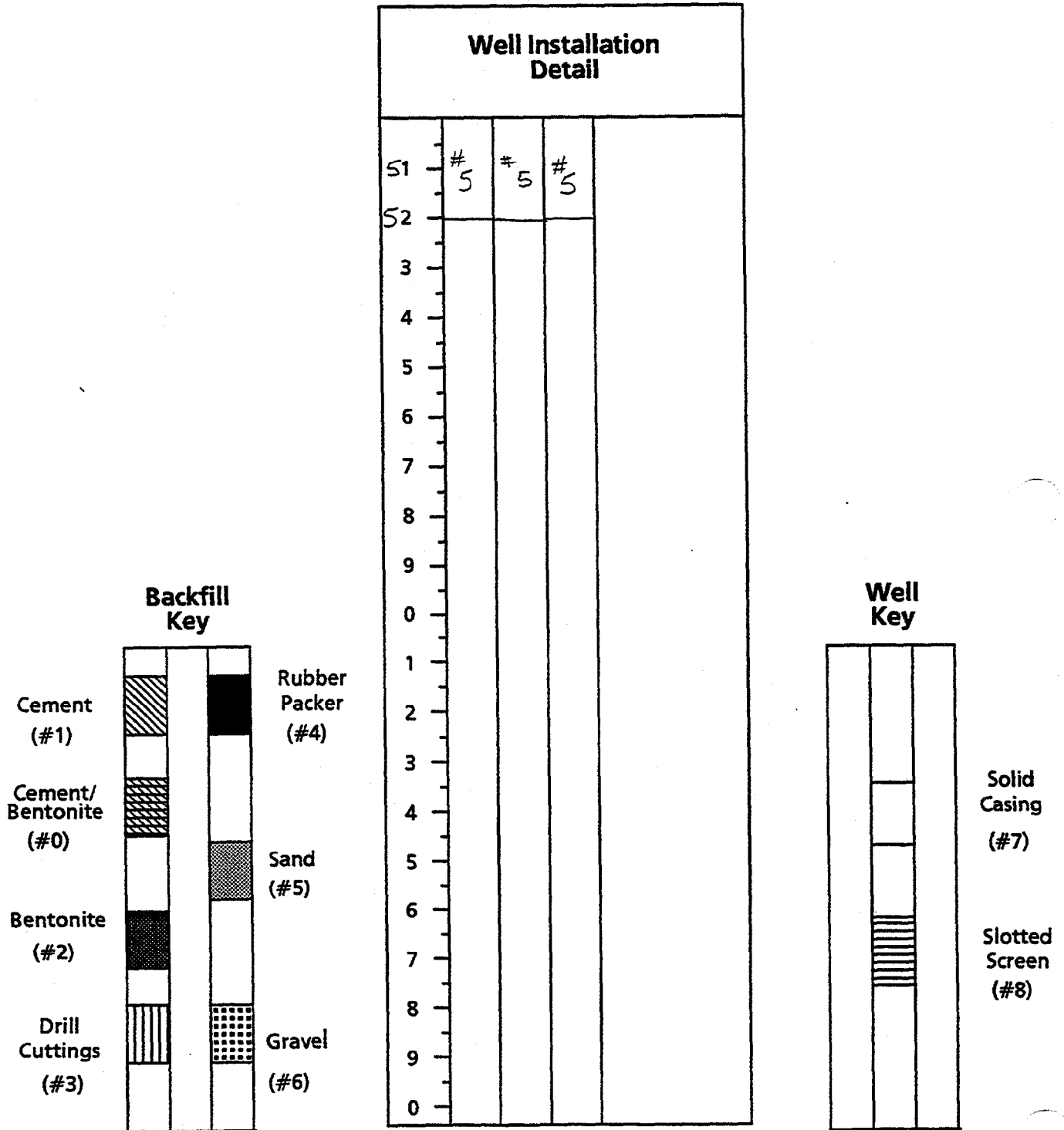
DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Carron

BAKER REP.: E. Kleinkauf
 BORING NO.: 41-GW11I SHEET 3 OF 4

FIELD WELL CONSTRUCTION LOG

PROJECT: Sites 69, 74, E 41
S.O. NO.: 212

BORING NO.: 41-GW11 I



DRILLING CO.: Hardin Huber, Inc
DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf
BORING NO.: 41-GW11 I

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41GW-125

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATU #19									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		6 1/4" ID		2-8-94	0-17.0	overcast, light rain. 60's		
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 #								
FALL	30"								
STICK UP	2.5'								

REMARKS: Continuous sampling to 16.0' (bgs). Type II monitoring well set 2-8-94

SAMPLE TYPE
 S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS
 SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
						<u>Rooted Zone</u>	
1	Sample #01 is collected	1.3 / 2.0	2 / 4 / 6		.9	<u>Rooted Zone. Brown, medium dense, damp</u>	
2		65%	4			<u>SILTY SAND, fine grained. Brown, loose to medium dense, damp. Yellow staining w/ orange streaking.</u>	
3	Sample #02 is collected	1.5 / 2.0	4 / 3		BG		
4		75%	4 / 2				
5	S-3	1.6 / 2.0	3 / 4 / 5		BG		
6		80%	11				
7	S-4	1.6 / 2.0	6 / 9 / 11		BG	<u>SAND, fine grained. Gray to brown, loose to medium dense, moist to wet. orange staining is occasional</u>	
8		80%	8				
9	S-5	2.0 / 2.0	4 / 7 / 11		BG		
10		100%	3				

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: 41GW-125

SHEET 1 OF 2

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: 41GW-12S

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon		A = Auger		SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')		RQD = Rock Quality Designation (%)	
T = Shelby Tube		W = Wash		Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)		Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
R = Air Rotary		C = Core					
D = Denison		P = Piston					
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	S-6	1.6	4		BG	SAND, medium grained. Gray to brown, medium dense, wet. Dark orange and faint yellow staining are evident	
12		2.0	5				
13		80%	9				
14	S-7	2.0	3		BG	LITHIFIED LIMESTONE w/shell fragments. Brown to light green, medium dense to dense, wet.	
15		2.0	5				
16	S-8	1.3	12		BG		
17		2.0	15				
18		65%	20		-		
19						End of Boring	
20						TD: 17.0'	
21						well set @: 16.0'	
22						HNU background = .5 ppm	
23						* Borehole drilled out to 17.0' (bgs)	
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: 41GW-12S



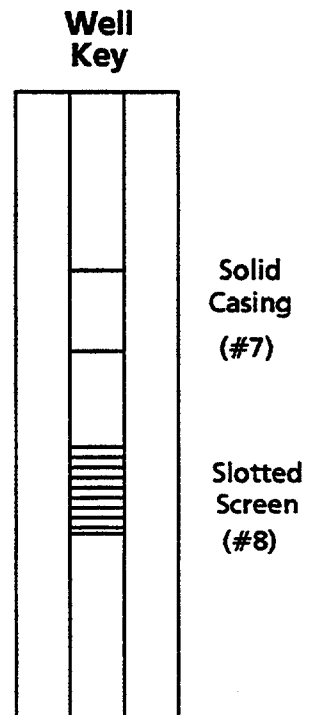
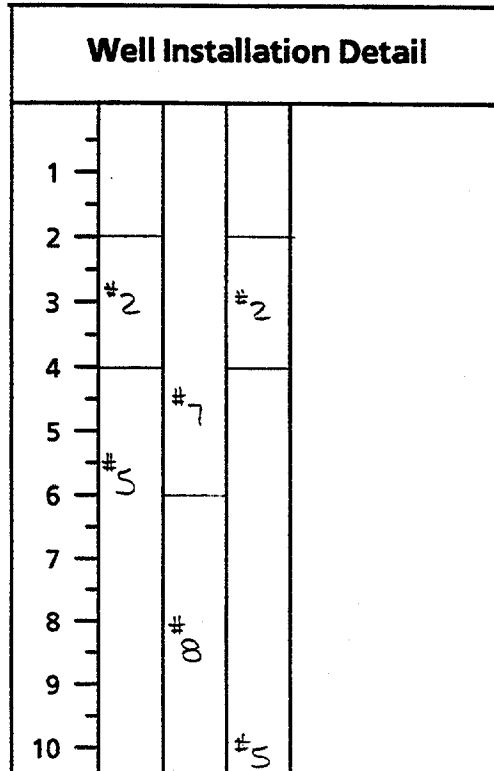
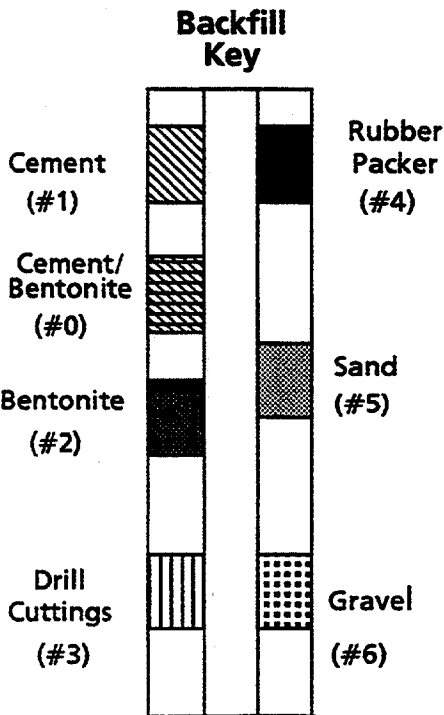
FIELD WELL CONSTRUCTION LOG

PROJECT: Sites 69, 74, E4
 S.O. NO.: 212 BORING NO.: 41GW-12S
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF STEEL CASING: _____

Well Development _____

Pay Items			
Item	Quantity	Unit	Remarks
Sand	8 bags		#1 Sand
Bentonite Pellets	1 1/2 buckets		
PVC Pipe	18 1/2'		10' of screen
(1) Steel surface protective casing			
(4) bollards and (1) 5x5 cement pad			

WELL INFORMATION	DIAM. (INCHES)	TYPE	TOP DEPTH (FT.)	BOTTOM DEPTH (FT.)
Well Casing	2.0"	Schedule 40 PVC	+ 2.5'	6.0' (bgs)
Well Screen	2.0"	Schedule 40 PVC 10 Slot	6.0' (bgs)	16.0' (bgs)



DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

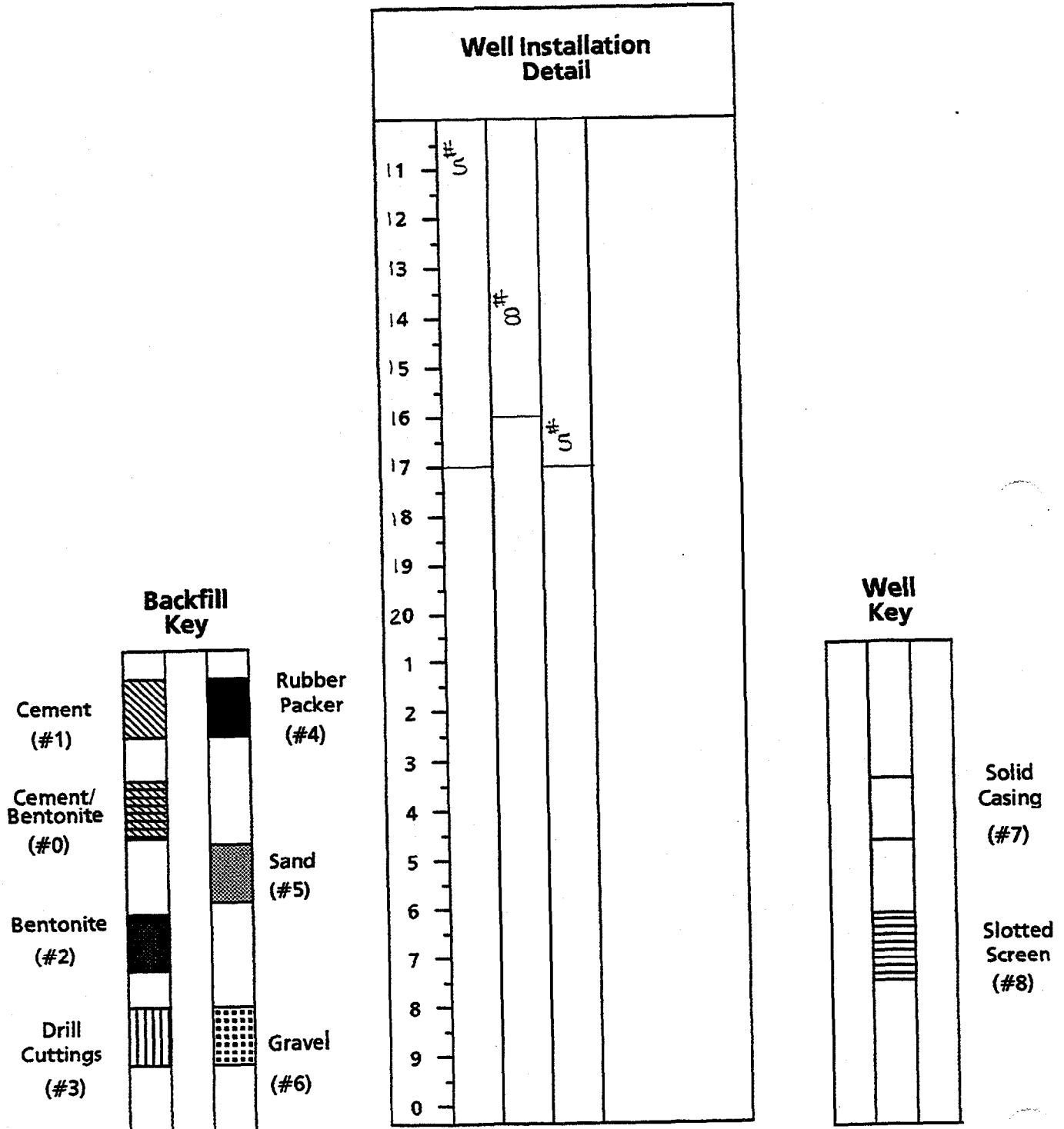
BAKER REP.: John Zimmerman
 BORING NO.: 41GW-12S SHEET 1 OF 2

FIELD WELL CONSTRUCTION LOG

PROJECT: Sites 69, 74, E 41

S.O. NO.: 212

BORING NO.: 41GW-12S



DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: John Zimmerman
 BORING NO.: 41GW-12S SHEET 2 OF 2

Baker

Baker Environmental, Inc.

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41-GW12DW

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATV # 32</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>				<u>2-15-94</u>	<u>0-40.0</u>	<u>clear, cool</u>	<u>6.0</u>	
LENGTH	<u>2.0'</u>								
TYPE	<u>STO</u>								
HAMMER WT.	<u>140#</u>								
FALL	<u>30"</u>								
STICK UP	<u>2 1/2'</u>								

REMARKS: Continuous sampling to 18.0' (bgs). Type II monitoring well set 2-15-94

SAMPLE TYPE						DEFINITIONS			
S	= Split Spoon	A	= Auger	SPT	= Standard Penetration Test (ASTM D-1586) (Blows/0.5')	RQD	= Rock Quality Designation (%)	Lab Class.	= USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
T	= Shelby Tube	W	= Wash	Lab. Class.	= Moisture Content (ASTM D-2216) Dry Weight Basis				
R	= Air Rotary	C	= Core						
D	= Denison	P	= Piston						
N	= No Sample								
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation		
1	S-1	22" 24"	1 2		BG	SILTY SAND, fine grained w/organics Dark brown, loose, moist			
2		91%	4						
3	Sample #02 is collected	20" 24"	1 3		BG	CLAYEY SAND, fine grained. Light brown to light gray, slightly stiff, moist			
4		83%	5						
5	Sample #03 is collected	20" 24"	2 14		BG	SILTY SAND, fine grained w/trace to little CLAY. Light gray to light brown. Slightly loose, moist.			
6		83%	14						
7	S-4	21" 24"	3 5		BG	SILTY SAND, fine to fine to medium grained. Light grey to tan to light brown.			
8		87%	11						
9	S-5	18" 24"	4 4		BG				
10		75%	7						

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: E. Kleinkauf

DRILLER: Jay Corson

BORING NO.: 41-GW12DW

SHEET 1 OF 3

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, E 41
 S.O. NO.: 212

BORING NO.: 41-GW12DV

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	S-6	16" 24" 66%			BG	Root material at 11.6' (bgs).	
12			2			SILTY SAND, fine to fine to coarse grained. Light gray to light reddish brown, loose, wet.	
13	S-7	22" 24" 91%	4		BG		
14			7				
15	S-8	24" 24" 100%	14		BG	SILTY SAND, fine to fine to medium grained w/ trace of shell and rock fragments. Light greenish gray, slightly loose, wet.	
16			15				
17	S-9	20" 24" 83%	21		BG	SILTY SAND, fine to fine to coarse grained w/ little shell and rock fragments. Light greenish gray, loose, wet.	
18			23				
19			26				
20			29				
21							
22							
23							
24	S-10	24" 24" 100%	7		BG	SILTY SAND, fine grained w/ trace CLAY. Light grayish green, loose, moist to wet.	
25			10				
26			19				
27			25				
28							
29	S-11	23" 24" 95%	7		BG	SILTY SAND, fine grained w/ trace CLAY. Light grayish green, loose, moist to wet.	
30			8				
			20				
			40				

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corson

BAKER REP.: E. Kleinkauf
 BORING NO.: 41-GW12DW

TEST BORING RECORD

PROJECT: Sites G9, 74, & 41

S.O. NO.: 212

BORING NO.: 41-GW12DW

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
31							
32							
33		33.0					
34	S-12		8 13 25 42		BG	SILTY SAND, fine grained w/ trace CLAY. Light grayish green, loose, moist to wet.	
35		35.0					
36							
37							
38		38.0					
39	S-13	24" 24"	10 14 20 44		BG	SILTY SAND, fine grained w/ trace CLAY. Light grayish green, loose, moist to wet.	
40		40.0	100%				
End of Boring							
1							
2						TD: 40.0'	
3						Min background range .2 to .4 ppm.	
4						Mud rotary used from surface.	
5							
6							
7							
8							
9							
0							

DRILLING CO.: Hardin Huber, Inc

DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf

BORING NO.: 41-GW12DW

SHEET 3 OF 3

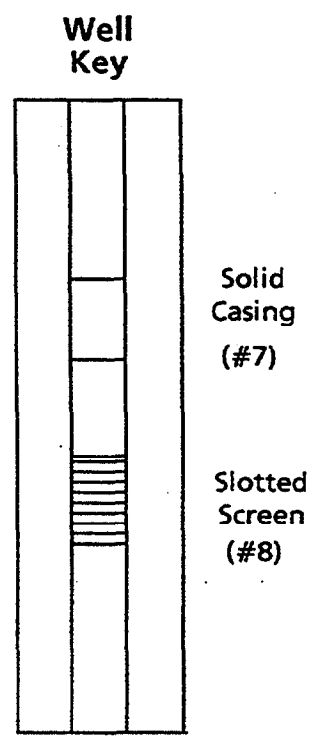
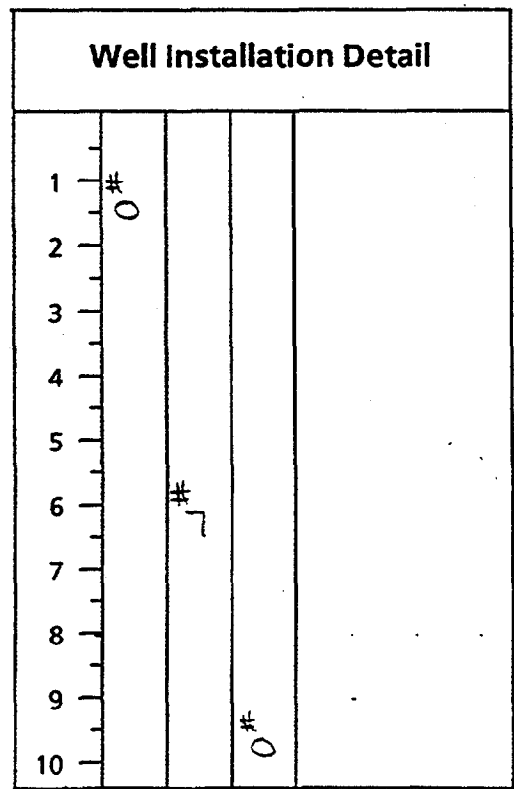
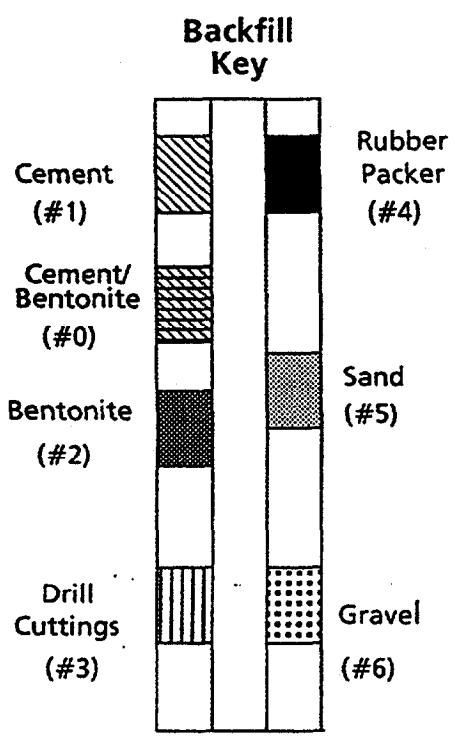
FIELD WELL CONSTRUCTION LOG



PROJECT: Sites 69, 74, & 41 DATE: 2-15-94
 CTO NO.: 212 BORING NO.: 41-GW12 DW
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF STEEL CASING: _____

Pay Items			
Item	Quantity	Unit	Remarks
Sand	9 bags		#1 Sand
Bentonite Pellets	1 bucket		
PVC Pipe	39.5'		10' of screen
(1) steel surface protective casing			
(4) ballards and (1) 5x5 cement pad			

WELL INFORMATION	DIAM. (INCHES)	TYPE	TOP DEPTH (FT.)	BOTTOM DEPTH (FT.)
Well Casing	2.0"	Schedule 40 PVC	+2.5' (bgs)	27.0' (bgs)
Well Screen	2.0"	Schedule 40 PVC 10 slot	27.0' (bgs)	37.0' (bgs)

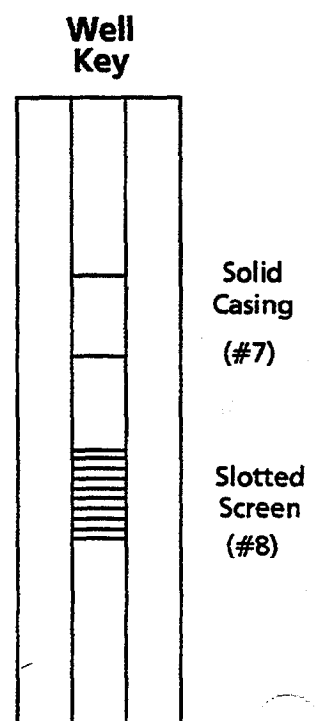
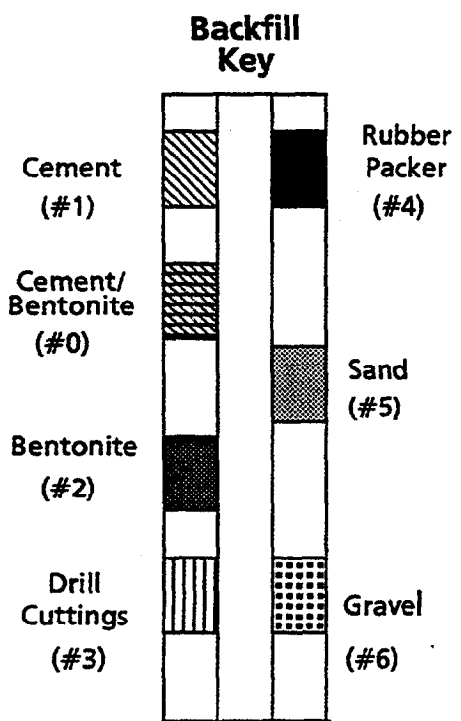
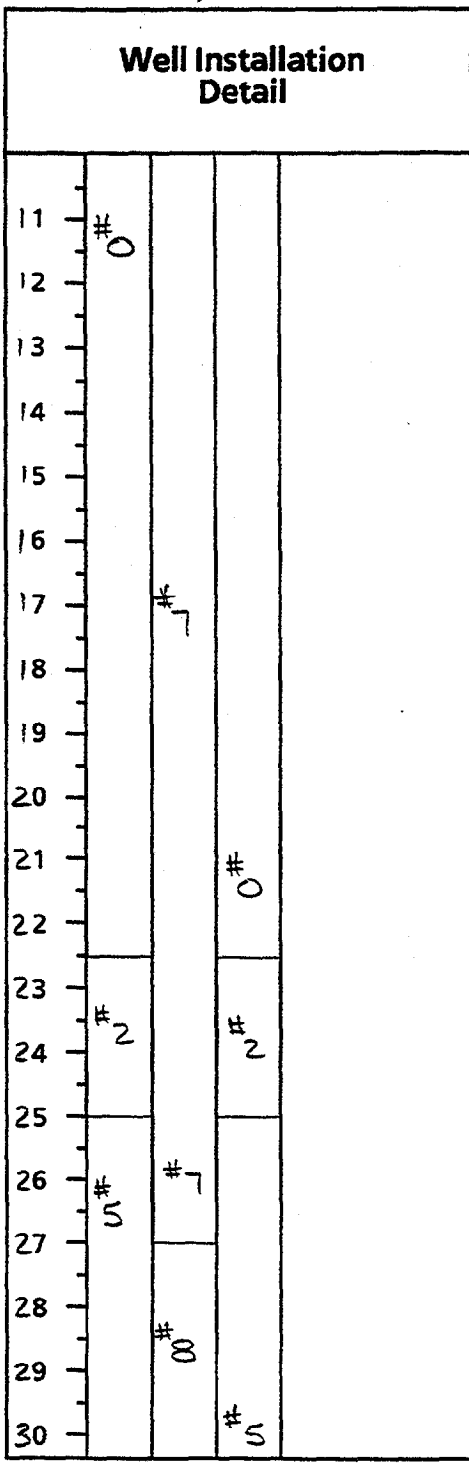


DRILLING CO.: Hardin Huber, Inc BAKER REP.: E. Klainkauf
 DRILLER: Jay Corron BORING NO.: 41-GW12 DW SHEET 1 OF 3



FIELD WELL CONSTRUCTION LOG

PROJECT: Sites 69, 74, E 41
 S.O. NO.: 212 BORING NO.: 41-GW12 DW



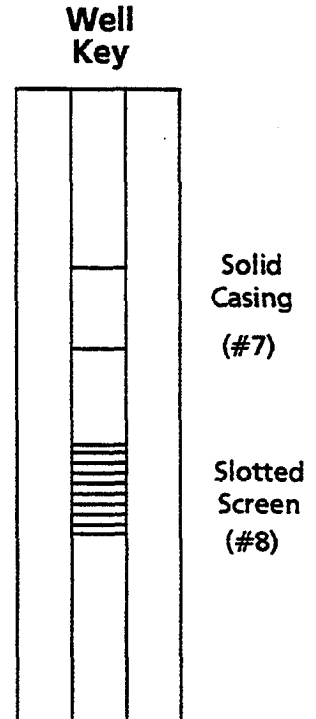
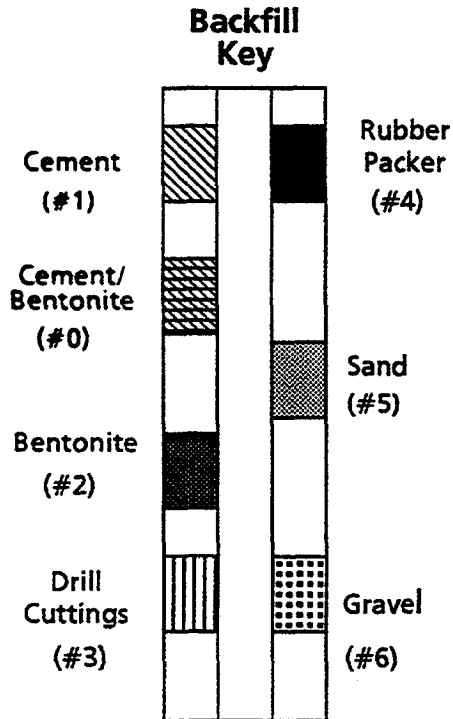
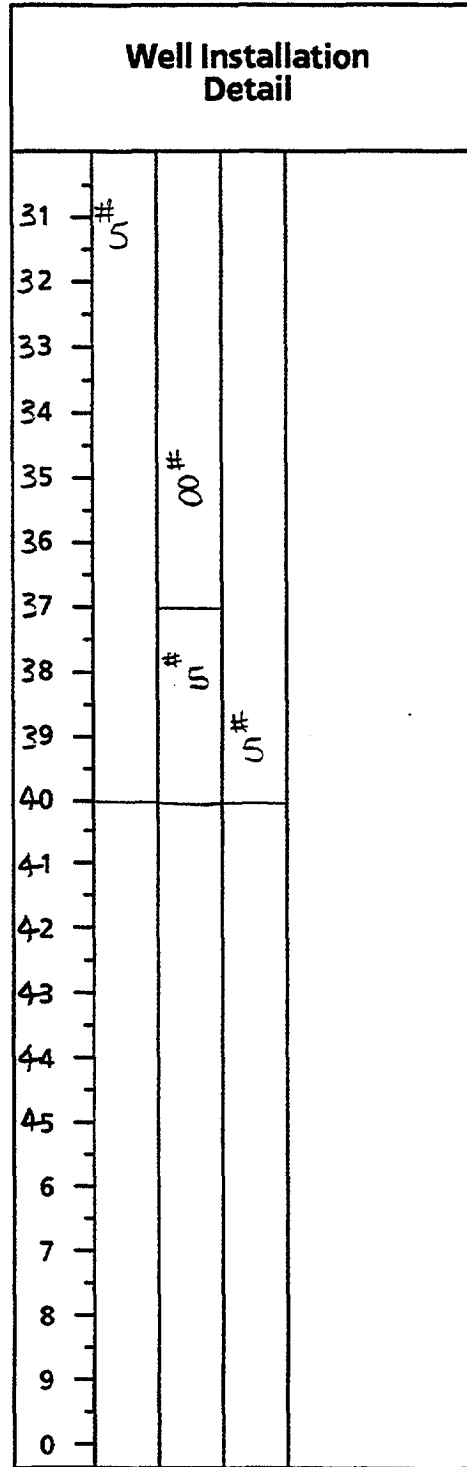
DRILLING CO.: Hardin Huber, Inc BAKER REP.: E. Kleinkauf
 DRILLER: Jay Corran BORING NO.: 41-GW12 DW SHEET 2 OF 3

FIELD WELL CONSTRUCTION LOG

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41-GW12 DW



DRILLING CO.: Hardin Huber, Inc

DRILLER: Jay Corron

BAKER REP.: E. Klein Kauf

BORING NO.: 41-GW12 DW

SHEET 3 OF 3

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41GW-13S

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATV #19</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>6 1/4" ID</u>		<u>2-8-94</u>	<u>0-18.0</u>	<u>cloudy, 40's</u>	<u>7.0</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140 #</u>								
FALL	<u>30"</u>								
STICK UP	<u>2.5'</u>								

REMARKS: Continuous sampling to 18.0' (bgs). Type II monitoring well set 2-8-94

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1		1.7 <u>2.0</u>	3 4 6		BG	<u>Rooted zone w/organics. Brown, damp</u>	
2	2.0	85%	8			<u>SILTY SAND, fine grained. Brown, medium dense, damp. Orange staining</u>	
3		1.7 <u>2.0</u>	5 6 7		BG	<u>SAND, fine grained w/trace silt</u>	
4	4.0	85%	10			<u>Brown, medium dense, damp. Orange staining is occasional</u>	
5		1.8 <u>2.0</u>	4 12 16		BG	<u>SAND, medium grained. Brown, medium dense, moist. Orange staining</u>	
6	6.0	90%	11			<u>SAND, fine grained. Brown, medium dense, wet.</u>	
7		1.9 <u>2.0</u>	4 6 7		BG		
8	8.0	95%	5			<u>SILTY SAND, fine grained. Light brown, medium dense, wet. Faint orange staining</u>	
9		1.0 <u>2.0</u>	4 6 6"		BG		
10	10.0	50%	3				

Match to Sheet 2

DRILLING CO.: Hardin Huber Inc

BAKER REP.: J. Zimmerman

DRILLER: Pat Callahan

BORING NO.: 41GW-13S

SHEET 1 OF

Baker Environmental, Inc

PROJECT: Sites 69, 74, E 41
 S.O. NO.: 212

BORING NO.: 41GW-135

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevatic
11	S-6	1.7 2.0	4 5 6		BG	SILTY SAND, fine grained. Light brown medium dense, wet. orange staining	
12		85%	4			SAND, fine grained. Light brown, medium dense, wet. orange staining	
13	S-7	1.6 2.0	4 3 6		BG	SAND, fine grained w/silt. Light brown, loose to medium dense, wet. orange staining	
14		80%	2				
15	S-8	1.2 2.0	3 3 3		BG		
16		60%	4				
17	S-9	1.5 2.0	6 10 9		BG	SAND, fine grained. Brown, medium dense, wet. SAND, medium grained. Gray, medium dense, wet. orange staining top of sample only	
18		75%	7			End of Boring	
19							
20						TD: 18.0'	
21						well set @: 17.0'	
22						HW background: .5 ppm	
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

BAKER REP.: J. Zimmerman
 BORING NO.: 41GW-135

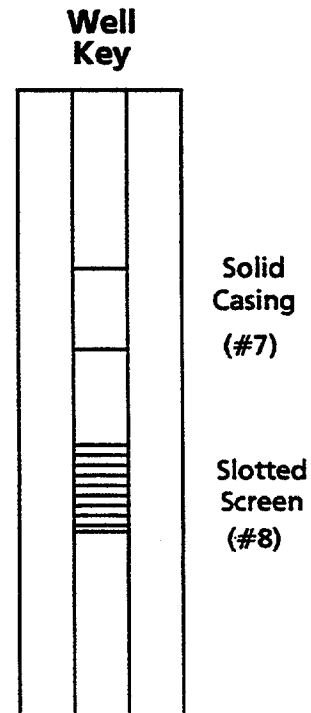
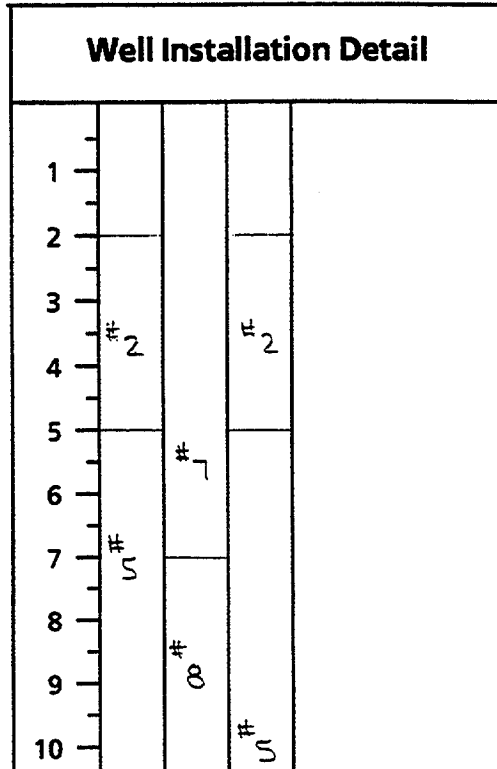
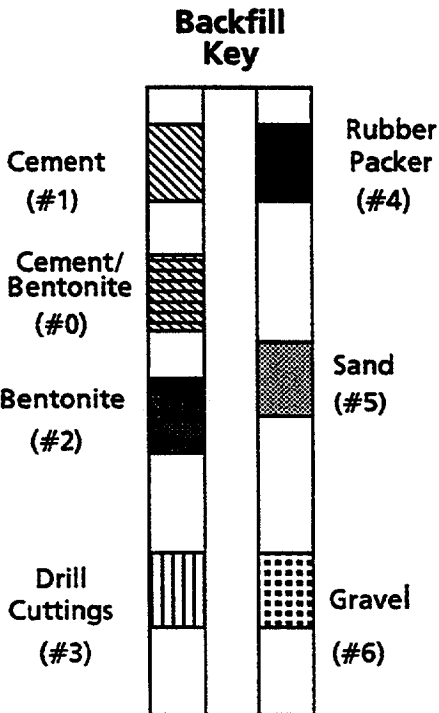
FIELD WELL CONSTRUCTION LOG

PROJECT: Sites 69, 74, E 41
 S.O. NO.: 212 BORING NO.: 41GW-135
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF STEEL CASING: _____

Well Development

Pay Items			
Item	Quantity	Unit	Remarks
Sand	8 bags		#1 sand
Bentonite Pellets	1 1/2 buckets		
PVC Pipe	19 1/2'		10' of screen
(1) steel surface protective casing			
(4) bollards and (1) 5x5 cement pad			

WELL INFORMATION	DIAM. (INCHES)	TYPE	TOP DEPTH (FT.)	BOTTOM DEPTH (FT.)
Well Casing	2.0"	Schedule 40 PVC	+ 2.5'	7.0' (695)
Well Screen	2.0"	Schedule 40 PVC 10 slot	7.0' (695)	17.0' (695)



DRILLING CO.: Hardin Huber, Inc
 DRILLER: Pat Callahan

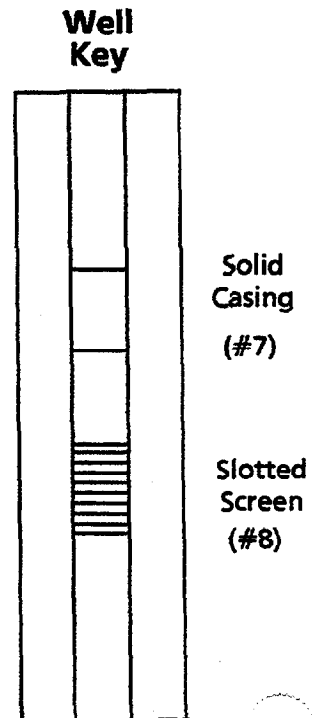
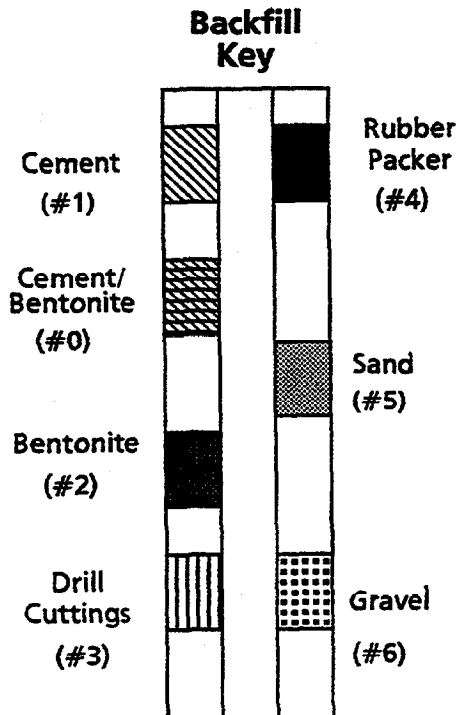
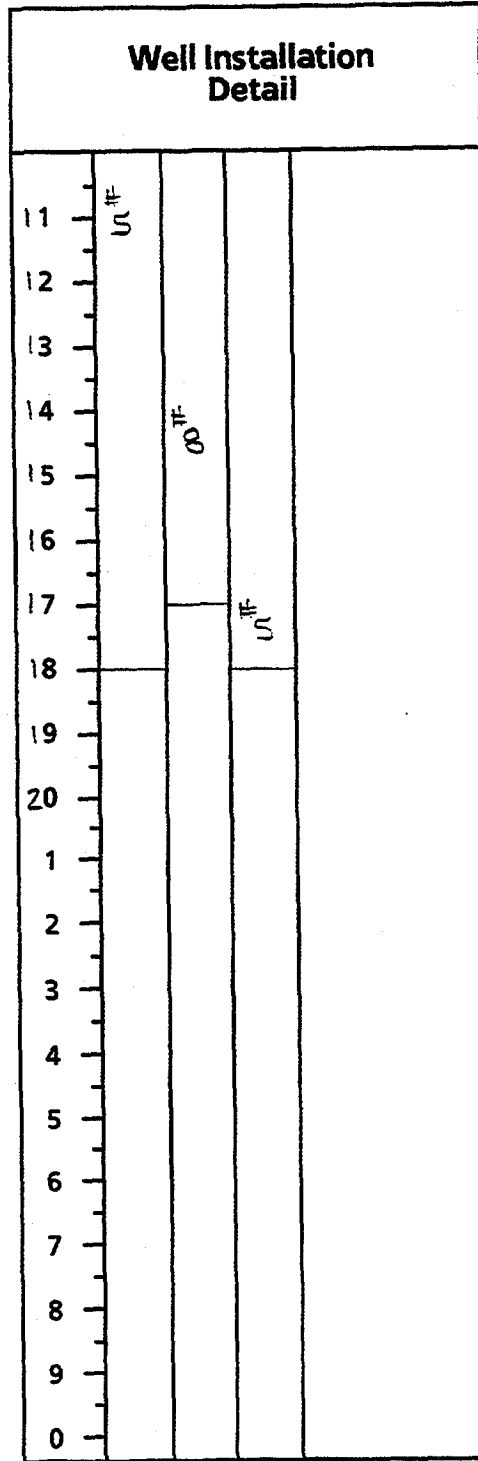
BAKER REP.: John Zimmerman
 BORING NO.: 41GW-135 SHEET 1 OF 2

FIELD WELL CONSTRUCTION LOG

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 41GW-13S



DRILLING CO.: Hardin Huber, Inc
DRILLER: Pat Callahan

BAKER REP.: John Zimmerman
BORING NO.: 41GW-13S

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 74-GW03A

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: <u>ATV #32</u>					DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
	SPLIT SPOON	CASING	AUGERS	CORE BARREL					
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>6 1/4" ID</u>		<u>1-18-94</u>	<u>0-18.5</u>		<u>7.8</u>	
LENGTH	<u>2.0'</u>		<u>5.0'</u>						
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140#</u>								
FALL	<u>30"</u>								
STICK UP	<u>2 1/2'</u>								

REMARKS: Continuous sampling to 18.0' (bgs). Type II monitoring well set 1-18-94.

SAMPLE TYPE

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	S-1	18" / 24"	2		1.6	SILTY SAND, fine grained. Black, moist, loose.	
2		75%	4				
3	S-2	24" / 24"	3		1.6	SILTY SAND, fine to fine to medium grained. Light to medium grey to tan to light brown, moist, loose.	
4		100%	4				
5		24" / 24"	6				
6	Sample #03 is collected	100%	9		1.2		
7	Sample #04 is collected	24" / 24"	12		2.3		
8		100%	15				
9	S-5	22" / 24"	4		1.8		
10		91%	9				

Match to Sheet 2

DRILLING CO.: Hardin Huber Inc

BAKER REP.: E. Kleinkauf

DRILLER: Jay Corran

BORING NO.: 74-GW03A

SHEET 1 OF 2

TEST BORING RECORD

PROJECT: Sites 69, 74, E 41
 S.O. NO.: 212

BORING NO.: 74-GW031

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon		A = Auger		SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')		RQD = Rock Quality Designation (%)	
T = Shelby Tube		W = Wash		Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)		Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
R = Air Rotary		C = Core					
D = Denison		P = Piston					
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevati
11	S-6	20" 24"	2 3 7		BG	SILTY SAND, fine to fine to medium grained. Tan to light brown, loose, wet. streaking 14' to 16' (bgs)	
12	S-7	83% 16" 24"	9 11 19 25 32		BG		
13	S-8		12 21 18 14		BG		
14	S-9	66%	6 4 Woh Woh		BG		
15						SANDY CLAY w/ trace silt. Medium gray	
16							
17						End of Boring TD: 18.5' H2O background is: .5 ppm Sampled to 18' (bgs). overdrilled to 18.5' (bgs).	
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf
 BORING NO.: 74-GW03A

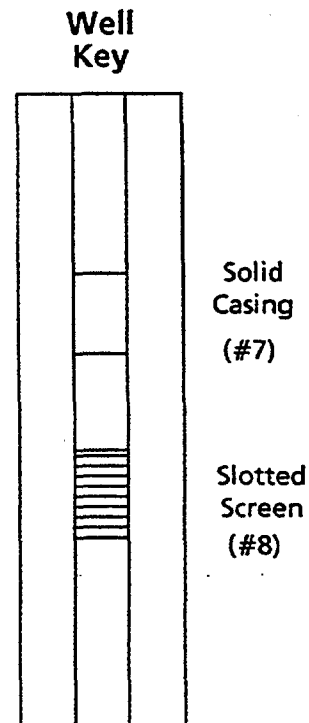
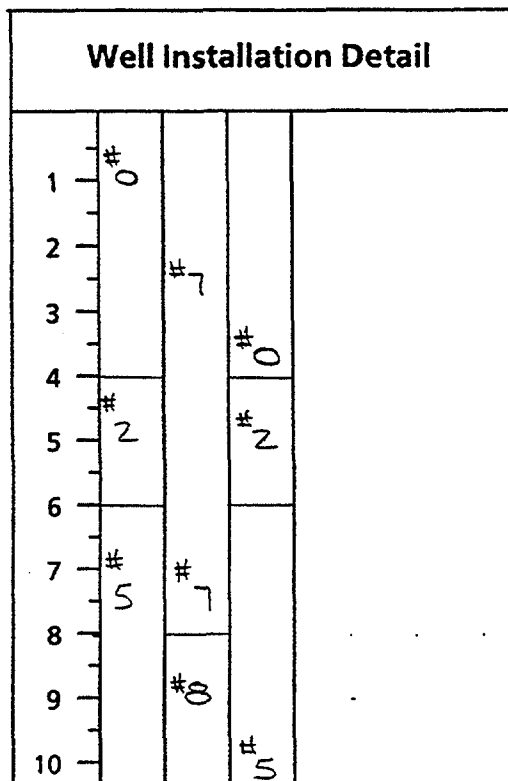
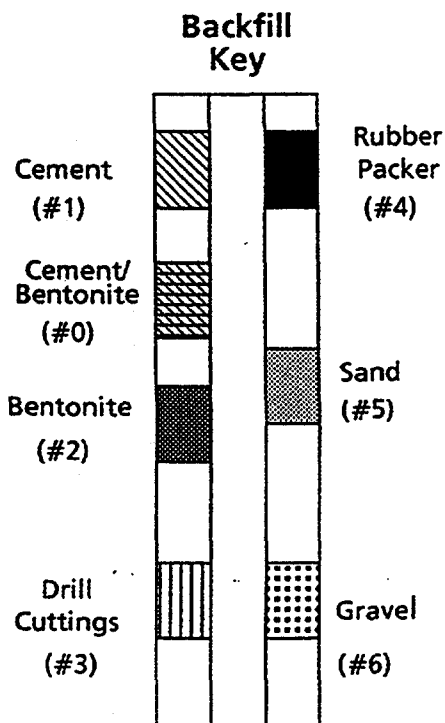
FIELD WELL CONSTRUCTION LOG



PROJECT: Sites 69, 74, & 41 DATE: 1-18-94
 CTO NO.: 212 BORING NO.: 74-GW03A
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF STEEL CASING: _____

Pay Items			
Item	Quantity	Unit	Remarks
Sand	7 bags		#1 sand
Bentonite Pallets	1 bucket		
PVC Pipe	20.5'		10' of screen
(1) steel surface protective casing			
(4) bollards and (1) 5x5 cement pad.			

WELL INFORMATION	DIAM. (INCHES)	TYPE	TOP DEPTH (FT.)	BOTTOM DEPTH (FT.)
Well Casing	2.0"	Schedule 40 PVC	+2.5' (bgs)	8.0' (bgs)
Well Screen	2.0"	Schedule 40 PVC 10 slot	8.0' (bgs)	18.0' (bgs)



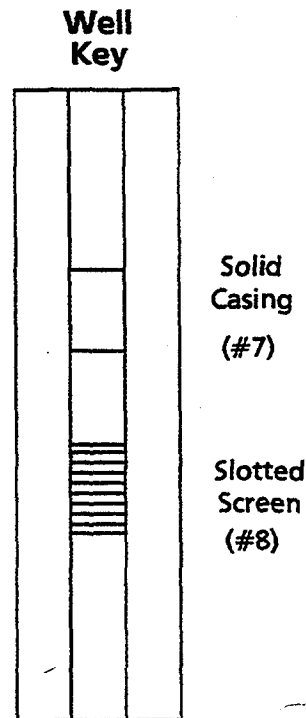
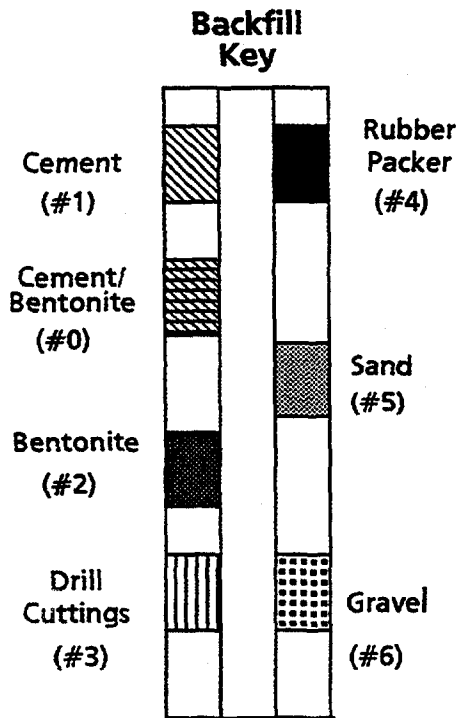
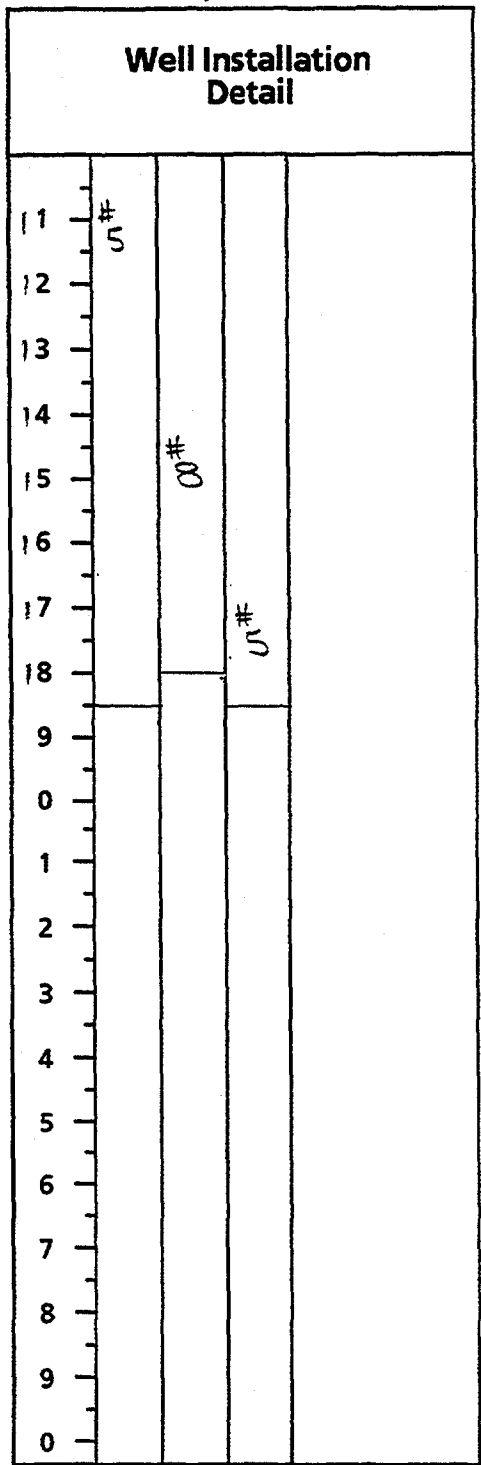
DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf
 BORING NO.: 74-GW03A SHEET 1 OF 2

FIELD WELL CONSTRUCTION LOG

PROJECT: Sites 69, 74, & 41
S.O. NO.: 212

BORING NO.: 74-GW03A



DRILLING CO.: Hardin Huber, Inc
DRILLER: Jay Corran

BAKER REP.: E. Klein Kauf
BORING NO.: 74-GW03A



TEST BORING RECORD

PROJECT: Sites 69, 74 & 41
 S.O. NO.: 212 BORING NO.: 74-GW04
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: ATU # 32									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" IO		6 1/4" IO		1-18-94	0-20.0		9.5	
LENGTH	2.0'		5.0'						
TYPE	STO		HSA						
HAMMER WT.	140*								
FALL	30"								
STICK UP	2 1/2'								

REMARKS: Continuous sampling to 20' (bgs). Type II monitoring well set 1-18-94

SAMPLE TYPE S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample	DEFINITIONS SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis
--	---

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	S-1	12"	3		2.5	SILTY SAND, fine grained. Black, organic	
		24"	4				
2		50%	4				
3	S-2	12"	5		10	SILTY SAND, fine grained. Tan, moist, loose. Slightly cohesive from 2' to 4' (bgs).	
		24"	3				
4		50%	5				
5	Sample # 03 is collected	20"	6		8.3	SILTY SAND, fine grained. Light brown to reddish brown, moist. Small CLAYEY lenses.	
		24"	8				
6		83%	15				
7	S-4	14"	15		3.7	SILTY SAND, fine to fine to medium grained. Tan to light brown, moist, loose.	
		24"	15				
8		58%	15				
9	Sample # 05 is collected	20"	6		BG	SILTY SAND, fine to fine to medium grained w/ occasional CLAYEY lenses. Tan to light brown, moist Match to Sheet 2 to wet.	
		24"	8				
10		83%	9				

DRILLING CO.: Hardin Huber, Inc BAKER REP.: E. Kleinkauf
 DRILLER: Jay Corron BORING NO.: 74-GW04 SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: 74-GW04

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevati
11	S-6	20" 24"	6 9		BG	SILTY SAND, fine to fine to medium grained w/ occasional CLAYEY lenses. Tan to light brown, moist to wet	
12		83%	12				
13	S-7	21" 24"	5 5		BG	SILTY SAND, fine to fine to medium grained w/ occasional CLAYEY lenses - Tan to light brown, very wet.	
14		87%	15				
15	S-8	20" 24"	8 12		BG	SILTY SAND, fine grained. Tan, loose, wet.	
16		83%	5				
17	S-9	24" 24"	7 7		BG		
18		100%	4				
19	S-10	22" 24"	2 3		BG	SAND, fine grained F CLAY. Tan, wet. End of Boring	
20		91%	2				
21							
22						TD: 20.0'	
23						HNu background is .5 ppm	
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corson

BAKER REP.: E. Kleinkauf
 BORING NO.: 74-GW04

FIELD WELL CONSTRUCTION LOG

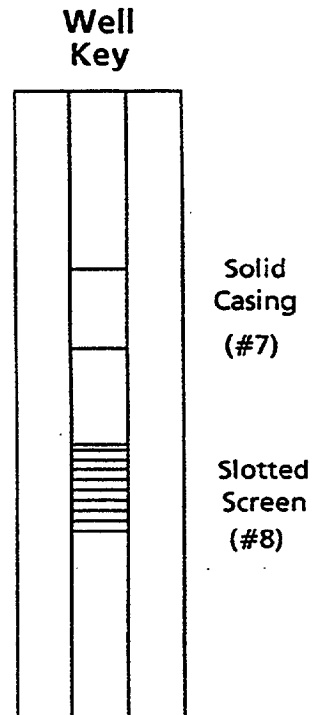
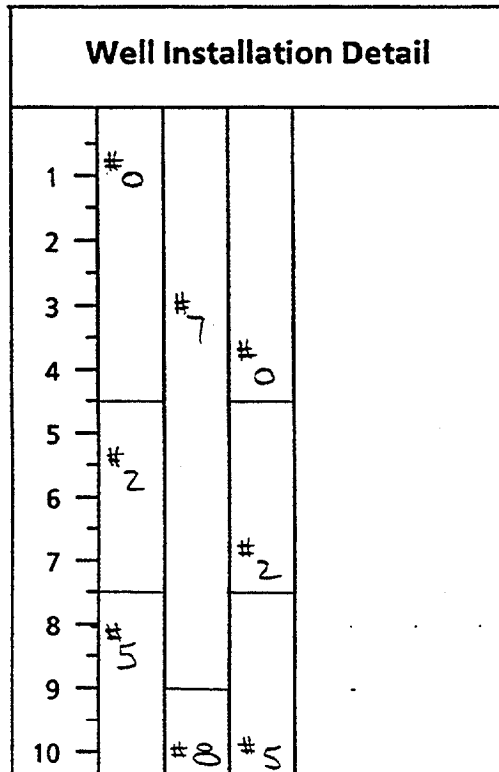
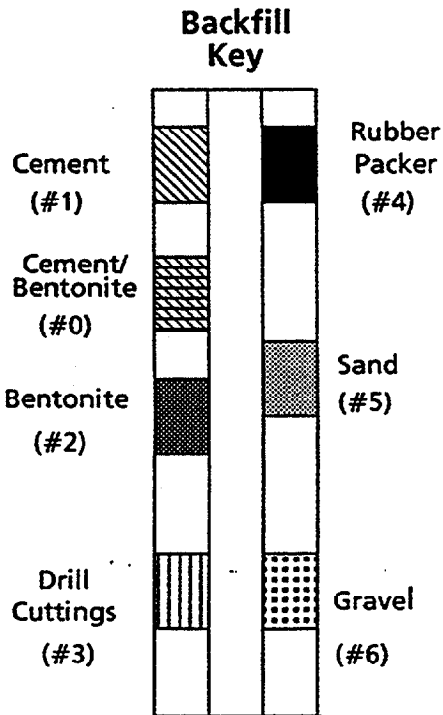
Baker

Baker Environmental, Inc.

PROJECT: Sites 69, 74, & 41 DATE: 1-18-94
 CTO NO.: 212 BORING NO.: 74-GW04
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF STEEL CASING: _____

Pay Items			
Item	Quantity	Unit	Remarks
Sand	4 1/2 bags		#1 sand
Bentonite Pellets	1 bucket		
PVC Pipe	22.0'		10' of screen
(1) steel surface protective casing			
(4) bollards and (1) 5x5 cement pad			

WELL INFORMATION	DIAM. (INCHES)	TYPE	TOP DEPTH (FT.)	BOTTOM DEPTH (FT.)
Well Casing	2.0"	Schedule 40 PVC	+2.5' (bgs)	9.5' (bgs)
Well Screen	2.0"	Schedule 40 PVC 10 Slot	9.5' (bgs)	19.5' (bgs)

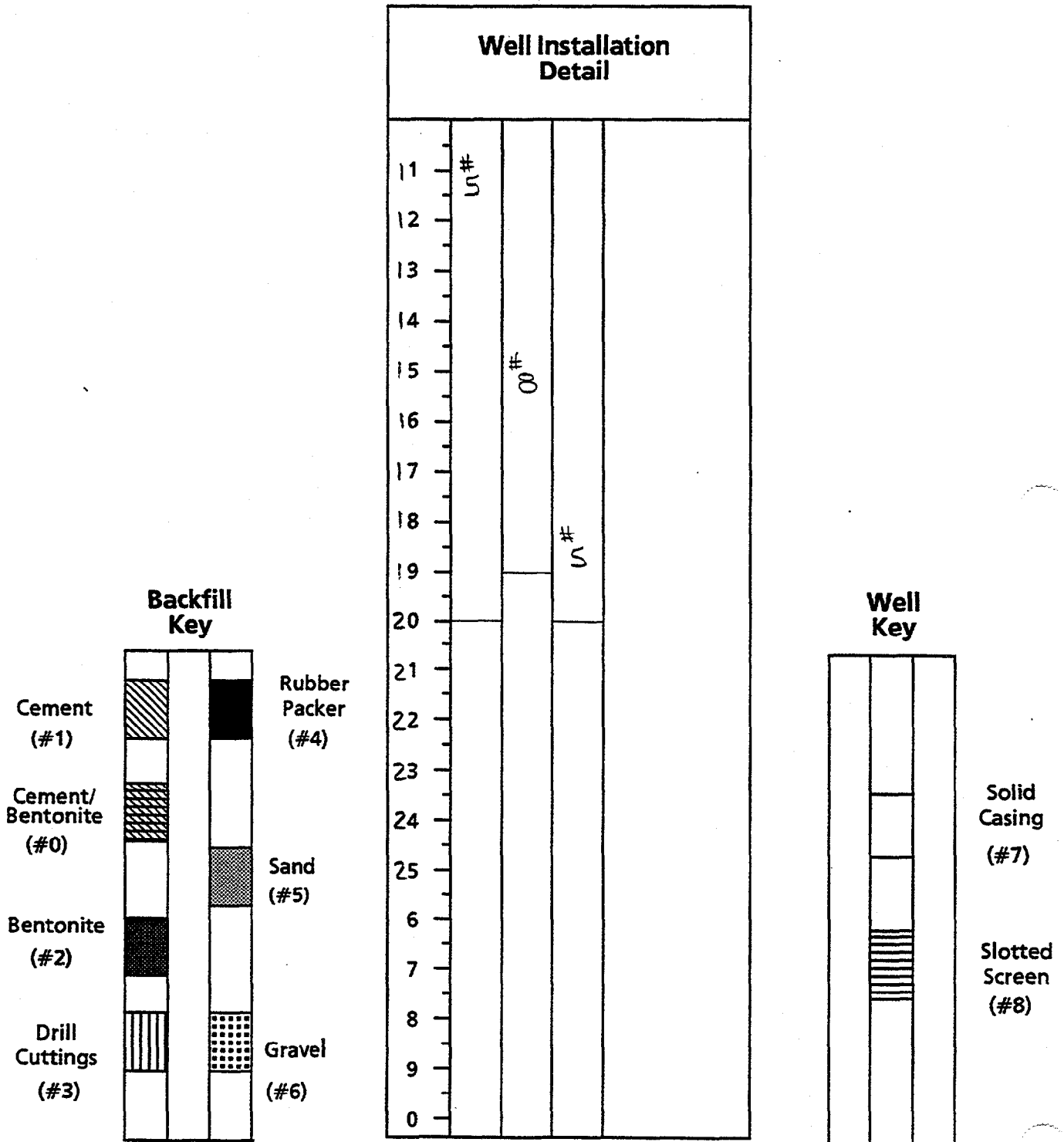


DRILLING CO.: Hardin Huber, Inc BAKER REP.: E. Kleinkauf
 DRILLER: Jay Carron BORING NO.: 74-GW04 SHEET 1 OF 2

FIELD WELL CONSTRUCTION LOG

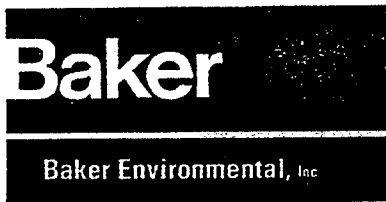
PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: 74-GW04



DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: E. Kleinkauf
 BORING NO.: 74-GW04



TEST BORING RECORD

PROJECT: _____
 S.O. NO.: _____ BORING NO.: 74-GW05
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: <u>Mobile B-47</u>									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>		<u>1/4" ID</u>		<u>1-11-94</u>	<u>0.0 to</u>	<u>Sunny high 40's</u>		
LENGTH	<u>20'</u>		<u>5.0'</u>						
TYPE	<u>Std</u>		<u>HSA</u>						
HAMMER WT.	<u>140 lbs</u>								
FALL	<u>38"</u>								
STICK UP									

REMARKS: Back Ground (BG) is 0.5 parts per million (ppm)

SAMPLE TYPE S = Split Spoon A = Auger T = Shelby Tube W = Wash R = Air Rotary C = Core D = Denison P = Piston N = No Sample	DEFINITIONS SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5') RQD = Rock Quality Designation (%) Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282) Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis
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Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	True Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	<u>S-1</u> <u>74-GW-05-01</u>	<u>1.3</u> <u>65%</u>	<u>4</u> <u>6</u> <u>5</u> <u>3</u>		<u>1206</u> <u>BG</u>	<u>trace clay</u> <u>Fine sand and silt, leaves pine needles and decaying vegetation in first few inches, damp, medium dense black to 1.0 feet</u> <u>Brownish Gray to yellowish brown from 1.0 feet</u>	
2	<u>2.6</u>						
3	<u>S-2</u>	<u>1.7</u> <u>85%</u>	<u>6</u> <u>7</u> <u>8</u> <u>10</u>		<u>1210</u> <u>BG</u>		
4	<u>4.0</u>						
5	<u>S-3</u>	<u>1.7</u> <u>85%</u>	<u>7</u> <u>10</u> <u>11</u>		<u>1216</u> <u>BG</u>	<u>4.5'</u> <u>Fine to medium sand, little to some silt, gray damp to wet, loose to medium dense</u> <u>trace clay from 5.0 to 6.0 feet</u>	
6	<u>6.0</u>						
7	<u>74-GW-05-04</u> <u>S-4</u>	<u>1.5</u> <u>75%</u>	<u>9</u> <u>7</u> <u>5</u> <u>8</u>		<u>1401</u> <u>BG</u>	<u>water at approximately 8.0 feet</u>	
8	<u>8.0</u>						
9	<u>S-5</u>	<u>1.6</u> <u>80%</u>	<u>5</u> <u>5</u> <u>4</u> <u>4</u>		<u>1406</u> <u>BG</u>		
10	<u>10.0</u>						

Match to Sheet 2



TEST BORING RECORD

Baker Environmental, Inc

PROJECT: _____
S.O. NO.: _____

BORING NO.: 74-GW05

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Flow Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	S-6	1.9 95%	5 5 6 4	1411	B6	Fine to medium sand, little to some silt, wet loose to medium dense yellow brown from 10.0 to 11.0 feet Dark gray from 11.0 feet	
12							
13	C-7	1.0 50%	4 7 8	1420	B6		
14							
15	S-8	1.2 60%	4 5 7 8	1426	B6		
16							
17	S-9	1.8 90%	5 6 8 7	1442	B6		
18							
19	Ann					Bottom of Borehole at 19.0 feet	19.0'
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hamm-Huber, Inc
DRILLER: R. Callahan

BAKER REP.: S. Wolff
BORING NO.: 74-GW05

SHEET 2 OF 2

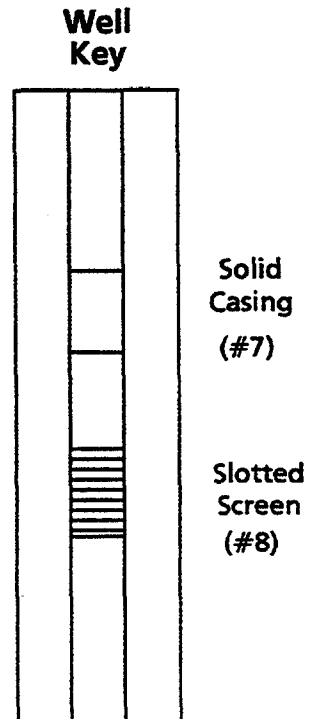
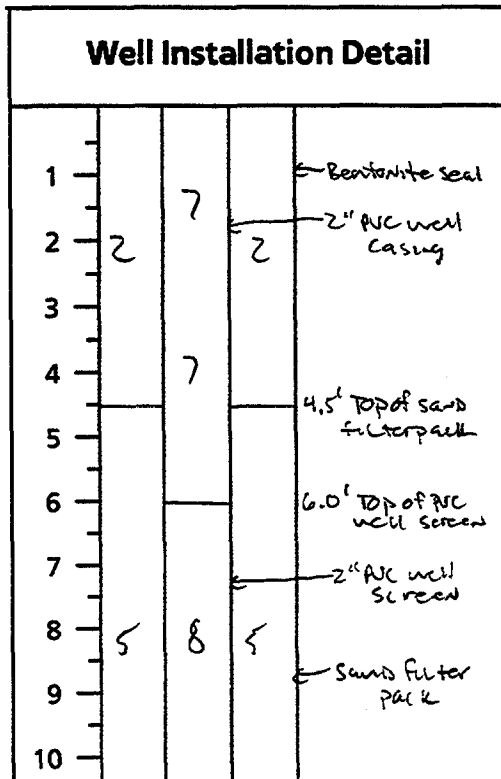
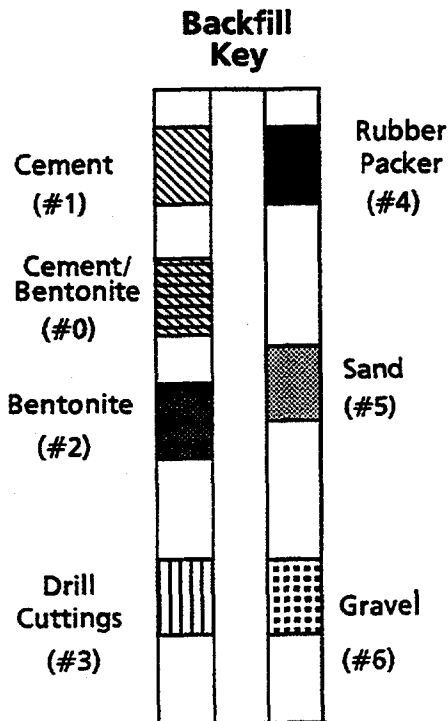
FIELD WELL CONSTRUCTION LOG

PROJECT: _____
 S.O. NO.: _____ BORING NO.: 74-6W05
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF STEEL CASING: _____

Well Development

Pay Items			
Item	Quantity	Unit	Remarks
2" PVC well screen	10	feet	
2" PVC well casing	4	feet	
well point and plug	1	each	
Sand filter pack	5	bag	
Bentonite pellets	2	pail	

WELL INFORMATION	DIAM. (INCHES)	TYPE	TOP DEPTH (FT.)	BOTTOM DEPTH (FT.)
Well Casing	2	PVC	-3.0	6.0
Well Screen	2	PVC	6.0	16.5



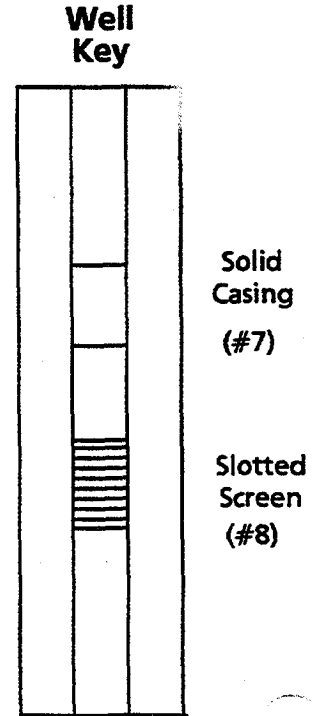
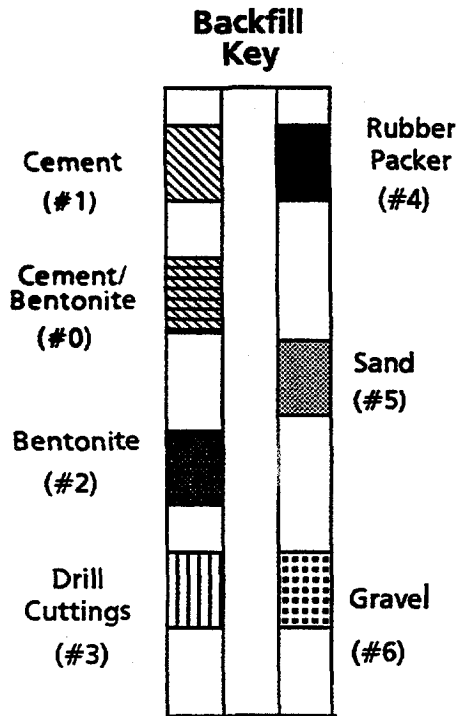
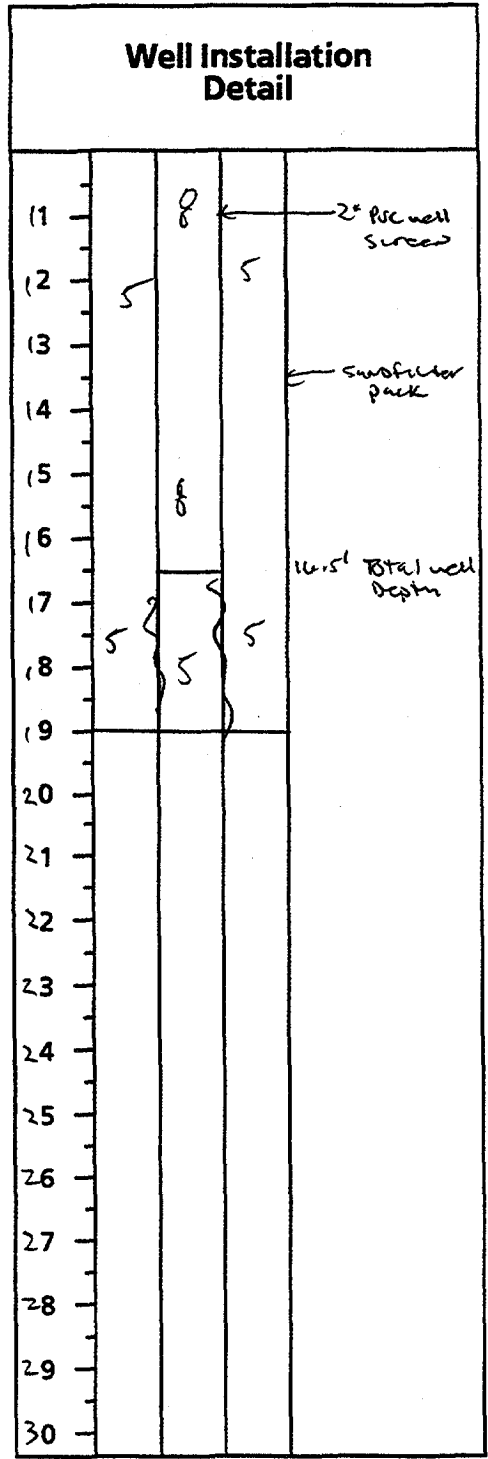
DRILLING CO.: Hardin-Nuber, Inc
 DRILLER: P. Callahan

BAKER REP.: SMOBBETT
 BORING NO.: 74-6W05 SHEET 1 OF 2



FIELD WELL CONSTRUCTION LOG

PROJECT: _____
 S.O. NO.: _____ BORING NO.: 74-6W05



DRILLING CO.: Harbor Huber, Inc
 DRILLER: P. Callahan

BAKER REP.: S. Moffatt
 BORING NO.: 74-6W05

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: _____
 S.O. NO.: _____ BORING NO.: 74-GW04
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF PVC CASING: _____

RIG: <u>Mobile B-47</u>					DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	<u>1 3/8" ID</u>	CASING	AUGERS	CORE BARREL	<u>1-10-94</u>	<u>0.0 to 16.0</u>	<u>Summer low 40's</u>		
LENGTH	<u>20'</u>		<u>5.0'</u>		<u>1-11-94</u>	<u>16.0 to 26.0</u>	<u>Summer high 30's</u>		
TYPE	<u>STD</u>		<u>HSA</u>						
HAMMER WT.	<u>140 lbs</u>								
FALL	<u>30"</u>								
STICK UP									

REMARKS: Background (BG) is 0.5 parts per million (PPM)

SAMPLE TYPE						DEFINITIONS			
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')			
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)			
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)			
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis			
N = No Sample									
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Time Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation		
1	S1	1.0	1	2	BG	Fine sand and silt, leaves, pine needles and decaying vegetation in first few inches, DAMP, loose to medium dense black to 1.0 feet yellowish brown from 1.0 feet	4.0'		
2		50%	4	4					
3	S2	1.7	7	6	BG		4.0'		
4		85%	7	6					
5	S3	1.8	8	11	3.2	Fine to medium sand, little to some silt, gray DAMP, medium dense to dense	4.0'		
6		90%	11	10					
7	S4	1.6	8	10	BG		4.0'		
8		80%	10	10					
9	S5	1.8	5	8	BG		4.0'		
10		90%	11	12					

Match to Sheet 2

DRILLING CO.: Hornum-Hornum, Inc.
 DRILLER: P. Callahan

BAKER REP.: S. Moffett
 BORING NO.: 74-GW04

Baker Environmental, Inc

PROJECT: _____

S.O. NO.: _____

BORING NO.: 74-GW06

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon		A = Auger		SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')		RQD = Rock Quality Designation (%)	
T = Shelby Tube		W = Wash		Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)		Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
R = Air Rotary		C = Core					
D = Denison		P = Piston					
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Time Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevati
11	S-6	1.8 90%	6 8 10 9	1608	BG	Fine to medium sand, little some silt, gray DAMP to WET, Medium Dense to dense Water at approximately 15.0 feet	
12							
13	S-7	1.8 90%	7 8 11 4	1617	BG		
14							
15	S-8	1.7 85%	4 7 2 3	1627	BG		
16							
17	S-9	1.3 65%	11 17 20 20	0844	BG		
18							
19	S-10	1.6 80%	8 18 26 28	0854	BG		
20							
21	S-11	1.1 55%	8 22 29 26	0904	BG		
22							
23	S-12	1.7 85%	14 18 30 30	0915	BG		
24							
25	A-N						
26						Bottom of borehole at 26.0 feet	26.0'
27							
28							
29							
30							

DRILLING CO.: Hanna-Huber, Inc

DRILLER: P. Callahan

BAKER REP.: S. Moffett

BORING NO.: 74GW06

SHEET 2 OF :

FIELD WELL CONSTRUCTION LOG

PROJECT: _____
 S.O. NO.: _____ BORING NO.: 74-GW06
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF STEEL CASING: _____

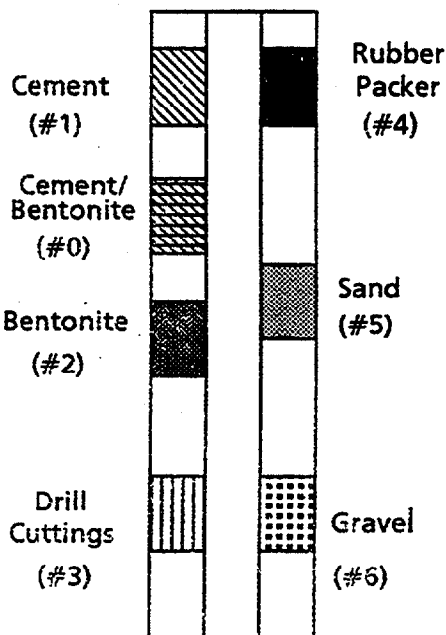
Well Development _____

Pay Items

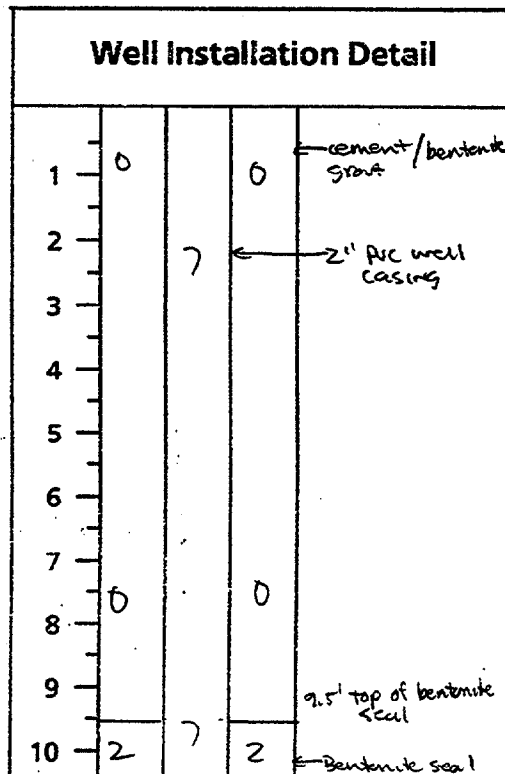
Item	Quantity	Unit	Remarks
2" PVC well casing	17.1	feet	
2" PVC well screen	10	feet	
well point and cap	1	each	
sand filter pack	5	bag	
bentonite pellets	1	ball	

WELL INFORMATION	DIAM. (INCHES)	TYPE	TOP DEPTH (FT.)	BOTTOM DEPTH (FT.)
Well Casing	2	PVC	-1.7	15.5
Well Screen	2	PVC	15.5	26.0

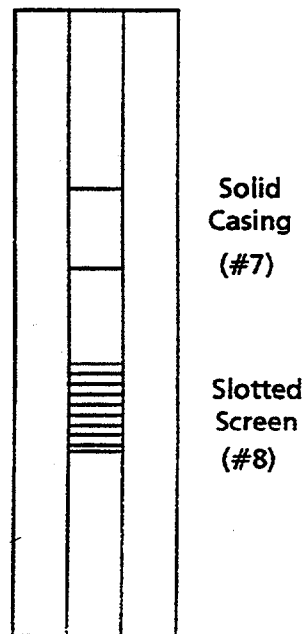
Backfill Key



Well Installation Detail



Well Key



DRILLING CO.: Hardin - Huber, Inc
 DRILLER: P. Callahan

BAKER REP.: S Moffett
 BORING NO.: 74GW06

Baker

Baker Environmental, Inc

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41S.O. NO.: 212BORING NO.: 74GW-07

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATU #19

	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		6/4" ID		2-18-94	0-17.0	Sunny, 60's	6.5	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 #								
FALL	30"								
STICK UP	2.5'								

REMARKS: Continuous sampling to 16.0' (bgs). Type II monitoring well set 2-18-94.**SAMPLE TYPE**

S = Split Spoon A = Auger
 T = Shelby Tube W = Wash
 R = Air Rotary C = Core
 D = Denison P = Piston
 N = No Sample

DEFINITIONS

SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')
 RQD = Rock Quality Designation (%)
 Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)
 Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis

Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
1	Sample #01 is collected	1.4 / 2.0	1 2 3		BG	<u>Rooted zone. Brown, loose, damp. plant mat.</u> SILTY SAND, fine grained. Dark brown to brown, loose, damp.	
2		70%	5			SAND, fine grained. Brown, loose, damp to moist. Orange streaking .9' to 1.7' only.	
3	Sample #02 is collected	2.0 / 2.0	3 3 3		BG		
4		100%	3				
5	S-3	1.4 / 2.0	4 6 8		.5	SAND, fine grained. Brown to light brown, medium dense, moist to wet. Orange streaking at 1.2' only.	
6		70%	9				
7	S-4	2.0 / 2.0	3 5		BG	SAND, fine grained w/trace silt. Brown to gray, loose to medium dense, wet.	
8		100%	3			SAND, fine grained. Brown to gray, loose to medium dense, wet.	
9	S-5	2.0 / 2.0	4 5 3		BG	SAND, fine grained w/trace silt. Gray, loose, wet.	
10		100%	8				

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc.BAKER REP.: J. ZimmermanDRILLER: Jay CorronBORING NO.: 74GW-07SHEET 1 OF 2

TEST BORING RECORD

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: 74GW-07

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon	A = Auger					SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')	
T = Shelby Tube	W = Wash					RQD = Rock Quality Designation (%)	
R = Air Rotary	C = Core					Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)	
D = Denison	P = Piston					Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	S-6	1.4	3		BG	SAND, fine grained. Gray, medium dense, wet	
12		2.0	4				
12	12.0	70%	8				
13	S-7	1.8	5		BG		
14		2.0	6				
14	14.0	90%	9				
15	S-8	2.0	3		BG		
16		2.0	5				
16	16.0	100%	8				
17	17.0						End of Boring
18						TD: 17.0'	
19						well set @: 16.5'	
20						Borehole sampled to 16.0'	
21						Now background = .3 ppm	
22							
23							
24							
25							
26							
27							
28							
29							
30							

DRILLING CO.: Hardin Huber, Inc.
 DRILLER: Jay Corran

BAKER REP.: J. Zimmerman
 BORING NO.: 74GW-07

FIELD WELL CONSTRUCTION LOG

Baker

Baker Environmental, Inc

PROJECT: Sites 69, 74, & 41

DATE: 2-18-94

CTO NO.: 212

BORING NO.: 74GW-07

COORDINATES: EAST: _____

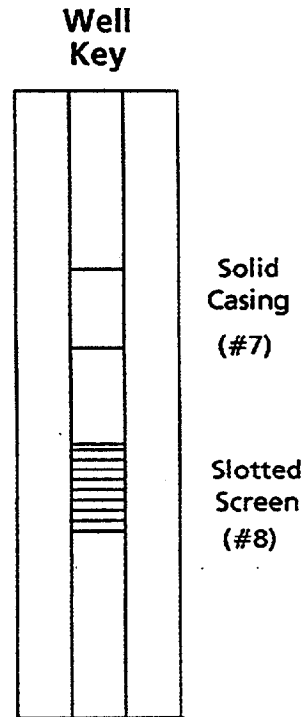
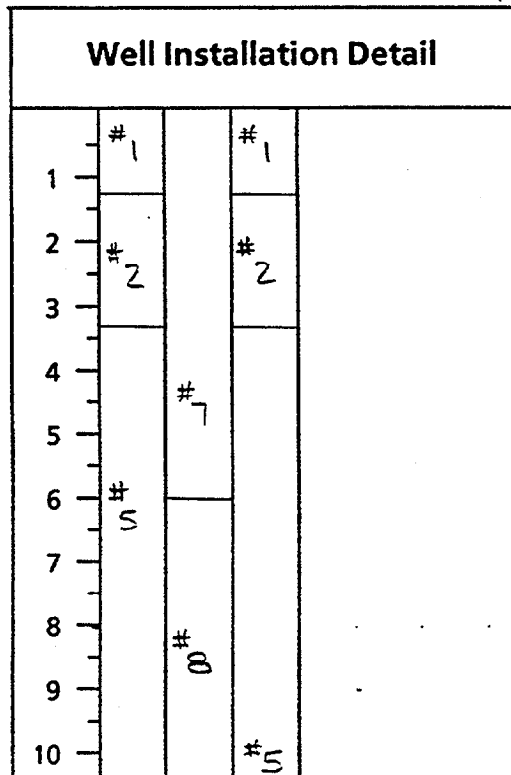
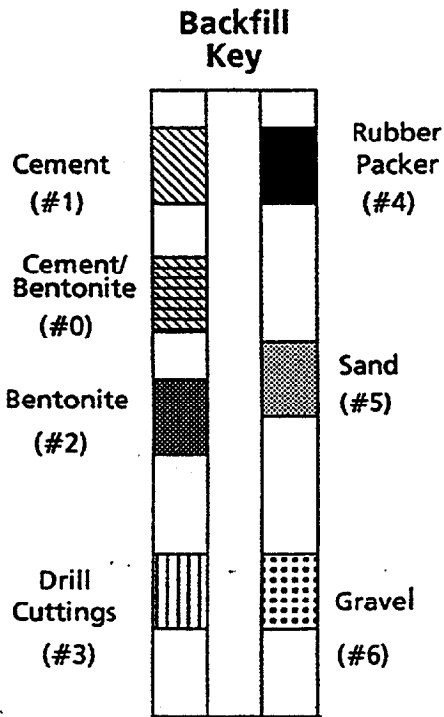
NORTH: _____

ELEVATION: SURFACE: _____

TOP OF STEEL CASING: _____

Pay Items			
Item	Quantity	Unit	Remarks
Sand	5 bags		#1 Sand
Bentonite Pellets	1 bucket		
PVC Pipe	19'		10' of screen
(1) steel surface protective casing			
(4) bollards and (1) 5x5 cement pad			

WELL INFORMATION	DIAM. (INCHES)	TYPE	TOP DEPTH (FT.)	BOTTOM DEPTH (FT.)
Well Casing	2.0"	Schedule 40 PVC	+ 2.5'	6.0' (bgs)
Well Screen	2.0"	Schedule 40 PVC 10 SLOT	6.0' (bgs)	16.0' (bgs)



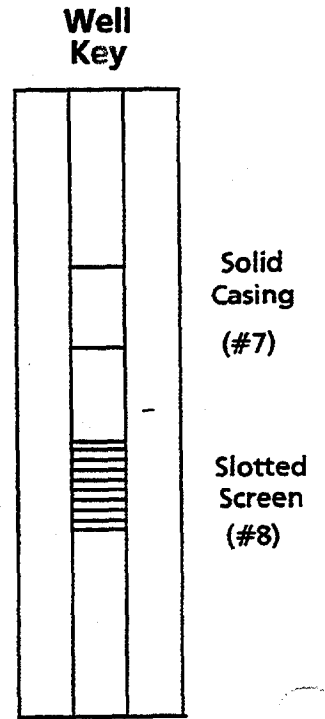
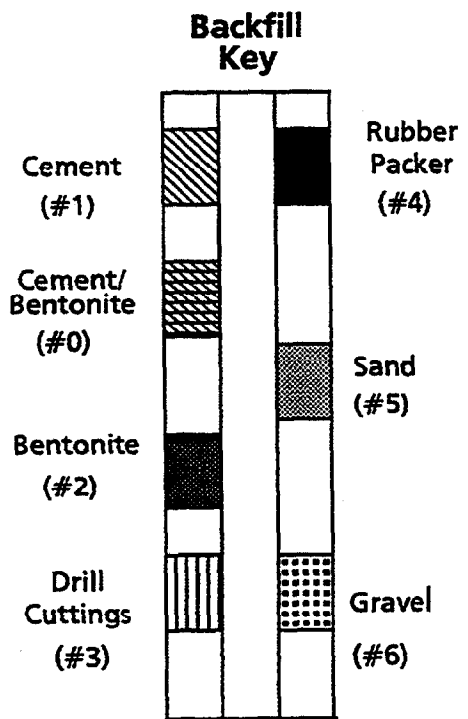
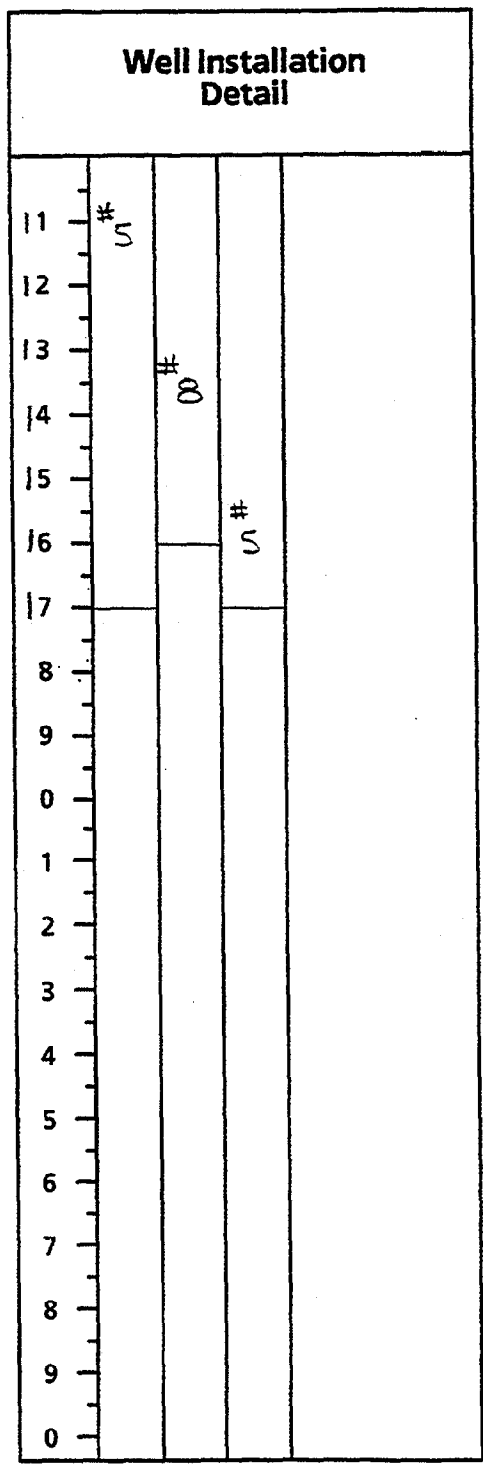
DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Carron

BAKER REP.: J. Zimmerman
 BORING NO.: 74GW-07 SHEET 1 OF 2



FIELD WELL CONSTRUCTION LOG

PROJECT: Sites 69, 74, E 41
 S.O. NO.: 212 BORING NO.: 74GW-07



DRILLING CO.: Hardin Huber, Inc.
 DRILLER: Jay Corron

BAKER REP.: J. Zimmerman
 BORING NO.: 74GW-07 SHEET 2 OF 2



TEST BORING RECORD

PROJECT: Sites 69, 74, & 41

S.O. NO.: 212

BORING NO.: 74GW-08

COORDINATES: EAST: _____

NORTH: _____

ELEVATION: SURFACE: _____

TOP OF PVC CASING: _____

RIG: ATU #19									
	SPLIT SPOON	CASING	AUGERS	CORE BARREL	DATE	PROGRESS (FT)	WEATHER	WATER DEPTH (FT)	TIME
SIZE (DIAM.)	1 3/8" ID		6 1/4" ID		2-18-94	0-24.0	Sunny, 60'S	13.0	
LENGTH	2.0'		5.0'						
TYPE	STD		HSA						
HAMMER WT.	140 #								
FALL	30"								
STICK UP	2.5'								

REMARKS: Continuous sampling to 24.0' (bgs). Type II monitoring well set 2-18-94.

SAMPLE TYPE						DEFINITIONS			
S	= Split Spoon	A	= Auger	SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')					
T	= Shelby Tube	W	= Wash	RQD = Rock Quality Designation (%)					
R	= Air Rotary	C	= Core	Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)					
D	= Denison	P	= Piston	Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis					
N	= No Sample								
Depth (Ft.)	Sample Type and No.	Samp. Rec. Ft. & %	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation		
1	S-1	1.1 / 2.0	3		BG	<u>Rooted zone. Brown, loose, damp. Plant mat.</u> <u>SILTY SAND, fine grained. Dark brown to brown, loose, damp.</u> SAND, fine grained. Light brown, medium dense, wet.			
2		55%	2						
3	S-2	1.4 / 2.0	2		BG				
4		70%	5						
5	Sample #03 is collected	1.5 / 2.0	5		BG				
6		75%	7						
7	S-4	1.7 / 2.0	5		BG				
8		85%	8						
9	S-5	1.5 / 2.0	7		BG				
10		75%	10						

Match to Sheet 2

DRILLING CO.: Hardin Huber, Inc

BAKER REP.: J. Zimmerman

DRILLER: Jay Corran

BORING NO.: 74GW-08

SHEET 1 OF 2

TEST BORING RECORD

PROJECT: Sites 69, 74, & 41
 S.O. NO.: 212

BORING NO.: - 74GW-0

SAMPLE TYPE						DEFINITIONS	
S = Split Spoon		A = Auger		SPT = Standard Penetration Test (ASTM D-1586) (Blows/0.5')		RQD = Rock Quality Designation (%)	
T = Shelby Tube		W = Wash		Lab Class. = USCS (ASTM D-2487) or AASHTO (ASTM D-3282)		Lab Moist. = Moisture Content (ASTM D-2216) Dry Weight Basis	
R = Air Rotary		C = Core		D = Denison		P = Piston	
N = No Sample							
Depth (Ft.)	Sample Type and No.	Samp. Rec. (Ft. & %)	SPT or RQD	Lab. Class. or Pen. Rate	PID (ppm)	Visual Description	Elevation
11	Sample #06 is collected	1.3 2.0	6 10		BG	SAND, fine grained. Light brown, medium dense, wet.	
12	12.0	65%	8				
13	S-7	1.7 2.0	6 6		BG		
14	14.0	85%	7				
15	S-8	2.0 2.0	7 7		BG		
16	16.0	100%	4 7				
17	S-9	2.0 2.0	4 6		BG		SAND, fine grained w/ trace silt. Very light brown, medium dense, wet.
18	18.0	100%	19				
19	S-10	1.9 2.0	8 15		BG		SAND, fine grained. Light gray, medium dense to dense, wet.
20	20.0	95%	23				
21	S-11	2.0 2.0	8 4		BG		
22	22.0	100%	18				
23	S-12	2.0 2.0	4 7		BG		
24	24.0	100%	9				
25						End of Boring	
26						TD: 24.0'	
27						well set @: 23.0'	
28						H ₂ O background = .5 ppm	
29							
30							

DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corran

BAKER REP.: J. Zimmerman
 BORING NO.: 74GW-08

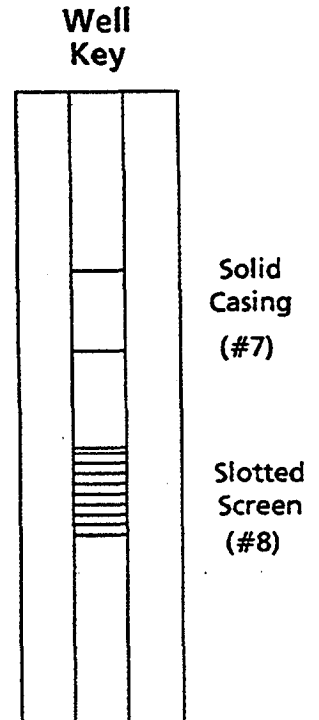
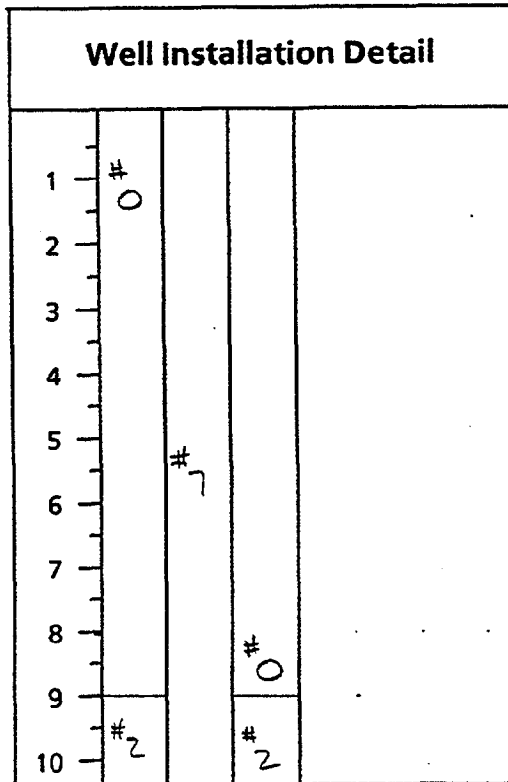
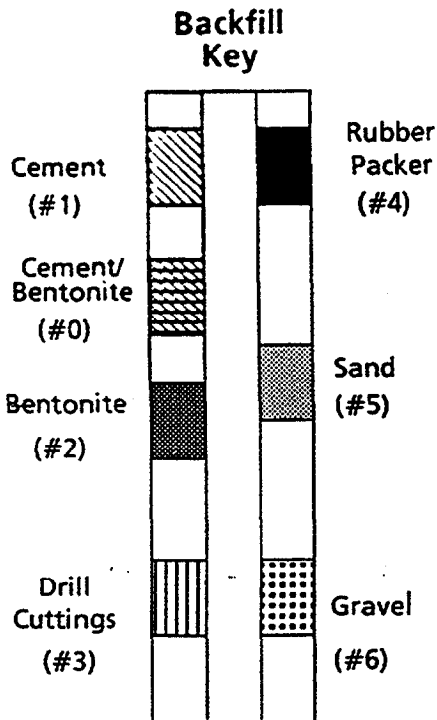
FIELD WELL CONSTRUCTION LOG



PROJECT: Sites 69, 74, E 41 DATE: 2-18-94
 CTO NO.: 212 BORING NO.: 74GW-08
 COORDINATES: EAST: _____ NORTH: _____
 ELEVATION: SURFACE: _____ TOP OF STEEL CASING: _____

Pay Items			
Item	Quantity	Unit	Remarks
Sand	5 bags		#1 Sand
Bentonite Pellets	1 bucket		
PVC Pipe	25 1/2'		10' of screen
(1) Steel surface protective casing			
(4) bollards and (1) 5x5 cement pad			

WELL INFORMATION	DIAM. (INCHES)	TYPE	TOP DEPTH (FT.)	BOTTOM DEPTH (FT.)
Well Casing	2.0"	Schedule 40 PVC	+2.5'	13.0' (bgs)
Well Screen	2.0"	Schedule 40 PVC 10 slot	13.0' (bgs)	23.0' (bgs)



DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

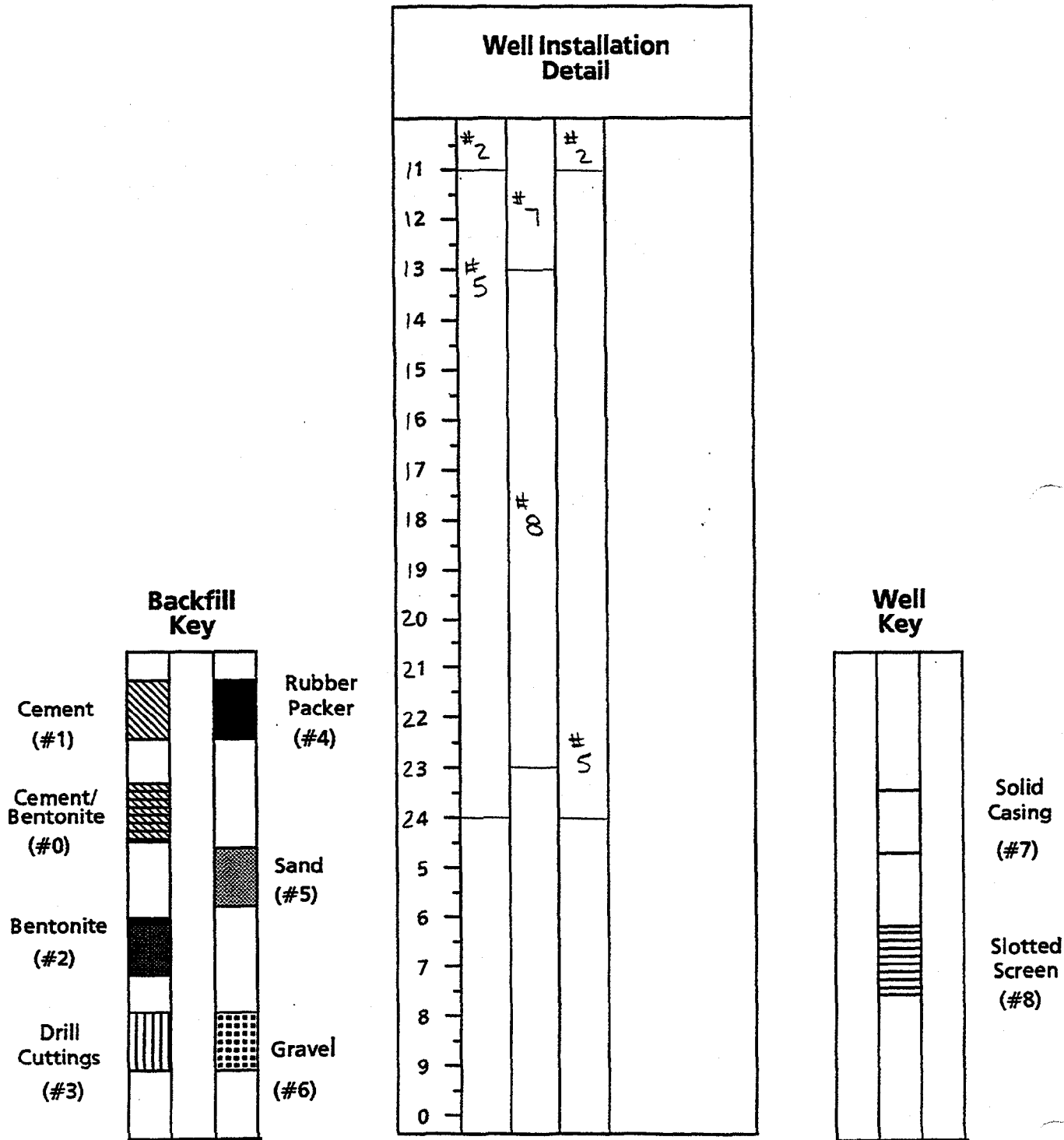
BAKER REP.: J. Zimmerman
 BORING NO.: 74GW-08 SHEET 1 OF 2

FIELD WELL CONSTRUCTION LOG

PROJECT: Sites 69, 74, E 41

S.O. NO.: 212

BORING NO.: 74GW-08



DRILLING CO.: Hardin Huber, Inc
 DRILLER: Jay Corron

BAKER REP.: J. Zimmerman
 BORING NO.: 74GW-08

APPENDIX D
CHAIN-OF-CUSTODY FORMS

GP ENVIRONMENTAL SERVICES, INC.

C.O.C. 41001

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

Contract #/Billing Reference

62470-212

1 of 2 Pgs.

Project: 62470-212 site 41					Turnaround Time <i>Routine</i>									
Client <i>BAKER</i>					# of Container									
Send Results To: <i>MAT BARTMAN</i>					Container Type									
Address:					Preservative Used									
Phone:					Type of Analysis									

Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	TCL-VDA	TCL-SVA	TCL-Pest/POB	TR-METALS	CYANIDE	CSM (Dep. Prod.)	ADVANCE	M. Rex	ThioDiquinol	CLIENT COMMENTS
41-05-SB01-00	1-31-94	1625	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X	X	
41-05-SB01-02	1-31-94	1644	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X	X	* ONLY FOR AERIALS SAMPLES
41-05-SB01-05	1-31-94	1706	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X	X	
41-R5-01	2-1-94	0935	LIQUID	ETK	X	X	X	X	X	X	X	X	X	* Rinsate HANDLED
41-TB-01	2-1-94	1100	LIQUID	PAM	X									TRIP BANK
41-05-SB02-00	2-1-94	1016	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X	X	* MS/MSD
41-05-SB02-001	2-1-94	1016	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X	X	
41-05-SB02-02	2-1-94	1033	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X	X	
41-05-SB02-03	2-1-94	1037	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X	X	
41-05-SB03-00	2-1-94	0926	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X	X	
41-05-SB03-01	2-1-94	0930	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X	X	
41-UN-SW10	2-1-94	1050	LIQUID	RWK/MDS	X	X	X	X		X	X			

Relinquished By: <i>R. DeMondy</i>	Date/Time: 2-1-94 1600	Received By:	Relinquished By:	Received for Laboratory By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:	Shipper:	Airbill No.: <i>Fed-ex</i> <i>0825846840</i>
Relinquished By:	Date/Time:	Received By:	Lab Comments:	Temp:	

GP ENVIRONMENTAL SERVICES, INC.

C.O.C.# 41001

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

Contract #/Billing Reference
62470-212

2 of 2 Pgs.

Project: 62470-212 site 41					Turnaround Time None										
Client BAKER					# of Container										
Send Results To: MATT BARTMAN.					Container Type										
Address:					Preservative Used										
Phone:					Type of Analysis										
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	TEL-VOA	TEL-SVOA	TEL-REST/PCB	TAL-METALS	MIREX	ORDNANCE					CLIENT COMMENTS
41-UN-SD10-06	2-1-94	1100	SOLID	RWR/MDS	X	X	X	X	X	X					
41-UN-SD10-02	2-1-94	1110	SOLID	RWR/MDS	X	X	X	X	X	X					

Relinquished By: <i>[Signature]</i>	Date/Time: 2-1-94/1600	Received By:	Relinquished By:	Received for Laboratory By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:	Shipper:	Airbill No.: fed-ex 0825846840
Relinquished By:	Date/Time:	Received By:	Lab Comments:	Temp:	

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

C.O.C. # 41002

Contract #/Billing Reference

62470-212

1 of 11 Pgs.

Project: 62470-212 SITE 41					Turnaround Time: ROUTINE										CLIENT COMMENTS
Client: BAKER ENVIRONMENTAL INC.					# of Container										CLIENT COMMENTS
Send Results To: MATT BARTMAN					Container Type										CLIENT COMMENTS
Address:					Preservative Used										CLIENT COMMENTS
Phone:					Type of Analysis										CLIENT COMMENTS
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	TEL-NOA	TEL-SVOA	TEL-PESTIC	TEL-METALS	CYANIDE	CSM (As Req)	THIOGLYCOL	ADAMITE	MIXED	CLIENT COMMENTS	
41-OS-SB05-00	2-1-94	12:59	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X			
41-OS-SB05-01	2-1-94	1304	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X			
41-OS-SB09-00	2-1-94	1442	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X			
41-OS-SB09-01	2-1-94	1445	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X			
41-OS-SB07-00	2-1-94	1337	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X			
41-OS-SB07-01	2-1-94	1346	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X			
41-OS-SB07-02	2-1-94	1357	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X			
41-OS-SB12-00	2-1-94	1553	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X			
41-OS-SB12-01	2-1-94	1606	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X			
41-DS-SB01-00	2-1-94	1100	SOLID	ETK	X	X	X	X	X	X	X	X			
41-DS-SB04-00	2-1-94	1545	SOLID	ETK	X	X	X	X	X	X	X	X			
41-DS-SB05-01	2-1-94	1553	SOLID	ETK	X	X	X	X	X	X	X	X			
Relinquished By: <i>[Signature]</i>		Date/Time: 2-2-94/1600		Received By:			Relinquished By:			Received for Laboratory By:			Date/Time:		
Relinquished By:		Date/Time:		Received By:			Date/Time:		Shipper:		Airbill No.: Fed-ex 08-25 846862				
Relinquished By:		Date/Time:		Received By:			Lab Comments:				Temp:				

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

C.O.C. # 41002

Contract #/Billing Reference
62470-212

2 of 4 Pgs.

Project: 62470-212 site 41					Turnaround Time <i>ROUTINE</i>										
Client: BAKER ENVIRONMENTAL INC.					# of Container										
Send Results To: MATT BARTMAN					Container Type										
Address:					Preservative Used										
Phone:					Type of Analysis										
					<i>TCV-VOA</i> <i>TCV-SVOA</i> <i>TCV-PESTICIDE</i> <i>TR-METALS</i> <i>CYANIDE</i> <i>CSM (Reg. Prod.)</i> <i>TH-DY/GEN/OL</i> <i>ADDMAXE</i> <i>MIREX</i>										
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials											CLIENT COMMENTS
41-DS-SB06-00	2-1-94	1612	SOLID	EJK	X	X	X	X	X	X	X	X	X	X	
41-DS-SB07-00	2-1-94	1630	SOLID	EJK	X	X	X	X	X	X	X	X	X	X	
41-DS-SB09-00	2-1-94	1340	SOLID	EJK	X	X	X	X	X	X	X	X	X	X	
41-DS-SB10-00	2-1-94	1320	SOLID	EJK	X	X	X	X	X	X	X	X	X	X	
41-DS-CR11-00	2-1-94	1155	SOLID	EJK	X	X	X	X	X	X	X	X	X	X	
41-DS-SB12-00	2-1-94	1130	SOLID	EJK	X	X	X	X	X	X	X	X	X	X	
41-LW-S002-06	2-1-94	1610	SOLID	RWK/MDS	X	X	X	X				X	X		* MS/MSD
41-LW-S003-06D	2-1-94	1610	SOLID	RWK/MDS	X	X	X	X				X	X		
41-LW-S003-612	2-1-94	1625	SOLID	RWK/MDS	X	X	X	X				X	X		* MS/MSD
41-LW-S003-612D	2-1-94	1625	SOLID	RWK/MDS	X	X	X	X				X	X		
41-LW-S004-06	2-1-94	1500	SOLID	RWK/MDS	X	X	X	X				X	X		
41-LW-S004-612	2-1-94	1525	SOLID	RWK/MDS	X	X	X	X				X	X		
Relinquished By: <i>[Signature]</i>		Date/Time: 2-2-94 1600		Received By:			Relinquished By:			Received for Laboratory By:			Date/Time:		
Relinquished By:		Date/Time:		Received By:			Date/Time		Shipper:		Airbill No.: Fed-ex 0825846862				
Relinquished By:		Date/Time:		Received By:			Lab Comments:			Temp:					

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

C.O.C. # 41002

Contract #/Billing Reference

62470-212

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of 4

Pgs.

Project: 62470-212 SITE 41					Turnaround Time: Routine										CLIENT COMMENTS	
Client: BAKER ENVIRONMENTAL INC.					# of Container											
Send Results To: MATT PARTMAN					Container Type											
Address:					Preservative Used											
Phone:					Type of Analysis											
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	TCL-VOA	TCL-SVOA	TCL-pest/PCB	TAL-METALS	CYANIDE	C5M(Org. Prod)	THIOGLYCOL.	ORDNANCE	M:REX			
41-UN-SW03	2-1-94	1550	Liquid	RWK/MDS	X									* MS/MSD		
41-UN-SW03D	2-1-94	1550	Liquid	RWK/MDS	X											
41-UN-SW04	2-1-94	1515	Liquid	RWK/MDS	X											
41-OS-SB23-00	2-2-94	1145	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X	X			
41-OS-SB23-01	2-2-94	1149	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X	X			
41-OS-SB19-00	2-2-94	1025	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X	X			
41-OS-SB19-01	2-2-94	1031	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X	X			
41-OS-SB16-00	2-2-94	0933	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X	X			
41-OS-SB16-01	2-2-94	0937	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X	X			
41-DS-SB08-00	2-2-94	1140	SOLID	RWK/MDS	X	X	X	X	X	X	X	X	X	* MS/MSD		
41-DS-SB08-00D	2-2-94	1140	SOLID	RWK/MDS	X	X	X	X	X	X	X	X	X			
41-DS-SB08-00	2-2-94	1016	SOLID	RWK/MDS	X	X	X	X	X	X	X	X	X			
Relinquished By: <i>[Signature]</i>		Date/Time: 2-2-94 1600		Received By:					Relinquished By:					Received for Laboratory By:		Date/Time:
Relinquished By:		Date/Time:		Received By:					Date/Time:		Shipper:			Airbill No.: FODER		
Relinquished By:		Date/Time:		Received By:					Lab Comments:					Temp:		

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

C.O.C.# 41002

Contract #/Billing Reference

62470-212

4 of 4 Pgs.

Project: 62470-212 site 41					Turnaround Time										CLIENT COMMENTS														
Client: BAKER					# of Container																								
Send Results To: MATT BARTMAN					Container Type																								
Address:					Preservative Used																								
Phone:					Type of Analysis																								
					TCL-VOA TCL-SUBA TCL-POST/PCA TAL-METALS CYANIDE CSM (DEQ MOD.) THODYSYCOL ORDNANCE MUREX																								
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	TCL-VOA	TCL-SUBA	TCL-POST/PCA	TAL-METALS	CYANIDE	CSM (DEQ MOD.)	THODYSYCOL	ORDNANCE	MUREX	CLIENT COMMENTS															
41-DS-SB03-00	2-2-94	1015	SOLID	RWK/MDS	X	X	X	X	X	X	X	X	X	X MS/MSD															
41-DS-SB03-00D	2-2-94	1015	SOLID	RWK/MDS	X	X	X	X	X	X	X	X	X																
41-BB-SB01-00	2-2-94	1425	SOLID	RWK/MDS	X	X	X	X	X	X	X	X	X																
41-EB-SB02-00	2-2-94	1410	SOLID	RWK/MDS	X	X	X	X	X	X	X	X	X																
41-BB-SB03-00	2-2-94	1440	SOLID	RWK/MDS	X	X	X	X	X	X	X	X	X																
41-BB-SB04-00	2-2-94	1450	SOLID	RWK/MDS	X	X	X	X	X	X	X	X	X																
41-TB-02	2-2-94	1500	Liquid	PAM	X									TRIP BLANK															
41-RS-02	2-2-94	1450	Liquid	RWK/MDS	X									RINSE (Hold - DWD Analyze)															
Relinquished By: <i>Toby Howard</i>					Date/Time: 2-2-94/1600					Received By:					Received for Laboratory By:					Date/Time:									
Relinquished By:					Date/Time:					Received By:					Date/Time:					Shipper:					Airbill No.: <i>reflex</i>				
Relinquished By:					Date/Time:					Received By:					Lab Comments:					Temp:									

0825846862

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

Contract #/Billing Reference

62470-212

1 of 2 Pgs.

Project: 62470-212					Turnaround Time: ROUTINE											
Client: PAKER ENV. INC					# of Container											
Send Results To: Matt Bantman					Container Type											
Address:					Preservative Used											
Phone:					Type of Analysis											
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	TEL VOA	TEL-SVOA	TEL-EST/AB	TEL METALS	CYANIDE	C-SM/MS/POD	ORANGE	NINEY	THD/6/10/11	CLIENT COMMENTS		
41-05-SB17-01	2/2/94	1556	SOLID	AKP	X	X	X	X	X	X	X	X				
41-05-SB17-02	2/2/94	1613	SOLID	AKP	X	X	X	X	X	X	X	X				
41-05-SB17-00	2/2/94	1549	SOLID	AKP	X	X	X	X	X	X	X	X				
41-05-SB20-00	2/2/94	1445	SOLID	AKP	X	X	X	X	X	X	X	X				
41-GW09-02	2/2/94	1120	SOLID	AKP	X	X	X	X								
41-GW09-04	2/2/94	1120	SOLID	AKP	X	X	X	X								
41-05-SB21-00	2/3/94	1030	SOLID	AKP	X	X	X	X	X	X	X	X				
41-05-SB21-01	2/3/94	1034	SOLID	AKP	X	X	X	X	X	X	X	X				
41-05-SB21-02	2/3/94	1041	SOLID	AKP	X	X	X	X	X	X	X	X				
41-05-SB23-00	2/3/94	1131	SOLID	AKP	X	X	X	X	X	X	X	X				
41-UN-SB14-06	2/3/94	0900	SOLID	MS/MSD	X	X	X	X		X	X		MS/MSD			
41-UN-SB14-06	2/3/94	0925	SOLID	MS/MSD	X	X	X	X		X	X		41-UN-SB14-062 MS/MSD			
Relinquished By: [Signature]		Date/Time: 2/3/94/1530		Received By:					Relinquished By:					Received for Laboratory By:		Date/Time
Relinquished By:		Date/Time:		Received By:					Date/Time		Shipper:		Airbill No. FED EX # 0825846873			
Relinquished By:		Date/Time:		Received By:					Lab Comments:					Temp:		

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
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(301) 926-6802

Contract #/Billing Reference

62470-212

2 of 2 Pgs.

Project: 62470-212					Turnaround Time											
Client: Baker Emur, Inc					# of Container											
Send Results To: Matt Bartman					Container Type											
Address:					Preservative Used											
Phone:					Type of Analysis											
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	TOL VOL	TOL SLOA	TOL TESTS	TOL METALS	ORGANICS	MIBEX						CLIENT COMMENTS
41-UN-SD14-01	2/3/94	0900	SOLID	RWK MDS	X	X	X	X	X	X						
41-UN-SD14-02	2/3/94	0925	SOLID	RWK MDS	X	X	X	X	X	X						41-UN-SD14-612D
41-UN-SD13-06	2/3/94	1035	SOLID	RWK MDS	X	X	X	X	X	X						
41-UN-SD13-02	2/3/94	1045	SOLID	RWK MDS	X	X	X	X	X	X						
41-UN-SW13	2/3/94	1025	LIQUID	RWK MDS	X											
41-UN-SW14	2/3/94	0825	LIQUID	RWK MDS	X											MS/MSD
41-UN-SW11	2/3/94	0825	LIQUID	RWK MDS	X											TRAP BLANK
41-TB-03	2/3/94	1500	LIQUID	RWK MDS	X											RWSTATE SPLIT SPOON
41-AS-03	2/3/94	1430	LIQUID	RWK MDS	X											
Relinquished By: [Signature]		Date/Time: 2/3/94/1530	Received By:			Relinquished By:					Received for Laboratory By:					Date/Time:
Relinquished By:		Date/Time:	Received By:			Date/Time:	Shipper:					Airbill No.: Fed. Ex # 0825846873				
Relinquished By:		Date/Time:	Received By:			Lab Comments:					Temp:					

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

COC# 41006

Contract #/Billing Reference

62470-26

1 of 1 Pgs.

Project: 62470-26					Turnaround Time: <i>Relative</i>																			
Client: <i>Borden Env. Inc.</i>					# of Container																			
Send Results To:					Container Type																			
Address:					Preservative Used																			
Phone:					Type of Analysis																			
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	TOL TEST PCB	TAL METALS	MIDEX	ORANANCE	CLAWIDE	CSM	THIONYLLCOOL	TOL SWA	CLIENT COMMENTS											
41-UN-SW14	2/3/94	0925	LIQUID	<i>RAWL MDS</i>	X	X	X	X				X												
41-UN-SW14D	2/3/94	0925	LIQUID	<i>RAWL MDS</i>	X	X	X	X				X												
41-UN-SW13	2/3/94	1025	LIQUID	<i>RAWL MDS</i>	X	X	X	X				X												
41-UN-SW																								
41-AS-03	2/3/94	1430	LIQUID	<i>RAWL MDS</i>	X	X	X	X	X	X	X	X	<i>ANALYSE SW 1/1 SPOON</i>											
Relinquished By: <i>[Signature]</i>					Received By:					Relinquished By:					Received for Laboratory By:					Date/Time				
Date/Time: <i>2/3/94 1530</i>																								
Relinquished By:					Received By:					Date/Time Shipper:					Airbill No. <i>FED EX # 0825846873</i>									
Date/Time:																								
Relinquished By:					Received By:					Lab Comments:					Temp:									

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

C.O.C. #41007

Contract #/Billing Reference

62470-212

1 of 2 Pgs.

Project: 62470-212 SITE 41					Turnaround Time <i>Routine</i>										CLIENT COMMENTS
Client: BAKER ENVIRONMENTAL, INC.					# of Container										
Send Results To: MATT BARTMAN.					Container Type										
Address:					Preservative Used										
Phone:					Type of Analysis										
					<i>TCL-VOA</i> <i>TCL-SVOA</i> <i>TCL-PEST/ACB</i> <i>TAL-METALS</i> <i>CYANIDE</i> <i>CSM (Org. Mod)</i> <i>TH. ORG. LYOCL</i> <i>ORDNANCE</i> <i>MIREX</i>										
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	<i>TCL-VOA</i>	<i>TCL-SVOA</i>	<i>TCL-PEST/ACB</i>	<i>TAL-METALS</i>	<i>CYANIDE</i>	<i>CSM (Org. Mod)</i>	<i>TH. ORG. LYOCL</i>	<i>ORDNANCE</i>	<i>MIREX</i>		
41-UN-SW02	2-3-94	1620	LIQUID	RWK/MOS	X	X	X	X				X	X	* ONLY IN LIQUID SAMPLES	
41-UN-SD02-06	2-3-94	1620	SOLID	RWK/MOS	X	X	X	X				X	X		
41-UN-SD02-62	2-3-94	1635	SOLID	RWK/MOS	X	X	X	X				X	X		
41-09-SB14-00	2-3-94	1354	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X	X		
41-09-SB14-01	2-3-94	1358	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X	X		
41-09-SB14-02	2-3-94	1407	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X	X		
41-09-SB10-00	2-3-94	1442	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X	X		
41-09-SB10-00D	2-3-94	1442	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X	X		
41-09-SB10-01	2-3-94	1446	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X	X		
41-6W09DW-02	2-3-94	1004	SOLID	EJK/WMP	X	X	X	X							
41-6W09DW-05	2-3-94	1351	SOLID	EJK/WMP	X	X	X	X							
41-UN-SW12	2-4-94	0955	LIQUID	RWK/MOS	X	X	X	X				X	X		
Relinquished By: <i>Rebecca Monday</i>		Date/Time: 2-4-94 1600		Received By:			Relinquished By:			Received for Laboratory By:			Date/Time:		
Relinquished By:		Date/Time:		Received By:			Date/Time:		Shipper:		Airbill No.: <i>fed-ex</i> <i>0825846851</i>				
Relinquished By:		Date/Time:		Received By:			Lab Comments:				Temp:				

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

C.O.C. #407

Contract #/Billing Reference
62470-212

2 of 2 Pgs.

Project: 62470-212 site 41					Turnaround Time Routine												
Client BAKER ENVIRONMENTAL INC.					# of Container												
Send Results To: MAT BARTMAN.					Container Type												
Address:					Preservative Used												
Phone:					Type of Analysis												
					<div style="display: flex; justify-content: space-around; font-size: small;"> TCL-VOL TCL-SVOP TCL-PEST/PCB TAL-METALS CYANIDE C.S.M. (Dep. Prod) TH:OD/GHCOL. OLDWAVE MIRAX </div>												
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials											CLIENT COMMENTS		
41-UN-SD12-06	2-4-91	0910	SOLID	RW/MDS	X	X	X	X						X	X		
41-UN-SD12-012	2-4-91	0920	SOLID	RW/MDS	X	X	X	X						X	X		
41-TB-04	2-4-91	1100	Liq. D	PAM	X												TRIP BLANK
Relinquished By:		Date/Time	Received By:			Relinquished By:			Received for Laboratory By:			Date/Time					
<i>John A. Monday</i>		2-4-91/1600															
Relinquished By:		Date/Time	Received By:			Date/Time	Shipper:		Airbill No.: Fed-ex								
									0825846951								
Relinquished By:		Date/Time	Received By:			Lab Comments:					Temp:						

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

Contract #/Billing Reference

62470-212

1 of 2 Pgs.

Project: 62470-212 site 41					Turnaround Time <i>Route</i>										CLIENT COMMENTS
Client: BAKER ENVIRONMENTAL INC.					# of Container										
Send Results To: MATT BARTMAN					Container Type										
Address:					Preservative Used										
Phone:					Type of Analysis										
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	TCL-VOA	TCL-SVOA	TCL-Pest/PCP	TAL-METALS	CVAWIDE	CSM (Dep. Prod)	THODY/BL/PCOL	ADVANCE	Mi-REX		
41-05-SB18-00	2-4-94	1059	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X	X	note MS/MSD	
41-05-SB18-00D	2-4-94	1059	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X	X		
41-05-SB18-01	2-4-94	1105	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X	X		
41-05-SB22-00	2-4-94	0936	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X	X		
41-05-SB22-01	2-4-94	0943	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X	X		
41-05-SB22-02	2-4-94	1012	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X	X		
41-05-SB24-00	2-4-94	0842	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X	X		
41-05-SB24-01	2-4-94	0844	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X	X		
41-05-SB24-02	2-4-94	0852	SOLID	RKP/TEZ	X	X	X	X	X	X	X	X	X		
41-UN-SW11	2-4-94	1050	LIQUID	RWK/MSD	X	X	X	X			X	X		*ONLY IN LIQUID	
41-UN-SW11-06	2-4-94	1105	SOLID	RWK/MSD	X	X	X	X			X	X			
41-UN-SW11-612	2-4-94	1115	SOLID	RWK/MSD	X	X	X	X			X	X			
Relinquished By: <i>Bob A. Monday</i>		Date/Time: 2-4-94 1600		Received By:			Relinquished By:			Received for Laboratory By:			Date/Time:		
Relinquished By:		Date/Time:		Received By:			Date/Time:		Shipper:		Airbill No.: Fed-EX 0825 846951				
Relinquished By:		Date/Time:		Received By:			Lab Comments:					Temp:			

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

C.O.D. # 41008

Contract #/Billing Reference

62470-212

2 of 2 Pgs.

Project: 62470-212 - site 41					Turnaround Time									
Client: BAKER ENVIRONMENTAL INC.					# of Container									
Send Results To: MATT BARTMAN					Container Type									
Address:					Preservative Used									
Phone:					Type of Analysis									

Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	Tot-Vol	Tot-SVOC	Tot-Pest/OCB	Tot-Metals	CYANIDE	CSM (Des. Prod)	TRICHOGLYCOL	ORDNANCE	MIREX	CLIENT COMMENTS
41-RS-04	2-4-94	1500	Liquid	PAM	X	X	X	X	X	X	X	X	X	RINSE HELL DO NOT ANALYZE
41-UN-SW01	2-4-94	1425	Liquid	RWK/MOS	X	X	X	X			X	X		
41-UN-S001-06	2-4-94	1435	SOLID	RWK/MOS	X	X	X	X			X	X		
41-UN-S001-02	2-4-94	1445	SOLID	RWK/MOS	X	X	X	X			X	X		
41-TB-05	2-4-94	1530	Liquid	PAM	X									TRIP BLANK

Relinquished By: <i>Peter A. Monahan</i>	Date/Time: 2-4-94 1600	Received By:	Relinquished By:	Received for Laboratory By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:	Shipper:	Airbill No.: Fed-EX 0825846951
Relinquished By:	Date/Time:	Received By:	Lab Comments: * PRESERVATIVES ONLY IN LIQUID SAMPLES		

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

Contract #/Billing Reference

62470-212

1 of 1 Pgs.

Project: 62470-212 SITE 41					Turnaround Time <i>Routine</i>												
Client <i>BAKER ENVIRONMENTAL INC.</i>					# of Container												
Send Results To: <i>MATT PARTMAN.</i>					Container Type												
Address:					Preservative Used												
Phone:					Type of Analysis												
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	<i>TOL-VOA</i>	<i>TOL-SVOA</i>	<i>TOL-PEST/PCB</i>	<i>TAL-METALS</i>	<i>CYANIDE</i>	<i>CSM (Reg. Mod.)</i>	<i>TRIOXYGEN</i>	<i>ORDNANCE</i>	<i>MIREX.</i>	<i>TOC</i>	<i>EXP. PARAM METER'S RANGE & SIZE IN TOC 19 LINES</i>		CLIENT COMMENTS
41-05-5815-00	2-4-94	1412	SOLID	RKP/JEZ	X	X	X	X	X	X	X	X	X				
41-05-5815-01	2-4-94	1416	SOLID	RKP/JEZ	X	X	X	X	X	X	X	X	X				
41-05-5815-02	2-4-94	1442	SOLID	RKP/JEZ	X	X	X	X	X	X	X	X	X				
41-6W10-01	2-4-94	1539	SOLID	RKP/JEZ	X	X	X	X						X	X		
41-RS-05	2-5-94	1200	Liquid	PAM	X	X	X	X									<i>RINSE-HAND AUGER.</i>
41-05-5829-00	2-5-94	0850	SOLID	RWK/MDS	X	X	X	X									
41-05-5829-01	2-5-94	0905	SOLID	RWK/MDS	X	X	X	X									
41-05-5830-00	2-5-94	0920	SOLID	RWK/MDS	X	X	X	X									
41-05-5830-01	2-5-94	0935	SOLID	RWK/MDS	X	X	X	X									
41-TB-06	2-5-94	1200	Liquid	PAM	X												
41-05-5833-00	2-5-94	1055	SOLID	RWK/MDS	X	X	X	X									
41-05-5833-01	2-5-94	1105	SOLID	RWK/MDS	X	X	X	X									
Relinquished By: <i>Peter Manday</i>		Date/Time: <i>2-5-94 1300</i>		Received By:			Relinquished By:			Received for Laboratory By:			Date/Time:				
Relinquished By:		Date/Time:		Received By:			Date/Time:		Shipper:		Airbill No.: <i>F01-ex.</i> <i>0825847013</i>						
Relinquished By:		Date/Time:		Received By:			Lab Comments: <i>* ONLY IN LIQUID SAMPLES</i>					Temp:					

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

C.O.C. # 41010

Contract #/Billing Reference

62470-212

1 of 4 Pgs.

Project: 62470-212 SITE 41					Turnaround Time <i>Routine</i>											
Client: BAKER ENVIRONMENTAL, INC.					# of Container											
Send Results To: MAT BARTMAN					Container Type											
Address:					Preservative Used											
Phone:					Type of Analysis											
					<i>TEL-VOL</i> <i>TEL-SVOL</i> <i>TEL-REST/PCB</i> <i>TAN-METALS</i> <i>CYANIDE</i> <i>CS M (OEA. PROD.)</i> <i>Tri/Di/Blycol.</i> <i>ORDNANCE</i> <i>Mirex</i> <i>TOC</i>											
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials											CLIENT COMMENTS	
41-OS-SB06-00	2-6-94	0852	SOLID	RRP/TEZ	X	X	X	X	X	X	X	X	X	X		
41-OS-SB06-01	2-6-94	0902	SOLID	RRP/TEZ	X	X	X	X	X	X	X	X	X	X		
41-OS-SB06-03	2-6-94	0930	SOLID	RRP/TEZ	X	X	X	X	X	X	X	X	X	X		
41-OS-SB04-00	2-6-94	1031	SOLID	RRP/TEZ	X	X	X	X	X	X	X	X	X	X		
41-OS-SB04-02	2-6-94	1044	SOLID	RRP/TEZ	X	X	X	X	X	X	X	X	X	X		
41-OS-SB04-03	2-6-94	1050	SOLID	RRP/TEZ	X	X	X	X	X	X	X	X	X	X		
41-6W11-01	2-6-94	1442	SOLID	RRP/TEZ	X	X	X	X								
41-6W11-03	2-6-94	1448	SOLID	RRP/TEZ	X	X	X	X						X	X	
41-6W07-01	2-5-94	0900	SOLID	ETK/WMP	X	X	X	X								Note ms/msc
41-6W07-01D	2-5-94	0900	SOLID	ETK/WMP	X	X	X	X								Note ms/msc
41-6W07-04	2-5-94	0915	SOLID	ETK/WMP	X	X	X	X								Note ms/msc
41-6W07-04D	2-5-94	0915	SOLID	ETK/WMP	X	X	X	X								Note ms/msc
Relinquished By: <i>John Monday</i>		Date/Time: <i>2-7-94</i>		Received By: <i>KCO</i>		Relinquished By:			Received for Laboratory By:			Date/Time:				
Relinquished By:		Date/Time:		Received By:		Date/Time:		Shipper:		Airbill No.: <i>rel-ex</i>						
Relinquished By:		Date/Time:		Received By:		Lab Comments:			Temp:							

Engineering Parameters
 Multi-size / Average Lim. 15

GP ENVIRONMENTAL SERVICES, INC.

C.O.C. # 41010

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

Contract #/Billing Reference

62470-212

2 of 4 Pgs.

Project: 62470-212 site 41					Turnaround Time <u>Routine</u>											
Client: BAKER ENVIRONMENTAL INC.					# of Container											
Send Results To: MAT PARTMAN					Container Type											
Address:					Preservative Used											
Phone:					Type of Analysis											
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	TCL-VOA	TCL-SVOA	TCL-pest/PCB	TAL-METALS	ORDNANCE	MIXEX	CYANIDE	CSM (OP.PAD.)	THIOCYANIDE	CLIENT COMMENTS		
41-6W07Dw-02	2-5-94	1230	SOLID	ETK/WMP	X	X	X	X								
41-6W07Dw-02D	2-5-94	1230	SOLID	ETK/WMP	X	X	X	X								
41-6W07Dw-06	2-5-94	1353	SOLID	ETK/WMP	X	X	X	X								
41-6W07Dw-06D	2-5-94	1353	SOLID	ETK/WMP	X	X	X	X								
41-05-SB11-002	2-5-94	1314	SOLID	RWK/TEZ	X	X	X	X	X	X	X	X	X			
41-05-SB11-01	2-5-94	1326	SOLID	RWK/TEZ	X	X	X	X	X	X	X	X	X			
41-05-SB08-00	2-5-94	1421	SOLID	RWK/TEZ	X	X	X	X	X	X	X	X	X			
41-05-SB08-01	2-5-94	1425	SOLID	RWK/TEZ	X	X	X	X	X	X	X	X	X			
41-05-SB25-00	2-5-94	1553	SOLID	RWK/ADS	X	X	X	X								
41-05-SB25-01	2-5-94	1600	SOLID	RWK/ADS	X	X	X	X								
41-05-SB26-00	2-5-94	1620	SOLID	RWK/ADS	X	X	X	X								
41-05-SB26-01	2-5-94	1630	SOLID	RWK/ADS	X	X	X	X								
Relinquished By: <u>Feder a Mendez</u>		Date/Time: <u>2-7-94 1600</u>		Received By:					Relinquished By:					Received for Laboratory By:		Date/Time
Relinquished By:		Date/Time:		Received By:					Date/Time		Shipper:		Airbill No.: <u>FE0-RX</u> <u>082584 7072</u>			
Relinquished By:		Date/Time:		Received By:					Lab Comments:					Temp:		

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

C.O.C.# 41010

Contract #/Billing Reference

62470-212

3 of 4 Pgs.

Project: 62470-212 site 41					Turnaround Time <i>Routine</i>																								
Client: BAKEN ENVIRONMENTAL INC.					# of Container																								
Send Results To: <i>MATT BARTMAN</i>					Container Type																								
Address:					Preservative Used																								
Phone:					Type of Analysis																								
					<i>TL-VOA</i> <i>TL-SVOA</i> <i>TOX-REST/PCB</i> <i>TM-METALS</i>																								
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials											CLIENT COMMENTS														
41-05-5827-01	2-5-94	1455	SOLID	RWK/MDS	X	X	X	X																					
41-05-5827-00	2-5-94	1455	SOLID	RWK/MDS	X	X	X	X																					
41-05-5827-01	2-5-94	1510	SOLID	RWK/MDS	X	X	X	X																					
41-05-5828-00	2-6-94	0835	SOLID	RWK/MDS	X	X	X	X																					
41-05-5828-01	2-6-94	0845	SOLID	RWK/MDS	X	X	X	X																					
41-05-5831-00	2-6-94	0915	SOLID	RWK/MDS	X	X	X	X																					
41-05-5831-01	2-6-94	0925	SOLID	RWK/MDS	X	X	X	X																					
41-05-5832-00	2-6-94	1130	SOLID	RWK/MDS	X	X	X	X																					
41-05-5832-01	2-6-94	1140	SOLID	RWK/MDS	X	X	X	X																					
41-05-5832-01D	2-6-94	1140	SOLID	RWK/MDS	X	X	X	X																					
<i>P.A.M.</i>																													
<i>P.A.M.</i>																													
<i>P.A.M.</i>																													
Relinquished By: <i>[Signature]</i>					Date/Time: 2-7-94/1600					Received By:					Relinquished By:					Received for Laboratory By:					Date/Time:				
Relinquished By:					Date/Time:					Received By:					Date/Time:					Shipper:					Airbill No.: Fed-Ex				
																				0825847072									
Relinquished By:					Date/Time:					Received By:					Lab Comments:										Temp:				

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
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C.O.C.# 410

Contract #/Billing Reference

62470-212

1 of 1 Pgs.

Project: 62470-212 site 41	Turnaround Time: Routine
Client: BAKER ENVIRONMENTAL INC.	# of Container
Send Results To: MATT BARTMAN	Container Type
Address:	Preservative Used
Phone:	Type of Analysis

Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	Type of Analysis						CLIENT COMMENTS
					TOL-VOA	TOL-SVOA	TOL-PEST/PCB	TAL-METALS	MIREX	ORDNANCE	
41-TC-SW08	2-6-94	1618	LIQUID	ETK/wmp	X	X	X	X	X	X	
41-TC-SD08-06	2-6-94	1615	SOLID	ETK/wmp	X	X	X	X	X	X	
41-TC-SD08-612	2-6-94	1625	SOLID	ETK/wmp	X	X	X	X	X	X	
41-TC-SW09	2-6-94	1510	LIQUID	ETK/wmp	X	X	X	X	X	X	
41-TC-SD09-06	2-6-94	1520	SOLID	ETK/wmp	X	X	X	X	X	X	
41-TC-SD09-612	2-6-94	1530	SOLID	ETK/wmp	X	X	X	X	X	X	
41-RS-06	2-7-94	1000	LIQUID	PAM	X	X	X	X			RINSTATE HOLD-DO NOT ANALYZE (P.FAW)
41-RS-07	2-7-94	1030	LIQUID	PAM	X	X	X	X			RINSTATE-S.S. SPECIM.
41-TC-SW06	2-6-94	1345	LIQUID	ETK/wmp	X	X	X	X	X	X	
41-TC-SD06-06	2-6-94	1355	SOLID	ETK/wmp	X	X	X	X	X	X	
41-TC-SD06-612	2-6-94	1355	SOLID	ETK/wmp	X	X	X	X	X	X	
41-TB-08	2-7-94	1330	LIQUID	PAM	X						TRIP BLANK

Relinquished By: <i>Peter A. Murphy</i>	Date/Time: 2-7-94 1600	Received By:	Relinquished By:	Received for Laboratory By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:	Shipper:	Airbill No.: Fed-Ex 0825847072
Relinquished By:	Date/Time:	Received By:	Lab Comments:	Temp:	

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

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Contract #/Billing Reference

60470-212

1 of 1 Pgs.

Project: 60470-212 STE 41					Turnaround Time: ROUTINE							CLIENT COMMENTS
Client: BAKER ENV. INC.					# of Container							
Send Results To: MATT BARTMAN					Container Type							
Address:					Preservative Used							
Phone:					Type of Analysis							
					TOL VOA TOL SVOC TOL PEST/PCB TAL METALS ORGANIC INEX							
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	TOL VOA	TOL SVOC	TOL PEST/PCB	TAL METALS	ORGANIC	INEX		
41-NE-SW05	2/18/94	0815	Liquid	ETK WMP	X	X	X	X	X	X		
41-NE-SW05-01	2/18/94	0825	Liquid	ETK WMP	X	X	X	X	X	X	SOLID	
41-NE-SW05-02	2/18/94	0830	Liquid	ETK WMP	X	X	X	X	X	X	SOLID	
41-NE-S												
41-GW13-01	2/18/94	0851	Solid	TEZ/RKP	X	X	X	X			SOLID	
41-GW13-03	2/18/94	0907	Solid	TEZ/RKP	X	X	X	X			SOLID	
41-R5-08	2/18/94	1055	Liquid	ETK WMP	X	X	X	X			ALUMINUM FOIL - (HOLD)	
41-TB-10	2/18/94	1200	Liquid	ETK WMP	X						TBNO BLANK	
41-GW12-01	2/18/94	1254	Solid	TEZ/RKP	X	X	X	X				
41-GW12-02	2/18/94	1357	Solid	TEZ/RKP	X	X	X	X				
Relinquished By: Tobias Mendez		Date/Time: 2-9-94 1600		Received By:			Relinquished By:			Received for Laboratory By:		Date/Time
Relinquished By:		Date/Time:		Received By:			Date/Time		Shipper:		Airbill No.: Fed. Ex #0825847201	
Relinquished By:		Date/Time:		Received By:			Lab Comments: ##				Temp:	

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

C.O.C. # 41014

Contract #/Billing Reference

62470-212

1 of 1 Pgs.

Project: **62470-212 SITE 41**
Client: **BAKER ENVIRONMENTAL INC**
Send Results To: **MAT BARTMAN**
Address:
Phone:

Turnaround Time: **ROUTINE**
of Container
Container Type
Preservative Used
Type of Analysis

Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	Type of Analysis										CLIENT COMMENTS
					TEL-VOA	TEL-S-VOA	TEL-PEST/PCP	TAL-METALS	DIS-SOLVED-METALS	CYANIDE	CSM (COP. PROD.)	ORDNANCE	MIREX	THIO/BHCOR.	
41-6W01-01	2-14-94	1625	Liquid	JEE/RKD	X	X	X	X		X	X	X	X	X	
41-6W01D-01	2-14-94	1625	Liquid	JEE/RKD				X							
41-6W05-01	2-14-94	1758	Liquid	JEE/RKD	X	X	X	X		X	X	X	X	X	
41-6W05D-01	2-14-94	1758	Liquid	JEE/RKD				X							
41-6W02-01	2-14-94	1715	Liquid	RWK/WAP	X										
41-6W03-01	2-14-94	1545	Liquid	RWK/WAP	X										
41-6W04-01	2-15-94	0845	Liquid	RWK/RKP	X										
41-6W02-01D	2-14-94	1715	Liquid	RWK/RKP	X										
41-RS-09	2-15-94	0915	Liquid	JEE/PAM	X										RINSEATE - Driller
41-TB-11	2-15-94	1030	Liquid	PAM	X										TRIP BLANK

Relinquished By: <i>[Signature]</i>	Date/Time: 2-15-94 1600	Received By:	Relinquished By:	Received for Laboratory By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:	Shipper:	Airbill No.: Fed-EX, 6925847212
Relinquished By:	Date/Time:	Received By:	Lab Comments:	Temp:	

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

CO. C. # 41.05

Contract #/Billing Reference

62470-212

1 of 1 Pgs.

Project: 62470-212 SITE 41					Turnaround Time: <u>ROUTINE</u>																								
Client: BAKER ENVIRONMENTAL INC.					# of Container																								
Send Results To: MAT BARTMAN					Container Type																								
Address:					Preservative Used																								
Phone:					Type of Analysis																								
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	TCL-SVOA	TCL-ROSTMB	TM-METALS	DISSOLVED METALS	CYANIDE	CSM (DEF. NO.)	ORADANCE	M. REX	THOD/6/10/01	CLIENT COMMENTS															
41-6w02-01	2-14-94	1715	LIQUID	RWK/WMP	X	X	X	X	X	X	X	X																	
41-6w020-01	2-14-94	1715	LIQUID	RWK/WMP				X																					
41-6w02-01D	2-14-94	1715	LIQUID	RWK/WMP	X	X	X	X	X	X	X	X																	
41-6w020-01D	2-14-94	1715	LIQUID	RWK/WMP				X																					
Relinquished By: <u>[Signature]</u> Date/Time: <u>2-15-94 1600</u>					Received By:					Relinquished By:					Received for Laboratory By:					Date/Time:									
Relinquished By:					Date/Time:					Received By:					Date/Time:					Shipper:					Airbill No.: <u>Fed-ex</u>				
Relinquished By:					Date/Time:					Received By:					Lab Comments:					Temp:									

0825847212

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

C.O.C. # 41016

Contract #/Billing Reference

62470-212

1 of 1 Pgs.

Project: 62470-212					Turnaround Time <i>Routine</i>																								
Client <i>BAKER ENVIRONMENTAL INC.</i>					# of Container																								
Send Results To: <i>MAT BARTMAN</i>					Container Type																								
Address:					Preservative Used																								
Phone:					Type of Analysis																								
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	<i>TEL-SVOA</i>	<i>TEL-PEST/PCP</i>	<i>THI-METALS</i>	<i>DISSOLVED METALS</i>	<i>CYANIDE</i>	<i>CSM (OP. 7)</i>	<i>ORANGE</i>	<i>MIREX</i>	<i>THIOGLYCOL</i>	<i>ENG. PARAMETERS</i>	CLIENT COMMENTS														
41-6203-01	2-14-94	1545	Liquid	<i>RWK/WMP</i>	X	X	X	X	X	X	X	X	X																
41-6203D-01	2-14-94	1545	Liquid	<i>RWK/WMP</i>			X																						
41-6204-01	2-15-94	0845	Liquid	<i>RWK/RKD</i>	X	X	X	X	X	X	X	X	X	X															
41-6204D-01	2-15-94	0845	Liquid	<i>RWK/RKD</i>			X																						
Relinquished By: <i>Peter a. Mondy</i>					Date/Time: <i>2-15-94 1600</i>					Received By:					Relinquished By:					Received for Laboratory By:					Date/Time:				
Relinquished By:					Date/Time:					Received By:					Date/Time:					Shipper:					Airbill No.: <i>Fed-Ex</i>				
Relinquished By:					Date/Time:					Received By:					Lab Comments: <i>ENG. PARAMETERS INCLUDES</i>					Temp: <i>WHITE</i>									

2-100ML - PLATE COUNT - PRES - THIOGLYCOL
1-500ML - BOD ALKALINITY
1-1L - TSS, TDS, TOTAL PHOSPHORUS
1-1L - COD, TRN, TOTAL PHOSPHORUS

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

Contract #/Billing Reference

62470-212

C.O.C.# 4. 17

1 of 1 Pgs.

Project: 62470-212 SITE 41					Turnaround Time: Routine											
Client: BAKER ENVIRONMENTAL INC.					# of Container											
Send Results To: MATT BARTMAN.					Container Type											
Address:					Preservative Used											
Phone:					Type of Analysis											
					TCL-VOL TCL-SVOL TCL-POST/PCB TAP-METALS DISSOLVED METALS CYANIDE CSM (See Add) ORNANCE MIREX THIOGLYCOL											
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials												CLIENT COMMENTS
41-RS-09	2-15-94	0915	LIQUID	JFZ/PAM		X	X	X		X	X	X	X	X	X	RINSATE - BAILER
41-RSD-09	2-15-94	0915	LIQUID	TEZ/PAM					X							RINSATE - BAILER
41-6W1200-01	2-5-94	0825	SOLID	EJK/WMP	X	X	X	X								
41-6W1200-02	2-15-94	0825	SOLID	EJK/WMP	X	X	X	X								
41-TB-12	2-15-94	1130	LIQUID	PAM	X											TRIP-BLANK
41-RS-10	2-15-94		LIQUID	RW/HRP	X	X	X	X								RINSATE - HOLD DO NOT ANALYZE. ↳ S.S. SPOON

Relinquished By: <i>Peter Monday</i>	Date/Time: 2-15-94 1600	Received By:	Relinquished By:	Received for Laboratory By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:	Shipper:	Airbill No.: Fed-ex 0825 8472 12
Relinquished By:	Date/Time:	Received By:	Lab Comments: *Preservative with liquid samples only	Temp:	

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

C.O.C.# 41018

Contract #/Billing Reference

62470-212

1 of 1 Pgs.

Project: 62470-212-SITE 41					Turnaround Time	Routine									
Client: PAKER ENVIRONMENTAL INC.					# of Container										
Send Results To: MATT BARTMAN					Container Type										
Address:					Preservative Used										
Phone:					Type of Analysis	TEL-VOA TEL-SVOA TEL-PEST/PCB TEL-METALS									

Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	TEL-VOA	TEL-SVOA	TEL-PEST/PCB	TEL-METALS											CLIENT COMMENTS
41-6W06DW-01	2/16/94	0802	SOLID	EJK/WMP	X	X	X	X											* ONLY in LIQ. SAMPLES
41-6W06DW-02	2/16/94	0815	SOLID	EJK/WMP	X	X	X	X											RINSEATE-SPLIT SAMPLES
41-RS-11	2/16/94	1230	LIQUID	EJK/WMP	X	X	X	X											TRIP BLANK.
41-TB-13	2/16/94	1230	LIQUID	PAM	X														

Relinquished By: <i>Leona Murphy</i>	Date/Time: 2/16/94 1600	Received By:	Relinquished By:	Received for Laboratory By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:	Shipper:	Airbill No.: Fed-ex 0625847223
Relinquished By:	Date/Time:	Received By:	Lab Comments:	Temp:	

GP ENVIRONMENTAL SERVICES, INC.

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c.o.c.# 4. 19
Contract #/Billing Reference
62470-212
1 of 1 Pgs.

Project: <u>62470-212 site 41</u>					Turnaround Time <u>* ROUTINE</u>										
Client <u>BAKER ENVIRONMENTAL</u>					# of Container										
Send Results To: <u>MAT BARTMAN</u>					Container Type										
Address:					Preservative Used										
Phone:					Type of Analysis										
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	TEL-VOA	TEL-SVOA	TEL-PEST/PER	TAL-METALS	DISSOLVED METALS	CYANIDE	CSA (Der. Prod.)	THIOGLYCOL	ORDNANCE	MIEX	CLIENT COMMENTS
41-6W12-01	2/18/94	1500	LIQUID	RWK/WMP	X	X	X	X		X	X	X	X	X	
41-6W12D-01	2/18/94	1500	LIQUID	RWK/WMP					X						
41-6W13-01	2/18/94	1415	LIQUID	RWK/WMP	X	X	X	X		X	X	X	X	X	
41-6W13D-01	2/18/94	1415	LIQUID	RWK/WMP					X						
41-6W08-01	2/18/94	1310	LIQUID	RWK/WMP	X	X	X	X		X	X	X	X	X	
41-6W08D-01	2/18/94	1310	LIQUID	RWK/WMP					X						
41-6W07-01	2/18/94	1645	LIQUID	RWK/WMP	X										
41-TB-14	2/19/94	0845	LIQUID	RAM	X										TRIP BLANK.
41-RS-12	2/19/94	0830	LIQUID	RAM	X										- REFUSED RINSEATE HOLD TO WAIT ANAL.
41-MB-01	2/19/94	1100	SOLID	RAM	X	X	X	X		X	X	X	X	X	
Relinquished By:			Date/Time	Received By:			Relinquished By:			Received for Laboratory By:			Date/Time		
Tina Monday			2/19/94 1300												
Relinquished By:			Date/Time	Received By:			Date/Time	Shipper:	Airbill No.:						
								Fed-ex	0825846781						
Relinquished By:			Date/Time	Received By:			Lab Comments: * QUICK-TURN (7 DAYS) ON VOLATILES					Temp:			
							41-6W12, 41-6W13, 41-6W08, 41-6W07								

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C.O.C.# 41020

Contract #/Billing Reference

62470-212

1 of 1 Pgs.

Project: 62470-212 site 41					Turnaround Time: Routine																			
Client: BAKPR ENVIRONMENTAL INC.					# of Container																			
Send Results To: MAT EASTMAN					Container Type																			
Address:					Preservative Used																			
Phone:					Type of Analysis																			
					TOL-SVDA TOL-TEST/REB TAL-METALS DISSOLVED METALS CYANIDE CSML/REF MOD THIOCYANATE ORDNANCE MIREX																			
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials											CLIENT COMMENTS									
41-6W07-01	2/18/94	1645	Liquid	RKJ/JWP	X	X	X		X	X	X	X	X											
41-6W07D-01	2/18/94	1645	Liquid	RKJ/JWP				X																
41-R5-12	2/19/94	0930	Liquid	PRM	X	X	X		X	X	X	X	X		RINSATE - HOLD FOR ANALYSIS									
41-R5D-12	2/19/94	0930	Liquid	PRM				X																
41-115-01					X	X	X		X	X	X	X	X											
Relinquished By: Peter a Monday 2/19/94 1300					Received By:					Relinquished By:					Received for Laboratory By:					Date/Time				
Relinquished By:					Received By:					Date/Time					Shipper:					Airbill No.: Fed-ex 0825846781				
Relinquished By:					Received By:					Lab Comments:										Temp:				

GP ENVIRONMENTAL SERVICES, INC.

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C.O.C. # 410

Contract #/Billing Reference

62470-212

1 of 2 Pgs.

Project: 62470-212 SITE 44					Turnaround Time * ROUTINE											
Client: EAKER ENVIRONMENTAL INC.					# of Container											
Send Results To: MATT BARTMAN					Container Type											
Address:					Preservative Used											
Phone:					Type of Analysis											
					TEL-VOA TEL-SVOA TEL-PEST/PCB TEL-METALS DISSOLVED METALS CYANIDE CSML (Det. Prod.) Trially Glycol ORANGE MIREX											
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials												CLIENT COMMENTS
41-6W09-01	2/19/94	1720	Liquid	RWK/wmp	X	X	X	X		X	X	X	X	X		
41-6W09D-01	2/19/94	1720	Liquid	RWK/wmp					X							
41-6W10-01	2/19/94	1345	Liquid	RWK/wmp	X	X	X	X		X	X	X	X	X		
41-6W10D-01	2/19/94	1345	Liquid	RWK/wmp					X							
41-RS-13	2/20/94	1025	Liquid	PAM/TK	X	X	X	X		X	X	X	X	X		
41-RSD-13	2/20/94	1025	Liquid	PAM/TK					X							
41-6W04DW-01	2/19/94	0920	Liquid	RWK/wmp	X											
41-6W02DW-01	2/19/94	1100	Liquid	RWK/wmp	X											
41-6W11-01	2/19/94	1505	Liquid	RWK/wmp	X											Note - MS/MSD
41-6W11-01D	2/19/94	1505	Liquid	RWK/wmp	X											
41-6W09DW-01	2/20/94	0910	Liquid	RWK/PAM	X											
41-6W07DW-01	2/20/94	1025	Liquid	RWK/PAM	X											
Relinquished By:		Date/Time		Received By:			Relinquished By:			Received for Laboratory By:			Date/Time			
[Signature]		2/19/94 1600														
Relinquished By:		Date/Time		Received By:			Date/Time		Shipper:		Airbill No.: FED EX					
											0825846921					
Relinquished By:		Date/Time		Received By:			Lab Comments: see page 2 FOR VOA COMMENTS.					Temp:				

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C.O.C.# 41021

Contract #/Billing Reference

62470-212

2 of 2 Pgs.

Project: 62470-212 SITE 41					* TCL-VOA	Turnaround Time															
Client BAKER ENVIRONMENTAL INC.						# of Container															
Send Results To: MAT BARTMAN						Container Type															
Address:						Preservative Used															
Phone:						Type of Analysis															
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials																CLIENT COMMENTS	
41-6w110w-01	2/20/94	1130	Liquid	RWK/PAM	X																
41-6w060w-01	2/20/94	1415	Liquid	RWK/PAM	X																
41-TB-15	2/20/94	0930	Liquid	ETK	X																

Relinquished By: <i>Robert Mendel</i>	Date/Time 2/20/94 1600	Received By:	Relinquished By:	Received for Laboratory By:	Date/Time
Relinquished By:	Date/Time	Received By:	Date/Time	Shipper:	Airbill No.: Fed Ex 0825846921
Relinquished By:	Date/Time	Received By:	Lab Comments: VOA - TURN AROUND IS (7 DAYS) FOR WELLS: 416w09, 416w10, 416w040w, 416w120w, 416w11, 416w090w, 416w070w, 416w110w, 416w060w		Temp:

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C.O.C. # 41023

Contract #/Billing Reference

62470-212

1 of 1 Pgs.

Project: 62470-212 site 41					Turnaround Time	Routine												
Client: BAKER ENVIRONMENTAL					# of Container													
Send Results To: MAT BARTMAN					Container Type													
Address:					Preservative Used													
Phone:					Type of Analysis	TOL-SVON TOL-PEST/PEB TOL-METALS DISSOLVED METALS HCL3 HNO3 NaOH CYANIDE CSM (REG. PROD) TRI-ODY GLYCOL DRONANICE MIXEX												
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials														CLIENT COMMENTS
41-6w11-01	2/19/94	1505	LIQUID	RWK/WMP	X	X	X		X	X	X	X	X					
41-6w11D-01	2/19/94	1505	LIQUID	RWK/WMP				X										
41-6w11-01D	2/19/94	1505	LIQUID	RWK/WMP	X	X	X		X	X	X	X	X					
41-6w11D-01D	2/19/94	1505	LIQUID	RWK/WMP				X										

Relinquished By:	Date/Time	Received By:	Relinquished By:	Received for Laboratory By:	Date/Time
<i>Peter A. Mondak</i>	2/19/94 1600				
Relinquished By:	Date/Time	Received By:	Date/Time	Shipper:	Airbill No.: FED EX
					0825846921
Relinquished By:	Date/Time	Received By:	Lab Comments:		Temp:

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202 Perry Parkway
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L.O.C # 41025

Contract #/Billing Reference

62470-212

1 of 1 Pgs.

Project: 62470-212 Site 41					Turnaround Time: Routine																			
Client: BRAKER ENVIRONMENTAL INC.					# of Container																			
Send Results To: MATT BARTMAN					Container Type																			
Address:					Preservative Used																			
Phone:					Type of Analysis																			
					HNO ₃ HNO ₃ HNO ₃ TOL-SVOA TOL-PEST/PEB TAL-METALS DISSOLVED METALS CYANIDE CSN (Dep. Prod.) THIOCYANIDE ORDNANCE MINEX.																			
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials											CLIENT COMMENTS									
41-62090W-01	2/20/94	0910	Liquid	RWK/AM	X	X	X		X	X	X	X	X											
41-62090W-01	2/20/94	0910	Liquid	RWK/AM				X																
41-62070W-01	2/20/94	1025	Liquid	RWK/AM	X	X	X		X	X	X	X	X											
41-62070W-01	2/20/94	1025	Liquid	RWK/AM				X																
Relinquished By: <i>Peter A. M... 2/21/94 1600</i>					Received By:					Relinquished By:					Received for Laboratory By:					Date/Time				
Relinquished By:					Received By:					Date/Time					Shipper:					Airbill No.: FED Ex 0825846921				
Relinquished By:					Received By:					Lab Comments:										Temp:				

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C.O.C. # 41-106
ROUND 2

Contract #/Billing Reference

62470-212

PAGE 1 of 2 Pgs.

Project: SITE 41 62470-212					Turnaround Time															
Client: BAKER ENVIRON.					# of Container															
Send Results To: MATT BARTMAN					Container Type															
Address: BAKER ENVIRONMENTAL					Preservative Used															
420 ROUSER RD. CORAOPOLIS, PA 15108					Type of Analysis															
Phone: (412) 269-6000					CLIENT COMMENTS															
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials																
41-GW03-02	4/27/92	0940	GW	EJK AJC	✓	✓	✓	✓												
41-GW03D-02	4/27/92	0940	"	EJK AJC																
41-GW13-02	4/27/92	0855	"	EJK AJC	✓	✓	✓	✓												
41-GW13D-02	4/27/92	0855	"	EJK AJC																
41-GW06DW-02	4/27/92	1205	"	EJK AJC	✓	✓	✓	✓												
41-GW06DWD-02	4/27/92	1205	"	EJK AJC																
41-GW05-02	4/27/92	1030	"	EJK AJC	✓	✓	✓	✓												
41-GW05D-02	4/27/92	1030	"	EJK AJC																
41-RS21	4/27/92	1345	"	EJK AJC	✓	✓	✓	✓												
41-RS21D	4/27/92	1345	"	EJK AJC																
41-GW04DW-02	4/26	1245	"	EJK AJC	✓															
41-GW04-02	4/26	1430	"	EJK AJC	✓															
Relinquished By:		Date/Time	Received By:		Relinquished By:			Received for Laboratory By:			Date/Time									
E.J. Kleinberg		4/27/92 1600	FEDERAL EXPRESS																	
Relinquished By:		Date/Time	Received By:		Date/Time	Shipper:		Airbill No.:												
Relinquished By:		Date/Time	Received By:		Lab Comments:				Temp:											

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U.O.C. 11-100
ROUND 2

Contract #/Billing Reference
G2470-212

PAGE 2 of 2 Pgs.

Project: G2470-212 SITE 41					Turnaround Time																								
Client: BAKER ENVIRONMENTAL					# of Container																								
Send Results To: MATT BARTMAN					Container Type 40																								
Address: 420 ROUSSER RD.					Preservative Used																								
CORAOPOLIS, PA 15108					Type of Analysis																								
Phone: (412) 269-6000					VILATILES																								
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials											CLIENT COMMENTS														
41-GW08-02	4/26/99	1525	GW	ESK BTL	✓																								
41-GW1220-02	4/26/99	1630	GW	ESK BTL	✓																								
41-GW12-02	4/26/99	1725	GW	ESK BTL	✓																								
41-TB 20	4/27/99	1445	GW	ESK BTL	✓																								
41-RS 20	4/26/99	1830	GW	ESK BTL	✓																								
FED EX # 0825846894																													
Relinquished By: <i>E.J. Kleinberg</i>					Date/Time: 4/27/99 1600					Received By: FEDERAL EXPRESS					Relinquished By:					Received for Laboratory By:					Date/Time				
Relinquished By:					Date/Time:					Received By:					Date/Time					Shipper:					Airbill No.:				
Relinquished By:					Date/Time:					Received By:					Lab Comments:										Temp:				

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C.O.C. # 41 101
ROUND 2

Contract #/Billing Reference

62470-212

Page 1 of 1 Pgs.

Project: 62470-212 SITE 41					Turnaround Time													
Client: BAKER ENVIRONMENTAL					# of Container													
Send Results To: MAT BARTMAN					Container Type 1 L. 1 L. 1/2 L. 1/2 L.													
Address: 420 ROUSER RD					Preservative Used HNO ₃ HNO ₃													
CORADOLIS, PA 15108					Type of Analysis													
Phone: (412) 269-6000					BNA+MIREX PEST./PCBS METALS (TOTAL) METALS (DISSOLVED)													
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials											CLIENT COMMENTS			
41-GW04DW-02	4/26	1245	GW	EJK ATC	✓	✓	✓											
41-GW04DWD-02	"	1245	GW	"				✓										
41-GW04-02	"	1430	GW	EJK ATC	✓	✓	✓											
41-GW04D-02	"	"	GW	EJK ATC				✓										
41-GW08-02	4/26	1525	GW	EJK ATC	✓	✓	✓											
41-GW08D-02	"	"	"	"				✓										
41-GW12DW-02	"	1630	GW	EJK ATC	✓	✓	✓											
41-GW12DWD-02	"	"	"	"				✓										
41-GW12-02	4/26	1725	GW	EJK ATC	✓	✓	✓											
41-GW12D-02	"	"	"	"				✓										
41-RS20	4/26	1830	GW	EJK ATC	✓	✓	✓											FED EX #0825846884
41-RS20D	"	"	"	"				✓										
Relinquished By:		Date/Time		Received By:			Relinquished By:			Received for Laboratory By:			Date/Time					
E. J. Kline		4/27/99 1600		FEDERAL EXPRESS														
Relinquished By:		Date/Time		Received By:			Date/Time		Shipper:		Airbill No.:							
Relinquished By:		Date/Time		Received By:			Lab Comments:					Temp:						

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Contract #/Billing Reference

62470-212

C.O.C. # 41-
ROUND 2

1 of 2 Pgs.

Project: 62470-212 SITE 41					Turnaround Time <i>ROUTINE</i>									
Client: PETER ENVIRONMENTAL INC					# of Container									
Send Results To: NATH PARTHIAN					Container Type									
Address:					Preservative Used									
Phone:					Type of Analysis									
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	VOlatiles	S.VOA	MIPex	pest/PCBs	METALS (TOTAL)	METALS DISSOLVED	HNO3	HNO3	CLIENT COMMENTS	
41-6W10-02	4/27/94	1655	Liquid	EJY/BTC	X	X	X	X	X	X			*	
41-6W02-02	4/27/94	1750			X	X	X	X	X	X			see note in COMMENTS	
41-6W01-02	4/25/94	0930			X	X	X	X	X	X				
41-6W09-02	4/26/94	0850			X	X	X	X	X	X				
41-6W09DW-02		1010			X	X	X	X	X	X				
41-6W09DW-02D		1010			X	X	X	X	X	X				
41-6W07-02		1120			X									
41-6W07DW-02		1215			X									
41-6W11-02		1415			X								Note, MS/MSD	
41-6W11-02D		1415			X									
41-6W11DW-02		1505			X									
41-6W12 RS-23	4/26/94	1630			X									

Relinquished By: <i>[Signature]</i>	Date/Time: <i>4/27/94 1600</i>	Received By:	Relinquished By:	Received for Laboratory By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:	Shipper:	Airbill No.: <i>fed-ex 0825846906</i>
Relinquished By:	Date/Time:	Received By:	Lab Comments: * All samples have a "D" after the well # to designate dissolved metals eg - 41-6W10D-02		Temp:

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C.O.C. # 41-102
Round 2

Contract #/Billing Reference

62470-212

2 of 2 Pgs.

Project: 62470-212 Site 41					Turnaround Time: <i>Reactive</i>															
Client: <i>BAKER</i>					# of Container															
Send Results To: <i>MATT BARTMAN</i>					Container Type															
Address:					Preservative Used															
Phone:					Type of Analysis															
					<div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); font-size: 2em; opacity: 0.5;"> VOA </div>															
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials											CLIENT COMMENTS					
41-TP-21	4/25/01	1830	Water	PAOL	X															
Relinquished By: <i>Stephen Mardas</i>		Date/Time: <i>4/25/01</i>		Received By:		Relinquished By:		Received for Laboratory By:		Date/Time:										
Relinquished By:		Date/Time:		Received By:		Date/Time:		Shipper:		Airbill No.: <i>Fed-ex 0825846906</i>										
Relinquished By:		Date/Time:		Received By:		Lab Comments:				Temp:										

GP ENVIRONMENTAL SERVICES, INC.

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C.O.C. # 41-103
Rev 02

Contract #/Billing Reference

62470-212

1 of 1 Pgs.

Project: 62470-212					Turnaround Time	ROUTINE															
Client: PAKER					# of Container																
Send Results To: MATT EATMAN					Container Type																
Address:					Preservative Used																
Phone:					Type of Analysis	AMM	HNO3	HNO3													
						VOA'S	SVOA	MI-ROX	POST/PCD	METALS (TOTAL)	METALS (DISSOLVED)										
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials																CLIENT COMMENTS	
41-GW07-02	4/28/02	1120	Liquid	EST/PTC	X	X	X	X	X												
41-GW07DW-02		1215				X	X	X	X												
41-GW11-02		1415				X	X	X	X												Note - MS/MSD
41-GW11-02D		1415				X	X	X	X												
41-GW11DW-02		1505				X	X	X	X												
41-RS-22		1630				X	X	X	X												
41-GW07D-02		1120																			X
41-GW07DW-02		1215																			X
41-GW11D-02		1415																			X
41-GW11DW-02		1505																			X
41-GW11D-02D		1415																			X
41-RSD-22		1630																			X
Relinquished By:		Date/Time		Received By:		Relinquished By:		Received for Laboratory By:		Date/Time											
Relinquished By:		Date/Time		Received By:		Date/Time		Shipper:		Airbill No.:											
Relinquished By:		Date/Time		Received By:		Lab Comments:															

Relinquished By: [Signature] Monday 4/29/02 1600

Airbill No.: Fed-ex 0825846906

Note - MS/MSD

Note MS/MSD



ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD *

Reference Document N 890383
Page 1 of 2

Project Name/No. ¹ MCB CAMP LEJEUNE
CTO-0212 Samples Shipment Date ⁷ 8/24/94
Sample Team Members ² EJK/MDS/JEZ Lab Destination ⁸ KNOXVILLE
Profit Center No. ³ _____ Lab Contact ⁹ S. SCHNEIDER
Project Manager ⁴ R. WATRAS Project Contact/Phone ¹² 412/269-6000
Purchase Order No. ⁶ _____ Carrier/Waybill No. ¹³ FED EX
#0822411951 Required Report Date ¹¹ 14 DAY

Bill to: ⁵ BAKER ENVIRONMENTAL
420 ROUSEUR RD.
ADP BLDG. # 3
CRAFORDIS, PA 15108
Report to: ¹⁰ MATT BARTMAN
BAKER ENV.

ONE CONTAINER PER LINE

Sample Number ¹⁴	Sample Description/Type ¹⁵	Date/Time Collected ¹⁶	Container Type ¹⁷	Sample Volume ¹⁸	Pre-servative ¹⁹	Requested Testing Program ²⁰	Condition on Receipt ²¹	Disposal Record No. ²²
41-UN-SW28	WATER	8/23/94 0925	PLASTIC	1 L.	—	TSS/TDS	FOR LAB USE ONLY	
41-UN-SW28	WATER	"	AMBER GLASS	1 L.	—	PEST. / PCBs		
"	"	"	"	"	—	" "		
41-UN-SW28	WATER	"	PLASTIC	1/2 L.	HNO ₃	TOTAL METALS	FOR LAB USE ONLY	
41-UN-SW28	WATER	"	"	1/2 L.	"	DISS. METALS		
41-UN-SD28	SOIL	8/23/94 0925	CLEAR GLASS	4 OZ	—	TOC	FOR LAB USE ONLY	
41-UN-SD28	SOIL	"	AMBER GLASS	8 OZ	—	PEST. / PCBs		
41-UN-SD28	SOIL	"	CLEAR GLASS	4 OZ	—	TAL METALS		

Special Instructions: ²³

Possible Hazard Identification: ²⁴

Non-hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal: ²⁵

Return to Client Disposal by Lab Archive _____ (mos.)

Turnaround Time Required: ²⁶

Normal Rush 14 DAY

QC Level: ²⁷

I. II. III. Project Specific (specify): _____

1. Relinquished by ²⁸ E.J. Klein / BAKER Date: 8/24/94
(Signature/Affiliation) Time: 1500 "

1. Received by ²⁸ FEDERAL EXPRESS Date: 8/24/94
(Signature/Affiliation) Time: 1500 "

2. Relinquished by (Signature/Affiliation) Date: _____
Time: _____

2. Received by (Signature/Affiliation) Date: _____
Time: _____

3. Relinquished by (Signature/Affiliation) Date: _____
Time: _____

3. Received by (Signature/Affiliation) Date: _____
Time: _____

Comments: ²⁹

White: To accompany samples

Yellow: Field copy

* See back of form for special instructions.



ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.³⁰ 390383

Page 2 of 2

Project Name MCB CAMP LEJEUNE
CTO-0212

Project No. CTO-0212

Samples Shipment Date 8/24/94

ONE CONTAINER PER LINE

Sample 14 Number	Sample 15 Description/Type	Date/Time 16 Collected	Container 17 Type	Sample 18 Volume	Pre-19 servative	Requested Testing Program 20	Condition on 21 Receipt	Disposal 22 Record No.
41-UN-SW 27	WATER	8/23/94 0940	PLASTIC	1 L.	✓	TSS/TDS		
41-UN-SW 27	WATER	"	AMBER GLASS	1 L.	✓	PEST. / PCBs	FOR LAB USE ONLY	
"	"	"	"	"	✓	" "		
41-UN-SW 27	WATER	"	PLASTIC	1/2 L.	HNO ₃	TOTAL METALS	FOR LAB USE ONLY	
"	"	"	"	"	"	DISS. METALS		
41-UN-SD 27	SOIL	8/23/94 0945	CLEAR GLASS	4 oz.	✓	TOC		
41-UN-SD 27	"	"	AMBER GLASS	8 oz.	✓	PEST. / PCBs	FOR LAB USE ONLY	
41-UN-SD 27	"	"	CLEAR GLASS	4 oz.	✓	TAL METALS		
41-UN-SW 26	WATER	8/23/94 1000	PLASTIC	1/2 L.	HNO ₃	TOTAL METALS	FOR LAB USE ONLY	
41-UN-SW 26	WATER	"	PLASTIC	1/2 L.	"	DISS. METALS		
41-UN-SD 26	SOIL	8/23/94 1010	CLEAR GLASS	4 oz.	✓	TOC	FOR LAB USE ONLY	
41-UN-SD 26	SOIL	"	AMBER GLASS	8 oz.	✓	PEST. / PCBs		
41-UN-SD 26	SOIL	"	CLEAR GLASS	4 oz.	✓	TAL METALS	FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	

White: To accompany samples

Yellow: Field copy

* See back of form for special instructions



ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document # 390384
Page 1 of 2

Project Name/No. ¹ MCB CAMP LEJEUNE
CTO - 0212 Samples Shipment Date ⁷ 8/24/94
Sample Team Members ² ETK/MDS/JEZ Lab Destination ⁸ KNOXVILLE
Profit Center No. ³ Lab Contact ⁹ S. SCHNEIDER
Project Manager ⁴ R. WATRAS Project Contact/Phone ¹² 412/269-6000
Purchase Order No. ⁶ Carrier/Waybill No. ¹³ FED EX
Required Report Date ¹¹ 14 DAY #0822411951

Bill to: ⁵ BAKER ENVIRONMENTAL
420 ROUSER RD.
AOP BLDG. #3
CORADOLIS, PA 15108
Report to: ¹⁰ MATT BARTMAN
BAKER ENVIR.

ONE CONTAINER PER LINE

Sample Number ¹⁴	Sample Description/Type ¹⁵	Date/Time Collected ¹⁶	Container Type ¹⁷	Sample Volume ¹⁸	Pre-servative ¹⁹	Requested Testing Program ²⁰	Condition on Receipt ²¹	Disposal Record No. ²²
41-UN-SW26	WATER	8/23/94 1000	PLASTIC	1 L.	✓	TSS/TDS	FOR LAB USE ONLY	
41-UN-SW26	WATER	"	AMBER GLASS	1 L.	✓	PEST./PCBs		
"	"	"	"	1 L.	✓	"		
41-UN-SW25	WATER	8/23/94 1335	PLASTIC	1 L.	✓	TSS/TDS	FOR LAB USE ONLY	
41-UN-SW25	WATER	"	AMBER GLASS	1 L.	✓	PEST./PCBs		
"	"	"	"	1 L.	✓	"		
41-UN-SW25	WATER	"	PLASTIC	1/2 L.	HNO ₃	TOTAL METALS		
41-UN-SW25	WATER	"	PLASTIC	1/2 L.	HNO ₃	DISS. METALS		

Special Instructions: ²³

Possible Hazard Identification: ²⁴

Non-hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal: ²⁵

Return to Client Disposal by Lab Archive _____ (mos.)

Turnaround Time Required: ²⁶

Normal Rush 14 DAY

QC Level: ²⁷

I. II. III. Project Specific (specify): _____

1. Relinquished by ²⁸

(Signature/Affiliation)

E.J. Klein

Date: 8/24/94

Time: 1500

1. Received by ²⁸

(Signature/Affiliation)

FEDERAL EXPRESS

Date: 8/24/94

Time: 1500

2. Relinquished by

(Signature/Affiliation)

Date: _____

Time: _____

2. Received by

(Signature/Affiliation)

Date: _____

Time: _____

3. Relinquished by

(Signature/Affiliation)

Date: _____

Time: _____

3. Received by

(Signature/Affiliation)

Date: _____

Time: _____

Comments: ²⁹

White: To accompany samples

Yellow: Field copy

*See back of form for special instructions.

**ANALYSIS REQUEST AND
CHAIN OF CUSTODY RECORD (cont.)***

Project Name MCB CAMP LEBEVINE

Project No. CTO-0212

Samples Shipment Date 8/24/94

ONE CONTAINER PER LINE

Sample 14 Number	Sample 15 Description/Type	Date/Time 16 Collected	Container 17 Type	Sample 18 Volume	Pre-19 servative	Requested Testing 20 Program	Condition on 21 Receipt	Disposal 22 Record No.
41-UN-SD 25	SOIL	8/23/94 1340	CLEAR GLASS	40Z	—	TOC		
41-UN-SD 25	SOIL	"	AMBER GLASS	80Z	—	PEST./PCBs	FOR LAB USE ONLY	
41-UN-SD 25	SOIL	"	CLEAR GLASS	40Z	—	TAL METALS	FOR LAB USE ONLY	
41-UN-SW 24	WATER	8/23/94 1355	PLASTIC	1L.	—	TSS/TDS	FOR LAB USE ONLY	
41-UN-SW 24	WATER	"	AMBER GLASS	1L.	—	PEST./PCBs	FOR LAB USE ONLY	
"	"	"	"	1L.	—	" "	FOR LAB USE ONLY	
41-UN-SW 24	WATER	"	PLASTIC	1/2 L.	HNO ₃	TOTAL METALS	FOR LAB USE ONLY	
41-UN-SW 24	WATER	"	PLASTIC	1/2 L.	HNO ₃	DISS. METALS	FOR LAB USE ONLY	
41-UN-SD 24	SOIL	8/23/94 1460	CLEAR GLASS	40Z	—	TOC	FOR LAB USE ONLY	
41-UN-SD 24	SOIL	"	AMBER GLASS	80Z	—	PEST./PCBs	FOR LAB USE ONLY	
41-UN-SD 24	SOIL	"	CLEAR GLASS	40Z.	—	TAL METALS	FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	

White: To accompany samples

Yellow: Field copy

* See back of form for special instructions.



ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document # 390385
Page 1 of 2

Project Name/No. ¹ MCB CAMP LEJEUNE CTO - 0212 Samples Shipment Date ⁷ 8/24/94
 Sample Team Members ² EJK/MDS/JEZ Lab Destination ⁸ KNOXVILLE
 Profit Center No. ³ Lab Contact ⁹ S. SCHNEIDER
 Project Manager ⁴ R. WATRAS Project Contact/Phone ¹² 412/269-6000
 Purchase Order No. ⁶ Carrier/Waybill No. ¹³ FED. EX. # 0R22A11951
 Required Report Date ¹¹ 14 DAY

Bill to: ⁵ BAKER ENVIRONMENTAL
420 ROUSEY RD.
AOP BLDG. # 3
CORAOPOLIS, PA 15108
 Report to: ¹⁰ MATT BARTMAN
BAKER ENVIRON.

ONE CONTAINER PER LINE

Sample Number ¹⁴	Sample Description/Type ¹⁵	Date/Time Collected ¹⁶	Container Type ¹⁷	Sample Volume ¹⁸	Pre-servative ¹⁹	Requested Testing Program ²⁰	Condition on Receipt ²¹	Disposal Record No. ²²
41-UN-SW23	WATER	8/23/94 1435	PLASTIC	1L.	—	TSS/TDS	FOR LAB USE ONLY	
41-UN-SW23	WATER	"	AMBER GLASS	1L.	—	PEST./PCBs		
"	"	"	"	"	—	" "		
41-UN-SW23	WATER	"	PLASTIC	1/2 L.	HNO ₃	TOTAL METALS	FOR LAB USE ONLY	
41-UN-SW23	WATER	"	PLASTIC	1L.	HNO ₃	DISS. METALS		
41-UN-SD23	SOIL	8/23/94 1445	CLEAR GLASS	40Z	—	TOC		
41-UN-SD23	SOIL	"	AMBER GLASS	80Z	—	PEST./PCBs		
41-UN-SD23	SOIL	"	CLEAR GLASS	40Z	—	TAL METALS		

Special Instructions: ²³

Possible Hazard Identification: ²⁴

Non-hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal: ²⁵

Return to Client Disposal by Lab Archive _____ (mos.)

Turnaround Time Required: ²⁶

Normal Rush 14 DAY

QC Level: ²⁷

I. II. III. Project Specific (specify):

1. Relinquished by ²⁸
(Signature/Affiliation) [Signature]

Date: 8/24/94
Time: 1500H

1. Received by ²⁸
(Signature/Affiliation) FEDERAL EXPRESS

Date: 8/24/94
Time: 1500H

2. Relinquished by
(Signature/Affiliation)

Date:
Time:

2. Received by
(Signature/Affiliation)

Date:
Time:

3. Relinquished by
(Signature/Affiliation)

Date:
Time:

3. Received by
(Signature/Affiliation)

Date:
Time:

Comments: ²⁹

White: To accompany samples

Yellow: Field copy

*See back of form for special instructions.



**ANALYSIS REQUEST AND
CHAIN OF CUSTODY RECORD (cont.)***

Project Name MCB CAMP LEJEUNE

Project No. CTO-Ø 212

Samples Shipment Date 8/24/94

ONE CONTAINER PER LINE

Sample 14 Number	Sample 15 Description/Type	Date/Time 16 Collected	Container 17 Type	Sample 18 Volume	Pre-19 servative	Requested Testing 20 Program	Condition on 21 Receipt	Disposal 22 Record No.
41-UN-SW 22	WATER	8/23/94 1508	PLASTIC	1 L.	—	TSS/TDS		
41-UN-SW 22	WATER	"	AMBER GLASS	1 L.	—	PEST./PCB	FOR LAB USE ONLY	
41	"	"	"	1 L.	—	" "		
41-UN-SW 22	WATER	"	PLASTIC	1/2 L.	HNO ₃	TOTAL METALS		FOR LAB USE ONLY
41-UN-SW 22	WATER	"	PLASTIC	1 L.	HNO ₃	DISS. METALS	FOR LAB USE ONLY	
41-UN-SD 22	SOIL	8/23/94 1515	CLEAR GLASS	402	—	TOC		
41-UN-SD 22	SOIL	"	AMBER GLASS	802	—	PEST./PCBS	FOR LAB USE ONLY	
41-UN-SD 22	SOIL	"	CLEAR GLASS	402	—	TAL METALS		
41-UN-SW 21	WATER	8/23/94 1735	PLASTIC	1 L.	HNO ₃	DISS. METALS		FOR LAB USE ONLY
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	

*White: To accompany samples. *Yellow: Field copy. *See back of form for special instructions.



ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 390386
 Page 1 of 2

Project Name/No. ¹ MCB CAMP LEJEUNE CTO-0212 Samples Shipment Date ⁷ 8/24/94
 Sample Team Members ² ESK/MDS/TEZ Lab Destination ⁸ KNOXVILLE
 Profit Center No. ³ Lab Contact ⁹ S. SCHNEIDER
 Project Manager ⁴ R. WATRAS Project Contact/Phone ¹² 412/269-6000
 Purchase Order No. ⁶ Carrier/Waybill No. ¹³ FED. EX #022411951
 Required Report Date ¹¹ 14 DAYS

Bill to: ⁵ BAKER ENVIRONMENTAL
420 ROUSER RD.
ADD BLDG. #3
CORAOPOLIS, PA 15108
 Report to: ¹⁰ MATT BARTMAN
BAKER ENVIR.

ONE CONTAINER PER LINE

Sample Number ¹⁴	Sample Description/Type ¹⁵	Date/Time Collected ¹⁶	Container Type ¹⁷	Sample Volume ¹⁸	Pre-servative ¹⁹	Requested Testing Program ²⁰	Condition on Receipt ²¹	Disposal Record No. ²²
41-VN-SW21	WATER	8/23/94 1735	PLASTIC	1L.	—	TSS/TDS	FOR LAB USE ONLY	
41-VN-SW21	"	"	AMBER GLASS	1L.	—	REST. / PCBs		
"	"	"	"	"	—	" "		
41-VN-SW21	"	"	PLASTIC	1/2 L.	HNO ₃	TOTAL METALS	FOR LAB USE ONLY	
41-VN-SW21	SOIL	8/23/94 1740	CLEAR GLASS	4 OZ	—	TOC		
41-VN-SW21	"	"	AMBER GLASS	8 OZ	—	REST. / PCBs		
41-VN-SW21	"	"	CLEAR GLASS	4 OZ	—	TAL METALS		

Special Instructions: ²³ _____

Possible Hazard Identification: ²⁴ Non-hazard Flammable Skin Irritant Poison B Unknown Sample Disposal: ²⁵ Return to Client Disposal by Lab Archive _____ (mos.)

Turnaround Time Required: ²⁶ Normal Rush 14 DAYS GC Level: ²⁷ I. II. III. Project Specific (specify): _____

1. Relinquished by ²⁸ <u>E.J. Klink</u> (Signature/Affiliation)	Date: <u>8/24/94</u> Time: <u>1500</u>	1. Received by ²⁸ <u>FEDERAL EXPRESS</u> (Signature/Affiliation)	Date: <u>8/24/94</u> Time: <u>1500</u>
2. Relinquished by (Signature/Affiliation)	Date: _____ Time: _____	2. Received by (Signature/Affiliation)	Date: _____ Time: _____
3. Relinquished by (Signature/Affiliation)	Date: _____ Time: _____	3. Received by (Signature/Affiliation)	Date: _____ Time: _____

Comments: ²⁹ _____

White: To accompany samples
Yellow: Field copy
* See back of form for special instructions.



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**ANALYSIS REQUEST AND
CHAIN OF CUSTODY RECORD (cont.)***

Reference Document No. ³⁰ 390386

Page 2 of 2

41-303

Project Name MCB CAMP LEJEUNE

Project No. CTO-0212

Samples Shipment Date 8/24/94

ONE CONTAINER PER LINE

Sample 14 Number	Sample 15 Description/Type	Date/Time 16 Collected	Container 17 Type	Sample 18 Volume	Pre-19 servative	Requested Testing 20 Program	Condition on 21 Receipt	Disposal 22 Record No.
41-UN-SW20	WATER	8/23/94 1745	PLASTIC	1 L.	—	TSS/TDS		
41-UN-SW20	"	"	AMBER GLASS	1 L.	—	PEST. / PCBs	FOR LAB USE ONLY	
41-UN-SW20	"	"	"	1 L.	—	" "	FOR LAB USE ONLY	
41-UN-SW20	"	"	PLASTIC	1/2 L.	HNO ₃	TOTAL METALS	FOR LAB USE ONLY	
41-UN-SW20	"	"	PLASTIC	1/2 L.	HNO ₃	DISS. METALS	FOR LAB USE ONLY	
41-UN-SW20	SOIL	8/23/94 1755	CLEAR GLASS	4 OZ	—	TOC		
41-UN-SW20	"	"	AMBER GLASS	8 OZ	—	PEST. / PCBs	FOR LAB USE ONLY	
41-UN-SW20	"	"	CLEAR GLASS	4 OZ	—	TAL METALS	FOR LAB USE ONLY	
41-UN-SW19	WATER	8/23/94 1808	PLASTIC	1 L.	—	TSS/TDS	FOR LAB USE ONLY	
41-UN-SW19	"	"	AMBER GLASS	1 L.	—	PEST. / PCB	FOR LAB USE ONLY	
"	"	"	"	1 L.	—	" "	FOR LAB USE ONLY	
41-UN-SW19	"	"	PLASTIC	1/2 L.	HNO ₃	DISS. METALS	FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	

White: To accompany samples
Yellow: Field copy
* See back of form for special instructions.



INTERNATIONAL
TECHNOLOGY
CORPORATION

ANALYSIS REQUEST AND
CHAIN OF CUSTODY RECORD*

Reference Document: 390387
Page 1 of 2

Project Name/No. ¹ MCB CAMP LEJEUNE CTO-212 Samples Shipment Date ⁷ 8/24/94
 Sample Team Members ² EJK/MDS/JEZ Lab Destination ⁸ KNOXVILLE
 Profit Center No. ³ — Lab Contact ⁹ S. SCHNEIDER
 Project Manager ⁴ R. WATTRAS Project Contact/Phone ¹² 412/269-6000
 Purchase Order No. ⁶ — Carrier/Waybill No. ¹³ FED. EX. #0822411951
 Required Report Date ¹¹ 14 DAYS

Bill to: ⁵ BAKER ENVIRONMENTAL
420 ROUSER RD.
AOP BLDG. #3
CORAOPOLIS, PA 15108
 Report to: ¹⁰ MATT BARTMAN
BAKER ENVIRON.

ONE CONTAINER PER LINE

Sample Number ¹⁴	Sample Description/Type ¹⁵	Date/Time Collected ¹⁶	Container Type ¹⁷	Sample Volume ¹⁸	Pre-servative ¹⁹	Requested Testing Program ²⁰	Condition on Receipt ²¹	Disposal Record No. ²²
41-UN-SW19	WATER	8/23/94 1808	PLASTIC	1/2 L.	HNO ₃	TOTAL METALS	FOR LAB USE ONLY	
41-UN-SD19	SOIL	8/23/94 1810	CLEAR GLASS	4 OZ	—	TOC		
41-UN-SD19	SOIL	"	AMBER GLASS	8 OZ	—	PEST./PCBS		
41-UN-SD19	SOIL	"	CLEAR GLASS	4 OZ	—	TOTAL METALS		
41-UN-SW18	WATER	8/23/94 1827	PLASTIC	1 L.	—	TSS/TDS	FOR LAB USE ONLY	
41-UN SW18	WATER	"	AMBER GLASS	1 L.	—	PEST./PCBS		
"	"	"	"	1 L.	—	" "		

Special Instructions: ²³

Possible Hazard Identification: ²⁴

Non-hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal: ²⁵

Return to Client Disposal by Lab Archive _____ (mos.)

Turnaround Time Required: ²⁶

Normal Rush 14 DAYS

QC Level: ²⁷

I. II. III. Project Specific (specify):

1. Relinquished by ²⁸

(Signature/Affiliation)

E.J. Klein Ly

Date: 8/23/94
Time: 1500 H

1. Received by ²⁸

(Signature/Affiliation)

FEDERAL EXPRESS

Date: 8/24/94
Time: 1500 H

2. Relinquished by

(Signature/Affiliation)

Date: _____
Time: _____

2. Received by

(Signature/Affiliation)

Date: _____
Time: _____

3. Relinquished by

(Signature/Affiliation)

Date: _____
Time: _____

3. Received by

(Signature/Affiliation)

Date: _____
Time: _____

Comments: ²⁹

White: To accompany samples
Yellow: Field copy
* See back of form for special instructions.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Project Name MCB CAMP LEJEUNE

Project No. CTO-212

Samples Shipment Date 8/24/94

ONE CONTAINER PER LINE

Sample 14 Number	Sample 15 Description/Type	Date/Time Collected 16	Container 17 Type	Sample 18 Volume	Pre-19 servative	Requested Testing 20 Program	Condition on 21 Receipt	Disposal 22 Record No.
41-VN-SW18	WATER	8/23/94 1827	PLASTIC	1/2 L.	HNO ₃	TOTAL METALS		
41-VN-SW18	WATER	"	PLASTIC	1/2 L.	HNO ₃	DISS. METALS	FOR LAB USE ONLY	
41-VN-SD18	SOIL	8/23/94 1830	CLEAR GLASS	40Z	—	TOC	FOR LAB USE ONLY	
41-VN-SD18	SOIL	"	AMBER GLASS	80Z	—	PEST./PCBs	FOR LAB USE ONLY	
41-VN-SD18	SOIL	"	CLEAR GLASS	40Z	—	TAL METALS	FOR LAB USE ONLY	
41-VN-SW17	WATER	8/23/94 1842	PLASTIC	1L	—	TSS/TDS	FOR LAB USE ONLY	
41-VN-SW17	WATER	"	AMBER GLASS	1L	—	PEST./PCBs	FOR LAB USE ONLY	
"	"	"	"	1L	—	" "	FOR LAB USE ONLY	
41-VN-SW17	WATER	"	PLASTIC	1/2 L.	HNO ₃	TOTAL METALS	FOR LAB USE ONLY	
41-VN-SW17	WATER	"	PLASTIC	1/2 L.	HNO ₃	DISS. METALS	FOR LAB USE ONLY	
41-VN-SD17	SOIL	8/23/94 1848	CLEAR GLASS	40Z	—	TOC	FOR LAB USE ONLY	
41-VN-SD17	SOIL	"	AMBER GLASS	80Z	—	PEST./PCBs	FOR LAB USE ONLY	
41-VN-SD17	SOIL	"	CLEAR GLASS	40Z	—	TAL METALS	FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	

White: To accompany samples Yellow: Field copy * See back of form for special instructions.



INTERNATIONAL
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**ANALYSIS REQUEST AND
CHAIN OF CUSTODY RECORD***

Reference Document ID: TI-005 390388
Page 1 of 2

Project Name/No. ¹ MCB CAMP LEJEUNE CTO-212 Samples Shipment Date ⁷ 8/24/94
 Sample Team Members ² EJK/MDS/JEZ Lab Destination ⁸ KNOXVILLE
 Profit Center No. ³ _____ Lab Contact ⁹ S. SCHNEIDER
 Project Manager ⁴ R. WATRAS Project Contact/Phone ¹² 412/269-6000
 Purchase Order No. ⁶ _____ Carrier/Waybill No. ¹³ FED. EX. # 0822411951
 Required Report Date ¹¹ 14 DAYS

Bill to: ⁵ BAKER ENVIRONMENTAL
420 ROUSER RD.
AOP BLDG. #3
CORAOPOLIS, PA 15108
 Report to: ¹⁰ MATT BARTMAN
BAKER ENVIRON.

ONE CONTAINER PER LINE

Sample Number ¹⁴	Sample Description/Type ¹⁵	Date/Time Collected ¹⁶	Container Type ¹⁷	Sample Volume ¹⁸	Pre-servative ¹⁹	Requested Testing Program ²⁰	Condition on Receipt ²¹	Disposal Record No. ²²
41-VN-SW 16	WATER	8/23/94 1859	PLASTIC	1L.	✓	TSS/TDS	FOR LAB USE ONLY	
41-VN-SW 16	WATER	"	AMBER GLASS	1L.	✓	PEST./PCBS		
"	"	"	"	1L.	✓	" "		
41-VN-SW 16	WATER	"	PLASTIC	1/2 L.	HNO ₃	TOTAL METALS	FOR LAB USE ONLY	
41-VN-SW 16	WATER	"	PLASTIC	1/2 L.	HNO ₃	DISS. METALS		
41-VN-SD 16	SOIL	8/23/94 1905	CLEAR GLASS	402	✓	TOC		
41-VN-SD 16	SOIL	"	AMBER GLASS	802	✓	PEST./PCBS		
41-VN-SD 16	SOIL	"	CLEAR GLASS	402	✓	TAL METALS		

Special Instructions: ²³

Possible Hazard Identification: ²⁴
 Non-hazardous Flammable Skin Irritant Poison B Unknown

Sample Disposal: ²⁵
 Return to Client Disposal by Lab Archive _____ (mos.)

Turnaround Time Required: ²⁶
 Normal Rush 14 DAYS

QC Level: ²⁷
 I. II. III. Project Specific (specify): _____

1. Relinquished by ²⁸ [Signature] Date: 8/24/94
 (Signature/Affiliation) Time: 1500
 2. Relinquished by _____ Date: _____
 (Signature/Affiliation) Time: _____
 3. Relinquished by _____ Date: _____
 (Signature/Affiliation) Time: _____

1. Received by ²⁸ _____ Date: 8/24/94
 (Signature/Affiliation) FEDERAL EXPRESS Time: 1500
 2. Received by _____ Date: _____
 (Signature/Affiliation) Time: _____
 3. Received by _____ Date: _____
 (Signature/Affiliation) Time: _____

Comments: ²⁹

Write: To accompany samples
 Yellow: Field copy
 * See back of form for special instructions.



ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No. ³⁰ 390388
Page 2 of 2

Project Name MCA CAMP LEJEUNE

Project No. CTO - 212

Samples Shipment Date 8/24/94

ONE CONTAINER PER LINE

Sample 14 Number	Sample 15 Description/Type	Date/Time Collected 16	Container Type 17	Sample Volume 18	Pre-19 servative	Requested Testing Program 20	Condition on Receipt 21	Disposal Record No. 22
41-UN-SWIS	WATER	8/23/94 19/8	PLASTIC	1L.	—	TSS/TDS		
41-UN-SWIS	WATER	"	AMBER GLASS	1L.	—	PEST./PCBS	FOR LAB USE ONLY	
"	"	"	"	1L.	—	" "		
41-UN-SWIS	WATER	"	PLASTIC	1/2 L.	HNO ₃	TOTAL METALS	FOR LAB USE ONLY	
41-UN-SWIS	WATER	"	PLASTIC	1/2 L.	HNO ₃	DISS. METALS		
41-UN-SDIS	SOIL	8/23/94 1925	CLEAR GLASS	4.0g	—	TOC	FOR LAB USE ONLY	
41-UN-SDIS	SOIL	"	AMBER GLASS	8.0g	—	PEST./PCBS		
41-UN-SDIS	SOIL	"	CLEAR GLASS	4.0g	—	TOTAL METALS		
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	

COPY

White: To accompany samples
Yellow: Field copy
* See back of form for special instructions.



INTERNATIONAL
TECHNOLOGY
CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document # 17-5-9 69-39 390389
Page 1 of 2

Project Name/No. ¹ MCB CAMP LETEUNE
CTD-0212 Samples Shipment Date ⁷ 8/26/94
Sample Team Members ² EJK/MDS/JEZ Lab Destination ⁸ KNOXVILLE
Profit Center No. ³ --- Lab Contact ⁹ S. SCHNEIDER
Project Manager ⁴ R. WATTRAS Project Contact/Phone ¹² 412/269-6000
Purchase Order No. ⁶ --- Carrier/Waybill No. ¹³ FED. EX.
Required Report Date ¹¹ 14 DAYS

Bill to: ⁵ BAKER ENVIRONMENTAL
420 ROUSER ROAD
AOP BLDG. #3
CORAOPOLIS, PA 15108
Report to: ¹⁰ MATT BARTMAN
BAKER ENVIRON.

ONE CONTAINER PER LINE

Sample Number ¹⁴	Sample Description/Type ¹⁵	Date/Time Collected ¹⁶	Container Type ¹⁷	Sample Volume ¹⁸	Pre-servative ¹⁹	Requested Testing Program ²⁰	Condition on Receipt ²¹	Disposal Record No. ²²
74-GW03A-02	WATER	8/25/94 1025	PLASTIC	1 L.	/	TSS/TDS	FOR LAB USE ONLY	
74-GW03A-02	WATER	"	AMBER GLASS	1 L.	/	PEST./PCBs		
74-GW03A-02	WATER	"	"	1 L.	/	" "		
74-GW03A-02	WATER	"	PLASTIC	1/2 L.	HNO ₃	TOTAL METALS		
74-GW03AD-02	WATER	"	PLASTIC	1/2 L.	HNO ₃	DISS. METALS	FOR LAB USE ONLY	
69-GW03-02	WATER	8/25/94	PLASTIC	1 L.	/	TSS/TDS		
69-GW03-02	WATER	"	AMBER GLASS	1 L.	/	PEST./PCBs		
69-GW03-02	WATER	"	AMBER GLASS	1 L.	/	" "		

Special Instructions: ²³

Possible Hazard Identification: ²⁴

Non-hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal: ²⁵

Return to Client Disposal by Lab Archive _____ (mos.)

Turnaround Time Required: ²⁶

Normal Rush 14 DAYS

QC Level: ²⁷

I. II. III. Project Specific (specify): _____

1. Relinquished by ²⁸
(Signature/Affiliation)

E. J. Klein

Date: 8/26/94
Time: 1500H

1. Received by ²⁸
(Signature/Affiliation)

FEDERAL EXPRESS

Date: 8/26/94
Time: 1500H

2. Relinquished by
(Signature/Affiliation)

Date: _____
Time: _____

2. Received by
(Signature/Affiliation)

Date: _____
Time: _____

3. Relinquished by
(Signature/Affiliation)

Date: _____
Time: _____

3. Received by
(Signature/Affiliation)

Date: _____
Time: _____

Comments: ²⁹

White: To accompany samples

Yellow: Field copy

* See back of form for special instructions.



**ANALYSIS REQUEST AND
CHAIN OF CUSTODY RECORD (cont.)***

Project Name MCB CAMP LEJEUNE

Project No. CTO - 0212

Samples Shipment Date 8/26/94

ONE CONTAINER PER LINE

Sample 14 Number	Sample 15 Description/Type	Date/Time 16 Collected	Container 17 Type	Sample 18 Volume	Pre-19 servative	Requested Testing 20 Program	Condition on 21 Receipt	Disposal 22 Record No.
69-GW03-02	WATER	8/25/94	PLASTIC	1/2 L.	HNO ₃	TOTAL METALS		
69-GW03-02	WATER	"	PLASTIC	1/2 L.	HNO ₃	DISS. METALS	FOR LAB USE ONLY	
74-GW07-02	WATER	8-26-94	AMBER GLASS	1 L.	-	PEST/PCB	FOR LAB USE ONLY	
74-GW07-02	WATER	8-26-94	AMBER GLASS	1 L.	-	PEST PCB	FOR LAB USE ONLY	
74-GW07-02	WATER	8-26-94	PLASTIC	1 L.	-	TSS/TDS	FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
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							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	

COPY

Write: To accompany samples. Yellow: Field copy. * See back of form for special instructions.



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**ANALYSIS REQUEST AND
CHAIN OF CUSTODY RECORD***

Reference Document # 41-300-390390
Page 1 of 1

Project Name/No. 1 CTO - 0212 MCB CAMP LEJEUNE
Sample Team Members 2 EJK/MDS/JEZ
Profit Center No. 3
Project Manager 4 R. WATRAS
Purchase Order No. 6
Required Report Date 11 14 DAYS
Samples Shipment Date 7 8/26/94
Lab Destination 8 KNOXVILLE
Lab Contact 9 S. SCHNEIDER
Project Contact/Phone 12 412/269-6000
Carrier/Waybill No. 13 FED. EX. 0822411962

Bill to: 5 BAKER ENVIRONMENTAL
420 ROUSER ROAD
AOP BLDG. # 3
CORAOPOLIS, PA 15108
Report to: 10 MATT BARTMAN
BAKER ENVIRONMENTAL

ONE CONTAINER PER LINE

Sample Number ¹⁴	Sample Description/Type ¹⁵	Date/Time Collected ¹⁶	Container Type ¹⁷	Sample Volume ¹⁸	Pre-servative ¹⁹	Requested Testing Program ²⁰	Condition on Receipt ²¹	Disposal Record No. ²²
74-GW07-02	water	8/26/94 0845	Plastic	1/2 L.	HNO ₃	Total Metals		
74-GW07D-02	water	8/26/94 0845	Plastic	1/2 L.	HNO ₃	Dissolved Metals	FOR LAB USE ONLY	
41-GW02-03	water	8/26/94 1306	Plastic	1 L.	-	TSS/TDS		
41-GW02-03	water	8/26/94 1306	AMBER GLASS	1 L.	-	PEST/PCBs		
41-GW02-03	water	8/26/94 1306	AMBER GLASS	1 L.	-	" "		
41-GW02-03	water	8/26/94 1306	Plastic	1/2 L.	HNO ₃	Total Metals	FOR LAB USE ONLY	
41-GW02D-03	water	8/26/94 1306	Plastic	1/2 L.	HNO ₃	Dissolved Metals		

Special Instructions: ²³

Possible Hazard Identification: ²⁴
 Non-hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal: ²⁵
 Return to Client Disposal by Lab Archive (mos.)

Turnaround Time Required: ²⁶
 Normal Rush 14 DAYS

QC Level: ²⁷
 I. II. III. Project Specific (specify):

1. Relinquished by ²⁸ (Signature/Affiliation) <u>E.J. Kleinberg</u>	Date: <u>8/26/94</u> Time: <u>1500</u>	1. Received by ²⁸ (Signature/Affiliation) <u>FEDERAL EXPRESS</u>	Date: <u>8/26/94</u> Time: <u>1500</u>
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: ²⁹

White: To accompany samples
Yellow: Field copy
* See back of form for special instructions.



INTERNATIONAL
TECHNOLOGY
CORPORATION

**ANALYSIS REQUEST AND
CHAIN OF CUSTODY RECORD***

Reference Document ⁶⁹ 390391
Page 1 of 2

Project Name/No. ¹ MCB CAMP LEJEUNE
CTD-0212 Samples Shipment Date ⁷ _____
Sample Team Members ² EJK/MDS/JEZ Lab Destination ⁸ KNOXVILLE
Profit Center No. ³ _____ Lab Contact ⁹ S. SCHNEIDER
Project Manager ⁴ R. WATRAS Project Contact/Phone ¹² 412/269-6000
Purchase Order No. ⁶ _____ Carrier/Waybill No. ¹³ FED. EX.
Required Report Date ¹¹ 14 DAYS

Bill to: ⁵ BAKER ENVIRONMENTAL
420 ROUSER ROAD
AOP BLDG. # 3
CORAOPOLIS, PA 15108
Report to: ¹⁰ MATT BARTMAN
BAKER ENVIRON.

ONE CONTAINER PER LINE

Sample Number ¹⁴	Sample Description/Type ¹⁵	Date/Time Collected ¹⁶	Container Type ¹⁷	Sample Volume ¹⁸	Pre-servative ¹⁹	Requested Testing Program ²⁰	Condition on Receipt ²¹	Disposal Record No. ²²
41-GW10-03	WATER	8/26/94 1930	PLASTIC	1L	-	TSS/TDS		
41-GW10-03	WATER	8/26/94 1930	AMBER GLASS	1L	-	PEST/PCB	FOR LAB USE ONLY	
41-GW10-03	WATER	8/26/94 1930	AMBER GLASS	1L	-	PEST/PCB		
41-GW10-03	WATER	8/26/94 1930	PLASTIC	300 ml	HNO3	TAL METALS (TOTAL METALS)		
41-GW10-03	WATER	8/26/94 1930	PLASTIC	300 ml	HNO3	TAL METALS (DISSOLVED METALS)	FOR LAB USE ONLY	
69-GW01-02	WATER	8/27/94 0655	PLASTIC	1L	-	TSS/TDS		
69-GW01-02	WATER	8/27/94 0655	AMBER GLASS	1L	-	PEST/PCB		
69-GW01-02	WATER	8/27/94 0655	AMBER GLASS	1L	-	PEST/PCB		

Special Instructions: ²³

Possible Hazard Identification: ²⁴

Non-hazard Flammable Skin Irritant Poison B Unknown

Sample Disposal: ²⁵

Return to Client Disposal by Lab Archive _____ (mos.)

Turnaround Time Required: ²⁶

Normal Rush 14 DAYS

QC Level: ²⁷

I. II. III. Project Specific (specify): _____

1. Relinquished by ²⁸ E.J. Klein
(Signature/Affiliation) Date: 1500
Time: 8-27-94

2. Relinquished by
(Signature/Affiliation) Date: _____
Time: _____

3. Relinquished by
(Signature/Affiliation) Date: _____
Time: _____

1. Received by ²⁸ FEDERAL EXPRESS
(Signature/Affiliation) Date: 1500
Time: 8-27-94

2. Received by
(Signature/Affiliation) Date: _____
Time: _____

3. Received by
(Signature/Affiliation) Date: _____
Time: _____

Comments: ²⁹

Write: To accompany samples

Yellow: Field copy

* See back of form for special instructions.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

41-301
69-301

Project Name MCB CAMP LEJEUNE

Project No. CTO-0212

Samples Shipment Date _____

ONE CONTAINER PER LINE

Sample 14 Number	Sample 15 Description/Type	Date/Time 16 Collected	Container 17 Type	Sample 18 Volume	Pre-19 servative	Requested Testing 20 Program	Condition on 21 Receipt	Disposal 22 Record No.
69-GW01-02	WATER	8/27/94 0655	PLASTIC	500ml	HNO3	TAL METALS (TOTAL METALS)		
69-GW01-02	WATER	8/27/94 0655	PLASTIC	500ml	HNO3	TAL METALS (DISSOLVED METALS)	FOR LAB USE ONLY	
41-GW07-03	WATER	8/27/94 0830	PLASTIC	1L	-	TSS/TDS	FOR LAB USE ONLY	
41-GW07-03	WATER	8/27/94 0830	AMBER GLASS	1L	-	ELP PEST/PCBs	FOR LAB USE ONLY	
41-GW07-03	WATER	8/27/94 0830	AMBER GLASS	2L	-	ELP PEST/PCBs	FOR LAB USE ONLY	
41-GW07-03	WATER	8/27/94 0830	PLASTIC	500 ml	HNO3	TAL METALS (TOTAL METALS)	FOR LAB USE ONLY	
41-GW07-03	WATER	8/27/94 0830	PLASTIC	500 ml	HNO3	TAL METALS (DISSOLVED METALS)	FOR LAB USE ONLY	
41-GW11-03	WATER	8/27/94 0915	PLASTIC	1L	-	TSS/TDS	FOR LAB USE ONLY	
41-GW11-03	WATER	8/27/94 0915	AMBER GLASS	1L	-	ELP PEST/PCB	FOR LAB USE ONLY	
41-GW11-03	WATER	8/27/94 0915	AMBER GLASS	1L	-	ELP PEST/PCB	FOR LAB USE ONLY	
41-GW11-03	WATER	8/27/94 0915	PLASTIC	500ml	HNO3	TAL METALS (TOTAL METALS)	FOR LAB USE ONLY	
41-GW11-03	WATER	8/27/94 0915	PLASTIC	500ml	HNO3	TAL METALS (DISSOL)	FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	

White: To accompany samples

Yellow: Field copy

* See back of form for special instructions.

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

C.O.C.# 201

Contract #/Billing Reference

62470-212

1 of 1 Pgs.

Project: 62470-212 SITE 74					Turnaround Time <i>ROUTED</i>																								
Client BAKER ENVIRONMENTAL INC.					# of Container																								
Send Results To: MAT PARTMAN					Container Type																								
Address:					Preservative Used																								
Phone:					Type of Analysis																								
					<i>TOC-VOA</i> <i>TOC-SUGA</i> <i>TOC-PEST/PEB</i> <i>TAL-METALS</i> <i>TOC</i> <i>PARTICLE SIZE</i> <i>MTBE/LEG LIMITS</i> <i>CYANIDE</i>																								
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials											CLIENT COMMENTS														
74-6w06-02	11/04/94	1530	SOLID	SKM/RKP	X	X	X	X							X														
74-6w06-07	11/04/94	1626	SOLID	SKM/RKP	X	X	X	X							X														
74-FB-01	11/15/94	1330	Liquid	PAM	X											TRIP BLANK.													
74-6w05-d	11/11/94	1206	SOLID	SKM/RKP	X	X	X	X	X						X	* Note TOC Analysis													
74-6w05-04	11/11/94	1400	SOLID	SKM/RKP	X	X	X	X							X														
74-6w05	11/11/94	1211	SOLID	SKM/RKP						X	X					END PARAMETERS													
Relinquished By: <i>[Signature]</i>					Date/Time: 11/12/94 1500					Received By:					Relinquished By:					Received for Laboratory By:					Date/Time:				
Relinquished By:					Date/Time:					Received By:					Date/Time:					Shipper:					Airbill No.: Fed-ex 0925847061				
Relinquished By:					Date/Time:					Received By:					Lab Comments:					Temp:									

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

C.O.C. # 74002

Contract #/Billing Reference

62470-212

1 of 1 Pgs.

Project: 62470-212 SITE 74					Turnaround Time										Route														
Client: BAKER					# of Container																								
Send Results To: MAT EATMAN					Container Type																								
Address:					Preservative Used																								
Phone:					Type of Analysis																								
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	TEL-VOA	TEL-SVOA	TEL-PEST/PCB	TEL-METALS									CLIENT COMMENTS												
74-TB-02	11/2/94	0930	Liquid	JAM	X												TRIP BLANK.												
74-RS-01	11/2/94	1700	Liquid	SKA/RKP	X	X	X	X									RINSEATE SPLIT SKW												
Relinquished By: <i>Teresa Mondak</i>					Date/Time: <i>11/2/94 1300</i>					Received By:					Relinquished By:					Received for Laboratory By:					Date/Time:				
Relinquished By:					Date/Time:					Received By:					Date/Time:					Shipper:					Airbill No.: <i>Fed-ex</i>				
Relinquished By:					Date/Time:					Received By:					Lab Comments:					Temp:									

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

Contract #/Billing Reference
62470-212

1 of 1 Pgs.

Project: 62470-212 SITE 74					Turnaround Time ROUTINE →										
Client BAKER ENVIRONMENTAL INC					# of Container										
Send Results To: MATT BARTMAN					Container Type										
Address:					Preservative Used										
Phone:					Type of Analysis										
					<div style="display: flex; justify-content: space-around;"> TCL VOA TCL DVOA TCL PEST/PCB TAL METALS CYANINE </div>										
					CLIENT COMMENTS										
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	TCL VOA	TCL DVOA	TCL PEST/PCB	TAL METALS	CYANINE						CLIENT COMMENTS
74-GW04-03	11/18/94	0932	SOLID	EK/RKP	X	X	X	X	X						MS/MSD
74-GW04-05	11/18/94	0950	SOLID	EK/RKP	X	X	X	X	X						
74-GW04-03D	11/18/94	0932	SOLID	EK/RKP	X	X	X	X	X						
74-GW04-03	11/18/94	0932	SOLID	EK/RKP	X	X	X	X	X						
74-TB-03	11/18/94	1145	LIQUID	RJL	X										TRID BLANK
74-RS-02	11/18/94	1240	LIQUID	EK/RKP	X	X	X	X							ANALYSIS

Relinquished By: <i>Ronald Korman</i>	Date/Time 11/18/94 1345	Received By:	Relinquished By:	Received for Laboratory By:	Date/Time
Relinquished By:	Date/Time	Received By:	Date/Time	Shipper:	Airbill No.: Fed. Ex 0825847002
Relinquished By:	Date/Time	Received By:	Lab Comments:	Temp:	

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

Contract #/Billing Reference

62470-212

1 of 1 Pgs.

Project: 62470-212 SITE 7.4					Turnaround Time <i>Routine</i>												CLIENT COMMENTS				
Client: PAKER ENVIRONMENTAL INC.					# of Container																
Send Results To: MATT BARTMAN					Container Type																
Address:					Preservative Used																
Phone:					Type of Analysis																
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	TEL-VOL	TEL-SVOP	TEL-PE-T/PE	TAL-METALS	CYANIDE	CSM (Org. Prod.)	TRIOLYGLYCOL										
74-6W03A-03	11/18/94	1444	SOLID	EST/RKP	X	X	X	X	X												
74-6W03A-04	11/18/94	1453	SOLID	LJK/RKP	X	X	X	X	X												
74-FDA-SB01-00	11/18/94	1049	SOLID	TEZ/RKP	X	X	X	X	X	X	X						(1)				
74-FDA-SB01-02	11/18/94	1111	SOLID	TEZ/RKP	X	X	X	X	X	X	X						(1)				
74-FDA-SB01-04	11/18/94	1127	SOLID	TEZ/RKP	X	X	X	X	X	X	X						(1)				
74-FDA-SB02-01	11/18/94	1152	SOLID	TEZ/RKP	X	X	X	X	X	X	X						(1)				
74-FDA-SB02-02	11/18/94	1211	SOLID	TEZ/RKP	X	X	X	X	X	X	X						(1) * NOTE NO TRIOLYGLYCOL CONTAINER				
74-FDA-SB02-05	11/18/94	1228	SOLID	TEZ/RKP	X	X	X	X	X	X	X						(1)				
74-TB-04	11/18/94	1400	LIQUID	RWK	X												TRIP BLANK				
74-RS-03	11/18/94	1415	LIQUID	PAW/RKP	X	X	X	X	X	X	X						Rinsate/Pie PAN				
Relinquished By: <i>Richard A. Mondak</i>					Date/Time: <i>11/18/94 1600</i>			Received By:					Relinquished By:					Received for Laboratory By:		Date/Time	
Relinquished By:					Date/Time:			Received By:					Date/Time		Shipper:		Airbill No.: <i>red-ex</i> <i>0825846954</i>				
Relinquished By:					Date/Time:			Received By:					Lab Comments: (1) - TRIOLYGLYCOL SAMPLE AMOUNT MAY NOT BE ENOUGH FOR ANALYSIS, TAKE NEEDED AMOUNT FROM VOLATILE CONTAINER IF NEEDED.					Temp:			

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

Contract #/Billing Reference

62470-212

1 of 2 Pgs.

Project: 62470-212 SITE 74					Turnaround Time <i>ROUTINE</i>							
Client: BAKER ENVIRONMENTAL, INC.					# of Container							
Send Results To: MATT RAATMAN					Container Type							
Address:					Preservative Used							
Phone:					Type of Analysis							

Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	Type of Analysis							CLIENT COMMENTS
					TEL-104	TEL-S104	TEL-REST/REB	TAL-METALS	CANWIDE	CSH (DEL-PROD)	THIOXYCYCLOL	
74-FDA-S803-00	11/19/04	1511	SOLID	JEZ/RKP	X	X	X	X	X	X	X	
74-FDA-S803-05	11/19/04	1540	SOLID	JEZ/RKP	X	X	X	X	X	X	X	
74-FDA-S803-06	11/19/04	1611	SOLID	JEZ/RKP	X	X	X	X	X	X	X	
74-FDA-S833-00	11/19/04	1530	SOLID	ETK	X	X	X	X	X	X	X	MS/MSD
74-FDA-S833-00D	11/19/04	1530	SOLID	ETK	X	X	X	X	X	X	X	
74-FDA-S834-00	11/19/04	1555	SOLID	ETK	X	X	X	X	X	X	X	
74-FDA-S835-00	11/19/04	1618	SOLID	ETK	X	X	X	X	X	X	X	
74-FDA-S836-00	11/19/04	1635	SOLID	ETK	X	X	X	X	X	X	X	
74-FDA-S837-00	11/19/04	1705	SOLID	ETK	X	X	X	X	X	X	X	
74-FDA-S804-00	11/20/04	0850	SOLID	JEZ/RKP	X	X	X	X	X	X	X	
74-FDA-S804-02	11/20/04	0908	SOLID	JEZ/RKP	X	X	X	X	X	X	X	
74-FDA-S804-05	11/20/04	0927	SOLID	JEZ/RKP	X	X	X	X	X	X	X	

Relinquished By: <i>Arnold Khuram</i>	Date/Time: 12/04/1530	Received By:	Relinquished By:	Received for Laboratory By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:	Shipper:	Airbill No.:
Relinquished By:	Date/Time:	Received By:	Lab Comments: <i>Fed ex 0825847035</i>		Temp:

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

Contract #/Billing Reference

62470-212

2 of 2 Pgs.

Project: 62470-212 SITE 74					Turnaround Time: ROUTINE								CLIENT COMMENTS	
Client: B&W ENV. INC					# of Container									
Send Results To: MATT BALTHAN					Container Type									
Address:					Preservative Used									
Phone:					Type of Analysis									
					RL VOA RL SDA RL PESTAB TAL METALS CYANIDE CSN (DEPHOS) THIOXYGLYCOL									
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	RL VOA	RL SDA	RL PESTAB	TAL METALS	CYANIDE	CSN (DEPHOS)	THIOXYGLYCOL	CLIENT COMMENTS		
74-EDA-SR05-01	1/20/94	1025	SOLID	EZ/VP	X	X	X	X	X	X	X			
74-EDA-SR05-03	1/20/94	1044	SOLID	EZ/VP	X	X	X	X	X	X	X			
74-EDA-SR05-05	1/20/94	1055	SOLID	EZ/VP	X	X	X	X	X	X	X			
74-RS-04	1/20/94	1400	LIQUID	RWK	X	X	X	X	X	X	X	RINSATE PIT (HOLD)		
74-TB-05	1/20/94	1430	LIQUID	RWK	X							TRIP BLANK		
Relinquished By: <i>[Signature]</i>					Date/Time: 1/20/94 1530			Received By:			Relinquished By:		Received for Laboratory By:	Date/Time:
Relinquished By:					Date/Time:			Received By:			Date/Time:	Shipper:	Airbill No.:	
Relinquished By:					Date/Time:			Received By:			Lab Comments: Fed Ex 0825847035			Temp:

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

Contract #/Billing Reference

62470-212

1 of 2 Pgs.

Project: 62470-212					Turnaround Time: ROUTINE								CLIENT COMMENTS
Client: BAKER ENVIRONMENTAL, INC					# of Container								
Send Results To: MATT BARTMAN					Container Type								
Address:					Preservative Used								
Phone:					Type of Analysis								
					TCL VOA TCL SVOA TCL PEST/PBB TAL METALS CYANIDE CSM (Deg. Food) THIOXYLACOL								
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	TCL VOA	TCL SVOA	TCL PEST/PBB	TAL METALS	CYANIDE	CSM (Deg. Food)	THIOXYLACOL		
74-FDA-SR06-00	1/20/94	1134	SOLID	RKP JEZ	X	X	X	X	X	X	X		
74-FDA-SR06-00	1/20/94	1134	SOLID	RKP JEZ	X	X	X	X	X	X	X		
74-FDA-SR06-02	1/20/94	1341	SOLID	RKP JEZ	X	X	X	X	X	X	X		
74-FDA-SR06-05	1/20/94	1400	SOLID	RKP JEZ	X	X	X	X	X	X	X		
74-FDA-SR07-00	1/20/94	1434	SOLID	RKP JEZ	X	X	X	X	X	X	X		
74-FDA-SR07-02	1/20/94	1453	SOLID	RKP JEZ	X	X	X	X	X	X	X		
74-FDA-SR07-05	1/20/94	1510	SOLID	RKP JEZ	X	X	X	X	X	X	X		
74-FDA-SR08-01	1/20/94	1542	SOLID	RKP JEZ	X	X	X	X	X	X	X		
74-FDA-SR08-03	1/20/94	1612	SOLID	RKP JEZ	X	X	X	X	X	X	X		
74-FDA-SR08-06	1/20/94	1630	SOLID	RKP JEZ	X	X	X	X	X	X	X		
74-FDA-SR09-00	1/21/94	0910	SOLID	RKP JEZ	X	X	X	X	X	X	X		
74-FDA-SR09-02	1/21/94	0924	SOLID	RKP JEZ	X	X	X	X	X	X	X		
Relinquished By:	Date/Time	Received By:	Relinquished By:				Received for Laboratory By:				Date/Time		
<i>[Signature]</i>	1/21/94 1540												
Relinquished By:	Date/Time	Received By:	Date/Time	Shipper:	Airbill No.:								
Relinquished By:	Date/Time	Received By:	Lab Comments: Fed Ex				Temp:						
			0825847046										

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
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(301) 926-6802

Contract #/Billing Reference

62470-212

2 of 2 Pgs.

Project: 62470-212 SITE 74					Turnaround Time: ROUTINE								CLIENT COMMENTS
Client: BAKEL ENV. INC.					# of Container								
Send Results To: MATT BARTMAN					Container Type								
Address:					Preservative Used								
Phone:					Type of Analysis								
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	TCL VOCs	TCL SVOCs	TCL PESTICIDES	TAL METALS	CYANIDE	CSM (Org. Prod)	THIOCYANIDE	CLIENT COMMENTS	
74-FDA-19-04 SB	12/1/94	0941	SOLID	JEZ AKD	X	X	X	X	X	X	X		
74-FDA-SBID-00	12/1/94	1008	SOLID	JEZ PKD	X	X	X	X	X	X	X		
74-FDA-SBID-04	12/1/94	1038	SOLID	JEZ PKP	X	X	X	X	X	X	X		
74-FDA-SBID-07	12/1/94	1105	SOLID	JEZ PKP	X	X	X	X	X	X	X		
74-RS-05	12/1/94	1430	LIQUID	LWK	X	X	X	X	X	X	X	RINSEATE Auger	
74-TB-06	12/1/94	1530	LIQUID	PWK	X							TRAP BLANK	
Relinquished By: <i>Ronald Kluon</i>		Date/Time: 12/1/94 1540	Received By:			Relinquished By:			Received for Laboratory By:			Date/Time:	
Relinquished By:		Date/Time:	Received By:			Date/Time:	Shipper:		Airbill No.:				
Relinquished By:		Date/Time:	Received By:			Lab Comments: Fed Ex 0825847046					Temp:		

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
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(301) 926-6802

Contract #/Billing Reference

62470-212

COC # 14001

1 of 2 Pgs.

Project: 62470-212					Turnaround Time: ROUTINE								CLIENT COMMENTS		
Client: BAKER ENVIRONMENTAL					# of Container										
Send Results To: MATT BARTMAN					Container Type										
Address:					Preservative Used										
Phone:					Type of Analysis										
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	TOL VOA	TOL SVA	TOL-PCB/PCB	PA METALS	CYANIDE	SEM (Org. Prod.)	THIONYL CHLORIDE				
74-FDA-SB11-00	11/21/94	1145	SOLID	JEZ AKP	X	X	X	X	X	X	X	MS/MSD 74-FDA-SB12-00			
74-FDA-SB11-00B	11/21/94	1145	SOLID	JEZ AKP	X	X	X	X	X	X	X				
74-FDA-SB12-00	11/21/94	1418	SOLID	JEZ AKP	X	X	X	X	X	X	X				
74-FDA-SB12-05	11/21/94	1447	SOLID	JEZ AKP	X	X	X	X	X	X	X				
74-FDA-SB12-06	11/21/94	1502	SOLID	JEZ AKP	X	X	X	X	X	X	X				
74-FDA-SB13-01	11/21/94	1540	SOLID	JEZ AKP	X	X	X	X	X	X	X				
74-FDA-SB13-02	11/21/94	1605	SOLID	JEZ AKP	X	X	X	X	X	X	X				
74-FDA-SB13-04	11/21/94	1614	SOLID	JEZ AKP	X	X	X	X	X	X	X				
74-FDA-SB11-02	11/21/94	1205	SOLID	JEZ AKP	X	X	X	X	X	X	X				
74-FDA-SB11-05	11/21/94	1228	SOLID	JEZ AKP	X	X	X	X	X	X	X				
74-FDA-SB14-00	11/22/94	0820	SOLID	JEZ AKP	X	X	X	X	X	X	X				
74-FDA-SB14-01	11/22/94	0852	SOLID	JEZ AKP	X	X	X	X	X	X	X				
Relinquished By: <i>Donald Knapp</i>		Date/Time: 11/23/94 1245		Received By:				Relinquished By:					Received for Laboratory By:		Date/Time:
Relinquished By:		Date/Time:		Received By:				Date/Time:		Shipper:			Airbill No.:		
Relinquished By:		Date/Time:		Received By:				Lab Comments: Fed Ex 0825846825 NPS 6220614416					Temp:		

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202 Perry Parkway
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(301) 926-6802

COC # 14000

Contract #/Billing Reference

62470-212

1 of 4 Pgs.

Project: 62470-212 SITE 74					Turnaround Time: ROUTINE											
Client: BAKER ENVIRONMENTAL, INC.					# of Container											
Send Results To: MATT BARTMAN					Container Type											
Address:					Preservative Used											
Phone:					Type of Analysis											
					TOL 10A TOL 10B TOL METALS CSM (Dry Pwd) CYANIDE TOL SMOA THIOGLYCOL											
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials											CLIENT COMMENTS	
74-FDA-SB15-00	11/22/94	1025	SOLID	JEZ RKP	X	X	X	X	X	X	X	X				
74-FDA-SB15-00	11/22/94	1025	SOLID	JEZ RKP	X	X	X	X	X	X	X	X				HS/MSD
74-FDA-SB15-03	11/22/94	1047	SOLID	JEZ RKP	X	X	X	X	X	X	X	X				
74-FDA-SB15-07	11/22/94	1109	SOLID	JEZ RKP	X	X	X	X	X	X	X	X				
74-FDA-SB16-00	11/22/94	1239	SOLID	JEZ RKP	X	X	X	X	X	X	X	X				
74-FDA-SB16-03	11/22/94	1300	SOLID	JEZ RKP	X	X	X	X	X	X	X	X				
74-FDA-SB16-06	11/22/94	1318	SOLID	JEZ RKP	X	X	X	X	X	X	X	X				
74-FDA-SB17-00	11/22/94	1409	SOLID	JEZ RKP	X	X	X	X	X	X	X	X				
74-FDA-SB17-01	11/22/94	1428	SOLID	JEZ RKP	X	X	X	X	X	X	X	X				TIME: 1413
74-FDA-SB17-03	11/22/94	1428	SOLID	JEZ RKP	X	X	X	X	X	X	X	X				
74-FDA-SB18-00	11/22/94	1515	SOLID	JEZ RKP	X	X	X	X	X	X	X	X				
74-FDA-SB18-02	11/22/94	1524	SOLID	JEZ RKP	X	X	X	X	X	X	X	X				
Relinquished By: <i>[Signature]</i>		Date/Time: 11/24/1230	Received By:			Relinquished By:			Received for Laboratory By:			Date/Time:				
Relinquished By:		Date/Time:	Received By:			Date/Time:	Shipper:		Airbill No.: Fe0-ex							
Relinquished By:		Date/Time:	Received By:			Lab Comments:			Temp:							

GP ENVIRONMENTAL SERVICES, INC.

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(301) 926-6802

Contract #/Billing Reference

62470-212

2 of 7 Pgs.

Project: 62470-212 site 74					Turnaround Time ROUTINE								CLIENT COMMENTS
Client: OVER ENVIRONMENTAL INC					# of Container								
Send Results To: MATT BARTMAN					Container Type								
Address:					Preservative Used								
Phone:					Type of Analysis								
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	TOL VOL	TOL SVWA	TOL RES/RES	TAL METALS	CSM (Det. Prod)	CYANIDE	THIOCYANATE		
74-FDA-SB19-04	11/22/94	1544	SOLID	JEZ RKP	X	X	X	X	X	X	X		
74-FDA-SB19-00	11/22/94	1627	SOLID	JEZ RKP	X	X	X	X	X	X	X		
74-FDA-SB19-02	11/22/94	1634	SOLID	JEZ RKP	X	X	X	X	X	X	X		
74-FDA-SB19-04	11/22/94	1654	SOLID	JEZ RKP	X	X	X	X	X	X	X		
74-FDA-SB20-00	11/22/94	1755	SOLID	JEZ RKP	X	X	X	X	X	X	X		
74-FDA-SB20-04	11/22/94	1816	SOLID	JEZ RKP	X	X	X	X	X	X	X		
74-FDA-SB20-08	11/22/94	1910	SOLID	JEZ RKP	X	X	X	X	X	X	X		
74-FDA-SB21-00	11/22/94	1237	SOLID	JEZ RKP	X	X	X	X	X	X	X		
74-FDA-SB21-01	11/22/94	1240	SOLID	JEZ RKP	X	X	X	X	X	X	X	74-FDA-SB21-01	
74-FDA-SB21-03	11/23/94	1254	SOLID	JEZ RKP	X	X	X	X	X	X	X		
74-FDA-SB21-00	11/23/94	1324	SOLID	JEZ RKP	X	X	X	X	X	X	X		
74-FDA-SB21-00D	11/23/94	1324	SOLID	JEZ RKP	X	X	X	X	X	X	X	74-FDA-SB21-00D	
Relinquished By: <i>[Signature]</i>		Date/Time: 11/22/94 1230	Received By:		Relinquished By:			Date/Time:	Received for Laboratory By:		Date/Time:		
Relinquished By:		Date/Time:	Received By:		Date/Time:	Shipper:		Airbill No.: Fed-ex					
Relinquished By:		Date/Time:	Received By:		Lab Comments:			Temp:					

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
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(301) 926-6802

Contract #/Billing Reference

62470-24

3 of 4 Pgs.

Project: 62470-24 SITE 74					Turnaround Time ROUTINE								CLIENT COMMENTS
Client: BAKER ENVIRONMENTAL INC					# of Container								
Send Results To: MATT BARTMAN					Container Type								
Address:					Preservative Used								
Phone:					Type of Analysis								
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	TEL VOA	TEL SVOA	TEL PESTICIDES	TEL METALS	CSM (Reg Rod)	CYANIDE	THIOGLYCOL		
74-FDA-SB21-01	11/23/94	1329	SOLID	TEL RKP	X	X	X	X	X	X			
74-FDA-SB22-03	11/23/94	1342	SOLID	TEL RKP	X	X	X	X	X	X			
74-FDA-SB23-00	11/23/94	1432	SOLID	TEL RKP	X	X	X	X	X	X			
74-FDA-SB23-01	11/23/94	1435	SOLID	TEL RKP	X	X	X	X	X	X			
74-FDA-SB23-03	11/23/94	1446	SOLID	TEL RKP	X	X	X	X	X	X			
74-RS-07	11/23/94	1615	LIQUID	TEL RKP	X	X	X	X	X	X		RINSEATE SPLIT SAOON	
74-BB-SB01-00	11/23/94	1705	SOLID	EJK	X	X	X	X	X	X			
74-BB-SB02-00	11/23/94	1655	SOLID	EJK	X	X	X	X	X	X			
74-BB-SB03-00	11/23/94	1625	SOLID	EJK	X	X	X	X	X	X			
74-BB-SB04-00	11/23/94	1610	SOLID	EJK	X	X	X	X	X	X			
74-TB-08	11/24/94	0900	LIQUID	FWK	X	X	X	X	X	X		TEL VOA ONLY	
74-FDA-SB24-00	11/24/94	0852	SOLID	TEL RKP	X	X	X	X	X	X			
Relinquished By: <i>[Signature]</i>	Date/Time: 11/24/94 1230	Received By:		Relinquished By:		Received for Laboratory By:		Date/Time:					
Relinquished By:	Date/Time:	Received By:		Date/Time:	Shipper:		Airbill No.: FedEx 0825846792						
Relinquished By:	Date/Time:	Received By:		Lab Comments:				Temp:					

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

C.O.O.# 74008

Contract #/Billing Reference 02470-212	4 of 4 Pgs.
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Project: 02470-212 site 74					Turnaround Time <i>Routine</i>								CLIENT COMMENTS
Client BAKER ENVIRONMENTAL INC.					# of Container								
Send Results To: MATT EARTMAN					Container Type								
Address:					Preservative Used								
Phone:					Type of Analysis								
					<i>TEL-META</i> <i>TEL-SVOA</i> <i>TEL-PEST/PCP</i> <i>ESM (Der. Prod.)</i> <i>TEL-METALS</i> <i>THIOCYANICOL</i> <i>CYANIDE.</i>								
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	TEL-META	TEL-SVOA	TEL-PEST/PCP	ESM (Der. Prod.)	TEL-METALS	THIOCYANICOL	CYANIDE.		
74-FDA-SB24-02	11/24/94	0907	SOLID	JFK/RKP	X	X	X	X	X	X	X		
74-FDA-SB24-04	11/24/94	0917	SOLID	YER/RKP	X	X	X	X	X	X	X		
74-FDA-SB25-00	11/24/94	0957	SOLID	TEZ/RKP	X	X	X	X	X	X	X		
74-FDA-SB25-02	11/24/94	1008	SOLID	JFK/RKP	X	X	X	X	X	X	X		
74-FDA-SB25-03	11/24/94	1013	SOLID	TEZ/RKP	X	X	X	X	X	X	X		
74-PDA-SB13-00	11/24/94	0835	SOLID	EJK	X	X	X	X	X	X	X		
74-PDA-SB11-00	11/24/94	1050	SOLID	EJK	X	X	X	X	X	X	X		
74-PDA-SB12-00	11/24/94	1105	SOLID	ETK	X	X	X	X	X	X	X		
74-PDA-SB14-00	11/24/94	0920	SOLID	ETK	X	X	X	X	X	X	X	QUICK (7 DAY TURN-AROUND)	
74-PDA-SB15-00	11/24/94	0940	SOLID	EJK	X	X	X	X	X	X	X	QUICK (7 DAY TURN-AROUND)	
Relinquished By: <i>Donald K...</i>		Date/Time: 11/24/94 1230	Received By:			Relinquished By:			Received for Laboratory By:			Date/Time:	
Relinquished By:		Date/Time:	Received By:			Date/Time:	Shipper:		Airbill No.:				
Relinquished By:		Date/Time:	Received By:			Lab Comments: Fed Ex 0825846792					Temp:		

GP ENVIRONMENTAL SERVICES, INC.

C.O.C. # 74009

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

Contract #/Billing Reference

62470-212

1 of 1 Pgs.

Project: 62470-212 Site 74					Turnaround Time								CLIENT COMMENTS	
Client: BAKER ENV. INC					# of Container									
Send Results To: HATT BARTMAN					Container Type									
Address:					Preservative Used									
Phone:					Type of Analysis									
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	TOL VOA	TOL SVOA	TOL PEST/PCB	TAL METALS	CSM (ADD'L)	THIOGLYCOL	CYANIDE			
74-FDA-SB26-00	11/24/94	1102	SOLID	JEZAKP	X	X	X	X	X	X	X			
74-FDA-SB26-02	11/24/94	1116	SOLID	JEZAKP	X	X	X	X	X	X	X			
74-FDA-SB26-03	11/24/94	1124	SOLID	JEZAKP	X	X	X	X	X	X	X			
74-PDA-SW01	11/24/94	1050	Liquid	MDS	X	X	X	X			X			
74-PDA-S001-06	11/24/94	1105	SOLID	MDS	X	X	X	X			X			
74-PDA-SW02	11/24/94	0935	Liquid	MDS	X	X	X	X			X			
74-PDA-S002-06	11/24/94	1010	SOLID	MDS	X	X	X	X			X			
74-PDA-SW03	11/24/94	1200	Liquid	MDS	X	X	X	X			X			
74-PDA-S003-06	11/24/94	1200	SOLID	MDS	X	X	X	X			X			
74-TB-09	11/24/94	1230	Liquid	PAM	X									TRIP BLANK
Relinquished By: <i>Peter Monday</i>		Date/Time: 11/24/94 1600	Received By:			Relinquished By:			Received for Laboratory By:			Date/Time:		
Relinquished By:		Date/Time:	Received By:			Date/Time:	Shipper:		Airbill No.: Fed-EX 0825946792					
Relinquished By:		Date/Time:	Received By:			Lab Comments:					Temp:			

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

Contract #/Billing Reference

62470-212

COL 14110

1 of 2 Pgs.

Project: 62470-212 STE 74					Turnaround Time: ROUTINE								CLIENT COMMENTS
Client: BAKER ENV. INC					# of Container								
Send Results To: MATT BARTMAN					Container Type								
Address:					Preservative Used								
Phone:					Type of Analysis								
					TOL VOA TOL SVOA TOL PESTICIDES TOL METALS CYANIDE CSN (Deg. Abs.) THIOGLYCOL								
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	TOL VOA	TOL SVOA	TOL PESTICIDES	TOL METALS	CYANIDE	CSN (Deg. Abs.)	THIOGLYCOL		
74-FDA-SB2700	11/24/04	1319	SOLID	JEZ RKP	X	X	X	X	X	X	X		
74-FDA-SB2701	11/24/04	1323	SOLID	JEZ RKP	X	X	X	X	X	X	X		
74-FDA-SB2702	11/24/04	1409	SOLID	JEZ RKP	X	X	X	X	X	X	X		
74-FDA-SB2703	11/25/04	0750	SOLID	JEZ RKP	X	X	X	X	X	X	X		
74-FDA-SB2704	11/25/04	0758	SOLID	JEZ RKP	X	X	X	X	X	X	X		
74-FDA-SB2705	11/25/04	0807	SOLID	JEZ RKP	X	X	X	X	X	X	X		
74-FDA-SB2801	11/24/04	1447	SOLID	JEZ RKP	X	X	X	X	X	X	X		
74-FDA-SB2802	11/24/04	1500	SOLID	JEZ RKP	X	X	X	X	X	X	X		
74-FDA-SB2803	11/25/04	1046	SOLID	JEZ RKP	X	X	X	X	X	X	X		
74-FDA-SB30-00	11/25/04	0838	SOLID	JEZ RKP	X	X	X	X	X	X	X		
74-FDA-SB30-01	11/25/04	0843	SOLID	JEZ RKP	X	X	X	X	X	X	X		
74-FDA-SB30-02	11/25/04	0851	SOLID	JEZ RKP	X	X	X	X	X	X	X		
Relinquished By: <i>Robt L. Lane</i>		Date/Time: 1-25-05/1500	Received By:		Relinquished By:			Received for Laboratory By:			Date/Time:		
Relinquished By:		Date/Time:	Received By:		Date/Time:	Shipper:		Airbill No.: FED. EX-0825846803					
Relinquished By:		Date/Time:	Received By:		Lab Comments:					Temp:			

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

Contract #/Billing Reference

62470-212

2 of 2 Pgs.

Project: 62470-212 Site 74					Turnaround Time: Routine																			
Client: BAKER ENV. INC					# of Container																			
Send Results To: MATT BARTMAN					Container Type																			
Address:					Preservative Used																			
Phone:					Type of Analysis																			
					REL VOA REL SGA REL PESTS REL METALS SYN (Dry) THIONYLS CLAUDE																			
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials													CLIENT COMMENTS							
74-FDA-SB31-00	1/25/94	0908	SOLID	REZ RKP	X	X	X	X	X	X	X	X	X	X	X	X								
74-FDA-SB31-01	1/25/94	0913	SOLID	REZ RKP	X	X	X	X	X	X	X	X	X	X	X	X								
74-FDA-SB31-02	1/25/94	0930	SOLID	REZ RKP	X	X	X	X	X	X	X	X	X	X	X	X								
74-FDA-SB32-00	1/25/94	0956	SOLID	REZ RKP	X	X	X	X	X	X	X	X	X	X	X	X	74-FDA-SB32-00							
74-FDA-SB32-02	1/25/94	1008	SOLID	REZ RKP	X	X	X	X	X	X	X	X	X	X	X	X	74-FDA-SB32-02							
74-FDA-SB32-03	1/25/94	1015	SOLID	REZ RKP	X	X	X	X	X	X	X	X	X	X	X	X								
74-TB-11	1/25/94	1230	LIQUID	RWK	X	X											TRIP BLANK							
74-RS-08	1/25/94	1420	LIQUID	RWK/RKP	X	X	X	X	X	X	X	X	X	X	X	X	HAND RINSE (HOLD)							
Relinquished By: <i>[Signature]</i>					Date/Time: 1-25-94/1500				Received By:				Relinquished By:				Received for Laboratory By:				Date/Time:			
Relinquished By:					Date/Time:				Received By:				Date/Time:				Shipper:				Airbill No.: FED. EX. 0825846803			
Relinquished By:					Date/Time:				Received By:				Lab Comments:								Temp:			

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

C.O.C # 74012

Contract #/Billing Reference

62470-212

1 of 1 Pgs.

Project: 62470-212, Site 74					Turnaround Time ^{See Contract} Routine										
Client: BAKER ENVIRONMENTAL, INC.					# of Container										
Send Results To: MATT BARTMAN.					Container Type										
Address:					Preservative Used										
Phone:					Type of Analysis										
					TCL-VOA TCL-SVOA TCL-PEST/PCB TM-METALS DISSOLVED METALS CYANIDE CSML/PEP/PPD THIO/DIBLYCOL HNO ₃ HNO ₃ H ₂ O ₄										
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials											CLIENT COMMENTS
74-6w06-01	2/16/94	1100	Liquid	RWK/RKP	X	X	X	X		X	X	X			
74-6w06D-01	2/16/94	1100	Liquid	RWK/RKP					X						
74-6w06-01D	2/16/94	1100	Liquid	RWK/RKP	X	X	X	X		X	X	X			
74-6w06D-01D	2/16/94	1100	Liquid	RWK/RKP					X						
74-6w06-01	2/16/94	1100	Liquid	RWK/RKP	X										note - MS/MISD
74-6w03A-01	2/16/94	1415	Liquid	RWK/RKP	X										
74-6w04-01	2/16/94	1445	Liquid	RWK/RKP	X										
74-6w01-01	2/16/94	1145	Liquid	RWK/RKP	X										
74-6w05-01	2/16/94	1540	Liquid	RWK/RKP	X										
74-R5-10	2/17/94	1215	Liquid	PAM	X										Rinsate - TO FLOW barrier * HOLD DO NOT TANK.
74-TB-13	2/17/94	1230	Liquid	VA #1	X										
Relinquished By:		Date/Time	Received By:		Relinquished By:			Received for Laboratory By:			Date/Time				
[Signature]		2/17/94													
Relinquished By:		Date/Time	Received By:		Date/Time	Shipper:		Airbill No.: FedEx							
								0825847105							
Relinquished By:		Date/Time	Received By:		Lab Comments: * Note (1) - VOA - ANALYSIS IS QUICK TURN (7-DAYS) FOR WELLS 6W06, 6W03A, 6W04, & 6W05					Temp:					

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

C.O.C. # 740.5

Contract #/Billing Reference

62470-212

1 of 1 Pgs.

Project: 62470-212 Site 74					Turnaround Time: Routine																								
Client: PAKER ENVIRONMENTAL INC.					# of Container																								
Send Results To: MAT BARTMAN					Container Type																								
Address:					Preservative Used																								
Phone:					Type of Analysis																								
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	TOL-SVOP	TOL-PEST/POB	TAL-METALS	Disolved METALS	CYANIDE	CSM (NO ₃ -PROD.)	THIOGLYCOL.	ENV. PARAMETERS	CLIENT COMMENTS																
74-6W05-01	2/16/94	1540	Liquid	RWK/RKP	X	X	X	X	X	X	X																		
74-6W05D-01	2/16/94	1540	Liquid	RWK/RKP			X																						
74-R5-10	2/17/94	1215	Liquid	TET/WMP	X	X	X	X	X	X			Rinse - TAPLOW CANISTER HOLD-DON'T REUSE																
74-R5D-10	2/17/94	1215	Liquid	TET/WMP			X																						
Relinquished By: Peter A. Mondak					Received By:					Relinquished By:					Received for Laboratory By:					Date/Time									
Date/Time: 2/17/94 1600										Date/Time					Shipper:					Airbill No.: Fed-ex					0825847105				
Relinquished By:					Received By:					Lab Comments: ENV. PARAMETERS = 2 - 100ml - PLATE COUNT PRES. THIOSULFATE - 1-500 - ml - BOD 1-1 COD-TKN, TOTAL-ALKALINITY PRES. H ₂ SO ₄					Temp:														

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

C.O.C # 74016

Contract #/Billing Reference

62470-212

1 of 1 Pgs.

Project: 62470-212 SITE 74					Turnaround Time: Routine					CLIENT COMMENTS
Client: BAKER ENVIRONMENTAL, INC.					# of Container					
Send Results To: MAT BARTMAN.					Container Type					
Address:					Preservative Used					
Phone:					Type of Analysis					
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	TOL-VOL	TOL-SVOL	TOL-PEST/ICP	TAL-METALS	CYANIDE	
74-6208-03	1345	2/18/94	SOLID	AKP/TEZ	X	X	X	X	X	
74-6208-06	1403	2/18/94	SOLID	AKP/TEZ	X	X	X	X	X	
74-6207-01	2/18/94	1606	SOLID	AKP/TEZ	X	X	X	X	X	
74-6207-02	2/18/94	1627	SOLID	AKP/TEZ	X	X	X	X	X	
74-TB-14	2/19/94	0730	Liquid	DAM	X					TRIP BLANK
Relinquished By:		Date/Time	Received By:		Relinquished By:			Received for Laboratory By:		Date/Time
P. De... Monday		2/19/94 1308								Y
Relinquished By:		Date/Time	Received By:		Date/Time	Shipper:	Airbill No.: Fed-ex			
							0825946781			
Relinquished By:		Date/Time	Received By:		Lab Comments:				Temp:	

GP Environmental Services, Inc.

202 Perry Way
Gaithersburg, Maryland 20877
(301) 926-6802

C.O.G.# 14017

Contract #/Billing Reference

62470-212

1 of 2 Pgs.

Project: 62470-212					Turnaround Time: Routine					CLIENT COMMENTS
Client: BAKER ENVIRONMENTAL INC.					# of Container					
Send Results To: MATT BARTMAN					Container Type					
Address:					Preservative Used					
Phone:					Type of Analysis					
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	TOL-VOA	TOL-SVOA	TOL-Pest/PCB	TOL-Metals	CYANIDE	
74-PDA-SB0100	2/19/94	0936	SOLID	RKP/TEZ	X	X	X	X	X	
74-PDA-SB0101	2/19/94	0943	SOLID		X	X	X	X	X	
74-PDA-SB0102	2/19/94	0946	SOLID		X	X	X	X	X	
74-PDA-SB0200	2/19/94	1002	SOLID		X	X	X	X	X	
74-PDA-SB0201	2/19/94	1006	SOLID		X	X	X	X	X	
74-PDA-SB0203	2/19/94	1012	SOLID		X	X	X	X	X	
74-PDA-SB0300	2/19/94	1032	SOLID		X	X	X	X	X	
74-PDA-SB0302	2/19/94	1040	SOLID		X	X	X	X	X	
74-PDA-SB0304	2/19/94	1046	SOLID		X	X	X	X	X	
74-PDA-SB0400	2/19/94	1107	SOLID		X	X	X	X	X	
74-PDA-SB0405	2/19/94	1125	SOLID		X	X	X	X	X	
74-PDA-SB0405D	2/19/94	1125	SOLID		X	X	X	X	X	
Relinquished By: <i>Steve Monday</i>		Date/Time: 2/19/94 1600		Received By:		Relinquished By:		Received for Laboratory By:		Date/Time:
Relinquished By:		Date/Time:		Received By:		Date/Time		Shipper: Fed Ex		Airbill No.: 0825846921
Relinquished By:		Date/Time:		Received By:		Lab Comments:		Temp:		

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

C.O.C.# 74017

Contract #/Billing Reference
62470-2/2.

2 of 2 Pgs.

Project: 62470-2/2 SITE 74					Turnaround Time: ROUTINE							
Client: BAKER ENVIRONMENTAL INC.					# of Container							
Send Results To: MAT BARTMAN					Container Type							
Address:					Preservative Used							
Phone:					Type of Analysis							
					TCL-VOL TCL-SVOL TCL-PEST/PCB TAL-METALS CYANIDE							
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials						CLIENT COMMENTS		
74-PDA-SB05-01	2/17/94	1302	SOLID	RKP/TEZ	X	X	X	X	X			
74-PDA-SB05-02		1314			X	X	X	X	X			
74-PDA-SB05-03		1326			X	X	X	X	X			
74-PDA-SB06-00		1350			X	X	X	X	X		*MS/MSD	
74-PDA-SB06-00D		1350			X	X	X	X	X			
74-PDA-SB06-02		1357			X	X	X	X	X			
74-PDA-SB06-04		1406			X	X	X	X	X			
74-PDA-SB08-00		1449			X	X	X	X	X			
74-PDA-SB08-02		1504			X	X	X	X	X			
74-PDA-SB08-04		1510			X	X	X	X	X			
74-TB-15	2/21/94	1030	LIQUID	PA KM	X						TRIP BLANK.	
Relinquished By: <i>[Signature]</i>		Date/Time: 2/21/94 1600		Received By:			Relinquished By:			Received for Laboratory By:		Date/Time:
Relinquished By:		Date/Time:		Received By:			Date/Time:		Shipper: Fed Ex		Airbill No.: 0825846921	
Relinquished By:		Date/Time:		Received By:			Lab Comments:				Temp:	

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

C.O.C.# 7401

Contract #/Billing Reference
62.470-212

1 of 4 Pgs.

Project: <u>62.470-212 - site 74</u>					Turnaround Time <u>Routine</u>										CLIENT COMMENTS	
Client					# of Container											
Send Results To:					Container Type											
Address:					Preservative Used											
Phone:					Type of Analysis											
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	<u>TCL-VOA</u>		<u>TCL-SVOA</u>		<u>TCL-PEST/PCB</u>		<u>TAL-METALS</u>		<u>CYANINE</u>			
<u>74-RS-11</u>	<u>2/21/94</u>	<u>1200</u>	<u>Liquid</u>	<u>PAM</u>	X	X	X	X	X							
<u>74-TB-16</u>	<u>2/21/94</u>	<u>1230</u>	<u>Liquid</u>	<u>PAM</u>	X											
<u>74-POA-5807-00</u>	<u>2/21/94</u>	<u>1140</u>	<u>SOLID</u>	<u>RES/TEZ</u>	X	X	X	X	X							
<u>74-POA-5807-01</u>		<u>1142</u>			X	X	X	X	X							
<u>74-POA-5807-05</u>		<u>1158</u>			X	X	X	X	X							
<u>74-POA-5809-00</u>		<u>0956</u>			X	X	X	X	X							
<u>74-POA-5809-03</u>		<u>1004</u>			X	X	X	X	X							
<u>74-POA-5809-06</u>		<u>1019</u>			X	X	X	X	X							
<u>74-POA-5810-00</u>		<u>1042</u>			X	X	X	X	X							
<u>74-POA-5810-04</u>		<u>1054</u>			X	X	X	X	X							
<u>74-POA-5810-08</u>		<u>1108</u>			X	X	X	X	X							
Relinquished By: <u>[Signature]</u>		Date/Time: <u>2/21/94 1600</u>		Received By:					Relinquished By:					Received for Laboratory By:		Date/Time:
Relinquished By:		Date/Time:		Received By:					Date/Time		Shipper:		Airbill No.: <u>Fed Ex</u> <u>0825846921</u>			
Relinquished By:		Date/Time:		Received By:					Lab Comments:					Temp:		

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

Contract #/Billing Reference

62470-212

C.O.C.# 74018

2 of 4 Pgs.

Project: 62470-212					Turnaround Time: <u>ROUTINE</u>							
Client: <u>BAKER ENVIRONMENTAL INC.</u>					# of Container							
Send Results To: <u>MATT PARTMAN</u>					Container Type							
Address:					Preservative Used							
Phone:					Type of Analysis							
					<u>TCL-VOA</u> <u>TCL-SVOA</u> <u>TCL-PEST/PCB</u> <u>TAL-METALS</u> <u>CYANIDE</u>							
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials						CLIENT COMMENTS		
74-FPA-SB0100	2/2/94	0947	SOLID	PKP/TEZ	X	X	X	X	X			
74-FPA-SB0103		0957			X	X	X	X	X			
74-FPA-SB0107		1011			X	X	X	X	X			
74-FPA-SB0200		1036			X	X	X	X	X			
74-FPA-SB0203		1044			X	X	X	X	X			
74-FPA-SB0206		1055			X	X	X	X	X			
74-FPA-SB0400		0853			X	X	X	X	X			
74-FPA-SB0404		0906			X	X	X	X	X			
74-FPA-SB0408		0922			X	X	X	X	X			
74-FPA-SB0300		1231			X	X	X	X	X			
74-FPA-SB0303		1239			X	X	X	X	X			
74-FPA-SB0306		0249			X	X	X	X	X			
Relinquished By: <u>Pete a Monday</u>		Date/Time: <u>2/2/94 1600</u>		Received By:			Relinquished By:			Received for Laboratory By:		Date/Time
Relinquished By:		Date/Time:		Received By:			Date/Time		Shipper:		Airbill No.: <u>Fed Ex</u> <u>0825846921</u>	
Relinquished By:		Date/Time:		Received By:			Lab Comments:				Temp:	

GP ENVIRONMENTAL SERVICES, INC.

202 Perry Parkway
Gaithersburg, Maryland 20877
(301) 926-6802

C.O.C.# 74018.

Contract #/Billing Reference

62470-212

4 of 4 Pgs.

Project: 62470-212 Site 74					Turnaround Time: Routine														
Client: BAKER ENVIRONMENTAL INC.					# of Container														
Send Results To: MATT BARTMAN.					Container Type														
Address:					Preservative Used														
Phone:					Type of Analysis														
					TCL-VOA														
					TCL-SVOA														
					TCL-Pesticides														
					TAL-METALS														
					CYANIDE														
					CLIENT COMMENTS														
Sample ID#	Date	Time	Sample Matrix	Sampler's Initials	TCL-VOA	TCL-SVOA	TCL-Pesticides	TAL-METALS	CYANIDE						CLIENT COMMENTS				
74-FPA-SB08-07	2-20-94	1503	SOLID	RKP/MEZ	X	X	X	X	X										
74-FPA-SB09-00		1527			X	X	X	X	X										
74-FPA-SB09-04		1540			X	X	X	X	X										
74-FPA-SB09-07		1552			X	X	X	X	X										
Relinquished By:					Received By:					Relinquished By:					Received for Laboratory By:				
Date/Time					Date/Time					Date/Time					Date/Time				
Peter A. Monday 2/16/94 1600																			
Relinquished By:					Received By:					Date/Time					Shipper:				
															Airbill No.: Fed-ex				
															0825846921				
Relinquished By:					Received By:					Lab Comments:					Temp:				
Date/Time					Date/Time														

APPENDIX E
WELL DEVELOPMENT LOGS

Baker

Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: Sites 69, 7A, E 41

CTO NO.: 212

WELL NO.: 41GW-04D

DATE: 2-17-94

GEOLOGIST/ENGINEER: _____

TIME START	DEVELOPMENT DATA						
	TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (uohms)	TEMP (°C)	COLOR AND TURBIDITY
1627							
TIME FINISH							
1720							
WATER LEVEL (FT)							
7.11'	1635	15 gallons	7.49	17°	400	17°	Brownish gray / Silty
TOTAL WELL DEPTH (TD)	1645	30 gallons	7.51	17°	320	17°	Light gray / Little Silty
40.0'	1655	45 gallons	7.44	17°	310	17°	Light gray / Little Silty
WELL DIAMETER (INCHES)	1705	60 gallons	7.49	17°	290	17°	Light gray / Little Silty
2.0"	1715	75 gallons	7.49	17°	290	17°	Light gray / tr. silt
CALCULATED WELL VOLUME	1720	80 gallons	7.47	17°	290	17°	Light gray / tr. silt
—							
BOREHOLE DIAMETER (INCHES)							
8.0"							
BOREHOLE VOLUME							
$(32.89)(2.611) = 85.87$ gal							
AMOUNT OF WATER ADDED DURING DRILLING							
None							
DEVELOPMENT METHOD							
Air Lift							
PUMP TYPE							
Air Compressor							
TOTAL TIME (A)							
53 min.							
AVERAGE FLOW (GPM)(B)							
1.5 gallons							
TOTAL ESTIMATED WITHDRAWAL $A \times B =$	OBSERVATIONS/NOTES Satisfied criteria for well development (pH, specific conductivity and temperature). No elevated Hwu readings occurred. Point source was drummed water.						
80 gallons							
HU/OVA READING							
Hwu background is .4 ppm.							

Baker

Baker Environmental, Inc

FIELD WELL DEVELOPMENT RECORD

PROJECT: RI/FS OU # 4 CAMP LEJEUNE, NC

CTO NO.: 212 WELL NO.: 41-GW06Dn

DATE: 18 FEBRUARY 1994

GEOLOGIST/ENGINEER: E. KLEINKAUF

TIME START	DEVELOPMENT DATA						
	TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
0900 ^H							
TIME FINISH							
0952 ^H							
INITIAL WATER LEVEL (FT)	0901	5 GALS.	7.61	15.3	750	-	TURBID - LIGHT GREY/TAN
12.24'	0908	20 GALS.	7.72	16.1	600	-	TURBID - LIGHT GREY/TAN
TOTAL WELL DEPTH (TD)	0912	30 GALS.	7.78	16.6	525	-	TURBID - LIGHT GREY/TAN
41.20'	0917	50 GALS	7.80	16.7	450	-	SLIGHTLY TURBID - LIGHT GREY/TAN
WELL DIAMETER (INCHES)	0922	65 GALS	7.83	16.4	420	-	SLIGHTLY TURBID TAN
2"	0926	80 GALS	7.84	16.7	398	-	SLIGHTLY TURBID - TAN
CALCULATED WELL VOLUME	0930	100 GALS	7.76	17.1	384	-	CLEAR
4.73 GALS	0934	110 GALS	7.66	17.3	380	-	CLEAR
BOREHOLE DIAMETER (INCHES)	0944	130 GALS	7.84	16.9	373	-	CLEAR
8"	0948	145 GALS	7.87	17.1	368	-	CLEAR
BOREHOLE VOLUME $V = 3.96' \times 2.611 =$ 75.61 GALS	0952	165 GALS	7.85	17.0	360	-	CLEAR
AMOUNT OF WATER ADDED DURING DRILLING							
DRILLED W/MUD							
DEVELOPMENT METHOD COMPRESSED AIR							
PUMP TYPE							
TOTAL TIME (A)							
52 MINS							
AVERAGE FLOW (GPM)(B)							
3.17 gpm							
TOTAL ESTIMATED WITHDRAWAL AXB=	OBSERVATIONS/NOTES ① ALL DEPTH MEASUREMENTS TAKEN FROM MARK ON TOP OF PVC RISER. ② GW CLEARED @ 90 GALLONS INTO DEVELOPMENT. ③ TOTAL OF 165 GALLONS REMOVED ④ DEVELOPMENT PRIOR TO INSTALLATION OF PROTECTIVE CASING, PAD AND PROTECTIVE POSTS.						
165 GALS							
HNU/OVA READING BG = 0.2 PS = 0.3							

Baker

Baker Environmental, Inc

FIELD WELL DEVELOPMENT RECORD

PROJECT: RI/FS OUTF 4 CAMP LEJEUNE, NC

CTO NO.: 62470-212 WELL NO.: 41-GW075

DATE: 16 FEBRUARY 1994

GEOLOGIST/ENGINEER: E.J. KLEINKAUF

TIME START	DEVELOPMENT DATA						
	TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
1630 ^H							
TIME FINISH							
1715 ^H							
INITIAL WATER LEVEL (FT)	1632	2	7.14	19.7	263	—	TURBID - LT. BROWN
10.70'							
TOTAL WELL DEPTH (TD)	1638	6	5.75	18.2	90	—	TURBID - LT. BROWN
22.80'							
WELL DIAMETER (INCHES)	1645	10	5.44	17.7	79	—	TURBID - LT. BROWN
2"							
WELL DIAMETER (INCHES)	1700	20	5.40	17.0	75	—	TURBID - LT. BROWN
2"							
CALCULATED WELL VOLUME	1707	25	5.46	18.2	75	—	TURBID - LT. BROWN
1.97 GALS							
BOREHOLE DIAMETER (INCHES)	1715	30	5.44	18.0	75	—	TURBID - NO REAL CLEARING OF GW
8"							
BOREHOLE VOLUME $V = 12.1' \times 261 =$ 31.59 GALS							
AMOUNT OF WATER ADDED DURING DRILLING							
N/A							
DEVELOPMENT METHOD SURGE BLOCK, CHECK VALVE + TRASH PUMP							
PUMP TYPE							
—							
TOTAL TIME (A)							
45 mins.							
AVERAGE FLOW (GPM)(B)							
0.67 gpm							
TOTAL ESTIMATED WITHDRAWAL AXB =	OBSERVATIONS/NOTES ① ALL MEASUREMENTS TAKEN FROM MARK ON TOP OF PVC RISER. ② TOTAL OF 30gal REMOVED DURING DEVELOPING ③ NO REAL CLEARING OF GW DURING DEVELOPMENT						
30 GALS.							
HNU/OVA READING							

Baker

Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: RI/FS OU#4 CAMP LEJEUNE, NC

CTO NO.: 212 WELL NO.: 41-GW07I

DATE: 18 FEBRUARY 1994

GEOLOGIST/ENGINEER: E. KLEINKAUF

TIME START	DEVELOPMENT DATA						
	TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
1555 ^H	1558	10 GALS.	7.66	17.7	510	-	TURBID - LIGHT GREY/TAN
1630 ^H	1603	30 GALS.	7.55	17.2	400	-	SLIGHTLY TURBID - TAN
INITIAL WATER LEVEL (FT) 13.64'	1611	55 GALS.	8.11	16.8	330	-	SLIGHTLY TURBID - TAN
TOTAL WELL DEPTH (TD) 38.20'	1615	75 GALS.	8.19	16.9	303	-	CLEAR
WELL DIAMETER (INCHES) 2"	1618	90 GALS.	8.30	16.8	280	-	CLEAR
CALCULATED WELL VOLUME 4.01 GALS.	1623	125 GALS.	8.27	16.7	272	-	CLEAR
BOREHOLE DIAMETER (INCHES) 8"	1627	140 GALS.	8.34	16.8	273	-	CLEAR
BOREHOLE VOLUME V = 24.56' x 2.611 64.13 GALS	1630	165 GALS.	8.26	16.8	270	-	CLEAR
AMOUNT OF WATER ADDED DURING DRILLING							
DRILLED w/ MUD							
DEVELOPMENT METHOD COMPRESSED AIR							
PUMP TYPE							
TOTAL TIME (A) 35 MIN.							
AVERAGE FLOW (GPM)(B) 4.71 gpm							
TOTAL ESTIMATED WITHDRAWAL AXB= 165 GALS.	OBSERVATIONS/NOTES ① ALL DEPTH MEASUREMENTS TAKEN FROM MARK ON TOP OF PVC RISER ② TOTAL OF 165 GALLONS REMOVED ③ GW WAS TURBID BUT CLEARED @ 70 GALLONS INTO DEVELOPMENT.						
HNU/OVA READING 0.2 (BG)							

Baker

Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: Sites 69, 74, & 41

CTO NO.: 212

WELL NO.: 41GW-08S

DATE: 2-16-94

GEOLOGIST/ENGINEER: J. Zimmerman

TIME START	DEVELOPMENT DATA						
	TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (uohms)	TEMP (°C)	COLOR AND TURBIDITY
1025							
TIME FINISH							
1220							
WATER LEVEL (FT)							
6.73'	1050	5 gallons	6.30	19°	130	19°	Brown / Very Silty
TOTAL WELL DEPTH (TD)							
17.20'	1113	9 gallons	6.04	28°	130	28°	Brown / Very Silty
WELL DIAMETER (INCHES)							
2.0"	1133	12 gallons	6.35	34.7°	130	34°	Brown / Very Silty
CALCULATED WELL VOLUME							
—	1146	15 gallons	6.16	23°	90	25°	Brown / Very Silty
BOREHOLE DIAMETER (INCHES)							
8.0"	1200	20 gallons	6.48	28°	120	28°	Brown / Very Silty
BOREHOLE VOLUME							
(10.47) (2.611) = 27.33 gal	1220	22 gallons	6.29	25°	120	25°	Brown / Very Silty
AMOUNT OF WATER ADDED DURING DRILLING							
30 gallons							
DEVELOPMENT METHOD							
Hand Surging							
PUMP TYPE							
Surge Block							
TOTAL TIME (A)							
1 hr. 55 min.							
AVERAGE FLOW (GPM)(B)							
.19 gallons							
TOTAL ESTIMATED WITHDRAWAL AxB =	OBSERVATIONS/NOTES Satisfied criteria for well development (pH, specific conductivity and temperature). No elevated H ₂ O ₂ readings occurred. Point source was drummed water.						
22 gallons							
NU/OVA READING							
H ₂ O ₂ background is .4 ppm							

Baker

Baker Environmental, Inc

FIELD WELL DEVELOPMENT RECORD

PROJECT: RI/FS OU # 4 CAMP LEJEUNE, NC

CTO NO.: 62470-212 WELL NO.: 41-GW095

DATE: 17 FEBRUARY 1994

GEOLOGIST/ENGINEER: E.J. KLEINKAUF

TIME START	DEVELOPMENT DATA						
	TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
1610 ^H							
1645 ^H							
INITIAL WATER LEVEL (FT) 9.15'	1612	3	6.01	19.3	215	—	TURBID - LT. BROWN
TOTAL WELL DEPTH (TD) 21.75'	1621	15	5.67	17.2	195	—	TURBID - LT. BROWN
WELL DIAMETER (INCHES) 2"	1625	25	5.94	18.7	188	—	TURBID - LT. BROWN
CALCULATED WELL VOLUME 2.06 GAL.	1633	35	5.96	18.7	180	—	TURBID - LT. BROWN
BOREHOLE DIAMETER (INCHES) 8"	1636	40	5.94	18.5	177	—	TURBID - LT. BROWN
BOREHOLE VOLUME V=12.6' x 2.611 = 32.90 GALS	1645	55	5.91	17.5	170	—	TURBID - LT. BROWN
AMOUNT OF WATER ADDED DURING DRILLING N/A							SOME GW CLEARING DURING DEVELOPMENT
DEVELOPMENT METHOD SURGE BLOCK, CHECK VALVE + TRASH PUMP							
PUMP TYPE —							
TOTAL TIME (A) 35 MIN.							
AVERAGE FLOW (GPM)(B) 1.57 GPM							
TOTAL ESTIMATED WITHDRAWAL AxB = 55 GALS.	OBSERVATIONS/NOTES						
HNU/OVA READING	① ALL MEASUREMENTS TAKEN FROM MARK ON TOP OF PVC RISER						
	② TOTAL OF 55 GAL. REMOVED DURING DEVELOPMENT						
	③ GROUND WATER DID CLEAR TO SOME EXTENT DURING DEVELOPING.						
	④ DEVELOPMENT PRIOR TO INSTALLATION OF PROTECTIVE CASING, PAD AND PROTECTIVE POSTS						

Baker

Baker Environmental, Inc

FIELD WELL DEVELOPMENT RECORD

PROJECT: RI/FS OU #4 CAMP LEEVUE, NC

CTO NO.: 212

WELL NO.: 41-GW09DW

DATE: 19 FEBRUARY 1994

GEOLOGIST/ENGINEER: E. KLEINKAUF

TIME START	DEVELOPMENT DATA						
	TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
0823 ^H							
TIME FINISH							
0857 ^H							
INITIAL WATER LEVEL (FT)	0826	10 GALS.	7.99	15.0	510	-	TURBID - LIGHT GREY/TAN
12.32'	0830	25 GALS.	8.07	14.4	440	-	TURBID - LIGHT GREY/TAN
TOTAL WELL DEPTH (TD)	0835	40 GALS.	8.12	14.1	400	-	SLIGHTLY TURBID - LIGHT GREY/TAN
44.43'	0839	55 GALS.	8.15	16.5	370	-	SLIGHTLY TURBID - TAN
WELL DIAMETER (INCHES)	0844	70 GALS.	8.16	16.8	343	-	CLEAR
2"	0849	90 GALS.	8.17	16.7	318	-	CLEAR
CALCULATED WELL VOLUME	0857	110 GALS.	8.17	16.8	300	-	CLEAR
5.24 GALS							
BOREHOLE DIAMETER (INCHES)							
8"							
BOREHOLE VOLUME $V = 32.11' \times 2.611 =$ 83.84 GALS							
AMOUNT OF WATER ADDED DURING DRILLING							
DRILLED w/MUD							
DEVELOPMENT METHOD							
COMPRESSED AIR							
PUMP TYPE							
—							
TOTAL TIME (A)							
34 MINS.							
AVERAGE FLOW (GPM)(B)							
3.24 GPM							
TOTAL ESTIMATED WITHDRAWAL AxB=	OBSERVATIONS/NOTES ① ALL DEPTH MEASUREMENTS TAKEN FROM MARK ON TOP OF PVC RISER. ② TOTAL OF 110 GALLONS REMOVED ③ DEVELOPMENT PRIOR TO INSTALLATION OF PROTECTIVE CASING, PAD AND PROTECTIVE POSTS						
110 GALS							
HNU/OVA READING							
0.3 (BG)							

Baker

Baker Environmental, Inc

FIELD WELL DEVELOPMENT RECORD

PROJECT: RI/FS OU# 4 CAMP LEJEUNE, NC

CTO NO.: 62470 - 212 WELL NO. 41-GW105

DATE: 17 FEBRUARY 1994

GEOLOGIST/ENGINEER: E.J. KLEINKAUF

TIME START	DEVELOPMENT DATA						
	TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
1400 ^H							
1520 ^H							
INITIAL WATER LEVEL (FT) 5.15'	1410	3	6.98	17.1	790	—	TURBID - LT. BROWN
TOTAL WELL DEPTH (TD) 15.70'	1425	15	6.53	16.6	750	—	TURBID - LT. BROWN
WELL DIAMETER (INCHES) 2"	1435	20	7.31	19.6	925	—	TURBID - LT. BROWN
CALCULATED WELL VOLUME 1.72 gal.	1445	30	7.40	19.1	915	—	TURBID - LT. BROWN
BOREHOLE DIAMETER (INCHES) 8"	1506	40	7.04	17.2	750	—	TURBID - LT. BROWN
BOREHOLE VOLUME V = 10.55' x 2.611 = 27.55 GALS.	1511	45	7.43	17.3	525	—	TURBID - LT. BROWN
AMOUNT OF WATER ADDED DURING DRILLING N/A	1515	50	7.54	18.9	520	—	TURBID - LT. BROWN
DEVELOPMENT METHOD SURGE BLOCK, CHECK VALVE + TRASH PUMP	1520	55	7.46	18.5	520	—	TURBID - LT. BROWN CLEARED + SOME EXT
PUMP TYPE —							
TOTAL TIME (A) 80 min.							
AVERAGE FLOW (GPM)(B) 0.69 gpm							
TOTAL ESTIMATED WITHDRAWAL AxB = 55 GALS.							
HNU/OVA READING							

OBSERVATIONS/NOTES

- ① ALL MEASUREMENTS TAKEN FROM MARK ON TOP OF PVC RISER.
- ② TOTAL OF 55 GALS. REMOVED DURING DEVELOPMENT.
- ③ DEVELOPMENT STOPPED FOR ≈ 15 MINS. LOW WATER RETURN. LET RECHARGE.
- ④ DEVELOPMENT PRIOR TO INSTALLATION OF PROTECTIVE CASING, PAD AND PROTECTIVE POSTS

Baker

Baker Environmental, Inc

FIELD WELL DEVELOPMENT RECORD

PROJECT: RI/FS OU#4 CAMP LEJEUNE, NC

CTO NO.: 62470-212 WELL NO.: 41-GW115

DATE: 17 FEBRUARY 1994

GEOLOGIST/ENGINEER: E.J. KLEINKAUF

TIME START	DEVELOPMENT DATA						
	TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC COND. (µmhos/cm)	TEMP (°C)	COLOR AND T...
1100 ^H							
1200 ^H							
INITIAL WATER LEVEL (FT) 10.15'	1101	2	6.76	21.2	700	—	TURBID - DK. GREY/BLACK
TOTAL WELL DEPTH (TD) 17.82'	1107	8	6.74	19.3	800	—	TURBID - DK. GREY/BLACK
WELL DIAMETER (INCHES) 2"	1115	15	6.70	17.9	710	—	TURBID - DK. GREY/BLACK
CALCULATED WELL VOLUME 1.25 gal	1119	20	6.64	17.4	790	—	TURBID - DK. GREY/BLACK
BOREHOLE DIAMETER (INCHES) 8"	1129	30	6.62	17.8	850	—	TURBID - DK. GREY/BLACK
BOREHOLE VOLUME $V = 7.67' \times 2.611 =$ 20.03 GALS.	1138	40	6.67	17.0	850	—	TURBID - DK. GREY/BLACK
AMOUNT OF WATER ADDED DURING DRILLING N/A	1145	45	6.94	—	850	—	TURBID - DK. GREY/BLACK
DEVELOPMENT METHOD SURGE BLOCK, CHECK VALVE + TRASH PUMP	1153	55	6.72	18.3	850	—	TURBID - DK. GREY/BLACK
PUMP TYPE —	1200	65	6.67	18.5	870	—	TURBID - DK. GREY/BLACK
TOTAL TIME (A) 60 MIN.							
AVERAGE FLOW (GPM)(B) 1.08 gpm							
TOTAL ESTIMATED WITHDRAWAL AXB= 65 GALS.							
HNU/OVA READING							

OBSERVATIONS/NOTES

- ① ALL MEASUREMENTS TAKEN FROM MARK ON TOP OF PVC RISER.
- ② 65 gal REMOVED DURING DEVELOPING
- ③ GROUNDWATER (CLEARED ONLY SLIGHTLY AS DEVELOPMENT PROGRESSED).
- ④ DEVELOPMENT PRIOR TO INSTALLATION OF PROTECTIVE CASING, PAD AND PROTECTIVE POSTS.

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Baker

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FIELD WELL DEVELOPMENT RECORD

PROJECT: RI/FS OU # 4 CAMP LEJEUNE, NC

CTO NO.: 212 WELL NO.: 41-GW11DW

DATE: 18 FEBRUARY 1994

GEOLOGIST/ENGINEER: E. KLEINKAUF

TIME START	DEVELOPMENT DATA						
	TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
1100 ^H							
TIME FINISH							
1132 ^H							
INITIAL WATER LEVEL (FT)	1104	10 GALS	7.78	19.2	720	-	TURBID - LT. GREY / TAN
13.11'							
TOTAL WELL DEPTH (TD)	1107	20 GALS	7.78	18.7	640	-	SLIGHTLY TURBID - LIGHT GREY / TAN
51.34'	1112	40 GALS	7.77	18.6	610	-	CLEAR
WELL DIAMETER (INCHES)	1123	60 GALS	7.74	18.7	840	-	CLEAR
2"							
CALCULATED WELL VOLUME	1127	80 GALS	7.77	18.9	800	-	CLEAR
6.24 GALS	1129	100 GALS	7.73	19.3	800	-	CLEAR
BOREHOLE DIAMETER (INCHES)	1132	110 GALS	7.74	19.5	800	-	CLEAR
8"							
BOREHOLE VOLUME $V = 38.23 \times 2.61 =$ 99.82 GALS							
AMOUNT OF WATER ADDED DURING DRILLING							
DRILLED W/MUD							
DEVELOPMENT METHOD							
COMPRESSED AIR							
PUMP TYPE							
TOTAL TIME (A)							
32 MIN.							
AVERAGE FLOW (GPM)(B)							
3.44 gpm							
TOTAL ESTIMATED WITHDRAWAL $A \times B =$	OBSERVATIONS/NOTES ① ALL DEPTH MEASUREMENTS TAKEN FROM MARK ON TOP OF PVC RISER ② DEVELOPMENT PRIOR TO INSTALLATION OF PROTECTIVE CASING, PAD AND PROTECTIVE POSTS ③ TOTAL OF 110 GALLONS REMOVED ④ GW WAS TURBID BUT CLEARED FAIRLY RAPIDLY.						
110 GALLONS							
HNU/OVA READING							

Baker

Baker Environmental, Inc

FIELD WELL DEVELOPMENT RECORD

PROJECT: RI/FS OU#4 CAMP LEJEUNE, NC

CTO NO.: 62470-212 WELL NO.: 41-GW12S

DATE: 16 FEBRUARY 1994

GEOLOGIST/ENGINEER: E.J. KLEINKAUF

TIME START	DEVELOPMENT DATA						
	TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
1500 ^H							
1535 ^H							
INITIAL WATER LEVEL (FT) 3.97'	1500	2	7.03	20.3	463	—	TURBID - LT. BROWN
TOTAL WELL DEPTH (TD) 18.1'	1510	15	7.25	16.9	350	—	TURBID - LT. BROWN
WELL DIAMETER (INCHES) 2"	1520	22	7.32	17.2	342	—	TURBID - LT. BROWN
CALCULATED WELL VOLUME 2.31 gal	1530	35	7.42	16.5	334	—	TURBID - CLEARED TO LT. BROWN SOME EXTENT DURING DEVELOPING
BOREHOLE DIAMETER (INCHES) 8"							
BOREHOLE VOLUME $V = 14.13' \times 2.611 = 36.89 \text{ GALS.}$							
AMOUNT OF WATER ADDED DURING DRILLING N/A							
DEVELOPMENT METHOD SURGE BLOCK, CHECK VALVE + TRASH PUMP							
PUMP TYPE —							
TOTAL TIME (A) 35 MIN.							
AVERAGE FLOW (GPM)(B) 1.14 gpm							
TOTAL ESTIMATED WITHDRAWAL AXB= 40 GALS	OBSERVATIONS/NOTES ① ALL DEPTHS MEASURED FROM MARK ON TOP OF PVC RISER ② TOTAL OF 40 gal. REMOVED DURING DEVELOPING ③ DEVELOPMENT PRIOR TO INSTALLATION OF PROTECTIVE CASING, PAD + PROTECTIVE POSTS.						
HNU/OVA READING 0.2 (BG)							

Baker

Baker Environmental, Inc

FIELD WELL DEVELOPMENT RECORD

PROJECT: Sites 69, 74, E 41

CTO NO.: 212

WELL NO.: 41GW-12D

DATE: 2-17-94

GEOLOGIST/ENGINEER: J. Zimmerman

	DEVELOPMENT DATA						
	TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (uohms)	TEMP (°C)	COLOR AND TURBIDITY
TIME START 1433							
TIME FINISH 1513							
WATER LEVEL (FT) 3.78'	1443	5 gallons	7.66	19°	800	19°	Brownish gray / silty
TOTAL WELL DEPTH (TD) 37.0'	1453	10 gallons	7.60	19°	700	19°	Light gray / Little silt
WELL DIAMETER (INCHES) 2.0"	1503	15 gallons	7.67	19°	800	19°	clear / Little silt
	1513	18 gallons	7.59	19°	800	19°	clear / Little silt
CALCULATED WELL VOLUME —							
BOREHOLE DIAMETER (INCHES) 8.0"							
BOREHOLE VOLUME $(33.22)(2.611) = 86.73$ gal.							
AMOUNT OF WATER ADDED DURING DRILLING None							
DEVELOPMENT METHOD Air Lift							
PUMP TYPE Air Compressor							
TOTAL TIME (A) 40 min							
AVERAGE FLOW (GPM)(B) .45 gallons							
TOTAL ESTIMATED WITHDRAWAL AxB = 18 gallons	OBSERVATIONS/NOTES Satisfied criteria for well development (pH, specific conductivity and temperature). No elevated HNu readings occurred. Point source was drummed water.						
HNU/OVA READING Hnu background is .4 ppm							

Baker

Baker Environmental, Inc

FIELD WELL DEVELOPMENT RECORD

PROJECT: RT/FS OU# 4 CAMP LEJEUNE NC

CTO NO.: 62470-212 WELL NO.: 41-GW13.5

DATE: 16 FEBRUARY 1994

GEOLOGIST/ENGINEER: E.J. KLEINKAUF

TIME START	DEVELOPMENT DATA						
	TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (µmhos/cm)	TEMP (°C)	COLOR AND TEMPERATURE
1415 ^H							
TIME FINISH							
1525 ^H							
INITIAL WATER LEVEL (FT)	1418	1	5.44		170	—	LT. BROWN, ^{CLEARED} w/TIME
TOTAL WELL DEPTH (TD)	1425	5	5.41		175	—	LT. BROWN
	1437	10	5.37		175	—	LT. BROWN
WELL DIAMETER (INCHES)	1455	20	5.28		170	—	LT. BROWN
	1509	30	5.35	19.2	108	—	LT. BROWN
CALCULATED WELL VOLUME	1514	35	6.03	20.0	108	—	LT. BROWN
	1520	40	5.67	18.9	105	—	LT. BROWN, ^{CLEARED} TO SOME EXTENT w/TIME
BOREHOLE DIAMETER (INCHES)							
8"							
BOREHOLE VOLUME $V = 9.46' \times 2.611 =$ 24.70 GALS							
AMOUNT OF WATER ADDED DURING DRILLING							
N/A							
DEVELOPMENT METHOD SURGE BLOCK, CHECK VALVE + TRASH PUMP							
PUMP TYPE							
—							
TOTAL TIME (A)							
70 MINS							
AVERAGE FLOW (GPM)(B)							
0.64 gpm							
TOTAL ESTIMATED WITHDRAWAL AXB=	OBSERVATIONS/NOTES						
45 GALS.	① ALL DEPTHS MEASURED FROM MARK ON TOP OF PVC RISER.						
HNU/OVA READING	② TOTAL OF 45gal. REMOVED.						
0.2 (Bg)	③ DEVELOPMENT PRIOR TO INSTALLATION OF PROTECTIVE CASING, PAD AND PROTECTIVE POSTS						

Baker

Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: Sites 69, 74, & 41

CTO NO.: 212

WELL NO.: 74GW-03A

DATE: 1/26/94

GEOLOGIST/ENGINEER: J. Zimmerman

TIME START	DEVELOPMENT DATA						
	TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC COND. (ohms)	TEMP (°C)	COLOR AND TURBIDITY
1000							
TIME FINISH							
1055							
WATER LEVEL (FT)							
9.55'	1010	5 gallons	5.00	25°	90	25°	Gray / Very Silty
TOTAL WELL DEPTH (TD)							
20.61'	1025	10 gallons	4.94	24°	80	24°	Gray / Very Silty
WELL DIAMETER (INCHES)							
2.0"	1040	15 gallons	5.14	25°	70	25°	Gray / Very Silty
CALCULATED WELL VOLUME							
—	1055	20 gallons	5.01	24°	70	24°	Gray / Very Silty
BOREHOLE DIAMETER (INCHES)							
8.0"							
BOREHOLE VOLUME							
$(11.06)(2.61) = 28.8 \text{ gal}$							
AMOUNT OF WATER ADDED DURING DRILLING							
None							
DEVELOPMENT METHOD							
Hand Surging							
PUMP TYPE							
—							
TOTAL TIME (A)							
55 min.							
AVERAGE FLOW (GPM)(B)							
.36 gallons							
TOTAL ESTIMATED WITHDRAWAL $A \times B =$	OBSERVATIONS/NOTES Satisfied criteria for well development (pH, specific conductivity and temperature). No elevated HWU readings occurred. Point source was drummed water.						
20 gallons							
INU/OVA READING							
HWU background is .4 ppm							

Baker

Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: Sites 69, 74, & 41

CTO NO.: 212

WELL NO.: 74GW-04

DATE: 1/26/94

GEOLOGIST/ENGINEER: J. Zimmerman

TIME START	DEVELOPMENT DATA						
	TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC. COND. (uohms)	TEMP (°C)	COLOR AND TURBIDITY
0835							
TIME FINISH							
0930							
WATER LEVEL (FT)							
15.13'	0850	5 gallons	4.75	20°	50	20°	Brown / very silty
TOTAL WELL DEPTH (TD)							
22.75'	0900	10 gallons	4.80	21°	50	21°	Brown / very silty
WELL DIAMETER (INCHES)							
2.0"	0915	12 gallons	4.90	21°	60	21°	Brown / very silty
CALCULATED WELL VOLUME							
—	0930	15 gallons	4.80	21°	60	21°	Brown / very silty
BOREHOLE DIAMETER (INCHES)							
8.0"							
BOREHOLE VOLUME							
$(7.62)(2.61) = 19.8 \text{ gal}$							
AMOUNT OF WATER ADDED DURING DRILLING							
None							
DEVELOPMENT METHOD							
Hand Surging							
PUMP TYPE							
—							
TOTAL TIME (A)							
55 min.							
AVERAGE FLOW (GPM)(B)							
.27 gallons							
TOTAL ESTIMATED WITHDRAWAL $A \times B =$	OBSERVATIONS/NOTES Satisfied criteria for well development (pH, specific conductivity and temperature). No elevated HNu readings occurred. Point source was drummed water.						
15 gallons							
HNU/OVA READING							
Hnu background is .4 ppm							

APPENDIX E.2
SITE 74

Baker

Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: Sites 69, 74 E 41

CTO NO.: 212

WELL NO.: 74GW-05

DATE: 1/26/94

GEOLOGIST/ENGINEER: J. Zimmerman

TIME START	DEVELOPMENT DATA						
	TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC COND. (uohms)	TEMP (°C)	COLOR AND TURBIDITY
1120							
TIME FINISH							
1215							
WATER LEVEL (FT)							
8.24'	1130	5 gallons	4.85	20°	110	20°	Gray / very silty
TOTAL WELL DEPTH (TD)	1148	10 gallons	5.06	21°	110	21°	Gray / very silty
17.16'	1200	15 gallons	5.10	22°	100	22°	Gray / very silty
WELL DIAMETER (INCHES)	1215	18 gallons	5.17	21°	100	22°	Gray / very silty
2.0"							
CALCULATED WELL VOLUME							
—							
BOREHOLE DIAMETER (INCHES)							
8.0"							
BOREHOLE VOLUME							
(8.82)(2.61) = 23 gal							
AMOUNT OF WATER ADDED DURING DRILLING							
None							
DEVELOPMENT METHOD							
Hand Surging							
PUMP TYPE							
—							
TOTAL TIME (A)							
55 min							
AVERAGE FLOW (GPM)(B)							
.32 gallons							
TOTAL ESTIMATED WITHDRAWAL AxB =	OBSERVATIONS/NOTES Satisfied criteria for well development (pH, specific conductivity and temperature). No elevated H ₂ O ₂ reading occurred. Pint source was drummed water.						
18 gallons							
INU/OVA READING							
H ₂ O ₂ background is .4 ppm							

Baker

Baker Environmental, Inc.

FIELD WELL DEVELOPMENT RECORD

PROJECT: Sites 69, 74, E 41

CTO NO.: 212

WELL NO.: 74GW-06

DATE: 1/26/94

GEOLOGIST/ENGINEER: J. Zimmerman

	DEVELOPMENT DATA						
	TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC COND. (uohms)	TEMP (°C)	COLOR AND TURBIDITY
TIME START 0740							
TIME FINISH 0821							
WATER LEVEL (FT) 21.65'	0749	5 gallons	5.37	20°	60	21°	Brown/very silty
TOTAL WELL DEPTH (TD) 26.06'	0759	10 gallons	5.36	20°	60	20°	Brown/very silty
WELL DIAMETER (INCHES) 2.0"	0809	15 gallons	5.36	21°	60	21°	Light Brown/silty
CALCULATED WELL VOLUME —	0815	20 gallons	5.41	22°	60	22°	Light Brown/silty
BOREHOLE DIAMETER (INCHES) 3.0"	0821	25 gallons	5.35	21°	60	21°	Light Brown/silty
BOREHOLE VOLUME (4.41) (2.611) = 11.5 gal							
AMOUNT OF WATER ADDED DURING DRILLING None							
DEVELOPMENT METHOD Hand surging							
PUMP TYPE —							
TOTAL TIME (A) 41 min.							
AVERAGE FLOW (GPM)(B) .6 gallons							
TOTAL ESTIMATED WITHDRAWAL AxB = 25 gallons	OBSERVATIONS/NOTES Satisfied criteria for well development (pH, specific conductivity and temperature). No elevated background readings occurred. Point source was drummed water.						
HNU/OVA READING HNU background is .4 ppm							

Baker

Baker Environmental, Inc

FIELD WELL DEVELOPMENT RECORD

PROJECT: RI/FS OU#4 CAMP LEJEUNE, NC

CTO NO.: 212 WELL NO.: 74-GW07

DATE: 20 FEBRUARY 1994

GEOLOGIST/ENGINEER: E.J. KLEINKAUF

TIME START	DEVELOPMENT DATA						
	TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
1630 ^H							
1655 ^H							
INITIAL WATER LEVEL (FT) 6.44'	1633	3 GALS	6.21	19.8	105	-	TURBID - MED. GREY
TOTAL WELL DEPTH (TD) 19.40'	1638	5 GALS	5.18	18.7	100	-	TURBID - MED. GREY
WELL DIAMETER (INCHES) 2"	1642	15 GALS	5.11	17.3	93	-	TURBID - MED. GREY SOME CLEARING
CALCULATED WELL VOLUME 2.12 GAL.	1645	30 GALS	5.09	17.8	86	-	TURBID - LIGHT GREY INCREASED CLEARING
BOREHOLE DIAMETER (INCHES) 8"	1647	35 GALS	4.98	17.3	80	-	TURBID - LIGHT GREY
BOREHOLE VOLUME V = 12.96' x 2.0" = 33.84 GALS.	1649	45 GALS	4.97	17.2	78	-	TURBID - LIGHT GREY FAIRLY CLEAR
AMOUNT OF WATER ADDED DURING DRILLING N/A	1650	50 GALS	4.95	17.2	73	-	CLEAR
DEVELOPMENT METHOD SURGE BLOCK, CHECK VALVE + TRASH PUMP	1655	55 GALS	4.91	17.2	71	-	CLEAR
PUMP TYPE —							
TOTAL TIME (A) 25 MIN.							
AVERAGE FLOW (GPM)(B) 2.2 gpm							
TOTAL ESTIMATED WITHDRAWAL AXB = 55 GALS.							
HNU/OVA READING RG = 0.6 READING ON OPENING WELL CAP WAS 0.9.							

OBSERVATIONS/NOTES

- ① ALL DEPTHS MEASURED FROM MARK ON TOP OF PVC RISER
- ② DEVELOPMENT PRIOR TO INSTALLATION OF PROTECTIVE CASING, PAD + PROTECTIVE POSTS
- ③ TOTAL OF 55 GALS REMOVED.
- ④ DEVELOPMENT CRITERIA MET WITH pH, SPECIFIC CONDUCTIVITY AND TEMPERATURE; WATER CLEARED

Baker

Baker Environmental, Inc

FIELD WELL DEVELOPMENT RECORD

PROJECT: RI/FS OU#4 CAMP LEJEUNE, NC

CTO NO.: 212 WELL NO.: 74-GW08

DATE: 20 FEBRUARY 1994

GEOLOGIST/ENGINEER: E.J. KLEINKAUF

TIME START	DEVELOPMENT DATA						
	TIME	CUMULATIVE VOLUME (gallons)	pH	TEMP (°C)	SPEC COND. (µmhos/cm)	TEMP (°C)	COLOR AND TURBIDITY
1445 ^H							
TIME FINISH							
1545 ^H							
INITIAL WATER LEVEL (FT)	1450	3 GALS.	7.17	23.3	412	—	TURBID - LIGHT GREY/TAN
17.32'	1456	5 GALS.	5.41	24.2	109	—	TURBID - LIGHT GREY/TAN
TOTAL WELL DEPTH (TD)	1502	10 GALS.	5.08	22.1	72	—	TURBID - LIGHT GREY/TAN; SOME CLEARING
25.83'	1508	20 GALS.	5.16	20.7	45	—	TURBID - LIGHT GREY/TAN, CLEARING
WELL DIAMETER (INCHES)	1513	30 GALS.	5.34	22.2	40	—	TURBID - LIGHT GREY/TAN, CLEARING
2"	1523	35 GALS.	5.43	23.3	38	—	SLIGHTLY TURBID - TAN
CALCULATED WELL VOLUME	1530	40 GALS.	5.33	21.1	36	—	SLIGHTLY TURBID - TAN
1.39 GALS.	1534	45 GALS.	5.43	21.1	34	—	SLIGHTLY TURBID - TAN
BOREHOLE DIAMETER (INCHES)	1540	50 GALS.	5.36	21.3	34	—	CLEAR
8"	1545	55 GALS.	5.31	19.6	33	—	CLEAR
BOREHOLE VOLUME V = 8.61' x 2.6" = 22.22 GALS.							
AMOUNT OF WATER ADDED DURING DRILLING							
N/A							
DEVELOPMENT METHOD SURGE BLOCK, CHECK VALVE + TRASH PUMP							
PUMP TYPE							
—							
TOTAL TIME (A)							
60 MIN.							
AVERAGE FLOW (GPM)(B)							
0.92 gpm							
TOTAL ESTIMATED WITHDRAWAL AxB =	OBSERVATIONS/NOTES						
55 GALS.	① ALL DEPTHS MEASURED FROM MARK ON TOP OF PVC RISER						
HNU/OVA READING GG = 0.6; READING ON OPENING WELL CAP WAS 0.7	② DEVELOPMENT PRIOR TO INSTALLATION OF PAI AND PROTECTIVE POSTS. PROTECTIVE CASING WAS INSTALLED.						
	③ TOTAL OF 55 GALS REMOVED						
	④ DEVELOPMENT CRITERIA MET WITH pH, SPECIFIC CONDUCTIVITY AND TEMPERATURE; WATER CLEARED						

APPENDIX F
INVESTIGATIVE DERIVED WASTE

NORTH CAROLINA HAZARDOUS WASTE MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. NC 6170022580008115		Manifest Document No. 008115		2. Page 1 of 1		Information in the shaded areas is not required by Federal law.			
3. Generator's Name and Mailing Address MCB Camp Lejeune Attn: Neal Paul IR Division Bld. 67 Camp Lejeune, NC 28542						A. State Manifest Document Number					
4. Generator's Phone (919) 451-1725						B. State Generator's ID					
5. Transporter 1 Company Name Four Seasons Environmental, Inc.			6. US EPA ID Number NC D 99127732			C. State Transporter's ID					
7. Transporter 2 Company Name						D. Transporter's Phone 910-273-2718					
8. US EPA ID Number						E. State Transporter's ID					
9. Designated Facility Name and Site Address Laidlaw Environmental Services, Inc. 208 Watlington Industrial Road Reidsville, NC 27320						F. Transporter's Phone					
10. US EPA ID Number NC D 00648451						G. State Facility's ID					
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)						12. Containers No. Type		13. Total Quantity		14. Unit Wt/Vol	
a. Hazardous Waste Liquid, HGS, (lead), 9, NA3082 III Thomas F. Trebilcock 5-25-94						0 0 1 D M		000510		P	
b. Hazardous Waste Liquid, HGS, (tetrachloroethylene), 9, NA3082, III Thomas F. Trebilcock 5-25-94						0 0 1 D M		000510		P	
c. Hazardous Waste Liquid, N.O.S., (Wastewater w/ Lead @11ppm), 9, NA3082, III						0 0 1 D M		000510		P	
d. Hazardous Waste Liquid, N.O.S., (Wastewater w/ Trichloroethylene @ 0.5 ppm), 9, NA3082, III						0 0 1 D M		095150		P	
15. Special Handling Instructions and Additional Information Bill to: FSE P.O. Box 16590 Greensboro, NC 27418						FSE Job #: 94-50094 24 HR Emergency #: 910-273-2718 HM Guide #: 31					
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.											
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment. OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.											
Printed/Typed Name JOHN E. RIGGS					Signature <i>[Signature]</i>			Month Day Year 10 15 1994			
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name CLAYTON HONEYCUTT					Signature <i>[Signature]</i>			Month Day Year 10 15 1994			
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name					Signature			Month Day Year			
19. Discrepancy Indication Space											
20. Facility Owner or Operator. Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19. Printed/Typed Name Randy Lawson					Signature <i>[Signature]</i>			Month Day Year 10 15 1994			

GENERATOR
TRANSPORTER
FACILITY

Baker

Baker Environmental, Inc.
Airport Office Park, Building 3
420 Rouser Road
Coraopolis, Pennsylvania 15108

April 13, 1994

(412) 269-6000
FAX (412) 269-2002

Commander
Atlantic Division
Naval Facilities Engineering Command
1510 Gilbert Street (Building N-26)
Norfolk, Virginia 23511-2699

Attn: Ms. Linda Berry, P.E.
Code 1823

Re: Contract N62470-89-D-4814
Navy CLEAN, District III
Contract Task Order (CTO) 0212
Sites 41, 69, and 74 IDW Handling and Disposal
MCB Camp Lejeune, North Carolina


Dear Ms. Berry:

This letter report describes a summary of investigative-derived waste (IDW) disposal activities at Sites 41, 69, and 74, Marine Corps Base, Camp Lejeune, North Carolina. The IDW was contained in roll-off boxes, tankers, and 55-gallon drums that were generated during the period of January 3, 1994 through March 3, 1994.

The primary objective was to characterize the contents of the generated wastes. Listed below are the three container types with corresponding media and respective analytical characterization:

Container Type	Estimated Quantity	Media Type	Analytical*
Roll-off boxes, one roll-off per site	30 cubic yards	Soil cuttings and drilling mud slurries	TCL-PCB, mirex, CSM, Full-TCLP, RCRA (corrosivity, ignitability, and reactivity)
Tankers, one tanker per site	2,000 gallons	Well development and purge water	Full TCL-Organics/TAL-Inorganics
55-gallon drums	450 gallons	Decontamination fluids	Full TCL-Organics/TAL-Inorganics

*Note: all requested analytical parameters were chosen for the purpose of determining appropriate handling/disposal requirements.

bcc: APPajak/CF; WDTrim bath/JWMentz/PROG F; RPWattras; Daily File
S.O.#62470-212
Subfile
Initials 



A Total Quality Corporation

Baker

Ms. Linda Berry
April 13, 1994
Page 2

In a meeting/conference call conducted on March 16, 1994, between Ms. Katherine Landman, Mr. Tom Morris, Mr. Neal Paul, and myself, it was agreed that all nonhazardous solids could be disposed of on site, and that all liquids generated would be taken off-site by a licensed subcontractor to a TSDF. In addition, it was decided that the hazardous liquid being stored Site 41 would also be disposed off-site.

DISPOSAL

Nonhazardous Wastes

Based on LANTDIV/MCB Camp Lejeune approval, Baker arranged for a subcontractor (Four Seasons Environmental Inc.) to dispose of all of the decontamination fluids, and the tankers at Sites 69 and 74. Copies of the nonhazardous waste manifests are provided in Attachment A. These events took place on March 22, 1994. A second subcontractor (Wills Trucking Inc.) was utilized on March 23, 1994 to dispose of soils contained in the three roll-off boxes. The IDW soil was disposed of within the respective site boundaries.

Hazardous Wastes

The analytical results from the tanker at Site 41 showed a lead concentration of 11.2 ppm. The USEPA regulatory limit for lead is 5 ppm. The tanker of wastewater was classified as a hazardous waste by characteristic for lead, and was given the USEPA Hazardous Waste Identification Number of D008. On March 23, 1994 Four Seasons Environmental Inc. was brought in to remove the wastewater and transport it to a permitted TSDF operated by Laidlaw Environmental Services located in Reidsville, North Carolina. Copies of the hazardous waste manifests are provided in Attachment A.

These events conclude the handling and management of IDW generated during the remedial investigations at Sites 41, 69, and 74. A second round of groundwater samples is scheduled to be collected at Site 41 in late April. During this event, additional IDW will be generated and will need to be properly disposed. Unfortunately, the liquid IDW may be characteristically hazardous due to lead in groundwater. Samples will be collected of the liquid IDW in order to characterize the waste for proper disposal.

If you have any questions, please do not hesitate to call me at (412) 269-2016.

Sincerely,

BAKER ENVIRONMENTAL, INC.


Raymond P. Wattras
Project Manager

cc: Mr. Neal Paul
Ms. Lee Ann Rapp (w/o attachments)
Ms. Beth Hacic (w/o attachments)

RPW/jc
Attachment A: Nonhazardous and Hazardous Waste Manifests

Attachment A
Nonhazardous and Hazardous Waste Manifests

LAIPLAW ENVIRONMENTAL SERVICES

FORM A

Customer Notification And Certification

Only Statements with Original Signatures will be Accepted

Generator Name/Location: Camp Lejeune MCB / Camp Lejeune, NC 28542

EPA I.D. Number: NC 61700 22580

Waste Profile or ARF Designation: _____

Manifest Number: _____

EPA Hazardous Waste Number(s): D008

Waste Analysis Attached? YES _____ NO _____ On file at facility. _____

Unrestricted Waste Notification (Category 1)

If you generate a hazardous waste that is not a land disposal restricted waste (the waste has no applicable treatment standards), mark the statement below.

I notify that I am familiar with the waste through analysis and testing or through knowledge of the waste to support this notification that the waste is not restricted as specified in 40 CFR 268, Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA Section 3004(d).

Restricted Waste Notification (Category 2)

If you generate a hazardous waste that is restricted from land disposal (the waste has applicable treatment standards), mark the statement below. Note: All appropriate standards must be accounted for. A waste may pass one or more standards and require treatment or be varnanced for others. In this case, all applicable categories must be checked.

I notify that I am familiar with the waste through analysis and testing or through knowledge of the waste to support this notification that the waste is subject to the treatment standards specified in 40 CFR 268, Subpart D. Waste must be treated to the appropriate regulatory treatment standard, by the appropriate regulatory treatment method; qualifies for a variance as described in Category 3 below; or meets the standard as described under Category 4 below.

For hazardous debris, the waste contains the following contaminants subject to treatment (check all that apply): _____ § 268.45(b) (1)-Toxicity characteristic debris; _____ § 268.45(b) (2)-Debris contaminated with listed waste; _____ § 268.45(b) (3)-Cyanide reactive debris. This hazardous debris is subject to the alternative treatment standards of 40 CFR 268.45.

Corresponding Treatment Standard(s) 268.43(a) Chemical Precipitation

Restricted Waste Variance Notification (Category 3)

If you generate a waste which does not require treatment prior to land disposal because of a variance (including a case-by-case extension under 40 CFR 268.5, a nationwide variance under 40 CFR 268 Subpart C, a no migration petition under 40 CFR 268.6, or other applicable variance), mark the statement below and list the appropriate variance in the space provided.

(3a) Restricted Waste Variance Notification

I notify pursuant to 40 CFR 268.7(a) (9) that I am familiar with the waste through analysis and testing or through knowledge of the waste to support this notification that this waste is subject to a national capacity variance under 40 CFR 268 Subpart C, or a case-by-case extension under 40 CFR 268.5, or an exemption under 40 CFR 268.6.
Applicable Variance (List the variance and give the date the waste is subject to prohibitions)

(3b) Hazardous Debris Extension Notification

For the hazardous debris waste stream accompanying this notification, I notify that I have made the necessary submittals to EPA pursuant to 40 CFR 268.5(g), as described in the May 14, 1993 Federal Register (Vol. 58, No. 92, page 28510) and therefore this hazardous debris shipment qualifies for the one year case-by-case extension.
Applicable Variance Date: May 8, 1994

Restricted Waste Certification (Category 4)

If you generate a hazardous waste that is restricted from land disposal (the waste has applicable treatment standards), the waste meets the standards as generated, mark the statement below. Note: All applicable standards must be accounted for. A waste may pass one or more standards and require treatment or be varnanced for others. In this case, all applicable categories must be checked.

I certify under penalty of law that I personally examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR 268, Subpart D and all applicable prohibitions set forth in 40 CFR 268.32 or RCRA Section 3004(d). I believe that the information I submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting a false certification including the possibility of fine and imprisonment.
Applicable Standards Passed (List the appropriate standard(s) for constituents not requiring treatment)

SIGNATURE: Peter A. Manday DATE: 3/23/94
PRINT NAME: PETER A. MANDAY TITLE: ENVIRONMENTAL SCIENTIST

NORTH CAROLINA HAZARDOUS WASTE MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved, OMB No. 2050-0039, F

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. NC6117101012458190101011		Manifest Document No. 190101011		2. Page 1 of 1		Information in the 2 is not required b, 1w.		
3. Generator's Name and Mailing Address Attn: Neal Paul MCB Camp Lejeune IR Division Building 67 Camp Lejeune, NC 28542		4. Generator's Phone (919) 451 1725		5. Transporter 1 Company Name Four Seasons Environmental, Inc.		6. US EPA ID Number NC D9911277732		7. Transporter 2 Company Name		
8. Designated Facility Name and Site Address Laidlaw Environmental Services, Inc 208 Watlington Rd Reidsville, NC 27320		9. US EPA ID Number NC90010648451		10. US EPA ID Number		11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)		12. Containers		
						No.		Type		
						13. Total Quantity		14. Unit Wt/Vol		
GENERATOR	a. Hazardous Waste Liquid, nos (lead), 9, NA3082, III				1		TT		833 G	
	b.									
	c.									
	d.									
15. Special Handling Instructions and Additional Information Bill to: FSE PO Box 16590 Greensboro, NC 27416 Job # 94-50051 Attn: J. Dishman										
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation on the best waste management method that is available to me and that I can afford.										
Printed/Typed Name Reier A Monday					Signature <i>Reier A Monday</i>			Month D 10 31 2		
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials									
	Printed/Typed Name Joseph Humble					Signature <i>Joseph Humble</i>			Month D 10 31 2	
18. Transporter 2 Acknowledgement of Receipt of Materials										
Printed/Typed Name					Signature			Month D 1 1 1		
FACILITY	19. Discrepancy Indication Spec Section 1 - MD# 00001									
	20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.									
Printed/Typed Name Connie Probert					Signature <i>Connie Probert</i>			Month D 03 2		



No 8618

P.O. Box 16590 • Greensboro, NC 27416-0590 • (919) 273-2718

NON-HAZARDOUS WASTE MANIFEST

Manifest # _____ F.S.I.S. JOB # 44-51 Date: 3-22-94
 Generator: W.B. Campbell Phone No.: 919-451-1725
IN Div. 104 EPA ID No.: NC61702200X
124 Camp Linn Contact: N. Paul

Process which generated waste: W.B. Div. 104

I certify that the materials described below are properly described, classified, packaged, marked & labeled, and are in proper condition to be transported in commerce under the applicable regulations of the State, the Environmental Protection Agency and the Department of Transportation. I certify that the waste described below is non-hazardous. I certify that the specific waste was delivered to the carrier named below for legal treatment, storage, or disposal at the site indicated.

Date: _____ Signature: _____

Description of material	Circle Form Solid Liquid Gas Sludge	Quantity	Circle Units Gallons Cm ³ Yds. Pounds Tons	Container	
				No.	Type
_____		2150		1	TT

Transporter: F. ... Unit Number(s): _____
... Phone No.: (919) 273-2718
... EPA ID No.: _____

Vehicle License Tag Number(s): _____ Container: _____

I certify that the specified material was transferred in a registered (licensed) vehicle to the disposal treatment, storage, or disposal facility named below and was accepted.

Pick-up Driver's Signature _____ Date _____ Delivering Driver's Signature _____ Date _____

Facility: F. ... Phone No.: (919) 273-2718
...
... Contact: ...

Handling Method: _____

I certify that the transporter above delivered the specified material to this TSD facility and was accepted and properly handled in the above manner. We are authorized and qualified by the State of _____ to handle this material.

Date: _____ Signature: _____

NORTH CAROLINA HAZARDOUS WASTE MANIFEST

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of :	Information in the shaded area is not required by Federal law.	
3. Generator's Name and Mailing Address		A. State Manifest Document Number				
		B. State Generator's ID				
4. Generator's Phone ()		6. US EPA ID Number		C. State Transporter's ID		
5. Transporter 1 Company Name		8. US EPA ID Number		D. Transporter's Phone		
7. Transporter 2 Company Name		10. US EPA ID Number		E. State Transporter's ID		
9. Designated Facility Name and Site Address		G. State Facility's ID				
		H. Facility's Phone				
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)			12. Containers		13. Total Quantity	
			No.	Type	14. Unit Wt/Vol	
GENERATOR	a.					
	b.					
	c.					
	d.					
15. Special Handling Instructions and Additional Information			K. Handling Codes for Wastes Listed Above			
<p>16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.</p> <p>If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and use the best waste management method that is available to me and that I can afford.</p>						
Printed/Typed Name			Signature		Month Day	
TRANSPORTER	17. Transporter 1 Acknowledgement of Receipt of Materials					
	Printed/Typed Name			Signature		Month Day
	18. Transporter 2 Acknowledgement of Receipt of Materials					
	Printed/Typed Name			Signature		Month Day
FACILITY	19. Discrepancy Indication Space					
	20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.					
Printed/Typed Name			Signature		Month Day	

Baker

Baker Environmental, Inc.
Airport Office Park, Building 3
420 Rouser Road
Coraopolis, Pennsylvania 15108

(412) 269-6000
FAX (412) 269-2002

July 1, 1994

Commander
Atlantic Division
Naval Facilities Engineering Command
1510 Gilbert Street (Building N-26)
Norfolk, Virginia 23511-2699

Attn: Ms. Linda Berry, P.E.
Navy Technical Representative
Code 1823

Re: Contract N62470-89-D-4814
Navy CLEAN, District III
Contract Task Orders (CTOs) 0212 and 0231
Sites 41 (CTO 0212), 1, 28, and 30 (CTO 0231)
Investigation-Derived Waste (IDW) Disposal
Marine Corps Base (MCB), Camp Lejeune, North Carolina

Dear Ms. Berry:

This letter provides a summary of IDW disposal activities at those sites referenced above within Operable Units (OUs) No. 4 and No. 7, Marine Corps Base, Camp Lejeune, North Carolina. Both liquid and solid IDW were generated during remedial investigation activities. In addition, small quantities of IDW generated during field investigations associated with CTOs 0133, 0160, and 0177 were also disposed. The characterization and disposal of the IDW was performed in accordance with our recommendation letter dated May 19, 1994.

Disposal activities that occurred during the week of May 23, 1994 were:

- Approximately 40 cubic yards of non-hazardous IDW soil from Sites 1 and 28 were transported to Storage Lot 203 and graded onto the surface.
- Approximately two cubic yards of non-hazardous IDW soil from Sites 35 and 78 were graded onto the surface at Storage Lot 203.
- Two 55-gallon drums containing characteristically hazardous waste liquids were transported from Sites 6 and 41 by a licensed waste hauler to an offsite treatment storage and disposal facility (TSDF).
- A total of 6,154 gallons of non-hazardous waste liquids, generated during field investigations at Sites 1, 28, 30, and 41 were transported by a licensed waste hauler to an off-site TSDF.

bcc: APPajak/CF; WDTrim bath/JWMentz/PROG F; RPWattras/PF(212);
REBonelli/PF(231); TFTrebilcock; PAMonday(ck); Daily File
S.O. #62470-212 & 231
Subfile 8
Initials *VCF*



A Total Quality Corporation

Baker

Ms. Linda Berry
July 1, 1994
Page 2

Table 1 provides the source site, actual quantity, and disposal method for each investigation-derived waste streams discussed. Copies of the hazardous and non-hazardous waste manifests associated with these activities are included with this letter as Attachment A.

If you have any questions regarding this submittal, please do not hesitate to contact me at (412) 269-2016.

Sincerely,

BAKER ENVIRONMENTAL, INC.



Raymond P. Wattras
Activity Coordinator

Attachments

RPW/TFT/jc

cc: Ms. Katherine Landman, LANTDIV
Mr. Neal Paul, Activity
Ms. Beth Hacie, LANTDIV (w/o attachments)

**TABLE 1
SUMMARY OF IDW AT MCB CAMP LEJEUNE**

Site Location	IDW Media	Actual Quantity	RCRA Characterization	Disposal
Site 41	Liquid	250 Gallons	Non-Hazardous	Offsite TSDF
Site 41	Liquid	10 Gallons	Hazardous by lead (D008) characteristic	Offsite TSDF
Site 1	Soil	20 Cubic Yards	Non-Hazardous	Onsite disposal at Lot 203
Site 28	Soil	20 Cubic Yards	Non-Hazardous	Onsite disposal at Lot 203
Sites 1, 28, 30	Liquid	5,464 Gallons	Non-Hazardous	Offsite TSDF
Site 6	Liquid	55 Gallons	Hazardous by trichloroethylene (D040) characteristic	Offsite TSDF
Site 35	Soil	.5 Cubic Yard	Non-Hazardous	Onsite disposal at Lot 203
Site 78	Soil	1.5 Cubic Yard	Non-Hazardous	Onsite disposal at Lot 203
Sites 1, 28, 30	Liquid	440 Gallons	Non-Hazardous	Offsite TSDF

**TABLE 1
SUMMARY OF IDW AT MCB CAMP LEJEUNE**

Site Location	IDW Media	Estimated Quantity	RCRA Characterizations	Recommended Disposal Option
Site 41	Liquids	275 Gallons	Non-Hazardous	Offsite TSDF
Site 41	Liquids	10 Gallons	Hazardous by characteristic for lead (D008)	Offsite TSDF
Site 1	Soils	30 Cubic Yards	Non-Hazardous	Onsite disposal at Lot 203
Site 28	Soils	30 Cubic Yards	Non-Hazardous	Onsite disposal at Lot 203
Sites 1, 28, 30	Liquids	7,000 Gallons	Non-Hazardous	Offsite TSDF
Site 6	Liquids	55 Gallons	Potentially Hazardous (due to volatiles)	Offsite TSDF
Site 35	Soils	.5 Cubic Yard	Non-Hazardous	Onsite disposal at Lot 203
Site 78	Soils	1.8 Cubic Yard	Non-Hazardous	Onsite disposal at Lot 203
Sites 1, 28, 30	Liquids	440 Gallons	Non-Hazardous	Offsite TSDF

TABLE 4

INORGANIC CONTAMINANTS DETECTED IN LIQUID INVESTIGATION-DERIVED WASTE SAMPLES

Contaminant	Groundwater Criteria		Sample Identification					
	NCWQS	Federal MCL	41-TK1-01	69-TK1-01	74-TK-01	212-DW-01	HPIA-GW24-1	Site 2
Beryllium	NE	0.004	0.023	0.0007U	0.002	0.001	0.001	0.003
Barium	1.0	2.0	2.00	0.030	0.225	0.062	0.078	1.42
Selenium	0.01	0.05	0.0016U	0.0016U	0.0016U	0.002	0.001	0.004
Aluminum	NE	NE	394.0	2.87	111.00	14.00	25.90	56.30
Arsenic	0.05	0.05	0.077	0.002U	0.012	0.002U	0.009	0.023
Cadmium	0.005	0.005	0.143	0.003U	0.005	0.003U	0.005U	0.007
Calcium	NE	NE	1,740	85.90	23.80	36.80	18.60	450.00
Chromium	0.05	0.1	0.859	0.009	0.154	0.036	0.032	0.075
Copper	1.0	1.3	1.43	0.016U	0.071	0.019	0.014	0.025
Iron	NE	0.3	504	4.62	73.30	17.60	26.40	42.00
Lead	0.05	NE	11.20	0.004	0.094	0.021	0.022	0.027
Magnesium	NE	NE	48.00	3.06	4.03	1.36	3.10	9.98
Manganese	0.05	0.2	3.76	0.098	0.366	0.355	0.084	0.290
Mercury	0.0011	0.002	0.0001	0.0001	0.0003	0.0001	0.0002	NA
Nickel	0.15	0.1	0.648	0.017U	0.080	0.018	0.022	0.025
Potassium	NE	NE	0.0021	0.002	0.004	0.014	2.33	187.0
Sodium	NE	NE	0.0039	0.043	0.007	0.034	8.62	103.0
Vanadium	NE	NE	0.910	0.020	0.114	0.029	0.073	0.086
Zinc	5.0	NE	7.94	0.031	0.362	1.17	0.040	0.146
Cyanide	0.154	0.2	NA	NA	NA	NA	NA	NA
Cobalt	NE	NE	0.111	0.016U	0.056	0.016	0.008	0.012

Concentrations expressed in mg/L.

U = Not detected at CRDL

NE = Not Established

NA = Not Analyzed

NCWQS = North Carolina Groundwater Standards

MCL = Maximum Contaminant Level (USEPA)

Attachment A
Manifests

Baker

Ms. Linda Berry
May 19, 1994
Page 2

Offsite disposal of liquid IDW will require MCB Camp Lejeune personnel to sign waste profile forms. All non-hazardous liquid IDW can be identified on one waste profile form; however, each liquid IDW that has been characterized as hazardous must have its own waste profile form. In addition to the waste profile forms, MCB Camp Lejeune personnel are required to sign three waste manifests for the removal, transportation, and final disposal of the non-hazardous and hazardous liquid IDW. Baker will prepare both the waste profile forms and manifests. Costs associated with IDW disposal have been estimated to be \$11,053. Although 231 and 212 do not have negotiated tasks for IDW disposal, both CTOs have budgetary funds available to cover IDW disposal costs. Therefore, this additional work will not require additional funding.

If you have any questions, please contact me at (412) 269-2016.

Sincerely,

BAKER ENVIRONMENTAL, INC.



Raymond P. Wattras
Activity Coordinator

RPW/jc

cc: Ms. Katherine Landman
Ms. Lee Anne Rapp
Ms. Beth Hacie
Mr. Neal Paul

Baker

Baker Environmental, Inc.
Airport Office Park, Building 3
420 Rouser Road
Coraopolis, Pennsylvania 15108

(412) 269-6000
FAX (412) 269-2002

May 19, 1994

**Commander
Atlantic Division
Naval Facilities Engineering Command
1510 Gilbert Street (Building N-26)
Norfolk, Virginia 23511-2699**

**Attn: Ms. Linda Berry, P.E.
Engineer-in-Charge
Code 1823**

**Re: Contract N62470-89-D-4814
Navy CLEAN, District III
Contract Task Orders (CTOs) 0212 and 0231
Sites 41 (CTO 0212), 1, 28, and 30 (CTO 0231)
Recommendations for the Disposal of Investigation Derived Waste
MCB, Camp Lejeune, North Carolina**

Dear Ms. Berry:

Baker Environmental, Inc. (Baker) is coordinating the disposal of investigation derived waste (IDW) generated during the second round of groundwater sampling for Site 41, and the field investigations conducted under CTO-0231. In addition, Baker is also taking this opportunity to dispose of small quantities of IDW generated during field investigations associated with CTO-0160, CTO-0177, and CTO-0133.

Table 1 presents a summary of IDW with respect to: (1) site locations; (2) IDW media; (3) estimated quantity; (4) RCRA characterization; and (5) recommended disposal option.

IDW disposal activities are tentatively scheduled for the week of May 23, 1994 as follows:

- **Tuesday, May 24, 1994 - Non-hazardous IDW soils will be disposed of and graded at Storage Lot 203.**
- **Wednesday, May 25, 1994 - Non-hazardous and hazardous IDW liquids will be removed by a licensed waste hauler to an offsite TSDF.**

bcc: APPajak/CF; WDTrim bath/JWMentz/PROG F; RWattras/PJT File; RBonelli/PJT File; Daily File

S.O.# 62470-212 and 231-SRN

Subfile: 8

Initials: RPW



A Total Quality Corporation

TABLE 3 (continued)

ORGANIC CONTAMINANTS DETECTED IN LIQUID INVESTGATION-DERIVED WASTE SAMPLES

Contaminant	Groundwater Criteria		Sample Identification					
	NCWQS	Federal MCL	41-TK1-01	69-TK1-01	74-TK-01	212-DW-01	HPIA-GW24-1	Site 2
Heptachlor	0.00007	0.0004	--	--	--	0.0001	--	--
Acenaphthene	NE	NE	--	--	0.003J	--	--	0.002J
Naphthalene	NE	NE	--	--	--	--	0.022	0.015
2-Methylnaphthalene	NE	NE	--	--	0.027	--	--	0.017
Aldrin	NE	NE	--	--	--	0.0001	--	--
2,4-Methylphenol	NE	NE	--	--	--	--	--	0.006J
alpha-BHC	NE	NE	--	--	--	0.0003	--	--
4,4'-DDD	NE	NE	--	--	--	0.0006	--	0.004
4,4'-DDE	NE	NE	--	--	0.00001J	--	--	--
4,4'-DDT	NE	NE	--	--	0.00016J	0.0006	--	0.010
Fluorene	NE	NE	--	--	0.003J	--	--	--
Phenanthrene	NE	NE	--	--	0.003J	--	--	--
Endosulfan I	NE	NE	--	--	0.00002J	--	--	--
Endosulfan II	NE	NE	--	0.00002J	--	0.00009	--	--
Methoxychlor	NE	NE	--	0.00005J	--	--	--	--

Concentration expressed in mg/L

Only compounds detected above CRQL are listed.

J = Estimated concentration

B = Detected in lab blank

-- = Not detected above CRQL

NE = Not Established

NCWQS = North Carolina Water Quality Standards

MCL = Maximum Contaminant Level (USEPA)

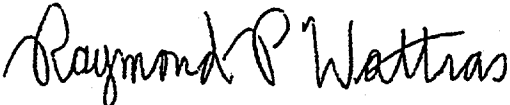
Baker

**Ms. Linda Berry
Naval Facilities Engineering Command
March 14, 1994 - Page 3**

If you have any questions, please do not hesitate to contact me at (412) 269-2016.

Sincerely,

BAKER ENVIRONMENTAL, INC.



**Raymond P. Wattras
Project Manager**

**RPW/lmn
Attachments**

**cc: Mr. Neal Paul (MCB Camp Lejeune)
Ms. Lee Anne Rapp (w/o attachment)
Ms. Beth Hacic (w/o attachment)**

TABLE 2

**COMPARISON OF SOIL AND LIQUID IDW ANALYTICAL RESULTS
TO RCRA HAZARDOUS WASTE CHARACTERISTIC PARAMETERS**

EPA HW No.	Contaminant	Regulatory Level	4-RB-01 ⁽¹⁾	69-RB-01 ⁽¹⁾	74-RB-01 ⁽¹⁾	41-TK-01 ⁽²⁾	69-TK-01 ⁽²⁾	74-TK-01 ⁽²⁾	212-DW-01 ⁽²⁾	HPIA-GW24-1 ⁽²⁾	Site 2 ^(2, 5)
D004	Arsenic	5.0	.09U	.09U	.09U	.077	.002U	.012	.0029U	.0097	.023
D005	Barium	100.0	.22	.27	.24	2.00	.030	.255	.062	.078	1.42
D018	Benzene	0.5	.001U	.001U	.004	.001U	.001U	.001U	.500U(4)	.051	U
D006	Cadmium	1.0	.02U	.02U	.02U	.143	.0031U	.005	.0031U	.005U	.007
D019	Carbon tetrachloride	0.5	.001U	.001U	.001U	.001U	.001U	.001U	.5000(4)	.0005U	U
D020	Chlordane	0.03	.0007U	.0007U	.0007U	.0002U	.00006U	.00006U	.00003U	.00002U	U
D021	Chlorobenzene	100.0	.001U	.001U	.001U	.001U	.001U	.001U	.500U(4)	.0005U	U
D022	Chloroform	6.0	.001U	.001U	.001U	.001U	.001U	.001U	500U(4)	.0005U	U
D007	Chromium	5.0	.02U	.02U	.02U	.859	.0091U	.154	.036U	.032	.075
D026	Cresol	200.0	.005U	.005U	.005U	NA	NA	NA	NA	NA	NA
D016	2,4-D	10.0	.006U	.006U	.006U	NA	NA	NA	NA	NA	NA
D027	1,4-Dichlorobenzene	7.5	.001U	.001U	.001U	.041U	.013U	.0014U	.034U	.005U	U
D028	1,2-Dichloroethane	0.5	.001U	.001U	.0038	.001U	.001U	.001U	.500U(4)	.005U	U
D029	1,1-Dichloroethylene	0.7	NA	NA	NA	NA	NA	NA	NA	NA	U
D030	2,4-Dinitrotoluene	0.13	.005U	.005U	.005U	.041U	.013U	.014U	.034U	.005U	U
D012	Endrin	0.02	.0003U	.0003U	.0003U	.0004U	.0001U	.00012U	.00007U	.00005U	U
D031	Heptachlor (and its epoxide)	0.008	.00015U	.00015U	.00015U	.0002U	.00006U	.00006U	.00015	.00002U	U
D032	Hexachlorobenzene	0.13	.005U	.005U	.005U	.041U	.013U	.014U	.034U	.0005U	U
D033	Hexachlorobutadiene	0.5	.005U	.005U	.005U	.041U	.013U	.014U	.034U	.0005U	U
D034	Hexachloroethane	3.0	.005U	.005U	.005U	.041U	.013U	.014U	.034U	.0005U	U
D008	Lead	5.0	.139U	.139U	.139U	11.20(3)	.004	.094	.021	.022	.027
D013	Lindane	0.4	.0002U	.0002U	.0002U	.0002U	.00006U	.00006U	.00003U	.00002U	U
D009	Mercury	0.2	.00015	.00016	.00015	.00019	.0001	.00033	.00013	.0002U	U

TABLE 3

ORGANIC CONTAMINANTS DETECTED IN LIQUID INVESTGATION-DERIVED WASTE SAMPLES

Contaminant	Groundwater Criteria		Sample Identification					
	NCWQS	Federal MCL	41-TK1-01	69-TK1-01	74-TK-01	212-DW-01	HPIA-GW24-1	Site 2
Acetone	NE	NE	0.013B	0.138B	0.014B	8.0B	--	--
Bromomethane	NE	NE	--	--	--	--	--	0.001
Vinyl Chloride	0.015	0.002	--	--	--	--	0.097	--
Ethylbenzene	0.029	0.7	--	--	--	--	--	0.190
Xylene	0.4	10	--	--	0.007J	--	0.001	1.80J
Trichloroethene	0.0028	0.005	--	--	--	--	--	0.005
Methylene Chloride	0.005	NE	0.003BJ	0.003J	0.007J	0.399BJ	--	--
1,2-Dichloroethene	0.07	0.07	--	0.010	--	--	3.40	--
1,1-Dichloroethene	NE	NE	--	--	--	--	0.007	--
Toluene	1.0	1.0	--	--	--	--	0.002	--
bis(2-ethylhexyl)phthalate	NE	NE	--	--	--	0.003J	--	0.002J
Di-n-butylphthalate	NE	NE	0.004J	0.002J	0.003J	0.009J	--	--
Diethylphthalate	NE	NE	--	--	--	0.029J	--	--
Di-n-octylphthalate	NE	NE	--	--	--	0.007J	--	--

Concentration expressed in mg/L

Only compounds detected above CRQL are listed.

J = Estimated concentration

B = Detected in lab blank

-- = Not detected above CRQL

NE = Not Established

NCWQS = North Carolina Water Quality Standards

MCL = Maximum Contaminant Level (USEPA)

TABLE 1

**SUMMARY OF INVESTIGATION-DERIVED WASTE VOLUMES
MCB, CAMP LEJEUNE, NORTH CAROLINA**

Sample Number/ Site Number	Location of IDW	Medium	Group (1)	Quantities	Containment	Estimated Volume
41-RB-01	Site 41	Solids	1	1	Roll-Off Box	10 cubic yards
69-RB-01	Site 69	Solids	1	1	Roll-Off Box	5 cubic yards
74-RB-01	Site 74	Solids	1	1	Roll-Off Box	5 cubic yards
41-TK-01	Site 41	Liquids	3	1	Tanker Truck	1,500 gallons
69-TK-01	Site 69	Liquids	2	12	55-gallon Drums	600 gallons
74-TK-01	Site 74	Liquids	2	1	Tanker Truck	600 gallons
212-DW-01	Sites 41, 69, & 74	Liquids	5	9	55-gallon Drums	450 gallons
HPIA-GW-24-1	Site 6/Lot 203	Liquids	2	1	55-gallon Drum	50 gallons
Site 2	Site 6/Lot 203	Liquids	2	11	55-gallon Drum	550 gallons
Site 6	Site 6/Lot 203	Liquids	5	1	55-gallon Drum	50 gallons
Site 6	Site 6/Lot 203	Liquids	6	1	5-gallon Drum	3 gallons

Notes: (1) Groups are defined by contamination potential and content.

Group 1 - non-hazardous soil

Group 2 - non-contaminated water

Group 3 - contaminated water

Group 4 - excess water pumped from drums containing drilling mud

Group 5 - decontamination fluids

Group 6 - waste fluids from field screening kits

Baker

Baker Environmental, Inc.
Airport Office Park, Building 3
420 Rouser Road
Coraopolis, Pennsylvania 15108

(412) 269-6000
FAX (412) 269-2002

March 14, 1994

Commander
Atlantic Division
Naval Facilities Engineering Command
1510 Gilbert Street (Bldg. N-26)
Norfolk, Virginia 23511-2699

Attn: Ms. Linda Berry, P.E.
Code 1823

Re: Contract N62470-89-D-4814
Navy CLEAN, District III
Contract Task Order (CTO) 0212
Investigation-Derived Waste Summary and Recommendations

Dear Ms. Berry:

Investigation-derived wastes (IDW) were generated during the recent field investigations at Sites 2, 6, 41, 69, and 74 located at Marine Corps Base (MCB), Camp Lejeune, North Carolina. These IDW included soil cuttings and drilling mud (solids), well development and purge water, and decontamination fluids (liquids). Presently, the solids are being stored in 20 cubic yard capacity roll-off boxes and the liquids are being stored in tanker trucks and steel 55-gallon drums. Table 1 provides a summary of the various IDW and estimated volumes.

Samples were collected from the various IDW streams for laboratory analysis for purposes of determining proper disposal options. For the solids, a single composite sample (composed of three grab samples) from each roll-off box was submitted for Resource Conservation and Recovery Act (RCRA) hazardous waste characteristics (i.e., leachability, corrosivity, reactivity, and ignitability). The liquid IDW samples were analyzed for full Target Compound List (TCL) organics and Target Analyte List (TAL) inorganics in accordance with CLP protocols.

CONCLUSIONS AND RECOMMENDATIONS - SOLID IDW

As shown on Table 2, the soil IDW analytical results were compared to RCRA hazardous waste criteria in order to determine whether any of the IDW are characteristically hazardous. No contaminants were detected at concentrations which exceed the regulatory level as defined by RCRA. Therefore, the soil is not characteristically hazardous.

Based on the analytical results of the IDW solids, several disposal alternatives are available. These alternatives include on-site disposal, off-site disposal in an "industrial"



A Total Quality Corporation

TABLE (Continued)

**COMPARISON OF SOIL AND LIQUID IDW ANALYTICAL RESULTS
TO RCRA HAZARDOUS WASTE CHARACTERISTIC PARAMETERS**

EPA HW No.	Contaminant	Regulatory Level	4-RB-01 ⁽¹⁾	69-RB-01 ⁽¹⁾	74-RB-01 ⁽¹⁾	41-TK-01 ⁽²⁾	69-TK-01 ⁽²⁾	74-TK-01 ⁽²⁾	212-DW-01 ⁽²⁾	HPIA-GW24-1 ⁽²⁾	Site 2 ^(2, 5)
D014	Methoxychlor	10.0	.0088U	.0088U	.0088U	.002U	.00005	.0061U	.0003U	.0002U	U
D035	Methyl ethyl ketone	200.0	NA	NA	NA	NA	NA	NA	NA	NA	NA
D036	Nitrobenzene	2.0	.005U	.005U	.005U	.041U	.013U	.014U	.034U	.0005U	U
D037	Pentachlorophenol	100.0	.25U	.25U	.25U	.104U	.034U	.014U	.088U	.012U	U
D038	Pyridine	5.0	.005	.005U	.005U	NA	NA	NA	NA	NA	NA
D010	Selenium	1.0	.165U	.165U	.165U	.016U	.016U	.016U	.0024	.0015	.004
D011	Silver	5.0	.011U	.011U	.011U	.082	.016U	.016U	.0016U	.003	U
D039	Tetrachloroethylene	0.7	NA	NA	NA	NA	NA	NA	NA	NA	U
D015	Toxaphene	0.5	.0012U	.0012U	.012U	.020U	.0008U	.0061U	.0038U	.0025U	U
D040	Trichloroethylene (TCE)	0.5	.001U	.0016	.001U	.001U	.001U	.001U	.500U(4)	.0005U	.005
D041	2,4,5-Trichlorophenol	400.0	.005U	.005U	.005U	.104U	.034U	.035U	.086U	.012U	U
D042	2,4,6-Trichlorophenol	2.0	.005U	.005U	.005U	.041U	.013U	.014U	.0034U	.005U	U
D017	2,4,5-TP (Silvex)	1.0	.0085U	.0085U	.0085U	NA	NA	NA	NA	NA	U
D043	Vinyl Chloride	0.2	.001U	.001U	.001U	.001U	.001U	.001U	.500U(4)	.097	U
D001	Ignitability	FP <120°	>200	>200	>200	NA	NA	NA	NA	NA	NA
D002	Corrosivity	pH ≤2 or ≥12.5	11.0	7.48	5.67	NA	NA	NA	NA	NA	NA
D003	Reactivity	40 CFR	6.680	6.35U	6.52U	NA	NA	NA	NA	NA	NA
	Sulfide (mg/kg)	261.23	0.033U	0.032U	0.032U	NA	NA	NA	NA	NA	NA
	Cyanide (mg/kg)										

All liquid concentrations expressed as mg/L.

(1) Analyzed for full TCLP and RCRA hazardous waste characteristics.

(2) Samples analyzed for full TCL organics/TAL inorganics per CLP procedure.

(3) Metal fraction analyzed at 200 x dilution

(4) Volatile organic fraction analyzed at 50 x dilution

(5) Positive detections from CTO-0174 (the first round of ground water sampling) are listed. All other contaminants were not detected.

U = Not detected at Contract Required Quantitation Limit (ORQL)

NA = Not Analyzed

J = Estimated concentration

B = Detected below Contract Required Detection Limit (CRDL)



No 4080

P.O. Box 16590 • Greensboro, NC 27416-0590 • (919) 273-2718

NON-HAZARDOUS WASTE MANIFEST

Manifest # 00012 F.S.I.S. JOB # 94-50094 Date: May 25, 1994
 Generator: NCB Camp Lejeune Phone No.: 919-451-1725
IR Division - Bldg 67 EPA ID No.: NC6170022580
Camp Lejeune, NC 28542 Contact: Neal Paul

Process which generated waste: **Groundwater Assessment**

I certify that the materials described below are properly described, classified, packaged, marked & labeled, and are in proper condition to be transported in commerce under the applicable regulations of the State, the Environmental Protection Agency and the Department of Transportation. I certify that the waste described below is non-hazardous. I certify that the specific waste was delivered to the carrier named below for legal treatment, storage, or disposal at the site indicated.

Date May 25, 1994 Signature [Signature]

Description of material	Circle Form	Quantity	Circle Units	Container	
				No.	Type
<u>Non-Regulated Groundwater</u>	<u>Liquid</u> Solid Gas Sludge	<u>2908</u>	<u>Gallons</u> Cu. Yds. Pounds Tons	<u>1</u>	<u>TS</u>

Transporter: Four Seasons Environmental, Inc. Unit Number(s) 916
3107 S. Elm-Eugene Street Phone No.: 910-273-2718
Greensboro, NC 27406 EPA ID No.: NC0999277732

Vehicle License Tag Number(s) 2P-234H Container: various

I certify that the specified material was transferred in a registered (licensed) vehicle to the disposal treatment, storage, or disposal facility named below and was accepted.

Pick-up Driver's Signature [Signature] Date 5-25-94 Delivering Driver's Signature [Signature] Date 5-25-94

Facility: Four Seasons Environmental, Inc. Phone No.: 910-273-2718
519 Patton Avenue
Greensboro, NC 27406 Contact: Eric McManus

Handling Method: PTS32

I certify that the transporter above delivered the specified material to this TSD facility and was accepted and properly handled in the above manner. We are authorized and qualified by the State of NC to handle this material.

Date 5-26-94 Signature: [Signature]

Baker

Baker Environmental, Inc.
Airport Office Park, Building 3
420 Rouser Road
Coraopolis, Pennsylvania 15108

(412) 269-6000
FAX (412) 269-2002

March 14, 1994

Commander
Atlantic Division
Naval Facilities Engineering Command
1510 Gilbert Street (Bldg. N-26)
Norfolk, Virginia 23511-2699

Attn: Ms. Linda Berry, P.E.
Code 1823

Re: Contract N62470-89-D-4814
Navy CLEAN, District III
Contract Task Order (CTO) 0212
Investigation-Derived Waste Summary and Recommendations

Dear Ms. Berry:

Investigation-derived wastes (IDW) were generated during the recent field investigations at Sites 2, 6, 41, 69, and 74 located at Marine Corps Base (MCB), Camp Lejeune, North Carolina. These IDW included soil cuttings and drilling mud (solids), well development and purge water, and decontamination fluids (liquids). Presently, the solids are being stored in 20 cubic yard capacity roll-off boxes and the liquids are being stored in tanker trucks and steel 55-gallon drums. Table 1 provides a summary of the various IDW and estimated volumes.

Samples were collected from the various IDW streams for laboratory analysis for purposes of determining proper disposal options. For the solids, a single composite sample (composed of three grab samples) from each roll-off box was submitted for Resource Conservation and Recovery Act (RCRA) hazardous waste characteristics (i.e., leachability, corrosivity, reactivity, and ignitability). The liquid IDW samples were analyzed for full Target Compound List (TCL) organics and Target Analyte List (TAL) inorganics in accordance with CLP protocols.

CONCLUSIONS AND RECOMMENDATIONS - SOLID IDW

As shown on Table 2, the soil IDW analytical results were compared to RCRA hazardous waste criteria in order to determine whether any of the IDW are characteristically hazardous. No contaminants were detected at concentrations which exceed the regulatory level as defined by RCRA. Therefore, the soil is not characteristically hazardous.

Based on the analytical results of the IDW solids, several disposal alternatives are available. These alternatives include on-site disposal, off-site disposal in an "industrial"



A Total Quality Corporation

Baker

Ms. Linda Berry
Naval Facilities Engineering Command
March 14, 1994 - Page 2

type landfill (i.e., Subtitle D) or treatment at a licensed TSDF. The most feasible option, however, is to return the solid wastes to the site. This alternative is acceptable (and encouraged) at Superfund sites per U.S. Environmental Protection Agency (EPA) guidelines for the management of IDW. If this option is approved, the soil could be disposed of within the areas where it is presently being stored.

CONCLUSIONS AND RECOMMENDATIONS - LIQUID IDW

Tables 3 and 4 summarize the organic and inorganic contaminants detected in the liquid IDW samples, respectively. All liquid IDW samples exhibited some organics and/or inorganics that exceeded Federal and/or State Drinking Water Standards. Lead levels in sample 41-TK-01 exceeded the EPA regulatory standard for lead and therefore, liquids in the tanker at Site 41 should be disposed as a RCRA hazardous waste. Also, there are 3 gallons of waste that were generated by field screening test kits at Site 6 (Lots 201 and 203). This small quantity of wastes are RCRA hazardous waste by characteristic due to its acidic pH reading (<2 pH). No other contaminants were detected at concentrations above the regulatory level as defined by RCRA (see Table 2) for the remaining liquid IDW samples. Therefore, the liquid IDW from Site 2, Site 6, Site 69, and Site 74 are not characteristically hazardous.

Results of liquid IDW sample analyses have been forwarded to Mr. Thomas Morris, of the Camp Lejeune Environmental Management Division (EMD). Only the liquid IDW from Site 74 (74-TK-01) should be considered for on-base disposal at the HPIA STP. EMD will coordinate with base wastewater treatment plant personnel to determine if the liquid IDW can be treated on base. If the liquid IDW from Site 74 cannot be disposed of at the HPIA STP, then this waste will be disposed of at a TSDF. The remaining liquid IDW will require transport to a licensed off-base TSDF.

IDW DISPOSAL SCHEDULE AND COSTS

Upon receiving direction from LANTDIV and EMD, Baker will coordinate IDW disposal activities. It would be advantageous to dispose of the IDW before March 21, 1994 in order to take full advantage of turning the roll-off boxes and storage tankers over to CTO-0231, which will utilize them for IDW storage at Sites 1, 28, and 30. At present, Baker is planning to begin CTO-0231 operations the week of March 21, 1994.

Transportation and disposal costs associated with IDW were not included in the original budget estimate. Baker is currently obtaining cost estimates to dispose the solid IDW at the originating sites, transport one tanker to the HPIA STP, and to dispose of the remaining liquid IDW at an off-site TSDF.

There will be some cost savings associated with disposing liquid IDW from Site 74 at the HPIA STP. Also, by coordinating the disposal of the four roll-off boxes and two tankers with CTO-0231, Baker is able to provide LANTDIV with a cost savings of \$3,800. This will be accomplished by not having to pay mobilization charges incurred by the subcontractor since the equipment is already located at MCB Camp Lejeune.



No 4080

P.O. Box 16590 • Greensboro, NC 27416-0590 • (919) 273-2718

NON-HAZARDOUS WASTE MANIFEST

Manifest # 00012 F.S.I.S. JOB # 94-50094 Date: May 25, 1994

Generator: NCB Camp Lejeune Phone No.: 919-451-1725

IR Division - Bldg 67 EPA ID No.: NC6170022580

Camp Lejeune, NC 28542 Contact: Neal Paul

Process which generated waste: **Groundwater Assessment**

I certify that the materials described below are properly described, classified, packaged, marked & labeled, and are in proper condition to be transported in commerce under the applicable regulations of the State, the Environmental Protection Agency and the Department of Transportation. I certify that the waste described below is non-hazardous. I certify that the specific waste was delivered to the carrier named below for legal treatment, storage, or disposal at the site indicated.

Date May 25, 1994 Signature [Handwritten Signature]

Description of material	Circle Form	Quantity	Circle Units	Container	
				No.	Type
<u>Non-Regulated Groundwater</u>	<u>Liquid</u>	<u>2,908</u>	<u>Gallons</u>	<u>5</u>	<u>TT</u>

Transporter: Four Seasons Environmental, Inc. Unit Number(s) 916

3107 S. Elm-Eugene Street Phone No.: 910-273-2718

Greensboro, NC 27406 EPA ID No.: NC0999277732

Vehicle License Tag Number(s) 2-2394 Container: vac tank

I certify that the specified material was transferred in a registered (licensed) vehicle to the disposal treatment, storage, or disposal facility named below and was accepted.

Pick-up Driver's Signature [Handwritten Signature] Date 5-25-94 Delivering Driver's Signature [Handwritten Signature] Date 5-25-94

Facility: Four Seasons Environmental, Inc. Phone No.: 910-273-2718

519 Patton Avenue

Greensboro, NC 27406 Contact: Eric McManus

Handling Method: PT5032

I certify that the transporter above delivered the specified material to this TSD facility and was accepted and properly handled in the above manner. We are authorized and qualified by the State of NC to handle this material.

Date 5-26-94 Signature: [Handwritten Signature]



No 4083
X

P.O. Box 16590 • Greensboro, NC 27416-0590 • (919) 273-2718

NON-HAZARDOUS WASTE MANIFEST

Manifest # 00013 F.S.I.S. JOB # 94-50094 Date: ²⁶ May 25, 1994

Generator: MCB Camp Lejeune Phone No.: 910-451-1725

IR Division - Bldg. 67 EPA ID No.: NC6170022580

Camp Lejeune, NC 28542 Contact: Neal Paul

Process which generated waste: Groundwater assessment

I certify that the materials described below are properly described, classified, packaged, marked & labeled, and are in proper condition to be transported in commerce under the applicable regulations of the State, the Environmental Protection Agency and the Department of Transportation. I certify that the waste described below is non-hazardous. I certify that the specific waste was delivered to the carrier named below for legal treatment, storage, or disposal at the site indicated.

*31 gal - liquid
5 - sludge*

Date May 25, 1994 Signature *[Signature]*

Description of material	Circle Form Solid Liquid Gas Sludge	Quantity	Circle Units Gallons Cu. Yds. Pounds Tons	Container	
				No.	Type
<u>Non-Regulated Groundwater</u>		<u>3246</u>		<u>1</u>	<u>TT</u>

Transporter: Four Seasons Environmental, Inc. Unit Number(s) BT6 TH

3107 S. Elm-Eugene Phone No.: 910-273-2718

Greensboro, Nc 27406 EPA ID No.: NC099277732

Vehicle License Tag Number(s) _____ Container: _____

I certify that the specified material was transferred in a registered (licensed) vehicle to the disposal treatment, storage, or disposal facility named below and was accepted.

Pick-up Driver's Signature [Signature] Date 5-26-94 Delivering Driver's Signature [Signature] Date 5-26-94

Facility: Four Seasons Environmental, Inc. Phone No.: 910-273-2718

519 Patton Avenue

Greensboro, NC 27406 Contact: Eric McManus

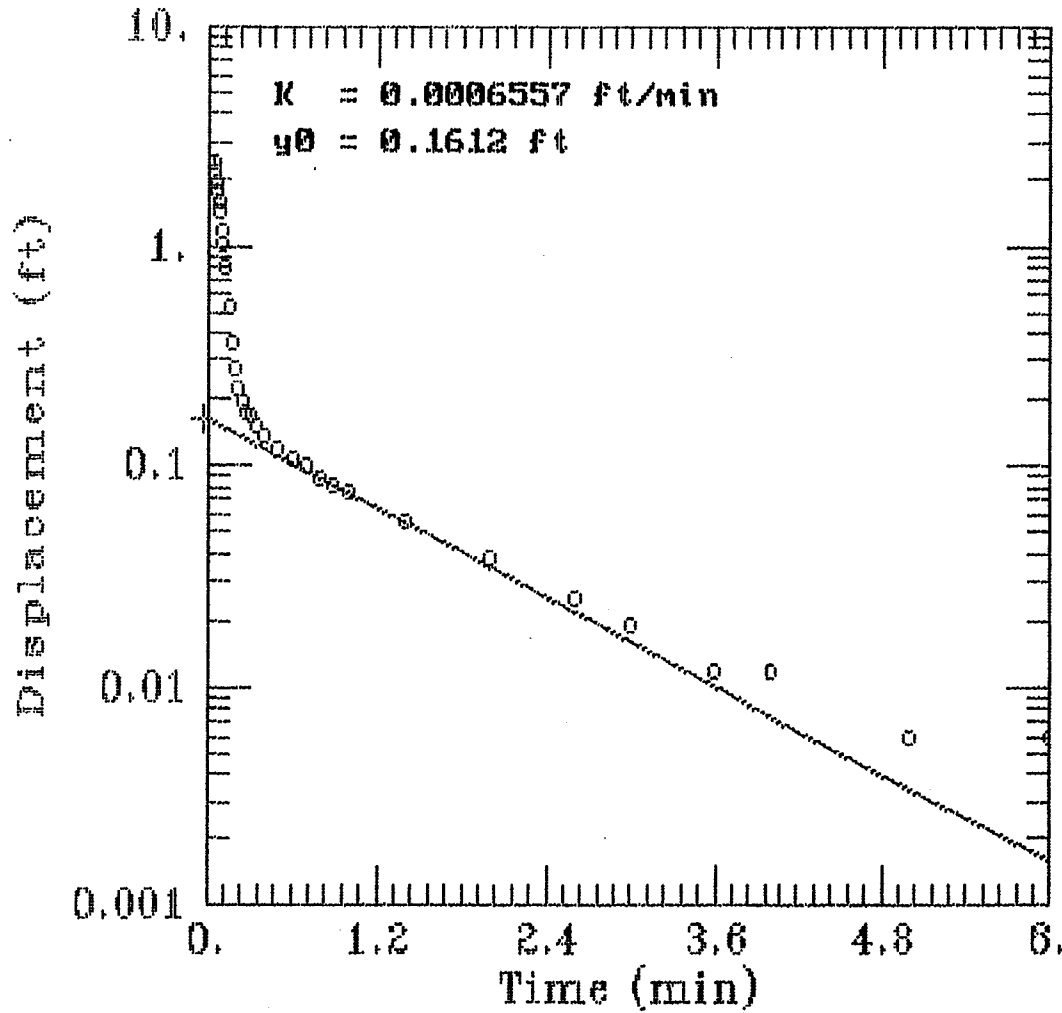
Handling Method: PT5041 PT5032

I certify that the transporter above delivered the specified material to this TSD facility and was accepted and properly handled in the above manner. We are authorized and qualified by the State of NC to handle this material.

Date 5-26-94 Signature: [Signature]

APPENDIX G
SITE 41 AQUIFER CHARACTERIZATION DATA

41GW10 RISING HEAD TEST



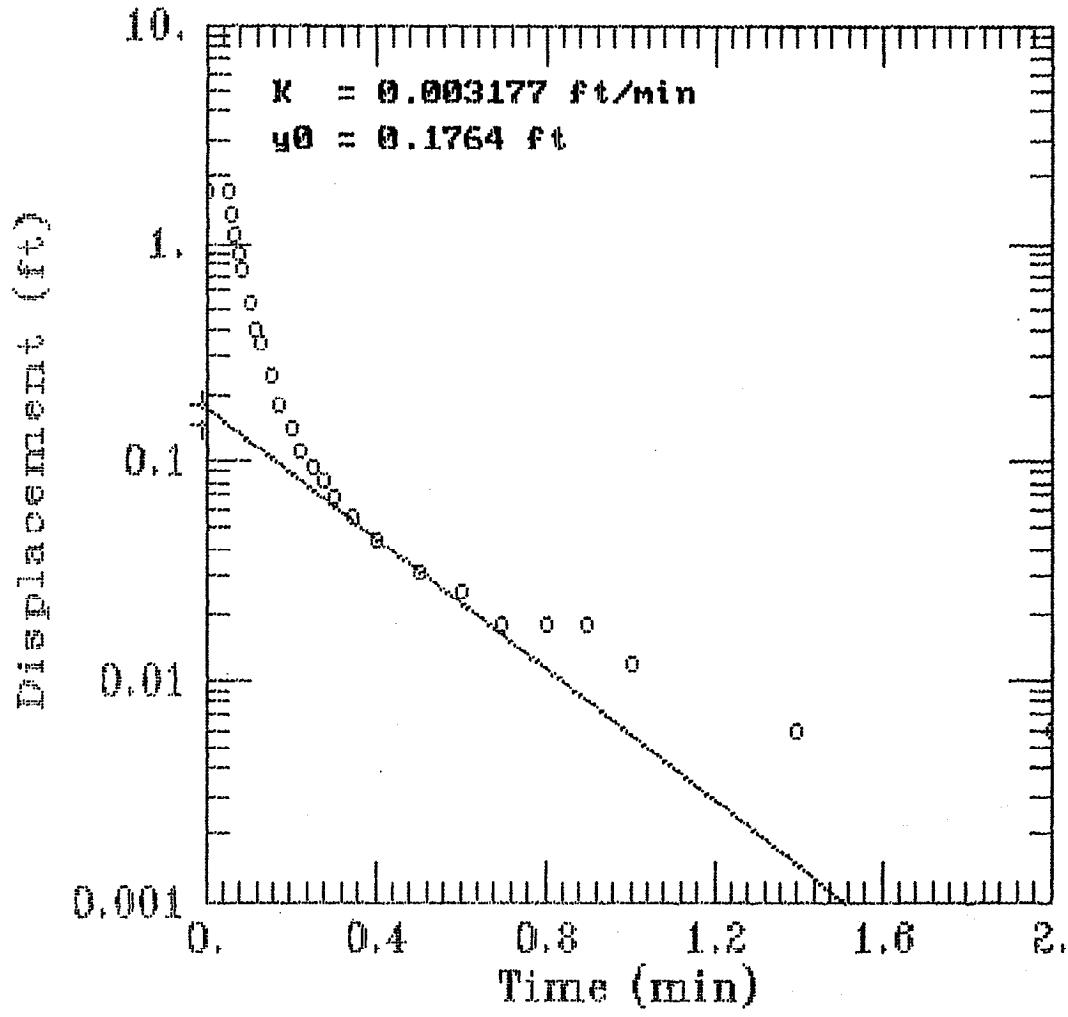
AQTESOLV





GERAGHTY
& MILLER, INC.

Modeling Group

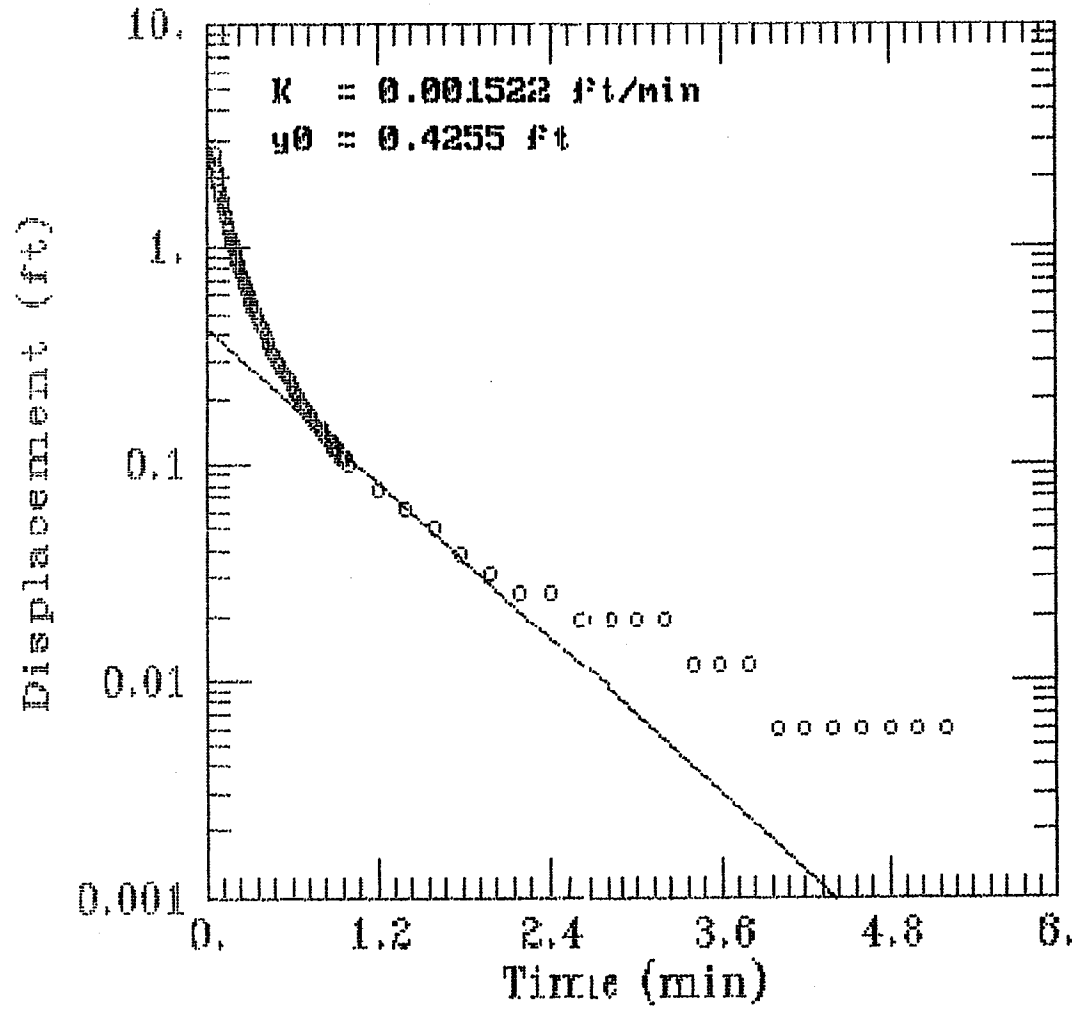
41GW12 RISING HEAD TEST



AQTESOLV

 GERAGHTY
& MILLER, INC.
 Modeling Group

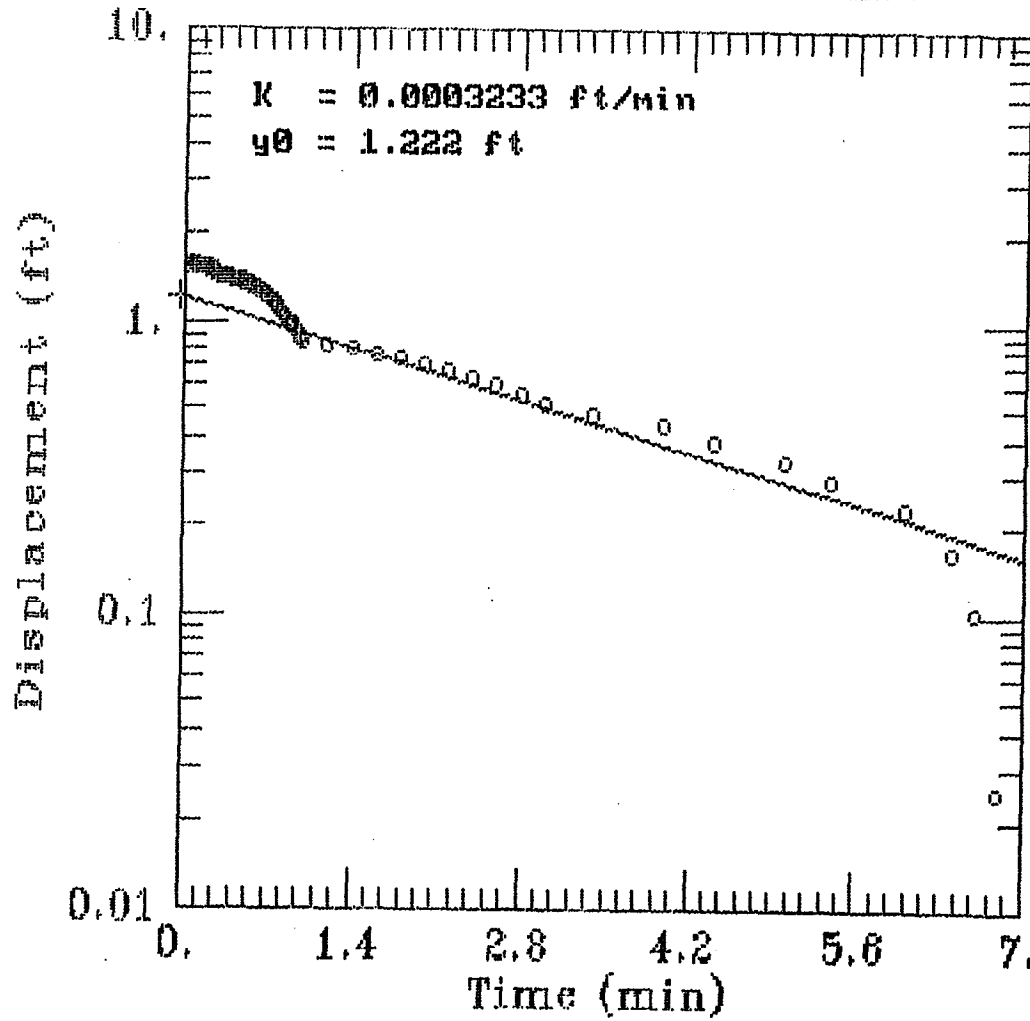
41GW06D RISING HEAD TEST





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Modeling Group

0.075	2.174	2.0558	0.1182	1
0.0833	2.029	1.9669	0.062067	1
0.0916	1.891	1.8819	0.0090959	1
0.1	1.777	1.7996	-0.022592	1
0.1083	1.67	1.7218	-0.051797	1
0.1166	1.576	1.6474	-0.071365	1
0.125	1.487	1.5753	-0.088311	1
0.1333	1.412	1.5072	-0.095212	1
0.1416	1.343	1.4421	-0.099056	1
0.15	1.273	1.379	-0.10598	1
0.1583	1.216	1.3194	-0.10337	1
0.1666	1.16	1.2623	-0.10233	1
0.175	1.109	1.2071	-0.098122	1
0.1833	1.059	1.1549	-0.095939	1
0.1916	1.015	1.105	-0.090011	1
0.2	0.971	1.0567	-0.08568	1
0.2083	0.933	1.011	-0.078	1
0.2166	0.895	0.9673	-0.072295	1
0.225	0.857	0.92499	-0.067987	1
0.2333	0.826	0.885	-0.059001	1
0.2416	0.794	0.84674	-0.052743	1
0.25	0.756	0.80971	-0.053707	1
0.2583	0.737	0.7747	-0.037704	1
0.2666	0.706	0.74121	-0.035214	1
0.275	0.681	0.70879	-0.027795	1
0.2833	0.655	0.67815	-0.023154	1
0.2916	0.637	0.64884	-0.011838	1
0.3	0.611	0.62046	-0.0094585	1
0.3083	0.592	0.59364	-0.0016365	1
0.3166	0.574	0.56797	0.006026	1
0.325	0.555	0.54313	0.011868	1
0.3333	0.536	0.51965	0.016348	1
0.35	0.504	0.47544	0.028558	1
0.3666	0.473	0.43522	0.037776	1
0.3833	0.441	0.3982	0.042803	1
0.4	0.422	0.36432	0.057681	1
0.4166	0.397	0.3335	0.063499	1
0.4333	0.378	0.30513	0.072872	1
0.45	0.359	0.27917	0.079831	1
0.4666	0.34	0.25555	0.084446	1
0.4833	0.321	0.23381	0.087188	1
0.5	0.309	0.21392	0.09508	1
0.5166	0.29	0.19582	0.094176	1
0.5333	0.277	0.17916	0.097836	1
0.55	0.265	0.16392	0.10108	1
0.5666	0.252	0.15006	0.10194	1
0.5833	0.246	0.13729	0.10871	1
0.6	0.233	0.12561	0.10739	1
0.6166	0.227	0.11498	0.11202	1
0.6333	0.214	0.1052	0.1088	1
0.65	0.208	0.096251	0.11175	1
0.6666	0.195	0.088109	0.10689	1
0.6833	0.189	0.080613	0.10839	1
0.7	0.183	0.073755	0.10925	1
0.7166	0.176	0.067516	0.10848	1
0.7333	0.17	0.061772	0.10823	1
0.75	0.164	0.056516	0.10748	1
0.7666	0.157	0.051736	0.10526	1
0.7833	0.151	0.047334	0.10367	1
0.8	0.145	0.043307	0.10169	1
0.8166	0.145	0.039644	0.10536	1
0.8333	0.139	0.036271	0.10273	1
0.85	0.132	0.033185	0.098815	1
0.8666	0.126	0.030378	0.095622	1

41GW06D FALLING HEAD TEST



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 Modeling Group

A Q T H S O L V R E S U L T S
Version 1.10

05/19/94

07:05:33

TEST DESCRIPTION

Data set..... b:41gw06df.dat
Data set title..... 41GW06D FALLING HEAD TEST

Knowns and Constants:

No. of data points..... 90
 Radius of well casing..... 0.083
 Radius of well..... 0.333
 Aquifer saturated thickness..... 30.25
 Well screen length..... 10
 Static height of water in well..... 30.25
 Log(Re/Rw)..... 3.231
 A, B, C..... 0.000, 0.000, 1.970

ANALYTICAL METHOD

Bouwer-Rice (Unconfined Aquifer Slug Test)

RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

	Estimate	Std. Error
K =	4.8225E-004 +/-	1.6098E-005
y0 =	1.6354E+000 +/-	1.5118E-002

ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
 weighted residual = residual * weight

Weighted Residual Statistics:

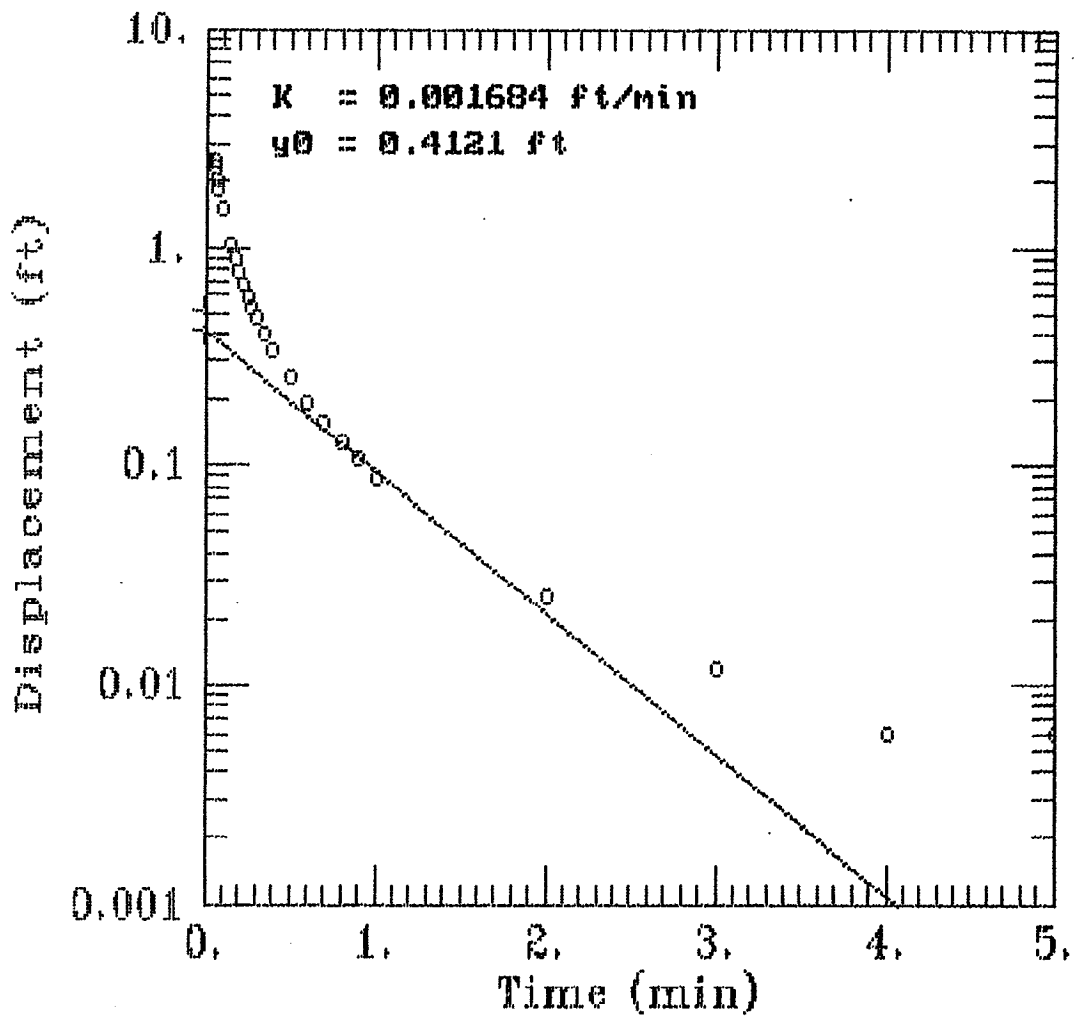
Number of residuals..... 90
 Number of estimated parameters.... 2
 Degrees of freedom..... 88
 Residual mean..... 0.005281
 Residual standard deviation..... 0.07285
 Residual variance..... 0.005307

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.0833	1.564	1.5774	-0.013427	1
0.0916	1.564	1.5718	-0.0077632	1
0.1	1.564	1.5661	-0.0020517	1

0.125	1.557	1.5492	0.0078241	1
0.1333	1.557	1.5436	0.013387	1
0.1416	1.557	1.5381	0.018929	1
0.15	1.551	1.5325	0.018518	1
0.1583	1.551	1.527	0.024021	1
0.1666	1.545	1.5215	0.023503	1
0.175	1.539	1.516	0.023032	1
0.1833	1.539	1.5105	0.028475	1
0.1916	1.539	1.5051	0.033899	1
0.2	1.532	1.4996	0.032368	1
0.2083	1.526	1.4942	0.031753	1
0.2166	1.52	1.4889	0.031118	1
0.225	1.513	1.4835	0.029528	1
0.2333	1.507	1.4781	0.028855	1
0.2416	1.488	1.4728	0.015162	1
0.25	1.463	1.4675	-0.0044857	1
0.2583	1.457	1.4622	-0.0052166	1
0.2666	1.457	1.457	3.3658E-005	1
0.275	1.45	1.4517	-0.001672	1
0.2833	1.45	1.4465	0.0035403	1
0.2916	1.444	1.4413	0.002734	1
0.3	1.444	1.436	0.0079712	1
0.3083	1.438	1.4309	0.0071274	1
0.3166	1.431	1.4257	0.0052651	1
0.325	1.431	1.4206	0.010446	1
0.3333	1.425	1.4155	0.0095465	1
0.35	1.419	1.4052	0.013754	1
0.3666	1.419	1.3952	0.023827	1
0.3833	1.412	1.3851	0.026888	1
0.4	1.406	1.3751	0.030877	1
0.4166	1.4	1.3653	0.034734	1
0.4333	1.393	1.3554	0.037579	1
0.45	1.387	1.3456	0.041354	1
0.4666	1.381	1.336	0.045	1
0.4833	1.375	1.3264	0.048634	1
0.5	1.368	1.3168	0.051199	1
0.5166	1.362	1.3074	0.054638	1
0.5333	1.356	1.2979	0.058066	1
0.55	1.349	1.2886	0.060426	1
0.5666	1.337	1.2793	0.057663	1
0.5833	1.33	1.2701	0.059888	1
0.6	1.312	1.261	0.051048	1
0.6166	1.299	1.2519	0.047086	1
0.6333	1.286	1.2429	0.043114	1
0.65	1.274	1.2339	0.040077	1
0.6666	1.261	1.2251	0.035922	1
0.6833	1.248	1.2162	0.031757	1
0.7	1.23	1.2075	0.022528	1
0.7166	1.217	1.1988	0.018183	1
0.7333	1.198	1.1902	0.0078282	1
0.75	1.179	1.1816	-0.0025891	1
0.7666	1.154	1.1731	-0.019119	1
0.7833	1.135	1.1647	-0.029659	1
0.8	1.11	1.1563	-0.046261	1
0.8166	1.078	1.148	-0.069972	1
0.8333	1.047	1.1397	-0.092694	1
0.85	1.034	1.1315	-0.097475	1
0.8666	1.015	1.1234	-0.10836	1
0.8833	1.003	1.1153	-0.11226	1
0.9	0.984	1.1072	-0.12322	1
0.9166	0.965	1.0993	-0.13428	1
0.9333	0.939	1.0914	-0.15236	1
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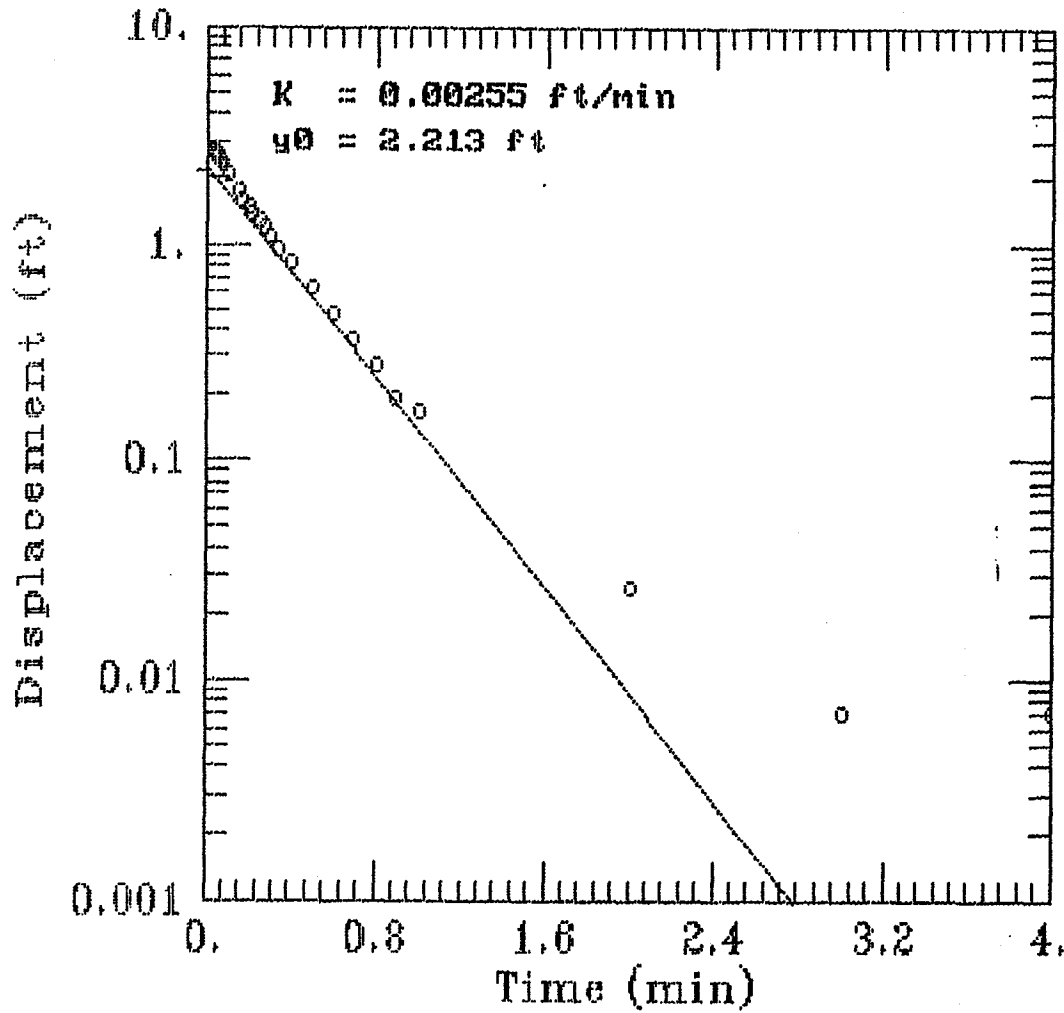
41GW07D RISING HEAD TEST




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0.35	1.754	1.7014	0.052627	1
0.3666	1.741	1.6981	0.042851	1
0.3833	1.735	1.6949	0.040088	1
0.4	1.729	1.6917	0.037318	1
0.4166	1.71	1.6885	0.021524	1
0.4333	1.685	1.6853	-0.00025777	1
0.4833	1.678	1.6757	0.0023418	1
0.5166	1.672	1.6693	0.0027048	1
0.55	1.666	1.6629	0.0030626	1
0.5833	1.659	1.6566	0.0023772	1
0.6	1.653	1.6535	-0.000465	1
0.6333	1.647	1.6472	-0.00018631	1
0.6666	1.64	1.6409	-0.00093146	1
0.6833	1.634	1.6378	-0.0038036	1
0.7166	1.628	1.6316	-0.0035844	1
0.7333	1.622	1.6285	-0.0064743	1
0.75	1.615	1.6254	-0.01037	1
0.7666	1.609	1.6223	-0.013291	1
0.7833	1.603	1.6192	-0.016198	1
0.8	1.596	1.6161	-0.020112	1
0.8166	1.59	1.613	-0.02305	1
0.8333	1.584	1.61	-0.025975	1
0.85	1.571	1.6069	-0.035906	1
0.8666	1.565	1.6039	-0.038861	1
0.8833	1.558	1.6008	-0.042804	1
0.9	1.546	1.5978	-0.051753	1
0.9166	1.54	1.5947	-0.054725	1
0.9333	1.527	1.5917	-0.064686	1
0.95	1.514	1.5887	-0.074652	1
0.9666	1.502	1.5856	-0.083642	1
0.9833	1.489	1.5826	-0.093619	1
1	1.476	1.5796	-0.1036	1
1.2	1.458	1.5439	-0.085918	1
1.4	1.445	1.509	-0.064039	1
1.6	1.426	1.4749	-0.048949	1
1.8	1.407	1.4416	-0.034628	1
2	1.388	1.4091	-0.021061	1
2.2	1.363	1.3772	-0.014229	1
2.4	1.35	1.3461	0.003884	1
2.6	1.338	1.3157	0.022294	1
2.8	1.325	1.286	0.039017	1
3	1.312	1.2569	0.055068	1
3.2	1.294	1.2285	0.065464	1
3.4	1.275	1.2008	0.074217	1
3.6	1.262	1.1737	0.088344	1
3.8	1.243	1.1471	0.095858	1
4	1.224	1.1212	0.10277	1
4.2	1.199	1.0959	0.1031	1
4.4	1.18	1.0711	0.10886	1
4.6	1.161	1.0469	0.11406	1
4.8	1.136	1.0233	0.11271	1
5	1.111	1.0002	0.11083	1
5.2	1.085	0.97758	0.10742	1
5.4	1.06	0.95549	0.10451	1
5.6	1.029	0.93391	0.095091	1
5.8	0.997	0.91281	0.084189	1
6	0.959	0.89219	0.06681	1
6.2	0.921	0.87203	0.048965	1
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6.6	0.846	0.83308	0.01292	1

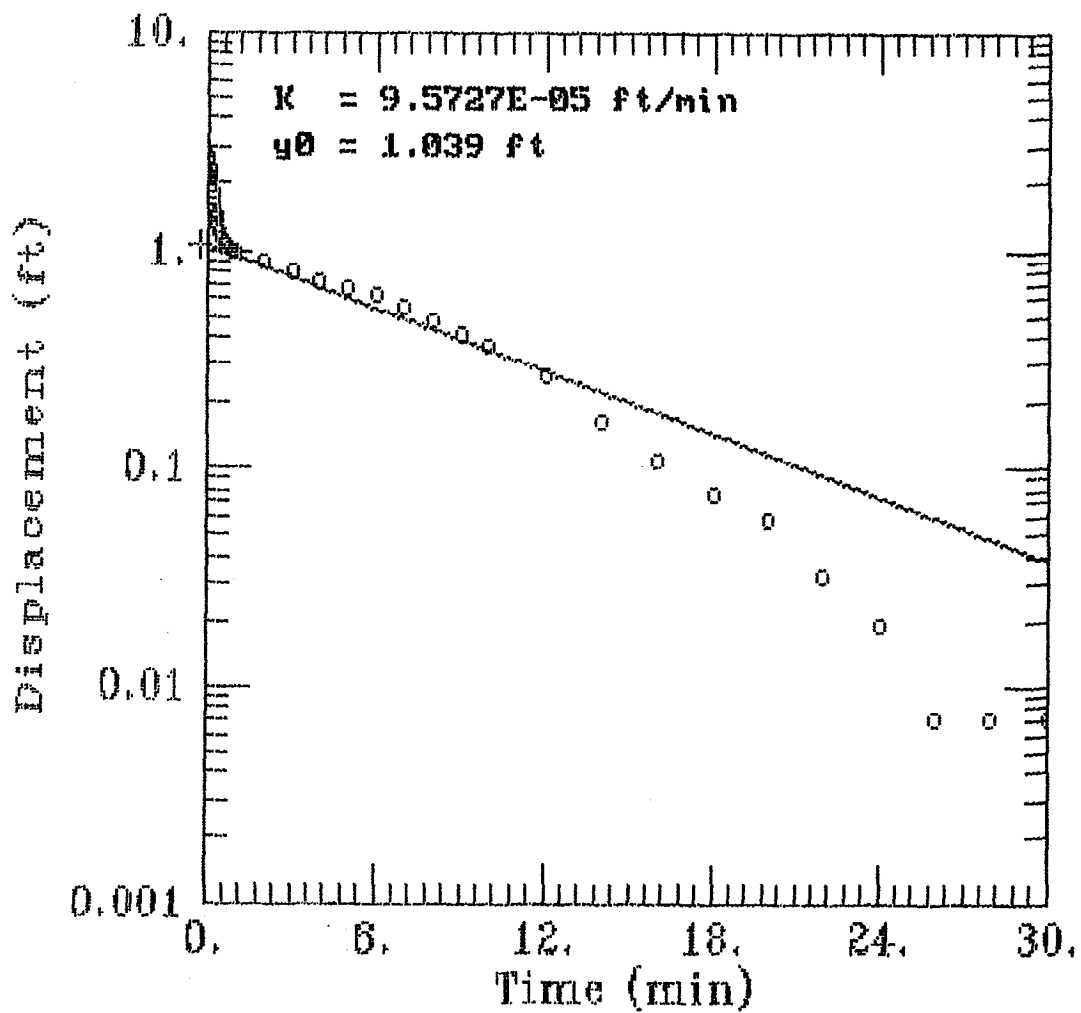
41GW09 RISING HEAD TEST



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Modeling Group

41GW08 RISING HEAD TEST



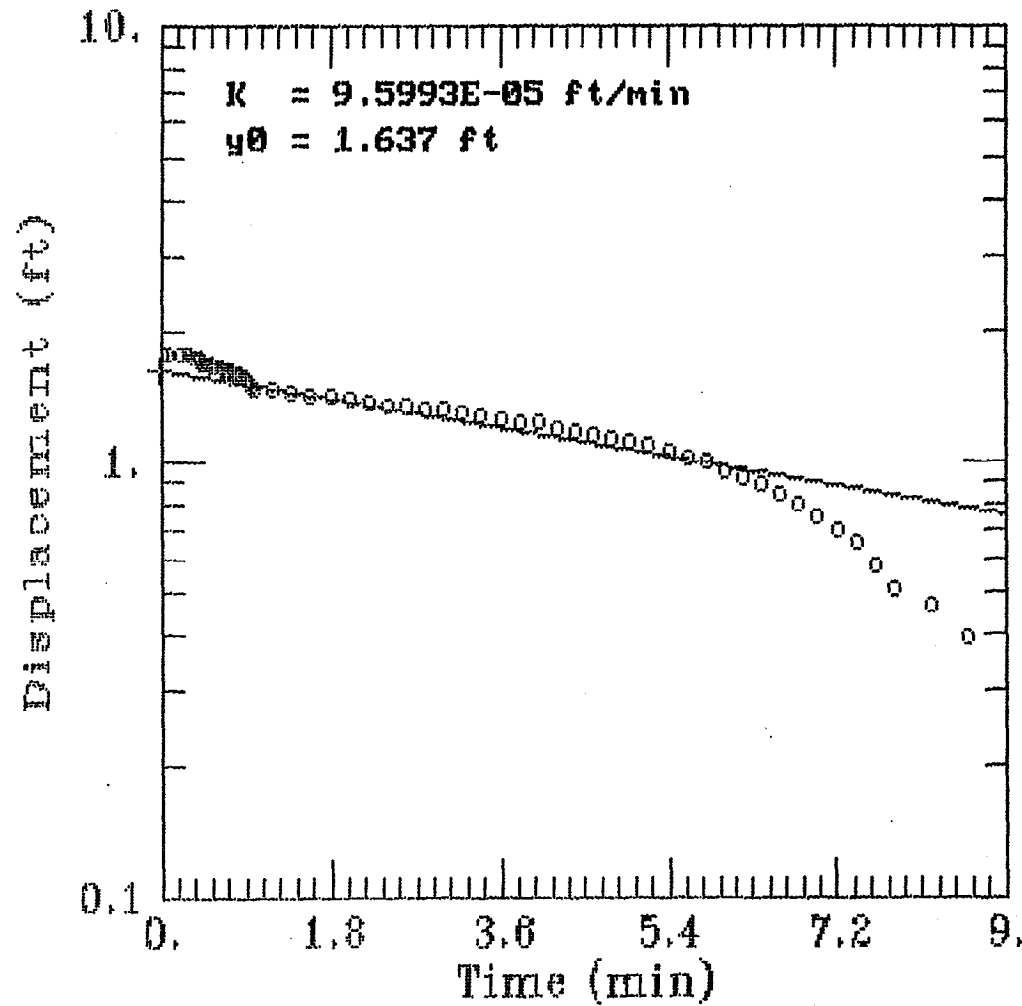
AQTESOLV




GERAGHTY
& MILLER, INC.

Modeling Group

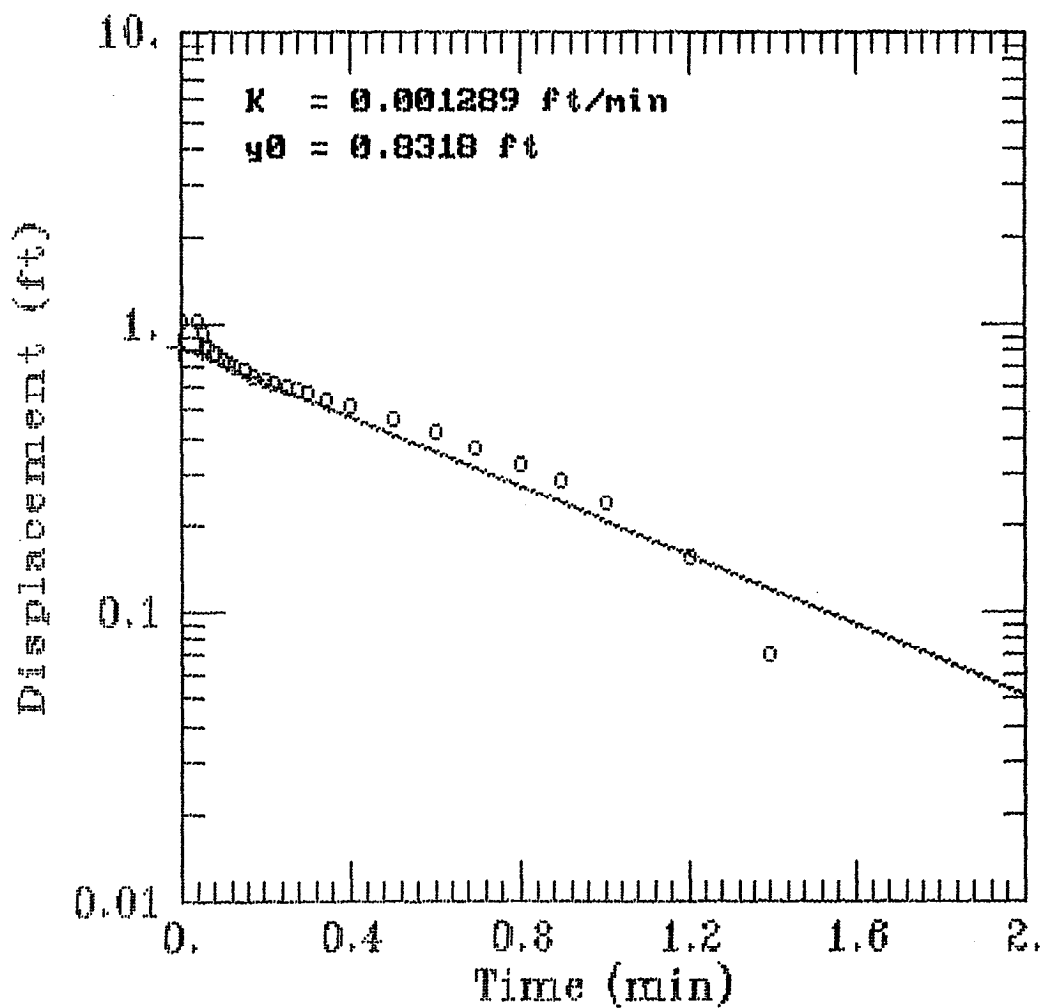
41GW07D FALLING HEAD TEST



AQTESOLV

 GERAGHTY
& MILLER, INC.
Modeling Group

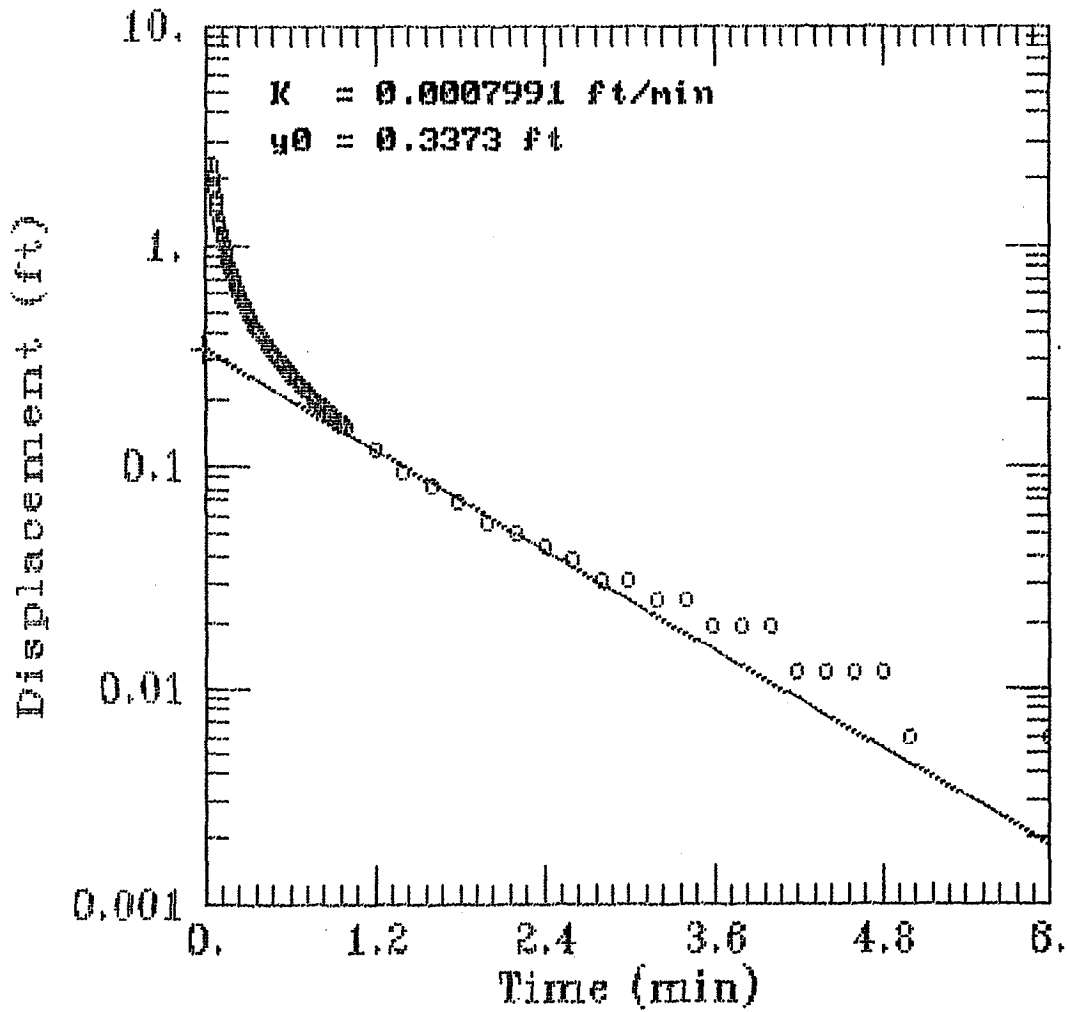
41GW12D RISING HEAD TEST



AQTESOLV
GERAGHTY
& MILLER, INC.
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0.0310	1.410	1.4343	-0.000434	1
0.1	1.309	1.3938	-0.084789	1
0.1083	1.221	1.3363	-0.11533	1
0.1166	1.145	1.2812	-0.13624	1
0.125	1.076	1.2278	-0.1518	1
0.1333	1.019	1.1772	-0.15819	1
0.1416	0.969	1.1287	-0.15966	1
0.15	0.919	1.0816	-0.16259	1
0.1583	0.881	1.037	-0.156	1
0.1666	0.837	0.99425	-0.15725	1
0.175	0.805	0.95278	-0.14778	1
0.1833	0.774	0.9135	-0.1395	1
0.1916	0.742	0.87585	-0.13385	1
0.2	0.717	0.83931	-0.12231	1
0.2083	0.692	0.80471	-0.11271	1
0.2166	0.667	0.77154	-0.10454	1
0.225	0.642	0.73936	-0.097361	1
0.2333	0.623	0.70888	-0.085882	1
0.2416	0.604	0.67966	-0.075659	1
0.25	0.585	0.65131	-0.066311	1
0.2583	0.573	0.62446	-0.051461	1
0.2666	0.554	0.59872	-0.044719	1
0.275	0.541	0.57375	-0.032746	1
0.2833	0.522	0.55009	-0.028095	1
0.2916	0.51	0.52742	-0.017418	1
0.3	0.497	0.50542	-0.0084194	1
0.3083	0.484	0.48458	-0.00058425	1
0.3166	0.478	0.46461	0.013392	1
0.325	0.466	0.44523	0.020771	1
0.3333	0.453	0.42688	0.026125	1
0.35	0.434	0.39221	0.041793	1
0.3666	0.415	0.36054	0.054463	1
0.3833	0.403	0.33126	0.071743	1
0.4	0.384	0.30435	0.079646	1
0.4166	0.371	0.27978	0.091222	1
0.4333	0.359	0.25706	0.10194	1
0.45	0.346	0.23618	0.10982	1
0.4666	0.333	0.21711	0.11589	1
0.4833	0.327	0.19948	0.12752	1
0.5	0.314	0.18328	0.13072	1
0.5166	0.308	0.16848	0.13952	1
0.5333	0.296	0.15479	0.14121	1
0.55	0.289	0.14222	0.14678	1
0.5666	0.277	0.13074	0.14626	1
0.5833	0.27	0.12012	0.14988	1
0.6	0.264	0.11037	0.15363	1
0.6166	0.258	0.10145	0.15655	1
0.6333	0.252	0.093215	0.15879	1
0.65	0.245	0.085644	0.15936	1
0.6666	0.239	0.078729	0.16027	1
0.6833	0.233	0.072335	0.16067	1
0.7	0.226	0.06646	0.15954	1
0.7166	0.22	0.061094	0.15891	1
0.7333	0.214	0.056132	0.15787	1
0.75	0.214	0.051573	0.16243	1
0.7666	0.201	0.047409	0.15359	1
0.7833	0.201	0.043559	0.15744	1
0.8	0.195	0.040021	0.15498	1
0.8166	0.189	0.03679	0.15221	1
0.8333	0.189	0.033802	0.1552	1
0.85	0.182	0.031057	0.15094	1
0.8666	0.176	0.028549	0.14745	1
0.8833	0.176	0.02623	0.14977	1
0.9	0.17	0.0241	0.1459	1
0.9166	0.17	0.022154	0.14785	1

41GW07 RISING HEAD TEST



AQTESOLV
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APPENDIX H
SITE 74 AQUIFER CHARACTERIZATION DATA

<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>>>>>>>>>>>>>>>>>>>>>>>>

AQTESOLV RESULTS
Version 1.10

05/16/94

07:33:23

=====

TEST DESCRIPTION

Data set..... B:74GW06R.DAT
Data set title.... 74GW06 RISING HEAD TEST

Knowns and Constants:

No. of data points..... 26
Radius of well casing..... 0.083
Radius of well..... 0.333
Aquifer saturated thickness..... 8.18
Well screen length..... 10
Static height of water in well..... 8.18
Log(R_e/R_w)..... 2.444
A, B, C..... 0.000, 0.000, 1.970

=====

ANALYTICAL METHOD

Bouwer-Rice (Unconfined Aquifer Slug Test)

=====

RESULTS FROM STATISTICAL CURVE MATCHING

STATISTICAL MATCH PARAMETER ESTIMATES

Estimate Std. Error
K = 7.4936E-003 +/- 9.0302E-004
y0 = 1.7194E+000 +/- 1.9694E-001

ANALYSIS OF MODEL RESIDUALS

residual = calculated - observed
weighted residual = residual * weight

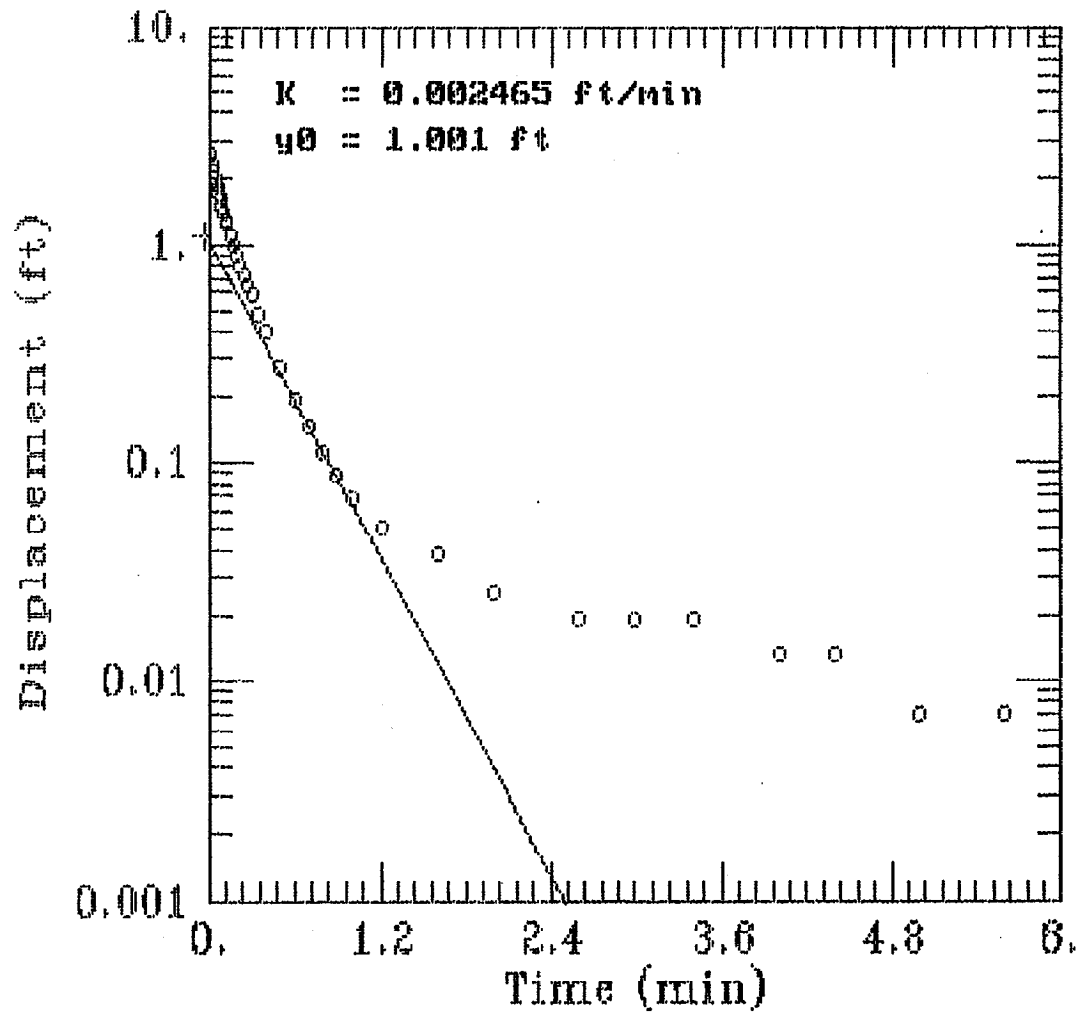
Weighted Residual Statistics:

Number of residuals..... 26
Number of estimated parameters.... 2
Degrees of freedom..... 24
Residual mean..... 0.03895
Residual standard deviation..... 0.09249
Residual variance..... 0.008555


Model Residuals:

Time	Observed	Calculated	Residual	Weight
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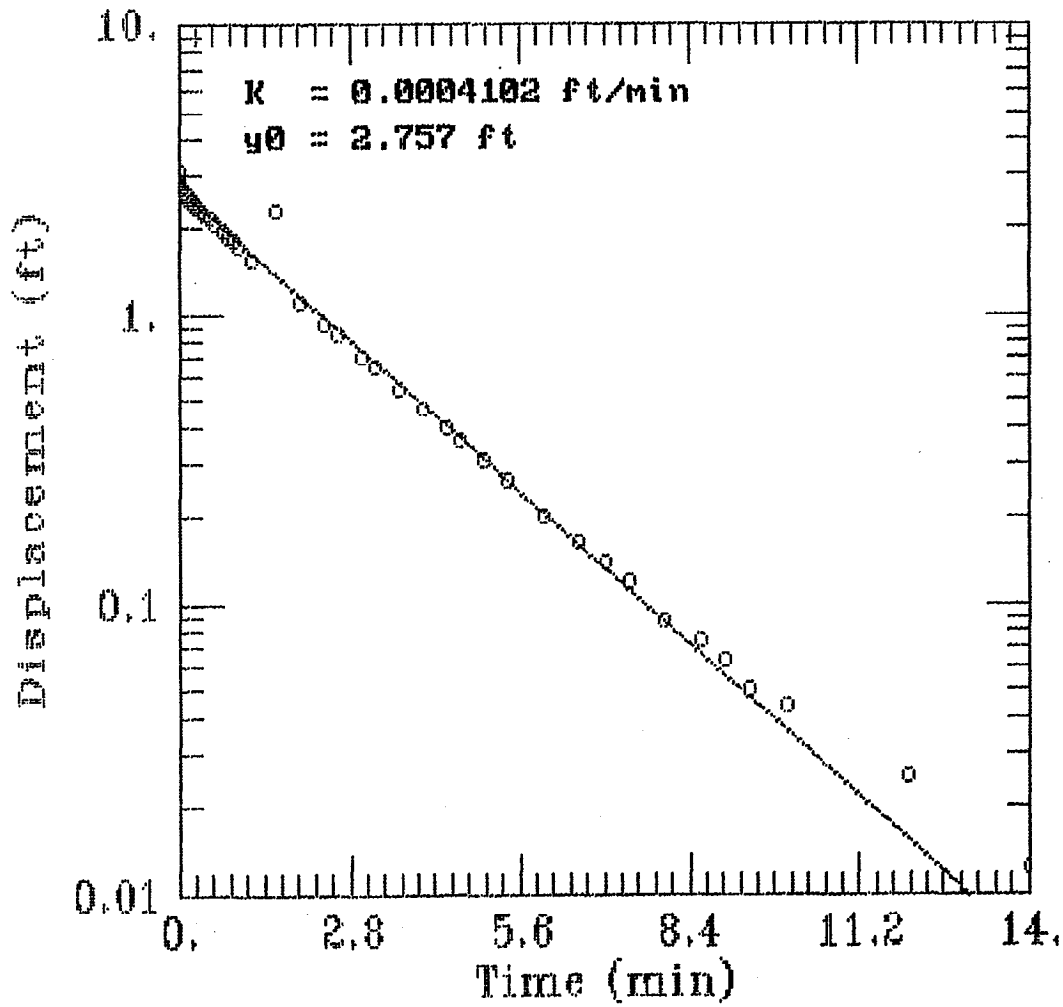
74GW08 RISING HEAD TEST



AQTESOLV

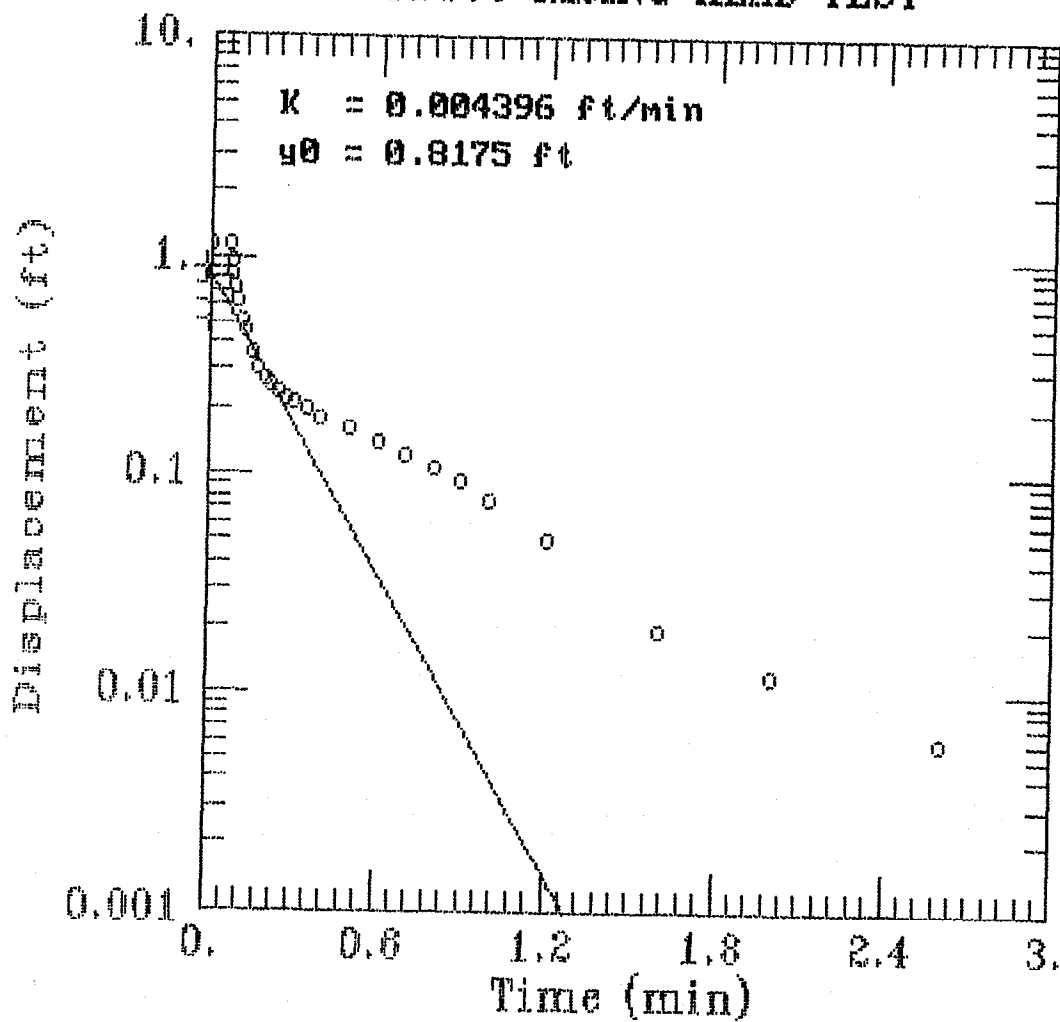
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74GW03A RISING TEST




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74GW06 RISING HEAD TEST



AQTESOLV

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APPENDIX I
FIELD DUPLICATE SUMMARIES

APPENDIX I.1
SITE 41

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 DOWNSLOPE AND ONSITE SURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-DS-SB03-00	41-DS-SB03-00D	41-DS-SB08-00	41-DS-SB08-00D	41-OS-SB02-00	41-OS-SB02-00D
Laboratory Sample ID:	9402043-10	9402043-11	9402043-07	9402043-08	9402021-06	9402021-07
Date Sampled:						
Percent Solids	77.2	79.9	83.5	82.8	86.8	84.7
SEMIVOLATILES						
1,2-Dichlorobenzene	UG/KG	429 U	429 U	396 U	396 U	380 U
1,2,4-Trichlorobenzene	UG/KG	429 U	429 U	396 U	396 U	380 U
1,3-Dichlorobenzene	UG/KG	429 U	429 U	396 U	396 U	380 U
1,4-Dichlorobenzene	UG/KG	429 U	429 U	396 U	396 U	380 U
2-Chloronaphthalene	UG/KG	429 U	429 U	396 U	396 U	380 U
2-Chlorophenol	UG/KG	429 U	429 U	396 U	396 U	380 U
2-Methylnaphthalene	UG/KG	429 U	429 U	396 U	396 U	380 U
2-Methylphenol	UG/KG	429 U	429 U	396 U	396 U	380 U
2-Nitroaniline	UG/KG	1040 U	1040 U	960 U	960 U	920 U
2-Nitrophenol	UG/KG	429 U	429 U	396 U	396 U	380 U
2,2'-oxybis-(1-chloropropane)	UG/KG	429 U	429 U	396 U	396 U	380 U
2,4-Dichlorophenol	UG/KG	429 U	429 U	396 U	396 U	380 U
2,4-Dimethylphenol	UG/KG	429 U	429 U	396 U	396 U	380 U
2,4-Dinitrophenol	UG/KG	1040 U	1040 U	960 U	960 U	920 U
2,4-Dinitrotoluene	UG/KG	429 U	429 U	396 U	396 U	380 U
2,4,5-Trichlorophenol	UG/KG	1040 U	1040 U	960 U	960 U	920 U
2,4,6-Trichlorophenol	UG/KG	429 U	429 U	396 U	396 U	380 U
2,6-Dinitrotoluene	UG/KG	429 U	429 U	396 U	396 U	380 U
3-Nitroaniline	UG/KG	1040 U	1040 U	960 U	960 U	920 U
3,3'-Dichlorobenzidine	UG/KG	429 U	429 U	396 U	396 U	380 U
4-Bromophenyl-phenylether	UG/KG	429 U	429 U	396 U	396 U	380 U
4-Chloro-3-methylphenol	UG/KG	429 U	429 U	396 U	396 U	380 U
4-Chloroaniline	UG/KG	429 U	429 U	396 U	396 U	380 U
4-Chlorophenyl phenyl ether	UG/KG	429 U	429 U	396 U	396 U	380 U
4-Methylphenol	UG/KG	429 U	429 U	396 U	396 U	380 U
4-Nitroaniline	UG/KG	1040 U	1040 U	960 U	960 U	920 R
4-Nitrophenol	UG/KG	1040 U	1040 U	960 U	960 U	920 U
4,6-Dinitro-2-methylphenol	UG/KG	1040 U	1040 U	960 U	960 U	920 U
Acenaphthene	UG/KG	429 U	429 U	396 U	396 U	380 U
Acenaphthylene	UG/KG	429 U	429 U	396 U	396 U	380 U
Anthracene	UG/KG	429 U	429 U	396 U	396 U	380 U
Benzo[a]anthracene	UG/KG	429 U	429 U	396 U	396 U	380 U
Benzo[a]pyrene	UG/KG	429 U	429 U	396 U	396 U	380 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 DOWNSLOPE AND ONSITE SURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-DS-SB03-00	41-DS-SB03-00D	41-DS-SB08-00	41-DS-SB08-00D	41-OS-SB02-00	41-OS-SB02-00D
Laboratory Sample ID:	9402043-10	9402043-11	9402043-07	9402043-08	9402021-06	9402021-07
Date Sampled:						
Percent Solids	77.2	79.9	83.5	82.8	86.8	84.7

SEMIVOLATILES Cont.

Benzo[b]fluoranthene	UG/KG	429 U	429 U	396 U	396 U	380 U	389 U
Benzo[g,h,i]perylene	UG/KG	429 U	429 U	396 U	396 U	380 U	389 U
Benzo[k]fluoranthene	UG/KG	429 U	429 U	396 U	396 U	380 U	389 U
bis(2-Chloroethoxy) methane	UG/KG	429 U	429 U	396 U	396 U	380 U	389 U
bis(2-Chloroethyl) ether	UG/KG	429 U	429 U	396 U	396 U	380 U	389 U
bis(2-Ethylhexyl)phthalate	UG/KG	429 U	429 U	396 U	396 U	380 U	43 J
Butyl benzyl phthalate	UG/KG	429 U	429 U	396 U	396 U	380 U	389 U
Carbazole	UG/KG	429 U	429 U	396 U	396 U	380 U	389 U
Chrysene	UG/KG	429 U	429 U	396 U	396 U	380 U	389 U
Dibenzofuran	UG/KG	429 U	429 U	396 U	396 U	380 U	389 U
Dibenz[a,h]anthracene	UG/KG	429 U	429 U	396 U	396 U	380 U	389 U
Diethylphthalate	UG/KG	429 U	429 U	396 U	396 U	380 U	389 U
Dimethyl phthalate	UG/KG	429 U	429 U	396 U	396 U	380 U	389 U
di-n-Butylphthalate	UG/KG	430 U	420 U	396 U	400 U	230 J	43 J
di-n-Octylphthalate	UG/KG	429 U	429 U	396 U	396 U	380 U	389 U
Fluoranthene	UG/KG	429 U	429 U	396 U	396 U	380 U	389 U
Fluorene	UG/KG	429 U	429 U	396 U	396 U	380 U	389 U
Hexachlorobenzene	UG/KG	429 U	429 U	396 U	396 U	380 U	389 U
Hexachlorobutadiene	UG/KG	429 U	429 U	396 U	396 U	380 U	389 U
Hexachlorocyclopentadiene	UG/KG	429 U	429 U	396 U	396 U	380 U	389 U
Hexachloroethane	UG/KG	429 U	429 U	396 U	396 U	380 U	389 U
Indeno[1,2,3-cd]pyrene	UG/KG	429 U	429 U	396 U	396 U	380 U	389 U
Isophorone	UG/KG	429 U	429 U	396 U	396 U	380 U	389 U
Naphthalene	UG/KG	429 U	429 U	396 U	396 U	380 U	389 U
Nitrobenzene	UG/KG	429 U	429 U	396 U	396 U	380 U	389 U
N-Nitroso-di-n-propylamine	UG/KG	429 U	429 U	396 U	396 U	380 U	389 U
N-nitrosodiphenylamine	UG/KG	429 U	429 U	396 U	396 U	380 U	389 U
Pentachlorophenol	UG/KG	1040 U	1040 U	960 U	960 U	920 U	944 U
Phenanthrene	UG/KG	429 U	429 U	396 U	396 U	380 U	389 U
Phenol	UG/KG	429 U	429 U	396 U	396 U	380 U	389 U
Pyrene	UG/KG	429 U	429 U	396 U	396 U	380 U	389 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 DOWNSLOPE AND ONSITE SURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-DS-SB03-00	41-DS-SB03-00D	41-DS-SB08-00	41-DS-SB08-00D	41-OS-SB02-00	41-OS-SB02-00D	
Laboratory Sample ID:	9402043-10	9402043-11	9402043-07	9402043-08	9402021-06	9402021-07	
Date Sampled:							
Percent Solids	77.2	79.9	83.5	82.8	86.8	84.7	
VOLATILES							
Chloromethane	UG/KG	13 U	12.5 UJ	11.9 U	12 U	11.5 U	11.8 U
Bromomethane	UG/KG	13 U	12.5 UJ	11.9 U	12 U	11.5 U	11.8 U
Vinyl chloride	UG/KG	13 U	12.5 UJ	11.9 U	12 U	11.5 U	11.8 U
Chloroethane	UG/KG	13 U	12.5 UJ	11.9 U	12 U	11.5 U	11.8 U
Methylene chloride	UG/KG	41 U	44 UJ	54 U	37 U	11 U	12 U
Acetone	UG/KG	88 U	48 UJ	11.9 U	12 U	11.5 U	11.8 U
Carbon Disulfide	UG/KG	13 U	12.5 UJ	11.9 U	12 U	11.5 U	11.8 U
1,1-Dichloroethene	UG/KG	13 U	12.5 UJ	11.9 U	12 U	11.5 U	11.8 U
1,1-Dichloroethane	UG/KG	13 U	12.5 UJ	11.9 U	12 U	11.5 U	11.8 U
1,2-Dichloroethene(total)	UG/KG	13 U	12.5 UJ	11.9 U	12 U	11.5 U	11.8 U
Chloroform	UG/KG	13 U	12.5 UJ	11.9 U	12 U	11.5 U	11.8 U
1,2-Dichloroethane	UG/KG	13 U	12.5 UJ	11.9 U	12 U	11.5 U	11.8 U
2-Butanone	UG/KG	13 R	12.5 R	11.9 R	12 R	11.5 U	11.8 U
1,1,1-Trichloroethane	UG/KG	13 U	12.5 UJ	11.9 U	12 UJ	11.5 U	11.8 U
Carbon tetrachloride	UG/KG	13 U	12.5 UJ	11.9 U	12 UJ	11.5 U	11.8 U
Bromodichloromethane	UG/KG	13 U	12.5 UJ	11.9 U	12 UJ	11.5 U	11.8 U
1,2-Dichloropropane	UG/KG	13 U	12.5 UJ	11.9 U	12 UJ	11.5 U	11.8 U
cis-1,3-Dichloropropene	UG/KG	13 U	12.5 UJ	11.9 U	12 UJ	11.5 U	11.8 U
Trichloroethene	UG/KG	13 U	12.5 UJ	11.9 U	12 UJ	11.5 U	11.8 U
Dibromochloromethane	UG/KG	13 U	12.5 UJ	11.9 U	12 UJ	11.5 U	11.8 U
1,1,2-Trichloroethane	UG/KG	13 U	12.5 UJ	11.9 U	12 UJ	11.5 U	11.8 U
Benzene	UG/KG	13 U	12.5 UJ	11.9 U	12 UJ	11.5 U	11.8 U
trans-1,3-Dichloropropene	UG/KG	13 U	12.5 UJ	11.9 U	12 UJ	11.5 U	11.8 U
Bromoform	UG/KG	13 U	12.5 UJ	11.9 U	12 UJ	11.5 U	11.8 U
4-Methyl-2-pentanone	UG/KG	13 U	12.5 UJ	11.9 U	12 UJ	11.5 U	11.8 U
2-Hexanone	UG/KG	13 U	12.5 UJ	11.9 U	12 UJ	11.5 U	11.8 U
Tetrachloroethene	UG/KG	13 U	12.5 UJ	11.9 U	12 UJ	11.5 U	11.8 U
1,1,2,2-Tetrachloroethane	UG/KG	13 U	12.5 UJ	11.9 U	12 UJ	11.5 U	11.8 U
Toluene	UG/KG	13 U	12.5 UJ	11.9 U	12 UJ	11.5 U	11.8 U
Chlorobenzene	UG/KG	13 U	12.5 UJ	11.9 U	12 UJ	11.5 U	11.8 U
Ethylbenzene	UG/KG	13 U	12.5 UJ	11.9 U	12 UJ	11.5 U	11.8 U
Styrene	UG/KG	13 U	12.5 UJ	11.9 U	12 UJ	11.5 U	11.8 U
Xylenes (total)	UG/KG	13 U	12.5 UJ	11.9 U	12 UJ	11.5 U	11.8 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 DOWNSLOPE AND ONSITE SURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-DS-SB03-00	41-DS-SB03-00D	41-DS-SB08-00	41-DS-SB08-00D	41-OS-SB02-00	41-OS-SB02-00D	
Laboratory Sample ID:	9402043-10	9402043-11	9402043-07	9402043-08	9402021-06	9402021-07	
Date Sampled:							
Percent Solids	77.2	79.9	83.5	82.8	86.8	84.7	
<u>PESTICIDE/PCBS</u>							
alpha-BHC	UG/KG	2.21 UJ	2.12 UJ	2.05 UJ	2.05 UJ	1.95 UJ	2 UJ
beta-BHC	UG/KG	4.72 NJ	2.12 UJ	2.05 UJ	2.05 UJ	1.95 UJ	2 UJ
delta-BHC	UG/KG	2.21 UJ	2.12 UJ	2.05 UJ	2.05 UJ	1.95 UJ	2 UJ
Lindane (gamma-BHC)	UG/KG	2.21 UJ	2.12 UJ	2.05 UJ	2.05 UJ	1.95 UJ	2 UJ
Heptachlor	UG/KG	2.21 UJ	2.12 UJ	2.05 UJ	2.05 UJ	1.95 UJ	1.36 J
Aldrin	UG/KG	2.21 UJ	2.12 UJ	2.05 UJ	2.05 UJ	1.95 UJ	2 UJ
Heptachlor epoxide	UG/KG	2.21 UJ	2.12 UJ	2.05 UJ	2.05 UJ	1.95 UJ	2 UJ
Endosulfan I	UG/KG	2.21 UJ	2.12 UJ	2.05 UJ	2.05 UJ	1.95 UJ	2 UJ
Dieldrin	UG/KG	4.28 UJ	4.12 UJ	3.98 UJ	3.98 UJ	3.79 UJ	0.61 J
4,4'-DDE	UG/KG	4.28 UJ	4.12 UJ	3.98 UJ	0.41 J	0.43 J	0.63 J
Endrin	UG/KG	4.28 UJ	4.12 UJ	3.98 UJ	3.98 UJ	3.79 UJ	0.38 NJ
Endosulfan II	UG/KG	4.28 UJ	4.12 UJ	3.98 UJ	3.98 UJ	3.79 UJ	3.88 UJ
4,4'-DDD	UG/KG	4.28 UJ	4.12 UJ	3.98 UJ	3.98 UJ	3.79 UJ	3.88 UJ
Endosulfan sulfate	UG/KG	4.28 UJ	4.12 UJ	3.98 UJ	3.98 UJ	3.79 UJ	3.88 UJ
4,4'-DDT	UG/KG	4.28 UJ	0.23 NJ	3.98 UJ	1.93 J	0.58 NJ	1.05 NJ
Methoxychlor	UG/KG	22.02 UJ	21.2 UJ	20.5 UJ	20.5 UJ	19.5 UJ	20 UJ
Endrin ketone	UG/KG	4.28 UJ	4.12 UJ	3.98 UJ	3.98 UJ	3.79 UJ	3.88 UJ
Endrin aldehyde	UG/KG	4.28 UJ	4.12 UJ	3.98 UJ	3.98 UJ	3.79 UJ	3.88 UJ
alpha-Chlordane	UG/KG	2.21 UJ	2.12 UJ	2.05 UJ	2.05 UJ	0.5 J	0.59 J
gamma-Chlordane	UG/KG	1.69 J	2.12 UJ	2.05 UJ	2.05 UJ	0.4 J	0.46 J
Toxaphene	UG/KG	221 UJ	212 UJ	205 UJ	205 UJ	195 UJ	200 UJ
Aroclor 1016	UG/KG	42.8 UJ	41.2 UJ	39.8 UJ	39.8 UJ	37.9 UJ	38.8 UJ
Aroclor 1221	UG/KG	87 UJ	83.8 UJ	80.7 UJ	80.7 UJ	77 UJ	78.8 UJ
Aroclor 1232	UG/KG	42.8 UJ	41.2 UJ	39.8 UJ	39.8 UJ	37.9 UJ	38.8 UJ
Aroclor 1242	UG/KG	42.8 UJ	41.2 UJ	39.8 UJ	39.8 UJ	37.9 UJ	38.8 UJ
Aroclor 1248	UG/KG	42.8 UJ	41.2 UJ	39.8 UJ	39.8 UJ	37.9 UJ	38.8 UJ
Aroclor 1254	UG/KG	42.8 UJ	41.2 UJ	39.8 UJ	39.8 UJ	37.9 UJ	38.8 UJ
Aroclor 1260	UG/KG	42.8 UJ	41.2 UJ	39.8 UJ	39.8 UJ	37.9 UJ	38.8 UJ

DUPLICATE SAMPLE SUMMARY
OPERABLE UNIT NO. 4 (SITE 41)
DOWNSLOPE AND ONSITE SURFACE SOIL
MCB CAMP LEJEUNE, NORTH CAROLINA
REMEDIAL INVESTIGATION - CTO-0212
ORGANICS

Client Sample ID:	41-DS-SB03-00	41-DS-SB03-00D	41-DS-SB08-00	41-DS-SB08-00D	41-OS-SB02-00	41-OS-SB02-00D
Laboratory Sample ID:	9402043-10	9402043-11	9402043-07	9402043-08	9402021-06	9402021-07
Date Sampled:						
Percent Solids	77.2	79.9	83.5	82.8	86.8	84.7
CHEMICAL SURETY						
Acetophenone	UG/KG	429 U	429 U	396 U	396 U	380 U
Chloroacetophenone	UG/KG	429 U	429 U	396 U	396 U	380 U
Hydroxyacetophenone	UG/KG	2140 U	2140 U	1980 U	1980 U	1900 U
Bis(2'-chloroethyl)disulfide	UG/KG	2140 U	2140 U	1980 U	1980 U	1900 U
Bis(2'-chloroethyl)trisulfide	UG/KG	2140 U	2140 U	1980 U	1980 U	1900 U
1,4-Dithiane	UG/KG	429 U	429 U	396 U	396 U	380 U
1,4-Oxathiane	UG/KG	429 U	429 U	396 U	396 U	380 U
THIODIGLYCOL						
Thiodiglycol	MG/KG	8.12 U	7.81 U	7.5 U	7.56 U	7.19 U
ORDNANCE						
1,3,5-Trinitrobenzene	UG/KG	40.2 U	40.2 U	40.2 U	40.2 UJ	40.2 U
1,3-Dinitrobenzene	UG/KG	824 UJ	37.2 U	37.2 U	37.2 UJ	37.2 U
2,4,6-Trinitrotoluene	UG/KG	35.6 U	35.6 U	35.6 U	35.6 UJ	35.6 U
2,4-Dinitrotoluene	UG/KG	51.6 U	51.6 U	51.6 U	51.6 UJ	51.6 U
2,6-Dinitrotoluene	UG/KG	47.6 U	47.6 U	47.6 U	47.6 UJ	47.6 U
2-Amino-4,6-dinitrotoluene	UG/KG	46.7 U	46.7 U	46.7 U	46.7 UJ	46.7 U
2-Nitrotoluene	UG/KG	81.4 U	81.4 U	81.4 U	81.4 UJ	81.4 U
3-Nitrotoluene	UG/KG	81.7 U	81.7 U	81.7 U	81.7 UJ	81.7 U
4-Amino-2,6-dinitrotoluene	UG/KG	40.8 U	40.8 U	40.8 U	40.8 UJ	40.8 U
4-Nitrotoluene	UG/KG	87.2 U	87.2 U	87.2 U	87.2 UJ	87.2 U
HMX	UG/KG	70.5 U	70.5 U	70.5 U	70.5 UJ	70.5 U
Nitrobenzene	UG/KG	35.2 U	35.2 U	35.2 U	35.2 UJ	35.2 U
RDX	UG/KG	50.9 U	50.9 U	50.9 U	50.9 UJ	50.9 U
Tetryl	UG/KG	163 U	163 U	163 U	163 UJ	163 U
MIREX						
Mirex	UG/KG	2140 UJ	2140 UJ	1980 U	1980 U	1900 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 DOWNSLOPE AND ONSITE SURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-OS-SB10-00	41-OS-SB10-00D	41-OS-SB18-00	41-OS-SB18-00D	41-OS-SB27-00	41-OS-SB27-00D	
Laboratory Sample ID:	9402064-04	9402064-05	9402061-01	9402061-02	9402088-05A	9402088-06A	
Date Sampled:							
Percent Solids	84.3	85.2	88.2	88.8	73	81.1	
SEMIVOLATILES							
1,2-Dichlorobenzene	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
1,2,4-Trichlorobenzene	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
1,3-Dichlorobenzene	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
1,4-Dichlorobenzene	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
2-Chloronaphthalene	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
2-Chlorophenol	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
2-Methylnaphthalene	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
2-Methylphenol	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
2-Nitroaniline	UG/KG	952 U	944 U	909 U	899 U	1100 U	992 U
2-Nitrophenol	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
2,2'-oxybis-(1-chloropropane)	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
2,4-Dichlorophenol	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
2,4-Dimethylphenol	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
2,4-Dinitrophenol	UG/KG	952 U	944 U	909 U	899 U	1100 U	992 U
2,4-Dinitrotoluene	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
2,4,5-Trichlorophenol	UG/KG	952 U	944 U	909 U	899 U	1100 U	992 U
2,4,6-Trichlorophenol	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
2,6-Dinitrotoluene	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
3-Nitroaniline	UG/KG	952 U	944 U	909 U	899 U	1100 U	992 U
3,3'-Dichlorobenzidine	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
4-Bromophenyl-phenylether	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
4-Chloro-3-methylphenol	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
4-Chloroaniline	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
4-Chlorophenyl phenyl ether	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
4-Methylphenol	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
4-Nitroaniline	UG/KG	952 U	944 U	909 U	899 U	1100 U	992 U
4-Nitrophenol	UG/KG	952 U	944 U	909 U	899 U	1100 U	992 U
4,6-Dinitro-2-methylphenol	UG/KG	952 U	944 U	909 U	899 U	1100 U	992 U
Acenaphthene	UG/KG	380 J	150 J	375 U	371 U	452 U	409 U
Acenaphthylene	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
Anthracene	UG/KG	510	230 J	375 U	371 U	452 U	409 U
Benzo[a]anthracene	UG/KG	2400	1000	130 J	150 J	452 U	409 U
Benzo[a]pyrene	UG/KG	2000	960	120 J	120 J	452 U	409 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 DOWNSLOPE AND ONSITE SURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-OS-SB10-00	41-OS-SB10-00D	41-OS-SB18-00	41-OS-SB18-00D	41-OS-SB27-00	41-OS-SB27-00D
Laboratory Sample ID:	9402064-04	9402064-05	9402061-01	9402061-02	9402088-05A	9402088-06A
Date Sampled:						
Percent Solids	84.3	85.2	88.2	88.8	73	81.1

SEMIVOLATILES Cont.

Benzo[b]fluoranthene	UG/KG	2500	950	120 J	140 J	452 U	409 U
Benzo[g,h,i]perylene	UG/KG	1600	660	71 J	78 J	452 U	409 U
Benzo[k]fluoranthene	UG/KG	1700	840	120 J	108 J	452 U	409 U
bis(2-Chloroethoxy) methane	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
bis(2-Chloroethyl) ether	UG/KG	57 J	389 U	375 U	420	452 U	409 U
bis(2-Ethylhexyl)phthalate	UG/KG	170 J	65 J	375 U	371 U	64 J	409 U
Butyl benzyl phthalate	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
Carbazole	UG/KG	330 J	120 J	375 U	371 U	452 U	409 U
Chrysene	UG/KG	2300	1030	160 J	150 J	452 U	409 U
Dibenzofuran	UG/KG	130 J	59 J	375 U	371 U	452 U	409 U
Dibenz[a,h]anthracene	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
Diethylphthalate	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
Dimethyl phthalate	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
di-n-Butylphthalate	UG/KG	393 U	44 J	375 U	371 U	86 J	54 J
di-n-Octylphthalate	UG/KG	393 U	389 U	200 J	58 J	452 U	409 U
Fluoranthene	UG/KG	3500 R	1800	240 J	260 J	452 U	409 U
Fluorene	UG/KG	280 J	110 J	375 U	371 U	452 U	409 U
Hexachlorobenzene	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
Hexachlorobutadiene	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
Hexachlorocyclopentadiene	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
Hexachloroethane	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
Indeno[1,2,3-cd]pyrene	UG/KG	393 U	389 U	71 J	79 J	452 U	409 U
Isophorone	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
Naphthalene	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
Nitrobenzene	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
N-Nitroso-di-n-propylamine	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
N-nitrosodiphenylamine	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
Pentachlorophenol	UG/KG	952 U	944 U	909 U	899 U	1100 U	992 U
Phenanthrene	UG/KG	2600	940	140 J	160 J	452 U	409 U
Phenol	UG/KG	393 U	389 U	375 U	371 U	452 U	409 U
Pyrene	UG/KG	4400 R	1600	240 J	240 J	452 U	409 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 DOWNSLOPE AND ONSITE SURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-OS-SB10-00	41-OS-SB10-00D	41-OS-SB18-00	41-OS-SB18-00D	41-OS-SB27-00	41-OS-SB27-00D
Laboratory Sample ID:	9402064-04	9402064-05	9402061-01	9402061-02	9402088-05A	9402088-06A
Date Sampled:						
Percent Solids	84.3	85.2	88.2	88.8	73	81.1
VOLATILES						
Chloromethane	UG/KG	12 U	12 U	11.4 U	11.2 U	14 U
Bromomethane	UG/KG	12 U	12 U	11.4 U	11.2 U	14 U
Vinyl chloride	UG/KG	12 U	12 U	11.4 U	11.2 U	14 U
Chloroethane	UG/KG	12 U	12 U	11.4 U	11.2 U	14 U
Methylene chloride	UG/KG	12 U	14 U	11 U	11 U	14 U
Acetone	UG/KG	20	12 U	11.4 UJ	11.2 UJ	14 U
Carbon Disulfide	UG/KG	12 U	12 U	11.4 U	11.2 U	14 U
1,1-Dichloroethene	UG/KG	12 U	12 U	11.4 U	11.2 U	14 U
1,1-Dichloroethane	UG/KG	12 U	12 U	11.4 U	11.2 U	14 U
1,2-Dichloroethene(total)	UG/KG	12 U	12 U	11.4 U	11.2 U	14 U
Chloroform	UG/KG	12 U	12 U	11.4 U	11.2 U	14 U
1,2-Dichloroethane	UG/KG	12 U	12 U	11.4 U	11.2 U	14 U
2-Butanone	UG/KG	12 U	12 U	11.4 U	11.2 U	14 U
1,1,1-Trichloroethane	UG/KG	12 U	12 U	11.4 U	11.2 U	14 U
Carbon tetrachloride	UG/KG	12 U	12 U	11.4 U	11.2 U	14 U
Bromodichloromethane	UG/KG	12 U	12 U	11.4 U	11.2 U	14 U
1,2-Dichloropropane	UG/KG	12 U	12 U	11.4 U	11.2 U	14 U
cis-1,3-Dichloropropene	UG/KG	12 U	12 U	11.4 U	11.2 U	14 U
Trichloroethene	UG/KG	12 U	12 U	11.4 U	11.2 U	14 U
Dibromochloromethane	UG/KG	12 U	12 U	11.4 U	11.2 U	14 U
1,1,2-Trichloroethane	UG/KG	12 U	12 U	11.4 U	11.2 U	14 U
Benzene	UG/KG	12 U	12 U	11.4 U	11.2 U	14 U
trans-1,3-Dichloropropene	UG/KG	12 U	12 U	11.4 U	11.2 U	14 U
Bromoform	UG/KG	12 U	12 U	11.4 U	11.2 U	14 U
4-Methyl-2-pentanone	UG/KG	12 UJ	12 UJ	11.4 U	11.2 U	14 U
2-Hexanone	UG/KG	12 UJ	12 UJ	11.4 U	11.2 U	14 U
Tetrachloroethene	UG/KG	12 UJ	12 UJ	11.4 U	11.2 U	14 U
1,1,2,2-Tetrachloroethane	UG/KG	12 UJ	12 UJ	11.4 U	11.2 U	14 U
Toluene	UG/KG	12 UJ	12 UJ	11.4 U	11.2 U	14 U
Chlorobenzene	UG/KG	12 UJ	12 UJ	11.4 U	11.2 U	14 U
Ethylbenzene	UG/KG	12 UJ	12 UJ	11.4 U	11.2 U	14 U
Styrene	UG/KG	12 UJ	12 UJ	11.4 U	11.2 U	14 U
Xylenes (total)	UG/KG	12 UJ	12 UJ	11.4 U	11.2 U	14 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 DOWNSLOPE AND ONSITE SURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-OS-SB10-00	41-OS-SB10-00D	41-OS-SB18-00	41-OS-SB18-00D	41-OS-SB27-00	41-OS-SB27-00D	
Laboratory Sample ID:	9402064-04	9402064-05	9402061-01	9402061-02	9402088-05A	9402088-06A	
Date Sampled:							
Percent Solids	84.3	85.2	88.2	88.8	73	81.1	
PESTICIDE/PCBS							
alpha-BHC	UG/KG	2.02 UJ	2 UJ	1.93 UJ	1.91 UJ	2.33 UJ	2.1 UJ
beta-BHC	UG/KG	2.02 UJ	2 UJ	1.93 UJ	1.91 UJ	2.33 UJ	2.1 UJ
delta-BHC	UG/KG	2.02 UJ	2 UJ	1.93 UJ	1.91 UJ	2.33 UJ	2.1 UJ
Lindane (gamma-BHC)	UG/KG	2.02 U	2 UJ	1.93 UJ	1.91 U	2.33 UJ	2.1 UJ
Heptachlor	UG/KG	2.02 U	2 UJ	1.93 UJ	1.91 U	2.33 UJ	2.1 UJ
Aldrin	UG/KG	2.02 U	2 UJ	1.93 UJ	1.91 U	2.33 UJ	2.1 UJ
Heptachlor epoxide	UG/KG	2.02 U	2 UJ	2.39 J	1.94 J	2.33 UJ	2.1 UJ
Endosulfan I	UG/KG	2.02 U	2 UJ	1.93 UJ	1.91 U	2.33 UJ	2.1 UJ
Dieldrin	UG/KG	6.12 NJ	5.52 NJ	2.81 J	3.13 NJ	4.52 UJ	4.07 UJ
4,4'-DDE	UG/KG	38.9 J	30.2 J	1.48 J	3.71 U	0.51 NJ	0.73 J
Endrin	UG/KG	3.93 U	3.88 UJ	3.75 UJ	3.71 U	4.52 UJ	4.07 UJ
Endosulfan II	UG/KG	3.93 U	3.88 UJ	3.79 J	3.41 J	4.52 UJ	4.07 UJ
4,4'-DDD	UG/KG	43.2 J	3.88 UJ	2.76 J	1.7 NJ	4.52 UJ	4.07 UJ
Endosulfan sulfate	UG/KG	3.93 U	3.88 UJ	3.75 UJ	3.71 U	4.52 UJ	4.07 UJ
4,4'-DDT	UG/KG	41.3 J	10.8 NJ	3.75 UJ	3.71 UJ	1.7 J	4.07 UJ
Methoxychlor	UG/KG	20.2 UJ	20 UJ	1.51 J	2.89 NJ	23.3 UJ	21 UJ
Endrin ketone	UG/KG	3.93 U	3.88 UJ	3.75 UJ	3.71 U	4.52 UJ	4.07 UJ
Endrin aldehyde	UG/KG	3.93 U	3.88 UJ	0.61 J	3.71 U	4.52 UJ	4.07 UJ
alpha-Chlordane	UG/KG	1.66 J	2 UJ	0.87 J	0.86 J	2.33 UJ	2.1 UJ
gamma-Chlordane	UG/KG	1.33 J	2 UJ	0.57 J	0.47 J	2.33 UJ	2.1 UJ
Toxaphene	UG/KG	202 U	200 UJ	193 UJ	191 U	233 UJ	210 UJ
Aroclor 1016	UG/KG	39.3 U	38.8 UJ	37.5 UJ	37.1 U	45.2 UJ	40.7 UJ
Aroclor 1221	UG/KG	79.8 U	78.8 UJ	76.1 UJ	75.3 U	91.8 UJ	82.7 UJ
Aroclor 1232	UG/KG	39.3 U	38.8 UJ	37.5 UJ	37.1 U	45.2 UJ	40.7 UJ
Aroclor 1242	UG/KG	39.3 U	38.8 UJ	37.5 UJ	37.1 U	45.2 UJ	40.7 UJ
Aroclor 1248	UG/KG	39.3 U	38.8 UJ	37.5 UJ	37.1 U	45.2 UJ	40.7 UJ
Aroclor 1254	UG/KG	39.3 U	38.8 UJ	37.5 UJ	37.1 U	45.2 UJ	40.7 UJ
Aroclor 1260	UG/KG	39.3 U	38.8 UJ	37.5 UJ	37.1 U	45.2 UJ	40.7 UJ

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 DOWNSLOPE AND ONSITE SURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-OS-SB10-00	41-OS-SB10-00D	41-OS-SB18-00	41-OS-SB18-00D	41-OS-SB27-00	41-OS-SB27-00D
Laboratory Sample ID:	9402064-04	9402064-05	9402061-01	9402061-02	9402088-05A	9402088-06A
Date Sampled:						
Percent Solids	84.3	85.2	88.2	88.8	73	81.1
CHEMICAL SURETY						
Acetophenone	UG/KG	393 U	389 U	375 U	371 U	N/A
Chloroacetophenone	UG/KG	393 U	389 U	375 U	371 U	N/A
Hydroxyacetophenone	UG/KG	1960 U	1950 U	1870 U	1850 U	N/A
Bis(2'-chloroethyl)disulfide	UG/KG	1960 U	1950 U	1870 U	1850 U	N/A
Bis(2'-chloroethyl)trisulfide	UG/KG	1960 U	1950 U	1870 U	1850 U	N/A
1,4-Dithiane	UG/KG	393 U	389 U	375 U	371 U	N/A
1,4-Oxathiane	UG/KG	393 U	389 U	375 U	371 U	N/A
THIODIGLYCOL						
Thiodiglycol	MG/KG	7.44 U	7.31 U	7.06 U	7.06 U	N/A
ORDNANCE						
1,3,5-Trinitrobenzene	UG/KG	40.2 UJ	40.2 UJ	40.2 U	40.2 U	N/A
1,3-Dinitrobenzene	UG/KG	37.2 UJ	37.2 UJ	37.2 U	37.2 U	N/A
2,4,6-Trinitrotoluene	UG/KG	35.6 UJ	35.6 UJ	35.6 U	35.6 U	N/A
2,4-Dinitrotoluene	UG/KG	51.6 UJ	51.6 UJ	51.6 U	51.6 U	N/A
2,6-Dinitrotoluene	UG/KG	47.6 UJ	47.6 UJ	47.6 U	47.6 U	N/A
2-Amino-4,6-dinitrotoluene	UG/KG	46.7 UJ	46.7 UJ	46.7 U	46.7 U	N/A
2-Nitrotoluene	UG/KG	81.4 UJ	81.4 UJ	81.4 U	81.4 U	N/A
3-Nitrotoluene	UG/KG	81.7 UJ	81.7 UJ	81.7 U	81.7 U	N/A
4-Amino-2,6-dinitrotoluene	UG/KG	40.8 UJ	40.8 UJ	40.8 U	40.8 U	N/A
4-Nitrotoluene	UG/KG	87.2 UJ	87.2 UJ	87.2 U	87.2 U	N/A
HMX	UG/KG	70.5 UJ	70.5 UJ	70.5 U	70.5 U	N/A
Nitrobenzene	UG/KG	35.2 UJ	35.2 UJ	35.2 U	35.2 U	N/A
RDX	UG/KG	50.9 UJ	50.9 UJ	50.9 U	50.9 U	N/A
Tetryl	UG/KG	163 UJ	163 UJ	163 U	163 U	N/A
MIREX						
Mirex	UG/KG	1960 U	1950 U	1870 U	1850 U	N/A

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 DOWNSLOPE AND ONSITE SURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 TAL INORGANICS

Client Sample ID:	41-DS-SB03-00	41-DS-SB03-00D	41-DS-SB08-00	41-DS-SB08-00D	41-OS-SB02-00	41-OS-SB02-00D	
Laboratory Sample ID:	9402043-10	9402043-11	9402043-07	9402043-08	9402021-06	9402021-07	
Date Sampled:							
Percent Solids:	77.2	79.9	83.5	82.8	86.8	84.7	
	UNITS						
Aluminum	MG/KG	3140	4040	5690	5000	7890	8640
Antimony	MG/KG	2.18 J	1.98 UJ	1.89 UJ	1.91 UJ	1.82 U	1.86 U
Arsenic	MG/KG	0.751 U	0.726 U	0.695 U	0.7 U	1.79	1.57
Barium	MG/KG	7.47	8.69	13.2	12.4	12.1	13.7
Beryllium	MG/KG	0.21 U	0.2 U	0.19 U	0.19 U	0.184 U	0.189 U
Cadmium	MG/KG	0.826 U	0.798 U	0.764 U	0.77 U	0.74 U	0.76 U
Calcium	MG/KG	162	110	104	69.6	547	649
Chromium	MG/KG	2.85	3.32	5.09	3.64	9.72	9.9
Cobalt	MG/KG	4.14 U	4 U	3.83 U	3.86 U	3.7 U	3.8 U
Copper	MG/KG	4.22 U	4.08 U	3.9 U	3.94 U	3.8 U	3.8 U
Iron	MG/KG	722	1220	2790	2710	4900	5970
Lead	MG/KG	9.66 J	12.2 J	9.09 J	7.96 J	6.57	7.42
Magnesium	MG/KG	75.6	112	181	128	236	252
Manganese	MG/KG	3.63	5.44	11.3	8.43	4.68	5.46
Mercury	MG/KG	0.108	0.086	0.074	0.059 U	0.058 U	0.059 U
Nickel	MG/KG	7.5 U	7.2 U	6.9 U	7 U	6.6 U	6.8 U
Potassium	MG/KG	193 U	186	206	180	298	221
Selenium	MG/KG	0.655 UJ	0.933	0.606 U	0.611 U	0.58 U	0.59 U
Silver	MG/KG	0.414 U	0.4 U	0.383 U	0.386 U	0.092 U	0.094 U
Sodium	MG/KG	93 U	89.9 U	86 U	86.7 U	42.8 U	43.9 U
Thallium	MG/KG	1.19 U	1.15 U	1.1 U	1.11 U	1.1 U	1.1 U
Vanadium	MG/KG	5.28 U	5.11 U	6.2	5.54	14.1	15.1
Zinc	MG/KG	5.19	5.86	9.11	7.98	7.92	8.91
Total Cyanide	MG/KG	1.3	1.25	1.2	1.21	1.15	1.18

DUPLICATE SAMPLE SUMMARY
OPERABLE UNIT NO. 4 (SITE 41)
DOWNSLOPE AND ONSITE SURFACE SOIL
MCB CAMP LEJEUNE, NORTH CAROLINA
REMEDIAL INVESTIGATION - CTO-0212
TAL INORGANICS

Client Sample ID:	41-OS-SB10-00	41-OS-SB10-00D	41-OS-SB18-00	41-OS-SB18-00D	41-OS-SB27-00	41-OS-SB27-00D	
Laboratory Sample ID:	9402064-04	9402064-05	9402061-01	9402061-02	9402088-05A	9402088-06A	
Date Sampled:							
Percent Solids:	84.3	85.2	88.2	88.8	73	81.1	
	<u>UNITS</u>						
Aluminum	MG/KG	3320	3850	3080	3070	6300	6570
Antimony	MG/KG	1.76 U	2.55	1.79 UJ	1.78 UJ	2.03 U	1.82 U
Arsenic	MG/KG	1.02	0.728	0.819	0.653 U	0.671	0.633
Barium	MG/KG	29.3	25.8	13.3	13.8	21.7	22.9
Beryllium	MG/KG	0.295	0.248	0.172 U	0.171 U	0.208 U	0.187 U
Cadmium	MG/KG	0.757 U	0.762	0.723 U	0.718 U	0.874 U	0.787 U
Calcium	MG/KG	4750	8290	306	290	2990	3860
Chromium	MG/KG	7.47 J	14.7 J	4.67	5.48	7.96 J	8.06 J
Cobalt	MG/KG	3.8 U	3.76 U	3.63 U	3.6 U	4.38 U	3.94 U
Copper	MG/KG	44.5	122	14 J	14.8 J	4.46 U	4.02 U
Iron	MG/KG	4660	4420	2700	3270	3190 J	3350 J
Lead	MG/KG	212	176	17.3	18.9	27.5 J	27.7 J
Magnesium	MG/KG	221	296	106	184	277	307
Manganese	MG/KG	30.6	32.5	7.67	9.56	30.6	46.1
Mercury	MG/KG	0.073	0.059 U	0.196 U	0.169 U	0.105	0.099
Nickel	MG/KG	6.83 U	6.76 U	6.53 U	6.49 U	7.9 U	7.1 U
Potassium	MG/KG	177 U	175 U	113 U	113 U	317	338
Selenium	MG/KG	0.467	0.462	0.574 U	0.57 U	0.411 U	0.37 U
Silver	MG/KG	0.38 UJ	0.376 UJ	0.363 UJ	0.36 UJ	0.438 U	0.394 U
Sodium	MG/KG	142	84.3 U	42.2 UJ	41.9 UJ	101 U	90.8 U
Thallium	MG/KG	0.688 U	0.681 U	1.04 U	1.04 U	0.794 U	0.715 U
Vanadium	MG/KG	9.16	9.51	7.35	8.63	9.96	11.1
Zinc	MG/KG	158	271	33.3 J	38 J	39.5	66.7
Total Cyanide	MG/KG	1.19	1.17	1.13	1.13	1.37	1.23

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 ONSITE SUBSURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-OS-SB32-01	41-OS-SB32-01D	41-GW07-01	41-GW07-01D	41-GW07-04	41-GW07-04D	
Laboratory Sample ID:	9402088-13A	9402088-14A	9402087-03	9402087-04	9402087-05	9402087-06	
Date Sampled:							
Percent Solids	72.8	84.2	78.6	78.8	71.5	68.9	
SEMIVOLATILES							
1,2-Dichlorobenzene	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
1,2,4-Trichlorobenzene	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
1,3-Dichlorobenzene	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
1,4-Dichlorobenzene	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
2-Chloronaphthalene	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
2-Chlorophenol	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
2-Methylnaphthalene	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
2-Methylphenol	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
2-Nitroaniline	UG/KG	1100 U	960 U	1020 U	1020 U	1110 U	1160 U
2-Nitrophenol	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
2,2'-oxybis-(1-chloropropane	UG/KG	452 UJ	396 UJ	419 UJ	419 UJ	459 UJ	478 U
2,4-Dichlorophenol	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
2,4-Dimethylphenol	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
2,4-Dinitrophenol	UG/KG	1100 U	960 U	1020 U	1020 U	1110 U	1160 U
2,4-Dinitrotoluene	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
2,4,5-Trichlorophenol	UG/KG	1100 U	960 U	1020 U	1020 U	1110 U	1160 U
2,4,6-Trichlorophenol	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
2,6-Dinitrotoluene	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
3-Nitroaniline	UG/KG	1100 U	960 U	1020 U	1020 U	1110 U	1160 U
3,3'-Dichlorobenzidine	UG/KG	452 UJ	396 UJ	419 U	419 U	459 U	478 U
4-Bromophenyl-phenylether	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
4-Chloro-3-methylphenol	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
4-Chloroaniline	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
4-Chlorophenyl phenyl ether	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
4-Methylphenol	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
4-Nitroaniline	UG/KG	1100 U	960 U	1020 U	1020 U	1110 U	1160 U
4-Nitrophenol	UG/KG	1100 U	960 U	1020 U	1020 U	1110 U	1160 U
4,6-Dinitro-2-methylphenol	UG/KG	1100 U	960 U	1020 U	1020 U	1110 U	1160 U
Acenaphthene	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
Acenaphthylene	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
Anthracene	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
Benzo[a]anthracene	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
Benzo[a]pyrene	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 ONSITE SUBSURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-OS-SB32-01	41-OS-SB32-01D	41-GW07-01	41-GW07-01D	41-GW07-04	41-GW07-04D	
Laboratory Sample ID:	9402088-13A	9402088-14A	9402087-03	9402087-04	9402087-05	9402087-06	
Date Sampled:							
Percent Solids	72.8	84.2	78.6	78.8	71.5	68.9	
SEMIVOLATILES Cont.							
Benzo[b]fluoranthene	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
Benzo[g,h,i]perylene	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
Benzo[k]fluoranthene	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
bis(2-Chloroethoxy) methane	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
bis(2-Chloroethyl) ether	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
bis(2-Ethylhexyl)phthalate	UG/KG	452 U	396 U	51 J	47 J	83 J	94 J
Butyl benzyl phthalate	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
Carbazole	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
Chrysene	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
Dibenzofuran	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
Dibenz[a,h]anthracene	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
Diethylphthalate	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
Dimethyl phthalate	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
di-n-Butylphthalate	UG/KG	55 J	93 J	89 J	419 U	47 J	68 J
di-n-Octylphthalate	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
Fluoranthene	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
Fluorene	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
Hexachlorobenzene	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
Hexachlorobutadiene	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
Hexachlorocyclopentadiene	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
Hexachloroethane	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
Indeno[1,2,3-cd]pyrene	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
Isophorone	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
Naphthalene	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
Nitrobenzene	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
N-Nitroso-di-n-propylamine	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
N-nitrosodiphenylamine	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
Pentachlorophenol	UG/KG	1100 U	960 U	1020 U	1020 U	1110 U	1160 U
Phenanthrene	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
Phenol	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U
Pyrene	UG/KG	452 U	396 U	419 U	419 U	459 U	478 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 ONSITE SUBSURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-OS-SB32-01	41-OS-SB32-01D	41-GW07-01	41-GW07-01D	41-GW07-04	41-GW07-04D	
Laboratory Sample ID:	9402088-13A	9402088-14A	9402087-03	9402087-04	9402087-05	9402087-06	
Date Sampled:							
Percent Solids	72.8	84.2	78.6	78.8	71.5	68.9	
VOLATILES							
Chloromethane	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
Bromomethane	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
Vinyl chloride	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
Chloroethane	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
Methylene chloride	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
Acetone	UG/KG	4 J	12 U	6000 J	2600 J	41 J	57 J
Carbon Disulfide	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
1,1-Dichloroethene	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
1,1-Dichloroethane	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
1,2-Dichloroethene(total)	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
Chloroform	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
1,2-Dichloroethane	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
2-Butanone	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
1,1,1-Trichloroethane	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
Carbon tetrachloride	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
Bromodichloromethane	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
1,2-Dichloropropane	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
cis-1,3-Dichloropropene	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
Trichloroethene	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
Dibromochloromethane	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
1,1,2-Trichloroethane	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
Benzene	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
trans-1,3-Dichloropropene	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
Bromoform	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
4-Methyl-2-pentanone	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
2-Hexanone	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
Tetrachloroethene	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
1,1,2,2-Tetrachloroethane	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
Toluene	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
Chlorobenzene	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
Ethylbenzene	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
Styrene	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U
Xylenes (total)	UG/KG	14 U	12 U	13 UJ	13 UJ	14 U	14 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 ONSITE SUBSURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-OS-SB32-01	41-OS-SB32-01D	41-GW07-01	41-GW07-01D	41-GW07-04	41-GW07-04D	
Laboratory Sample ID:	9402088-13A	9402088-14A	9402087-03	9402087-04	9402087-05	9402087-06	
Date Sampled:							
Percent Solids	72.8	84.2	78.6	78.8	71.5	68.9	
<u>PESTICIDE/PCBS</u>							
alpha-BHC	UG/KG	2.33 UJ	2.02 UJ	2.15 UJ	2.15 UJ	2.39 UJ	2.46 UJ
beta-BHC	UG/KG	2.33 UJ	2.02 UJ	2.15 UJ	2.15 UJ	2.39 UJ	2.46 UJ
delta-BHC	UG/KG	2.33 UJ	2.02 UJ	2.15 UJ	2.15 UJ	2.39 UJ	2.46 UJ
Lindane (gamma-BHC)	UG/KG	2.33 UJ	2.02 UJ	2.15 UJ	2.15 UJ	2.39 UJ	2.46 UJ
Heptachlor	UG/KG	1.01 J	0.95 J	2.15 UJ	2.15 UJ	2.39 UJ	2.46 UJ
Aldrin	UG/KG	0.7 J	0.44 J	2.15 UJ	2.15 UJ	2.39 UJ	2.46 UJ
Heptachlor epoxide	UG/KG	2.33 UJ	2.02 UJ	2.15 UJ	2.15 UJ	2.39 UJ	2.46 UJ
Endosulfan I	UG/KG	2.33 UJ	2.02 UJ	2.15 UJ	2.15 UJ	2.39 UJ	2.46 UJ
Dieldrin	UG/KG	4.52 UJ	3.93 UJ	4.18 UJ	4.18 UJ	4.65 UJ	4.78 UJ
4,4'-DDE	UG/KG	4.52 UJ	3.93 UJ	1.1 J	0.63 J	4.65 UJ	4.78 UJ
Endrin	UG/KG	4.52 UJ	3.93 UJ	4.18 UJ	4.18 UJ	4.65 UJ	4.78 UJ
Endosulfan II	UG/KG	4.52 UJ	3.93 UJ	4.18 UJ	4.18 UJ	4.65 UJ	4.78 UJ
4,4'-DDD	UG/KG	0.34 NJ	0.3 NJ	4.18 UJ	4.18 UJ	4.65 UJ	4.78 UJ
Endosulfan sulfate	UG/KG	4.52 UJ	3.93 UJ	4.18 UJ	4.18 UJ	4.65 UJ	4.78 UJ
4,4'-DDT	UG/KG	4.52 UJ	0.55 NJ	4.18 UJ	4.18 UJ	4.65 UJ	4.78 UJ
Methoxychlor	UG/KG	23.3 UJ	20.2 UJ	21.5 UJ	21.5 UJ	23.9 UJ	24.6 UJ
Endrin ketone	UG/KG	4.52 UJ	3.93 UJ	4.18 UJ	4.18 UJ	4.65 UJ	4.78 UJ
Endrin aldehyde	UG/KG	4.52 UJ	3.93 UJ	4.18 UJ	4.18 UJ	4.65 UJ	4.78 UJ
alpha-Chlordane	UG/KG	2.33 UJ	2.02 UJ	2.15 UJ	2.15 UJ	2.39 UJ	2.46 UJ
gamma-Chlordane	UG/KG	2.33 UJ	2.02 UJ	2.15 UJ	2.15 UJ	2.39 UJ	2.46 UJ
Toxaphene	UG/KG	233 UJ	202 UJ	215 UJ	215 UJ	239 UJ	246 UJ
Aroclor 1016	UG/KG	45.2 UJ	39.3 UJ	41.8 UJ	41.8 UJ	46.5 UJ	47.8 UJ
Aroclor 1221	UG/KG	91.8 UJ	79.8 UJ	84.8 UJ	84.8 UJ	94.4 UJ	97.1 UJ
Aroclor 1232	UG/KG	45.2 UJ	39.3 UJ	41.8 UJ	41.8 UJ	46.5 UJ	47.8 UJ
Aroclor 1242	UG/KG	45.2 UJ	39.3 UJ	41.8 UJ	41.8 UJ	46.5 UJ	47.8 UJ
Aroclor 1248	UG/KG	45.2 UJ	39.3 UJ	41.8 UJ	41.8 UJ	46.5 UJ	47.8 UJ
Aroclor 1254	UG/KG	45.2 UJ	39.3 UJ	41.8 UJ	41.8 UJ	46.5 UJ	47.8 UJ
Aroclor 1260	UG/KG	45.2 UJ	39.3 UJ	41.8 UJ	41.8 UJ	46.5 UJ	47.8 UJ

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 ONSITE SUBSURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-GW07DW-02	41-GW07DW-02D	41-GW07DW-06	41-GW07DW-06D	
Laboratory Sample ID:	9402087-07	9402087-08	9402087-09	9402087-10	
Date Sampled:					
Percent Solids	83.3	75.1	63.5	55.6	
SEMIVOLATILES					
1,2-Dichlorobenzene	UG/KG	396 U	439 U	515 U	589 U
1,2,4-Trichlorobenzene	UG/KG	396 U	439 U	515 U	589 U
1,3-Dichlorobenzene	UG/KG	396 U	439 U	515 U	589 U
1,4-Dichlorobenzene	UG/KG	396 U	439 U	515 U	589 U
2-Chloronaphthalene	UG/KG	396 U	439 U	515 U	589 U
2-Chlorophenol	UG/KG	396 U	439 U	515 U	589 U
2-Methylnaphthalene	UG/KG	396 U	439 U	515 U	589 U
2-Methylphenol	UG/KG	396 U	439 U	515 U	589 U
2-Nitroaniline	UG/KG	960 U	1060 U	1250 U	1430 U
2-Nitrophenol	UG/KG	396 U	439 U	515 U	589 U
2,2'-oxybis-(1-chloropropane	UG/KG	396 U	439 U	515 U	589 U
2,4-Dichlorophenol	UG/KG	396 U	439 U	515 U	589 U
2,4-Dimethylphenol	UG/KG	396 U	439 U	515 U	589 U
2,4-Dinitrophenol	UG/KG	960 U	1060 U	1250 U	1430 U
2,4-Dinitrotoluene	UG/KG	396 U	439 U	515 U	589 U
2,4,5-Trichlorophenol	UG/KG	960 U	1060 U	1250 U	1430 U
2,4,6-Trichlorophenol	UG/KG	396 U	439 U	515 U	589 U
2,6-Dinitrotoluene	UG/KG	396 U	439 U	515 U	589 U
3-Nitroaniline	UG/KG	960 U	1060 U	1250 U	1430 U
3,3'-Dichlorobenzidine	UG/KG	396 U	439 U	515 U	589 U
4-Bromophenyl-phenylether	UG/KG	396 U	439 U	515 U	589 U
4-Chloro-3-methylphenol	UG/KG	396 U	439 U	515 U	589 U
4-Chloroaniline	UG/KG	396 U	439 U	515 U	589 U
4-Chlorophenyl phenyl ether	UG/KG	396 U	439 U	515 U	589 U
4-Methylphenol	UG/KG	396 U	439 U	515 U	589 U
4-Nitroaniline	UG/KG	960 U	1060 U	1250 U	1430 U
4-Nitrophenol	UG/KG	960 U	1060 U	1250 U	1430 U
4,6-Dinitro-2-methylphenol	UG/KG	960 U	1060 U	1250 U	1430 U
Acenaphthene	UG/KG	396 U	439 U	515 U	589 U
Acenaphthylene	UG/KG	396 U	439 U	515 U	589 U
Anthracene	UG/KG	396 U	439 U	515 U	589 U
Benzo[a]anthracene	UG/KG	396 U	439 U	515 U	589 U
Benzo[a]pyrene	UG/KG	396 U	439 U	515 U	589 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 ONSITE SUBSURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-GW07DW-02	41-GW07DW-02D	41-GW07DW-06	41-GW07DW-06D
Laboratory Sample ID:	9402087-07	9402087-08	9402087-09	9402087-10
Date Sampled:				
Percent Solids	83.3	75.1	63.5	55.6

SEMIVOLATILES Cont.

Benzo[b]fluoranthene	UG/KG	396 U	439 U	515 U	589 U
Benzo[g,h,i]perylene	UG/KG	396 U	439 U	515 U	589 U
Benzo[k]fluoranthene	UG/KG	396 U	439 U	515 U	589 U
bis(2-Chloroethoxy) methane	UG/KG	396 U	439 U	515 U	589 U
bis(2-Chloroethyl) ether	UG/KG	396 U	439 U	515 U	589 U
bis(2-Ethylhexyl)phthalate	UG/KG	89 J	52 J	140 J	500 J
Butyl benzyl phthalate	UG/KG	396 U	439 U	515 U	589 U
Carbazole	UG/KG	396 U	439 U	515 U	589 U
Chrysene	UG/KG	396 U	439 U	515 U	589 U
Dibenzofuran	UG/KG	396 U	439 U	515 U	589 U
Dibenz[a,h]anthracene	UG/KG	396 U	439 U	515 U	589 U
Diethylphthalate	UG/KG	396 U	439 U	515 U	589 U
Dimethyl phthalate	UG/KG	396 U	439 U	515 U	589 U
di-n-Butylphthalate	UG/KG	79 J	47 J	62 J	65 J
di-n-Octylphthalate	UG/KG	396 U	439 U	515 U	589 U
Fluoranthene	UG/KG	396 U	439 U	515 U	589 U
Fluorene	UG/KG	396 U	439 U	515 U	589 U
Hexachlorobenzene	UG/KG	396 U	439 U	515 U	589 U
Hexachlorobutadiene	UG/KG	396 U	439 U	515 U	589 U
Hexachlorocyclopentadiene	UG/KG	396 U	439 U	515 U	589 U
Hexachloroethane	UG/KG	396 U	439 U	515 U	589 U
Indeno[1,2,3-cd]pyrene	UG/KG	396 U	439 U	515 U	589 U
Isophorone	UG/KG	396 U	439 U	515 U	589 U
Naphthalene	UG/KG	396 U	439 U	515 U	589 U
Nitrobenzene	UG/KG	396 U	439 U	515 U	589 U
N-Nitroso-di-n-propylamine	UG/KG	396 U	439 U	515 U	589 U
N-nitrosodiphenylamine	UG/KG	396 U	439 U	515 U	589 U
Pentachlorophenol	UG/KG	960 U	1060 U	1250 U	1430 U
Phenanthrene	UG/KG	396 U	439 U	515 U	589 U
Phenol	UG/KG	396 U	439 U	515 U	589 U
Pyrene	UG/KG	396 U	439 U	515 U	589 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 ONSITE SUBSURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-GW07DW-02	41-GW07DW-02D	41-GW07DW-06	41-GW07DW-06D	
Laboratory Sample ID:	9402087-07	9402087-08	9402087-09	9402087-10	
Date Sampled:					
Percent Solids	83.3	75.1	63.5	55.6	
<u>VOLATILES</u>					
Chloromethane	UG/KG	12 U	13 U	16 U	18 U
Bromomethane	UG/KG	12 U	13 U	16 U	18 U
Vinyl chloride	UG/KG	12 U	13 U	16 U	18 U
Chloroethane	UG/KG	12 U	13 U	16 U	18 U
Methylene chloride	UG/KG	12 U	13 U	16 U	18 U
Acetone	UG/KG	71 J	43 J	27 J	20 J
Carbon Disulfide	UG/KG	12 U	13 U	16 U	18 U
1,1-Dichloroethene	UG/KG	12 U	13 U	16 U	18 U
1,1-Dichloroethane	UG/KG	12 U	13 U	16 U	18 U
1,2-Dichloroethene(total)	UG/KG	12 U	13 U	16 U	18 U
Chloroform	UG/KG	12 U	13 U	16 U	18 U
1,2-Dichloroethane	UG/KG	12 U	13 U	16 U	18 U
2-Butanone	UG/KG	12 U	13 U	16 U	18 U
1,1,1-Trichloroethane	UG/KG	12 U	13 U	16 U	18 U
Carbon tetrachloride	UG/KG	12 U	13 U	16 U	18 U
Bromodichloromethane	UG/KG	12 U	13 U	16 U	18 U
1,2-Dichloropropane	UG/KG	12 U	13 U	16 U	18 U
cis-1,3-Dichloropropene	UG/KG	12 U	13 U	16 U	18 U
Trichloroethene	UG/KG	12 U	13 U	16 U	18 U
Dibromochloromethane	UG/KG	12 U	13 U	16 U	18 U
1,1,2-Trichloroethane	UG/KG	12 U	13 U	16 U	18 U
Benzene	UG/KG	12 U	13 U	16 U	18 U
trans-1,3-Dichloropropene	UG/KG	12 U	13 U	16 U	18 U
Bromoform	UG/KG	12 U	13 U	16 U	18 U
4-Methyl-2-pentanone	UG/KG	12 U	13 U	16 U	18 U
2-Hexanone	UG/KG	12 U	13 U	16 U	18 U
Tetrachloroethene	UG/KG	12 U	13 U	16 U	18 U
1,1,2,2-Tetrachloroethane	UG/KG	12 U	13 U	16 U	18 U
Toluene	UG/KG	12 U	13 U	16 U	18 U
Chlorobenzene	UG/KG	12 U	13 U	16 U	18 U
Ethylbenzene	UG/KG	12 U	13 U	16 U	18 U
Styrene	UG/KG	12 U	13 U	16 U	18 U
Xylenes (total)	UG/KG	12 U	13 U	16 U	18 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 ONSITE SUBSURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-GW07DW-02	41-GW07DW-02D	41-GW07DW-06	41-GW07DW-06D	
Laboratory Sample ID:	9402087-07	9402087-08	9402087-09	9402087-10	
Date Sampled:					
Percent Solids	83.3	75.1	63.5	55.6	
PESTICIDE/PCBS					
alpha-BHC	UG/KG	2.05 UJ	2.27 UJ	2.7 UJ	3.04 UJ
beta-BHC	UG/KG	2.05 UJ	2.27 UJ	2.7 UJ	3.04 UJ
delta-BHC	UG/KG	2.05 UJ	2.27 UJ	2.7 UJ	3.04 UJ
Lindane (gamma-BHC)	UG/KG	2.05 UJ	2.27 UJ	2.7 UJ	3.04 UJ
Heptachlor	UG/KG	2.05 UJ	2.27 UJ	2.7 UJ	3.04 UJ
Aldrin	UG/KG	2.05 UJ	2.27 UJ	2.7 UJ	3.04 UJ
Heptachlor epoxide	UG/KG	2.05 UJ	2.27 UJ	2.7 UJ	3.04 UJ
Endosulfan I	UG/KG	2.05 UJ	2.27 UJ	2.7 UJ	3.04 UJ
Dieldrin	UG/KG	3.98 UJ	4.4 UJ	5.24 UJ	5.89 UJ
4,4'-DDE	UG/KG	3.98 UJ	4.4 UJ	5.24 UJ	5.89 UJ
Endrin	UG/KG	3.98 UJ	4.4 UJ	5.24 UJ	5.89 UJ
Endosulfan II	UG/KG	3.98 UJ	4.4 UJ	5.24 UJ	5.89 UJ
4,4'-DDD	UG/KG	3.98 UJ	4.4 UJ	5.24 UJ	5.89 UJ
Endosulfan sulfate	UG/KG	3.98 UJ	4.4 UJ	5.24 UJ	5.89 UJ
4,4'-DDT	UG/KG	3.98 UJ	4.4 UJ	5.24 UJ	5.89 UJ
Methoxychlor	UG/KG	20.5 UJ	22.7 UJ	27 UJ	30.4 UJ
Endrin ketone	UG/KG	3.98 UJ	4.4 UJ	5.24 UJ	5.89 UJ
Endrin aldehyde	UG/KG	3.98 UJ	4.4 UJ	5.24 UJ	5.89 UJ
alpha-Chlordane	UG/KG	2.05 UJ	2.27 UJ	2.7 UJ	3.04 UJ
gamma-Chlordane	UG/KG	2.05 UJ	2.27 UJ	2.7 UJ	3.04 UJ
Toxaphene	UG/KG	205 UJ	227 UJ	270 UJ	304 UJ
Aroclor 1016	UG/KG	39.8 UJ	44 UJ	52.4 UJ	58.9 UJ
Aroclor 1221	UG/KG	80.7 UJ	89.3 UJ	106 UJ	120 UJ
Aroclor 1232	UG/KG	39.8 UJ	44 UJ	52.4 UJ	58.9 UJ
Aroclor 1242	UG/KG	39.8 UJ	44 UJ	52.4 UJ	58.9 UJ
Aroclor 1248	UG/KG	39.8 UJ	44 UJ	52.4 UJ	58.9 UJ
Aroclor 1254	UG/KG	39.8 UJ	44 UJ	52.4 UJ	58.9 UJ
Aroclor 1260	UG/KG	39.8 UJ	44 UJ	52.4 UJ	58.9 UJ

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 ONSITE SUBSURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 TAL INORGANICS

Client Sample ID:	41-OS-SB32-01	41-OS-SB32-01D	41-GW07-01	41-GW07-01D	41-GW07-04	41-GW07-04D	
Laboratory Sample ID:	9402088-13A	9402088-14A	9402087-03	9402087-04	9402087-05	9402087-06	
Date Sampled:							
Percent Solids	72.8	84.2	78.6	78.8	71.5	68.9	
	UNITS						
Aluminum	MG/KG	2000	1480	5160	8020	12200	14900
Antimony	MG/KG	2.03 U	1.76 U	1.88 UJ	1.88 UJ	2.12 J	2.14 UJ
Arsenic	MG/KG	0.604 U	0.522 U	1.08 J	0.558 UJ	1.19 J	2.71 J
Barium	MG/KG	8.02	7.29	17.5	20.7	20.1	24.8
Beryllium	MG/KG	0.209 U	0.18 U	0.193 U	0.193 U	0.237	0.336
Cadmium	MG/KG	0.876 U	0.758 U	0.812 U	0.81 U	0.892 U	0.926 U
Calcium	MG/KG	322	260	1300	1230	121	176
Chromium	MG/KG	2.28 UJ	2.82 J	5.96	8.53	15.7	44.5
Cobalt	MG/KG	4.4 U	3.8 U	4.07 U	4.06 U	4.48 U	4.64 U
Copper	MG/KG	4.48 U	3.87 U	4.15 U	4.14 U	4.56 U	4.73 U
Iron	MG/KG	4650 J	2290 J	3850 J	6110 J	18900 J	28400 J
Lead	MG/KG	2.13	2.98 J	7.89	7.81	8.48	11
Magnesium	MG/KG	67.3 J	58.2	189	295	279	507
Manganese	MG/KG	4.63	4.18	11	12.3	2.37	5.58
Mercury	MG/KG	0.069 U	0.059 U	0.064 U	0.063 U	0.07 U	0.072 U
Nickel	MG/KG	7.9 U	6.8 U	7.3 U	7.3 U	8.1 U	8.4 U
Potassium	MG/KG	210 U	181 U	201	304	259	861
Selenium	MG/KG	0.412 U	0.356 U	0.382 UJ	0.381 UJ	0.42 UJ	0.435 UJ
Silver	MG/KG	0.44 U	0.414 U	0.407 UJ	0.406 UJ	0.448 UJ	0.464 UJ
Sodium	MG/KG	101 U	87.4 U	93.6 U	93.4 U	103 U	107 U
Thallium	MG/KG	0.797 U	0.689 U	0.738 U	0.736 U	0.811 U	0.842 U
Vanadium	MG/KG	5.6 U	4.84 U	9.16	16.9	25.7	112
Zinc	MG/KG	16.2	12.2	8.72 J	8.28 J	7.25 J	16.9 J
Total Cyanide	MG/KG	1.37	1.19	1.27	1.27	1.4	1.45

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 ONSITE SUBSURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 TAL INORGANICS

Client Sample ID:	41-GW07DW-02	41-GW07DW-02D	41-GW07DW-06	41-GW07DW-06D
Laboratory Sample ID:	9402087-07	9402087-08	9402087-09	9402087-10
Date Sampled:				
Percent Solids	83.3	75.1	63.5	55.6

	UNITS				
Aluminum	MG/KG	7910	9770	7440	13500
Antimony	MG/KG	1.78 UJ	1.97 U	2.33 UJ	2.66 UJ
Arsenic	MG/KG	0.829 J	0.639 J	0.866 J	1.68 J
Barium	MG/KG	20.3	15.3	16.9	24.7
Beryllium	MG/KG	0.182 U	0.202 U	0.288	0.29 U
Cadmium	MG/KG	0.766 U	0.85 U	1 U	1.15 U
Calcium	MG/KG	356	125	86.7	87.4
Chromium	MG/KG	13	14.6	8.51	13.8
Cobalt	MG/KG	3.84 U	4.26 U	5.04 U	5.76 U
Copper	MG/KG	3.91 U	4.34 U	5.13 U	5.86 U
Iron	MG/KG	6530 J	10500 J	2810 J	5440 J
Lead	MG/KG	6.69	6.76	6.62	9.47
Magnesium	MG/KG	212	337	188	411
Manganese	MG/KG	5.26	7.88	9.48	16.3
Mercury	MG/KG	0.06 U	0.066 U	0.079 U	0.09 U
Nickel	MG/KG	6.9 U	7.7 U	9.1 U	10.4 U
Potassium	MG/KG	386	500	292	920
Selenium	MG/KG	0.618 J	0.399 UJ	0.891 J	0.54 UJ
Silver	MG/KG	0.384 UJ	0.426 UJ	9.71 J	0.576 UJ
Sodium	MG/KG	88.4 U	98 U	116 U	132 U
Thallium	MG/KG	0.696 U	0.772 U	0.913 U	1.04 U
Vanadium	MG/KG	16.1	24.3	12	23.6
Zinc	MG/KG	4.84 J	6.95 J	18.3 J	32.3 J
Total Cyanide	MG/KG	1.2	1.33	1.57	1.8

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 GROUNDWATER
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-GW02-01	41-GW02-01D	41-GW11-01	41-GW11-01D
Laboratory Sample ID:	9402119-01	9402119-03	9402165-01	9402165-03
Date Sampled:	02/14/94	02/14/94		

	<u>UNITS</u>				
<u>SEMIVOLATILES</u>					
1,2-Dichlorobenzene	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
1,2,4-Trichlorobenzene	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
1,3-Dichlorobenzene	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
1,4-Dichlorobenzene	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
2-Chloronaphthalene	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
2-Chlorophenol	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
2-Methylnaphthalene	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
2-Methylphenol	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
2-Nitroaniline	UG/L	30.0 U	30.0 U	31.2 U	30.9 U
2-Nitrophenol	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
2,2'-oxybis-(1-chloropropane)	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
2,4-Dichlorophenol	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
2,4-Dimethylphenol	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
2,4-Dinitrophenol	UG/L	30.0 U	30.0 U	31.2 U	30.9 U
2,4-Dinitrotoluene	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
2,4,5-Trichlorophenol	UG/L	30.0 U	30.0 U	31.2 U	30.9 U
2,4,6-Trichlorophenol	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
2,6-Dinitrotoluene	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
3-Nitroaniline	UG/L	30.0 UJ	30.0 UJ	31.2 U	30.9 U
3,3'-Dichlorobenzidine	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
4-Bromophenyl-phenylether	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
4-Chloro-3-methylphenol	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
4-Chloroaniline	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
4-Chlorophenyl phenyl ether	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
4-Methylphenol	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
4-Nitroaniline	UG/L	30.0 U	30.0 U	31.2 U	30.9 U
4-Nitrophenol	UG/L	30.0 U	30.0 U	31.2 U	30.9 U
4,6-Dinitro-2-methylphenol	UG/L	30.0 U	30.0 U	31.2 U	30.9 U
Acenaphthene	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
Acenaphthylene	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
Anthracene	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
Benzo[a]anthracene	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
Benzo[a]pyrene	UG/L	12.0 U	12.0 U	12.5 U	12.4 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 GROUNDWATER
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-GW02-01	41-GW02-01D	41-GW11-01	41-GW11-01D
Laboratory Sample ID:	9402119-01	9402119-03	9402165-01	9402165-03
Date Sampled:	02/14/94	02/14/94		

UNITS

SEMIVOLATILES Cont.

Benzo[b]fluoranthene	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
Benzo[g,h,i]perylene	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
Benzo[k]fluoranthene	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
bis(2-Chloroethoxy) methane	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
bis(2-Chloroethyl) ether	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
bis(2-Ethylhexyl)phthalate	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
Butyl benzyl phthalate	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
Carbazole	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
Chrysene	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
Dibenzofuran	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
Dibenz[a,h]anthracene	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
Diethylphthalate	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
Dimethyl phthalate	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
di-n-Butylphthalate	UG/L	12.0 U	12.0 U	12 U	12 U
di-n-Octylphthalate	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
Fluoranthene	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
Fluorene	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
Hexachlorobenzene	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
Hexachlorobutadiene	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
Hexachlorocyclopentadiene	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
Hexachloroethane	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
Indeno[1,2,3-cd]pyrene	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
Isophorone	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
Naphthalene	UG/L	12.0 U	12.0 U	3 J	3 J
Nitrobenzene	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
N-Nitroso-di-n-propylamine	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
N-nitrosodiphenylamine	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
Pentachlorophenol	UG/L	30.0 U	30.0 U	31.2 U	30.9 U
Phenanthrene	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
Phenol	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
Pyrene	UG/L	12.0 U	12.0 U	12.5 U	12.4 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 GROUNDWATER
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-GW02-01	41-GW02-01D	41-GW11-01	41-GW11-01D
Laboratory Sample ID:	9402119-01	9402119-03	9402165-01	9402165-03
Date Sampled:	02/14/94	02/14/94		

UNITS

VOLATILES

Chloromethane	UG/L	10.0 U	10.0 U	10 U	10 U
Bromomethane	UG/L	10.0 U	10.0 U	10 U	10 U
Vinyl chloride	UG/L	10.0 U	10.0 U	10 U	10 U
Chloroethane	UG/L	10.0 U	10.0 U	10 U	10 U
Methylene chloride	UG/L	10.0 U	10.0 U	10 U	12.7 U
Acetone	UG/L	10.0 U	10.0 U	10 U	10 U
Carbon Disulfide	UG/L	10.0 U	10.0 U	10 U	10 U
1,1-Dichloroethene	UG/L	10.0 U	10.0 U	10 U	10 U
1,1-Dichloroethane	UG/L	10.0 U	10.0 U	10 U	10 U
1,2-Dichloroethene(total)	UG/L	10.0 U	10.0 U	10 U	10 U
Chloroform	UG/L	10.0 U	10.0 U	10 U	10 U
1,2-Dichloroethane	UG/L	10.0 U	10.0 U	10 U	10 U
2-Butanone	UG/L	10.0 U	10.0 U	10 U	10 U
1,1,1-Trichloroethane	UG/L	10.0 U	10.0 U	10 U	10 U
Carbon tetrachloride	UG/L	10.0 U	10.0 U	10 U	10 U
Bromodichloromethane	UG/L	10.0 U	10.0 U	10 U	10 U
1,2-Dichloropropane	UG/L	10.0 U	10.0 U	10 U	10 U
cis-1,3-Dichloropropene	UG/L	10.0 U	10.0 U	10 U	10 U
Trichloroethene	UG/L	10.0 U	10.0 U	10 U	10 U
Dibromochloromethane	UG/L	10.0 U	10.0 U	10 U	10 U
1,1,2-Trichloroethane	UG/L	10.0 U	10.0 U	10 U	10 U
Benzene	UG/L	10.0 U	10.0 U	2.67 J	2.82 J
trans-1,3-Dichloropropene	UG/L	10.0 U	10.0 U	10 U	10 U
Bromoform	UG/L	10.0 U	10.0 U	10 U	10 U
4-Methyl-2-pentanone	UG/L	10.0 U	10.0 U	10 U	10 U
2-Hexanone	UG/L	10.0 U	10.0 U	10 U	10 U
Tetrachloroethene	UG/L	10.0 U	10.0 U	10 U	10 U
1,1,2,2-Tetrachloroethane	UG/L	10.0 U	10.0 U	10 U	10 U
Toluene	UG/L	10.0 U	10.0 U	10 U	10 U
Chlorobenzene	UG/L	10.0 U	10.0 U	1.49 J	1.57 J
Ethylbenzene	UG/L	10.0 U	10.0 U	10 U	10 U
Styrene	UG/L	10.0 U	10.0 U	10 U	10 U
Xylenes (total)	UG/L	10.0 U	10.0 U	10 U	1.03 J

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 GROUNDWATER
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-GW02-01	41-GW02-01D	41-GW11-01	41-GW11-01D
Laboratory Sample ID:	9402119-01	9402119-03	9402165-01	9402165-03
Date Sampled:	02/14/94	02/14/94		

UNITS

PESTICIDE/PCBS

	UG/L	0.055 UJ	0.055 UJ	0.06 UJ	0.057 UJ
alpha-BHC	UG/L	0.040 J	0.020 NJ	0.06 UJ	0.03 NJ
beta-BHC	UG/L	0.055 UJ	0.055 UJ	0.06 UJ	0.057 UJ
delta-BHC	UG/L	0.055 UJ	0.055 UJ	0.06 UJ	0.057 UJ
Lindane (gamma-BHC)	UG/L	0.060 UJ	0.060 UJ	0.06 UJ	0.057 UJ
Heptachlor	UG/L	0.055 UJ	0.055 UJ	0.06 UJ	0.057 UJ
Aldrin	UG/L	0.055 UJ	0.055 UJ	0.06 UJ	0.057 UJ
Heptachlor epoxide	UG/L	0.055 UJ	0.055 UJ	0.06 UJ	0.057 UJ
Endosulfan I	UG/L	0.110 UJ	0.110 UJ	0.119 UJ	0.115 UJ
Dieldrin	UG/L	0.110 UJ	0.110 UJ	0.119 UJ	0.115 UJ
4,4'-DDE	UG/L	0.110 UJ	0.110 UJ	0.119 UJ	0.115 UJ
Endrin	UG/L	0.110 UJ	0.110 UJ	0.119 UJ	0.115 UJ
Endosulfan II	UG/L	0.110 UJ	0.110 UJ	0.119 UJ	0.115 UJ
4,4'-DDD	UG/L	0.110 UJ	0.110 UJ	0.01 NJ	0.115 UJ
Endosulfan sulfate	UG/L	0.110 UJ	0.110 UJ	0.119 UJ	0.115 UJ
4,4'-DDT	UG/L	0.110 UJ	0.110 UJ	0.119 UJ	0.115 UJ
Methoxychlor	UG/L	0.549 UJ	0.549 UJ	0.595 UJ	0.575 UJ
Endrin ketone	UG/L	0.110 UJ	0.110 UJ	0.119 UJ	0.115 UJ
Endrin aldehyde	UG/L	0.110 UJ	0.110 UJ	0.119 UJ	0.115 UJ
alpha-Chlordane	UG/L	0.055 UJ	0.055 UJ	0.06 UJ	0.057 UJ
gamma-Chlordane	UG/L	0.055 UJ	0.055 UJ	0.06 UJ	0.057 UJ
Toxaphene	UG/L	5.49 UJ	5.49 UJ	5.95 UJ	5.75 UJ
Aroclor 1016	UG/L	1.10 UJ	1.10 UJ	1.19 UJ	1.15 UJ
Aroclor 1221	UG/L	2.20 UJ	2.20 UJ	2.38 UJ	2.3 UJ
Aroclor 1232	UG/L	1.10 UJ	1.10 UJ	1.19 UJ	1.15 UJ
Aroclor 1242	UG/L	1.10 UJ	1.10 UJ	1.19 UJ	1.15 UJ
Aroclor 1248	UG/L	1.10 UJ	1.10 UJ	1.19 UJ	1.15 UJ
Aroclor 1254	UG/L	1.10 UJ	1.10 UJ	1.19 UJ	1.15 UJ
Aroclor 1260	UG/L	1.10 UJ	1.10 UJ	1.19 UJ	1.15 UJ

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 GROUNDWATER
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-GW02-01	41-GW02-01D	41-GW11-01	41-GW11-01D
Laboratory Sample ID:	9402119-01	9402119-03	9402165-01	9402165-03
Date Sampled:	02/14/94	02/14/94		

UNITS

CHEMICAL SURETY

Acetophenone	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
Chloroacetophenone	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
Hydroxyacetophenone	UG/L	60.0 U	60.0 U	62.5 U	61.8 U
Bis(2'-chloroethyl)disulfide	UG/L	60.0 U	60.0 U	62.5 U	61.8 U
Bis(2'-chloroethyl)trisulfide	UG/L	60.0 U	60.0 U	62.5 U	61.8 U
1,4-Dithiane	UG/L	12.0 U	12.0 U	12.5 U	12.4 U
1,4-Oxathiane	UG/L	12.0 U	12.0 U	12.5 U	12.4 U

THIODIGLYCOL

Thiodiglycol	UG/L	25.0 U	25.0 U	25 U	25 U
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ORDNANCE

1,3,5-Trinitrobenzene		0.500 U	0.500 U	0.5 U	0.5 U
1,3-Dinitrobenzene		0.500 U	0.500 U	0.5 U	0.5 U
2,4,6-Trinitrotoluene		0.500 U	0.500 U	0.5 U	0.5 U
2,4-Dinitrotoluene		0.500 U	0.500 U	0.5 U	0.5 U
2,6-Dinitrotoluene		0.500 U	0.500 U	0.5 U	0.5 U
2-Amino-4,6-dinitrotoluene		0.030 U	0.030 U	0.03 U	0.03 U
2-Nitrotoluene		0.500 U	0.500 U	0.5 U	0.5 U
3-Nitrotoluene		0.500 U	0.500 U	0.5 U	0.5 U
4-Amino-2,6-dinitrotoluene		0.020 U	0.020 U	0.02 U	0.02 U
4-Nitrotoluene		0.500 U	0.500 U	0.5 U	0.5 U
HMX		1.25 U	1.25 U	1.25 U	1.25 U
Nitrobenzene		0.500 U	0.500 U	0.5 U	0.5 U
RDX		0.500 U	0.500 U	0.5 U	0.5 U
Tetryl		0.500 UJ	0.500 UJ	0.5 U	0.5 U

MIREX

Mirex		60.0 U	60.0 U	62.5 U	61.8 U
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DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 GROUNDWATER
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 TAL TOTAL METALS

Client Sample ID:	41-GW02-01	41-GW02-01D	41-GW11-01	41-GW11-01D
Laboratory Sample ID:	9402119-01	9402119-03	9402165-01	9402165-03
Date Sampled:	02/14/94	02/14/94		

	UNITS				
Aluminum	UG/L	125000.0 J	68600.0 J	75700 J	14000
Antimony	UG/L	7.60 UJ	7.60 UJ	17.9 J	20.3
Arsenic	UG/L	7.44 J	6.78 J	24.2	27.8
Barium	UG/L	465.0	319.0	999	1120
Beryllium	UG/L	6.80	4.85	3.21 U	3.21 U
Cadmium	UG/L	6.26	3.76	110	129
Calcium	UG/L	136000.0	138000.0	130000	28000
Chromium	UG/L	244.0 J	132.0 J	149	139
Cobalt	UG/L	16.5	16.2	42.6 U	42.6 U
Copper	UG/L	83.6	64.8	1030	1240
Iron	UG/L	80800.0 J	60700.0 J	155000	34000
Lead	UG/L	19.8 J	17.4 J	9340	10800
Magnesium	UG/L	31000.0	27800.0	22700	23200
Manganese	UG/L	572.0	507.0	2110	2600
Mercury	UG/L	0.922	0.817	0.175 U	0.183
Nickel	UG/L	41.4 J	28.8 UJ	137	155
Potassium	UG/L	21300	16900	26800	29000
Selenium	UG/L	3.66	1.60 U	1.6 UJ	1.87
Silver	UG/L	1.60 U	35.9	8.52 J	11.8
Sodium	UG/L	28600	29300	27900	30500
Thallium	UG/L	3.00 U	3.00 U	3 U	3 U
Vanadium	UG/L	204.0 J	124.0 J	244	276
Zinc	UG/L	146.0 J	88.6 J	5180	5920
Total Cyanide	UG/L	5.00 U	5.00 U	5 U	5 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 GROUNDWATER
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 TAL DISSOLVED METALS

Client Sample ID:	41-GW02D-01	41-GW02D-01D	41-GW11D-01	41-GW11D-01D
Laboratory Sample ID:	9402119-02	9402119-04	9402165-02	9402165-04
Date Sampled:	02/14/94	02/14/94		

	UNITS				
Aluminum	UG/L	139.0 U	139.0 U	139 U	139 U
Antimony	UG/L	7.60 U	7.60 U	14.9	19.1
Arsenic	UG/L	2.22	2.20 U	2.2 U	2.2 U
Barium	UG/L	103.0	104.0	451	434
Beryllium	UG/L	0.760 U	0.760 U	3.21 U	3.21 U
Cadmium	UG/L	3.19 U	3.19 U	4.2 U	4.2 U
Calcium	UG/L	137000.0	134000.0	111000	108000
Chromium	UG/L	8.31 U	8.31 U	9.6 U	9.6 U
Cobalt	UG/L	16.0 U	16.0 U	42.6 U	42.6 U
Copper	UG/L	16.3 U	16.3 U	23.9 U	23.9 U
Iron	UG/L	23700.0	20500.0	40700	35200
Lead	UG/L	1.00 UJ	1.00 U	1 U	1 UJ
Magnesium	UG/L	29200.0	29400.0	22100	21500
Manganese	UG/L	469.0	506.0	521	504
Mercury	UG/L	0.129 U	0.145 U	0.153 U	0.159 U
Nickel	UG/L	28.8 U	28.8 U	31.2 U	31.2 U
Potassium	UG/L	19300	18900	29400	31000
Selenium	UG/L	1.60 U	2.52	1.6 U	1.6 UJ
Silver	UG/L	1.60 U	1.60 U	1.6 U	1.6 U
Sodium	UG/L	34300	34200	30400	32500
Thallium	UG/L	3.00 U	3.00 U	3 U	3 U
Vanadium	UG/L	20.4 U	20.4 U	20.4 U	20.4 U
Zinc	UG/L	10.6 U	10.6 U	125	120

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 UNNAMED TRIBUTARY AND TANK CREEK SURFACE WATER
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-UN-SW03	41-UN-SW03D	41-UN-SW-14	41-UN-SW-14D
Laboratory Sample ID:	9402039-01	9402039-02	9402060-01	9402060-02
Date Sampled:	02/01/94	02/01/94	02/03/94	02/03/94

UNITS

SEMIVOLATILES

1,2-Dichlorobenzene	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
1,2,4-Trichlorobenzene	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
1,3-Dichlorobenzene	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
1,4-Dichlorobenzene	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
2-Chloronaphthalene	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
2-Chlorophenol	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
2-Methylnaphthalene	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
2-Methylphenol	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
2-Nitroaniline	UG/L	30.0 U	27.5 U	30.0 U	30.0 U
2-Nitrophenol	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
2,2'-oxybis-(1-chloropropane)	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
2,4-Dichlorophenol	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
2,4-Dimethylphenol	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
2,4-Dinitrophenol	UG/L	30.0 U	27.5 U	30.0 U	30.0 U
2,4-Dinitrotoluene	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
2,4,5-Trichlorophenol	UG/L	30.0 U	27.5 U	30.0 U	30.0 U
2,4,6-Trichlorophenol	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
2,6-Dinitrotoluene	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
3-Nitroaniline	UG/L	30.0 U	27.5 U	30.0 U	30.0 U
3,3'-Dichlorobenzidine	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
4-Bromophenyl-phenylether	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
4-Chloro-3-methylphenol	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
4-Chloroaniline	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
4-Chlorophenyl phenyl ether	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
4-Methylphenol	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
4-Nitroaniline	UG/L	30.0 UJ	27.5 UJ	30.0 U	30.0 U
4-Nitrophenol	UG/L	30.0 U	27.5 U	30.0 U	30.0 U
4,6-Dinitro-2-methylphenol	UG/L	30.0 U	27.5 U	30.0 U	30.0 U
Acenaphthene	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
Acenaphthylene	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
Anthracene	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
Benzo[a]anthracene	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
Benzo[a]pyrene	UG/L	12.0 U	11.0 U	12.0 U	12.0 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 UNNAMED TRIBUTARY AND TANK CREEK SURFACE WATER
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-UN-SW03	41-UN-SW03D	41-UN-SW-14	41-UN-SW-14D
Laboratory Sample ID:	9402039-01	9402039-02	9402060-01	9402060-02
Date Sampled:	02/01/94	02/01/94	02/03/94	02/03/94

UNITS

SEMIVOLATILES Cont.

Benzo[b]fluoranthene	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
Benzo[g,h,i]perylene	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
Benzo[k]fluoranthene	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
bis(2-Chloroethoxy) methane	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
bis(2-Chloroethyl) ether	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
bis(2-Ethylhexyl)phthalate	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
Butyl benzyl phthalate	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
Carbazole	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
Chrysene	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
Dibenzofuran	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
Dibenz[a,h]anthracene	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
Diethylphthalate	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
Dimethyl phthalate	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
di-n-Butylphthalate	UG/L	12.00 U	11.0 U	12.0 U	1.00 J
di-n-Octylphthalate	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
Fluoranthene	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
Fluorene	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
Hexachlorobenzene	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
Hexachlorobutadiene	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
Hexachlorocyclopentadiene	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
Hexachloroethane	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
Indeno[1,2,3-cd]pyrene	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
Isophorone	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
Naphthalene	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
Nitrobenzene	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
N-Nitroso-di-n-propylamine	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
N-nitrosodiphenylamine	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
Pentachlorophenol	UG/L	30.0 U	27.5 U	30.0 U	30.0 U
Phenanthrene	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
Phenol	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
Pyrene	UG/L	12.0 U	11.0 U	12.0 U	12.0 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 UNNAMED TRIBUTARY AND TANK CREEK SURFACE WATER
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-UN-SW03	41-UN-SW03D	41-UN-SW-14	41-UN-SW-14D
Laboratory Sample ID:	9402039-01	9402039-02	9402060-01	9402060-02
Date Sampled:	02/01/94	02/01/94	02/03/94	02/03/94
UNITS				
VOLATILES				
Chloromethane	UG/L	10.0 U	10.0 U	10.0 U
Bromomethane	UG/L	10.0 U	10.0 U	10.0 U
Vinyl chloride	UG/L	10.0 U	10.0 U	10.0 U
Chloroethane	UG/L	10.0 U	10.0 U	10.0 U
Methylene chloride	UG/L	10.00 U	10.00 U	10.00 U
Acetone	UG/L	10.00 UJ	10.00 UJ	12.0 UJ
Carbon Disulfide	UG/L	10.0 U	10.0 U	10.0 U
1,1-Dichloroethene	UG/L	10.0 U	10.0 U	10.0 U
1,1-Dichloroethane	UG/L	10.0 U	10.0 U	10.0 U
1,2-Dichloroethene(total)	UG/L	10.0 U	10.0 U	10.0 U
Chloroform	UG/L	10.0 U	10.0 U	10.0 U
1,2-Dichloroethane	UG/L	10.0 U	10.0 U	10.0 U
2-Butanone	UG/L	10.0 U	10.0 U	10.0 U
1,1,1-Trichloroethane	UG/L	10.0 U	10.0 U	10.0 U
Carbon tetrachloride	UG/L	10.0 U	10.0 U	10.0 U
Bromodichloromethane	UG/L	10.0 U	10.0 U	10.0 U
1,2-Dichloropropane	UG/L	10.0 U	10.0 U	10.0 U
cis-1,3-Dichloropropene	UG/L	10.0 U	10.0 U	10.0 U
Trichloroethene	UG/L	10.0 U	10.0 U	10.0 U
Dibromochloromethane	UG/L	10.0 U	10.0 U	10.0 U
1,1,2-Trichloroethane	UG/L	10.0 U	10.0 U	10.0 U
Benzene	UG/L	10.0 U	10.0 U	10.0 U
trans-1,3-Dichloropropene	UG/L	10.0 U	10.0 U	10.0 U
Bromoform	UG/L	10.0 U	10.0 U	10.0 U
4-Methyl-2-pentanone	UG/L	10.0 U	10.0 U	10.0 U
2-Hexanone	UG/L	10.0 U	10.0 U	10.0 U
Tetrachloroethene	UG/L	10.0 U	10.0 U	10.0 U
1,1,2,2-Tetrachloroethane	UG/L	10.0 U	10.0 U	10.0 U
Toluene	UG/L	10.0 U	10.0 U	10.0 U
Chlorobenzene	UG/L	10.0 U	10.0 U	1.00 J
Ethylbenzene	UG/L	10.0 U	10.0 U	10.0 U
Styrene	UG/L	10.0 U	10.0 U	10.0 U
Xylenes (total)	UG/L	10.0 U	10.0 U	10.0 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 UNNAMED TRIBUTARY AND TANK CREEK SURFACE WATER
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-UN-SW03	41-UN-SW03D	41-UN-SW-14	41-UN-SW-14D
Laboratory Sample ID:	9402039-01	9402039-02	9402060-01	9402060-02
Date Sampled:	02/01/94	02/01/94	02/03/94	02/03/94

	<u>UNITS</u>				
<u>PESTICIDE/PCBS</u>					
alpha-BHC	UG/L	0.050 UJ	0.050 UJ	0.050 UJ	0.050 UR
beta-BHC	UG/L	0.050 UJ	0.050 UJ	0.050 UJ	0.050 UR
delta-BHC	UG/L	0.050 UJ	0.050 UJ	0.050 UJ	0.050 UR
Lindane (gamma-BHC)	UG/L	0.050 UJ	0.050 UJ	0.050 UJ	0.050 UR
Heptachlor	UG/L	0.020 UJ	0.040 UJ	0.050 UJ	0.050 UR
Aldrin	UG/L	0.050 UJ	0.050 UJ	0.050 UJ	0.050 UR
Heptachlor epoxide	UG/L	0.050 UJ	0.050 UJ	0.050 UJ	0.050 UR
Endosulfan I	UG/L	0.050 UJ	0.050 UJ	0.050 UJ	0.050 UR
Dieldrin	UG/L	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UR
4,4'-DDE	UG/L	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UR
Endrin	UG/L	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UR
Endosulfan II	UG/L	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UR
4,4'-DDD	UG/L	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UR
Endosulfan sulfate	UG/L	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UR
4,4'-DDT	UG/L	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UR
Methoxychlor	UG/L	0.500 UJ	0.500 UJ	0.500 UJ	0.500 UR
Endrin ketone	UG/L	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UR
Endrin aldehyde	UG/L	0.100 UJ	0.100 UJ	0.100 UJ	0.100 UR
alpha-Chlordane	UG/L	0.050 UJ	0.050 UJ	0.050 UJ	0.050 UR
gamma-Chlordane	UG/L	0.050 UJ	0.050 UJ	0.050 UJ	0.050 UR
Toxaphene	UG/L	5.00 UJ	5.00 UJ	5.00 UJ	5.00 UR
Aroclor 1016	UG/L	1.00 UJ	1.00 UJ	1.00 UJ	1.00 UR
Aroclor 1221	UG/L	2.00 UJ	2.00 UJ	2.00 UJ	2.00 UR
Aroclor 1232	UG/L	1.00 UJ	1.00 UJ	1.00 UJ	1.00 UR
Aroclor 1242	UG/L	1.00 UJ	1.00 UJ	1.00 UJ	1.00 UR
Aroclor 1248	UG/L	1.00 UJ	1.00 UJ	1.00 UJ	1.00 UR
Aroclor 1254	UG/L	1.00 UJ	1.00 UJ	1.00 UJ	1.00 UR
Aroclor 1260	UG/L	1.00 UJ	1.00 UJ	1.00 UJ	1.00 UR

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 UNNAMED TRIBUTARY AND TANK CREEK SURFACE WATER
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-UN-SW03	41-UN-SW03D	41-UN-SW-14	41-UN-SW-14D
Laboratory Sample ID:	9402039-01	9402039-02	9402060-01	9402060-02
Date Sampled:	02/01/94	02/01/94	02/03/94	02/03/94

UNITS

ORDNANCE

	UG/L	0.500 U	0.500 U	0.500 U	0.500 U
1,3,5-Trinitrobenzene	UG/L	0.500 U	0.500 U	0.500 U	0.500 U
1,3-Dinitrobenzene	UG/L	0.500 U	0.500 U	0.500 U	0.500 U
2,4,6-Trinitrotoluene	UG/L	0.500 U	0.500 U	0.500 U	0.500 U
2,4-Dinitrotoluene	UG/L	0.500 U	0.500 U	0.500 U	0.500 U
2,6-Dinitrotoluene	UG/L	0.500 U	0.500 U	0.500 UJ	0.500 UJ
2-Amino-4,6-dinitrotoluene	UG/L	0.030 U	0.030 U	0.030 U	0.030 U
2-Nitrotoluene	UG/L	0.500 U	0.500 U	0.500 U	0.500 U
3-Nitrotoluene	UG/L	0.500 U	0.500 U	0.500 U	0.500 U
4-Amino-2,6-dinitrotoluene	UG/L	0.020 U	0.020 U	0.020 U	0.020 U
4-Nitrotoluene	UG/L	0.500 U	0.500 U	0.500 U	0.500 U
HMX	UG/L	1.25 U	1.25 U	1.25 U	1.25 U
Nitrobenzene	UG/L	0.500 U	0.500 U	0.500 U	0.500 U
RDX	UG/L	0.500 U	0.500 U	0.500 U	0.500 U
Tetryl	UG/L	0.500 UJ	0.500 UJ	0.500 R	0.500 R

MIREX

Mirex	UG/L	12.0 U	11.0 U	12.0 U	12.0 U
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DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 UNNAMED TRIBUTARY AND TANK CREEK SURFACE WATER
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 TAL METALS

Client Sample ID:	41-UN-SW03	41-UN-SW03D	41-UN-SW-14	41-UN-SW-14D
Laboratory Sample ID:	9402039-01	9402039-02	9402060-01	9402060-02
Date Sampled:	02/01/94	02/01/94	02/03/94	02/03/94

	UNITS				
Aluminum	UG/L	437.0	440.0	139.0 U	139.0 U
Antimony	UG/L	7.90 U	7.90 U	7.90 U	7.90 U
Arsenic	UG/L	2.90 UJ	2.90 UJ	2.90 UJ	2.90 UJ
Barium	UG/L	20.0	20.8	54.5	56.5
Beryllium	UG/L	0.760 U	0.760 U	0.760 U	0.760 U
Cadmium	UG/L	3.19 U	3.19 U	3.19 U	3.19 U
Calcium	UG/L	30000.0	28600.0	84200.0	84200.0
Chromium	UG/L	8.31 U	8.31 U	8.31 U	8.31 U
Cobalt	UG/L	16.0 U	16.0 U	16.0 U	16.0 U
Copper	UG/L	16.3 U	16.3 U	16.3 U	16.3 U
Iron	UG/L	633.0	603.0	2810.0	6410.0
Lead	UG/L	1.00 U	1.00 U	1.52 J	1.11 J
Magnesium	UG/L	1860.0	1810.0	11000.0	10300.0
Manganese	UG/L	25.2	22.8	209.0	222.0
Mercury	UG/L	0.100 U	0.100 U	0.100 U	0.100 U
Nickel	UG/L	28.8 U	28.8 U	28.8 U	28.8 U
Potassium	UG/L	1700	1180	6760	6480
Selenium	UG/L	2.53 U	2.53 U	2.53 U	2.53 UJ
Silver	UG/L	0.400 UJ	0.400 UJ	0.400 UJ	0.400 UJ
Sodium	UG/L	13200	12400	23600	23100
Thallium	UG/L	4.60 UJ	4.60 UJ	4.60 UJ	4.60 UJ
Vanadium	UG/L	20.4 U	20.4 U	20.4 U	20.4 U
Zinc	UG/L	40.1 U	30.1 U	18.9 U	18.7 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 UNNAMED TRIBUTARY AND TANK CREEK SEDIMENT
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-UN-SD03-06	41-UN-SD03-06D	41-UN-SD03-612	41-UN-SD03-612D	41-UN-SD14-06	41-UN-SD14-06D	
Laboratory Sample ID:	9402041-01	9402041-02	9402041-03	9402041-04	9402053-01	9402053-03	
Date Sampled:	02/01/94	02/01/94	02/01/94	02/01/94	02/03/94	02/03/94	
Percent Solids	74.9	68.4	72.9	71.7	62.7	67.7	
SEMIVOLATILES							
1,2-Dichlorobenzene	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
1,2,4-Trichlorobenzene	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
1,3-Dichlorobenzene	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
1,4-Dichlorobenzene	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
2-Chloronaphthalene	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
2-Chlorophenol	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
2-Methylnaphthalene	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
2-Methylphenol	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
2-Nitroaniline	UG/KG	1060.0 U	1200.0 U	1100.0 U	1120.0 U	1280.0 U	1200.0 U
2-Nitrophenol	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
2,2'-oxybis-(1-chloropropane)	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
2,4-Dichlorophenol	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
2,4-Dimethylphenol	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
2,4-Dinitrophenol	UG/KG	1060.0 U	1200.0 U	1100.0 U	1120.0 U	1280.0 U	1200.0 U
2,4-Dinitrotoluene	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
2,4,5-Trichlorophenol	UG/KG	1060.0 U	1200.0 U	1100.0 U	1120.0 U	1280.0 U	1200.0 U
2,4,6-Trichlorophenol	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
2,6-Dinitrotoluene	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
3-Nitroaniline	UG/KG	1060.0 U	1200.0 U	1100.0 U	1120.0 U	1280.0 U	1200.0 U
3,3'-Dichlorobenzidine	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
4-Bromophenyl-phenylether	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
4-Chloro-3-methylphenol	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
4-Chloroaniline	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
4-Chlorophenyl phenyl ether	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
4-Methylphenol	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
4-Nitroaniline	UG/KG	1060.0 U	1200.0 U	1100.0 U	1120.0 U	1280.0 U	1200.0 U
4-Nitrophenol	UG/KG	1060.0 U	1200.0 U	1100.0 U	1120.0 U	1280.0 U	1200.0 U
4,6-Dinitro-2-methylphenol	UG/KG	1060.0 U	1200.0 U	1100.0 U	1120.0 U	1280.0 U	1200.0 U
Acenaphthene	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
Acenaphthylene	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
Anthracene	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
Benzo[a]anthracene	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
Benzo[a]pyrene	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 UNNAMED TRIBUTARY AND TANK CREEK SEDIMENT
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIATION INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-UN-SD03-06	41-UN-SD03-06D	41-UN-SD03-612	41-UN-SD03-612D	41-UN-SD14-06	41-UN-SD14-06D
Laboratory Sample ID:	9402041-01	9402041-02	9402041-03	9402041-04	9402053-01	9402053-03
Date Sampled:	02/01/94	02/01/94	02/01/94	02/01/94	02/03/94	02/03/94
Percent Solids	74.9	68.4	72.9	71.7	62.7	67.7

SEMIVOLATILES Cont.

	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
Benzo[b]fluoranthene	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
Benzo[g,h,i]perylene	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
Benzo[k]fluoranthene	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
bis(2-Chloroethoxy) methane	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
bis(2-Chloroethyl) ether	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	340.0 J
bis(2-Ethylhexyl)phthalate	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
Butyl benzyl phthalate	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
Carbazole	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
Chrysene	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
Dibenzofuran	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
Dibenz[a,h]anthracene	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
Diethylphthalate	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
Dimethyl phthalate	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
di-n-Butylphthalate	UG/KG	439.0 U	495.0 U	460.0 U	462.0 U	530.0 U	490.0 U
di-n-Octylphthalate	UG/KG	439.0 U	495.0 U	310.0 J	462.0 U	528.0 U	495.0 U
Fluoranthene	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
Fluorene	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
Hexachlorobenzene	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
Hexachlorobutadiene	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
Hexachlorocyclopentadiene	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
Hexachloroethane	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
Indeno[1,2,3-cd]pyrene	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
Isophorone	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
Naphthalene	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
Nitrobenzene	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
N-Nitroso-di-n-propylamine	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
N-nitrosodiphenylamine	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
Pentachlorophenol	UG/KG	1060.0 U	1200.0 U	1100.0 U	1120.0 U	1280.0 U	1200.0 U
Phenanthrene	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
Phenol	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U
Pyrene	UG/KG	439.0 U	495.0 U	455.0 U	462.0 U	528.0 U	495.0 U

DUPLICATE SAMPLE SUMMARY
OPERABLE UNIT NO. 4 (SITE 41)
UNNAMED TRIBUTARY AND TANK CREEK SEDIMENT
MCB CAMP LEJEUNE, NORTH CAROLINA
REMEDIAL INVESTIGATION - CTO-0212
ORGANICS

Client Sample ID:	41-UN-SD03-06	41-UN-SD03-06D	41-UN-SD03-612	41-UN-SD03-612D	41-UN-SD14-06	41-UN-SD14-06D
Laboratory Sample ID:	9402041-01	9402041-02	9402041-03	9402041-04	9402053-01	9402053-03
Date Sampled:	02/01/94	02/01/94	02/01/94	02/01/94	02/03/94	02/03/94
Percent Solids	74.9	68.4	72.9	71.7	62.7	67.7
<u>VOLATILES</u>						
Chloromethane	UG/KG	13.3 U	14.7 U	13.7 U	13.9 U	15.9 U
Bromomethane	UG/KG	13.3 U	14.7 U	13.7 U	13.9 U	15.9 U
Vinyl chloride	UG/KG	13.3 U	14.7 U	13.7 U	13.9 U	15.9 U
Chloroethane	UG/KG	13.3 U	14.7 U	13.7 U	13.9 U	15.9 U
Methylene chloride	UG/KG	2.00 J	3.00 J	3.00 J	1.00 J	25.0 U
Acetone	UG/KG	51.0 J	14.7 UJ	80.0 J	61.0 J	61.0 U
Carbon Disulfide	UG/KG	13.3 U	14.7 U	13.7 U	13.9 U	15.9 U
1,1-Dichloroethene	UG/KG	13.3 U	14.7 U	13.7 U	13.9 U	15.9 U
1,1-Dichloroethane	UG/KG	13.3 U	14.7 U	13.7 U	13.9 U	15.9 U
1,2-Dichloroethene(total)	UG/KG	13.3 U	14.7 U	13.7 U	13.9 U	15.9 U
Chloroform	UG/KG	13.3 U	14.7 U	13.7 U	13.9 U	15.9 U
1,2-Dichloroethane	UG/KG	13.3 U	14.7 U	13.7 U	13.9 U	15.9 U
2-Butanone	UG/KG	13.3 UJ	14.7 UJ	13.7 UJ	13.9 UJ	15.9 U
1,1,1-Trichloroethane	UG/KG	13.3 U	14.7 U	13.7 U	13.9 U	15.9 U
Carbon tetrachloride	UG/KG	13.3 U	14.7 U	13.7 U	13.9 U	15.9 U
Bromodichloromethane	UG/KG	13.3 U	14.7 U	13.7 U	13.9 U	15.9 U
1,2-Dichloropropane	UG/KG	13.3 U	14.7 U	13.7 U	13.9 U	15.9 U
cis-1,3-Dichloropropene	UG/KG	13.3 U	14.7 U	13.7 U	13.9 U	15.9 U
Trichloroethene	UG/KG	13.3 U	14.7 U	13.7 U	13.9 U	15.9 U
Dibromochloromethane	UG/KG	13.3 U	14.7 U	13.7 U	13.9 U	15.9 U
1,1,2-Trichloroethane	UG/KG	13.3 U	14.7 U	13.7 U	13.9 U	15.9 U
Benzene	UG/KG	13.3 U	14.7 U	13.7 U	13.9 U	15.9 U
trans-1,3-Dichloropropene	UG/KG	13.3 U	14.7 U	13.7 U	13.9 U	15.9 U
Bromoform	UG/KG	13.3 U	14.7 U	13.7 U	13.9 U	15.9 U
4-Methyl-2-pentanone	UG/KG	13.3 U	14.7 U	13.7 U	13.9 U	15.9 U
2-Hexanone	UG/KG	13.3 U	14.7 U	13.7 U	13.9 U	15.9 U
Tetrachloroethene	UG/KG	13.3 U	14.7 U	13.7 U	13.9 U	15.9 U
1,1,2,2-Tetrachloroethane	UG/KG	13.3 U	14.7 U	13.7 U	13.9 U	15.9 U
Toluene	UG/KG	13.3 U	14.7 U	13.7 U	13.9 U	15.9 U
Chlorobenzene	UG/KG	13.3 U	14.7 U	13.7 U	13.9 U	15.9 U
Ethylbenzene	UG/KG	13.3 U	14.7 U	13.7 U	13.9 U	15.9 U
Styrene	UG/KG	13.3 U	14.7 U	13.7 U	13.9 U	15.9 U
Xylenes (total)	UG/KG	13.3 U	14.7 U	13.7 U	13.9 U	15.9 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 UNNAMED TRIBUTARY AND TANK CREEK SEDIMENT
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-UN-SD03-06	41-UN-SD03-06D	41-UN-SD03-612	41-UN-SD03-612D	41-UN-SD14-06	41-UN-SD14-06D	
Laboratory Sample ID:	9402041-01	9402041-02	9402041-03	9402041-04	9402053-01	9402053-03	
Date Sampled:	02/01/94	02/01/94	02/01/94	02/01/94	02/03/94	02/03/94	
Percent Solids	74.9	68.4	72.9	71.7	62.7	67.7	
<u>PESTICIDE/PCBS</u>							
alpha-BHC	UG/KG	2.27 UJ	2.50 UJ	2.33 UJ	2.36 UJ	2.70 UJ	2.50 UJ
beta-BHC	UG/KG	2.27 UJ	2.50 UJ	2.33 UJ	2.36 UJ	2.70 UJ	2.50 UJ
delta-BHC	UG/KG	2.27 UJ	2.50 UJ	2.33 UJ	2.36 UJ	2.70 UJ	2.50 UJ
Lindane (gamma-BHC)	UG/KG	2.27 U	2.50 UJ	2.33 U	2.36 U	2.70 U	2.50 U
Heptachlor	UG/KG	2.27 U	2.50 UJ	2.33 U	2.36 U	2.70 U	2.50 U
Aldrin	UG/KG	2.27 U	2.50 UJ	2.33 U	2.36 U	2.70 U	2.50 U
Heptachlor epoxide	UG/KG	2.27 U	2.50 UJ	2.33 U	2.36 U	2.70 U	2.50 U
Endosulfan I	UG/KG	2.27 U	2.50 UJ	2.33 U	2.36 U	2.70 U	2.50 U
Dieldrin	UG/KG	0.830 NJ	0.660 NJ	4.52 U	0.240 NJ	2.07 NJ	1.82 NJ
4,4'-DDE	UG/KG	3.05 J	3.65 J	3.98 J	2.02 J	4.04 J	3.99 J
Endrin	UG/KG	4.40 U	4.85 UJ	4.52 U	4.58 U	5.24 U	4.85 U
Endosulfan II	UG/KG	0.640 NJ	4.85 UJ	4.52 U	4.58 U	8.22 J	9.15 J
4,4'-DDD	UG/KG	3.73 J	6.77 J	15.3 J	2.64 J	5.90 J	6.81 J
Endosulfan sulfate	UG/KG	4.40 U	4.85 UJ	4.52 U	4.58 U	5.24 U	4.85 U
4,4'-DDT	UG/KG	1.26 J	1.10 J	1.25 J	4.58 UJ	2.29 J	6.75 J
Methoxychlor	UG/KG	22.7 UJ	25.0 UJ	23.3 UJ	0.720 NJ	27.0 UJ	25.0 UJ
Endrin ketone	UG/KG	4.40 U	4.85 UJ	4.52 U	4.58 U	5.24 U	4.85 U
Endrin aldehyde	UG/KG	4.40 U	4.85 UJ	4.52 U	4.58 U	5.24 U	4.85 U
alpha-Chlordane	UG/KG	0.820 J	0.400 J	0.340 J	2.36 U	1.39 NJ	1.54 J
gamma-Chlordane	UG/KG	0.920 J	0.500 J	0.440 J	0.350 J	1.00 NJ	1.08 J
Toxaphene	UG/KG	227.0 U	250.0 UJ	233.0 U	236.0 U	270.0 U	250.0 U
Aroclor 1016	UG/KG	44.0 U	48.5 UJ	45.2 U	45.8 U	52.4 U	48.5 U
Aroclor 1221	UG/KG	89.3 U	98.5 UJ	91.8 U	93.0 U	106.0 U	98.5 U
Aroclor 1232	UG/KG	44.0 U	48.5 UJ	45.2 U	45.8 U	52.4 U	48.5 U
Aroclor 1242	UG/KG	44.0 U	48.5 UJ	45.2 U	45.8 U	52.4 U	48.5 U
Aroclor 1248	UG/KG	44.0 U	48.5 UJ	45.2 U	45.8 U	52.4 U	48.5 U
Aroclor 1254	UG/KG	44.0 U	48.5 UJ	45.2 U	45.8 U	52.4 U	48.5 U
Aroclor 1260	UG/KG	44.0 U	48.5 UJ	45.2 U	45.8 U	52.4 U	48.5 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 UNNAMED TRIBUTARY AND TANK CREEK SEDIMENT
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-UN-SD03-06	41-UN-SD03-06D	41-UN-SD03-612	41-UN-SD03-612D	41-UN-SD14-06	41-UN-SD14-06D
Laboratory Sample ID:	9402041-01	9402041-02	9402041-03	9402041-04	9402053-01	9402053-03
Date Sampled:	02/01/94	02/01/94	02/01/94	02/01/94	02/03/94	02/03/94
Percent Solids	74.9	68.4	72.9	71.7	62.7	67.7
ORDNANCE						
1,3,5-Trinitrobenzene	UG/KG	40.2 U	40.2 U	40.2 U	40.2 U	1390.0
1,3-Dinitrobenzene	UG/KG	37.2 U	37.2 U	37.2 U	37.2 U	37.2 U
2,4,6-Trinitrotoluene	UG/KG	35.6 U	35.6 U	35.6 U	35.6 U	35.6 U
2,4-Dinitrotoluene	UG/KG	51.6 U	51.6 U	51.6 U	51.6 U	51.6 U
2,6-Dinitrotoluene	UG/KG	47.6 U	47.6 U	47.6 U	47.6 U	47.6 U
2-Amino-4,6-dinitrotoluene	UG/KG	46.7 U	46.7 U	46.7 U	46.7 U	46.7 U
2-Nitrotoluene	UG/KG	81.4 U	81.4 U	81.4 U	81.4 U	81.4 U
3-Nitrotoluene	UG/KG	81.7 U	81.7 U	81.7 U	81.7 U	81.7 U
4-Amino-2,6-dinitrotoluene	UG/KG	40.8 U	40.8 U	40.8 U	40.8 U	40.8 U
4-Nitrotoluene	UG/KG	87.2 U	87.2 U	87.2 U	87.2 U	87.2 U
HMX	UG/KG	70.5 U	70.5 U	70.5 U	70.5 U	70.5 U
Nitrobenzene	UG/KG	35.2 U	35.2 U	35.2 U	35.2 U	35.2 U
RDX	UG/KG	50.9 U	50.9 U	50.9 U	50.9 U	50.9 U
Tetryl	UG/KG	163.0 U	163.0 U	163.0 U	163.0 U	163.0 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 UNNAMED TRIBUTARY AND TANK CREEK SEDIMENT
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-UN-SD14-612	41-UN-SD14-612D
Laboratory Sample ID:	9402053-02	9402053-04
Date Sampled:	02/03/94	02/03/94
Percent Solids	63.6	68.7

<u>SEMIVOLATILES</u>			
1,2-Dichlorobenzene	UG/KG	515.0 U	478.0 U
1,2,4-Trichlorobenzene	UG/KG	515.0 U	478.0 U
1,3-Dichlorobenzene	UG/KG	515.0 U	478.0 U
1,4-Dichlorobenzene	UG/KG	515.0 U	478.0 U
2-Chloronaphthalene	UG/KG	515.0 U	478.0 U
2-Chlorophenol	UG/KG	515.0 U	478.0 U
2-Methylnaphthalene	UG/KG	515.0 U	478.0 U
2-Methylphenol	UG/KG	515.0 U	478.0 U
2-Nitroaniline	UG/KG	1250.0 U	1160.0 U
2-Nitrophenol	UG/KG	515.0 U	478.0 U
2,2'-oxybis-(1-chloropropane)	UG/KG	515.0 U	478.0 U
2,4-Dichlorophenol	UG/KG	515.0 U	478.0 U
2,4-Dimethylphenol	UG/KG	515.0 U	478.0 U
2,4-Dinitrophenol	UG/KG	1250.0 U	1160.0 U
2,4-Dinitrotoluene	UG/KG	515.0 U	478.0 U
2,4,5-Trichlorophenol	UG/KG	1250.0 U	1160.0 U
2,4,6-Trichlorophenol	UG/KG	515.0 U	478.0 U
2,6-Dinitrotoluene	UG/KG	515.0 U	478.0 U
3-Nitroaniline	UG/KG	1250.0 U	1160.0 U
3,3'-Dichlorobenzidine	UG/KG	515.0 U	478.0 U
4-Bromophenyl-phenylether	UG/KG	515.0 U	478.0 U
4-Chloro-3-methylphenol	UG/KG	515.0 U	478.0 U
4-Chloroaniline	UG/KG	515.0 U	478.0 U
4-Chlorophenyl phenyl ether	UG/KG	515.0 U	478.0 U
4-Methylphenol	UG/KG	515.0 U	478.0 U
4-Nitroaniline	UG/KG	1250.0 U	1160.0 U
4-Nitrophenol	UG/KG	1250.0 U	1160.0 U
4,6-Dinitro-2-methylphenol	UG/KG	1250.0 U	1160.0 U
Acenaphthene	UG/KG	515.0 U	478.0 U
Acenaphthylene	UG/KG	515.0 U	478.0 U
Anthracene	UG/KG	515.0 U	478.0 U
Benzo[a]anthracene	UG/KG	515.0 U	478.0 U
Benzo[a]pyrene	UG/KG	515.0 U	478.0 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 UNNAMED TRIBUTARY AND TANK CREEK SEDIMENT
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-UN-SD14-612	41-UN-SD14-612D
Laboratory Sample ID:	9402053-02	9402053-04
Date Sampled:	02/03/94	02/03/94
Percent Solids	63.6	68.7

SEMIVOLATILES Cont.

Benzo[b]fluoranthene	UG/KG	515.0 U	478.0 U
Benzo[g,h,i]perylene	UG/KG	515.0 U	478.0 U
Benzo[k]fluoranthene	UG/KG	515.0 U	478.0 U
bis(2-Chloroethoxy) methane	UG/KG	515.0 U	478.0 U
bis(2-Chloroethyl) ether	UG/KG	515.0 U	478.0 U
bis(2-Ethylhexyl)phthalate	UG/KG	515.0 U	82.0 J
Butyl benzyl phthalate	UG/KG	515.0 U	478.0 U
Carbazole	UG/KG	515.0 U	478.0 U
Chrysene	UG/KG	515.0 U	478.0 U
Dibenzofuran	UG/KG	515.0 U	478.0 U
Dibenz[a,h]anthracene	UG/KG	515.0 U	478.0 U
Diethylphthalate	UG/KG	515.0 U	478.0 U
Dimethyl phthalate	UG/KG	515.0 U	478.0 U
di-n-Butylphthalate	UG/KG	520.0 U	480.0 U
di-n-Octylphthalate	UG/KG	515.0 U	478.0 U
Fluoranthene	UG/KG	515.0 U	478.0 U
Fluorene	UG/KG	515.0 U	478.0 U
Hexachlorobenzene	UG/KG	515.0 U	478.0 U
Hexachlorobutadiene	UG/KG	515.0 U	478.0 U
Hexachlorocyclopentadiene	UG/KG	515.0 U	478.0 U
Hexachloroethane	UG/KG	515.0 U	478.0 U
Indeno[1,2,3-cd]pyrene	UG/KG	515.0 U	478.0 U
Isophorone	UG/KG	515.0 U	478.0 U
Naphthalene	UG/KG	515.0 U	478.0 U
Nitrobenzene	UG/KG	515.0 U	478.0 U
N-Nitroso-di-n-propylamine	UG/KG	515.0 U	478.0 U
N-nitrosodiphenylamine	UG/KG	515.0 U	478.0 U
Pentachlorophenol	UG/KG	1250.0 U	1160.0 U
Phenanthrene	UG/KG	515.0 U	478.0 U
Phenol	UG/KG	515.0 U	478.0 U
Pyrene	UG/KG	515.0 U	478.0 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 UNNAMED TRIBUTARY AND TANK CREEK SEDIMENT
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-UN-SD14-612	41-UN-SD14-612D
Laboratory Sample ID:	9402053-02	9402053-04
Date Sampled:	02/03/94	02/03/94
Percent Solids	63.6	68.7

<u>VOLATILES</u>			
Chloromethane	UG/KG	15.6 U	14.5 U
Bromomethane	UG/KG	15.6 U	14.5 U
Vinyl chloride	UG/KG	15.6 U	14.5 U
Chloroethane	UG/KG	15.6 U	14.5 U
Methylene chloride	UG/KG	16.0 U	14.0 U
Acetone	UG/KG	29.0 UJ	110.0
Carbon Disulfide	UG/KG	15.6 U	14.5 U
1,1-Dichloroethene	UG/KG	15.6 U	14.5 U
1,1-Dichloroethane	UG/KG	15.6 U	14.5 U
1,2-Dichloroethene(total)	UG/KG	15.6 U	14.5 U
Chloroform	UG/KG	15.6 U	14.5 U
1,2-Dichloroethane	UG/KG	15.6 U	14.5 U
2-Butanone	UG/KG	15.6 U	14.5 U
1,1,1-Trichloroethane	UG/KG	15.6 U	14.5 U
Carbon tetrachloride	UG/KG	15.6 U	14.5 U
Bromodichloromethane	UG/KG	15.6 U	14.5 U
1,2-Dichloropropane	UG/KG	15.6 U	14.5 U
cis-1,3-Dichloropropene	UG/KG	15.6 U	14.5 U
Trichloroethene	UG/KG	2.00 J	14.5 U
Dibromochloromethane	UG/KG	15.6 U	14.5 U
1,1,2-Trichloroethane	UG/KG	15.6 U	14.5 U
Benzene	UG/KG	15.6 U	14.5 U
trans-1,3-Dichloropropene	UG/KG	15.6 U	14.5 U
Bromoform	UG/KG	15.6 U	14.5 U
4-Methyl-2-pentanone	UG/KG	15.6 U	14.5 U
2-Hexanone	UG/KG	15.6 U	14.5 U
Tetrachloroethene	UG/KG	15.6 U	14.5 U
1,1,2,2-Tetrachloroethane	UG/KG	15.6 U	14.5 U
Toluene	UG/KG	15.6 U	14.5 U
Chlorobenzene	UG/KG	15.6 U	14.5 U
Ethylbenzene	UG/KG	15.6 U	14.5 U
Styrene	UG/KG	15.6 U	4.00 J
Xylenes (total)	UG/KG	15.6 U	14.5 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 UNNAMED TRIBUTARY AND TANK CREEK SEDIMENT
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-UN-SD14-612	41-UN-SD14-612D
Laboratory Sample ID:	9402053-02	9402053-04
Date Sampled:	02/03/94	02/03/94
Percent Solids	63.6	68.7

<u>PESTICIDE/PCBS</u>			
alpha-BHC	UG/KG	2.66 UJ	2.46 UJ
beta-BHC	UG/KG	2.66 UJ	2.46 UJ
delta-BHC	UG/KG	2.66 UJ	2.46 UJ
Lindane (gamma-BHC)	UG/KG	2.66 U	2.46 U
Heptachlor	UG/KG	2.66 U	2.46 U
Aldrin	UG/KG	2.66 U	2.46 U
Heptachlor epoxide	UG/KG	2.66 U	2.46 U
Endosulfan I	UG/KG	2.66 U	2.46 U
Dieldrin	UG/KG	1.57 NJ	0.950 NJ
4,4'-DDE	UG/KG	2.91 NJ	2.63 J
Endrin	UG/KG	5.16 U	4.78 U
Endosulfan II	UG/KG	3.57 J	4.78 U
4,4'-DDD	UG/KG	6.68 J	3.94 J
Endosulfan sulfate	UG/KG	5.16 U	4.78 U
4,4'-DDT	UG/KG	1.58 NJ	4.78 UJ
Methoxychlor	UG/KG	2.22 NJ	24.6 UJ
Endrin ketone	UG/KG	5.16 U	4.78 U
Endrin aldehyde	UG/KG	5.16 U	4.78 U
alpha-Chlordane	UG/KG	0.980 J	0.650 J
gamma-Chlordane	UG/KG	2.66 U	0.370 J
Toxaphene	UG/KG	266.0 U	246.0 U
Aroclor 1016	UG/KG	51.6 U	47.8 U
Aroclor 1221	UG/KG	105.0 U	97.1 U
Aroclor 1232	UG/KG	51.6 U	47.8 U
Aroclor 1242	UG/KG	51.6 U	47.8 U
Aroclor 1248	UG/KG	51.6 U	47.8 U
Aroclor 1254	UG/KG	51.6 U	47.8 U
Aroclor 1260	UG/KG	51.6 U	47.8 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 UNNAMED TRIBUTARY AND TANK CREEK SEDIMENT
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	41-UN-SD14-612	41-UN-SD14-612D
Laboratory Sample ID:	9402053-02	9402053-04
Date Sampled:	02/03/94	02/03/94
Percent Solids	63.6	68.7

<u>ORDNANCE</u>			
1,3,5-Trinitrobenzene	UG/KG	40.2 U	40.2 U
1,3-Dinitrobenzene	UG/KG	37.2 U	37.2 U
2,4,6-Trinitrotoluene	UG/KG	35.6 U	35.6 U
2,4-Dinitrotoluene	UG/KG	51.6 U	51.6 U
2,6-Dinitrotoluene	UG/KG	47.6 U	47.6 U
2-Amino-4,6-dinitrotoluene	UG/KG	46.7 U	46.7 U
2-Nitrotoluene	UG/KG	81.4 U	81.4 U
3-Nitrotoluene	UG/KG	81.7 U	81.7 U
4-Amino-2,6-dinitrotoluene	UG/KG	40.8 U	40.8 U
4-Nitrotoluene	UG/KG	87.2 U	87.2 U
HMX	UG/KG	70.5 U	70.5 U
Nitrobenzene	UG/KG	35.2 U	35.2 U
RDX	UG/KG	50.9 U	50.9 U
Tetryl	UG/KG	163.0 U	163.0 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 UNNAMED TRIBUTARY AND TANK CREEK SEDIMENT
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 TAL METALS

Client Sample ID:	41-UN-SD03-06	41-UN-SD03-06D	41-UN-SD03-612	41-UN-SD03-612D	41-UN-SD14-06	41-UN-SD14-06D
Laboratory Sample ID:	9402041-01	9402041-02	9402041-03	9402041-04	9402053-01	9402053-03
Date Sampled:	02/01/94	02/01/94	02/01/94	02/01/94	02/03/94	02/03/94
Percent Solids	74.9	68.4	72.9	71.7	62.7	67.7

	UNITS					
Aluminum	MG/KG	623.0	872.0	654.0	692.0	9000.0
Antimony	MG/KG	2.11 U	2.31 U	2.17 U	2.20 U	2.52 UJ
Arsenic	MG/KG	0.774 UJ	0.848 U	0.796 U	0.809 U	1.08
Barium	MG/KG	4.07	4.87	3.76 U	5.70	20.0
Beryllium	MG/KG	0.344 U	0.377 U	0.354 U	0.360 U	0.411 U
Cadmium	MG/KG	0.628 U	0.687 U	0.645 U	0.656 U	0.750 U
Calcium	MG/KG	409.0	416.0	308.0	348.0	561.0
Chromium	MG/KG	3.29 U	2.87 U	3.44 U	3.38 U	11.2
Cobalt	MG/KG	2.60 U	2.85 U	2.67 U	2.72 U	3.11 U
Copper	MG/KG	4.32 U	4.74 U	4.44 U	4.52 U	5.17 U
Iron	MG/KG	567.0 J	644.0 J	487.0 J	536.0 J	4850.0 J
Lead	MG/KG	4.07 J	13.6 J	4.70 J	4.51 J	18.6 J
Magnesium	MG/KG	28.2	36.0	32.1	33.6	317.0
Manganese	MG/KG	2.27	1.54 U	1.99	1.70	8.38
Mercury	MG/KG	0.067 U	0.073 U	0.069 U	0.070 U	0.080 U
Nickel	MG/KG	3.63 U	3.98 U	4.57	3.79 U	6.12
Potassium	MG/KG	134.0 U	146.0 U	137.0 U	139.0 U	159.0 U
Selenium	MG/KG	0.676 UJ	0.740 U	0.809 J	0.706 U	0.807 U
Silver	MG/KG	0.427 U	0.468 U	0.439 U	0.446 U	0.510 U
Sodium	MG/KG	49.7 UJ	79.1 J	51.0 UJ	75.5 J	59.3 UJ
Thallium	MG/KG	1.23 U	1.34 U	1.26 U	1.28 U	1.47 U
Vanadium	MG/KG	4.43 U	4.85 U	4.55 U	4.63 U	10.1
Zinc	MG/KG	10.6 U	11.6 U	10.2 U	8.92 U	15.4

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 41)
 UNNAMED TRIBUTARY AND TANK CREEK SEDIMENT
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 TAL METALS

Client Sample ID:	41-UN-SD14-612	41-UN-SD14-612D
Laboratory Sample ID:	9402053-02	9402053-04
Date Sampled:	02/03/94	02/03/94
Percent Solids	63.6	68.7

	UNITS		
Aluminum	MG/KG	5000.0	5940.0
Antimony	MG/KG	2.48 U	2.30 U
Arsenic	MG/KG	0.912 U	0.844 U
Barium	MG/KG	12.8	11.7
Beryllium	MG/KG	0.406 U	0.376 U
Cadmium	MG/KG	0.739 U	0.684 U
Calcium	MG/KG	377.0	281.0
Chromium	MG/KG	7.04	6.95
Cobalt	MG/KG	3.07 U	2.84 U
Copper	MG/KG	5.09 U	4.72 U
Iron	MG/KG	3410.0 J	2350.0 J
Lead	MG/KG	6.84 J	9.42 J
Magnesium	MG/KG	175.0	230.0
Manganese	MG/KG	4.29	6.72
Mercury	MG/KG	0.079 U	0.073 U
Nickel	MG/KG	4.28 U	5.42
Potassium	MG/KG	157.0 U	146.0 U
Selenium	MG/KG	0.796 U	0.736 U
Silver	MG/KG	0.503 U	0.466 U
Sodium	MG/KG	58.5 UJ	54.1 UJ
Thallium	MG/KG	1.45 U	1.34 U
Vanadium	MG/KG	5.22 U	6.85
Zinc	MG/KG	10.2 U	10.2 U

APPENDIX I.2
SITE 74

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 74)
 FORMER DISPOSAL / POTENTIAL DISPOSAL / FORMER PEST CONTROL AREA SURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	74-FDA-SB06-00	74-FDA-SB06-00D	74-FDA-SB11-00	74-FDA-SB11-00D	74-FDA-SB15-00	74-FDA-SB15-00D
Laboratory Sample ID:	9401116-01A	9401116-02A	9401121-01A	9401121-02A	9401132-02	9401132-01
Date Sampled:						
Percent Solids	82.6	80.3	90.1	90.2	89.4	89.2
SEMIVOLATILES						
1,2-Dichlorobenzene	UG/KG	396 U	412 U	367 U	367 U	370 U
1,2,4-Trichlorobenzene	UG/KG	396 U	412 U	367 U	367 U	370 U
1,3-Dichlorobenzene	UG/KG	396 U	412 U	367 U	367 U	370 U
1,4-Dichlorobenzene	UG/KG	396 U	412 U	367 U	367 U	370 U
2-Chloronaphthalene	UG/KG	396 U	412 U	367 U	367 U	370 U
2-Chlorophenol	UG/KG	396 U	412 U	367 U	367 U	370 U
2-Methylnaphthalene	UG/KG	396 U	412 U	367 U	367 U	370 U
2-Methylphenol	UG/KG	396 U	412 U	367 U	367 U	370 U
2-Nitroaniline	UG/KG	960 U	1000 U	889 U	889 U	896 U
2-Nitrophenol	UG/KG	396 U	412 U	367 U	367 U	370 U
2,2'-oxybis-(1-chloropropane)	UG/KG	396 U	412 U	367 U	367 U	370 U
2,4-Dichlorophenol	UG/KG	396 U	412 U	367 U	367 U	370 U
2,4-Dimethylphenol	UG/KG	396 U	412 U	367 U	367 U	370 U
2,4-Dinitrophenol	UG/KG	960 U	1000 U	889 U	889 U	896 U
2,4-Dinitrotoluene	UG/KG	396 U	412 U	367 U	367 U	370 U
2,4,5-Trichlorophenol	UG/KG	960 U	1000 U	889 U	889 U	896 U
2,4,6-Trichlorophenol	UG/KG	396 U	412 U	367 U	367 U	370 U
2,6-Dinitrotoluene	UG/KG	396 U	412 U	367 U	367 U	370 U
3-Nitroaniline	UG/KG	960 U	1000 U	889 U	889 U	896 U
3,3'-Dichlorobenzidine	UG/KG	396 U	412 U	367 U	367 U	370 U
4-Bromophenyl-phenylether	UG/KG	396 U	412 U	367 U	367 U	370 U
4-Chloro-3-methylphenol	UG/KG	396 U	412 U	367 U	367 U	370 U
4-Chloroaniline	UG/KG	396 U	412 U	367 U	367 U	370 U
4-Chlorophenyl phenyl ether	UG/KG	396 U	412 U	367 U	367 U	370 U
4-Methylphenol	UG/KG	396 U	412 U	367 U	367 U	370 U
4-Nitroaniline	UG/KG	960 U	1000 U	889 U	889 U	896 U
4-Nitrophenol	UG/KG	960 U	1000 U	889 U	889 U	896 U
4,6-Dinitro-2-methylphenol	UG/KG	960 U	1000 U	889 U	889 U	896 U
Acenaphthene	UG/KG	396 U	412 U	367 U	367 U	370 U
Acenaphthylene	UG/KG	396 U	412 U	367 U	367 U	370 U
Anthracene	UG/KG	396 U	412 U	367 U	367 U	370 U
Benzo[a]anthracene	UG/KG	396 U	412 U	367 U	367 U	370 U
Benzo[a]pyrene	UG/KG	396 U	412 U	367 U	367 U	370 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 74)
 FORMER DISPOSAL / POTENTIAL DISPOSAL / FORMER PEST CONTROL AREA SURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	74-FDA-SB06-00	74-FDA-SB06-00D	74-FDA-SB11-00	74-FDA-SB11-00D	74-FDA-SB15-00	74-FDA-SB15-00D
Laboratory Sample ID:	9401116-01A	9401116-02A	9401121-01A	9401121-02A	9401132-02	9401132-01
Date Sampled:						
Percent Solids	82.6	80.3	90.1	90.2	89.4	89.2

<u>SEMIVOLATILES Cont.</u>						
Benzo[b]fluoranthene	UG/KG	396 U	412 U	367 U	367 U	370 U
Benzo[g,h,i]perylene	UG/KG	396 U	412 U	367 U	367 U	370 U
Benzo[k]fluoranthene	UG/KG	396 U	412 U	367 U	367 U	370 U
bis(2-Chloroethoxy) methane	UG/KG	396 U	412 U	367 U	367 U	370 U
bis(2-Chloroethyl) ether	UG/KG	396 U	412 U	367 U	367 U	370 U
bis(2-Ethylhexyl)phthalate	UG/KG	396 U	45 J	367 U	367 U	370 U
Butyl benzyl phthalate	UG/KG	396 U	412 U	367 U	367 U	370 U
Carbazole	UG/KG	396 U	412 U	367 U	367 U	370 U
Chrysene	UG/KG	396 U	412 U	367 U	367 U	370 U
Dibenzofuran	UG/KG	396 U	412 U	367 U	367 U	370 U
Dibenz[a,h]anthracene	UG/KG	396 U	412 U	367 U	367 U	370 U
Diethylphthalate	UG/KG	396 U	412 U	367 U	367 U	370 U
Dimethyl phthalate	UG/KG	396 U	412 U	367 U	367 U	370 U
di-n-Butylphthalate	UG/KG	400 U	420 U	370 U	370 UJ	370 U
di-n-Octylphthalate	UG/KG	396 U	412 U	367 U	367 U	370 U
Fluoranthene	UG/KG	396 U	412 U	367 U	367 U	370 U
Fluorene	UG/KG	396 U	412 U	367 U	367 U	370 U
Hexachlorobenzene	UG/KG	396 U	412 U	367 U	367 U	370 U
Hexachlorobutadiene	UG/KG	396 U	412 U	367 U	367 U	370 U
Hexachlorocyclopentadiene	UG/KG	396 U	412 U	367 U	367 U	370 U
Hexachloroethane	UG/KG	396 U	412 U	367 U	367 U	370 U
Indeno[1,2,3-cd]pyrene	UG/KG	396 U	412 U	367 U	367 U	370 U
Isophorone	UG/KG	396 U	412 U	367 U	367 U	370 U
Naphthalene	UG/KG	396 U	412 U	367 U	367 U	370 U
Nitrobenzene	UG/KG	396 U	412 U	367 U	367 U	370 U
N-Nitroso-di-n-propylamine	UG/KG	396 U	412 U	367 U	367 U	370 U
N-nitrosodiphenylamine	UG/KG	396 U	412 U	367 U	367 U	370 U
Pentachlorophenol	UG/KG	960 U	1000 U	889 U	889 U	896 U
Phenanthrene	UG/KG	396 U	412 U	367 U	367 U	370 U
Phenol	UG/KG	396 U	412 U	367 U	367 U	370 U
Pyrene	UG/KG	396 U	412 U	367 U	367 U	370 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 74)
 FORMER DISPOSAL / POTENTIAL DISPOSAL / FORMER PEST CONTROL AREA SURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	74-FDA-SB06-00	74-FDA-SB06-00D	74-FDA-SB11-00	74-FDA-SB11-00D	74-FDA-SB15-00	74-FDA-SB15-00D	
Laboratory Sample ID:	9401116-01A	9401116-02A	9401121-01A	9401121-02A	9401132-02	9401132-01	
Date Sampled:							
Percent Solids	82.6	80.3	90.1	90.2	89.4	89.2	
VOLATILES							
Chloromethane	UG/KG	12 UJ	12.5 UJ	11.1 U	11.1 U	11.2 U	12.4 U
Bromomethane	UG/KG	12 UJ	12.5 UJ	11.1 U	11.1 U	11.2 U	12.4 U
Vinyl chloride	UG/KG	12 UJ	12.5 UJ	11.1 U	11.1 U	11.2 U	12.4 U
Chloroethane	UG/KG	12 UJ	12.5 UJ	11.1 U	11.1 U	11.2 U	12.4 U
Methylene chloride	UG/KG	13 J	22 J	4 J	8 J	37 U	15 U
Acetone	UG/KG	23 J	12 UJ	11.1 UJ	11.1 UJ	11.2 UJ	11 UJ
Carbon Disulfide	UG/KG	12 UJ	12.5 UJ	11.1 U	11.1 U	11.2 U	12.4 U
1,1-Dichloroethene	UG/KG	12 UJ	12.5 UJ	11.1 U	11.1 U	11.2 U	12.4 U
1,1-Dichloroethane	UG/KG	12 UJ	12.5 UJ	11.1 U	11.1 U	11.2 U	12.4 U
1,2-Dichloroethene(total)	UG/KG	12 UJ	12.5 UJ	11.1 U	11.1 U	11.2 U	12.4 U
Chloroform	UG/KG	12 UJ	12.5 UJ	11.1 U	11.1 U	11.2 U	12.4 U
1,2-Dichloroethane	UG/KG	12 UJ	12.5 UJ	11.1 U	11.1 U	11.2 U	12.4 U
2-Butanone	UG/KG	12 UJ	12.5 UJ	11.1 U	11.1 U	11.2 U	12.4 U
1,1,1-Trichloroethane	UG/KG	12 UJ	12.5 UJ	11.1 U	11.1 U	11.2 U	12.4 U
Carbon tetrachloride	UG/KG	12 UJ	12.5 UJ	11.1 U	11.1 U	11.2 U	12.4 U
Bromodichloromethane	UG/KG	12 UJ	12.5 UJ	11.1 U	11.1 U	11.2 U	12.4 U
1,2-Dichloropropane	UG/KG	12 UJ	12.5 UJ	11.1 U	11.1 U	11.2 U	12.4 U
cis-1,3-Dichloropropene	UG/KG	12 UJ	12.5 UJ	11.1 U	11.1 U	11.2 U	12.4 U
Trichloroethene	UG/KG	12 UJ	12.5 UJ	4 J	11.1 U	11.2 U	4 J
Dibromochloromethane	UG/KG	12 UJ	12.5 UJ	11.1 U	11.1 U	11.2 U	12.4 U
1,1,2-Trichloroethane	UG/KG	12 UJ	12.5 UJ	11.1 U	11.1 U	11.2 U	12.4 U
Benzene	UG/KG	12 UJ	12.5 UJ	11.1 U	11.1 U	11.2 U	12.4 U
trans-1,3-Dichloropropene	UG/KG	12 UJ	12.5 UJ	11.1 U	11.1 U	11.2 U	12.4 U
Bromoform	UG/KG	12 UJ	12.5 UJ	11.1 U	11.1 U	11.2 U	12.4 U
4-Methyl-2-pentanone	UG/KG	12 UJ	12.5 UJ	11.1 U	11.1 U	11.2 U	12.4 U
2-Hexanone	UG/KG	12 UJ	12.5 UJ	11.1 U	11.1 U	11.2 U	12.4 U
Tetrachloroethene	UG/KG	12 UJ	12.5 UJ	11.1 U	11.1 U	11.2 U	12.4 U
1,1,2,2-Tetrachloroethane	UG/KG	12 UJ	12.5 UJ	11.1 U	11.1 U	11.2 U	12.4 U
Toluene	UG/KG	12 UJ	12.5 UJ	11.1 U	11.1 U	11.2 U	12.4 U
Chlorobenzene	UG/KG	12 UJ	12.5 UJ	11.1 U	11.1 U	11.2 U	12.4 U
Ethylbenzene	UG/KG	12 UJ	12.5 UJ	11.1 U	11.1 U	11.2 U	12.4 U
Styrene	UG/KG	12 UJ	12.5 UJ	11.1 U	11.1 U	11.2 U	12.4 U
Xylenes (total)	UG/KG	12 UJ	12.5 UJ	11.1 U	11.1 U	11.2 U	12.4 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 74)
 FORMER DISPOSAL / POTENTIAL DISPOSAL / FORMER PEST CONTROL AREA SURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	74-FDA-SB06-00	74-FDA-SB06-00D	74-FDA-SB11-00	74-FDA-SB11-00D	74-FDA-SB15-00	74-FDA-SB15-00D
Laboratory Sample ID:	9401116-01A	9401116-02A	9401121-01A	9401121-02A	9401132-02	9401132-01
Date Sampled:						
Percent Solids	82.6	80.3	90.1	90.2	89.4	89.2
PESTICIDE/PCBS						
alpha-BHC	UG/KG	2.04 UJ	2.12 UJ	1.89 UJ	1.89 UJ	1.9 UJ
beta-BHC	UG/KG	2.04 UJ	2.12 U	1.89 U	1.89 U	1.9 U
delta-BHC	UG/KG	2.04 UJ	2.12 UJ	1.89 UJ	1.89 UJ	1.9 UJ
Lindane (gamma-BHC)	UG/KG	2.04 UJ	2.12 U	1.89 U	1.89 U	1.9 U
Heptachlor	UG/KG	2.04 UJ	2.12 U	1.89 U	1.89 U	1.9 U
Aldrin	UG/KG	2.04 UJ	2.12 U	1.89 U	1.89 U	1.9 U
Heptachlor epoxide	UG/KG	2.04 UJ	2.12 U	1.89 U	1.89 U	1.9 U
Endosulfan I	UG/KG	2.04 UJ	2.12 U	1.89 U	1.89 U	1.9 U
Dieldrin	UG/KG	3.96 UJ	4.12 U	3.66 U	3.66 U	3.7 U
4,4'-DDE	UG/KG	0.31 J	0.3 J	3.66 U	3.66 U	1.66 J
Endrin	UG/KG	3.96 UJ	4.12 U	3.66 U	3.66 U	0.42 J
Endosulfan II	UG/KG	3.96 UJ	4.12 U	3.66 U	3.66 U	3.7 U
4,4'-DDD	UG/KG	3.96 UJ	4.12 U	2.53 J	3.87 J	3.7 U
Endosulfan sulfate	UG/KG	3.96 UJ	4.12 U	3.66 U	3.66 U	3.7 U
4,4'-DDT	UG/KG	3.96 UJ	4.12 U	3.66 U	3.66 U	3.7 U
Methoxychlor	UG/KG	20.4 UJ	21.2 U	18.9 U	18.9 U	19 U
Endrin ketone	UG/KG	3.96 UJ	4.12 U	3.66 U	3.66 U	3.7 U
Endrin aldehyde	UG/KG	3.96 UJ	4.12 U	3.66 U	3.66 U	3.7 U
alpha-Chlordane	UG/KG	2.04 UJ	2.12 U	1.89 U	1.89 U	0.39 J
gamma-Chlordane	UG/KG	2.04 UJ	2.12 U	1.89 U	1.89 U	0.45 J
Toxaphene	UG/KG	204 UJ	212 U	189 U	189 U	190 U
Aroclor 1016	UG/KG	39.6 UJ	41.2 U	36.6 U	36.6 U	37 U
Aroclor 1221	UG/KG	80.4 UJ	83.8 U	74.4 U	74.4 U	75 U
Aroclor 1232	UG/KG	39.6 UJ	41.2 U	36.6 U	36.6 U	37 U
Aroclor 1242	UG/KG	39.6 UJ	41.2 U	36.6 U	36.6 U	37 U
Aroclor 1248	UG/KG	39.6 UJ	41.2 U	36.6 U	36.6 U	37 U
Aroclor 1254	UG/KG	39.6 UJ	41.2 U	36.6 U	36.6 U	37 U
Aroclor 1260	UG/KG	39.6 UJ	41.2 U	36.6 U	36.6 U	37 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 74)
 FORMER DISPOSAL / POTENTIAL DISPOSAL / FORMER PEST CONTROL AREA SURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	74-FDA-SB06-00	74-FDA-SB06-00D	74-FDA-SB11-00	74-FDA-SB11-00D	74-FDA-SB15-00	74-FDA-SB15-00D
Laboratory Sample ID:	9401116-01A	9401116-02A	9401121-01A	9401121-02A	9401132-02	9401132-01
Date Sampled:						
Percent Solids	82.6	80.3	90.1	90.2	89.4	89.2
<u>CHEMICAL SURETY</u>						
Acetophenone	UG/KG	396 U	412 U	367 U	367 U	370 U
Chloroacetophenone	UG/KG	396 U	412 U	367 U	367 U	370 U
Hydroxyacetophenone	UG/KG	1980 U	2060 U	1830 U	1830 U	1850 U
Bis(2'-chloroethyl)disulfide	UG/KG	1980 U	2060 U	1830 U	1830 U	1850 U
Bis(2'-chloroethyl)trisulfide	UG/KG	1980 U	2060 U	1830 U	1830 U	1850 U
1,4-Dithiane	UG/KG	396 U	412 U	367 U	367 U	370 U
1,4-Oxathiane	UG/KG	396 U	412 U	367 U	367 U	370 U
<u>THIODIGLYCOL</u>						
Thiodiglycol	MG/KG	7.56 U	7.81 U	6.94 R	6.94 R	7 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 74)
 FORMER DISPOSAL / POTENTIAL DISPOSAL / FORMER PEST CONTROL AREA SURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	74-FDA-SB22-00	74-FDA-SB22-00D	74-FDA-SB33-00	74-FDA-SB33-00D	74-PDA-SB06-00	74-PDA-SB06-00D	
Laboratory Sample ID:	9401138-06	9401138-07	9401108-04	9401108-05	9402182-04	9402182-05	
Date Sampled:			01/19/94	01/19/94			
Percent Solids	86.6	87.7	86.7	88.4	73	83.7	
SEMIVOLATILES							
1,2-Dichlorobenzene	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
1,2,4-Trichlorobenzene	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
1,3-Dichlorobenzene	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
1,4-Dichlorobenzene	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
2-Chloronaphthalene	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
2-Chlorophenol	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
2-Methylnaphthalene	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
2-Methylphenol	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
2-Nitroaniline	UG/KG	920 U	920 U	920.0 U	909.0 U	2200 U	2000 U
2-Nitrophenol	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
2,2'-oxybis-(1-chloropropane)	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
2,4-Dichlorophenol	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
2,4-Dimethylphenol	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
2,4-Dinitrophenol	UG/KG	920 U	920 U	920.0 U	909.0 U	2200 U	2000 U
2,4-Dinitrotoluene	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
2,4,5-Trichlorophenol	UG/KG	920 U	920 U	920.0 U	909.0 U	2200 U	2000 U
2,4,6-Trichlorophenol	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
2,6-Dinitrotoluene	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
3-Nitroaniline	UG/KG	920 U	920 U	920.0 U	909.0 U	2200 U	2000 U
3,3'-Dichlorobenzidine	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
4-Bromophenyl-phenylether	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
4-Chloro-3-methylphenol	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
4-Chloroaniline	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
4-Chlorophenyl phenyl ether	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
4-Methylphenol	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
4-Nitroaniline	UG/KG	920 U	920 U	920.0 U	909.0 U	2200 U	2000 U
4-Nitrophenol	UG/KG	920 U	920 U	920.0 U	909.0 U	2200 U	2000 U
4,6-Dinitro-2-methylphenol	UG/KG	920 U	920 U	920.0 U	909.0 U	2200 U	2000 U
Acenaphthene	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
Acenaphthylene	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
Anthracene	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
Benzo[a]anthracene	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
Benzo[a]pyrene	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 74)
 FORMER DISPOSAL / POTENTIAL DISPOSAL / FORMER PEST CONTROL AREA SURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	74-FDA-SB22-00	74-FDA-SB22-00D	74-FDA-SB33-00	74-FDA-SB33-00D	74-PDA-SB06-00	74-PDA-SB06-00D
Laboratory Sample ID:	9401138-06	9401138-07	9401108-04	9401108-05	9402182-04	9402182-05
Date Sampled:			01/19/94	01/19/94		
Percent Solids	86.6	87.7	86.7	88.4	73	83.7

SEMIVOLATILES Cont.							
Benzo[b]fluoranthene	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
Benzo[g,h,i]perylene	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
Benzo[k]fluoranthene	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
bis(2-Chloroethoxy) methane	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
bis(2-Chloroethyl) ether	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
bis(2-Ethylhexyl)phthalate	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
Butyl benzyl phthalate	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
Carbazole	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
Chrysene	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
Dibenzofuran	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
Dibenz[a,h]anthracene	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
Diethylphthalate	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
Dimethyl phthalate	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
di-n-Butylphthalate	UG/KG	103 J	74 J	379.0 U	375.0 U	910 U	792 U
di-n-Octylphthalate	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
Fluoranthene	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
Fluorene	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
Hexachlorobenzene	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
Hexachlorobutadiene	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
Hexachlorocyclopentadiene	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
Hexachloroethane	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
Indeno[1,2,3-cd]pyrene	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
Isophorone	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
Naphthalene	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
Nitrobenzene	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
N-Nitroso-di-n-propylamine	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
N-nitrosodiphenylamine	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
Pentachlorophenol	UG/KG	920 U	920 U	920.0 U	909.0 U	2200 U	2000 U
Phenanthrene	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
Phenol	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U
Pyrene	UG/KG	380 U	380 U	379.0 U	375.0 U	904 U	792 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 74)
 FORMER DISPOSAL / POTENTIAL DISPOSAL / FORMER PEST CONTROL AREA SURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	74-FDA-SB22-00	74-FDA-SB22-00D	74-FDA-SB33-00	74-FDA-SB33-00D	74-PDA-SB06-00	74-PDA-SB06-00D	
Laboratory Sample ID:	9401138-06	9401138-07	9401108-04	9401108-05	9402182-04	9402182-05	
Date Sampled:			01/19/94	01/19/94			
Percent Solids	86.6	87.7	86.7	88.4	73	83.7	
VOLATILES							
Chloromethane	UG/KG	11.5 U	11.4 UJ	11.5 UJ	11.4 UJ	13.7 U	11.9 U
Bromomethane	UG/KG	11.5 U	11.4 UJ	11.5 UJ	11.4 UJ	13.7 U	11.9 U
Vinyl chloride	UG/KG	11.5 U	11.4 UJ	11.5 UJ	11.4 UJ	13.7 U	11.9 U
Chloroethane	UG/KG	11.5 U	11.4 UJ	11.5 UJ	11.4 UJ	13.7 U	11.9 U
Methylene chloride	UG/KG	7 J	9 J	23.0 J	13.00 UJ	14 U	12 U
Acetone	UG/KG	11.5 UJ	11.4 UJ	53.0 J	51.0 UJ	36	32
Carbon Disulfide	UG/KG	11.5 U	11.4 UJ	11.5 UJ	11.4 UJ	13.7 U	11.9 U
1,1-Dichloroethene	UG/KG	11.5 U	11.4 UJ	11.5 UJ	11.4 UJ	13.7 U	11.9 U
1,1-Dichloroethane	UG/KG	11.5 U	11.4 UJ	11.5 UJ	11.4 UJ	13.7 U	11.9 U
1,2-Dichloroethene(total)	UG/KG	11.5 U	11.4 UJ	11.5 UJ	11.4 UJ	13.7 U	11.9 U
Chloroform	UG/KG	11.5 U	11.4 UJ	11.5 UJ	11.4 UJ	13.7 U	11.9 U
1,2-Dichloroethane	UG/KG	11.5 U	11.4 UJ	11.5 UJ	11.4 UJ	13.7 U	11.9 U
2-Butanone	UG/KG	11.5 U	11.4 UJ	11.5 UJ	11.4 UJ	13.7 U	11.9 U
1,1,1-Trichloroethane	UG/KG	11.5 U	11.4 UJ	11.5 UJ	11.4 U	13.7 U	11.9 U
Carbon tetrachloride	UG/KG	11.5 U	11.4 UJ	11.5 UJ	11.4 U	13.7 U	11.9 U
Bromodichloromethane	UG/KG	11.5 U	11.4 UJ	11.5 UJ	11.4 U	13.7 U	11.9 U
1,2-Dichloropropane	UG/KG	11.5 U	11.4 UJ	11.5 UJ	11.4 U	13.7 U	11.9 U
cis-1,3-Dichloropropene	UG/KG	11.5 U	11.4 UJ	11.5 UJ	11.4 U	13.7 U	11.9 U
Trichloroethene	UG/KG	11.5 U	11.4 UJ	11.5 UJ	11.4 U	13.7 U	11.9 U
Dibromochloromethane	UG/KG	11.5 U	11.4 UJ	11.5 UJ	11.4 U	13.7 U	11.9 U
1,1,2-Trichloroethane	UG/KG	11.5 U	11.4 UJ	11.5 UJ	11.4 U	13.7 U	11.9 U
Benzene	UG/KG	11.5 U	11.4 UJ	11.5 UJ	11.4 U	13.7 U	11.9 U
trans-1,3-Dichloropropene	UG/KG	11.5 U	11.4 UJ	11.5 UJ	11.4 U	13.7 U	11.9 U
Bromoform	UG/KG	11.5 U	11.4 UJ	11.5 UJ	11.4 U	13.7 U	11.9 U
4-Methyl-2-pentanone	UG/KG	11.5 UJ	11.4 UJ	11.5 UJ	11.4 UJ	13.7 U	11.9 U
2-Hexanone	UG/KG	11.5 UJ	11.4 UJ	11.5 R	11.4 UJ	13.7 U	11.9 U
Tetrachloroethene	UG/KG	11.5 UJ	11.4 UJ	11.5 UJ	11.4 UJ	13.7 U	11.9 U
1,1,2,2-Tetrachloroethane	UG/KG	11.5 UJ	11.4 UJ	11.5 UJ	11.4 UJ	13.7 U	11.9 U
Toluene	UG/KG	11.5 UJ	11.4 UJ	11.5 UJ	11.4 UJ	13.7 U	1 J
Chlorobenzene	UG/KG	11.5 UJ	11.4 UJ	11.5 UJ	11.4 UJ	13.7 U	11.9 U
Ethylbenzene	UG/KG	11.5 UJ	11.4 UJ	11.5 UJ	11.4 UJ	13.7 U	11.9 U
Styrene	UG/KG	11.5 UJ	11.4 UJ	11.5 UJ	11.4 UJ	13.7 U	11.9 U
Xylenes (total)	UG/KG	11.5 UJ	11.4 UJ	11.5 UJ	11.4 UJ	13.7 U	11.9 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 74)
 FORMER DISPOSAL / POTENTIAL DISPOSAL / FORMER PEST CONTROL AREA SURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	74-FDA-SB22-00	74-FDA-SB22-00D	74-FDA-SB33-00	74-FDA-SB33-00D	74-PDA-SB06-00	74-PDA-SB06-00D	
Laboratory Sample ID:	9401138-06	9401138-07	9401108-04	9401108-05	9402182-04	9402182-05	
Date Sampled:			01/19/94	01/19/94			
Percent Solids	86.6	87.7	86.7	88.4	73	83.7	
PESTICIDE/PCBS							
alpha-BHC	UG/KG	1.96 UJ	1.94 UJ	1.95 UJ	1.93 UJ	2.33 UJ	2.02 UJ
beta-BHC	UG/KG	1.96 U	1.94 U	1.95 UJ	1.93 UJ	2.33 UJ	2.02 UJ
delta-BHC	UG/KG	1.96 UJ	1.94 UJ	1.95 UJ	1.93 UJ	2.33 UJ	2.02 UJ
Lindane (gamma-BHC)	UG/KG	1.96 U	1.94 U	1.95 UJ	1.93 UJ	2.33 UJ	2.02 UJ
Heptachlor	UG/KG	1.96 U	1.94 U	0.65 J	0.32 NJ	2.33 UJ	2.02 UJ
Aldrin	UG/KG	1.96 U	1.94 U	1.95 UJ	1.93 UJ	2.33 UJ	2.02 UJ
Heptachlor epoxide	UG/KG	1.96 U	1.94 U	1.15 NJ	1.93 UJ	2.33 UJ	2.02 UJ
Endosulfan I	UG/KG	1.96 U	1.94 U	1.95 UJ	1.93 UJ	2.33 UJ	2.02 UJ
Dieldrin	UG/KG	3.8 U	3.76 U	3.79 UJ	3.75 UJ	4.52 UJ	3.94 UJ
4,4'-DDE	UG/KG	3.8 U	3.76 U	3.79 UJ	1.200 NJ	523 J	346 J
Endrin	UG/KG	3.8 U	3.76 U	3.79 UJ	3.75 UJ	4.52 UJ	3.93 UJ
Endosulfan II	UG/KG	3.8 U	3.76 U	3.79 UJ	3.75 UJ	4.52 UJ	3.93 UJ
4,4'-DDD	UG/KG	3.8 U	3.76 U	3.79 UJ	0.52 J	3700 J	6834 J
Endosulfan sulfate	UG/KG	3.8 U	3.76 U	3.79 UJ	3.75 UJ	4.52 UJ	3.93 UJ
4,4'-DDT	UG/KG	3.8 U	3.76 U	3.79 UJ	1.830 NJ	1119 J	739 J
Methoxychlor	UG/KG	19.6 U	19.4 U	19.5 UJ	19.3 UJ	23.3 UJ	20.2 UJ
Endrin ketone	UG/KG	3.8 U	3.76 U	3.79 UJ	3.75 UJ	4.52 UJ	3.93 UJ
Endrin aldehyde	UG/KG	3.8 U	3.76 U	3.79 UJ	3.75 UJ	4.52 UJ	3.93 UJ
alpha-Chlordane	UG/KG	1.96 U	1.94 U	1.95 UJ	1.93 UJ	2.33 UJ	2.02 UJ
gamma-Chlordane	UG/KG	1.96 U	1.94 U	1.95 UJ	1.93 UJ	2.33 UJ	2.02 UJ
Toxaphene	UG/KG	196 U	194 U	195.0 UJ	193.0 UJ	233 UJ	202 UJ
Aroclor 1016	UG/KG	38 U	37.6 U	37.9 UJ	37.5 UJ	45.2 UJ	39.3 UJ
Aroclor 1221	UG/KG	77 U	76.4 U	77.0 UJ	76.1 UJ	91.8 UJ	79.8 UJ
Aroclor 1232	UG/KG	38 U	37.6 U	37.9 UJ	37.5 UJ	45.2 UJ	39.3 UJ
Aroclor 1242	UG/KG	38 U	37.6 U	37.9 UJ	37.5 UJ	45.2 UJ	39.3 UJ
Aroclor 1248	UG/KG	38 U	37.6 U	37.9 UJ	37.5 UJ	45.2 UJ	39.3 UJ
Aroclor 1254	UG/KG	38 U	37.6 U	37.9 UJ	37.5 UJ	45.2 UJ	39.3 UJ
Aroclor 1260	UG/KG	38 U	37.6 U	37.9 UJ	37.5 UJ	45.2 UJ	39.3 UJ

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 74)
 FORMER DISPOSAL / POTENTIAL DISPOSAL / FORMER PEST CONTROL AREA SURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	74-FDA-SB22-00	74-FDA-SB22-00D	74-FDA-SB33-00	74-FDA-SB33-00D	74-PDA-SB06-00	74-PDA-SB06-00D
Laboratory Sample ID:	9401138-06	9401138-07	9401108-04	9401108-05	9402182-04	9402182-05
Date Sampled:			01/19/94	01/19/94		
Percent Solids	86.6	87.7	86.7	88.4	73	83.7
CHEMICAL SURETY						
Acetophenone	UG/KG	380 U	380 U	379.0 U	375.0 U	N/A
Chloroacetophenone	UG/KG	380 U	380 U	379.0 U	375.0 U	N/A
Hydroxyacetophenone	UG/KG	1900 U	1900 U	1900.0 U	1870.0 U	N/A
Bis(2'-chloroethyl)disulfide	UG/KG	1900 U	1900 U	1900.0 U	1870.0 U	N/A
Bis(2'-chloroethyl)trisulfide	UG/KG	1900 U	1900 U	1900.0 U	1870.0 U	N/A
1,4-Dithiane	UG/KG	380 U	380 U	379.0 U	375.0 U	N/A
1,4-Oxathiane	UG/KG	380 U	380 U	379.0 U	375.0 U	N/A
THIODIGLYCOL						
Thiodiglycol	MG/KG	7.19 U	7.12 U	7.19 R	7.06 R	N/A

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 74)
 FORMER DISPOSAL / POTENTIAL DISPOSAL / FORMER PEST CONTROL AREA SURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	74-FPA-SB06-00	74-FPA-SB06-00D
Laboratory Sample ID:	9402180-08A	9402180-09A
Date Sampled:		
Percent Solids	90.9	89.4

<u>SEMIVOLATILES</u>			
1,2-Dichlorobenzene	UG/KG	363 U	371 U
1,2,4-Trichlorobenzene	UG/KG	363 U	371 U
1,3-Dichlorobenzene	UG/KG	363 U	371 U
1,4-Dichlorobenzene	UG/KG	363 U	371 U
2-Chloronaphthalene	UG/KG	363 U	371 U
2-Chlorophenol	UG/KG	363 U	371 U
2-Methylnaphthalene	UG/KG	363 U	371 U
2-Methylphenol	UG/KG	363 U	371 U
2-Nitroaniline	UG/KG	879 U	899 U
2-Nitrophenol	UG/KG	363 U	371 U
2,2'-oxybis-(1-chloropropane)	UG/KG	363 U	371 U
2,4-Dichlorophenol	UG/KG	363 U	371 U
2,4-Dimethylphenol	UG/KG	363 U	371 U
2,4-Dinitrophenol	UG/KG	879 U	899 U
2,4-Dinitrotoluene	UG/KG	363 U	371 U
2,4,5-Trichlorophenol	UG/KG	879 U	899 U
2,4,6-Trichlorophenol	UG/KG	363 U	371 U
2,6-Dinitrotoluene	UG/KG	363 U	371 U
3-Nitroaniline	UG/KG	879 U	899 U
3,3'-Dichlorobenzidine	UG/KG	363 U	371 U
4-Bromophenyl-phenylether	UG/KG	363 U	371 U
4-Chloro-3-methylphenol	UG/KG	363 U	371 U
4-Chloroaniline	UG/KG	363 U	371 U
4-Chlorophenyl phenyl ether	UG/KG	363 U	371 U
4-Methylphenol	UG/KG	363 U	371 U
4-Nitroaniline	UG/KG	879 U	899 U
4-Nitrophenol	UG/KG	879 U	899 U
4,6-Dinitro-2-methylphenol	UG/KG	879 U	899 U
Acenaphthene	UG/KG	363 U	371 U
Acenaphthylene	UG/KG	363 U	371 U
Anthracene	UG/KG	363 U	371 U
Benzo[a]anthracene	UG/KG	363 U	371 U
Benzo[a]pyrene	UG/KG	363 U	371 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 74)
 FORMER DISPOSAL / POTENTIAL DISPOSAL / FORMER PEST CONTROL AREA SURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	74-FPA-SB06-00	74-FPA-SB06-00D
Laboratory Sample ID:	9402180-08A	9402180-09A
Date Sampled:		
Percent Solids	90.9	89.4

SEMIVOLATILES Cont.

Benzo[b]fluoranthene	UG/KG	363 U	371 U
Benzo[g,h,i]perylene	UG/KG	363 U	371 U
Benzo[k]fluoranthene	UG/KG	363 U	371 U
bis(2-Chloroethoxy) methane	UG/KG	363 U	371 U
bis(2-Chloroethyl) ether	UG/KG	363 U	371 U
bis(2-Ethylhexyl)phthalate	UG/KG	363 U	45 J
Butyl benzyl phthalate	UG/KG	363 U	371 U
Carbazole	UG/KG	363 U	371 U
Chrysene	UG/KG	363 U	371 U
Dibenzofuran	UG/KG	363 U	371 U
Dibenz[a,h]anthracene	UG/KG	363 U	371 U
Diethylphthalate	UG/KG	363 U	371 U
Dimethyl phthalate	UG/KG	363 U	371 U
di-n-Butylphthalate	UG/KG	363 U	39 J
di-n-Octylphthalate	UG/KG	363 U	371 U
Fluoranthene	UG/KG	363 U	371 U
Fluorene	UG/KG	363 U	371 U
Hexachlorobenzene	UG/KG	363 U	371 U
Hexachlorobutadiene	UG/KG	363 U	371 U
Hexachlorocyclopentadiene	UG/KG	363 U	371 U
Hexachloroethane	UG/KG	363 U	371 U
Indeno[1,2,3-cd]pyrene	UG/KG	363 U	371 U
Isophorone	UG/KG	363 U	371 U
Naphthalene	UG/KG	363 U	371 U
Nitrobenzene	UG/KG	363 U	371 U
N-Nitroso-di-n-propylamine	UG/KG	363 U	371 U
N-nitrosodiphenylamine	UG/KG	363 U	371 U
Pentachlorophenol	UG/KG	879 U	899 U
Phenanthrene	UG/KG	363 U	371 U
Phenol	UG/KG	363 U	371 U
Pyrene	UG/KG	363 U	371 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 74)
 FORMER DISPOSAL / POTENTIAL DISPOSAL / FORMER PEST CONTROL AREA SURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	74-FPA-SB06-00	74-FPA-SB06-00D
Laboratory Sample ID:	9402180-08A	9402180-09A
Date Sampled:		
Percent Solids	90.9	89.4

VOLATILES

Chloromethane	UG/KG	11 U	11 U
Bromomethane	UG/KG	11 U	11 U
Vinyl chloride	UG/KG	11 U	11 U
Chloroethane	UG/KG	11 U	11 U
Methylene chloride	UG/KG	11 U	11 U
Acetone	UG/KG	11 UJ	51 J
Carbon Disulfide	UG/KG	11 U	11 U
1,1-Dichloroethene	UG/KG	11 U	11 U
1,1-Dichloroethane	UG/KG	11 U	11 U
1,2-Dichloroethene(total)	UG/KG	11 U	11 U
Chloroform	UG/KG	11 U	11 U
1,2-Dichloroethane	UG/KG	11 U	11 U
2-Butanone	UG/KG	11 R	11 R
1,1,1-Trichloroethane	UG/KG	11 U	11 U
Carbon tetrachloride	UG/KG	11 U	11 U
Bromodichloromethane	UG/KG	11 U	11 U
1,2-Dichloropropane	UG/KG	11 U	11 U
cis-1,3-Dichloropropene	UG/KG	11 U	11 U
Trichloroethene	UG/KG	11 U	11 U
Dibromochloromethane	UG/KG	11 U	11 U
1,1,2-Trichloroethane	UG/KG	11 U	11 U
Benzene	UG/KG	11 U	11 U
trans-1,3-Dichloropropene	UG/KG	11 U	11 U
Bromoform	UG/KG	11 U	11 U
4-Methyl-2-pentanone	UG/KG	11 U	11 U
2-Hexanone	UG/KG	11 U	11 U
Tetrachloroethene	UG/KG	11 U	11 U
1,1,2,2-Tetrachloroethane	UG/KG	11 U	11 U
Toluene	UG/KG	11 U	11 U
Chlorobenzene	UG/KG	11 U	11 U
Ethylbenzene	UG/KG	11 U	11 U
Styrene	UG/KG	11 U	11 U
Xylenes (total)	UG/KG	11 U	11 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 74)
 FORMER DISPOSAL / POTENTIAL DISPOSAL / FORMER PEST CONTROL AREA SURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	74-FPA-SB06-00	74-FPA-SB06-00D
Laboratory Sample ID:	9402180-08A	9402180-09A
Date Sampled:		
Percent Solids	90.9	89.4

<u>PESTICIDE/PCBS</u>			
alpha-BHC	UG/KG	1.87 UJ	1.91 UJ
beta-BHC	UG/KG	1.87 UJ	1.91 UJ
delta-BHC	UG/KG	1.87 UJ	1.91 UJ
Lindane (gamma-BHC)	UG/KG	1.87 UJ	1.91 UJ
Heptachlor	UG/KG	0.61 J	1.91 U
Aldrin	UG/KG	1.87 U	1.91 U
Heptachlor epoxide	UG/KG	1.87 U	1.91 U
Endosulfan I	UG/KG	1.87 U	1.91 U
Dieldrin	UG/KG	3.07 NJ	0.96 NJ
4,4'-DDE	UG/KG	107 J	52.5
Endrin	UG/KG	1.06 J	0.67 NJ
Endosulfan II	UG/KG	3.63 U	0.82 NJ
4,4'-DDD	UG/KG	9.4 NJ	17 NJ
Endosulfan sulfate	UG/KG	3.63 U	3.71 U
4,4'-DDT	UG/KG	212 J	50.2 J
Methoxychlor	UG/KG	18.7 U	19.1 U
Endrin ketone	UG/KG	3.63 U	3.71 U
Endrin aldehyde	UG/KG	2.13 J	0.44 NJ
alpha-Chlordane	UG/KG	2.55 J	0.8 J
gamma-Chlordane	UG/KG	2.18 J	0.57 NJ
Toxaphene	UG/KG	187 U	191 U
Aroclor 1016	UG/KG	36.3 U	37.1 U
Aroclor 1221	UG/KG	73.6 U	75.3 U
Aroclor 1232	UG/KG	36.3 U	37.1 U
Aroclor 1242	UG/KG	36.3 U	37.1 U
Aroclor 1248	UG/KG	36.3 U	37.1 U
Aroclor 1254	UG/KG	36.3 U	37.1 U
Aroclor 1260	UG/KG	36.3 U	37.1 U

DUPLICATE SAMPLE SUMMARY
OPERABLE UNIT NO. 4 (SITE 74)
FORMER DISPOSAL / POTENTIAL DISPOSAL / FORMER PEST CONTROL AREA SURFACE SOIL
MCB CAMP LEJEUNE, NORTH CAROLINA
REMEDIAL INVESTIGATION - CTO-0212
ORGANICS

Client Sample ID:	74-FPA-SB06-00	74-FPA-SB06-00D
Laboratory Sample ID:	9402180-08A	9402180-09A
Date Sampled:		
Percent Solids	90.9	89.4

CHEMICAL SURETY

Acetophenone	UG/KG	N/A	N/A
Chloroacetophenone	UG/KG	N/A	N/A
Hydroxyacetophenone	UG/KG	N/A	N/A
Bis(2'-chloroethyl)disulfide	UG/KG	N/A	N/A
Bis(2'-chloroethyl)trisulfide	UG/KG	N/A	N/A
1,4-Dithiane	UG/KG	N/A	N/A
1,4-Oxathiane	UG/KG	N/A	N/A

THIODIGLYCOL

Thiodiglycol	MG/KG	N/A	N/A
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DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 74)
 FORMER DISPOSAL / POTENTIAL DISPOSAL / FORMER PEST CONTROL AREA SURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 TAL INORGANICS

Client Sample ID:	74-FDA-SB06-00	74-FDA-SB06-00D	74-FDA-SB11-00	74-FDA-SB11-00D	74-FDA-SB15-00	74-FDA-SB15-00D
Laboratory Sample ID:	9401116-01A	9401116-02A	9401121-01A	9401121-02A	9401132-02	9401132-01
Date Sampled:	34354	34354	34355	34355	34356	34356
Percent Solids	82.6	80.3	90.1	90.2	89.4	89.2

	UNITS	74-FDA-SB06-00	74-FDA-SB06-00D	74-FDA-SB11-00	74-FDA-SB11-00D	74-FDA-SB15-00	74-FDA-SB15-00D
Aluminum	MG/KG	8040	6260	4150	3370	8650	7990
Antimony	MG/KG	1.91 UJ	1.97 UJ	1.75 UJ	1.75 UJ	1.77 UJ	1.77 UJ
Arsenic	MG/KG	0.702 J	0.722 U	0.897	0.643 U	1	1
Barium	MG/KG	5.76	4.89	4.67	3.04 U	9.39	8.79
Beryllium	MG/KG	0.312 U	0.321 U	0.286 U	0.286 U	0.288 U	0.289 U
Cadmium	MG/KG	0.569 U	0.585 U	0.522 U	0.521 U	0.526 U	0.527 U
Calcium	MG/KG	44.6	50.8	27.7 U	27.7 U	74.6	91.7
Chromium	MG/KG	5.91	4.13	8.36 J	2.25 J	9.82	8.4
Cobalt	MG/KG	4.7 U	4.83 U	4.31 U	4.3 U	4.34 U	4.35 U
Copper	MG/KG	3.92 U	4.03 U	3.6 U	3.59 U	3.62 U	3.63 U
Iron	MG/KG	942	753	1470 J	1230 J	4480	3880
Lead	MG/KG	5.32	5.58	2.75	2.94	5.51	5.17
Magnesium	MG/KG	138	85.7	40.2	26.1	151	156
Manganese	MG/KG	2.4	2.03	1.48	1.31	2.7	2.65
Mercury	MG/KG	0.08 U	0.1 U	0.015	0.055 U	0.056 U	0.056 U
Nickel	MG/KG	3.29 U	3.39 U	3.02 U	3.02 U	3.71	3.67
Potassium	MG/KG	139	74.7 U	66.6 UJ	66.6 UJ	155	180
Selenium	MG/KG	0.612 U	0.63 UJ	0.562 UJ	0.561 UJ	0.726 J	0.635
Silver	MG/KG	0.1 UJ	0.1 UJ	0.089 UJ	0.089 UJ	0.089 UJ	0.09 UJ
Sodium	MG/KG	46 UJ	47.3 UJ	42.2 U	42.1 U	42.5 U	42.6 U
Thallium	MG/KG	1.11 U	1.14 U	0.222 UJ	0.222 UJ	1.03 U	1.03 U
Vanadium	MG/KG	7.37	6.42	4.95	3.68 U	11.4	9.46
Zinc	MG/KG	4.01	3.93	8.81	6.34	6.25	8.48
Total Cyanide	MG/KG	1.21	1.24	1.11	1.11	1.12	2.44

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 74)
 FORMER DISPOSAL / POTENTIAL DISPOSAL / FORMER PEST CONTROL AREA SURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 TAL INORGANICS

Client Sample ID:	74-FDA-SB22-00	74-FDA-SB22-00D	74-FDA-SB33-00	74-FDA-SB33-00D	74-PDA-SB06-00	74-PDA-SB06-00D
Laboratory Sample ID:	9401138-06	9401138-07	9401108-04	9401108-05	9402182-04	9402182-05
Date Sampled:	34357	34357	01/19/94	01/19/94	34384	34384
Percent Solids	86.6	87.7	86.7	88.4	73	83.7

	UNITS						
Aluminum	MG/KG	8910	9130	3210.0	3100.0	1120	1350
Antimony	MG/KG	1.82 UJ	1.8 UJ	1.82 UJ	1.79 UJ	2.08 U	1.82 U
Arsenic	MG/KG	0.67 U	0.661 U	0.669 UJ	0.656 UJ	0.603 U	0.526 U
Barium	MG/KG	10.5	10.1	4.58	5.81	3.89	7
Beryllium	MG/KG	0.298 U	0.294 U	0.298 U	0.309	0.208 U	0.182 U
Cadmium	MG/KG	0.543 U	0.536 U	0.543	0.532 U	0.874 U	0.762 U
Calcium	MG/KG	138	150	51.2	66.2	91.8	277
Chromium	MG/KG	7.68	6.7	2.85	3.14	2.28 U	1.98 U
Cobalt	MG/KG	4.48 U	4.42 U	4.48 U	4.39 U	4.38 U	3.82 U
Copper	MG/KG	5.07	5.41	3.74 U	4.26	4.46 U	3.89 U
Iron	MG/KG	5400	5530	895.0 J	744.0 J	330	434
Lead	MG/KG	4.45 J	4.53 J	6.47 J	4.42 J	3.07	3.58
Magnesium	MG/KG	179	200	64.5	61.9	19.7 U	37
Manganese	MG/KG	2.62	2.78	2.50	2.17	2.38	7.07
Mercury	MG/KG	0.061 UJ	0.066 UJ	0.096 U	0.076 U	0.07 UJ	0.06 UJ
Nickel	MG/KG	3.14 U	3.1 U	3.14 UJ	3.08 UJ	7.89 U	6.88 U
Potassium	MG/KG	176 U	174 U	165.0	67.9 U	209 U	182 U
Selenium	MG/KG	0.584 UJ	0.577 UJ	0.584 U	0.572 U	0.438 U	0.382 U
Silver	MG/KG	0.092 UJ	0.091 UJ	0.092 UJ	0.090 UJ	0.438 U	0.382 U
Sodium	MG/KG	43.6 U	70	43.8 UJ	43.0 UJ	101 UJ	87.9 UJ
Thallium	MG/KG	1.06 U	1.05 U	0.231 UJ	0.226 UJ	0.822 U	0.717 U
Vanadium	MG/KG	12.4	10.1	4.42	4.68	5.59 U	4.87 U
Zinc	MG/KG	4.82 U	4.46 U	4.11 U	4.36 U	3.86	3.42
Total Cyanide	MG/KG	1.15	1.14	1.15	1.13	1.37	1.19

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 74)
 FORMER DISPOSAL / POTENTIAL DISPOSAL / FORMER PEST CONTROL AREA SURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 TAL INORGANICS

Client Sample ID:	74-FPA-SB06-00	74-FPA-SB06-00D
Laboratory Sample ID:	9402180-08A	9402180-09A
Date Sampled:	34385	34385
Percent Solids	90.9	89.4

	<u>UNITS</u>		
Aluminum	MG/KG	2780	5030
Antimony	MG/KG	1.67 UJ	1.7 UJ
Arsenic	MG/KG	0.621 J	0.492 UJ
Barium	MG/KG	8.45	14
Beryllium	MG/KG	0.167 U	0.17 U
Cadmium	MG/KG	0.702 U	0.714 U
Calcium	MG/KG	22000	22400
Chromium	MG/KG	4.7	5.75
Cobalt	MG/KG	3.52 U	3.58 U
Copper	MG/KG	3.59 U	3.65 U
Iron	MG/KG	1500	2600
Lead	MG/KG	5.98	61.9
Magnesium	MG/KG	442	428
Manganese	MG/KG	9.77	14.6
Mercury	MG/KG	0.055 U	0.056 U
Nickel	MG/KG	6.34 U	6.44 U
Potassium	MG/KG	168 U	171 U
Selenium	MG/KG	0.352 UJ	0.358 UJ
Silver	MG/KG	0.352 U	0.358 U
Sodium	MG/KG	81 UJ	82.3 UJ
Thallium	MG/KG	0.66 U	0.671 U
Vanadium	MG/KG	6.09	9.2
Zinc	MG/KG	11.6	27.5
Total Cyanide	MG/KG	1.1	1.12

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 74)
 FORMER DISPOSAL / POTENTIAL DISPOSAL / FORMER PEST CONTROL AREA SUBSURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	74-PDA-SB04-05	74-PDA-SB04-05D	74-GW04-03	74-GW04-03D	
Laboratory Sample ID:	9402181-11	9402181-12	9401101-01	9401101-03	
Date Sampled:	02/19/94	02/19/94	01/18/94	01/18/94	
Percent Solids	86.8	79.7	87.8	89.0	
SEMIVOLATILES					
1,2-Dichlorobenzene	UG/KG	752 U	734 U	376.0 U	371.0 U
1,2,4-Trichlorobenzene	UG/KG	752 U	734 U	376.0 U	371.0 U
1,3-Dichlorobenzene	UG/KG	752 U	734 U	376.0 U	371.0 U
1,4-Dichlorobenzene	UG/KG	752 U	734 U	376.0 U	371.0 U
2-Chloronaphthalene	UG/KG	752 U	734 U	376.0 U	371.0 U
2-Chlorophenol	UG/KG	752 U	734 U	376.0 U	371.0 U
2-Methylnaphthalene	UG/KG	752 U	734 U	376.0 U	371.0 U
2-Methylphenol	UG/KG	752 U	734 U	376.0 U	371.0 U
2-Nitroaniline	UG/KG	1824 U	1778 U	912.0 U	899.0 U
2-Nitrophenol	UG/KG	752 U	734 U	376.0 U	371.0 U
2,2'-oxybis-(1-chloropropane)	UG/KG	752 U	734 U	376.0 U	371.0 U
2,4-Dichlorophenol	UG/KG	752 U	734 U	376.0 U	371.0 U
2,4-Dimethylphenol	UG/KG	752 U	734 U	376.0 U	371.0 U
2,4-Dinitrophenol	UG/KG	1824 U	1778 U	912.0 U	899.0 U
2,4-Dinitrotoluene	UG/KG	752 U	734 U	376.0 U	371.0 U
2,4,5-Trichlorophenol	UG/KG	1824 U	1778 U	912.0 U	899.0 U
2,4,6-Trichlorophenol	UG/KG	752 U	734 U	376.0 U	371.0 U
2,6-Dinitrotoluene	UG/KG	752 U	734 U	376.0 U	371.0 U
3-Nitroaniline	UG/KG	1824 U	1778 U	912.0 U	899.0 U
3,3'-Dichlorobenzidine	UG/KG	752 U	734 U	376.0 U	371.0 U
4-Bromophenyl-phenylether	UG/KG	752 U	734 U	376.0 U	371.0 U
4-Chloro-3-methylphenol	UG/KG	752 U	734 U	376.0 U	371.0 U
4-Chloroaniline	UG/KG	752 U	734 U	376.0 U	371.0 U
4-Chlorophenyl phenyl ether	UG/KG	752 U	734 U	376.0 U	371.0 U
4-Methylphenol	UG/KG	752 U	734 U	376.0 U	371.0 U
4-Nitroaniline	UG/KG	1824 U	1778 U	912.0 U	899.0 U
4-Nitrophenol	UG/KG	1824 U	1778 U	912.0 U	899.0 U
4,6-Dinitro-2-methylphenol	UG/KG	1824 U	1778 U	912.0 U	899.0 U
Acenaphthene	UG/KG	752 U	734 U	376.0 U	371.0 U
Acenaphthylene	UG/KG	752 U	734 U	376.0 U	371.0 U
Anthracene	UG/KG	752 U	734 U	376.0 U	371.0 U
Benzo[a]anthracene	UG/KG	752 U	734 U	376.0 U	371.0 U
Benzo[a]pyrene	UG/KG	752 U	734 U	376.0 U	371.0 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 74)
 FORMER DISPOSAL / POTENTIAL DISPOSAL / FORMER PEST CONTROL AREA SUBSURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	74-PDA-SB04-05	74-PDA-SB04-05D	74-GW04-03	74-GW04-03D
Laboratory Sample ID:	9402181-11	9402181-12	9401101-01	9401101-03
Date Sampled:	02/19/94	02/19/94	01/18/94	01/18/94
Percent Solids	86.8	79.7	87.8	89.0

SEMIVOLATILES Cont.

Compound	UG/KG	74-PDA-SB04-05	74-PDA-SB04-05D	74-GW04-03	74-GW04-03D
Benzo[b]fluoranthene	UG/KG	752 U	734 U	376.0 U	371.0 U
Benzo[g,h,i]perylene	UG/KG	752 U	734 U	376.0 U	371.0 U
Benzo[k]fluoranthene	UG/KG	752 U	734 U	376.0 U	371.0 U
bis(2-Chloroethoxy) methane	UG/KG	752 U	734 U	376.0 U	371.0 U
bis(2-Chloroethyl) ether	UG/KG	752 U	734 U	376.0 U	371.0 U
bis(2-Ethylhexyl)phthalate	UG/KG	752 U	734 U	376.0 U	371.0 U
Butyl benzyl phthalate	UG/KG	752 U	734 U	376.0 U	371.0 U
Carbazole	UG/KG	752 U	734 U	376.0 U	371.0 U
Chrysene	UG/KG	752 U	734 U	376.0 U	371.0 U
Dibenzofuran	UG/KG	752 U	734 U	376.0 U	371.0 U
Dibenz[a,h]anthracene	UG/KG	752 U	734 U	376.0 U	371.0 U
Diethylphthalate	UG/KG	752 U	734 U	376.0 U	371.0 U
Dimethyl phthalate	UG/KG	752 U	734 U	376.0 U	371.0 U
di-n-Butylphthalate	UG/KG	752 U	734 U	65.0 J	65.0 J
di-n-Octylphthalate	UG/KG	752 U	734 U	376.0 U	371.0 U
Fluoranthene	UG/KG	752 U	734 U	376.0 U	371.0 U
Fluorene	UG/KG	752 U	734 U	376.0 U	371.0 U
Hexachlorobenzene	UG/KG	752 U	734 U	376.0 U	371.0 U
Hexachlorobutadiene	UG/KG	752 U	734 U	376.0 U	371.0 U
Hexachlorocyclopentadiene	UG/KG	752 U	734 U	376.0 U	371.0 U
Hexachloroethane	UG/KG	752 U	734 U	376.0 U	371.0 U
Indeno[1,2,3-cd]pyrene	UG/KG	752 U	734 U	376.0 U	371.0 U
Isophorone	UG/KG	752 U	734 U	376.0 U	371.0 U
Naphthalene	UG/KG	752 U	734 U	376.0 U	371.0 U
Nitrobenzene	UG/KG	752 U	734 U	376.0 U	371.0 U
N-Nitroso-di-n-propylamine	UG/KG	752 U	734 U	376.0 U	371.0 U
N-nitrosodiphenylamine	UG/KG	752 U	734 U	376.0 U	371.0 U
Pentachlorophenol	UG/KG	1824 U	1778 U	912.0 U	899.0 U
Phenanthrene	UG/KG	752 U	734 U	376.0 U	371.0 U
Phenol	UG/KG	752 U	734 U	376.0 U	371.0 U
Pyrene	UG/KG	752 U	734 U	376.0 U	371.0 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 74)
 FORMER DISPOSAL / POTENTIAL DISPOSAL / FORMER PEST CONTROL AREA SUBSURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	74-PDA-SB04-05	74-PDA-SB04-05D	74-GW04-03	74-GW04-03D	
Laboratory Sample ID:	9402181-11	9402181-12	9401101-01	9401101-03	
Date Sampled:	02/19/94	02/19/94	01/18/94	01/18/94	
Percent Solids	86.8	79.7	87.8	89.0	
VOLATILES					
Chloromethane	UG/KG	11.0 U	12.0 U	11.4 U	11.2 U
Bromomethane	UG/KG	11.0 U	12.0 U	11.4 U	11.2 U
Vinyl chloride	UG/KG	11.0 U	12.0 U	11.4 U	11.2 U
Chloroethane	UG/KG	11.0 U	12.0 U	11.4 U	11.2 U
Methylene chloride	UG/KG	11.00 U	12.00 U	11.00 U	11.00 U
Acetone	UG/KG	50.0	5.00 J	11.4 U	11.2 U
Carbon Disulfide	UG/KG	11.0 U	12.0 U	11.4 U	11.2 U
1,1-Dichloroethene	UG/KG	11.0 U	12.0 U	11.4 U	11.2 U
1,1-Dichloroethane	UG/KG	11.0 U	12.0 U	11.4 U	11.2 U
1,2-Dichloroethene(total)	UG/KG	11.0 U	12.0 U	11.4 U	11.2 U
Chloroform	UG/KG	11.0 U	12.0 U	11.4 U	11.2 U
1,2-Dichloroethane	UG/KG	11.0 U	12.0 U	11.4 U	11.2 U
2-Butanone	UG/KG	11.0 U	12.0 U	11.4 U	11.2 U
1,1,1-Trichloroethane	UG/KG	11.0 U	12.0 U	11.4 U	11.2 U
Carbon tetrachloride	UG/KG	11.0 U	12.0 U	11.4 U	11.2 U
Bromodichloromethane	UG/KG	11.0 U	12.0 U	11.4 U	11.2 U
1,2-Dichloropropane	UG/KG	11.0 U	12.0 U	11.4 U	11.2 U
cis-1,3-Dichloropropene	UG/KG	11.0 U	12.0 U	11.4 U	11.2 U
Trichloroethene	UG/KG	11.0 U	12.0 U	11.4 U	11.2 U
Dibromochloromethane	UG/KG	11.0 U	12.0 U	11.4 U	11.2 U
1,1,2-Trichloroethane	UG/KG	11.0 U	12.0 U	11.4 U	11.2 U
Benzene	UG/KG	11.0 U	12.0 U	11.4 U	11.2 U
trans-1,3-Dichloropropene	UG/KG	11.0 U	12.0 U	11.4 U	11.2 U
Bromoform	UG/KG	11.0 U	12.0 U	11.4 U	11.2 U
4-Methyl-2-pentanone	UG/KG	11.0 U	12.0 U	11.4 U	11.2 U
2-Hexanone	UG/KG	11.0 U	12.0 U	11.4 UJ	11.2 UJ
Tetrachloroethene	UG/KG	11.0 U	12.0 U	11.4 U	11.2 U
1,1,2,2-Tetrachloroethane	UG/KG	11.0 U	12.0 U	11.4 U	11.2 U
Toluene	UG/KG	11.0 U	12.0 U	11.4 U	11.2 U
Chlorobenzene	UG/KG	11.0 U	12.0 U	11.4 U	11.2 U
Ethylbenzene	UG/KG	11.0 U	12.0 U	11.4 U	11.2 U
Styrene	UG/KG	11.0 U	12.0 U	11.4 U	11.2 U
Xylenes (total)	UG/KG	11.0 U	12.0 U	11.4 U	11.2 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 74)
 FORMER DISPOSAL / POTENTIAL DISPOSAL / FORMER PEST CONTROL AREA SUBSURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	74-PDA-SB04-05	74-PDA-SB04-05D	74-GW04-03	74-GW04-03D	
Laboratory Sample ID:	9402181-11	9402181-12	9401101-01	9401101-03	
Date Sampled:	02/19/94	02/19/94	01/18/94	01/18/94	
Percent Solids	86.8	79.7	87.8	89.0	
PESTICIDE/PCBS					
alpha-BHC	UG/KG	1.95 UJ	2.12 UJ	1.93 UJ	1.91 UJ
beta-BHC	UG/KG	1.95 UJ	2.12 UJ	1.93 UJ	1.91 U
delta-BHC	UG/KG	1.95 UJ	2.12 UJ	1.93 UJ	1.91 U
Lindane (gamma-BHC)	UG/KG	1.95 UJ	2.12 UJ	1.93 UJ	1.91 U
Heptachlor	UG/KG	1.95 UJ	2.12 UJ	1.93 UJ	1.91 U
Aldrin	UG/KG	1.95 UJ	2.12 UJ	1.93 UJ	1.91 U
Heptachlor epoxide	UG/KG	1.95 UJ	2.12 UJ	1.93 UJ	1.91 UJ
Endosulfan I	UG/KG	1.95 UJ	2.12 UJ	1.93 UJ	1.91 U
Dieldrin	UG/KG	3.79 UJ	4.12 UJ	3.75 UJ	3.72 U
4,4'-DDE	UG/KG	3.79 UJ	4.12 UJ	3.75 UJ	3.72 U
Endrin	UG/KG	3.79 UJ	4.12 UJ	3.75 UJ	3.72 U
Endosulfan II	UG/KG	3.79 UJ	4.12 UJ	3.75 UJ	3.72 U
4,4'-DDD	UG/KG	0.720 J	4.12 UJ	3.75 UJ	3.72 U
Endosulfan sulfate	UG/KG	3.79 UJ	4.12 UJ	3.75 UJ	3.72 U
4,4'-DDT	UG/KG	0.340 NJ	4.12 UJ	3.75 UJ	3.72 UJ
Methoxychlor	UG/KG	19.5 UJ	21.2 UJ	19.3 UJ	19.1 UJ
Endrin ketone	UG/KG	3.79 UJ	4.12 UJ	3.75 UJ	3.72 U
Endrin aldehyde	UG/KG	3.79 UJ	4.12 UJ	3.75 UJ	3.72 U
alpha-Chlordane	UG/KG	1.95 UJ	2.12 UJ	1.93 UJ	1.91 U
gamma-Chlordane	UG/KG	1.95 UJ	2.12 UJ	1.93 UJ	1.91 U
Toxaphene	UG/KG	195.0 UJ	212.0 UJ	193.0 UJ	191.0 U
Aroclor 1016	UG/KG	37.9 UJ	41.2 UJ	37.5 UJ	37.2 U
Aroclor 1221	UG/KG	77.0 UJ	83.8 UJ	76.1 UJ	75.4 U
Aroclor 1232	UG/KG	37.9 UJ	41.2 UJ	37.5 UJ	37.2 U
Aroclor 1242	UG/KG	37.9 UJ	41.2 UJ	37.5 UJ	37.2 U
Aroclor 1248	UG/KG	37.9 UJ	41.2 UJ	37.5 UJ	37.2 U
Aroclor 1254	UG/KG	37.9 UJ	41.2 UJ	37.5 UJ	37.2 U
Aroclor 1260	UG/KG	37.9 UJ	41.2 UJ	37.5 UJ	37.2 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 74)
 FORMER DISPOSAL / POTENTIAL DISPOSAL / FORMER PEST CONTROL AREA SUBSURFACE SOIL
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 TAL INORGANICS

Client Sample ID:	74-PDA-SB04-05	74-PDA-SB04-05	74-GW04-03	74-GW04-03D
Laboratory Sample ID:	9402181-11	9402181-12	9401101-01	9401101-03
Date Sampled:	02/19/94	02/19/94	01/18/94	01/18/94
Percent Solids	86.8	79.7	87.8	89.0

	UNITS				
Aluminum	MG/KG	2110.0	1710.0	5310.0	4990.0
Antimony	MG/KG	1.97	1.91 U	1.80 UJ	1.78 UJ
Arsenic	MG/KG	0.507 U	0.552 U	0.660 U	0.652 U
Barium	MG/KG	2.86 U	3.11 U	5.02	4.37
Beryllium	MG/KG	0.175 U	0.191 U	0.294 U	0.290 U
Cadmium	MG/KG	0.735 U	0.800 U	0.535 U	0.528 U
Calcium	MG/KG	34.3 U	37.4 U	28.5 U	28.1 U
Chromium	MG/KG	3.21	3.81	4.54	5.42
Cobalt	MG/KG	3.69 U	4.02 U	4.42 U	4.36 U
Copper	MG/KG	3.76 U	4.09 U	3.69 U	3.64 U
Iron	MG/KG	382.0	331.0	1620.0	1490.0
Lead	MG/KG	1.34 J	0.689 J	3.18 J	3.45 J
Magnesium	MG/KG	50.9	35.5	94.4	109.0
Manganese	MG/KG	1.63 U	1.78 U	1.72	2.92
Mercury	MG/KG	0.058 U	0.063 U	0.057 UJ	0.056 UJ
Nickel	MG/KG	6.64 U	7.23 U	3.10 U	3.06 U
Potassium	MG/KG	176.0 U	191.0 U	322.0 U	292.0 U
Selenium	MG/KG	0.369 U	0.402 U	0.576 U	0.568 U
Silver	MG/KG	0.369 U	0.402 U	0.091 UJ	0.090 UJ
Sodium	MG/KG	84.8 U	92.3 U	43.3 UJ	42.7 UJ
Thallium	MG/KG	0.691 U	0.753 U	1.05 U	1.03 U
Vanadium	MG/KG	4.70 U	5.12 U	4.62	5.69
Zinc	MG/KG	2.44 U	3.30 U	3.16 U	3.84 U
Total Cyanide	MG/KG	1.15	1.25	1.14	1.12

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 74)
 GROUNDWATER
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	74-GW06-01	74-GW06-01D
Laboratory Sample ID:	9402140-01	9402140-03
Date Sampled:	02/16/94	02/16/94

	<u>UNITS</u>		
SEMIVOLATILES			
1,2-Dichlorobenzene	UG/L	11.9 U	16.7 U
1,2,4-Trichlorobenzene	UG/L	11.9 U	16.7 U
1,3-Dichlorobenzene	UG/L	11.9 U	16.7 U
1,4-Dichlorobenzene	UG/L	11.9 U	16.7 U
2-Chloronaphthalene	UG/L	11.9 U	16.7 U
2-Chlorophenol	UG/L	11.9 U	16.7 U
2-Methylnaphthalene	UG/L	11.9 U	16.7 U
2-Methylphenol	UG/L	11.9 U	16.7 U
2-Nitroaniline	UG/L	29.8 U	41.7 U
2-Nitrophenol	UG/L	11.9 U	16.7 U
2,2-oxybis-(1-chloropropane)	UG/L	11.9 U	16.7 U
2,4-Dichlorophenol	UG/L	11.9 U	16.7 U
2,4-Dimethylphenol	UG/L	11.9 U	16.7 U
2,4-Dinitrophenol	UG/L	29.8 U	41.7 U
2,4-Dinitrotoluene	UG/L	11.9 U	16.7 U
2,4,5-Trichlorophenol	UG/L	29.8 U	41.7 U
2,4,6-Trichlorophenol	UG/L	11.9 U	16.7 U
2,6-Dinitrotoluene	UG/L	11.9 U	16.7 U
3-Nitroaniline	UG/L	29.8 UJ	41.7 UJ
3,3'-Dichlorobenzidine	UG/L	11.9 U	16.7 U
4-Bromophenyl-phenylether	UG/L	11.9 U	16.7 U
4-Chloro-3-methylphenol	UG/L	11.9 U	16.7 U
4-Chloroaniline	UG/L	11.9 U	16.7 U
4-Chlorophenyl phenyl ether	UG/L	11.9 U	16.7 U
4-Methylphenol	UG/L	11.9 U	16.7 U
4-Nitroaniline	UG/L	29.8 U	41.7 U
4-Nitrophenol	UG/L	29.8 U	41.7 U
4,6-Dinitro-2-methylphenol	UG/L	29.8 U	41.7 U
Acenaphthene	UG/L	11.9 U	16.7 U
Acenaphthylene	UG/L	11.9 U	16.7 U
Anthracene	UG/L	11.9 U	16.7 U
Benzo[a]anthracene	UG/L	11.9 U	16.7 U
Benzo[a]pyrene	UG/L	11.9 U	16.7 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 74)
 GROUNDWATER
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	74-GW06-01	74-GW06-01D
Laboratory Sample ID:	9402140-01	9402140-03
Date Sampled:	02/16/94	02/16/94

UNITS

SEMIVOLATILES Cont.

Benzo[b]fluoranthene	UG/L	11.9 U	16.7 U
Benzo[g,h,i]perylene	UG/L	11.9 U	16.7 U
Benzo[k]fluoranthene	UG/L	11.9 U	16.7 U
bis(2-Chloroethoxy) methane	UG/L	11.9 U	16.7 U
bis(2-Chloroethyl) ether	UG/L	11.9 U	16.7 U
bis(2-Ethylhexyl)phthalate	UG/L	11.9 U	16.7 U
Butyl benzyl phthalate	UG/L	11.9 U	16.7 U
Carbazole	UG/L	11.9 U	16.7 U
Chrysene	UG/L	11.9 U	16.7 U
Dibenzofuran	UG/L	11.9 U	16.7 U
Dibenz[a,h]anthracene	UG/L	11.9 U	16.7 U
Diethylphthalate	UG/L	11.9 U	16.7 U
Dimethyl phthalate	UG/L	11.9 U	16.7 U
di-n-Butylphthalate	UG/L	11.9 U	16.7 U
di-n-Octylphthalate	UG/L	11.9 U	16.7 U
Fluoranthene	UG/L	11.9 U	16.7 U
Fluorene	UG/L	11.9 U	16.7 U
Hexachlorobenzene	UG/L	11.9 U	16.7 U
Hexachlorobutadiene	UG/L	11.9 U	16.7 U
Hexachlorocyclopentadiene	UG/L	11.9 U	16.7 U
Hexachloroethane	UG/L	11.9 U	16.7 U
Indeno[1,2,3-cd]pyrene	UG/L	11.9 U	16.7 U
Isophorone	UG/L	11.9 U	16.7 U
Naphthalene	UG/L	11.9 U	16.7 U
Nitrobenzene	UG/L	11.9 U	16.7 U
N-Nitroso-di-n-propylamine	UG/L	11.9 U	16.7 U
N-nitrosodiphenylamine	UG/L	11.9 U	16.7 U
Pentachlorophenol	UG/L	29.8 U	41.7 U
Phenanthrene	UG/L	11.9 U	16.7 U
Phenol	UG/L	11.9 U	16.7 U
Pyrene	UG/L	11.9 U	16.7 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 74)
 GROUNDWATER
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	74-GW06-01	74-GW06-01D
Laboratory Sample ID:	9402140-01	9402140-03
Date Sampled:	02/16/94	02/16/94

	<u>UNITS</u>		
<u>VOLATILES</u>			
Chloromethane	UG/L	10.0 U	10.0 U
Bromomethane	UG/L	10.0 U	10.0 U
Vinyl chloride	UG/L	10.0 U	10.0 U
Chloroethane	UG/L	10.0 U	10.0 U
Methylene chloride	UG/L	10.00 U	10.00 U
Acetone	UG/L	10.0 UJ	10.0 UJ
Carbon Disulfide	UG/L	10.0 U	10.0 U
1,1-Dichloroethane	UG/L	10.0 U	10.0 U
1,1-Dichloroethane	UG/L	10.0 U	10.0 U
1,2-Dichloroethane(total)	UG/L	10.0 U	10.0 U
Chloroform	UG/L	10.0 U	10.0 U
1,2-Dichloroethane	UG/L	10.0 U	10.0 U
2-Butanone	UG/L	10.0 U	10.0 U
1,1,1-Trichloroethane	UG/L	10.0 U	10.0 U
Carbon tetrachloride	UG/L	10.0 U	10.0 U
Bromodichloromethane	UG/L	10.0 U	10.0 U
1,2-Dichloropropane	UG/L	10.0 U	10.0 U
cis-1,3-Dichloropropene	UG/L	10.0 U	10.0 U
Trichloroethene	UG/L	10.0 U	10.0 U
Dibromochloromethane	UG/L	10.0 U	10.0 U
1,1,2-Trichloroethane	UG/L	10.0 U	10.0 U
Benzene	UG/L	10.0 U	10.0 U
trans-1,3-Dichloropropene	UG/L	10.0 U	10.0 U
Bromoform	UG/L	10.0 U	10.0 U
4-Methyl-2-pentanone	UG/L	10.0 U	10.0 U
2-Hexanone	UG/L	10.0 U	10.0 U
Tetrachloroethene	UG/L	10.0 U	10.0 U
1,1,2,2-Tetrachloroethane	UG/L	10.0 U	10.0 U
Toluene	UG/L	10.0 U	10.0 U
Chlorobenzene	UG/L	10.0 U	10.0 U
Ethylbenzene	UG/L	10.0 U	10.0 U
Styrene	UG/L	10.0 U	10.0 U
Xylenes (total)	UG/L	10.0 U	10.0 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 74)
 GROUNDWATER
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	74-GW06-01	74-GW06-01D
Laboratory Sample ID:	9402140-01	9402140-03
Date Sampled:	02/16/94	02/16/94

	<u>UNITS</u>		
PESTICIDE/PCBS			
alpha-BHC	UG/L	0.055 UJ	0.060 U
beta-BHC	UG/L	0.055 UJ	0.060 U
delta-BHC	UG/L	0.055 UJ	0.060 U
Lindane (gamma-BHC)	UG/L	0.055 UJ	0.060 U
Heptachlor	UG/L	0.055 UJ	0.060 U
Aldrin	UG/L	0.055 UJ	0.060 U
Heptachlor epoxide	UG/L	0.055 UJ	0.060 U
Endosulfan I	UG/L	0.055 UJ	0.060 U
Dieldrin	UG/L	0.110 UJ	0.120 U
4,4'-DDE	UG/L	0.110 UJ	0.120 U
Endrin	UG/L	0.110 UJ	0.120 U
Endosulfan II	UG/L	0.110 UJ	0.120 U
4,4'-DDD	UG/L	0.110 UJ	0.120 U
Endosulfan sulfate	UG/L	0.110 UJ	0.120 U
4,4'-DDT	UG/L	0.110 UJ	0.120 U
Methoxychlor	UG/L	0.550 UJ	0.600 U
Endrin ketone	UG/L	0.110 UJ	0.120 U
Endrin aldehyde	UG/L	0.110 UJ	0.120 U
alpha-Chlordane	UG/L	0.055 UJ	0.060 U
gamma-Chlordane	UG/L	0.055 UJ	0.060 U
Toxaphene	UG/L	5.50 UJ	6.00 U
Aroclor 1016	UG/L	1.10 UJ	1.20 U
Aroclor 1221	UG/L	2.20 UJ	2.40 U
Aroclor 1232	UG/L	1.10 UJ	1.20 U
Aroclor 1242	UG/L	1.10 UJ	1.20 U
Aroclor 1248	UG/L	1.10 UJ	1.20 U
Aroclor 1254	UG/L	1.10 UJ	1.20 U
Aroclor 1260	UG/L	1.10 UJ	1.20 U

DUPLICATE SAMPLE SUMMARY
 OPERABLE UNIT NO. 4 (SITE 74)
 GROUNDWATER
 MCB CAMP LEJEUNE, NORTH CAROLINA
 REMEDIAL INVESTIGATION - CTO-0212
 ORGANICS

Client Sample ID:	74-GW06-01	74-GW06-01D
Laboratory Sample ID:	9402140-01	9402140-03
Date Sampled:	02/16/94	02/16/94

	<u>UNITS</u>		
CHEMICAL SURETY			
Acetophenone	UG/L	11.9 U	16.7 U
Chloroacetophenone	UG/L	11.9 U	16.7 U
Hydroxyacetophenone	UG/L	59.5 U	83.4 U
Bis(2'-chloroethyl)disulfide	UG/L	59.5 U	83.4 U
Bis(2'-chloroethyl)trisulfide	UG/L	59.5 U	83.4 U
1,4-Dithiane	UG/L	11.9 U	16.7 U
1,4-Oxathiane	UG/L	11.9 U	16.7 U
THIODIGLYCOL			
Thiodiglycol	UG/L	25.0 U	25.0 U

**DUPLICATE SAMPLE SUMMARY
OPERABLE UNIT NO. 4 (SITE 74)
GROUNDWATER
MCB CAMP LEJEUNE, NORTH CAROLINA
REMEDIAL INVESTIGATION - CTO-0212
TAL TOTAL DISSOLVED METALS**

Client Sample ID:	74-GW06-01	74-GW06-01D	74-GW06D-01	74-GW06D-01D
Laboratory Sample ID:	9402139-01	9402140-03	9402140-02	9402140-04
Date Sampled:	2/16/94	2/16/94	2/16/94	2/16/94

	UNITS				
Aluminum	UG/L	28600.0 J	16900.0 J	139.0 UJ	139.0 UJ
Antimony	UG/L	7.60 UJ	7.60 UJ	7.60 UJ	7.60 UJ
Arsenic	UG/L	2.20 U	2.20 U	2.20 U	2.20 U
Barium	UG/L	55.4	47.1	12.4 U	13.3
Beryllium	UG/L	0.760 U	0.760 U	0.760 U	0.760 U
Cadmium	UG/L	3.19 U	3.19 U	3.19 U	3.19 U
Calcium	UG/L	7630.0	7440.0	5700.0	5680.0
Chromium	UG/L	27.6	15.9	8.31 U	8.31 U
Cobalt	UG/L	16.0 U	16.0 U	16.0 U	16.0 U
Copper	UG/L	16.3 U	16.3 U	16.3 U	16.3 U
Iron	UG/L	3790.0 J	2210.0 J	54.9 R	54.9 R
Lead	UG/L	7.83	5.26	1.00 U	1.00 U
Magnesium	UG/L	774.0	693.0	499.0	490.0
Manganese	UG/L	32.0	32.1	17.7	18.9
Mercury	UG/L	0.177 U	0.203 U	0.169 U	0.150 U
Nickel	UG/L	28.8 U	28.8 U	28.8 U	28.8 U
Potassium	UG/L	1530	1290	763 U	816
Selenium	UG/L	1.60 UJ	1.60 UJ	1.60 UJ	1.60 UJ
Silver	UG/L	1.60 U	1.60 U	1.60 U	1.60 U
Sodium	UG/L	2690	2800	2800	2800
Thallium	UG/L	3.00 U	3.00 U	3.00 U	3.00 U
Vanadium	UG/L	20.4 U	20.4 U	20.4 U	20.4 U
Zinc	UG/L	25.0 UR	21.0 UR	32.4 UR	15.8 UR
Total Cyanide	UG/L	5.00	5.00	N/A	N/A

UG/L - microgram per liter

J - value is estimated

NA - not analyzed

R - Rejected

U - undetected

UJ - undetected, value estimated

UR - undetected, value rejected

APPENDIX J
TCLP SUMMARIES

GP ENVIRONMENTAL SERVICES
ORGANIC ANALYSIS RESULTS

GP ID: 9402166-01C
Client ID: 41-RB-01
Collected: 02/19/94
Dilution: 1

Matrix: SOLID
Method: 8240 TCLP
Units: ug/L

Analyst: DR
Analyzed: 02/25/94
Prepared:

VOLATILE TARGET COMPOUNDS

Parameter	Result
1,1-Dichloroethene	10.0 U
1,2-Dichloroethane	10.0 U
1,4-Dichlorobenzene	10.0 U
2-Butanone	10.0 U
Benzene	10.0 U
Carbon tetrachloride	10.0 U
Chlorobenzene	10.0 U
Chloroform	10.0 U
Tetrachloroethene	10.0 U
Trichloroethene	10.0 U
Vinyl chloride	10.0 U

GP ENVIRONMENTAL SERVICES
ORGANIC ANALYSIS RESULTS

GP ID: 9402166-01C
Client ID: 41-RB-01
Collected: 02/19/94
Dilution: 1

Matrix: SOLID
Method: 8270 TCLP
Units: ug/L

Analyst: YY
Analyzed: 03/04/94
Prepared: 03/01/94

SEMIVOLATILE TARGET COMPOUNDS

Parameter	Result
1,4-Dichlorobenzene	50.0 U
2,4,5-Trichlorophenol	50.0 U
2,4,6-Trichlorophenol	50.0 U
2,4-Dinitrotoluene	50.0 U
Hexachlorobenzene	50.0 U
Hexachlorobutadiene	50.0 U
Hexachloroethane	50.0 U
m + p-Cresol	50.0 U
Nitrobenzene	50.0 U
o-Cresol	50.0 U
Pentachlorophenol	250.0 U
Pyridine	50.0 U

GP ENVIRONMENTAL SERVICES
ORGANIC ANALYSIS RESULTS

GP ID: 9402166-01C
Client ID: 41-RB-01
Collected: 02/19/94
Dilution: 1

Matrix: SOLID
Method: 8080 TCLP
Units: ug/L

Analyst: PS
Analyzed: 03/04/94
Prepared: 03/01/94

GC TARGET COMPOUNDS

<u>Parameter</u>	<u>Result</u>
Chlordane	0.700 U
Endrin	0.300 U
gamma-BHC (Lindane)	0.200 U
Heptachlor	0.150 U
Heptachlor epoxide	4.15 U
Methoxychlor	8.80 U
Toxaphene	12.0 U

GP ENVIRONMENTAL SERVICES
ORGANIC ANALYSIS RESULTS

GP ID: 9402166-01
Client ID: 41-RB-01

Matrix: SOLID
Collected: 02/19/94

<u>Parameter</u>	<u>Method</u>	<u>Result</u>	<u>Det.Lim.</u>	<u>Units</u>	<u>Dil.</u>	<u>Prepared</u>	<u>Analyzed By</u>
Thiodiglycol	LW18	9.94 U	9.94	ug/g	1	02/24/94	03/04/94 LN

GP ENVIRONMENTAL SERVICES
ORGANIC ANALYSIS RESULTS

GP ID: 9402166-01C
Client ID: 41-RB-01
Collected: 02/19/94
Dilution: 1

Matrix: SOLID
Method: 8150 TCLP
Units: ug/L

Analyst: PS
Analyzed: 03/05/94
Prepared: 03/02/94

GC TARGET COMPOUNDS

Parameter	Result
2,4-D	60.0 U
Silvex	8.50 U

GP ENVIRONMENTAL SERVICES
ORGANIC ANALYSIS RESULTS

GP ID: 9402167-01C
Client ID: 74-R8-01
Collected: 02/21/94
Dilution: 1

Matrix: SOLID
Method: 8240 TCLP
Units: ug/L

Analyst: DR
Analyzed: 02/25/94
Prepared:

VOLATILE TARGET COMPOUNDS

<u>Parameter</u>	<u>Result</u>
1,1-Dichloroethene	10.0 U
1,2-Dichloroethane	3.85 J
1,4-Dichlorobenzene	10.0 U
2-Butanone	10.0 U
Benzene	4.26 J
Carbon tetrachloride	10.0 U
Chlorobenzene	10.0 U
Chloroform	10.0 U
Tetrachloroethene	10.0 U
Trichloroethene	10.0 U
Vinyl chloride	10.0 U

GP ENVIRONMENTAL SERVICES
ORGANIC ANALYSIS RESULTS

GP ID: 9402167-01C
Client ID: 74-R8-01
Collected: 02/21/94
Dilution: 1

Matrix: SOLID
Method: 8270 TCLP
Units: ug/L

Analyst: YY
Analyzed: 03/04/94
Prepared: 03/01/93

SEMIVOLATILE TARGET COMPOUNDS

Parameter	Result
1,4-Dichlorobenzene	50.0 U
2,4,5-Trichlorophenol	50.0 U
2,4,6-Trichlorophenol	50.0 U
2,4-Dinitrotoluene	50.0 U
Hexachlorobenzene	50.0 U
Hexachlorobutadiene	50.0 U
Hexachloroethane	50.0 U
m + p-Cresol	50.0 U
Nitrobenzene	50.0 U
o-Cresol	50.0 U
Pentachlorophenol	250.0 U
Pyridine	50.0 U

GP ENVIRONMENTAL SERVICES
ORGANIC ANALYSIS RESULTS

GP ID: 9402167-01C
Client ID: 74-RB-01
Collected: 02/21/94
Dilution: 1

Matrix: SOLID
Method: 8080 TCLP
Units: ug/L

Analyst: PS
Analyzed: 03/04/94
Prepared: 03/01/94

GC TARGET COMPOUNDS

<u>Parameter</u>	<u>Result</u>
Chlordane	0.700 U
Endrin	0.300 U
gamma-BHC (Lindane)	0.200 U
Heptachlor	0.150 U
Heptachlor epoxide	4.15 U
Methoxychlor	8.80 U
Toxaphene	12.0 U

GP ENVIRONMENTAL SERVICES
ORGANIC ANALYSIS RESULTS

GP ID: 9402167-01
Client ID: 74-R8-01

Matrix: SOLID
Collected: 02/21/94

<u>Parameter</u>	<u>Method</u>	<u>Result</u>	<u>Det.Lim.</u>	<u>Units</u>	<u>Dil.</u>	<u>Prepared</u>	<u>Analyzed By</u>
Thiodiglycol	LW18	7.56 U	7.56	ug/g	1	02/24/94	03/04/94 LN

GP ENVIRONMENTAL SERVICES
ORGANIC ANALYSIS RESULTS

GP ID: 9402167-01C
Client ID: 74-RB-01
Collected: 02/21/94
Dilution: 1

Matrix: SOLID
Method: 8150 TCLP
Units: ug/L

Analyst: PS
Analyzed: 03/05/94
Prepared: 03/02/94

GC TARGET COMPOUNDS

<u>Parameter</u>	<u>Result</u>
2,4-D	60.0 U
Silvex	8.50 U

APPENDIX K
ENGINEERING PARAMETERS SUMMARY

GROUNDWATER ENGINEERING RESULTS
 REMEDIAL INVESTIGATION CTO-0212
 MCB CAMP LEJEUNE, NORTH CAROLINA

Sample Identification	Units	69-GW02-01	69-GW02DW-01	74-GW05-01	41-GW04-01	41-GW04DW-0
Alkalinity	mg/l	<1.0	107	<1	136	169
Biological Oxygen Demand	mg/l	5.65	<2	3.53	3.57	<2
Chemical Oxygen Demand	mg/l	131	23.7	36.7	76.6	11
Total Phosphorus	mg/l	<0.010	0.042	0.02	0.01 U	<0.10
Total Dissolved Solids	mg/l	26	234	60	151	162
Total Kjeldahl Nitrogen	mg/l	3.46	0.445	0.739	5.59	0.184
Total Suspended Solids	mg/l	1950	232	937	540	179
Standard Plate Count	CFU/ml	9980	2.9	30700	132	5.74

Notes:

mg/l - milligram per liter

CFU/ml -

< - less than

U - nondetected

SOG # 35

GP ENVIRONMENTAL SERVICES
WET CHEMISTRY ANALYSIS RESULTSGP ID: 9402153-02
Client ID: 69-GW02-DW-01Matrix: LIQUID
Collected: 02/17/94

Parameter	Method	Result	Det.Lim.	Units	Dil.	Prepared	Analyzed By
Alkalinity	MCAW 310.1	107.0	1.00	mg/L	1		02/22/94 MG
Biological Oxygen Demand	MCAW 405.1	BQL	2.00	mg/L	1		02/22/94 JS
Chemical Oxygen Demand	MCAW 410.4	23.7	3.00	mg/L	1		03/01/94 YS
Phosphorus, Total	MCAW 365.2	0.042	0.010	mg/L	1		03/07/94 VHM
Total Dissolved Solids	MCAW 160.1	234.0	10.0	mg/L			02/22/94 JS
Total Kjeldahl Nitrogen	MCAW 351.3	0.445	0.100	mg/L	1		03/01/94 MPC
Total Suspended Solids	MCAW 160.2	232.0	5.00	mg/L			02/22/94 JS

GP ENVIRONMENTAL SERVICES
WET CHEMISTRY ANALYSIS RESULTS

GP ID: 9402153-01
Client ID: 69-GW02-DW-01

Matrix: LIQUID
Collected: 02/17/94

<u>Parameter</u>	<u>Method</u>	<u>Result</u>	<u>Det.Lim.</u>	<u>Units</u>	<u>Dil.</u>	<u>Prepared</u>	<u>Analyzed By</u>
STANDARD PLATE COUNT	ASA #9 2D ED	2.90 E5	1.00	CFU/ml	1		02/21/94 SA

GP ENVIRONMENTAL SERVICES
WET CHEMISTRY ANALYSIS RESULTSGP ID: 9402121-03
Client ID: 41-GND4-01Matrix: LIQUID
Collected: 02/15/94

Parameter	Method	Result	Det.Lim.	Units	Dil.	Prepared	Analyzed By
Alkalinity	MCAW 310.1	136.0	1.00	mg/L	1		02/17/94 NG
Biological Oxygen Demand	MCAW 405.1	3.57	2.00	mg/L	1		02/17/94 YS
Chemical Oxygen Demand	MCAW 410.4	76.6	3.00	mg/L	1		02/18/94 YS
STANDARD PLATE COUNT	ASA #9 2D ED	132.0	30.0	cfu/ml			02/21/94 YS
Phosphorus, Total	MCAW 365.2	0.010U	0.010	mg/L	1		03/07/94 VHM
Total Dissolved Solids	MCAW 160.1	151.0	10.0	mg/L			02/18/94 VH
Total Kjeldahl Nitrogen	MCAW 351.3	5.59	0.100	mg/L	1		03/01/94 HPC
Total Suspended Solids	MCAW 160.2	540.0	5.00	mg/L			02/18/94 VH

GP ENVIRONMENTAL SERVICES
WET CHEMISTRY ANALYSIS RESULTSGP ID: 9402159-01
Client ID: 41-GU040W-01Matrix: LIQUID
Collected: 02/19/94

Parameter	Method	Result	Det.Lim.	Units	Dil.	Prepared	Analyzed By
Alkalinity	MCAW 310.1	169.0	1.00	mg/L	1		02/23/94 MPC
Biological Oxygen Demand	MCAW 405.1	BQL	2.00	mg/L	1		02/22/94 JS
Chemical Oxygen Demand	MCAW 410.4	11.0	3.00	mg/L	1		03/01/94 YS
STANDARD PLATE COUNT	ASA #9 2D ED	5.70 E4	1.00	CFU/ml	1		02/22/94 SA
Phosphorus, Total	MCAW 365.2	BQL	0.010	mg/L	1		03/07/94 VHM
Total Dissolved Solids	MCAW 160.1	162.0	10.0	mg/L			02/24/94 JS
Total Kjeldahl Nitrogen	MCAW 351.3	0.184	0.100	mg/L	1		03/01/94 MPC
Total Suspended Solids	MCAW 160.2	179.0	5.00	mg/L			02/24/94 JS

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**GP ENVIRONMENTAL SERVICES
WET CHEMISTRY ANALYSIS RESULTS**

GP ID: 9402137-01
Client ID: 74-GW05-01

Matrix: LIQUID
Collected: 02/16/94

Parameter	Method	Result	Det.Lim.	Units	Dil.	Prepared	Analyzed By
Alkalinity	MCAW 310.1	BQL	1.00	mg/L	1		02/22/94 MG
Biological Oxygen Demand	MCAW 405.1	3.53	2.00	mg/L	1		02/18/94 JS
Chemical Oxygen Demand	MCAW 410.4	36.7	3.00	mg/L	1		03/01/94 YS
STANDARD PLATE COUNT	ASA #9 2D ED	30700.0	1.00	CFU/ml			02/21/94 SA
Phosphorus, Total	MCAW 365.2	0.020	0.010	mg/L	1		03/07/94 VHM
Total Dissolved Solids	MCAW 160.1	60.0	10.0	mg/L			02/18/94 VM
Total Kjeldahl Nitrogen	MCAW 351.3	0.739	0.100	mg/L	1		03/01/94 MPC
Total Suspended Solids	MCAW 160.2	937.0	5.00	mg/L			02/18/94 VM

GP Environmental
483.9522.01
February 15, 1994

L A B O R A T O R Y T E S T R E S U L T S

Sample I.D.	%Gravel	%Sand	%Silt	%Clay
9401052 5A 69-GW02DW		80.7	6.9	12.4

	Liquid Limit	Plastic Limit	Plasticity Index
9401052 5A 69-GW02DW	16	NP	NP



LAW ENGINEERING

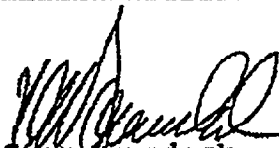
GEOTECHNICAL ENVIRONMENTAL
& CONSTRUCTION MATERIALS
CONSULTANTS

PROJECT : GP Environmental
PROJECT NUMBER : 483.9522.01
DATE : 3-10-94

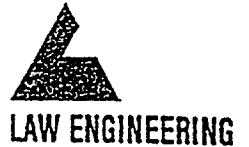
LABORATORY TEST RESULTS

Sample I.D.	9402071 01C	9402071 01D	9402071 ⁰⁵⁷ 02C	9402071 ⁰⁵⁷ 02D
% SAND	85.2	85.4	80.5	79.4
% SILT	6.3	6.4	5.2	8.4
% CLAY	8.5	8.2	14.3	12.2
USDA CLASS	SAND/ LOAMY SAND	SAND/ LOAMY SAND	LOAMY SAND	LOAMY SAND

LIQUID LIMIT	12	13	15	16
PLASTIC LIMIT	NP	NP	NP	NP
PLASTICITY INDEX	NP	NP	NP	NP


Greg Hamadock
Manager
Laboratory Services

GP Environmental
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GEOTECHNICAL, ENVIRONMENTAL
 & CONSTRUCTION MATERIALS
 CONSULTANTS

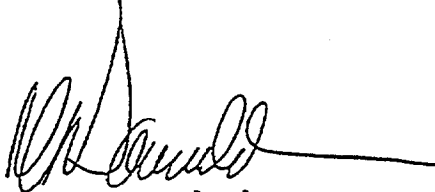
L A B O R A T O R Y T E S T R E S U L T S

Sample I.D.	%Gravel	%Sand	%Silt	%Clay
9401095:				
SE1E001A	44.0	21.2	20.5	14.3
SE1E001M	24.3	30.2	25.4	20.1
SE1E001S	4.1	45.1	32.0	18.8
SE1E002A	14.4	51.2	21.0	13.4
9401052 5A		80.7	6.9	12.4
9401066 6B		77.9	8.8	13.3

	Liquid Limit	Plastic Limit	Plasticity Index
9401052 5A	16	NP	NP
9401066 6B	16	NP	NP

	Total Density PCF	Dry Density PCF	Moisture %
9401082 3A	121.1	114.1	6.1

Note: Sample contains significant amount petroleum or coal tar distillate.


 Greg Hamadock
 Manager
 Laboratory Services

68002