03.08-01/23/96-01737

Baker

Baker Environmental, Inc.
Airport Office Park, Building 3
420 Rouser Road
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(412) 269-6000
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January 23, 1996

Commander
Atlantic Division
Naval Facilities Engineering Command
1510 Gilbert Street (Building N-26)
Norfolk, Virginia 23511-2699

Attn: Ms. Katherine Landman
Navy Technical Representative
Code 18232

Re: Contract N62470-89-D-4814
Navy CLEAN, District III
Contract Task Order (CTO) 0337
Environmental Screening for MCON P-630 and P-928
Camp Geiger Area
MCB, Camp Lejeune, North Carolina

Dear Ms. Landman:

This letter report has been prepared by Baker Environmental, Inc. (Baker) to present the results of soil and groundwater sampling at the proposed Bachelor Enlisted Quarters (BEQ) sites MCON P-630 and MCON P-928, located in the Camp Geiger Area of Marine Corps Base (MCB), Camp Lejeune, North Carolina. This project involved a limited environmental site sampling effort that is intended to provide a minimal volume of data regarding the presence or absence of contamination in soil and groundwater at these sites. This work was conducted in accordance with LANTDIV's Scope of Work (SOW) dated December 7, 1995. This letter report is comprised of the following sections: Objectives, Background, Field Investigation, Results, Risk Assessment and Recommendations. Additional data is provided to support the text in Attachments A through E. These include: Attachment A-Figures, Attachment B-Selected Data and Information From Leaking Underground Storage Tank Site Assessment Report, Mini C Store Service Station, Attachment C-Boring Logs, Attachment D-Laboratory Data and Chain-of-Custody Sheets and Attachment E-Tables.

OBJECTIVES

The objectives of this project were as follows:

- Determine the presence or absence of halogenated organic contamination in the areas of the proposed BEQ sites MCON P-630 and MCON P-928. Halogenated organic compounds in shallow groundwater are the focus of an on-going environmental investigation at Operable Unit (OU) No. 10, Site 35 - Camp Geiger Area Fuel Farm.

- If contamination is encountered, develop recommendations regarding construction health and safety and the final foundation design.

BACKGROUND

The construction of temporary residential facilities MCON P-928, MCT Barracks and MCON P-630, SNCO Barracks and Headquarters, are planned at Camp Geiger within the next two years. At site MCON P-928, two dormitory style barracks separated by a courtyard, two small parking lots, outdoor athletic facilities and a retention pond are proposed. The limits of construction at this site are roughly Seventh Street and Eighth Street to the north and south, and "B" Street and "D" Street to the west and east. The existing section of "C" Street that currently links Seventh Street and Eighth Street is scheduled for demolition along with approximately 25 other existing one-story structures. Currently, the design of the proposed facilities is 30% complete and construction may begin as early as the first quarter of 1996.

At site MCON P-630, a dormitory style building, small administrative office building and parking facilities are proposed. The limits of construction at this site are roughly Ninth Street and Tenth Street to the north and south, and "A" Street and "C" Street to the west and east. One existing abandoned building and three small parking lots will undergo demolition to make way for the proposed facilities. The existing section of "B" Street that currently links Ninth Street and Tenth Street will remain. Limited site plans have been developed for MCON P-630 and construction is proposed for 1997.

Both sites MCON P-630 and P-928 are located south of the study area associated with OU No. 10, Site 35 - Camp Geiger Area Fuel Farm. To date, environmental investigations at OU No. 10 have identified plumes of halogenated and non-halogenated organic contamination in the surficial aquifer roughly bounded by Third Street and Brinson Creek to north, "C" Street to the west, and "G" Street to the east. The southern limits of the halogenated organic contamination plume have not been completely defined to date. A pre-construction environmental investigation was deemed necessary because of the potential that the halogenated organic contamination extends into the area of the proposed MCON P-630 and P-928 sites. This contamination could potentially be hazardous to workers during construction and excavation activities while dewatering and foundation construction could enhance contaminant migration.

The next phase of environmental investigation at OU No. 10 is intended to define the southern boundary of this contaminant plume. It is scheduled to begin in early 1996.

FIELD INVESTIGATION

Setting Temporary Well Locations

In order to achieve the project objectives Baker proposed a limited subsurface soil and groundwater investigation consisting of the installation of temporary groundwater monitoring wells within or near the footprints of the proposed MCON P-630 and P-928 buildings. Details of the proposed investigation are presented in the Final Implementation Plan/Fee Program (IP/FP) prepared by Baker, dated December 6, 1995.

During the RI at OU No. 10, halogenated organic contamination was detected in the upper and lower portions of the surficial aquifer. To monitor this contamination in the MCON P-630 and P-928 areas, Baker proposed one well cluster consisting of an intermediate and shallow well for each of the four building locations proposed at the two sites. The proposed buildings and actual temporary well locations are shown on Figures 1 and 2 (see Attachment A). The depths of the proposed temporary monitoring wells were based on geologic data gathered during the previous RI. The proposed intermediate wells were to be screened across the top of an underlying semiconfining layer that was estimated to be at approximately 35 to 40 feet below ground surface (BGS). The proposed shallow wells were to be screened across the water table that was estimated to be approximately 6 to

8 feet BGS. Wells screened in the upper portion were to have the designation "A" (TW03A) and wells screened in the confining layer were to have the designation "B" (TW03B).

One temporary well cluster was to be installed in the vicinity of each of the four proposed foundations for a total of eight temporary wells, four shallow (TW01A, TW02A, TW03A and TW04A) and four intermediate (TW01B, TW02B, TW03B and TW04B). At site MCON P-928, temporary well clusters were to be installed within the limits of the northern barracks near existing building TC716 (TW01A and TW01B) and within the limits of the southern barracks near existing building TC727 (TW02A and TW02B). At site MCON P-630, temporary well clusters were to be installed within the limits of the proposed SNCO Headquarters building, near existing building TC910 (TW03A and TW03B) and within the limits of the proposed SNCO Barracks in the existing open area east of "C" Street, between Ninth Street and Tenth Street (TW04A and TW04B).

Based on actual site conditions and local geology, well locations and the number of wells installed varied from what Baker proposed in the Final IP/FP. During utility clearing activities, three permanent monitoring wells (MW-07, MW-09 and MW-10) were discovered on the MCON P-630 site adjacent to existing building TC910, in the vicinity of the proposed SNCO Headquarters building. These wells were installed by Law Environmental, Inc. (Law) as a part of the Leaking Underground Storage Tank Site Assessment, conducted at the Mini C Store Service Station in 1994. Both Law wells MW-09 and MW-10 are constructed to a depth of 14 feet BGS. Well MW-07 is constructed to a depth of 50 feet BGS. A review of analytical data from these wells indicated no volatile organic compounds were detected in the groundwater. The approximate locations of these wells are shown in Figure 2, and the original Law data is included in Attachment B.

Due to the presence of the Law wells, installing another well at the SNCO Headquarters location would have been a duplication of effort. Rather, due to the length of the SNCO Barracks building, (400 feet), the decision was made to move the well cluster location TW03 (wells TW03A and TW03B) from the SNCO Headquarters building to the northern end of the proposed SNCO barracks, and move well cluster TW04 (wells TW04A and TW04B) further south from the center of the proposed barracks. The locations of these temporary well clusters are shown in Figure 2.

Two well clusters were not needed at site MCON P-928 to characterize the groundwater, due to local geologic conditions that varied from what was encountered during the OU No. 10 RI. At proposed cluster locations TW02 (south barracks) and TW01 (north barracks), the semiconfining layer, anticipated at 35 to 40 feet bgs, was encountered at 13.5 feet BGS and 16 feet BGS, respectively. Due to the limited thickness of the surficial aquifer in this area, (less than ten feet) single wells (TW01B and TW02B) rather than clusters at each of these locations were deemed to be sufficient. Both wells were screened across the top of confining layer and the water table surface.

Soil Investigation

A soil investigation was conducted at MCON P-630 and MCON P-928 sites to identify any potential local source of groundwater contamination. A total of six soil borings (TW01B, TW02B, TW03A, TW03B, TW04A and TW04B) were advanced. Intermediate soil borings TW01B, TW02B, TW03B, and TW04B were advanced to the confining layer for the purpose of sample collection, geologic identification and description, and temporary monitoring well installation. Shallow soil borings, TW03A and TW04A, were advanced for the sole purpose of temporary monitoring well installation. At each well cluster the intermediate borings were advanced first and followed by the shallow borings.

At site MCON P-630, intermediate borings TW03B and TW04B were advanced to a depth of 27 feet BGS. At these locations the semiconfining layer was encountered between 25 and 26 feet BGS and groundwater was encountered between four and five feet BGS. The accompanying shallow borings, TW03A and TW04A, were advanced to a depth of 13 feet BGS.

At site MCON P-928, intermediate borings TW01B and TW02B were advanced to depths of 17 and 14 feet BGS, respectively. At these borings the semiconfining layer was encountered at 16 and 13.5 feet BGS, respectively. Groundwater was encountered between five and seven feet BGS. No accompanying shallow borings were advanced at these locations.

Drilling and soil sampling activities were initiated at the site on December 18, 1995 and completed on December 21, 1995. Soil borings were advanced using a truck-mounted drill rig supplied and operated by Parrott Wolff, Inc. Soil cuttings obtained during the drilling program were containerized and moved to a secure location. Drilling and sampling activities were performed using Level D personal protection and operations were continuously monitored with a photoionization detector (PID).

Each boring was advanced using 4-1/4-inch diameter (ID), hollow-stem augers to the appropriate completion depth. All borings were continuously sampled to the water table (approximately three to five feet BGS) and then every five feet until termination of the boring; samples were obtained with a split-spoon device in accordance with ASTM 1586-84 and Baker Standard Operating Procedures (SOPs). Each split-spoon soil sample was classified by the site geologist and field screened with a PID. The results were recorded in the geologist's field logbook and are included in the boring logs found in Attachment C. Classification included characterization of soil type, grain size, color, moisture content, relative density (from Standard Penetration Test "blow counts"), plasticity and other pertinent information such as indications of contamination.

Soil samples were collected from the four intermediate soil borings (TW01B, TW02B, TW03B, and TW04B) that were advanced to the confining layer. One subsurface soil sample was collected from each cluster location directly above the soil/groundwater interface. All subsurface samples were collected directly from the split-spoon with a stainless steel spoon and placed into the appropriate laboratory supplied containers. All samples were temporarily stored in ice-filled coolers until shipment to Inchcape Testing Services of Richardson, Texas for analysis. The stainless steel spoons were decontaminated prior to sample collection according to the procedures outlined in the Baker SOPs.

Groundwater Investigation

Both shallow and intermediate wells were constructed of one-inch nominal diameter , Schedule 40, flush jointed and threaded, polyvinyl chloride (PVC) casing with 10-foot long, No. 10 slot screen. After soil borings were completed at each location, well screen and riser sections were installed inside a 2-inch diameter well sock. The borehole was allowed to collapse around the well sock and sand was added, as needed, to fill the borehole to grade or to two feet above the well screen. All wells screened in the lower portion of the surficial aquifer (intermediate wells TW01B, TW02B, TW03B and TW04B) were constructed with a sodium bentonite seal. Shallow wells TW04A and TW03A were constructed with a portion of the screen above the water table. Intermediate wells TW01B, TW02B, TW03B and TW04B were constructed with portion of the screen in the semiconfining layer.

After sampling was completed, the temporary monitoring wells were manually pulled out of the borings. The remaining open borehole was filled with bentonite pellets to grade.

Groundwater Sampling

One round of groundwater samples was collected from each of the six wells that were installed. Prior to sample collection, water that was added during construction was removed along with an additional three to five well volumes. Purging and sampling were performed with a peristaltic pump and Teflon tubing that was decontaminated prior to use and discarded after each sample was collected. Temperature, conductivity, turbidity and pH were measured after each well volume was recovered to determine when groundwater had stabilized. Flow rates were set at approximately 0.25 gallons per minute to minimize organic compound volatilization. All purge water was collected and stored at a secure location. This Investigation Derived Waste (IDW) will be sampled and disposed during the upcoming Phase II RI at OU No. 10.

Groundwater samples were introduced directly from the tubing into the appropriate laboratory supplied sample container and stored on ice in a cooler. Chain-of-Custody documentation is included with the raw analytical data included in Appendix D.

Sample Analysis and Validation

All soil and groundwater samples were analyzed for Target Compound List (TCL) volatile organic compounds (VOCs). All soil and groundwater samples were prepared and handled according to USEPA Region IV Standard Operating Procedures (SOPs). Chain-of-Custody documentation, which includes information such as sample numbers, date, time of sampling, and sampling party accompanied the samples to the laboratory and is provided as part of the raw data included in Appendix D. Samples were shipped via overnight courier to Inchcape Testing Services on December 20 and 21, 1995.

Sample Delivery Groups (SDGs) with analytical results were submitted by Inchcape Testing Services to Baker for review and Groundwater National Technology Inc. for validation. The data was validated according to all applicable criteria in the EPA functional Guidelines for Organic Data Review. A validation report was submitted to Baker by Groundwater Technology, Inc. on January 9, 1996. No data was rejected by the validator.

RESULTS

A total of five subsurface soil samples, seven groundwater samples and seven field QA/QC samples were collected. Detection summaries of volatile organic contamination in soil, groundwater and QA/QC samples are provided in Tables 1, 2 and 3 (see Attachment E).

Subsurface Soils

Methylene chloride was detected in a single subsurface soil sample collected from location TW04B (southern portion of the MCON P-630 SNCO barracks) at a concentration of 6 µg/Kg. It is unlikely that this contamination is site related. Methylene chloride, in this instance, is considered to be a sampling or laboratory contaminant, since the level of contamination is less than ten times the maximum level detected in the QA/QC blanks.

Groundwater

A single VOC, tetrachloroethene (PCE), was detected in a groundwater sample collected from the lower portion of the surficial aquifer at the MCON P-630 site, at monitoring well TW04B, at a concentration of 17 J µg/L.

This concentration exceeds the Federal Maximum Contaminant Level (MCL) of 5 µg/L, the North Carolina Water Quality Standard of 0.7 µg/L and the EPA Region III tap water RBC of 1.1 µg/L. As part of the Leaking Underground Storage Tank Site Assessment performed by Law, groundwater samples were collected from MW7, MW9 and MW10 and analyzed for VOCs using EPA Methods 601 and 602. The analytical results provided in Attachment B indicated no volatile organic compounds were detected in these groundwater samples.

RISK ASSESSMENT

Since there are plans for future construction of a barracks and headquarters building at the MCON P-630 site where PCE was detected in the groundwater, future construction workers were evaluated for groundwater ingestion, dermal contact, and inhalation exposures. The proposed will not utilize untreated groundwater for any purpose. Thus, the construction workers pathway was considered the most conservative because of their potential for direct contact with contaminated groundwater and vapors.

Risk was calculated using standard risk equations found in Risk Assessment Guidance for Superfund (USEPA, 1989) and standard exposure assumptions. For all exposure pathways, the following exposure assumptions were used: exposure frequency = 250 days/year, exposure duration = 1 year, body weight = 70 kg, averaging time for carcinogens = 25,550 days and averaging time for noncarcinogens = 365 days. For the accidental ingestion pathway a water ingestion rate of 0.05 L/day was assumed. For dermal contact, a skin surface area of 4100 cm^2 was assumed for an individual wearing long pants, shoes and a short-sleeved shirt and an exposure time of 1.0 hour/day was used. For the inhalation pathway an inhalation rate of 20 m^3/day was assumed.

All Incremental Lifetime Cancer Risks (ILCRs) were compared to USEPA's target cancer risk range of 1×10^{-04} to 1×10^{-06}. All ILCRs were below this range; therefore, carcinogenic effects are unlikely. A summary of ILCRs is presented in Table 4.

All Hazard Indexes (HIs) were compared to unity (i.e. 1.0). HIs exceeding unity indicate that adverse noncarcinogenic effects may occur. All HIs were below 1.0 indicating that adverse noncarcinogenic effects are unlikely. A summary of all HIs is presented in Table 4.

Based on the limited number of data points available the risk results are considered approximate and qualitative rather than quantitative.

RECOMMENDATIONS

Based on the data obtained from this investigation, Baker has developed the following recommendations:

- The results of Baker's Risk Assessment indicate no adverse risk to future construction workers at either MCON P-630 or P-928 site. Nevertheless, since volatile organic contamination, in the form of PCE, was detected in surficial groundwater at the MCON P-630 site, it is recommended that a certified health and safety professional develop a formal health and safety program for use during construction activities. The health and safety program should include provisions for environmental monitoring and additional soil and groundwater sampling during construction to verify that the conditions encountered are consistent with those identified by Baker. A qualified environmental professional should review any additional data that becomes available to determine if modifications to the health and safety program or construction activities are necessary. In addition, it is recommended that several persons who have completed

environmental health and safety training as per 40 CFR 1910.120 be on site during all construction activities.

- Due to the presence of PCE above regulatory limits at temporary well TW04B, it is recommended that the foundation for the SNCO Barracks at site MCON P-630 be designed and constructed in a manner that will prevent the vertical migration of contamination through the semi-confining layer (encountered at 25 to 26 feet bgs) and into the underlying Castle Hayne aquifer.

- Foundation installation may require some excavation below the water table that is at five to seven feet BGS in the vicinity of the two sites. This may require excavations to be dewatered. Due to the presence of PCE at site MCON P-630, it is recommended that discharge from dewatering activities be containerized and sampled prior to any discharge or disposal to prevent the migration of contamination off-site. Based on the sampling results the containerized water shall be discharged or disposed in accordance with applicable regulations.

  Because no contamination was detected at MCON P-928, groundwater extracted at this site will likely not need to be containerized prior to being discharged. Nevertheless, it is recommended this groundwater also be tested upon initiation of dewatering activities to confirm the results of this study. If volatile organic compounds are determined to be present, the discharge should be handled similarly to that at MCON P-630.

  Although no soil contamination was identified as part of this study, it is recommended that all excavated soils be sampled and analyzed for volatile organic compounds prior to reuse as backfill or off-site disposal.

Baker appreciates the opportunity to serve LANTDIV on this project. If you have any questions, please do not hesitate to call me at (412) 269-2063.

Sincerely,

BAKER ENVIRONMENTAL, INC.

Daniel L. Bonk, P.E.
Project Manager

DLB/lq

Attachments

cc: Mr. Neal Paul, MCB, Camp Lejeune

Baker

Baker
Baker Environmental, Inc.
420 Rouser Road
Airport Office Park Bldg. 3
Coraopolis, PA 15108
Telephone: (412) 269-6000
Fax: (412) 269-2002

Letter of Transmittal

To: Commander-Atlantic Division
Naval Facilities Engineering Command
1510 Gilbert Street (Bldg. N-26)
Norfolk, Virginia 23511-2699

Attn: Ms. Katherine Landman, Code 18232

S.O. No. 62470-337-SRN
Project: Environmental Screening
Date: January 23, 1996

We are forwarding the following: ■ Attached ❑ Under Separate Cover

DWG. NO.	NO. COPIES	TITLE OR DESCRIPTION	COMMENTS
	4	Environmental Screening for MCON P-630 and P-928	Bound
	3	Environmental Screening for MCON P-630 and P-928	Unbound

THESE ARE TRANSMITTED as checked below:

■	As requested	❑	No exceptions taken	❑	Revise and resubmit
❑	For review and comment	❑	Rejected - See remarks	❑	Submit specified items
❑	For your information	❑	Proceed subject to corrections noted	❑	For signature

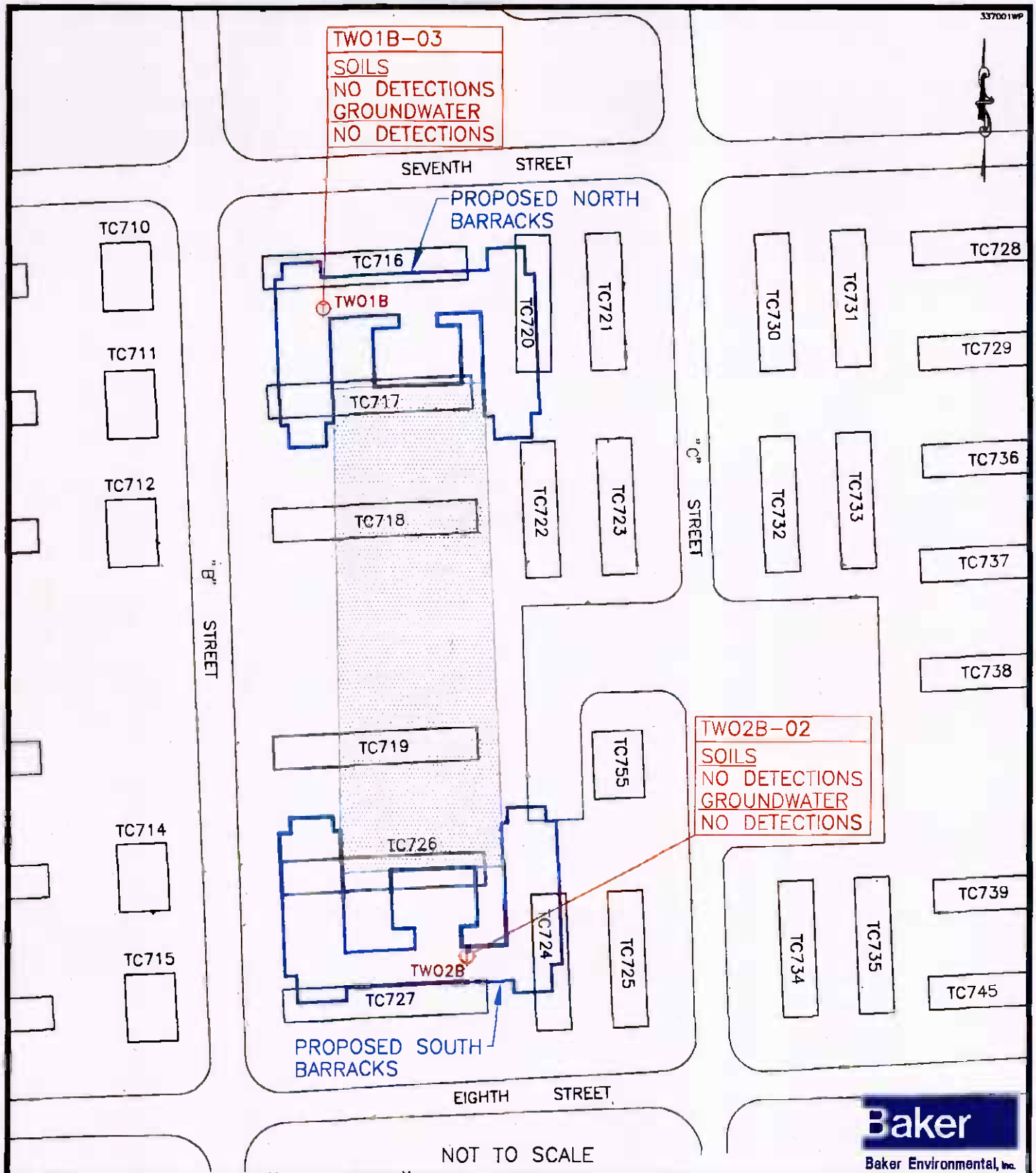
GENERAL COMMENTS:

BAKER ENVIRONMENTAL, INC.

By: Daniel L. Bonk, P.E.

Title: Project Manager

ATTACHMENT A
FIGURES



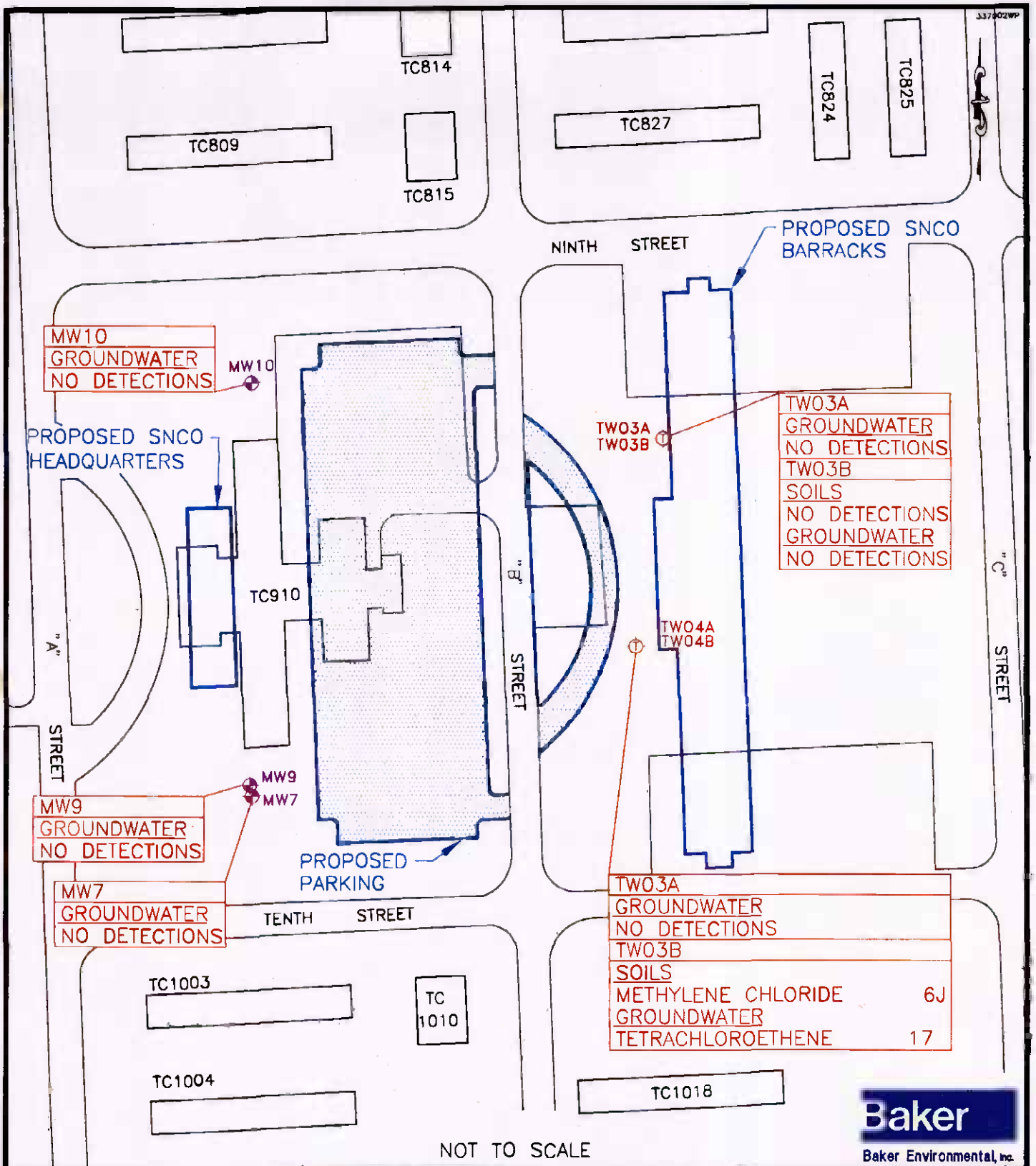
LEGEND

- EXISTING BUILDING
- PROPOSED BUILDING
- PROPOSED COURTYARD
- TW01B TEMPORARY MONITORING WELL

SOURCE: LANTDIV, FEB. 1992; MCB LEJEUNE, NOV. 1995

FIGURE 1
POSITIVE DETECTIONS OF VOLATILE ORGANIC COMPOUNDS IN SOIL AND GROUNDWATER
MCON P-928, BEQ ENVIROMENTAL SCREENING
CONTRACT TASK ORDER - 0337
MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

0737T01V



LEGEND

- EXISTING BUILDING
- PROPOSED FACILITY
- PROPOSED PARKING FACILITY
- TW03A — TEMPORARY MONITORING WELL
- MW7 — PERMANENT WELL INSTALLED BY LAW UNDER LUST ASSESSMENT (1994)

SOURCE: LANTDIV, FEB. 1992; MCB LEJEUNE, 1995

FIGURE 2
POSITIVE DETECTIONS OF VOLATILE ORGANC COMPOUNDS IN SOIL AND GROUNDWATER
MCON P-630, BEQ ENVIRONMENTAL SCREENING
CONTRACT TASK ORDER - 0337
MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

0737T02Y

ATTACHMENT B
SELECTED DATA AND INFORMATION FROM
THE LEAKING UNDERGROUND STORAGE TANK
SITE ASSESSMENT REPORT, MINI C STORE
SERVICE STATION (LAW ENVIRONMENTAL, INC.)

LAW

ENGINEERING AND ENVIRONMENTAL SERVICES

LEAKING UNDERGROUND STORAGE TANK SITE ASSESSMENT REPORT

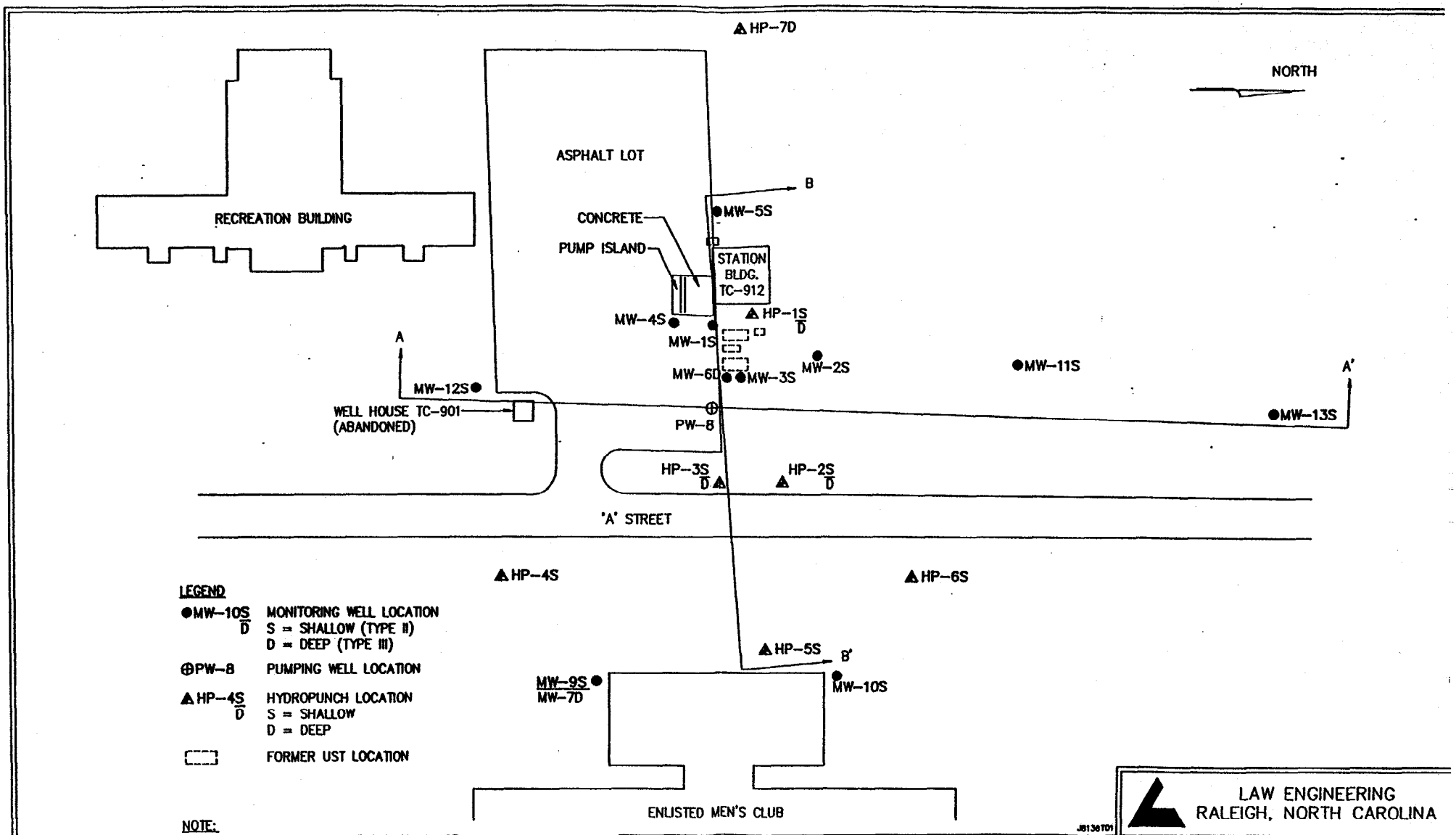
VOLUME I

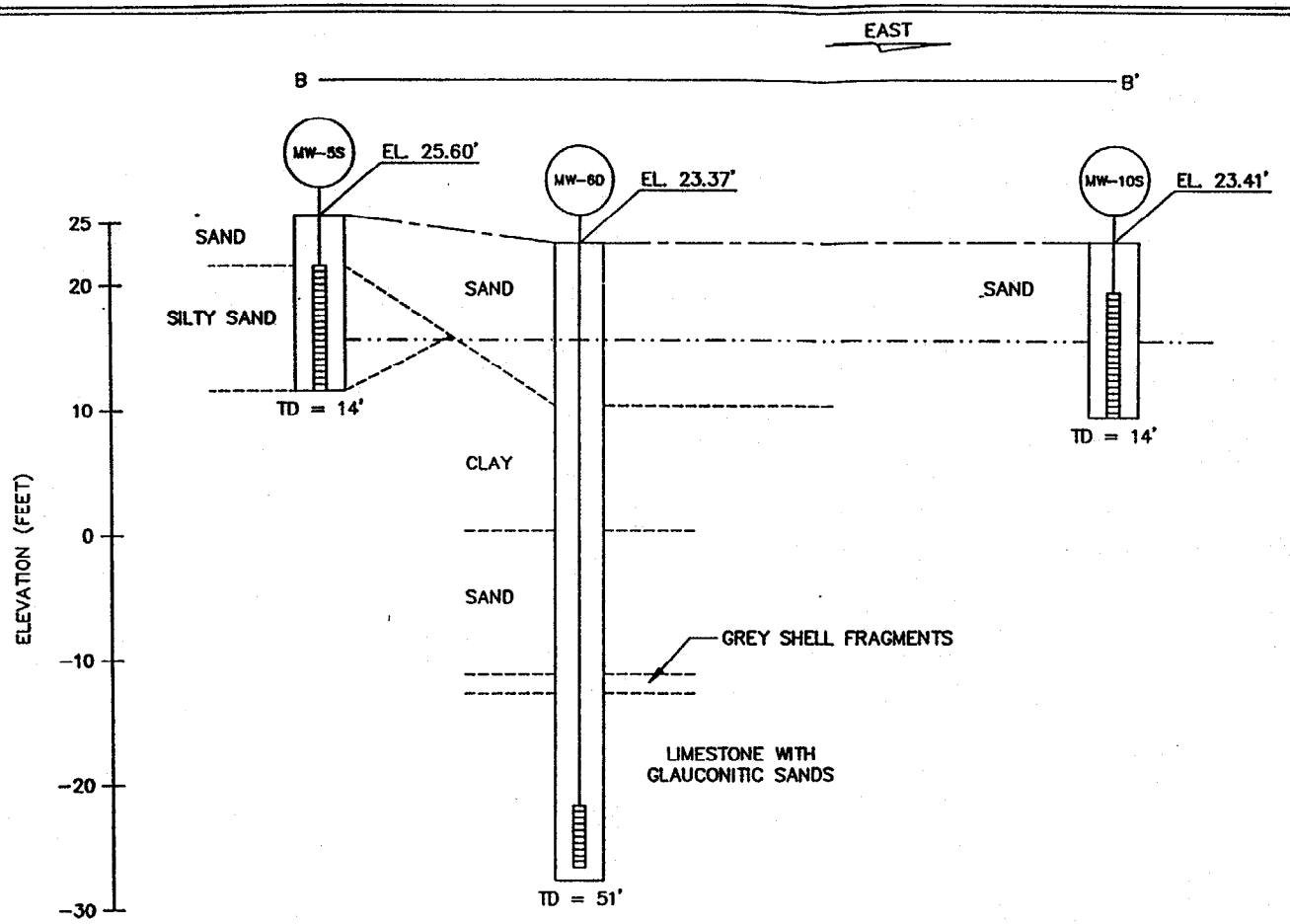
MINI C STORE SERVICE STATION
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

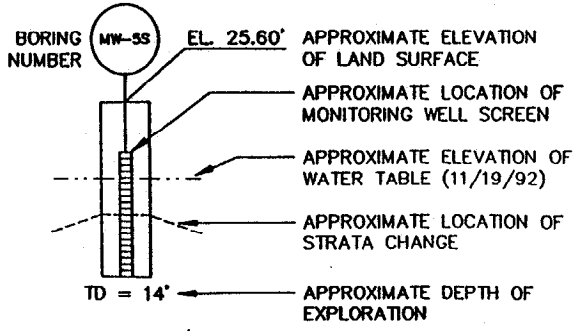
June 7, 1994

Law Engineering Job No. 475-92-08136

Law Engineering, Inc.
Raleigh, North Carolina


HP-7D
NORTH
ASPHALT LOT
RECREATION BUILDING
B
MW-5S
CONCRETE
PUMP ISLAND
STATION BLDG. TC-912
HP-1S/D
MW-4S
MW-1S
A
MW-12S
MW-6D
MW-3S
MW-2S
MW-11S
A'
WELL HOUSE TC-901 (ABANDONED)
PW-8
MW-13S
HP-3S/D
HP-2S/D
'A' STREET
HP-4S
HP-6S
HP-5S
B'
MW-9S/MW-7D
MW-10S
ENLISTED MEN'S CLUB
LEGEND
MW-10S/D MONITORING WELL LOCATION
S = SHALLOW (TYPE II)
D = DEEP (TYPE III)
PW-8 PUMPING WELL LOCATION
HP-4S/D HYDROPUNCH LOCATION
S = SHALLOW
D = DEEP
FORMER UST LOCATION
NOTE:
MONITORING WELLS MW-1S THROUGH MW-5S
INSTALLED BY ATEC ASSOCIATES, AUGUST 1991.
J8136T01
LAW ENGINEERING
RALEIGH, NORTH CAROLINA
CROSS-SECTION - PLAN VIEW
GEIGER MINI C STORE SERVICE STATION
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA
DRAWN: WBL
DFT CHECK:
ENG CHECK:
APPROVAL:
DATE: FEB. 1993
SCALE: 1"=50'
JOB: 475-08136-01
DWG: 3.2
REFERENCE: MARINE CORPS SITE AND UTILITIES PLAN, 1963; EG&G IDAHO, INC. FIELD INSPECTION, 8/91.





NOTE:
MW-2S INSTALLED AND SAMPLED BY ATEC ENVIRONMENTAL, INC. ON 8-28-91.

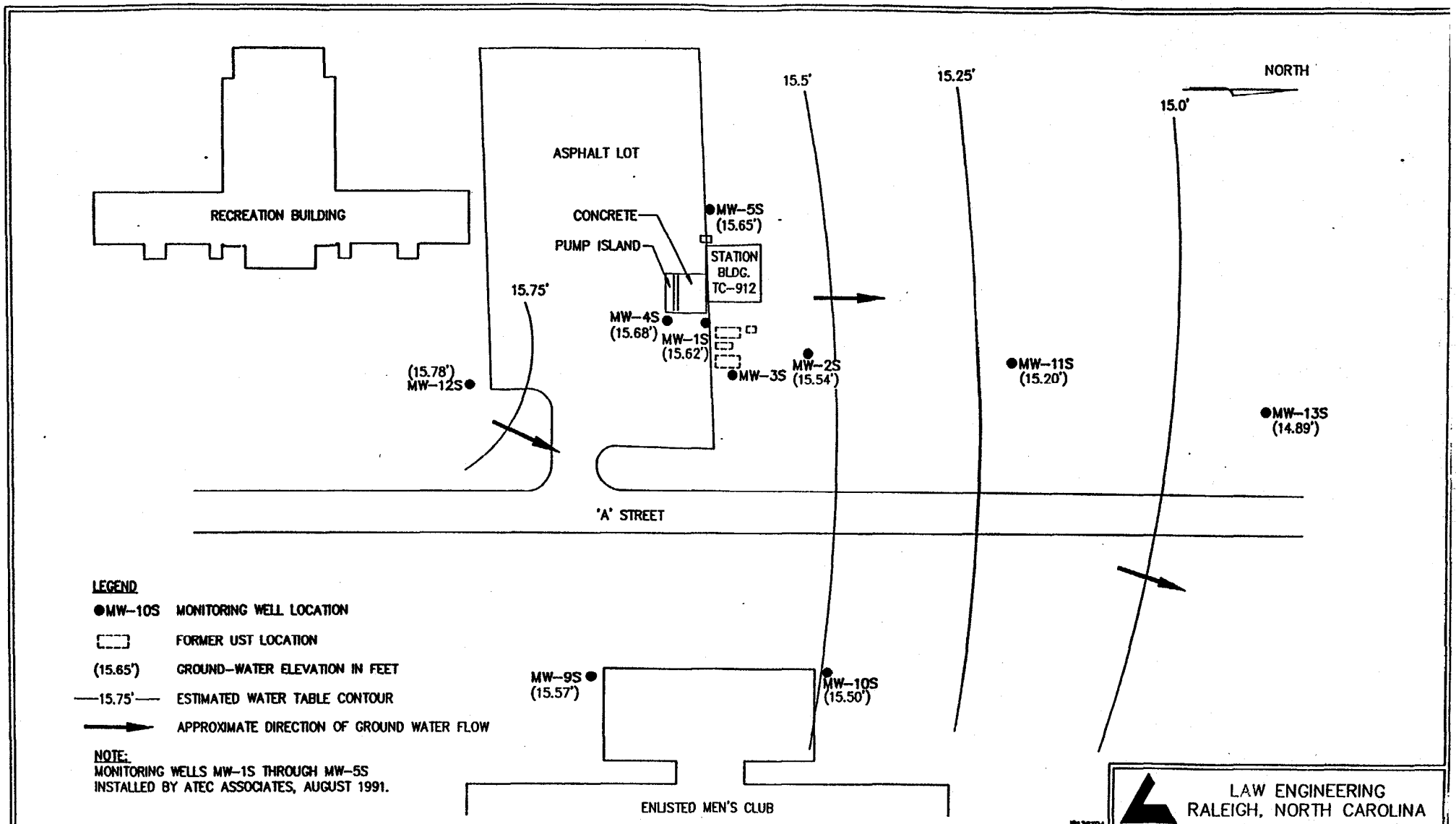
J8136103

LAW ENGINEERING
RALEIGH, NORTH CAROLINA

CROSS-SECTION B-B'
CAMP GEIGER MINI C STORE SERVICE STATION
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DRAWN: WBJ	DATE: FEB. 1993
DFT CHECK:	SCALE: VER. 1"=10' HORIZ. 1"=40'
ENG CHECK: GDM	JOB: 475-08136-01
APPROVAL: BAB	D" 3.4

REFERENC. JAMES E. STEWART AND ASSOCIATES, INC. SURVEY, JANUARY 1993; FIELD NOTES

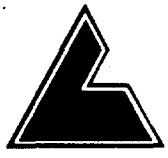


LAW ENGINEERING
RALEIGH, NORTH CAROLINA

WATER TABLE CONTOUR MAP
GEIGER MINI C STORE SERVICE STATION
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DRAWN:	DATE: FEB. 1993
DFT CHECK: WBJ	SCALE: 1"=50'
ENG CHECK:	JOB: 475-08136-01
APPROVAL:	DWG: 3.5

REFERENCE: MARINE CORPS SITE AND UTILITIES PLAN, 1983; JAMES E. STEWART AND ASSOCIATES, INC. SURVEY, JANUARY 1993.



LAW

ENGINEERING AND ENVIRONMENTAL SERVICES

LEAKING UNDERGROUND STORAGE TANK SITE ASSESSMENT REPORT

VOLUME II

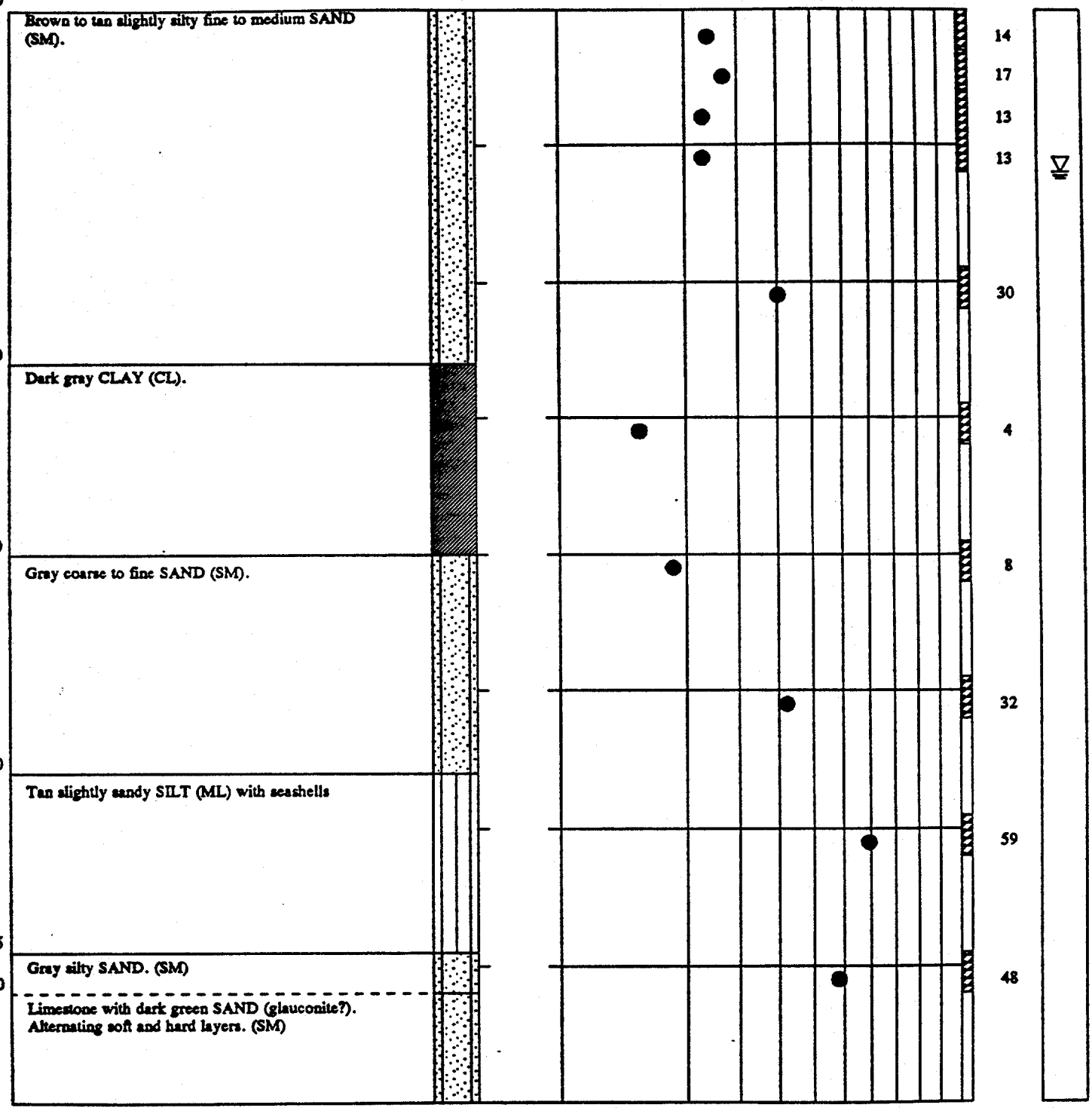
MINI C STORE SERVICE STATION
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

June 7, 1994

Law Engineering Job No. 475-92-08136

Law Engineering, Inc.
Raleigh, North Carolina

APPENDIX B
SOIL TEST BORING RECORDS



REMARKS:

6" PVC casing set in boring to depth of 33.5' BLS. Washed drilled to depth of 51.0 bls. Set 2" PVC casing and screen to depth of 50.0' bls.

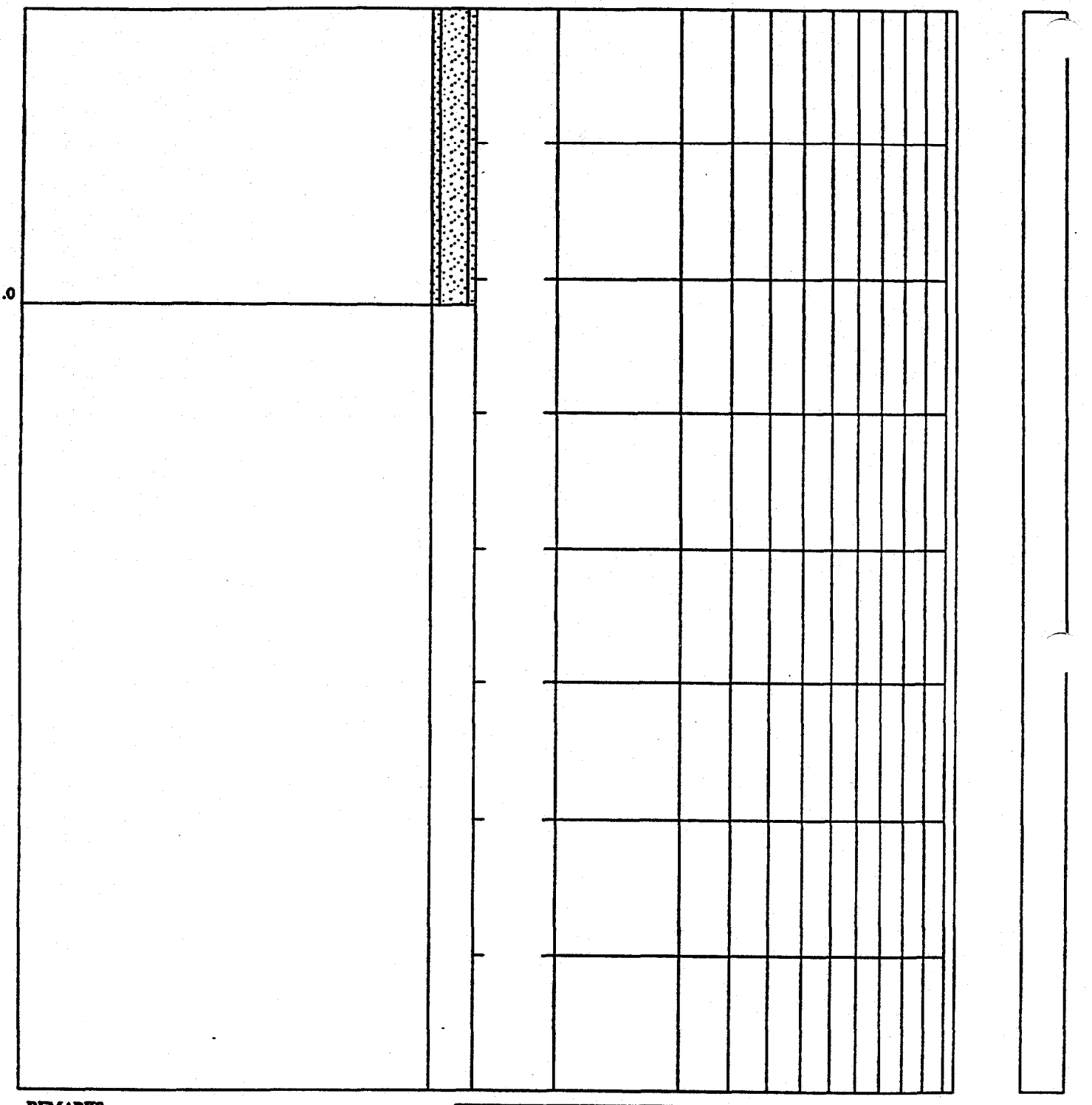
SEE KEY SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS USED ABOVE

TEST BORING RECORD

BORING NUMBER	MW-7
DATE DRILLED	November 5, 1992
PROJECT NUMBER	475-08136-01
PROJECT	Mini C Store Service Station
PAGE 1 OF 2	

LAW ENGINEERING

DEPTH (FT.)	DESCRIPTION	ELEVATION (FT.)	● PENETRATION - BLOWS/FOOT
			0 10 20 30 40 60 80 100
51.0			



REMARKS:

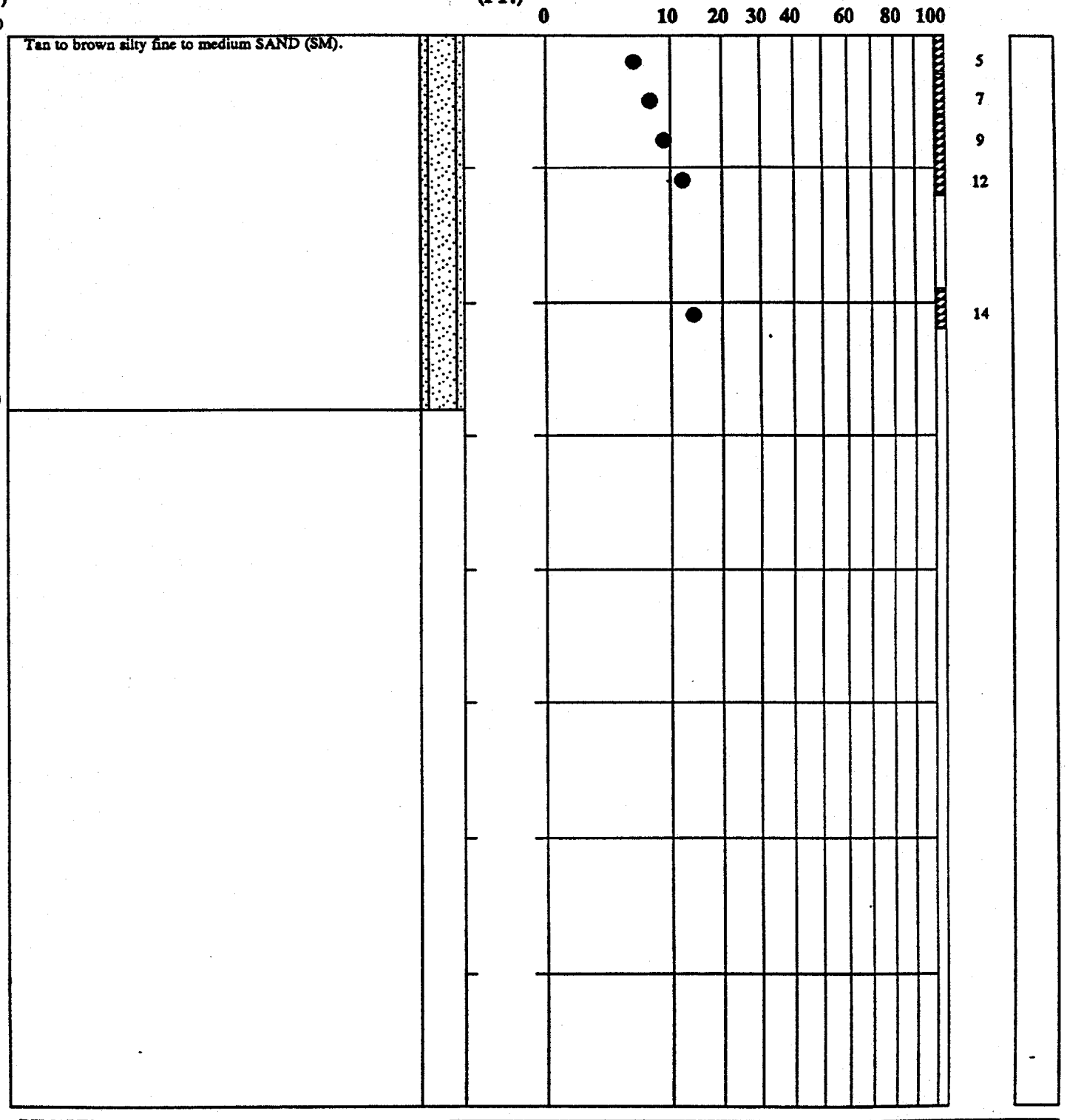
6" PVC casing set in boring to depth of 33.5' - BLS. Washed drilled to depth of 51.0 bls. Set 2" PVC casing and screen to depth of 50.0' bls.

SEE KEY SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS USED ABOVE

TEST BORING RECORD

BORING NUMBER	MW-7
DATE DRILLED	November 5, 1992
PROJECT NUMBER	475-08136-01
PROJECT	Mini C Store Service Station
PAGE 2 OF 2	

LAW ENGINEERING



REMARKS:

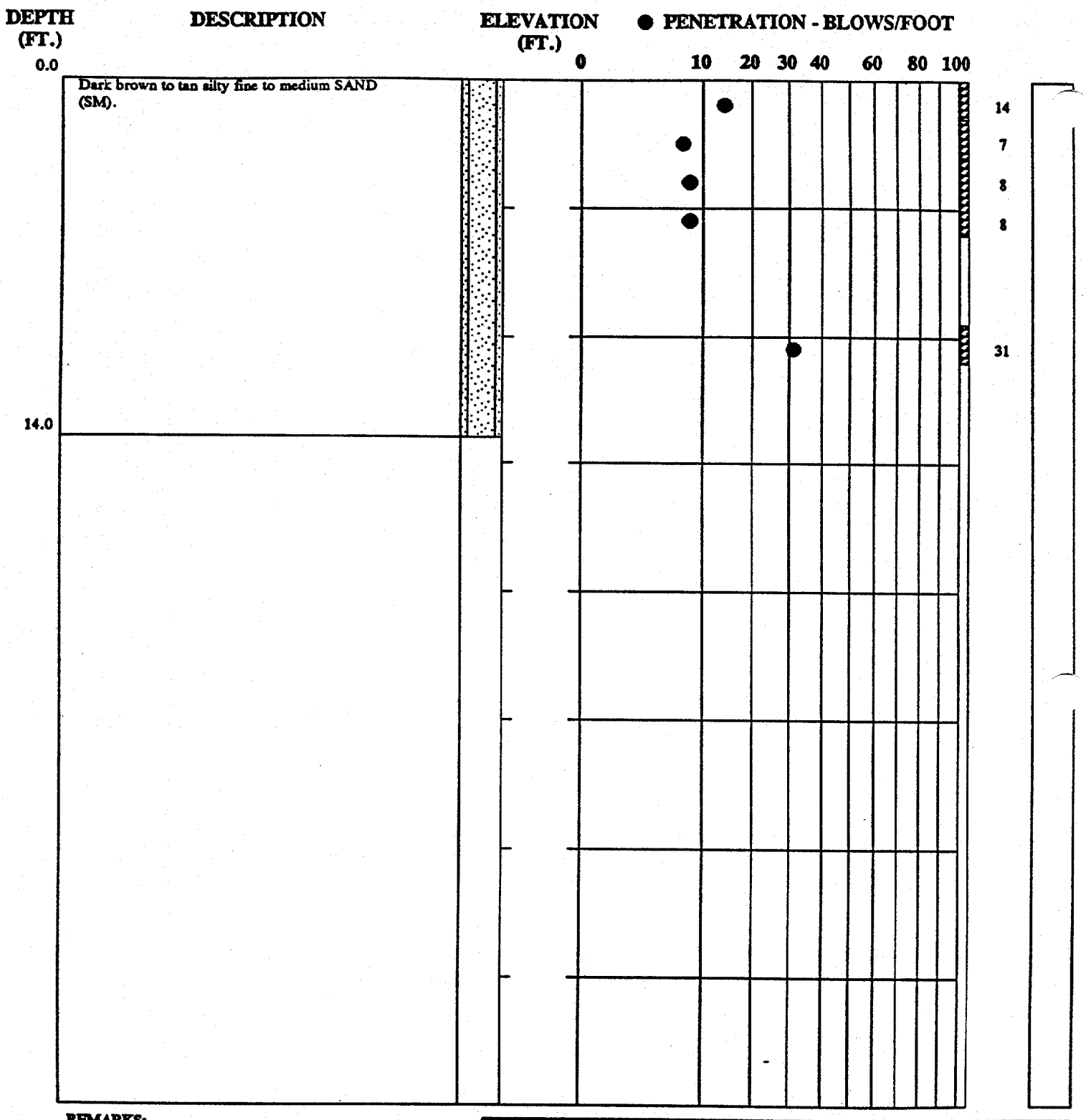
Boring terminated at 14 feet. Depth to groundwater 6 feet (TOD).

SEE KEY SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS USED ABOVE

TEST BORING RECORD

BORING NUMBER	MW-9
DATE DRILLED	November 10, 1992
PROJECT NUMBER	475-08136-01
PROJECT	Mini C Store Service Station
PAGE 1 OF 1	

LAW ENGINEERING



REMARKS:

Boring terminated at 14 feet. Depth to groundwater 6 feet (TOD).

SEE KEY SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS USED ABOVE

TEST BORING RECORD

BORING NUMBER	MW-10
DATE DRILLED	November 10, 1992
PROJECT NUMBER	475-08136-01
PROJECT	Mini C Store Service Station
PAGE 1 OF 1	

LAW ENGINEERING

APPENDIX D
WELL CONSTRUCTION RECORDS AND GROUNDWATER MONITORING WELL INSTALLATION DETAIL

North Carolina - Department of Environment, Health, and Natural Resources
Division of Environmental Management - Groundwater Section
P.O. Box 29535 - Raleigh, N.C. 27626-0535
Phone (919) 733-3221

FOR OFFICE USE ONLY
QUAD. NO. _____ SERIAL NO. _____
Lat. _____ Long. _____ RO _____
Minor Basin _____
Basin Code _____
Header Ent. _____ GW-1 Ent. _____

WELL CONSTRUCTION RECORD

DRILLING CONTRACTOR: Law Engineering, Inc.

DRILLER REGISTRATION NUMBER: 332

STATE WELL CONSTRUCTION PERMIT NUMBER: 66-0278-WM-0298

1. WELL LOCATION: (Show sketch of the location below) MW-9
   Nearest Town: Jacksonville County: Onslow
   (Road, Community, or Subdivision and Lot No.)
2. OWNER - United States Marine Corps
   ADDRESS Marine Corps Base
   (Street or Route No.)
   Camp Lejeune, North Carolina 28542-5001
   City or Town State Zip Code
3. DATE DRILLED 11/10/92 USE OF WELL Monitoring
4. TOTAL DEPTH 14 ft.
5. CUTTINGS COLLECTED YES ☐ NO ☒
6. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒
7. STATIC WATER LEVEL Below Top of Casing: NA FT.
   (Use "+" if Above Top of Casing)
8. TOP OF CASING IS 2 FT. Above Land Surface*
   * Casing Terminated at/or below land surface is illegal unless a variance is issued in accordance with 15A NCAC 2C .0118
9. YIELD (gpm): NA METHOD OF TEST NA
10. WATER ZONES (depth): NA
11. CHLORINATION: Type NA Amount NA
12. CASING:

	Depth		Diameter	Wall Thickness or Weight/Ft.	Material
From +2	To 4	Ft.	2	0.31 in.	PVC
From	To	Ft.			
From	To	Ft.			

13. GROUT:

	Depth		Material	Method
From 0	To 2	Ft.	Portland	Poured
From	To	Ft.		

14. SCREEN:

	Depth		Diameter	Slot Size	Material
From 4	To 14	Ft	2 in.	0.010 in.	PVC
From	To	Ft.	in.	in.	
From	To	Ft.	in.	in.	

15. SAND/GRAVEL PACK:

	Depth		Size	Material
From 3	To 14	Ft.	Torpedo	Qtz/Feldspar
From	To	Ft.		

16. REMARKS: Bentonite from 2' to 3' BLS

DEPTH From	DEPTH To	DRILLING LOG Formation Description

If additional space is needed use back of form

LOCATION SKETCH
(Show direction and distance from at least two State Roads, or other map reference points)

See Test Boring Record and Site Map

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

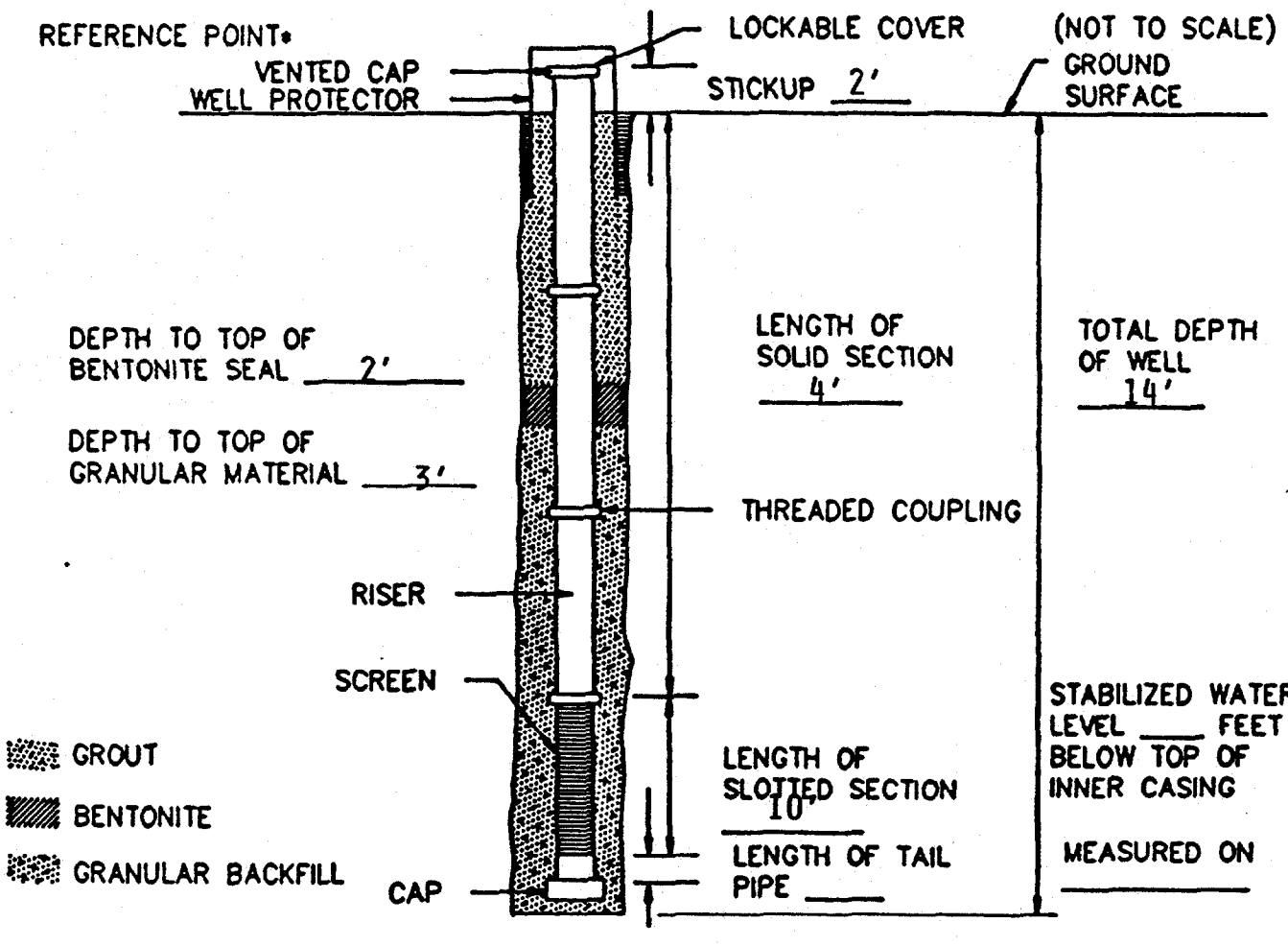
[signature] 3/18/93
SIGNATURE OF CONTRACTOR OR AGENT DATE

GW-1 REV. 9/91

Submit original to Division of Environmental Management and copy to well owner.

TYPE II MONITORING WELL INSTALLATION RECORD

JOB NAME Mini C Store Service Station JOB NUMBER 475-08136-01
WELL NUMBER MW-9 INSTALLATION DATE
LOCATION Marine Corps Base, Camp Lejeune, N.C.
GROUND SURFACE ELEVATION REFERENCE POINT ELEVATION *
GRANULAR BACKFILL MATERIAL Torpedo Sand SLOT SIZE 0.010"
SCREEN MATERIAL PVC SCREEN DIAMETER 2"
RISER MATERIAL PVC RISER DIAMETER 6"
DRILLING TECHNIQUE HSA DRILLING CONTRACTOR Law Engineering
BOREHOLE DIAMETER 8 1/4" LAW ENGINEERING FIELD REPRESENTATIVE L. Laymon
LOCK BRAND Master SIZE/MODEL 1" Shank
KEY CODE/COMBINATION 0536



*REFERENCE POINT SHOULD BE TOP OF INNER CASING IF POSSIBLE.

LAW ENGINEERING

TYPE II MONITORING WELL INSTALLATION RECORD

FILE: DCPT4755

North Carolina - Department of Environment, Health, and Natural Resources
Division of Environmental Management - Groundwater Section
P.O. Box 29535 - Raleigh, N.C. 27626-0535
Phone (919) 733-3221

FOR OFFICE USE ONLY
QUAD. NO. _____ SERIAL NO. _____
Lat. _____ Long. _____ RO _____
Minor Basin _____
Basin Code _____
Header Ent. _____ GW-1 Ent. _____

WELL CONSTRUCTION RECORD

DRILLING CONTRACTOR: Law Engineering, Inc.

STATE WELL CONSTRUCTION PERMIT NUMBER: 66-0278-WM-0298

DRILLER REGISTRATION NUMBER: 332

1. WELL LOCATION: (Show sketch of the location below) MW-10
   Nearest Town: Jacksonville County: Onslow
   (Road, Community, or Subdivision and Lot No.)
2. OWNER United States Marine Corps
   ADDRESS Marine Corps Base
   (Street or Route No.)
   Camp Lejeune, North Carolina 28542-5001
   City or Town State Zip Code
3. DATE DRILLED 11/10/92 USE OF WELL Monitoring
4. TOTAL DEPTH 14 ft.
5. CUTTINGS COLLECTED YES ☐ NO ☒XX
6. DOES WELL REPLACE EXISTING WELL? YES ☐ NO ☒XX
7. STATIC WATER LEVEL Below Top of Casing: NA FT.
   (Use "+" if Above Top of Casing)
8. TOP OF CASING IS 2 FT. Above Land Surface*
   * Casing Terminated at/or below land surface is illegal unless a variance is issued in accordance with 15A NCAC 2C .0118
9. YIELD (gpm): NA METHOD OF TEST NA
10. WATER ZONES (depth): NA
11. CHLORINATION: Type NA Amount NA
12. CASING:

	Depth From	Depth To	Diameter	Wall Thickness or Weight/Ft.	Material
	+2	4 Ft.	2	0.31 in.	PVC
		Ft.			
		Ft.			

13. GROUT:

	Depth From	Depth To	Material	Method
	0	1.8 Ft.	Portland	Poured
		Ft.		

14. SCREEN:

	Depth From	Depth To	Diameter	Slot Size	Material
	4	14 Ft.	2 in.	0.010 in.	PVC
		Ft.	in.	in.	
		Ft.	in.	in.	

15. SAND/GRAVEL PACK:

	Depth From	Depth To	Size	Material
	2.8	14 Ft.	Torpedo	PVC
		Ft.		

16. REMARKS: Benonite seal from 1.8' to 2.8' BLS

DEPTH From	DEPTH To	DRILLING LOG Formation Description

If additional space is needed use back of form

LOCATION SKETCH
(Show direction and distance from at least two State Roads, or other map reference points)

See Test Boring Record and Site Map

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

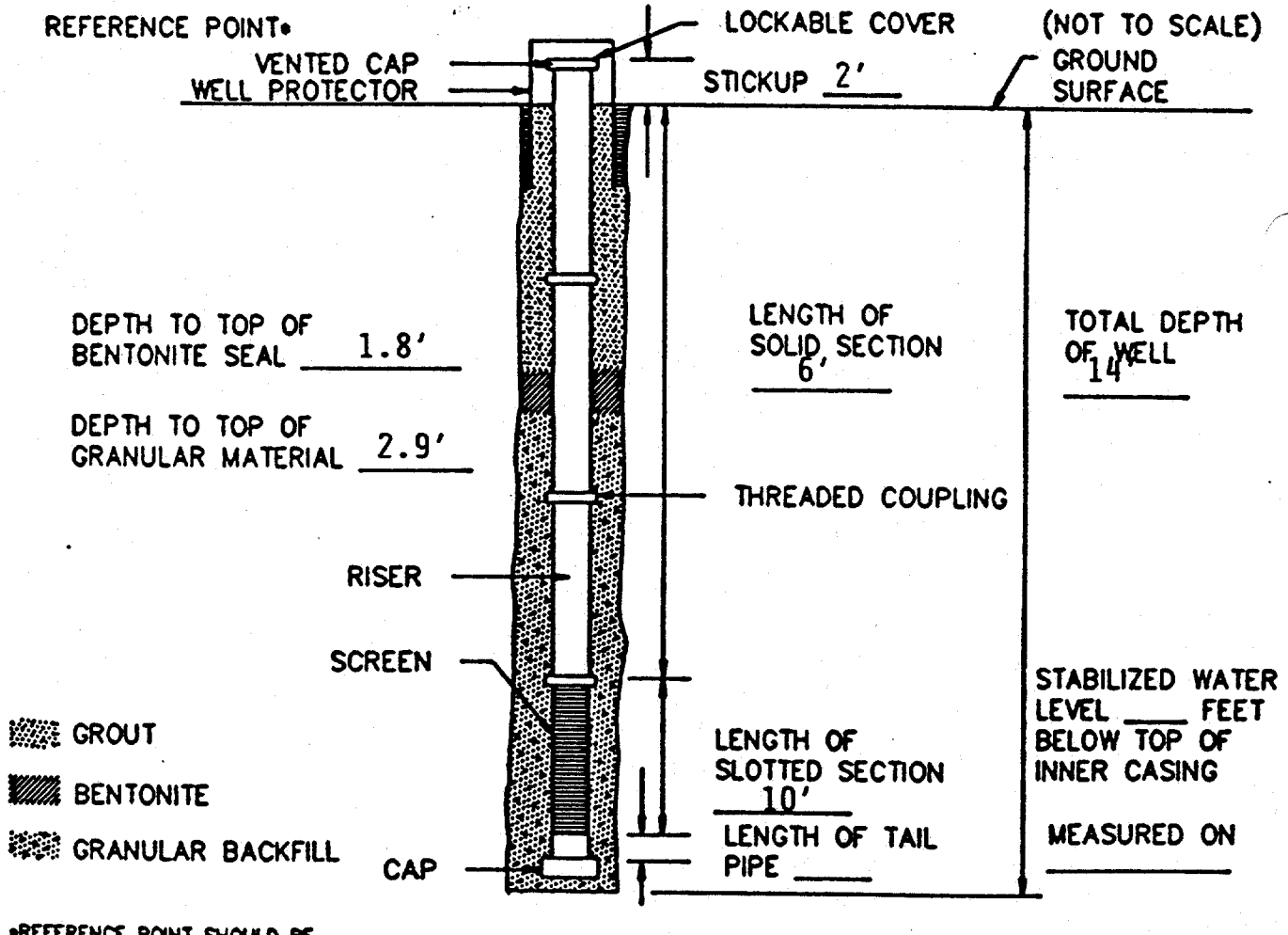
SIGNATURE OF CONTRACTOR OR AGENT — DATE 3/18/93

GW-1 REV. 9/91

Submit original to Division of Environmental Management and copy to well owner.

TYPE II MONITORING WELL INSTALLATION RECORD

JOB NAME Mini C Store Service Station JOB NUMBER 475-08136-01
WELL NUMBER MW-10 INSTALLATION DATE
LOCATION Marine Corps Base, Camp Lejeune, N.C.
GROUND SURFACE ELEVATION REFERENCE POINT ELEVATION *
GRANULAR BACKFILL MATERIAL Torpedo Sand SLOT SIZE 0.010"
SCREEN MATERIAL PVC SCREEN DIAMETER 2"
RISER MATERIAL PVC RISER DIAMETER 6"
DRILLING TECHNIQUE HSA DRILLING CONTRACTOR Law Engineering
BOREHOLE DIAMETER 8 1/4" LAW ENGINEERING FIELD REPRESENTATIVE L. Laymon
LOCK BRAND Master SIZE/MODEL 1" Shank
KEY CODE/COMBINATION 0536



*REFERENCE POINT SHOULD BE TOP OF INNER CASING IF POSSIBLE.

LAW ENGINEERING

TYPE II MONITORING WELL INSTALLATION RECORD

FILE: DCPT4755

North Carolina - Department of Environment, Health, and Natural Resources
Division of Environmental Management - Groundwater Section
P.O. Box 29535 - Raleigh, N.C. 27626-0535
Phone (919) 733-3221

FOR OFFICE USE ONLY
QUAD. NO. _____ SERIAL NO. _____
Lat. _____ Long. _____ RO _____
Minor Basin _____
Basin Code _____
Header Ent. _____ GW-1 Ent. _____

WELL CONSTRUCTION RECORD

DRILLING CONTRACTOR: Law Engineering, Inc.

DRILLER REGISTRATION NUMBER: 332

STATE WELL CONSTRUCTION PERMIT NUMBER: 66-0278-WM-0298

1. WELL LOCATION: (Show sketch of the location below) MW-7
Nearest Town: Jacksonville County: Onslow
(Road, Community, or Subdivision and Lot No.)

2. OWNER United States Marine Corps
ADDRESS Marine Corps Base
(Street or Route No.)
Camp Lejeune, North Carolina 28542-5001
City or Town State Zip Code

3. DATE DRILLED 11/5/92 USE OF WELL Monitoring
4. TOTAL DEPTH 50 ft.
5. CUTTINGS COLLECTED YES [ ] NO [XX]
6. DOES WELL REPLACE EXISTING WELL? YES [ ] NO [XX]
7. STATIC WATER LEVEL Below Top of Casing: NA FT.
(Use "+" if Above Top of Casing)
8. TOP OF CASING IS 2 FT. Above Land Surface*
* Casing Terminated at/or below land surface is illegal unless a variance is issued in accordance with 15A NCAC 2C .0118
9. YIELD (gpm): NA METHOD OF TEST NA
10. WATER ZONES (depth): NA

CHLORINATION: Type NA Amount NA

12. CASING:

	Depth		Diameter	Wall Thickness or Weight/Ft	Material
From 0	To 34	Ft.	6	0.56 in.	PVC
From +2	To 45	Ft.	2	0.31 in.	PVC
From	To	Ft.			

13. GROUT:

	Depth		Material	Method
From 0	To 36	Ft.	Portland	Tremie
From	To	Ft.		

14. SCREEN:

	Depth		Diameter	Slot Size	Material
From 45	To 50	Ft.	2 in.	0.010 in.	PVC
From	To	Ft.	in.	in.	
From	To	Ft.	in.	in.	

15. SAND/GRAVEL PACK:

	Depth		Size	Material
From 39	To 50	Ft.	Torpedo	Qtz/Feldspar
From	To	Ft.		

16. REMARKS: Bentonite seal from 36' to 39' BLS

DEPTH From	DEPTH To	DRILLING LOG Formation Description

If additional space is needed use back of form

LOCATION SKETCH
(Show direction and distance from at least two State Roads, or other map reference points)

See Test Boring Record and Site Map

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

[signature] 3/18/93
SIGNATURE OF CONTRACTOR OR AGENT DATE

GW-1 REV. 9/91

Submit original to Division of Environmental Management and copy to well owner.

TYPE III MONITORING WELL INSTALLATION RECORD – Part A

JOB NAME MINI C STORE SERVICE STATION JOB NUMBER 475-08136-01

WELL NUMBER MW-7 INSTALLATION DATE _____

LOCATION MARINE CORPS BASE, CAMP LEJEUNE, NORTH CAROLINA

GROUND SURFACE ELEVATION _____ REFERENCE POINT ELEVATION _____

CASING MATERIAL PVC CASING DIAMETER 6

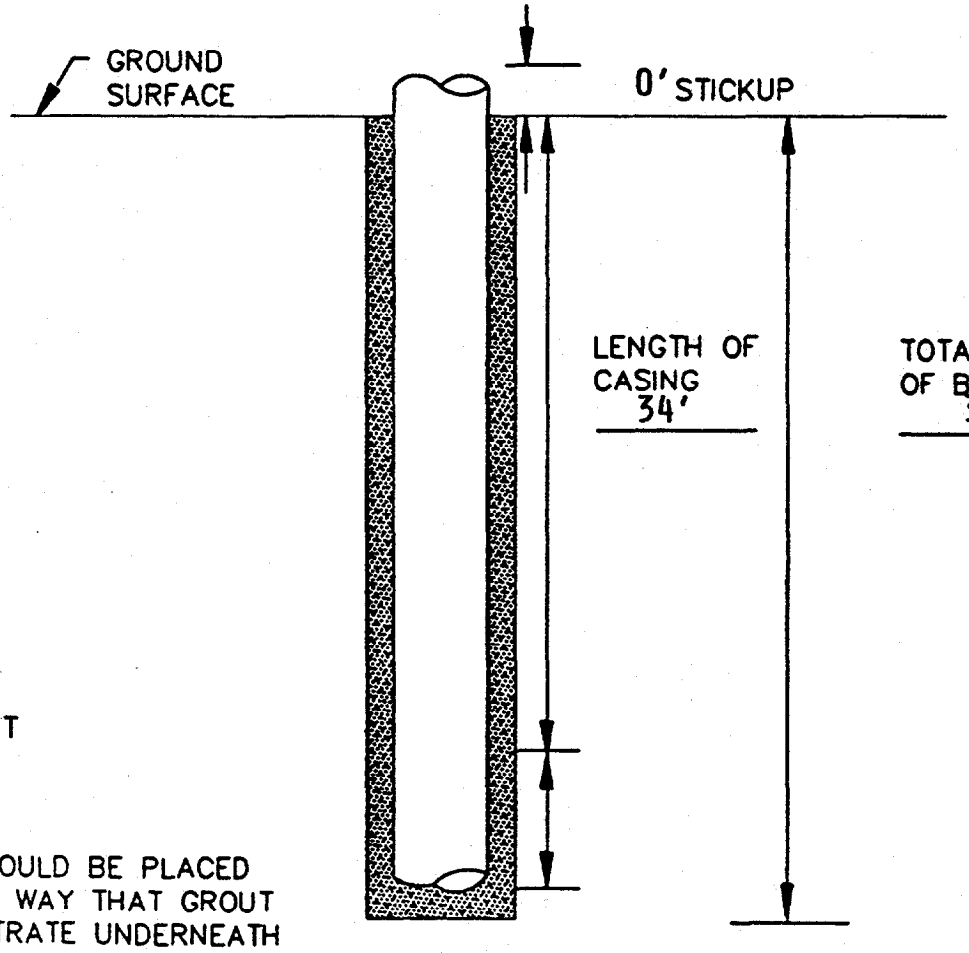
BOREHOLE DIAMETER 12"

DRILLING TECHNIQUE HSA

DRILLING CONTRACTOR Law Engineering

LAW ENGINEERING FIELD REPRESENTATIVE L. LAYMON

(NOT TO SCALE)



NOTE:
CASING SHOULD BE PLACED IN SUCH A WAY THAT GROUT CAN PENETRATE UNDERNEATH IT INTO THE BOREHOLE.

LAW ENGINEERING

TYPE III MONITORING WELL INSTALLATION RECORD

FNAME: DEPT4753

TYPE III MONITORING WELL INSTALLATION RECORD – Part B

JOB NAME Mini C Store Service Station — JOB NUMBER 475-08136-01

WELL NUMBER MW-7 — INSTALLATION DATE

LOCATION Marine Corps Base, Camp Lejeune, North Carolina

GROUND SURFACE ELEVATION — REFERENCE POINT ELEVATION *

GRANULAR BACKFILL MATERIAL Sand — SLOT SIZE 0.010"

SCREEN MATERIAL PVC — SCREEN DIAMETER 2"

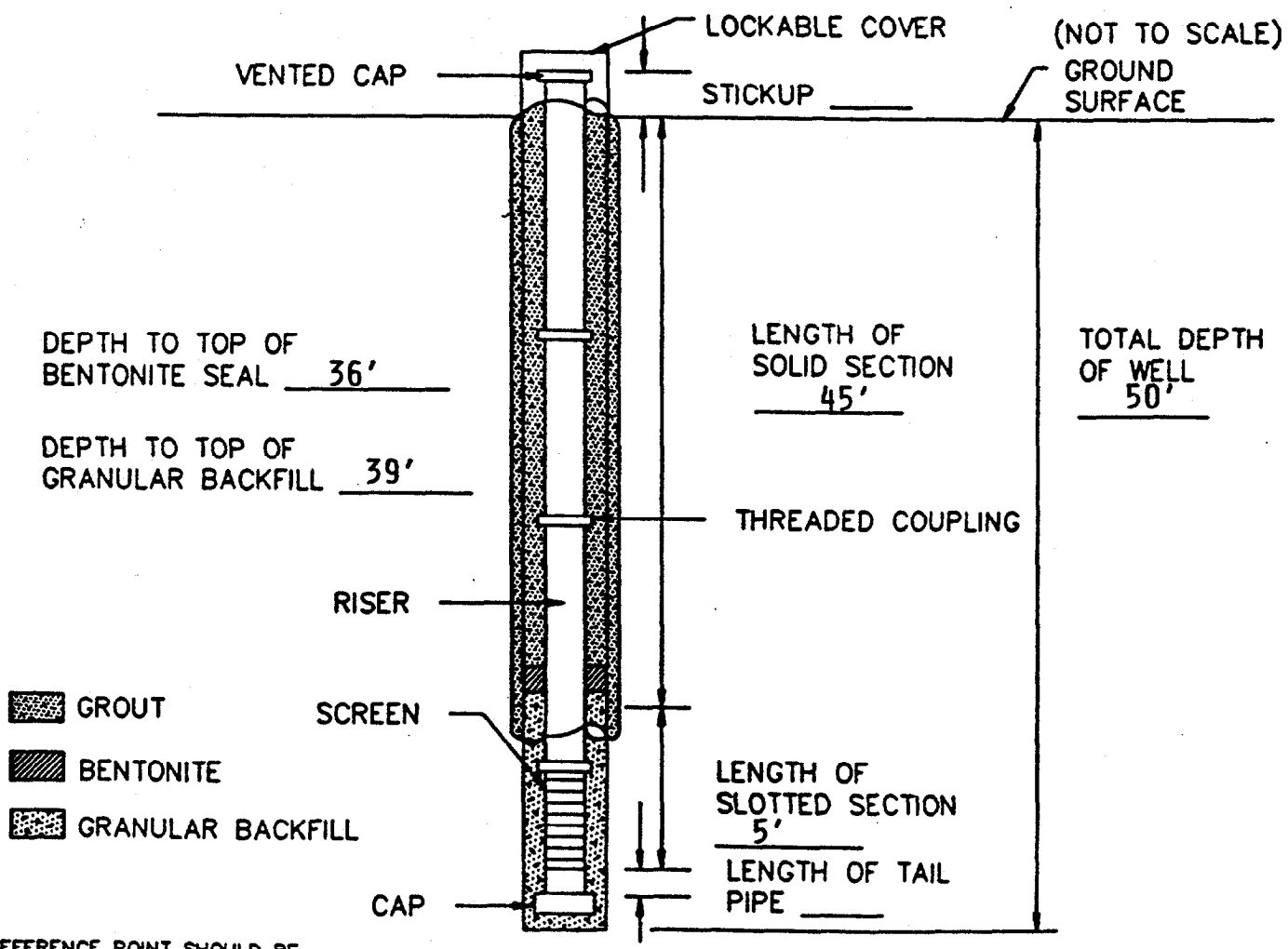
RISER MATERIAL PVC — RISER DIAMETER 2"

BOREHOLE DIAMETER 8 1/4" — LAW ENGINEERING FIELD REPRESENTATIVE L. Laymon

DRILLING TECHNIQUE Wash Bore — DRILLING CONTRACTOR Law Engineering

LOCK: BRAND Master SIZE/MODEL 1" — KEY CODE/COMBINATION 0536

STABILIZED WATER LEVEL — FEET BELOW TOP OF CASING, MEASURED ON



*REFERENCE POINT SHOULD BE TOP OF INNER CASING IF POSSIBLE.

FNAME: DEPT4752

LAW ENGINEERING

TYPE III MONITORING WELL INSTALLATION RECORD

FIGURE 3B

APPENDIX J
LABORATORY ANALYTICAL TEST REPORTS

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Multicomponent analysis: 2321-VOA W. by GC EPA 601 (continued)			
Trichlorofluoromethane	ug/L	Not detected	0.8
Vinyl chloride	ug/L	Not detected	0.9
Ethylene dibromide	ug/L	Not detected	1.0
Multicomponent analysis: 2321-VOA W. by GC EPA 602			
Benzene	ug/L	Not detected	0.2
Chlorobenzene	ug/L	Not detected	0.3
1,2-Dichlorobenzene	ug/L	Not detected	0.3
1,3-Dichlorobenzene	ug/L	Not detected	0.3
1,4-Dichlorobenzene	ug/L	Not detected	0.3
Ethylbenzene	ug/L	Not detected	0.5
Toluene	ug/L	Not detected	1.0
Xylenes (total)	ug/L	Not detected	1.0
Methyl tert-butyl ether	ug/L	Not detected	0.6
2310 Furnace Dig W. EPA 3020		Done	
Multicomponent analysis: 2310-Fur. Metals W. EPA 7000			
Lead	ug/L	Not detected	1.0

Sample I.D. AA27890 Location code: GEIGER3
P.O./Project No.: 47508136 Client No.: 12024
Loc. Desc.: MW-7 Sample collector: CORNELISSEN
Sample collection date: 11/19/92 Time: 08:28
Lab submittal date: 11/23/92 Time: 07:39

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Multicomponent analysis: 2321-VOA W. by GC EPA 601			
Bromodichloromethane	ug/L	Not detected	0.5
Bromoform	ug/L	Not detected	0.5
Bromomethane	ug/L	Not detected	0.9
Carbon tetrachloride	ug/L	Not detected	1.0
Chlorobenzene	ug/L	Not detected	0.4
Chloroethane	ug/L	Not detected	0.7
2-Chloroethylvinyl ether	ug/L	Not detected	5.0
Chloroform	ug/L	Not detected	0.8
Chloromethane	ug/L	Not detected	0.8
Dibromochloromethane	ug/L	Not detected	0.5
1,2-Dichlorobenzene	ug/L	Not detected	0.3
1,3-Dichlorobenzene	ug/L	Not detected	0.3
1,4-Dichlorobenzene	ug/L	Not detected	0.4
Dichlorodifluoromethane	ug/L	Not detected	0.5
1,1-Dichloroethane	ug/L	Not detected	0.7
1,2-Dichloroethane	ug/L	Not detected	0.7
1,1-Dichloroethene	ug/L	Not detected	0.7

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Multicomponent analysis: 2321-VOA W. by GC EPA 601 (continued)			
trans-1,2-Dichloroethene	ug/L	Not detected	0.7
1,2-Dichloropropane	ug/L	Not detected	0.5
cis-1,3-Dichloropropene	ug/L	Not detected	0.7
trans-1,3-Dichloropropene	ug/L	Not detected	0.5
Methylene chloride	ug/L	Not detected	5.0
1,1,2,2-Tetrachloroethane	ug/L	Not detected	0.6
Tetrachloroethene	ug/L	Not detected	0.4
1,1,1-Trichloroethane	ug/L	Not detected	1.0
1,1,2-Trichloroethane	ug/L	Not detected	0.8
Trichloroethene	ug/L	Not detected	0.9
Trichlorofluoromethane	ug/L	Not detected	0.8
Vinyl chloride	ug/L	Not detected	0.9
Ethylene dibromide	ug/L	Not detected	1.0
Multicomponent analysis: 2321-VOA W. by GC EPA 602			
Benzene	ug/L	Not detected	0.2
Chlorobenzene	ug/L	Not detected	0.3
1,2-Dichlorobenzene	ug/L	Not detected	0.3
1,3-Dichlorobenzene	ug/L	Not detected	0.3
1,4-Dichlorobenzene	ug/L	Not detected	0.3
Ethylbenzene	ug/L	Not detected	0.3
Toluene	ug/L	Not detected	1.0
Xylenes (total)	ug/L	Not detected	1.0
Methyl tert-butyl ether	ug/L	Not detected	0.6

Sample I.D. AA27891 Location code: GEIGER3
P.O./Project No.: 47508136 Client No.: 12024
Loc. Desc.: PW-8 Sample collector: CORNELISSEN
Sample collection date: 11/19/92 Time: 12:10
Lab submittal date: 11/23/92 Time: 07:39

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Multicomponent analysis: 2321-VOA W. by GC EPA 601			
Bromodichloromethane	ug/L	Not detected	5.0
Bromoform	ug/L	Not detected	5.0
Bromomethane	ug/L	Not detected	0.9
Carbon tetrachloride	ug/L	Not detected	10.0
Chlorobenzene	ug/L	Not detected	4.0
Chloroethane	ug/L	Not detected	7.0
2-Chloroethylvinyl ether	ug/L	Not detected	5.0
Chloroform	ug/L	Not detected	
Chloromethane	ug/L	Not detected	8.0
Dibromochloromethane	ug/L	Not detected	5.0
1,2-Dichlorobenzene	ug/L	Not detected	3.0

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Multicomponent analysis: 2321-VOA W. by GC EPA 601 (continued)			
1,3-Dichlorobenzene	ug/L	Not detected	3.0
1,4-Dichlorobenzene	ug/L	Not detected	4.0
Dichlorodifluoromethane	ug/L	Not detected	5.0
1,1-Dichloroethane	ug/L	Not detected	7.0
1,2-Dichloroethane	ug/L	Not detected	7.0
1,1-Dichloroethene	ug/L	Not detected	7.0
trans-1,2-Dichloroethene	ug/L	Not detected	7.0
1,2-Dichloropropane	ug/L	Not detected	5.0
cis-1,3-Dichloropropene	ug/L	Not detected	7.0
trans-1,3-Dichloropropene	ug/L	Not detected	5.0
Methylene chloride	ug/L	Not detected	5.0
1,1,2,2-Tetrachloroethane	ug/L	Not detected	6.0
Tetrachloroethene	ug/L	Not detected	4.0
1,1,1-Trichloroethane	ug/L	Not detected	10.0
1,1,2-Trichloroethane	ug/L	Not detected	8.0
Trichloroethene	ug/L	Not detected	9.0
Trichlorofluoromethane	ug/L	Not detected	8.0
Vinyl chloride	ug/L	Not detected	9.0
Ethylene dibromide	ug/L	Not detected	10.0
Multicomponent analysis: 2321-VOA W. by GC EPA 602			
Benzene	ug/L	5.8	5.0
Chlorobenzene	ug/L	Not detected	4.0
1,2-Dichlorobenzene	ug/L	Not detected	3.0
1,3-Dichlorobenzene	ug/L	Not detected	3.0
1,4-Dichlorobenzene	ug/L	Not detected	4.0
Ethylbenzene	ug/L	56.0	5.0
Toluene	ug/L	56.0	5.0
Xylenes (total)	ug/L	220.0	10.0
Methyl tert-butyl ether	ug/L	Not detected	10.0

Sample I.D. AA27892 Location code: GEIGER3
P.O./Project No.: 47508136 Client No.: 12024
Loc. Desc.: MW-9 Sample collector: CORNELISSEN
Sample collection date: 11/19/92 Time: 07:55
Lab submittal date: 11/23/92 Time: 07:39

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Multicomponent analysis: 2321-VOA W. by GC EPA 601			
Bromodichloromethane	ug/L	Not detected	0.5
Bromoform	ug/L	Not detected	0.5
Bromomethane	ug/L	Not detected	0.9
Carbon tetrachloride	ug/L	Not detected	1.0
Chlorobenzene	ug/L	Not detected	0.4

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Multicomponent analysis: 2321-VOA W. by GC EPA 601 (continued)			
Chloroethane	ug/L	Not detected	0.7
2-Chloroethylvinyl ether	ug/L	Not detected	5.0
Chloroform	ug/L	Not detected	0.8
Chloromethane	ug/L	Not detected	0.8
Dibromochloromethane	ug/L	Not detected	0.5
1,2-Dichlorobenzene	ug/L	Not detected	0.3
1,3-Dichlorobenzene	ug/L	Not detected	0.3
1,4-Dichlorobenzene	ug/L	Not detected	0.4
Dichlorodifluoromethane	ug/L	Not detected	0.5
1,1-Dichloroethane	ug/L	Not detected	0.7
1,2-Dichloroethane	ug/L	Not detected	0.7
1,1-Dichloroethene	ug/L	Not detected	0.7
trans-1,2-Dichloroethene	ug/L	Not detected	0.7
1,2-Dichloropropane	ug/L	Not detected	0.5
cis-1,3-Dichloropropene	ug/L	Not detected	0.7
trans-1,3-Dichloropropene	ug/L	Not detected	0.5
Methylene chloride	ug/L	Not detected	5.0
1,1,2,2-Tetrachloroethane	ug/L	Not detected	0.6
Tetrachloroethene	ug/L	Not detected	0.4
1,1,1-Trichloroethane	ug/L	Not detected	1.0
1,1,2-Trichloroethane	ug/L	Not detected	0
Trichloroethene	ug/L	Not detected	0.
Trichlorofluoromethane	ug/L	Not detected	0.8
Vinyl chloride	ug/L	Not detected	0.9
Ethylene dibromide	ug/L	Not detected	1.0
Multicomponent analysis: 2321-VOA W. by GC EPA 602			
Benzene	ug/L	Not detected	0.2
Chlorobenzene	ug/L	Not detected	0.3
1,2-Dichlorobenzene	ug/L	Not detected	0.3
1,3-Dichlorobenzene	ug/L	Not detected	0.3
1,4-Dichlorobenzene	ug/L	Not detected	0.3
Ethylbenzene	ug/L	Not detected	0.5
Toluene	ug/L	Not detected	1.0
Xylenes (total)	ug/L	Not detected	1.0
Methyl tert-butyl ether	ug/L	Not detected	0.6
2310-Furnace Dig W. EPA 3020		Done	
Multicomponent analysis: 2310-Fur. Metals W. EPA 7000			
Lead	ug/L	130.0	5.0

Sample I.D. AA27893 Location code: GEIGER3
P.O./Project No.: 47508136 Client No.: 12024
Loc. Desc.: MW-10 Sample collector: CORNELISSEN
Sample collection date: 11/19/92 Time: 08:40
Lab submittal date: 11/23/92 Time: 07:39

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Multicomponent analysis: 2321-VOA W. by GC EPA 601			
Bromodichloromethane	ug/L	Not detected	0.5
Bromoform	ug/L	Not detected	0.5
Bromomethane	ug/L	Not detected	0.9
Carbon tetrachloride	ug/L	Not detected	1.0
Chlorobenzene	ug/L	Not detected	0.4
Chloroethane	ug/L	Not detected	0.7
2-Chloroethylvinyl ether	ug/L	Not detected	5.0
Chloroform	ug/L	Not detected	0.8
Chloromethane	ug/L	Not detected	0.8
Dibromochloromethane	ug/L	Not detected	0.5
1,2-Dichlorobenzene	ug/L	Not detected	0.3
1,3-Dichlorobenzene	ug/L	Not detected	0.3
1,4-Dichlorobenzene	ug/L	Not detected	0.4
Dichlorodifluoromethane	ug/L	Not detected	0.5
1,1-Dichloroethane	ug/L	Not detected	0.7
1,2-Dichloroethane	ug/L	Not detected	0.7
1,1-Dichloroethene	ug/L	Not detected	0.7
trans-1,2-Dichloroethene	ug/L	Not detected	0.7
1,2-Dichloropropane	ug/L	Not detected	0.5
cis-1,3-Dichloropropene	ug/L	Not detected	0.7
trans-1,3-Dichloropropene	ug/L	Not detected	0.5
Methylene chloride	ug/L	Not detected	5.0
1,1,2,2-Tetrachloroethane	ug/L	Not detected	0.6
Tetrachloroethene	ug/L	Not detected	0.4
1,1,1-Trichloroethane	ug/L	Not detected	1.0
1,1,2-Trichloroethane	ug/L	Not detected	0.8
Trichloroethene	ug/L	Not detected	0.9
Trichlorofluoromethane	ug/L	Not detected	0.8
Vinyl chloride	ug/L	Not detected	0.9
Ethylene dibromide	ug/L	Not detected	1.0
Multicomponent analysis: 2321-VOA W. by GC EPA 602			
Benzene	ug/L	Not detected	0.2
Chlorobenzene	ug/L	Not detected	0.3
1,2-Dichlorobenzene	ug/L	Not detected	0.3
1,3-Dichlorobenzene	ug/L	Not detected	0.3
1,4-Dichlorobenzene	ug/L	Not detected	0.3
Ethylbenzene	ug/L	Not detected	0.5
Toluene	ug/L	Not detected	1.0
Xylenes (total)	ug/L	Not detected	1.0
Methyl tert-butyl ether	ug/L	Not detected	0.6
2310-Furnace Dig W. EPA 3020		Done	
Multicomponent analysis: 2310-Fur. Metals W. EPA 7000			
Lead	ug/L	19.0	1.0

Sample I.D. AA27557 Location code: GEIGER2
P.O./Project No.: 47508136 Client No.: 12024
Loc. Desc.: HP-5S Sample collector: LAYMON
Sample collection date: 11/10/92 Time: 13:00
Lab submittal date: 11/17/92 Time: 13:59

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Multicomponent analysis: 2321-VOA W. by GC EPA 602			
Benzene	ug/L	Not detected	0.2
Chlorobenzene	ug/L	Not detected	0.3
1,2-Dichlorobenzene	ug/L	Not detected	0.3
1,3-Dichlorobenzene	ug/L	Not detected	0.3
1,4-Dichlorobenzene	ug/L	1.0	0.3
Ethylbenzene	ug/L	Not detected	0.5
Toluene	ug/L	Not detected	1.0
Xylenes (total)	ug/L	Not detected	1.0
Methyl tert-butyl ether	ug/L	Not detected	0.6

Sample I.D. AA27558 Location code: GEIGER2
P.O./Project No.: 47508136 Client No.: 12024
Loc. Desc.: HP-6S Sample collector: LAYMON
Sample collection date: 11/10/92 Time: 13:45
Lab submittal date: 11/17/92 Time: 13:59

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Multicomponent analysis: 2321-VOA W. by GC EPA 602			
Benzene	ug/L	Not detected	0.2
Chlorobenzene	ug/L	Not detected	0.3
1,2-Dichlorobenzene	ug/L	Not detected	0.3
1,3-Dichlorobenzene	ug/L	Not detected	0.3
1,4-Dichlorobenzene	ug/L	Not detected	0.3
Ethylbenzene	ug/L	Not detected	0.5
Toluene	ug/L	Not detected	1.0
Xylenes (total)	ug/L	Not detected	1.0
Methyl tert-butyl ether	ug/L	Not detected	0.6

Sample I.D. AA27559 Location code: GEIGER2
P.O./Project No.: 47508136 Client No.: 12024
Loc. Desc.: MW-9A Sample collector: LAYMON
Sample collection date: 11/10/92 Time: 15:00
Lab submittal date: 11/17/92 Time: 13:59

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Multicomponent analysis: 2321-TPHVS Cal-DHS			
Gasoline	mg/Kg	Not detected	0.2
2323-Tot. Pet. Hydro. Prep. Soil		Completed	
Multicomponent analysis: 2321-TPHXS Cal-DHS			
Diesel	mg/Kg	Not detected	3.0

Sample I.D. AA27560
P.O./Project No.: 47508136
Loc. Desc.: MW-9B
Sample collection date: 11/10/92
Lab submittal date: 11/17/92
Location code: GEIGER2
Client No.: 12024
Sample collector: LAYMON
Time: 15:00
Time: 13:59

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Multicomponent analysis: 2321-TPHVS Cal-DHS			
Gasoline	mg/Kg	Not detected	0.2
2323-Tot. Pet. Hydro. Prep. Soil		Completed	
Multicomponent analysis: 2321-TPHXS Cal-DHS			
Diesel	mg/Kg	Not detected	3.0

Sample I.D. AA27561
P.O./Project No.: 47508136
Loc. Desc.: MW-10A
Sample collection date: 11/10/92
Lab submittal date: 11/17/92
Location code: GEIGER2
Client No.: 12024
Sample collector: LAYMON
Time: 17:30
Time: 13:59

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Multicomponent analysis: 2321-TPHVS Cal-DHS			
Gasoline	mg/Kg	Not detected	0.2
2323-Tot. Pet. Hydro. Prep. Soil		Completed	
Multicomponent analysis: 2321-TPHXS Cal-DHS			
Diesel	mg/Kg	4.0	3.0
2323-Ignitability EPA 1010	degrees F	Not detected	75
2310-pH by EPA 9045 Soil	units 2-12	4.12	
2310-ICP Metals Dig S. EPA 3050		Done	

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Multicomponent analysis: 2310-ICP Metals S. EPA 6010			
Lead	mg/Kg	Not detected	4.1

Sample I.D. AA27562
P.O./Project No.: 47508136
Loc. Desc.: MW-10B
Sample collection date: 11/10/92
Lab submittal date: 11/17/92

Location code: GEIGER2
Client No.: 12024
Sample collector: LAYMON
Time: 17:30
Time: 13:59

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Multicomponent analysis: 2321-TPHVS Cal-DHS			
Gasoline	mg/Kg	Not detected	0.2
2323-Tot. Pet. Hydro. Prep. Soil		Completed	
Multicomponent analysis: 2321-TPHXS Cal-DHS			
Diesel	mg/Kg	Not detected	3.0

Sample I.D. AA27563
P.O./Project No.: 47508136
Loc. Desc.: TRIP BLANK
Sample collection date: 11/10/92
Lab submittal date: 11/17/92

Location code: GEIGER2
Client No.: 12024
Sample collector: LAYMON
Time: 13:59

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Multicomponent analysis: 2321-VOA W. by GC EPA 602			
Benzene	ug/L	Not detected	0.2
Chlorobenzene	ug/L	Not detected	0.3
1,2-Dichlorobenzene	ug/L	Not detected	0.3
1,3-Dichlorobenzene	ug/L	Not detected	0.3
1,4-Dichlorobenzene	ug/L	Not detected	0.3
Ethylbenzene	ug/L	Not detected	0.5
Toluene	ug/L	Not detected	1.0
Xylenes (total)	ug/L	Not detected	1.0
Methyl tert-butyl ether	ug/L	Not detected	0.6

Sample I.D. AA27564
P.O./Project No.: 47508136
Loc. Desc.: HP-3 RINSE BLANK

Location code: GEIGER2
Client No.: 12024
Sample collector: LAYMON

Sample I.D. AA26927 Location code: CAMPGEI2
P.O./Project No.: 47508136 Client No.: 12024
Loc. Desc.: MW-6A Sample collector: LAYMON
Sample collection date: 11/04/92 Time: 11:00
Lab submittal date: 11/09/92 Time: 13:23

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Multicomponent analysis: 2321-TPHVS Cal-DHS			
Gasoline	mg/Kg	Not detected	0.2
2323-Tot. Pet. Hydro. Prep. Soil		Completed	
Multicomponent analysis: 2321-TPHXS Cal-DHS			
Diesel	mg/Kg	Not detected	3.0

Sample I.D. AA26928 Location code: CAMPGEI2
P.O./Project No.: 47508136 Client No.: 12024
Loc. Desc.: MW-6B Sample collector: LAYMON
Sample collection date: 11/04/92 Time: 11:00
Lab submittal date: 11/09/92 Time: 13:23

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Multicomponent analysis: 2321-TPHVS Cal-DHS			
Gasoline	mg/Kg	Not detected	0.2
2323-Tot. Pet. Hydro. Prep. Soil		Completed	
Multicomponent analysis: 2321-TPHXS Cal-DHS			
Diesel	mg/Kg	Not detected	3.0
2310-ICP Metals Dig S. EPA 3005		Completed	
Multicomponent analysis: 2310-ICP Metals S. EPA 6010			
Lead	mg/Kg	6.0	5.0
2323-Ignitability EPA 1010	degrees F	No Flash	75

Sample I.D. AA26929 Location code: CAMPGEI2
P.O./Project No.: 47508136 Client No.: 12024
Loc. Desc.: MW-7A Sample collector: LAYMON
Sample collection date: 11/05/92 Time: 15:30
Lab submittal date: 11/09/92 Time: 13:23

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Multicomponent analysis: 2321-TPHVS Cal-DHS			
Gasoline	mg/Kg	Not detected	0.2

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
2323-Tot. Pet. Hydro. Prep. Soil		Completed	
Multicomponent analysis: 2321-TPHXS Cal-DHS			
Diesel	mg/Kg	Not detected	3.0
2310-ICP Metals Dig S. EPA 3005		Completed	
Multicomponent analysis: 2310-ICP Metals S. EPA 6010			
Lead	mg/Kg	32.0	4.0
2310-pH by EPA 9040 Soil	units 2-12	5.8	

Sample I.D. AA26930
P.O./Project No.: 47508136
Loc. Desc.: MW-7B
Sample collection date: 11/05/92
Lab submittal date: 11/09/92

Location code: CAMPGEI2
Client No.: 12024
Sample collector: LAYMON
Time: 15:30
Time: 13:23

TEST PARAMETER	UNITS	TEST RESULT	DETECTION LIMIT
Multicomponent analysis: 2321-TPHVS Cal-DHS			
Gasoline	mg/Kg	Not detected	0.2
2323-Tot. Pet. Hydro. Prep. Soil		Completed	
Multicomponent analysis: 2321-TPHXS Cal-DHS			
Diesel	mg/Kg	Not detected	3.0

Please advise should you have questions concerning these data.

Respectfully submitted,

1 Dec 1992

James M.G. Tucci, Laboratory Manager

ATTACHMENT C
BORING LOGS

(2)

337 ~~8539~~ 12/18/95

BEQ-TW04

Depth (FT)	Sample #	Blows (PER 0.5')	REC (FT)	TIME (HR)
0-1	S-1	34-31	0.8	0998
1-3	S-2	8-7-5-6	1.3	0950
3-5	S-3	3-2-2-2	1.2	0958
COLLECTED SAMPLE FROM 3-5'				
5-7	S-4	2-2-3-5	2.0	1008
10-12	S-5	2-2-2-1	1.3	1014
15-17	S-6	3-3-5-8	2.0	1022
20-22	S-7	12-14-25-32	2.0	1047

12/18/95 337 ~~8539~~

DESCRIPTION	PID PS	PID BG
0.4 DK, BRN SILT, S. Sand, T. Gravel DRY	0.4	0.4
CONCRETE		
1.0 DK BRN, Sand, F-M, S. SILT, T. GRAVEL, Damp	1.4	0.4
1.7 GREY/BRN, SAND, C. CLAY, T. SILT, MOIST. FILL MAT'L	1.2	0.4
3.0 DK BRN, SAND & SILT, MOIST.		
4.2 DK GREY, SAND (F-M), T. SILT, WET. ~~GW@4.0~~' MOIST.		
5.1 GW@5.0		
WOOD DEBRIS - NOT NATURAL (I.E., LIMB OR TRUNK OF TREE). RED	0.4	0.4
LT. GREY, SAND, F-M-G, T. SILT, T. WET. T. WOOD DEBRIS.	0.4	0.4
NOTE: NO WOOD DEBRIS FROM 15-17.	0.4	0.4
SAME AS ABOVE	0.4	0.4

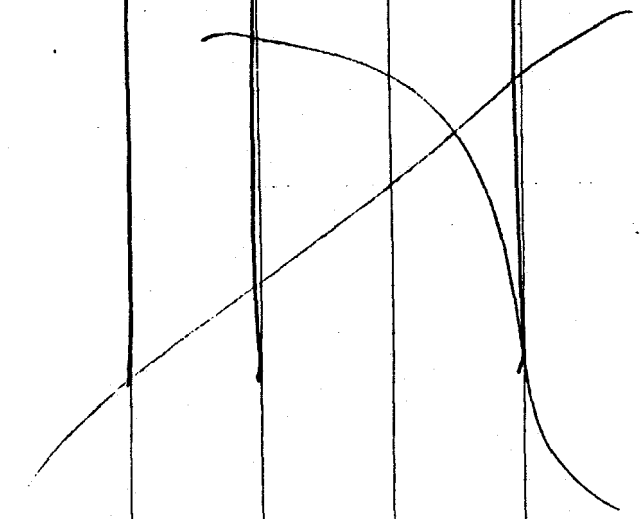
NEXT PAGE

(4)

337
~~0339~~

12/18/95

DEPTH (FT)	SAMPLE #	BLOWS (Per 0.5')	REC (FT)	TIME (HR.)
25-27	S-8	10-9-8-9	2.0	1110

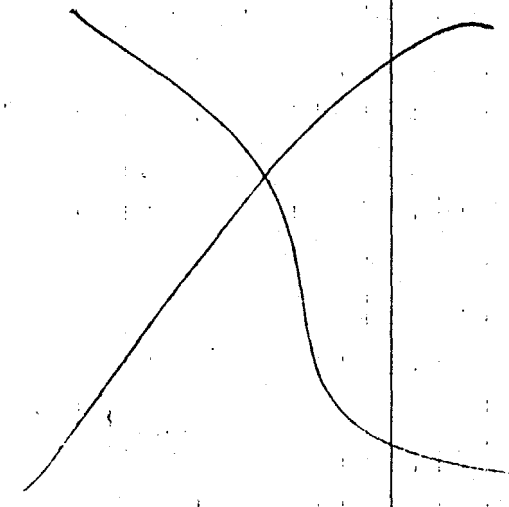


12/18/95

337
~~0339~~

(5)

DESCRIPTION	PID PB	PID BG
LT. GREY, SAND, M-F GRAINED, T. SILT, WET.		
25.8 DK GREENISH GREY, SAND, S. SILT, WET TO MOIST, (SEMICONFINING UNIT)	0.4	0.4
END OF BORING. WE WILL SET TEMP WELL @ 27.0'.		



(8)

0337

BEQ-TW03

Mon 12/18/95

Depth (FT)	Sample #	Blows (per 0.5')	REC (FT)	TIME (HR)
0-1	S-1	—	—	—
1-3	S-2	3-2-3-3	1.6	1310
3-5	S-3	3-4-6-11	1.9	1313
		COLLECTED SAMPLE		
10-12	S-4	2-2-1-3	1.0	1327
15-17	S-5	3-3-4-7	2.0	1335
20-22	S-6	5-9-16-14	2.0	1344
25-27	S-7	10-14-21-36	2.0	1359

Mon 12/18/95

0337

(9)

DESCRIPTION	PID PS / BG
DK GREY, CLAY, S. SILT, T. SAND, DAMP,	0.7 / 0.5
2.5	
DK BRN SILT, T. Sand, Damp METAL DEBRIS	
FILL MAT'L	
4.1	0.9 / 0.9
DK GREY, SAND, M-F, L. SILT, MOIST.	
GWL 4.8'	
7.5	
BRN. SILT, T. Sand, MOIST.	0.8 / 0.8
11.9	
GREY, Sand (M-F) L. SILT, WET	
NOTE: GREENISH GREY IN COLOR SILT CONTENT DECREASING	0.6 / 0.6
NOTE: GREY IN COLOR, NO SILT.	0.6 / 0.6
25.5	
GRENNISH GREY, Sand, L. SILT, WET to MOIST. (Semiconfining Unit)	0.6 / 0.6

(10)

0337

Mon 12/18/95

BEQ-TW11

Depth (FT)	Sample #	Blows (per 0.5')	Rec (FT)	TIME (HR)
0-1	-	-	-	-
1-3	S-1	3-3-4-4	2.0	1522
3-5	S-2	5-7-8-6	2.0	1524
5-7	S-3	6-8-9-11	2.0	1545
	SAMPLE COLLECTED			1550
10-12	S-4	6-10-9-9	2.0	1550
15-17	S-5	7-6-8-21	2.0	1600

(11)

Mon 12/18/95

0337

DESCRIPTION	PID PS / BG
BRN/GREY MOTTLED SAND, M-F T. SILT, DAMP	1.2/0.3
NOTE: GREY IN COLOR	1.4/0.4
5.0 DK BRN SAND, L. SILT, DAMP TO MOIST. GW@ 7.0'	0.6/0.3
6.0 GREY, SAND, T. SILT, MOIST GW@ 7.0'	0.8/0.3
NOTE: SAND IS MULTICOLORED (BRN, GREY, DK GREY) NOTE: BRN.	
16.0 GREENISH GREY, SILT, T. SAND, MOIST, (SEMICONF. UNIT)	0.6/0.4
16.3 DK GREY, SILT, MOIST TO WET.	
16.6 GREY, CLAYEY SAND, SHELL FRAGS, WET (CASTLE HAYNE)	

TD = 17. Set well @ 15'

(14)

CTO-0337

REQ-TW02

Depth (FT)	Sample #	Blows (per 0.5')	REC (FT)	TIME (HR)
0-1	-	-	-	-
1-3	S-1	4-5-5-6	1.9	0953
3-5	S-2	4-5-6-8	2.0	0955
5-7	S-3	4-6-7-7	1.7	1001
10-12	S-4	2-3-4-4	2.0	1007
15-17	S-5	3-3-3-4	2.0	1012

TUES 12-19-95

TUES 12-19-95 CTO-0337 (15)

DESCRIPTION	PID BG / PS
LT. BRN, SAND, F-G, T. SILT. DRY	0.7/0.7
NOTE: @ 0.8' GREY, NO SILT @ 1.2 BRN, L. SILT, T. Clay IRON STAINING.	0.7/0.7
GREY, SAND, F-G, T. SILT, MOIST	
GWE 6'	0.5/0.5
GREY, SAND, F-G, T. SILT, WET	
NOTE M-Grained, NO SILT, WET	NO HNu READINGS DUE TO RAIN
13.5 - - - - - - - - - - -	
GREENISH GREY, SILTY SAND, T. CLAY, MOIST, CLAY STRINGERS AND SMALL SAND LENSES. (Semi confining unit)	

TD = 17.0'. SET TEMP WELL

ATTACHMENT D
LABORATORY DATA AND CHAIN-OF-CUSTODY SHEETS

Inchcape Testing Services
Environmental Laboratories

1089 E. Collins Blvd.
Richardson, TX 75081
Tel. 214-238-5591
Fax. 214-238-5592

Baker Environmental
337 Environ. Screening
D95-12332 - CLP Summary Forms Package

Index

Inchcape Testing Services
Environmental Laboratories

1089 E. Collins Blvd.
Richardson, TX 75081
Tel. 214-238-5591
Fax. 214-238-5592

DATE RECEIVED: 21-DEC-1995
REPORT NUMBER: D95-12332
REPORT DATE: 28-DEC-1995

SAMPLE SUBMITTED BY : Baker Environmental, Inc.
ADDRESS : Airport Office Park, Bldg 3 - 420 Rouser
Coraopolis, PA 15108
ATTENTION : Mr. Dan Bonk
PROJECT : 337 Environ. Screening BEQ
DATE SAMPLED : 20-DEC-1995

SAMPLE NUMBER : FB02, RB02, RB03, TW01B, TW01BD, TW01MS, TW01MSD, TW02B, TW02A, TW03A, TW03B, TW04A, TW04B, VLCS

SDG NUMBER: D95-12332
CONTRACT NUMBER: N/A

SDG NARRATIVE

This is a resubmission of the data package D95-12332, which had been completed by U.S. EPA CLP methods and criteria.

The results of all soil analyses are reported on a dry weight basis.

CLP Volatile Organics Analysis

Calibration

In the initial calibration of instrument ITS7, the following analytes exhibited percent differences (%D) greater than the QC limit of 20.5%:

ITS7 12/21/95 chloroethane (40.3%)

In the continuing calibration of instrument ITS7, the following analytes exhibited percent differences (%D) greater than the QC limit of 25%:

ITS7 12/22/95 vinyl chloride (33.0%)
chloroethane (45.0%)
2-butanone (125%)
4-methyl-2-pentanone (51.6%)
2-hexanone (83.6%)

Surrogate Recoveries

Samples D95-12332-5, -7, -8, -12, -13, -14, -15 (MS) and -16 (MSD) have recoveries for the surrogate 1,2-dichloroethane-d4 outside of QC limits of 76-114%. Because CLP criteria permit that one surrogate be outside of QC limits, the results were authorized.

Inchcape Testing Services
Environmental Laboratories

1089 E. Collins Blvd.
Richardson, TX 75081
Tel. 214-258-5591
Fax. 214-258-5592

Matrix Spike Analysis

In addition to the matrix spike and matrix spike duplicate analyses, which were analyzed in compliance with CLP guidelines, a laboratory control spike (LCS) analysis was conducted.

The matrix spike, matrix spike duplicate and laboratory control spike analyses were fortified with the full list of analytes, rather than the CLP spike list, because the laboratory routinely analyzes the full analyte list. Since all CLP spike compounds are included in this spiking mix, the results were not adversely affected.

If you have any questions, please feel free to contact Ms. Jacqueline Mayhew, at (214) 238-5591.

Please refer to the attached Case Narrative Summary for sample identifications and analytical requests.

"I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted in diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature."

Alan Humason
QA Coordinator

1/5/96
Date

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

BAKER SAMPLE NO.

FB02

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

Matrix: (soil/water) WATER Lab Sample ID: 12332-14

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5682501025

Level: (low/med) LOW Date Received: 12/21/95

% Moisture: not dec. _____ Date Analyzed: 12/22/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon disulfide	10	U
75-09-2	Methylene chloride	10	U
67-64-1	Acetone	140	
156-60-5	1,2-Dichloroethene (Total)	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3	Xylenes (Total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FB02

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

Matrix: (soil/water) WATER Lab Sample ID: 12332-14

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5682501025

Level: (low/med) LOW Date Received: 12/21/95

% Moisture: not dec. _____ Date Analyzed: 12/22/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	67-63-0	ISOPROPYL ALCOHOL	3.07	11.6	NJ
2.					
3.					
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FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

BAKER SAMPLE NO.

RB02

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

Matrix: (soil/water) WATER Lab Sample ID: 12332-2

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5681401014

Level: (low/med) LOW Date Received: 12/21/95

% Moisture: not dec. _____ Date Analyzed: 12/22/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon disulfide	10	U
75-09-2	Methylene chloride	14	
67-64-1	Acetone	10	U
156-60-5	1,2-Dichloroethene (Total)	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3	Xylenes (Total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

RB02

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

Matrix: (soil/water) WATER Lab Sample ID: 12332-2

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5681401014

Level: (low/med) LOW Date Received: 12/21/95

% Moisture: not dec. _____ Date Analyzed: 12/22/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
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FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

BAKER SAMPLE NO.

RB03

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

Matrix: (soil/water) WATER Lab Sample ID: 12332-12

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5682301023

Level: (low/med) LOW Date Received: 12/21/95

% Moisture: not dec. _____ Date Analyzed: 12/22/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon disulfide	10	U
75-09-2	Methylene chloride	14	
67-64-1	Acetone	10	U
156-60-5	1,2-Dichloroethene (Total)	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3	Xylenes (Total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

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EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

RB03

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

Matrix: (soil/water) WATER Lab Sample ID: 12332-12

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5682301023

Level: (low/med) LOW Date Received: 12/21/95

% Moisture: not dec. _____ Date Analyzed: 12/22/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
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FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

BAKER SAMPLE NO.

TB02

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

Matrix: (soil/water) WATER Lab Sample ID: 12332-13

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5682401024

Level: (low/med) LOW Date Received: 12/21/95

% Moisture: not dec. _____ Date Analyzed: 12/22/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon disulfide	10	U
75-09-2	Methylene chloride	10	U
67-64-1	Acetone	10	U
156-60-5	1,2-Dichloroethene (Total)	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3	Xylenes (Total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TB02

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

Matrix: (soil/water) WATER Lab Sample ID: 12332-13

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5682401024

Level: (low/med) LOW Date Received: 12/21/95

% Moisture: not dec. _____ Date Analyzed: 12/22/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

TW01B

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

Matrix: (soil/water) WATER Lab Sample ID: 12332-6

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5681801018

Level: (low/med) LOW Date Received: 12/21/95

% Moisture: not dec. _____ Date Analyzed: 12/22/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-83-9	Bromomethane	10	U
75-01-4	Vinyl chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
74-87-3	Chloromethane	10	U
156-60-5	1,2-Dichloroethene (Total)	10	U
108-38-3	Xylenes (Total)	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TW01B

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

Matrix: (soil/water) WATER Lab Sample ID: 12332-6

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5681801018

Level: (low/med) LOW Date Received: 12/21/95

% Moisture: not dec. _____ Date Analyzed: 12/22/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

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

BAKER SAMPLE NO.

TW01BD

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

Matrix: (soil/water) WATER Lab Sample ID: 12332-7

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5682101021

Level: (low/med) LOW Date Received: 12/21/95

% Moisture: not dec. _____ Date Analyzed: 12/22/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon disulfide	10	U
75-09-2	Methylene chloride	10	U
67-64-1	Acetone	10	U
156-60-5	1,2-Dichloroethene (Total)	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3	Xylenes (Total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TW01BD

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

Matrix: (soil/water) WATER Lab Sample ID: 12332-7

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5682101021

Level: (low/med) LOW Date Received: 12/21/95

% Moisture: not dec. _____ Date Analyzed: 12/22/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

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

BAKER SAMPLE NO.

TW02B

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

Matrix: (soil/water) WATER Lab Sample ID: 12332-8

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5682201022

Level: (low/med) LOW Date Received: 12/21/95

% Moisture: not dec. _____ Date Analyzed: 12/22/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon disulfide	10	U
75-09-2	Methylene chloride	10	U
67-64-1	Acetone	10	U
156-60-5	1,2-Dichloroethene (Total)	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3	Xylenes (Total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TW02B

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

Matrix: (soil/water) WATER Lab Sample ID: 12332-8

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5682201022

Level: (low/med) LOW Date Received: 12/21/95

% Moisture: not dec. _____ Date Analyzed: 12/22/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

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

BAKER SAMPLE NO.

TW03A

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

Matrix: (soil/water) WATER Lab Sample ID: 12332-3

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5681501015

Level: (low/med) LOW Date Received: 12/21/95

% Moisture: not dec. _____ Date Analyzed: 12/22/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon disulfide	10	U
75-09-2	Methylene chloride	10	U
67-64-1	Acetone	10	U
156-60-5	1,2-Dichloroethene (Total)	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3	Xylenes (Total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TW03A

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

Matrix: (soil/water) WATER Lab Sample ID: 12332-3

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5681501015

Level: (low/med) LOW Date Received: 12/21/95

% Moisture: not dec. _____ Date Analyzed: 12/22/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

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

BAKER SAMPLE NO.

TW03B

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

Matrix: (soil/water) WATER Lab Sample ID: 12332-1

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5681301013

Level: (low/med) LOW Date Received: 12/21/95

% Moisture: not dec. _____ Date Analyzed: 12/22/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon disulfide	10	U
75-09-2	Methylene chloride	10	U
67-64-1	Acetone	10	U
156-60-5	1,2-Dichloroethene (Total)	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3	Xylenes (Total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TW03B

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

Matrix: (soil/water) WATER Lab Sample ID: 12332-1

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5681301013

Level: (low/med) LOW Date Received: 12/21/95

% Moisture: not dec. _____ Date Analyzed: 12/22/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

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

BAKER SAMPLE NO.

TW04A

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

Matrix: (soil/water) WATER Lab Sample ID: 12332-4

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5681601016

Level: (low/med) LOW Date Received: 12/21/95

% Moisture: not dec. _____ Date Analyzed: 12/22/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon disulfide	10	U
75-09-2	Methylene chloride	10	U
67-64-1	Acetone	10	U
156-60-5	1,2-Dichloroethene (Total)	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3	Xylenes (Total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TW04A

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

Matrix: (soil/water) WATER Lab Sample ID: 12332-4

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5681601016

Level: (low/med) LOW Date Received: 12/21/95

% Moisture: not dec. _____ Date Analyzed: 12/22/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 4

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	74-98-6	PROPANE	1.44	99.9	NJ
2.	75-28-5	ISOBUTANE	1.61	82.5	NJ
3.	106-97-8	BUTANE	1.74	25.6	NJ
4.	91-20-3	NAPHTHALENE	12.06	98.7	NJ
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FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

BAKER SAMPLE NO.

TW04B

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

Matrix: (soil/water) WATER Lab Sample ID: 12332-5

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5681701017

Level: (low/med) LOW Date Received: 12/21/95

% Moisture: not dec. _____ Date Analyzed: 12/22/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon disulfide	10	U
75-09-2	Methylene chloride	10	U
67-64-1	Acetone	10	U
156-60-5	1,2-Dichloroethene (Total)	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	17	
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3	Xylenes (Total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TW04B

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

Matrix: (soil/water) WATER Lab Sample ID: 12332-5

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5681701017

Level: (low/med) LOW Date Received: 12/21/95

% Moisture: not dec. _____ Date Analyzed: 12/22/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	OTHER	TOT OUT
01	VBLK	96	97	107		0
02	VLCS	103	98	103		0
03	TW03B	108	95	98		0
04	RB02	111	96	108		0
05	TW03A	110	102	97		0
06	TW04A	113	97	104		0
07	TW04B	115*	99	108		1
08	01B	114	97	106		0
09	01BMS	122*	97	108		1
10	01BMSD	119*	100	110		1
11	TW01BD	115*	100	109		1
12	TW02B	115*	99	112		1
13	RB03	118*	99	110		1
14	TB02	115*	101	101		1
15	FB02	119*	106	101		1
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		QC LIMITS
SMC1	= 1,2-Dichloroethane-d4	(76-114)
SMC2	= Toluene-d8 (SS)	(88-110)
SMC3	= Bromofluorobenzene (SS	(86-115)

Column to be used to flag recovery values

* Values outside of contract required QC limits

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

Matrix Spike - EPA Sample No.: TW01B

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	100	0	110	110	61-145
Trichloroethene	100	0	100	100	71-120
Benzene	100	0	110	110	76-127
Toluene	100	0	100	100	76-125
Chlorobenzene	100	0	110	110	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	100	110	110	2	14	61-145
Trichloroethene	100	100	100	1	14	71-120
Benzene	100	110	110	1	11	76-127
Toluene	100	110	110	3	13	76-125
Chlorobenzene	100	110	110	0	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

BAKER SAMPLE NO.

01BMS

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

Matrix: (soil/water) WATER Lab Sample ID: D95-12332-15

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5681901019

Level: (low/med) LOW Date Received: 12/21/95

% Moisture: not dec. _____ Date Analyzed: 12/22/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 2.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	120	
75-01-4	Vinyl chloride	110	
74-83-9	Bromomethane	100	
75-00-3	Chloroethane	100	
75-35-4	1,1-Dichloroethene	110	
75-15-0	Carbon disulfide	100	
75-09-2	Methylene chloride	100	
67-64-1	Acetone	58	
156-60-5	1,2-Dichloroethene (Total)	220	
75-34-3	1,1-Dichloroethane	120	
78-93-3	2-Butanone	120	
67-66-3	Chloroform	120	
71-55-6	1,1,1-Trichloroethane	120	
56-23-5	Carbon tetrachloride	120	
107-06-2	1,2-Dichloroethane	130	
71-43-2	Benzene	110	
79-01-6	Trichloroethene	100	
78-87-5	1,2-Dichloropropane	110	
75-27-4	Bromodichloromethane	110	
10061-01-5	cis-1,3-Dichloropropene	110	
108-10-1	4-Methyl-2-pentanone	130	
108-88-3	Toluene	100	
10061-02-6	trans-1,3-Dichloropropene	110	
79-00-5	1,1,2-Trichloroethane	110	
127-18-4	Tetrachloroethene	94	
591-78-6	2-Hexanone	120	
124-48-1	Dibromochloromethane	120	
108-90-7	Chlorobenzene	110	
100-41-4	Ethylbenzene	100	
108-38-3	Xylenes (Total)	270	
100-42-5	Styrene	61	
75-25-2	Bromoform	100	
79-34-5	1,1,2,2-Tetrachloroethane	120	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

01BMSD

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

Matrix: (soil/water) WATER Lab Sample ID: D95-12332-16

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5682001020

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 12/22/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 2.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	110	
75-01-4	Vinyl chloride	100	
74-83-9	Bromomethane	110	
75-00-3	Chloroethane	98	
75-35-4	1,1-Dichloroethene	110	
75-15-0	Carbon disulfide	100	
75-09-2	Methylene chloride	99	
67-64-1	Acetone	56	
156-60-5	1,2-Dichloroethene (Total)	220	
75-34-3	1,1-Dichloroethane	120	
78-93-3	2-Butanone	110	
67-66-3	Chloroform	120	
71-55-6	1,1,1-Trichloroethane	120	
56-23-5	Carbon tetrachloride	110	
107-06-2	1,2-Dichloroethane	120	
71-43-2	Benzene	110	
79-01-6	Trichloroethene	100	
78-87-5	1,2-Dichloropropane	120	
75-27-4	Bromodichloromethane	110	
10061-01-5	cis-1,3-Dichloropropene	110	
108-10-1	4-Methyl-2-pentanone	130	
108-88-3	Toluene	110	
10061-02-6	trans-1,3-Dichloropropene	110	
79-00-5	1,1,2-Trichloroethane	110	
127-18-4	Tetrachloroethene	95	
591-78-6	2-Hexanone	120	
124-48-1	Dibromochloromethane	110	
108-90-7	Chlorobenzene	110	
100-41-4	Ethylbenzene	110	
108-38-3	Xylenes (Total)	300	
100-42-5	Styrene	80	
75-25-2	Bromoform	99	
79-34-5	1,1,2,2-Tetrachloroethane	110	

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

Lab File ID: AA5680301003 Lab Sample ID: 12332-18

Date Analyzed: 12/22/95 Time Analyzed: 0835

GC Column: J&W DB-624ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: ITS7

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VLCS	12332-17	AA5680401004	0902
02	TW03B	12332-1	AA5681301013	1152
03	RB02	12332-2	AA5681401014	1217
04	TW03A	12332-3	AA5681501015	1236
05	TW04A	12332-4	AA5681601016	1255
06	TW04B	12332-5	AA5681701017	1314
07	TW01B	12332-6	AA5681801018	1333
08	TW01BMS	12332-15	AA5681901019	1351
09	TW01BMSD	12332-16	AA5682001020	1410
10	TW01BD	12332-7	AA5682101021	1429
11	TW02B	12332-8	AA5682201022	1448
12	RB03	12332-12	AA5682301023	1507
13	TB02	12332-13	AA5682401024	1526
14	FB02	12332-14	AA5682501025	1551
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COMMENTS:

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

BAKER SAMPLE NO.

VBLK

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

Matrix: (soil/water) WATER Lab Sample ID: 12332-18

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5680301003

Level: (low/med) LOW Date Received: 12/21/95

% Moisture: not dec. _____ Date Analyzed: 12/22/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
75-15-0	Carbon disulfide	10	U
75-09-2	Methylene chloride	10	U
67-64-1	Acetone	10	U
156-60-5	1,2-Dichloroethene (Total)	10	U
75-34-3	1,1-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3	Xylenes (Total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Lab File ID: AA5670101001 BFB Injection Date: 12/21/95

Instrument ID: ITS7 BFB Injection Time: 0811

GC Column: J&W DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	23.9
75	30.0 - 66.0% of mass 95	55.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	77.3
175	4.0 - 9.0% of mass 174	5.9 (7.6)1
176	93.0 - 101.0% of mass 174	75.2 (97.3)1
177	5.0 - 9.0% of mass 176	5.2 (6.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	VSTD010	AA5671601016	12/21/95	1249
02	VSTD020	VSTD020	AA5671701017	12/21/95	1309
03	VSTD050	VSTD050	AA5671801018	12/21/95	1329
04	VSTD100	VSTD100	AA5671901019	12/21/95	1348
05	VSTD200	VSTD200	AA5672001020	12/21/95	1407
06					
07					
08					
09					
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21					
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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

Lab File ID: AA5680101001 BFB Injection Date: 12/22/95

Instrument ID: ITS7 BFB Injection Time: 0807

GC Column: J&W DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.0
75	30.0 - 66.0% of mass 95	54.3
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.5
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	78.5
175	5.0 - 9.0% of mass 174	5.9 (7.6)1
176	93.0 - 101.0% of mass 174	79.1 (100.7)1
177	5.0 - 9.0% of mass 176	5.4 (6.8)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD050	AA5680201002	12/22/95	0814
02	VBLK	12332-18	AA5680301003	12/22/95	0835
03	VLCS	D95-12332-17	AA5680401004	12/22/95	0902
04	TW03B	12332-1	AA5681301013	12/22/95	1152
05	RB02	12332-2	AA5681401014	12/22/95	1217
06	TW03A	12332-3	AA5681501015	12/22/95	1236
07	TW04A	12332-4	AA5681601016	12/22/95	1255
08	TW04B	12332-5	AA5681701017	12/22/95	1314
09	01B	12332-6	AA5681801018	12/22/95	1333
10	01BMS	D95-12332-15	AA5681901019	12/22/95	1351
11	01BMSD	D95-12332-16	AA5682001020	12/22/95	1410
12	TW01BD	12332-7	AA5682101021	12/22/95	1429
13	TW02B	12332-8	AA5682201022	12/22/95	1448
14	RB03	12332-12	AA5682301023	12/22/95	1507
15	TB02	12332-13	AA5682401024	12/22/95	1526
16	FB02	12332-14	AA5682501025	12/22/95	1551
17					
18					
19					
20					
21					
22					

6A

Inchcape Testing Services - Dallas

INITIAL CALIBRATION DATA

Start Cal Date : 21-DEC-95 13:09
End Cal Date : 21-DEC-1995 13:29
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem1/its7.i/12-21-95SOW.b/8240_sow7.m
Cal Date : 05-Jan-1996 15:42 lwu
Curve Type : Average

Calibration File Names:
Level 1: /chem1/its7.i/12-21-95SOW.b/AA5671601016.d
Level 2: /chem1/its7.i/12-21-95SOW.b/AA5671701017.d
Level 3: /chem1/its7.i/12-21-95SOW.b/AA5671801018.d
Level 4: /chem1/its7.i/12-21-95SOW.b/AA5671901019.d
Level 5: /chem1/its7.i/12-21-95SOW.b/AA5672001020.d

Compound	10 Level 1	20 Level 2	50 Level 3	100 Level 4	200 Level 5	RRF	% RSD
1 Chloromethane	0.95350	0.99817	1.00966	0.99791	1.03607	0.99906	2.986
2 Vinyl chloride	1.11020	1.00894	0.94298	0.70704	0.99795	0.95342	15.773
3 Bromomethane	1.20911	1.14565	1.20555	1.14601	1.19256	1.17978	2.678
4 Chloroethane	0.82220	0.59808	0.59213	0.40403	0.25491	0.53427	40.289
5 1,1-Dichloroethene	1.01144	1.03867	1.08931	1.09798	1.18861	1.08520	6.263
6 Acetone	0.91419	0.89493	0.81745	0.72059	0.74117	0.81767	10.690
7 Carbon disulfide	2.24547	2.31970	2.41171	2.40619	2.71573	2.41976	7.400
8 Methylene chloride	0.95852	0.91051	0.91060	0.86555	0.94662	0.91836	3.972
9 trans-1,2-Dichloroethene	1.10474	1.12047	1.16804	1.15240	1.31210	1.17155	7.040
10 1,1-Dichloroethane	2.09537	1.94641	2.01482	2.00085	2.27452	2.06639	6.193
11 cis-1,2-Dichloroethene	1.14681	1.17688	1.24625	1.22384	1.38760	1.23628	7.532
12 1,2-Dichloroethene (Total)	1.12514	1.15232	1.26447	1.24344	1.39052	1.23518	8.494
13 2-Butanone	1.01789	1.05793	1.04634	0.95690	1.03415	1.02264	3.876
15 Chloroform	2.71669	2.66349	2.72456	2.65902	3.00813	2.75438	5.263
16 1,1,1-Trichloroethane	0.66161	0.64132	0.68094	0.63464	0.66430	0.65656	2.842
17 Carbon tetrachloride	0.64026	0.63069	0.68249	0.63021	0.66180	0.64909	3.488
19 1,2-Dichloroethane	2.05685	2.08469	2.19522	2.08832	2.30436	2.14589	4.805
20 Benzene	0.74105	0.70743	0.74451	0.67479	0.69275	0.71211	4.257
22 Trichloroethene	0.42103	0.40130	0.42258	0.39003	0.40236	0.40746	3.428
23 1,2-Dichloropropane	0.31654	0.30563	0.31992	0.29587	0.30349	0.30829	3.193
24 Bromodichloromethane	0.61270	0.61583	0.66897	0.62490	0.65617	0.63572	3.985
25 cis-1,3-Dichloropropene	0.41317	0.42795	0.47032	0.43940	0.46173	0.44251	5.330
26 4-Methyl-2-pentanone	0.48974	0.51632	0.57272	0.49868	0.50516	0.51652	6.364
28 Toluene	1.03078	1.02602	1.02212	0.99901	1.01727	1.01904	1.202
29 trans-1,3-Dichloropropene	0.39194	0.40988	0.44987	0.42669	0.44694	0.42506	5.791
30 1,1,2-Trichloroethane	0.32950	0.32075	0.33125	0.30071	0.30398	0.31724	4.481
31 Tetrachloroethene	0.52207	0.49330	0.49313	0.47922	0.48546	0.49463	3.319

FORM VI VCA

1/5/96

Inchcape Testing Services - Dallas

INITIAL CALIBRATION DATA

Start Cal Date : 21-DEC-95 13:09
End Cal Date : 21-DEC-1995 13:29
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem1/its7.i/12-21-95SOW.b/8240_sow7.m
Cal Date : 05-Jan-1996 15:42 lwu
Curve Type : Average

	Compound	10 Level 1	20 Level 2	50 Level 3	100 Level 4	200 Level 5	RRF	% RSD
	32 2-Hexanone	0.36846	0.40252	0.44914	0.42016	0.38194	0.40444	7.867
	33 Dibromochloromethane	0.50008	0.52820	0.56550	0.54188	0.54785	0.53670	4.559
	35 Chlorobenzene	0.79531	0.78229	0.79961	0.77546	0.77987	0.78651	1.323
	36 Ethylbenzene	0.28460	0.32609	0.33216	0.33663	0.35253	0.32640	7.762
	37 Xylenes (Total)	0.90313	0.95587	1.18019	1.20152	1.34465	1.11707	16.426
	38 m,p-Xylene	0.37741	0.35488	0.43119	0.42102	0.43562	0.40402	8.880
	39 o-Xylene	0.33037	0.32713	0.38936	0.39443	0.38414	0.36509	9.146
	40 Styrene	0.45397	0.48339	0.62273	0.63500	0.64831	0.56868	16.235
	41 Bromoform	0.26745	0.31270	0.35469	0.35204	0.36658	0.33069	12.323
	43 1,1,2,2-Tetrachloroethane	0.52971	0.53100	0.53473	0.51776	0.48828	0.52030	3.650
$	18 1,2-Dichloroethane-d4 (SS)	1.75263	1.65868	1.73669	1.66409	1.86722	1.73586	4.875
$	27 Toluene-d8 (SS)	0.88995	0.78562	0.82151	0.82609	0.83310	0.83126	4.522
$	42 Bromofluorobenzene (SS)	0.45396	0.42435	0.50293	0.52864	0.51933	0.48584	9.230

FORM 7
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

Instrument ID: ITS7 Calibration Date: 12/22/95 Time: 0814

Lab File ID: AA5680201002 Init. Calib. Date(s): 12/21/95 12/21/95

Heated Purge: (Y/N) N Init. Calib. Times: 1309 1407

GC Column: J&W DB-624 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D	
Chloromethane	0.999	0.921		7.8		
Vinyl chloride	0.953	1.423	0.100	49.3	25.0	<-
Bromomethane	1.180	1.500	0.100	27.1	25.0	<-
Chloroethane	0.534	0.971		81.8		
1,1-Dichloroethene	1.085	0.959	0.100	11.6	25.0	
Carbon disulfide	2.420	2.476		2.3		
Methylene chloride	0.918	0.887		3.4		
Acetone	0.817	0.690		15.5		
1,2-Dichloroethene (Total)	1.235	1.027	0.100	16.8	100	
1,1-Dichloroethane	2.066	1.890	0.200	8.5	25.0	
2-Butanone	1.023	0.454		55.6		
Chloroform	2.754	2.362	0.200	14.2	25.0	
1,1,1-Trichloroethane	0.657	0.663	0.100	0.9	25.0	
Carbon tetrachloride	0.649	0.667	0.100	2.8	25.0	
1,2-Dichloroethane	2.146	1.731	0.100	19.3	25.0	
Benzene	0.712	0.626	0.500	12.1	25.0	
Trichloroethene	0.407	0.384	0.300	5.6	25.0	
1,2-Dichloropropane	0.308	0.260		15.6		
Bromodichloromethane	0.636	0.620	0.200	2.5	25.0	
cis-1,3-Dichloropropene	0.442	0.405	0.200	8.4	25.0	
4-Methyl-2-pentanone	0.517	0.341		34.0		
Toluene	1.019	0.893	0.400	12.4	25.0	
trans-1,3-Dichloropropene	0.425	0.391	0.100	8.0	25.0	
1,1,2-Trichloroethane	0.317	0.268	0.100	15.4	25.0	
Tetrachloroethene	0.494	0.483	0.200	2.2	25.0	
2-Hexanone	0.404	0.220		45.5		
Dibromochloromethane	0.537	0.482	0.100	10.2	25.0	
Chlorobenzene	0.786	0.688	0.500	12.5	25.0	
Ethylbenzene	0.326	0.306	0.100	6.1	25.0	
Xylenes (Total)	1.117	0.907		18.8		
Styrene	0.569	0.498	0.300	12.5	25.0	
Bromoform	0.331	0.312	0.100	5.7	25.0	
1,1,2,2-Tetrachloroethane	0.520	0.437	0.300	16.0	25.0	
1,2-Dichloroethane-d4 (SS)	1.736	1.597		8.0		
Toluene-d8 (SS)	0.831	0.905		8.9		
Bromofluorobenzene (SS)	0.486	0.483	0.200	0.6	25.0	

All other compounds must meet a minimum RRF of 0.010.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12332

Lab File ID (Standard): AA5680201002 Date Analyzed: 12/22/95

Instrument ID: ITS7 Time Analyzed: 0814

GC Column: J&W DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS1 (CBZ) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (BCM) AREA #	RT #
	12 HOUR STD	1085061	7.80	1462580	5.35	437258	4.53
	UPPER LIMIT	2170122	8.30	2925160	5.85	874516	5.03
	LOWER LIMIT	542530	7.30	731290	4.85	218629	4.03
	EPA SAMPLE NO.						
01	VBLK	1157777	7.80	1536885	5.35	447077	4.53
02	VLCS	1108637	7.81	1448679	5.35	444718	4.54
03	TW03B	1104350	7.80	1546224	5.34	420661	4.53
04	RB02	1110136	7.80	1463814	5.35	390732	4.54
05	TW03A	949641	7.81	1390677	5.36	385867	4.54
06	TW04A	1065580	7.80	1380638	5.35	376612	4.54
07	TW04B	1040985	7.81	1374633	5.36	377030	4.54
08	01B	985868	7.81	1357573	5.36	372198	4.54
09	01BMS	1034635	7.81	1333376	5.35	368735	4.54
10	01BMSD	1013708	7.81	1320555	5.35	372358	4.55
11	TW01BD	983669	7.81	1371298	5.35	376025	4.54
12	TW02B	954402	7.81	1327815	5.35	367472	4.54
13	RB03	937248	7.80	1302258	5.35	360113	4.54
14	TB02	896434	7.81	1287631	5.35	373634	4.53
15	FB02	879347	7.81	1280954	5.35	362888	4.53
16							
17							
18							
19							
20							
21							
22							

IS1 (CBZ) = Chlorobenzene-d5
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (BCM) = Bromochloromethane

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

Inchcape Testing Services Environmental Laboratories 1089 East Collins Blvd., #100 Richardson, TX 75081 (214) 238-5591 **CHAIN OF CUSTODY RECORD**

Report to:	Invoice to
Company: Baker Environmental	Company:
Address: 420 Rouser Rd. AOP Bldg 3 Coraopolis PA	Address:
Contact: Dan Bonk, PE	Contact:
Phone: 412-269-2063	Phone:
Fax: 412-269-2002	PO/SO #:

ANALYSIS REQUESTED: CLP Volatiles

Lab use
Due Date:

Temp. of coolers when received (C°): 4

Custody Seal N / Y
Intact N Y
Screened For Radioactivity N Y

Sampler's Name: MD Smith
Sampler's Signature: Mike Smith

Proj. No.: 337
Project Name: Environmental Screening BEQ
No./Type of Containers[2]

Matrix[1]	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	VOA	A/G 1 Lt.	250 ml	P/O	Lab Sample ID (Lab Use Only)
W	12/20	1220		✓	BEQ-TW03B-01	3				12332-1
W	12/19	1810		✓	BEQ-RB02-01					2
W	12/20	1145		✓	BEQ-TW03A-01					3
W	12/20	1000		✓	BEQ-TW04A-01					4
W	12/20	1020		✓	BEQ-TW04B-01					5
W	12/20	1510		✓	BEQ-TW01B-01 (MS/MSD)	6				6 MS/MSD
W	12/20	1610		✓	BEQ-TW01BD-01	3				7
W	12/20	1455		✓	BEQ-TW02B-01	3				8
W	12/20	1020		✓	BEQ-TW04B-01	3				9 BD 12-21-95
W	12/18	1800		✓	BEQ-RB01-01	3				10

Turn around time ☐ Priority 1 or Standard ☐ Priority 2 or 50% ☐ Priority 3 or 100% ☐ Priority 4 ERS *

* BTEX (602/8020), TPH (418.1 or 8015), VOLATILES (624/8240), IGNITABILITY, TOTAL LEAD (6010)

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
MD Smith	12/20	1600	B. Wilson	12/21/95	10:10
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

Remarks: 7 DAY TURNAROUND

Client's delivery of samples constitutes acceptance of Inchcape/ITS-Dallas terms and conditions contained in the Price Schedule.

[1] Matrix WW - Wastewater W - Water S - Soil SD - Solid L - Liquid A - Air Bag C - Charcoal tube SL - Sludge O - Oil
[2] Container VOA - 40 ml vial A/G - Amber / Or Glass 1 Liter 250 ml - Glass wide mouth P/O - Plastic or other

Inchcape cannot accept verbal changes. Please Fax written changes to 214-238-5592

OFFICE USE ONLY

Inchcape Testing Services Environmental Laboratories 1089 East Collins Blvd., #100 Richardson, TX 75081 (214) 238-5591 **CHAIN OF CUSTODY RECORD**

Report to:	Invoice to
Company: Baker Environmental	Company:
Address: 420 Rasor Rd AOP BLDG 3 CORAOPOLIS, PA	Address: SAME
Contact: DAN BONK, PE	Contact:
Phone: 412-269-2063	Phone:
Fax: 412-269-2002	PO/SO #:

Sampler's Name: _____ Sampler's Signature: _____

Proj. No. _____ Project Name _____ No./Type of Containers[2]

ANALYSIS REQUESTED: LAB VOLATILES

Lab use only
Due Date:

Temp. of coolers when received (C°): 1 2 3 4 5

Custody Seal N / Y

Intact N / Y

Screened For Radioactivity X

Matrix[1]	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	VOA	A/G 1 Lt.	250 ml	P/O	Lab Sample ID (Lab Use Only)
W	12/19	AM		✓	BEQ-RB02-01	3				12332-11 BW 12-21-95
W	12/20	1610		✓	BEQ-RB03-01	↓				12
W	12/14	LAB		✓	BEQ-TB02-01					13
W	12/20	1625		✓	BEQ-FB02-01	↓				14

Turn around time ☐ Priority 1 or Standard ☐ Priority 2 or 50% ☐ Priority 3 or 100% ☐ Priority 4 ERS *

* BTEX (602/8020), TPH (418.1 or 8015), VOLATILES (624/8240), IGNITABILITY, TOTAL LEAD (6010)

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
M D Smith	12/20	1800	B. Wilson	12/21/95	10:10
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

Remarks: 7 DAY TURNAROUND

Client's delivery of samples constitutes acceptance of Inchcape/ITS-Dallas terms and conditions contained in the Price Schedule.

[1] Matrix: WW - Wastewater; W - Water; S - Soil; SD - Solid; L - Liquid; A - Air Bag; C - Charcoal tube; SL - Sludge; O - Oil

[2] Container: VOA - 40 ml vial; A/G - Amber / Or Glass 1 Liter; 250 ml - Glass wide mouth; P/O - Plastic or other _____

Inchcape cannot accept verbal changes. Please Fax written changes to 214-238-5592

OFFICE USE ONLY

000138

Inchcape Testing Services Dallas 1089 East Collins Blvd., Richardson, TX 75081 (214) 238-5591

CHAIN OF CUSTODY RECORD

Report to:	Invoice to
Company: Baker Env.	Company:
Address:	Address:
Contact: Dan Bonk	Contact:
Phone:	Phone:
Fax:	PO/SO #:

Sampler's Name | Sampler's Signature

Lab use only
Due Date:
Temp. of coolers when received (C°): 1 2 3 4 5
Custody Seal N / Y
Intact N / Y
Screened For Radioactivity ☐

Proj. No. | Project Name | No./Type of Containers

Matrix[1]	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	VOA	A/G 1 Lt.	250 ml	P/O	ANALYSIS REQUESTED: X CLP Volatiles	Lab Sample ID (Lab Use Only)
W					BEQ-TW01B-01 MS MSD					X	-15
↓					LCS					↓	16
↓					MB						17
											18

Turn around time ☐ Priority 1 or Standard ☐ Priority 2 or 50% ☐ Priority 3 or 100% ☐ Priority 4 ERS *

* BTEX (602/8020), TPH (418.1 or 8015), VOLATILES (624/8240), IGNITABILITY, TOTAL LEAD (6010)

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
			B. Wilson	12/21/95	10:10
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

Remarks

Client's delivery of samples constitutes acceptance of Inchcape/ITS-Dallas terms and conditions contained in the Price Schedule.

[1] Matrix WW - Wastewater W - Water S - Soil SD - Solid L - Liquid A - Air Bag C - Charcoal tube SL - Sludge O - Oil
[2] Container VOA - 40 ml vial A/G - Amber / Or Glass 1 Liter 250 ml - Glass wide mouth P/O - Plastic or other _____

ITS - Dallas cannot accept verbal changes. Please Fax written changes to 214-238-5592

OFFICE USE ONLY

9600

SAMPLE LOG-IN SHEET

Lab Name: Inchcape Testing Services Page ___ of ___

Received By (Print Name): Becky Wilson Log-in Date: 12-21-95

Received By (Signature): Becky Wilson

Case Number: _____

Sample Delivery Group No.: 337-6100

SAS Number: _____

REMARKS:

1. Custody Seal(s) Present/Absent* Intact/Broken
2. Custody Seal Nos.: None
3. Chain-of-Custody Records Present/Absent*
4. Traffic Reports or Packing List Present/Absent*
5. Airbill Airbill/Sticker Present/Absent*
6. Airbill No.: 212480467 3
7. Sample Tags Present/Absent*
   Sample Tag Numbers Listed/Not Listed on Chain-of-Custody
8. Sample Condition: Intact/Broken*/Leaking
9. Does information on custody records, traffic reports, and sample tags agree? Yes/No* Two Samples were written twice on COC
10. Date Received at Lab: 12-21-95
11. Time Received: 10:10

Sample Transfer

Fraction: _____ _____

Area #: _____ _____

By: _____ _____

On: _____ _____

EPA SAMPLE #	CORRESPONDING SAMPLE TAG #	CORRESPONDING ASSIGNED LAB #	REMARKS: CONDITION OF SAMPLE SHIPMENT, ETC.
		12332-1	4°C - Intact
		2	4°C - Intact
		3	4°C - Intact
		4	4°C - Intact
		5	4°C - Intact
		6	4°C - Intact
		7	4°C - Intact
		8	4°C - Intact
		9	4°C - Intact
		10	4°C - Intact
		11	4°C - Intact
		12	4°C - Intact
		13	4°C - Intact
		14	4°C - Intact

* Contact SMO and attach record of resolution

Reviewed By: _____

Date: _____

Logbook No.: _____

Logbook Page No: _____

FORM DC-1

Inchcape Testing Services
Environmental Laboratories

1089 E. Collins Blvd.
Richardson, TX 75081
Tel. 214-238-5591
Fax. 214-238-5592

Baker Environmental
337 Environ. Screening
D95-12302 - CLP Summary Forms Package

Index

Inchcape Testing Services
Environmental Laboratories

1089 E. Collins Blvd.
Richardson, TX 75081
Tel. 214-258-5591
Fax. 214-258-5592

DATE RECEIVED: 20-DEC-1995
REPORT NUMBER: D95-12302
REPORT DATE: 28-DEC-1995

SAMPLE SUBMITTED BY : Baker Environmental, Inc.
ADDRESS : Airport Office Park, Bldg 3 - 420 Rouser
Coraopolis, PA 15108
ATTENTION : Mr. Dan Bonk
PROJECT : 337 Environ. Screening, BEQ
DATE SAMPLED : 18-DEC-1995

SAMPLE NUMBER : FB-01, FB-01MS, FB-01MSD, TB-01, TW01B, TW02B, TW02BD, TW02BMS, TW02BMSD, TW03B, TW04B, VBLKA, VBLKB, VLCSB

SDG NUMBER: D95-12302
CONTRACT NUMBER: N/A

SDG NARRATIVE

This is a resubmission of the data package D95-12302, which had been completed by U.S. EPA CLP methods and criteria.

CLP Volatile Organics Analysis

The original data package had been shipped to the client with some raw data attached which was not intended to included. The data in this package had been quantified incorrectly, and should have been discarded. The results on the Form 1's for this project were compiled from the correctly quantified data, and are correct.

In addition to the matrix spike and matrix spike duplicate analyses, which were analyzed in compliance with CLP guidelines, a laboratory control spike (LCS) analysis was conducted.

The matrix spike, matrix spike duplicate and laboratory control spike analyses were fortified with the full list of analytes, rather than the CLP spike list, because the laboratory routinely analyzes the full analyte list. Since all CLP spike compounds are included in this spiking mix, the results were not adversely affected.

No problems were encountered in the sample analysis for this project.

If you have any questions, please feel free to contact Ms. Jacqueline Mayhew, at (214) 238-5591.

Inchcape Testing Services
Environmental Laboratories

1089 E. Collins Blvd.
Richardson, TX 75081
Tel. 214-258-5591
Fax. 214-258-5592

Please refer to the attached Case Narrative Summary for sample identifications and analytical requests.

"I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted in diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature."

Alan Humason
Alan Humason
QA Coordinator

1/5/96
Date

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

BAKER SAMPLE NO.

TW01B

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Matrix: (soil/water) SOIL Lab Sample ID: 12302-5

Sample wt/vol: 5.0 (g/mL) G Lab File ID: DD4973801038

Level: (low/med) LOW Date Received: 12/20/95

% Moisture: not dec. 12 Date Analyzed: 12/21/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
75-01-4	Vinyl Chloride	11	U
74-83-9	Bromomethane	11	U
75-00-3	Chloroethane	11	U
75-35-4	1,1-Dichloroethene	11	U
67-64-1	Acetone	14	
75-15-0	Carbon Disulfide	11	U
75-09-2	Methylene chloride	11	U
75-34-3	1,1-Dichloroethane	11	U
156-59-2	1,2-Dichloroethene (Total)	11	U
78-93-3	2-Butanone	11	U
67-66-3	Chloroform	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
107-06-2	1,2-Dichloroethane	11	U
71-43-2	Benzene	11	U
79-01-6	Trichloroethene	11	U
78-87-5	1,2-Dichloropropane	11	U
75-27-4	Bromodichloromethane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
108-10-1	4-Methyl-2-pentanone	11	U
108-88-3	Toluene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
79-00-5	1,1,2-Trichloroethane	11	U
127-18-4	Tetrachloroethene	11	U
591-78-6	2-Hexanone	11	U
124-48-1	Chlorodibromomethane	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
95-47-6	Xylene (total)	11	U
100-42-5	Styrene	11	U
75-25-2	Bromoform	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BAKER SAMPLE NO.

TW01B

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Matrix: (soil/water) SOIL Lab Sample ID: 12302-5

Sample wt/vol: 5.0 (g/mL) G Lab File ID: DD4973801038

Level: (low/med) LOW Date Received: 12/20/95

% Moisture: not dec. 12 Date Analyzed: 12/21/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
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FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

BAKER SAMPLE NO.

TW02B

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Matrix: (soil/water) SOIL Lab Sample ID: 12302-3

Sample wt/vol: 5.0 (g/mL) G Lab File ID: DD4973601036

Level: (low/med) LOW Date Received: 12/20/95

% Moisture: not dec. 13 Date Analyzed: 12/21/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
75-01-4	Vinyl Chloride	12	U
74-83-9	Bromomethane	12	U
75-00-3	Chloroethane	12	U
75-35-4	1,1-Dichloroethene	12	U
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	12	U
75-09-2	Methylene chloride	12	U
75-34-3	1,1-Dichloroethane	12	U
156-59-2	1,2-Dichloroethene (Total)	12	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
107-06-2	1,2-Dichloroethane	12	U
71-43-2	Benzene	12	U
79-01-6	Trichloroethene	12	U
78-87-5	1,2-Dichloropropane	12	U
75-27-4	Bromodichloromethane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
108-10-1	4-Methyl-2-pentanone	12	U
108-88-3	Toluene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
79-00-5	1,1,2-Trichloroethane	12	U
127-18-4	Tetrachloroethene	12	U
591-78-6	2-Hexanone	12	U
124-48-1	Chlorodibromomethane	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
95-47-6	Xylene (total)	12	U
100-42-5	Styrene	12	U
75-25-2	Bromoform	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BAKER SAMPLE NO.

TW02B

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Matrix: (soil/water) SOIL Lab Sample ID: 12302-3

Sample wt/vol: 5.0 (g/mL) G Lab File ID: DD4973601036

Level: (low/med) LOW Date Received: 12/20/95

% Moisture: not dec. 13 Date Analyzed: 12/21/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
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FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

BAKER SAMPLE NO.

TW02BD

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Matrix: (soil/water) SOIL Lab Sample ID: 12302-4

Sample wt/vol: 5.0 (g/mL) G Lab File ID: DD4973701037

Level: (low/med) LOW Date Received: 12/20/95

% Moisture: not dec. 13 Date Analyzed: 12/21/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
75-01-4	Vinyl Chloride	12	U
74-83-9	Bromomethane	12	U
75-00-3	Chloroethane	12	U
75-35-4	1,1-Dichloroethene	12	U
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	12	U
75-09-2	Methylene chloride	12	U
75-34-3	1,1-Dichloroethane	12	U
156-59-2	1,2-Dichloroethene (Total)	12	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
107-06-2	1,2-Dichloroethane	12	U
71-43-2	Benzene	12	U
79-01-6	Trichloroethene	12	U
78-87-5	1,2-Dichloropropane	12	U
75-27-4	Bromodichloromethane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
108-10-1	4-Methyl-2-pentanone	12	U
108-88-3	Toluene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
79-00-5	1,1,2-Trichloroethane	12	U
127-18-4	Tetrachloroethene	12	U
591-78-6	2-Hexanone	12	U
124-48-1	Chlorodibromomethane	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
95-47-6	Xylene (total)	12	U
100-42-5	Styrene	12	U
75-25-2	Bromoform	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BAKER SAMPLE NO.

TW02BD

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Matrix: (soil/water) SOIL Lab Sample ID: 12302-4

Sample wt/vol: 5.0 (g/mL) G Lab File ID: DD4973701037

Level: (low/med) LOW Date Received: 12/20/95

% Moisture: not dec. 13 Date Analyzed: 12/21/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	76-13-1	TRICHLOROTRIFLUOROETHANE	2.59	10	NJ
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
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30.					

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

BAKER SAMPLE NO.

TW03B

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Matrix: (soil/water) SOIL Lab Sample ID: 12302-2

Sample wt/vol: 5.0 (g/mL) G Lab File ID: DD4973501035

Level: (low/med) LOW Date Received: 12/20/95

% Moisture: not dec. 16 Date Analyzed: 12/21/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
75-01-4	Vinyl Chloride	12	U
74-83-9	Bromomethane	12	U
75-00-3	Chloroethane	12	U
75-35-4	1,1-Dichloroethene	12	U
67-64-1	Acetone	18	
75-15-0	Carbon Disulfide	12	U
75-09-2	Methylene chloride	12	U
75-34-3	1,1-Dichloroethane	12	U
156-59-2	1,2-Dichloroethene (Total)	12	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
107-06-2	1,2-Dichloroethane	12	U
71-43-2	Benzene	12	U
79-01-6	Trichloroethene	12	U
78-87-5	1,2-Dichloropropane	12	U
75-27-4	Bromodichloromethane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
108-10-1	4-Methyl-2-pentanone	12	U
108-88-3	Toluene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
79-00-5	1,1,2-Trichloroethane	12	U
127-18-4	Tetrachloroethene	12	U
591-78-6	2-Hexanone	12	U
124-48-1	Chlorodibromomethane	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
95-47-6	Xylene (total)	12	U
100-42-5	Styrene	12	U
75-25-2	Bromoform	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

BAKER SAMPLE NO.

TW03B

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Matrix: (soil/water) SOIL Lab Sample ID: 12302-2

Sample wt/vol: 5.0 (g/mL) G Lab File ID: DD4973501035

Level: (low/med) LOW Date Received: 12/20/95

% Moisture: not dec. 16 Date Analyzed: 12/21/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
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FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

BAKER SAMPLE NO.

TW04B

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Matrix: (soil/water) SOIL Lab Sample ID: 12302-1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: DD4973401034

Level: (low/med) LOW Date Received: 12/20/95

% Moisture: not dec. 16 Date Analyzed: 12/21/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
75-01-4	Vinyl Chloride	12	U
74-83-9	Bromomethane	12	U
75-00-3	Chloroethane	12	U
75-35-4	1,1-Dichloroethene	12	U
67-64-1	Acetone	110	
75-15-0	Carbon Disulfide	12	U
75-09-2	Methylene chloride	12	U
75-34-3	1,1-Dichloroethane	12	U
156-59-2	1,2-Dichloroethene (Total)	12	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
107-06-2	1,2-Dichloroethane	12	U
71-43-2	Benzene	12	U
79-01-6	Trichloroethene	12	U
78-87-5	1,2-Dichloropropane	12	U
75-27-4	Bromodichloromethane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
108-10-1	4-Methyl-2-pentanone	12	U
108-88-3	Toluene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
79-00-5	1,1,2-Trichloroethane	12	U
127-18-4	Tetrachloroethene	12	U
591-78-6	2-Hexanone	12	U
124-48-1	Chlorodibromomethane	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
95-47-6	Xylene (total)	12	U
100-42-5	Styrene	12	U
75-25-2	Bromoform	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TW04B

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Matrix: (soil/water) SOIL Lab Sample ID: 12302-1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: DD4973401034

Level: (low/med) LOW Date Received: 12/20/95

% Moisture: not dec. 16 Date Analyzed: 12/21/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

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

BAKER SAMPLE NO.

FB-01

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Matrix: (soil/water) WATER Lab Sample ID: 12302-6

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5673201032

Level: (low/med) LOW Date Received: 12/20/95

% Moisture: not dec. _____ Date Analyzed: 12/21/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	10	U
75-09-2	Methylene chloride	10	U
75-34-3	1,1-Dichloroethane	10	U
156-60-5	1,2-Dichloroethene (Total)	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3	Xylenes (Total)	10	U
100-42-5	Styrene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

BAKER SAMPLE NO.

FB-01

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Matrix: (soil/water) WATER Lab Sample ID: 12302-6

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5673201032

Level: (low/med) LOW Date Received: 12/20/95

% Moisture: not dec. _____ Date Analyzed: 12/21/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FB-01

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Matrix: (soil/water) WATER Lab Sample ID: 12302-6

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5673201032

Level: (low/med) LOW Date Received: 12/20/95

% Moisture: not dec. _____ Date Analyzed: 12/21/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

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

BAKER SAMPLE NO.

TB-01

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Matrix: (soil/water) WATER Lab Sample ID: 12302-7

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5673301033

Level: (low/med) LOW Date Received: 12/20/95

% Moisture: not dec. _____ Date Analyzed: 12/21/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	10	U
75-09-2	Methylene chloride	10	U
75-34-3	1,1-Dichloroethane	10	U
156-60-5	1,2-Dichloroethene (Total)	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3	Xylenes (Total)	10	U
100-42-5	Styrene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

BAKER SAMPLE NO.

TB-01

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Matrix: (soil/water) WATER Lab Sample ID: 12302-7

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5673301033

Level: (low/med) LOW Date Received: 12/20/95

% Moisture: not dec. _____ Date Analyzed: 12/21/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TB-01

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Matrix: (soil/water) WATER Lab Sample ID: 12302-7

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5673301033

Level: (low/med) LOW Date Received: 12/20/95

% Moisture: not dec. _____ Date Analyzed: 12/21/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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FORM 2
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Level: (low/med) LOW

	BAKER SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	OTHER	TOT OUT
01	VBLKB	95	97	115		0
02	VLCSB	91	105	118		0
03	TW04B	104	87	98		0
04	TW03B	100	93	95		0
05	TW02B	94	99	93		0
06	TW02BD	95	100	99		0
07	TW01B	91	96	93		0
08	TW02BMS	92	102	106		0
09	TW02BMSD	95	102	103		0
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11						
12						
13						
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26						
27						
28						
29						
30						

		QC LIMITS
SMC1	= Toluene-d8	(84-138)
SMC2	= Bromofluorobenzene	(59-113)
SMC3	= 1,2-Dichloroethane-d4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

	EPA SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	OTHER	TOT OUT
01	VBLKA	107	107	88		0
02	VLCSA	109	106	98		0
03	FB-01	110	92	88		0
04	TB-01	109	94	88		0
05	FB-01MS	111	100	97		0
06	FB-01MSD	107	102	98		0
07						
08						
09						
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30						

		QC LIMITS
SMC1	= Toluene-d8	(88-110)
SMC2	= Bromofluorobenzene	(86-115)
SMC3	= 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

FORM 3
SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Matrix Spike - BAKER Sample No.: TW02B Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	58	0.0	63	109	59-172
Trichloroethene	58	0.0	62	107	62-137
Benzene	58	0.0	61	105	66-142
Toluene	58	0.0	58	100	59-139
Chlorobenzene	58	0.0	58	100	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	58	59	102	7	22	59-172
Trichloroethene	58	61	105	2	24	62-137
Benzene	58	64	110	5	21	66-142
Toluene	58	58	100	0	21	59-139
Chlorobenzene	58	62	107	7	21	60-133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

BAKER SAMPLE NO.

TW02BMS

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Matrix: (soil/water) SOIL Lab Sample ID: 12302-8

Sample wt/vol: 5.0 (g/mL) G Lab File ID: DD4973901039

Level: (low/med) LOW Date Received: 12/20/95

% Moisture: not dec. 13 Date Analyzed: 12/21/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	60	
75-01-4	Vinyl Chloride	59	
74-83-9	Bromomethane	63	
75-00-3	Chloroethane	60	
75-35-4	1,1-Dichloroethene	63	
67-64-1	Acetone	55	
75-15-0	Carbon Disulfide	46	
75-09-2	Methylene chloride	62	
75-34-3	1,1-Dichloroethane	58	
156-59-2	1,2-Dichloroethene (Total)	120	
78-93-3	2-Butanone	110	
67-66-3	Chloroform	62	
71-55-6	1,1,1-Trichloroethane	55	
56-23-5	Carbon Tetrachloride	46	
107-06-2	1,2-Dichloroethane	57	
71-43-2	Benzene	61	
79-01-6	Trichloroethene	62	
78-87-5	1,2-Dichloropropane	66	
75-27-4	Bromodichloromethane	47	
10061-01-5	cis-1,3-Dichloropropene	53	
108-10-1	4-Methyl-2-pentanone	56	
108-88-3	Toluene	58	
10061-02-6	trans-1,3-Dichloropropene	51	
79-00-5	1,1,2-Trichloroethane	62	
127-18-4	Tetrachloroethene	58	
591-78-6	2-Hexanone	37	
124-48-1	Chlorodibromomethane	47	
108-90-7	Chlorobenzene	58	
100-41-4	Ethylbenzene	54	
95-47-6	Xylene (total)	180	
100-42-5	Styrene	58	
75-25-2	Bromoform	45	
79-34-5	1,1,2,2-Tetrachloroethane	63	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

BAKER SAMPLE NO.

TW02BMSD

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Matrix: (soil/water) SOIL Lab Sample ID: 12302-9

Sample wt/vol: 5.0 (g/mL) G Lab File ID: DD4974001040

Level: (low/med) LOW Date Received: 12/20/95

% Moisture: not dec. 13 Date Analyzed: 12/21/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	56	
75-01-4	Vinyl Chloride	58	
74-83-9	Bromomethane	59	
75-00-3	Chloroethane	58	
75-35-4	1,1-Dichloroethene	59	
67-64-1	Acetone	28	
75-15-0	Carbon Disulfide	58	
75-09-2	Methylene chloride	61	
75-34-3	1,1-Dichloroethane	58	
156-59-2	1,2-Dichloroethene (Total)	120	
78-93-3	2-Butanone	20	
67-66-3	Chloroform	57	
71-55-6	1,1,1-Trichloroethane	57	
56-23-5	Carbon Tetrachloride	60	
107-06-2	1,2-Dichloroethane	56	
71-43-2	Benzene	64	
79-01-6	Trichloroethene	61	
78-87-5	1,2-Dichloropropane	63	
75-27-4	Bromodichloromethane	56	
10061-01-5	cis-1,3-Dichloropropene	59	
108-10-1	4-Methyl-2-pentanone	59	
108-88-3	Toluene	58	
10061-02-6	trans-1,3-Dichloropropene	57	
79-00-5	1,1,2-Trichloroethane	63	
127-18-4	Tetrachloroethene	56	
591-78-6	2-Hexanone	39	
124-48-1	Chlorodibromomethane	60	
108-90-7	Chlorobenzene	62	
100-41-4	Ethylbenzene	61	
95-47-6	Xylene (total)	180	
100-42-5	Styrene	61	
75-25-2	Bromoform	61	
79-34-5	1,1,2,2-Tetrachloroethane	63	

FORM 3
WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Matrix Spike - BAKER Sample No.: FB-01

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	100	0.000	96	96	61-145
Trichloroethene	100	0.000	100	100	71-120
Benzene	100	0.000	90	90	76-127
Toluene	100	0.000	96	96	76-125
Chlorobenzene	100	0.000	94	94	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	100	98	98	2	14	61-145
Trichloroethene	100	100	100	0	14	71-120
Benzene	100	93	93	3	11	76-127
Toluene	100	94	94	2	13	76-125
Chlorobenzene	100	93	93	1	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

BAKER SAMPLE NO.

FB-01MS

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Matrix: (soil/water) WATER Lab Sample ID: 12302-12

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5674501045

Level: (low/med) LOW Date Received: 12/20/95

% Moisture: not dec. _____ Date Analyzed: 12/21/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 2.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	110	
75-01-4	Vinyl chloride	170	
74-83-9	Bromomethane	140	
75-00-3	Chloroethane	170	
75-35-4	1,1-Dichloroethene	96	
67-64-1	Acetone	44	
75-15-0	Carbon disulfide	110	
75-09-2	Methylene chloride	100	
75-34-3	1,1-Dichloroethane	100	
156-60-5	1,2-Dichloroethene (Total)	180	
78-93-3	2-Butanone	50	
67-66-3	Chloroform	94	
71-55-6	1,1,1-Trichloroethane	100	
56-23-5	Carbon tetrachloride	100	
107-06-2	1,2-Dichloroethane	87	
71-43-2	Benzene	90	
79-01-6	Trichloroethene	100	
78-87-5	1,2-Dichloropropane	90	
75-27-4	Bromodichloromethane	95	
10061-01-5	cis-1,3-Dichloropropene	90	
108-10-1	4-Methyl-2-pentanone	76	
108-88-3	Toluene	96	
10061-02-6	trans-1,3-Dichloropropene	94	
79-00-5	1,1,2-Trichloroethane	88	
127-18-4	Tetrachloroethene	100	
591-78-6	2-Hexanone	58	
124-48-1	Dibromochloromethane	89	
108-90-7	Chlorobenzene	94	
100-41-4	Ethylbenzene	93	
108-38-3	Xylenes (Total)	260	
100-42-5	Styrene	88	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

BAKER SAMPLE NO.

FB-01MS

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Matrix: (soil/water) WATER Lab Sample ID: 12302-12

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5674501045

Level: (low/med) LOW Date Received: 12/20/95

% Moisture: not dec. _____ Date Analyzed: 12/21/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 2.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	84	
79-34-5	1,1,2,2-Tetrachloroethane	88	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

BAKER SAMPLE NO.

FB-01MSD

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Matrix: (soil/water) WATER Lab Sample ID: 12302-13

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5674601046

Level: (low/med) LOW Date Received: 12/20/95

% Moisture: not dec. _____ Date Analyzed: 12/21/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 2.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	100	
75-01-4	Vinyl chloride	160	
74-83-9	Bromomethane	140	
75-00-3	Chloroethane	170	
75-35-4	1,1-Dichloroethene	98	
67-64-1	Acetone	50	
75-15-0	Carbon disulfide	110	
75-09-2	Methylene chloride	100	
75-34-3	1,1-Dichloroethane	100	
156-60-5	1,2-Dichloroethene (Total)	180	
78-93-3	2-Butanone	51	
67-66-3	Chloroform	95	
71-55-6	1,1,1-Trichloroethane	100	
56-23-5	Carbon tetrachloride	100	
107-06-2	1,2-Dichloroethane	87	
71-43-2	Benzene	93	
79-01-6	Trichloroethene	100	
78-87-5	1,2-Dichloropropane	90	
75-27-4	Bromodichloromethane	92	
10061-01-5	cis-1,3-Dichloropropene	88	
108-10-1	4-Methyl-2-pentanone	76	
108-88-3	Toluene	94	
10061-02-6	trans-1,3-Dichloropropene	91	
79-00-5	1,1,2-Trichloroethane	87	
127-18-4	Tetrachloroethene	98	
591-78-6	2-Hexanone	64	
124-48-1	Dibromochloromethane	90	
108-90-7	Chlorobenzene	93	
100-41-4	Ethylbenzene	96	
108-38-3	Xylenes (Total)	270	
100-42-5	Styrene	91	

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

BAKER SAMPLE NO.

FB-01MSD

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Matrix: (soil/water) WATER Lab Sample ID: 12302-13

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5674601046

Level: (low/med) LOW Date Received: 12/20/95

% Moisture: not dec. _____ Date Analyzed: 12/21/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 2.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	85	
79-34-5	1,1,2,2-Tetrachloroethane	86	

FORM 4
VOLATILE METHOD BLANK SUMMARY

BAKER SAMPLE NO.

VBLKA

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Lab File ID: AA5672201022 Lab Sample ID: VBLKA

Date Analyzed: 12/21/95 Time Analyzed: 1445

GC Column: J&W DB-624ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: ITS7

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	BAKER SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VLCSA	12302-14	AA5672301023	1505
02	FB-01	12302-6	AA5673201032	1757
03	TB-01	12302-7	AA5673301033	1816
04	FB-01MS	12302-12	AA5674501045	2202
05	FB-01MSD	12302-13	AA5674601046	2221
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COMMENTS:

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

BAKER SAMPLE NO.

VBLKA

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

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

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5672201022

Level: (low/med) LOW Date Received: 12/20/95

% Moisture: not dec. _____ Date Analyzed: 12/21/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon disulfide	10	U
75-09-2	Methylene chloride	10	U
75-34-3	1,1-Dichloroethane	10	U
156-60-5	1,2-Dichloroethene (Total)	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
108-38-3	Xylenes (Total)	10	U
100-42-5	Styrene	10	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

BAKER SAMPLE NO.

VBLKA

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

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

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5672201022

Level: (low/med) LOW Date Received: 12/20/95

% Moisture: not dec. _____ Date Analyzed: 12/21/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKA

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

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

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: AA5672201022

Level: (low/med) LOW Date Received: 12/20/95

% Moisture: not dec. _____ Date Analyzed: 12/21/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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FORM 4
VOLATILE METHOD BLANK SUMMARY

BAKER SAMPLE NO.

VBLKB

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Lab File ID: DD4972801028 Lab Sample ID: VBLKB

Date Analyzed: 12/21/95 Time Analyzed: 1810

GC Column: J&W DB-624ID: 0.053 (mm) Heated Purge: (Y/N) N

Instrument ID: ITS2

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	BAKER SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VLCSB	12302-10	DD4972901029	1836
02	TW04B	12302-1	DD4973401034	2014
03	TW03B	12302-2	DD4973501035	2033
04	TW02B	12302-3	DD4973601036	2052
05	TW02BD	12302-4	DD4973701037	2112
06	TW01B	12302-5	DD4973801038	2131
07	TW02BMS	12302-8	DD4973901039	2151
08	TW02BMSD	12302-9	DD4974001040	2211
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COMMENTS:

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

BAKER SAMPLE NO.

VBLKB

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

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

Sample wt/vol: 5.0 (g/mL) G Lab File ID: DD4972801028

Level: (low/med) LOW Date Received: 12/20/95

% Moisture: not dec. _____ Date Analyzed: 12/21/95

GC Column: J&W DB-624 ID: 0.05 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
75-35-4	1,1-Dichloroethene	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene chloride	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	1,2-Dichloroethene (Total)	10	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	10	U
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-10-1	4-Methyl-2-pentanone	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
127-18-4	Tetrachloroethene	10	U
591-78-6	2-Hexanone	10	U
124-48-1	Chlorodibromomethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
95-47-6	Xylene (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKB

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

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

Sample wt/vol: 5.0 (g/mL) G Lab File ID: DD4972801028

Level: (low/med) LOW Date Received: 12/20/95

% Moisture: not dec. _____ Date Analyzed: 12/21/95

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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5A

BFB ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: 11-21-95

Lab File ID: DD4720101001 BFB Injection Date: 11/21/95

Instrument ID: ITS2 BFB Injection Time: 1208

Matrix: (soil/water) SOIL Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	26.7
75	30.0 - 66.0% of mass 95	57.3
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.0
173	Less than 2.0% of mass 174	0.5 (0.6)1
174	50.0 - 120.0% of mass 95	79.0
175	4.0 - 9.0% of mass 174	6.5 (8.2)1
176	93.0 - 101.0% of mass 174	77.6 (98.2)1
177	5.0 - 9.0% of mass 176	5.1 (6.6)2

1-Value is % of mass 174 2-Value is % of mass 176

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	VSTD010	DD4720201002	11/21/95	1357
02	VSTD020	VSTD020	DD4720301003	11/21/95	1420
03	VSTD050	VSTD050	DD4720401004	11/21/95	1442
04	VSTD100	VSTD100	DD4720501005	11/21/95	1502
05	VSTD200	VSTD200	DD4720601006	11/21/95	1522
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FORM 5
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Lab File ID: AA5670101001 BFB Injection Date: 12/21/95

Instrument ID: ITS7 BFB Injection Time: 0811

GC Column: J&W DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	23.9
75	30.0 - 66.0% of mass 95	55.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.1
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	50.0 - 120.0% of mass 95	77.3
175	4.0 - 9.0% of mass 174	5.9 (7.6)1
176	93.0 - 101.0% of mass 174	75.2 (97.3)1
177	5.0 - 9.0% of mass 176	5.2 (6.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	VSTD010	AA5671601016	12/21/95	1249
02	VSTD020	VSTD020	AA5671701017	12/21/95	1309
03	VSTD050	VSTD050	AA5671801018	12/21/95	1329
04	VSTD100	VSTD100	AA5671901019	12/21/95	1348
05	VSTD200	VSTD200	AA5672001020	12/21/95	1407
06	VBLKA	VBLKA	AA5672201022	12/21/95	1445
07	VLCSA	12302-14	AA5672301023	12/21/95	1505
08	FB-01	12302-6	AA5673201032	12/21/95	1757
09	TB-01	12302-7	AA5673301033	12/21/95	1816
10	FB-01MS	12302-12	AA5674501045	12/21/95	2202
11	FB-01MSD	12302-13	AA5674601046	12/21/95	2221
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FORM 5
BFB ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Lab File ID: DD4979801098 BFB Injection Date: 12/21/95

Instrument ID: ITS2 BFB Injection Time: 1655

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	27.2
75	30.0 - 66.0% of mass 95	58.6
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.1
173	Less than 2.0% of mass 174	0.2 (0.2)1
174	50.0 - 120.0% of mass 95	79.6
175	4.0 - 9.0% of mass 174	6.1 (7.7)1
176	93.0 - 101.0% of mass 174	77.5 (97.4)1
177	5.0 - 9.0% of mass 176	5.8 (7.4)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD050	DD4979901099	12/21/95	1742
02	VBLKB	VBLKB	DD4972801028	12/21/95	1810
03	VLCSB	12302-10	DD4972901029	12/21/95	1836
04	TW04B	12302-1	DD4973401034	12/21/95	2014
05	TW03B	12302-2	DD4973501035	12/21/95	2033
06	TW02B	12302-3	DD4973601036	12/21/95	2052
07	TW02BD	12302-4	DD4973701037	12/21/95	2112
08	TW01B	12302-5	DD4973801038	12/21/95	2131
09	TW02BMS	12302-8	DD4973901039	12/21/95	2151
10	TW02BMSD	12302-9	DD4974001040	12/21/95	2211
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Inchcape Testing Services - Dallas

INITIAL CALIBRATION DATA

Start Cal Date : 21-NOV-95 13:57
End Cal Date : 21-NOV-95 14:20
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem1/its2.i/11-21-95.b/8240_sow2.m
Cal Date : 21-Dec-1995 15:25 sapetty
Curve Type : Average

Calibration File Names:
Level 1: /chem1/its2.i/11-21-95.b/DD4720201002.d
Level 2: /chem1/its2.i/11-21-95.b/DD4720301003.d
Level 3: /chem1/its2.i/11-21-95.b/DD4720401004.d
Level 4: /chem1/its2.i/11-21-95.b/DD4720501005.d
Level 5: /chem1/its2.i/11-21-95.b/DD4720601006.d

Compound	10 Level 1	20 Level 2	50 Level 3	100 Level 4	200 Level 5	$\overline{RRF}$	% RSD
1 Chloromethane	1.47889	1.46858	1.46543	1.26864	1.54520	1.44535	7.196
3 Bromomethane	2.40374	2.03353	2.02499	1.69107	1.92465	2.01560	12.762
4 Vinyl Chloride	1.78322	1.80787	1.72833	1.55187	1.73962	1.72218	5.837
5 Chloroethane	1.22364	1.07776	1.01188	0.71517	0.76683	0.95906	22.322
6 Methylene chloride	1.19622	1.02527	0.92741	0.82895	0.95265	0.98610	13.881
7 Acetone	1.38824	1.47042	1.69951	1.68796	1.66139	1.58150	9.016
8 Carbon Disulfide	3.15217	2.94499	2.89731	2.50249	2.94227	2.88784	8.207
9 1,1-Dichloroethene	1.11736	1.03512	1.05374	0.92111	1.03742	1.03295	6.861
10 1,1-Dichloroethane	2.36903	2.04801	2.06105	1.80209	2.07833	2.07170	9.709
11 trans-1,2-Dichloroethene	1.20390	1.07345	1.03627	0.92573	1.08155	1.06418	9.380
12 cis-1,2-Dichloroethene	1.31854	1.02756	1.10475	0.98086	1.16257	1.11885	11.769
13 Chloroform	2.68195	2.48541	2.27726	2.05342	2.34221	2.36805	9.908
15 1,2-Dichloroethane	1.70331	1.45901	1.36693	1.30002	1.46670	1.45919	10.477
17 2-Butanone	0.02537	0.01497	0.01597	0.03447	0.04160	0.02648	43.743
18 1,1,1-Trichloroethane	0.60786	0.54533	0.55568	0.48746	0.55632	0.55053	7.787
19 Carbon Tetrachloride	0.38559	0.32928	0.37405	0.33828	0.40905	0.36725	9.043
20 Bromodichloromethane	0.58254	0.52282	0.52412	0.47601	0.56088	0.53327	7.652
21 1,2-Dichloropropane	0.30431	0.29055	0.28796	0.27108	0.30049	0.29088	4.461
22 cis-1,3-Dichloropropene	0.41080	0.37942	0.38038	0.34644	0.39037	0.38148	6.108
23 Trichloroethene	0.41598	0.36470	0.35629	0.31965	0.37039	0.36540	9.441
24 Chlorodibromomethane	0.43165	0.36074	0.39850	0.36893	0.41417	0.39480	7.573
25 1,1,2-Trichloroethane	0.28367	0.23256	0.23036	0.20926	0.23424	0.23802	11.533
26 Benzene	0.79763	0.69555	0.70264	0.61910	0.71249	0.70548	8.995
27 trans-1,3-Dichloropropene	0.33299	0.31230	0.31818	0.27611	0.32899	0.31371	7.200
29 Bromoform	0.24804	0.21895	0.24006	0.23483	0.27591	0.24356	8.615
30 4-Methyl-2-pentanone	0.31701	0.32179	0.29511	0.30939	0.36779	0.32222	8.504
31 2-Hexanone	0.30172	0.21187	0.19879	0.31838	0.35431	0.27701	24.655

FORM VI

1-5-96

Inchcape Testing Services - Dallas

INITIAL CALIBRATION DATA

Start Cal Date : 21-NOV-95 13:57
End Cal Date : 21-NOV-95 14:20
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem1/its2.i/11-21-95.b/8240_sow2.m
Cal Date : 21-Dec-1995 15:25 sapetty
Curve Type : Average

Compound	10 Level 1	20 Level 2	50 Level 3	100 Level 4	200 Level 5	RRF	% RSD
32 Tetrachloroethene	1.36423	1.22787	1.12642	0.96525	1.12841	1.16244	12.639
33 1,1,2,2-Tetrachloroethane	1.14737	1.07856	0.98988	0.99424	1.07928	1.05787	6.265
34 Toluene	0.67753	0.61739	0.63289	0.53731	0.62287	0.61760	8.216
36 Chlorobenzene	0.85760	0.76135	0.73271	0.64379	0.74454	0.74800	10.203
37 Ethylbenzene	0.36012	0.32519	0.33794	0.30862	0.34277	0.33493	5.766
38 Styrene	0.60637	0.52758	0.59902	0.54296	0.61741	0.57867	7.002
39 m,p-Xylene	0.93457	0.81755	0.82112	0.72532	0.83184	0.82608	8.989
40 o-Xylene	0.38905	0.34521	0.38674	0.34095	0.38965	0.37032	6.734
$ 14 1,2-Dichloroethane-d4 (SS)	1.54463	1.32652	1.33769	1.45279	1.37640	1.40760	6.478
$ 35 Toluene-d8 (SS)	0.97016	0.96489	1.03864	0.99932	0.99525	0.99365	2.950
$ 41 Bromofluorobenzene (SS)	0.41206	0.47629	0.52914	0.55575	0.50399	0.49544	11.131

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Instrument ID: ITS7 Calibration Date(s): 12/21/95 12/21/95

Heated Purge: (Y/N) N Calibration Time(s): 1309 1407

GC Column: J&W DB-624 ID: 0.53 (mm)

LAB FILE ID: RRF10 =AA5671601016 RRF20 =AA5671701017
RRF50 =AA5671801018 RRF100=AA5671901019 RRF200=AA5672001020

COMPOUND		RRF10	RRF20	RRF50	RRF100	RRF200	$\overline{RRF}$	% RSD
Bromomethane	*	1.209	1.146	1.206	1.146	1.192	1.180	2.7*
Vinyl chloride	*	1.110	1.009	0.943	0.707	0.998	0.953	15.8*
Chloroethane		0.822	0.598	0.592	0.404	0.255	0.534	40.3
Methylene chloride		0.958	0.910	0.910	0.866	0.947	0.918	4.0
Acetone		0.914	0.895	0.817	0.720	0.741	0.817	10.7
Carbon disulfide		2.245	2.320	2.412	2.406	2.716	2.420	7.4
1,1-Dichloroethene	*	1.011	1.039	1.089	1.098	1.189	1.085	6.3*
1,1-Dichloroethane	*	2.095	1.946	2.015	2.001	2.274	2.066	6.2*
Chloroform	*	2.717	2.663	2.724	2.659	3.008	2.754	5.3*
1,2-Dichloroethane	*	2.057	2.085	2.195	2.088	2.304	2.146	4.8*
2-Butanone		1.018	1.058	1.046	0.957	1.034	1.023	3.9
1,1,1-Trichloroethane	*	0.662	0.641	0.681	0.635	0.664	0.657	2.8*
Carbon tetrachloride	*	0.640	0.631	0.682	0.630	0.662	0.649	3.5*
Bromodichloromethane	*	0.613	0.616	0.669	0.625	0.656	0.636	4.0*
1,2-Dichloropropane		0.316	0.306	0.320	0.296	0.303	0.308	3.2
cis-1,3-Dichloropropene	*	0.413	0.428	0.470	0.439	0.462	0.442	5.3*
Trichloroethene	*	0.421	0.401	0.422	0.390	0.402	0.407	3.4*
Dibromochloromethane	*	0.500	0.528	0.566	0.542	0.548	0.537	4.6*
1,1,2-Trichloroethane	*	0.330	0.321	0.331	0.301	0.304	0.317	4.5*
Benzene	*	0.741	0.707	0.744	0.675	0.693	0.712	4.3*
trans-1,3-Dichloropropene	*	0.392	0.410	0.450	0.427	0.447	0.425	5.8*
Bromoform	*	0.267	0.313	0.355	0.352	0.366	0.331	12.3*
4-Methyl-2-pentanone		0.490	0.516	0.573	0.499	0.505	0.517	6.4
2-Hexanone		0.368	0.402	0.449	0.420	0.382	0.404	7.9
Tetrachloroethene	*	0.522	0.493	0.493	0.479	0.485	0.494	3.3*
1,1,2,2-Tetrachloroethane	*	0.530	0.531	0.535	0.518	0.488	0.520	3.7*
Toluene	*	1.031	1.026	1.022	0.999	1.017	1.019	1.2*
Chlorobenzene	*	0.795	0.782	0.800	0.775	0.780	0.786	1.3*
Ethylbenzene	*	0.285	0.326	0.332	0.337	0.352	0.326	7.8*
Styrene	*	0.454	0.483	0.623	0.635	0.648	0.569	16.2*
Chloromethane		0.954	0.998	1.010	0.998	1.036	0.999	3.0
1,2-Dichloroethene (Total)	*	1.125	1.152	1.264	1.243	1.390	1.235	8.5*
Xylene (Total)		0.903	0.956	1.180	1.202	1.345	1.117	16.4
1,2-Dichloroethane-d4 (SS)		1.753	1.659	1.737	1.664	1.867	1.736	4.9
Toluene-d8 (SS)		0.890	0.786	0.822	0.826	0.833	0.831	4.5
Bromofluorobenzene (SS)	*	0.454	0.424	0.503	0.529	0.519	0.486	9.2*

* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

Data File: /chem1/its2.i/12-21-95.b/DD4979901099.d
Report Date: 05-Jan-1996 10:07

Inchcape Testing Services - Dallas

CONTINUING CALIBRATION COMPOUNDS FORM VII

Instrument ID: its2.i
Lab File ID: DD4979901099.d
Analysis Type: SOIL
Lab Sample ID: VSTD050
Quant Type: ISTD

Injection Date: 21-DEC-1995 17:42
Init. Calibration Date(s): 11/21/95 11/21/95
Init. Calibration Times: 13:57 14:20
Method File: /chem1/its2.i/12-21-95.b/8240_sow2.

	COMPOUND	RRF	RF50	MIN RRF	%D	MAX %D	
	1 Chloromethane	1.445	1.624	0.010	12.4	100.0	
	2 Vinyl Chloride	1.722	1.855	0.100	7.7	25.0	
	3 Bromomethane	2.016	2.189	0.100	8.6	25.0	
	4 Chloroethane	0.959	1.104	0.010	15.1	100.0	
	5 1,1-Dichloroethene	1.033	1.103	0.100	6.8	25.0	
	6 Acetone	0.343	0.211	0.010	38.5	100.0	
	7 Carbon Disulfide	2.888	2.897	0.010	0.3	100.0	
	8 Methylene chloride	0.986	1.025	0.010	4.0	100.0	
	9 trans-1,2-Dichloroethene	1.064	1.153	0.010	8.4	100.0	
	10 1,1-Dichloroethane	2.072	2.324	0.200	12.2	25.0	
	11 cis-1,2-Dichloroethene	1.119	1.213	0.010	8.4	100.0	
	12 1,2-Dichloroethene (total)	1.091	1.183	0.010	7.8	25.0	
	13 2-Butanone	0.028	0.010	0.010	64.4	100.0	
	15 Chloroform	2.368	2.768	0.200	16.9	25.0	
	16 1,1,1-Trichloroethane	0.551	0.653	0.100	18.6	25.0	
	17 Carbon Tetrachloride	0.367	0.443	0.100	20.5	25.0	
$	18 1,2-Dichloroethane-d4 (SS)	1.408	1.580	0.010	12.3	100.0	
	19 1,2-Dichloroethane	1.459	1.825	0.100	25.1	25.0	<-
	20 Benzene	0.705	0.712	0.500	1.0	25.0	
	22 Trichloroethene	0.365	0.382	0.300	4.6	25.0	
	23 1,2-Dichloropropane	0.291	0.295	0.010	1.3	100.0	
	24 Bromodichloromethane	0.533	0.606	0.200	13.6	25.0	
	25 cis-1,3-Dichloropropene	0.381	0.411	0.200	7.8	25.0	
	26 4-Methyl-2-pentanone	0.325	0.365	0.010	12.1	100.0	
$	27 Toluene-d8 (SS)	0.994	0.888	0.010	10.6	100.0	
	28 Toluene	0.618	0.661	0.400	7.0	25.0	
	29 trans-1,3-Dichloropropene	0.314	0.375	0.100	19.7	25.0	
	30 1,1,2-Trichloroethane	0.238	0.254	0.100	6.6	25.0	
	31 Tetrachloroethene	1.162	1.313	0.200	12.9	25.0	
	32 2-Hexanone	0.277	0.369	0.010	33.2	100.0	
	33 Chlorodibromomethane	0.395	0.452	0.100	14.4	25.0	
	35 Chlorobenzene	0.748	0.783	0.500	4.7	25.0	
	36 Ethylbenzene	0.335	0.359	0.100	7.2	25.0	
	37 Xylene (total)	0.391	0.417	0.300	6.2	25.0	
	38 m,p-Xylene	0.413	0.433	0.300	4.8	25.0	
	39 o-Xylene	0.370	0.401	0.300	8.4	25.0	
	40 Styrene	0.579	0.601	0.300	3.8	25.0	
	41 Bromoform	0.244	0.287	0.100	17.8	25.0	
$	42 Bromofluorobenzene (SS)	0.495	0.520	0.200	4.9	25.0	
	43 1,1,2,2-Tetrachloroethane	1.058	1.153	0.300	9.0	25.0	

FORM VII

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Lab File ID (Standard): AA5672001020 Date Analyzed: 12/21/95

Instrument ID: ITS7 Time Analyzed: 1407

GC Column: J&W DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS1 (BCM) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (CBZ) AREA #	RT #
	12 HOUR STD	327766	4.56	1430581	5.36	1061524	7.81
	UPPER LIMIT	655532	5.06	2861162	5.86	2123048	8.31
	LOWER LIMIT	163883	4.06	715290	4.86	530762	7.31
	CLIENT SAMPLE NO.						
01	VBLKA	446164	4.55	1650097	5.36	1235940	7.81
02	VLCSA	417256	4.55	1615855	5.36	1183755	7.82
03	FB-01	446535	4.55	1656784	5.36	1168796	7.82
04	TB-01	440709	4.55	1643593	5.36	1185964	7.81
05	FB-01MS	425582	4.54	1532918	5.36	1082524	7.81
06	FB-01MSD	418454	4.54	1525927	5.35	1126263	7.81
07							
08							
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21							
22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: Case No.: SAS No.: SDG No.: V12302

Lab File ID (Standard): DD4979901099 Date Analyzed: 12/21/95

Instrument ID: ITS2 Time Analyzed: 1742

GC Column: J&W DB-624 ID: 0.05 (mm) Heated Purge: (Y/N) Y

		IS1 (BCM) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (CBZ) AREA #	RT #
	12 HOUR STD	298257	4.41	1188062	5.31	860952	7.87
	UPPER LIMIT	596514	4.91	2376124	5.81	1721904	8.37
	LOWER LIMIT	149128	3.91	594031	4.81	430476	7.37
	CLIENT SAMPLE NO.						
01	VBLKB	315801	4.40	1353619	5.31	921745	7.86
02	VLCSB	306165	4.41	1152289	5.31	832486	7.87
03	TW04B	336470	4.42	1253790	5.32	797271	7.86
04	TW03B	352628	4.42	1332084	5.32	877028	7.86
05	TW02B	391826	4.42	1572244	5.32	1129306	7.87
06	TW02BD	347320	4.42	1414689	5.32	1007331	7.86
07	TW01B	328903	4.42	1265557	5.32	908593	7.87
08	TW02BMS	342271	4.41	1365922	5.32	1022864	7.86
09	TW02BMSD	362010	4.42	1410134	5.32	1011078	7.87
10							
11							
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18							
19							
20							
21							
22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = + 0.50 minutes of internal standard RT
RT LOWER LIMIT = - 0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

Inchcape Testing Services Environmental Laboratories 1089 East Collins Blvd., #100 Richardson, TX 75081 (214) 238-5591 CHAIN OF CUSTODY RECORD

STI

Report to:
Company: Dan Bank
Address: 420 Rouser Rd
AOP BLD 63
Coraopolis, PA
Contact: Baker Environmental
Phone: 1-800-553-1153
Fax: 1-412-269-2002

Invoice to
Company:
Address:
SAME
Contact:
Phone:
PO/SO #:

Lab use only
Due Date:

Temp. of coolers when received (C°): 1 2 3 4 5 4

Custody Seal N (Y)
Intact N (Y)
Screened For Radioactivity

ANALYSIS REQUESTED

Sampler's Name: Michael D. Smith
Sampler's Signature: Michael D Smith

Proj. No.: 337
Project Name: Environmental Screening, BEQ

Matrix[1]	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	No./Type of Containers[2] VOA	A/G 1 Lt.	250 ml	P/O	CLP VOLATILES	Lab Sample ID (Lab Use Only)
S	12/18	1558		✓	BEQ-TW04B-02	2 40ml				✓	12302-1
S	12/18	1313		✓	BEQ-TW03B-02					✓	2
S	12/19	0953		✓	BEQ-TW02B-02 (MS/MSD)					✓	3
S	12/19	0955		✓	BEQ-TW02BD-02					✓	4
S	12/18	1615		✓	BEQ-TW01B-03					✓	5
W	12/19	1330			BEQ-FB01	3				✓	6
W	12/5	1330			BEQ-TB01 (LAB)	2				✓	7

Turn around time ☐ Priority 1 or Standard ☐ Priority 2 or 50% ☐ Priority 3 or 100% ☐ Priority 4 ERS *

* BTEX (602/8020), TPH (418.1 or 8015), VOLATILES (624/8240), IGNITABILITY, TOTAL LEAD (6010)

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
M D Smith	12/19	1800	Kim Haney	12-20-95	11:30a.m.
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

Remarks: 7 Day TURN AROUND
AirBill 212 480 4684

Client's delivery of samples constitutes acceptance of Inchcape/ITS-Dallas terms and conditions contained in the Price Schedule.

[1] Matrix WW - Wastewater W - Water S - Soil SD - Solid L - Liquid A - Air Bag C - Charcoal tube SL - Sludge O - Oil
[2] Container VOA - 40 ml vial A/G - Amber / Or Glass 1 Liter 250 ml - Glass wide mouth P/O - Plastic or other

Inchcape cannot accept verbal changes. Please Fax written changes to 214-238-5592

OFFICE USE ONLY

Inchcape Testing Services Environmental Laboratories 1089 East Collins Blvd., #100 Richardson, TX 75081 (214) 238-5591 **CHAIN OF CUSTODY RECORD**

Report to:	Invoice to
Company: Baker Env	Company:
Address:	Address:
Contact: Dan Bonk	Contact:
Phone:	Phone:
Fax:	PO/SO #:

Sampler's Name: Sampler's Signature:

Proj. No. | Project Name | No./Type of Containers[2]

ANALYSIS REQUESTED: X CLP Vol.

Lab use only
Due Date:
Temp. of coolers when received (C°): 1 2 3 4 5
Custody Seal N / Y
Intact N / Y
Screened For Radioactivity ☐

Matrix[1]	Date	Time	Comp	Grab	Identifying Marks of Sample(s)	VOA	A/G 1 Lt.	250 ml	P/O	Lab Sample ID (Lab Use Only)
S					BEQ-TW02B-02 MS					12302-8
↓					MSD					9
					LCS					10
↓					MB					11
L					MS					12
↓					MSD					13
					LCS					14
↓					MB					15

Turn around time ☐ Priority 1 or Standard ☐ Priority 2 or 50% ☐ Priority 3 or 100% ☐ Priority 4 ERS *

* BTEX (602/8020), TPH (418.1 or 8015), VOLATILES (624/8240), IGNITABILITY, TOTAL LEAD (6010)

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:	Remarks
			Kim Haney	12-20-95	11:30 a.m.	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:	Client's delivery of samples constitutes acceptance of Inchcape/ITS-Dallas terms and conditions contained in the Price Schedule.

[1] Matrix: WW - Wastewater; W - Water; S - Soil; SD - Solid; L - Liquid; A - Air Bag; C - Charcoal tube; SL - Sludge; O - Oil

[2] Container: VOA - 40 ml vial; A/G - Amber / Or Glass 1 Liter; 250 ml - Glass wide mouth; P/O - Plastic or other _____

Inchcape cannot accept verbal changes. Please Fax written changes to 214-238-5592

OFFICE USE ONLY

COOLER RECEIPT FORM

Date Received: 12-20-95 Project: 337 Env. Screening, BEQ

Date Logged-in: 12-20-95 Received by: Kim Haney

No. of coolers received: 1 Cooler Numbers: N/A

1	Shipping slip. If yes, carrier and bill number: Fed-X 2124804684	Yes	No
2	Custody seals on cooler. If yes, how many and where: One on the front	Yes	No
3	Custody seals intact.	Yes	No
4	Chain of Custody in plastic.	Yes	No
5	Chain of Custody filled out properly.	Yes	No
6	Client signed Chain of Custody.	Yes	No
7	Samples shipped on ice. If no, temperature of cooler:	Yes	No
8	All bottles sealed.	Yes	No
9	All bottles received intact.	Yes	No
10	Labels in good condition and complete.	Yes	No
11	Sample labels agree with Chain of Custody.	Yes	No
12	Correct containers used.	Yes	No
13	Correct preservative used.	Yes	No
14	Sufficient sample provided.	Yes	No
15	Bubbles absent from VOA.	Yes	No
16	Comments (use corrective action form if necessary):		

BAKER ENVIRONMENTAL, INC.
DELIVERY ORDER NUMBER 337-6100

BASIC ORDERING AGREEMENT NUMBER	19001-43-SRN-1A

DELIVERY ORDER NUMBER	337-6100
DATE OF DELIVERY ORDER	December 05. 1995
MODIFICATION NUMBER	

CONTRACTOR: Inchcape Testing Services
1089 E. Collins Blvd
Richardson, TX 75081

ATTN: Ms. Ernest Torres

In accordance with Basic Ordering Agreement No. 19001-43-SRN-1A for Analytical Services dated March 28, 1994, the Contractor will perform the following services.

1. **SCOPE OF SERVICES:** The Contractor shall perform the technical effort in support of Baker Environmental, Inc.'s Prime Contract N62470-89-D-4814 under the Navy CLEAN program as set forth in your firm's Basic Ordering Agreement, and this Delivery Order, under Exhibit A, "Price Proposal Form", attached hereto and incorporated herein by reference.

2. **TIME OF PERFORMANCE:** Work under this Delivery Order shall begin on December 05, 1995 and shall be completed 7 days from receipt of samples.

3. **PRICE:** The unit rates set forth in Basic Ordering Agreement No. 19001-43-SRN-1A date. March 28, 1994, shall be applicable to the work performed under this Delivery Order. The total amount to be paid under this Delivery Order shall not exceed $2,645.00 unless this Delivery Order is modified in writing.

4. All Terms and Conditions of the subject Basic Ordering Agreement remain in force and effect and are incorporated herein by reference as if written out in full in this Delivery Order.

ISSUED BY:	ACCEPTED BY:
COMPANY: Baker Environmental, Inc.	COMPANY:
SIGNATURE:	SIGNATURE:
TITLE: Program Manager	TITLE:
DATE: December 05, 1995	DATE:

EXHIBIT A
PRICE PROPOSAL FORM
PROJECT NUMBER 337-6100 - MCB CAMP LEJEUNE
NFESC LEVEL C - 7 DAY TURNAROUND

Analysis	Method	Aqueous Samples			Solid Samples			Total Cost
		Estimated Quantity	Unit Price	Subtotal Per Analyte	Estimated Quantity	Unit Price	Subtotal Cost	
CLP Volatile	CLP SOW[1]	10	115	$2,070.00	5	$115.00	$575.00	$2,6
							TOTAL COST	$2,6

1.) Analyses based on the EPA CLP Statement of Work revised March 1991.

ATTACHMENT E
TABLES

TABLE 1
FREQUENCY OF DETECTION SUMMARY
ENVIRONMENTAL SCREENING FOR MCON P-928 AND P-630
SUBSURFACE SOILS
MCB CAMP LEJEUNE, NC.
ENVIRONMENTAL SCREENING - CTO 0337
TCL VOLATILE ORGANIC COMPOUNDS

Sample No.	BEQ-TW01B-03	BEQ-TW02B-02	BEQ-TW02BD-02	BEQ-TW03B-02	BEQ-TW04B-02
Date collected	12/19/95	12/19/95	12/19/95	12/18/95	12/18/95
Depth (feet)	5-7'	3-5'	duplicate	3-5'	3-5'
VOLATILES (ug/kg)					
Chloromethane	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U
Bromomethane	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U
Vinyl chloride	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U
Chloroethane	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U
Carbon disulfide	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U
1,1-Dichloroethene	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U
Trans-1,2-dichloroethene	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U
1,1-Dichloroethane	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U
Chloroform	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U
1,1,1-Trichloroethane	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U
Carbon tetrachloride	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U
Bromodichloromethane	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U
1,2-Dichloropropane	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U
cis-1,3-Dichloropropene	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U
Trichloroethene	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U
Benzene	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U
Trans-1,3-dichloropropene	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U
1,1,2-Trichloroethane	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U
Bromoform	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U
4-Methyl-2-pentanone	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U
2-Hexanone	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U
Toluene	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U
Chlorobenzene	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U
Ethylbenzene	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U
Styrene	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U
M/P xylenes	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U
O xylene	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U
Cis-1,2-dichloroethene	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U
2-Butanone	11.3 UJ	11.5 UJ	11.5 UJ	11.8 UJ	11.8 UJ
1,2-Dichloroethane	11.3 UJ	11.5 UJ	11.5 UJ	11.8 UJ	11.8 UJ
Chlorodibromomethane	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U
Methylene chloride	11.3 U	11.5 U	11.5 U	11.8 U	6 J
Acetone	11.3 UJ	11.5 UJ	11.5 UJ	11.8 UJ	11.8 UJ
Tetrachloroethene	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U
1,1,2,2-Tetrachloroethane	11.3 U	11.5 U	11.5 U	11.8 U	11.8 U

TABLE 1
FREQUENCY OF DETECTION SUMMARY
ENVIRONMENTAL SCREENING FOR MCON P-928 AND P-630
SUBSURFACE SOILS
MCB CAMP LEJEUNE, NC.
ENVIRONMENTAL SCREENING - CTO 0337
TCL VOLATILE ORGANIC COMPOUNDS

Sample No. Date collected Depth (feet)	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	FEDERAL MCL (ug/L)	NCWQS (ug/L)	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
VOLATILES (ug/kg)								
Chloromethane	11.3 U	11.8 U	ND	ND				0/5
Bromomethane	11.3 U	11.8 U	ND	ND				0/5
Vinyl chloride	11.3 U	11.8 U	ND	ND				0/5
Chloroethane	11.3 U	11.8 U	ND	ND				0/5
Carbon disulfide	11.3 U	11.8 U	ND	ND				0/5
1,1-Dichloroethene	11.3 U	11.8 U	ND	ND				0/5
Trans-1,2-dichloroethene	11.3 U	11.8 U	ND	ND				0/5
1,1-Dichloroethane	11.3 U	11.8 U	ND	ND				0/5
Chloroform	11.3 U	11.8 U	ND	ND				0/5
1,1,1-Trichloroethane	11.3 U	11.8 U	ND	ND				0/5
Carbon tetrachloride	11.3 U	11.8 U	ND	ND				0/5
Bromodichloromethane	11.3 U	11.8 U	ND	ND				0/5
1,2-Dichloropropane	11.3 U	11.8 U	ND	ND				0/5
cis-1,3-Dichloropropene	11.3 U	11.8 U	ND	ND				0/5
Trichloroethene	11.3 U	11.8 U	ND	ND				0/5
Benzene	11.3 U	11.8 U	ND	ND				0/5
Trans-1,3-dichloropropene	11.3 U	11.8 U	ND	ND				0/5
1,1,2-Trichloroethane	11.3 U	11.8 U	ND	ND				0/5
Bromoform	11.3 U	11.8 U	ND	ND				0/5
4-Methyl-2-pentanone	11.3 U	11.8 U	ND	ND				0/5
2-Hexanone	11.3 U	11.8 U	ND	ND				0/5
Toluene	11.3 U	11.8 U	ND	ND				0/5
Chlorobenzene	11.3 U	11.8 U	ND	ND				0/5
Ethylbenzene	11.3 U	11.8 U	ND	ND				0/5
Styrene	11.3 U	11.8 U	ND	ND				0/5
M/P xylenes	11.3 U	11.8 U	ND	ND				0/5
O xylene	11.3 U	11.8 U	ND	ND				0/5
Cis-1,2-dichloroethene	11.3 U	11.8 U	ND	ND				0/5
2-Butanone	11.3 UJ	11.8 UJ	ND	ND				0/5
1,2-Dichloroethane	11.3 UJ	11.8 UJ	ND	ND				0/5
Chlorodibromomethane	11.3 U	11.8 U	ND	ND				0/5
Methylene chloride	11.3 U	11.8 U	6 J	6 J	5	5	BEQ-TW04B-02	1/5
Acetone	11.3 UJ	11.8 UJ	ND	ND				0/5
Tetrachloroethene	11.3 U	11.8 U	ND	ND				0/5
1,1,2,2-Tetrachloroethane	11.3 U	11.8 U	ND	ND				0/5

TABLE 2
FREQUENCY OF DETECTION SUMMARY
ENVIRONMENTAL SCREENING FOR MCON P-928 AND P-630
GROUNDWATER
MCB CAMP LEJEUNE, NC.
ENVIRONMENTAL SCREENING - CTO 0337
TCL VOLATILE ORGANIC COMPOUNDS

Sample No.	BEQ-TW01B-01	BEQ-TW01BD-01	BEQ-TW02B-01	BEQ-TW03A-01	BEQ-TWO3B-01	BEQ-TW04A-01
Date collected	12/20/95	12/20/95	12/20/95	12/20/95	12/20/95	12/20/95
VOLATILES (ug/L)						
Bromomethane	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl chloride	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Chloroethane	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Methylene chloride	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	10 U	10 U	10 U	10 U	10 U	10 U
Carbon disulfide	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
1,1,1-Trichloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Carbon tetrachloride	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	10 U	10 U	10 U	10 U	10 U	10 U
Trans-1,3-dichloropropene	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2-Hexanone	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Tetrachloroethene	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	10 U	10 U	10 U	10 U	10 U	10 U
Chloromethane	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total	10 U	10 U	10 U	10 U	10 U	10 U
Total xylenes	10 U	10 U	10 U	10 U	10 U	10 U

TABLE 2
FREQUENCY OF DETECTION SUMMARY
ENVIRONMENTAL SCREENING FOR MCON P-928 AND P-630
GROUNDWATER
MCB CAMP LEJEUNE, NC.
ENVIRONMENTAL SCREENING - CTO 0337
TCL VOLATILE ORGANIC COMPOUNDS

Sample No.	BEQ-TW01B-01	BEQ-TW01BD-01	BEQ-TW02B-01	BEQ-TW03A-01	BEQ-TWO3B-01	BEQ-TW04A-01
Date collected	12/20/95	12/20/95	12/20/95	12/20/95	12/20/95	12/20/95
VOLATILES (ug/L)						
Bromomethane	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl chloride	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Chloroethane	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Methylene chloride	10 U	10 U	10 U	10 U	10 U	10 U
Acetone	10 U	10 U	10 U	10 U	10 U	10 U
Carbon disulfide	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	10 U	10 U	10 U	10 U	10 U	10 U
2-Butanone	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
1,1,1-Trichloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Carbon tetrachloride	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	10 U	10 U	10 U	10 U	10 U	10 U
Trans-1,3-dichloropropene	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
2-Hexanone	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
Tetrachloroethene	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	10 U	10 U	10 U	10 U	10 U	10 U
Chloromethane	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total	10 U	10 U	10 U	10 U	10 U	10 U
Total xylenes	10 U	10 U	10 U	10 U	10 U	10 U

TABLE 2
FREQUENCY OF DETECTION SUMMARY
ENVIRONMENTAL SCREENING FOR MCON P-928 AND P-630
GROUNDWATER
MCB CAMP LEJEUNE, NC.
ENVIRONMENTAL SCREENING - CTO 0337
TCL VOLATILE ORGANIC COMPOUNDS

Sample No.	BEQ-TW04B-01
Date collected	12/20/95
VOLATILES (ug/L)	
Bromomethane	10 U
Vinyl chloride	10 UJ
Chloroethane	10 UJ
Methylene chloride	10 U
Acetone	10 U
Carbon disulfide	10 U
1,1-Dichloroethene	10 U
1,1-Dichloroethane	10 U
Chloroform	10 U
1,2-Dichloroethane	10 U
2-Butanone	10 UJ
1,1,1-Trichloroethane	10 U
Carbon tetrachloride	10 U
Bromodichloromethane	10 U
1,2-Dichloropropane	10 U
cis-1,3-Dichloropropene	10 U
Trichloroethene	10 U
Dibromochloromethane	10 U
1,1,2-Trichloroethane	10 U
Benzene	10 U
Trans-1,3-dichloropropene	10 U
Bromoform	10 U
4-Methyl-2-pentanone	10 UJ
2-Hexanone	10 UJ
Tetrachloroethene	17 J
1,1,2,2-Tetrachloroethane	10 U
Toluene	10 U
Chlorobenzene	10 U
Ethylbenzene	10 U
Styrene	10 U
Chloromethane	10 U
1,2-Dichloroethene (total	10 U
Total xylenes	10 U

TABLE 2
FREQUENCY OF DETECTION SUMMARY
ENVIRONMENTAL SCREENING FOR MCON P-928 AND P-630
GROUNDWATER
MCB CAMP LEJEUNE, NC.
ENVIRONMENTAL SCREENING - CTO 0337
TCL VOLATILE ORGANIC COMPOUNDS

Sample No. Date collected	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	FEDERAL MCL (ug/L)	NCWQS (ug/L)	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
VOLATILES (ug/L)								
Bromomethane	10 U	10 U	ND	ND				0/7
Vinyl chloride	10 UJ	10 UJ	ND	ND				0/7
Chloroethane	10 UJ	10 UJ	ND	ND				0/7
Methylene chloride	10 U	10 U	ND	ND				0/7
Acetone	10 U	10 U	ND	ND				0/7
Carbon disulfide	10 U	10 U	ND	ND				0/7
1,1-Dichloroethene	10 U	10 U	ND	ND				0/7
1,1-Dichloroethane	10 U	10 U	ND	ND				0/7
Chloroform	10 U	10 U	ND	ND				0/7
1,2-Dichloroethane	10 U	10 U	ND	ND				0/7
2-Butanone	10 UJ	10 UJ	ND	ND				0/7
1,1,1-Trichloroethane	10 U	10 U	ND	ND				0/7
Carbon tetrachloride	10 U	10 U	ND	ND				0/7
Bromodichloromethane	10 U	10 U	ND	ND				0/7
1,2-Dichloropropane	10 U	10 U	ND	ND				0/7
cis-1,3-Dichloropropene	10 U	10 U	ND	ND				0/7
Trichloroethene	10 U	10 U	ND	ND				0/7
Dibromochloromethane	10 U	10 U	ND	ND				0/7
1,1,2-Trichloroethane	10 U	10 U	ND	ND				0/7
Benzene	10 U	10 U	ND	ND				0/7
Trans-1,3-dichloropropene	10 U	10 U	ND	ND				0/7
Bromoform	10 U	10 U	ND	ND				0/7
4-Methyl-2-pentanone	10 UJ	10 UJ	ND	ND				0/7
2-Hexanone	10 UJ	10 UJ	ND	ND				0/7
Tetrachloroethene	10 U	10 U	17 J	17 J	5.0	0.7	BEQ-TW04B-01	1/7
1,1,2,2-Tetrachloroethane	10 U	10 U	ND	ND				0/7
Toluene	10 U	10 U	ND	ND				0/7
Chlorobenzene	10 U	10 U	ND	ND				0/7
Ethylbenzene	10 U	10 U	ND	ND				0/7
Styrene	10 U	10 U	ND	ND				0/7
Chloromethane	10 U	10 U	ND	ND				0/7
1,2-Dichloroethene (total	10 U	10 U	ND	ND				0/7
Total xylenes	10 U	10 U	ND	ND				0/7

TABLE 3
FREQUENCY OF DETECTION SUMMARY
ENVIRONMENTAL SCREENING FOR MCON P-928 AND P-630
FIELD QA/QC
MCB CAMP LEJEUNE, NC.
ENVIRONMENTAL SCREENING - CTO 0337
TCL VOLATILE ORGANIC COMPOUNDS

Sample No. Date collected	BEQ-FB-01 12/19/95	BEQ-FB02 12/20/95	BEQ-TB-01 12/05/95	BEQ-TB02 12/14/95	BEQ-RB02 12/19/95	BEQ-RB03 12/20/95
VOLATILES (ug/L)						
Bromomethane	10 U	10 U	10 U	10 U	10 U	10 U
Vinyl chloride	10 U	10 UJ	10 U	10 UJ	10 UJ	10 UJ
Chloroethane	10 U	10 UJ	10 U	10 UJ	10 UJ	10 UJ
Methylene chloride	10 U	10 U	10 U	10 U	14	13.8
Acetone	10 UJ	140 J	10 UJ	10 U	10 U	10 U
Carbon disulfide	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethene	10 U	10 U	10 U	10 U	10 U	10 U
1,1-Dichloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Chloroform	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethane	10 UJ	10 U	10 UJ	10 U	10 U	10 U
2-Butanone	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ	10 UJ
1,1,1-Trichloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Carbon tetrachloride	10 U	10 U	10 U	10 U	10 U	10 U
Bromodichloromethane	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloropropane	10 U	10 U	10 U	10 U	10 U	10 U
cis-1,3-Dichloropropene	10 U	10 U	10 U	10 U	10 U	10 U
Trichloroethene	10 U	10 U	10 U	10 U	10 U	10 U
Dibromochloromethane	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2-Trichloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Benzene	10 U	10 U	10 U	10 U	10 U	10 U
Trans-1,3-dichloropropene	10 U	10 U	10 U	10 U	10 U	10 U
Bromoform	10 U	10 U	10 U	10 U	10 U	10 U
4-Methyl-2-pentanone	10 U	10 UJ	10 U	10 UJ	10 UJ	10 UJ
2-Hexanone	10 U	10 UJ	10 U	10 UJ	10 UJ	10 UJ
Tetrachloroethene	10 U	10 U	10 U	10 U	10 U	10 U
1,1,2,2-Tetrachloroethane	10 U	10 U	10 U	10 U	10 U	10 U
Toluene	10 U	10 U	10 U	10 U	10 U	10 U
Chlorobenzene	10 U	10 U	10 U	10 U	10 U	10 U
Ethylbenzene	10 U	10 U	10 U	10 U	10 U	10 U
Styrene	10 U	10 U	10 U	10 U	10 U	10 U
Chloromethane	10 U	10 U	10 U	10 U	10 U	10 U
1,2-Dichloroethene (total	10 U	10 U	10 U	10 U	10 U	10 U
Total xylenes	10 U	10 U	10 U	10 U	10 U	10 U

TABLE 3
FREQUENCY OF DETECTION SUMMARY
ENVIRONMENTAL SCREENING FOR MCON P-928 AND P-630
FIELD QA/QC
MCB CAMP LEJEUNE, NC.
ENVIRONMENTAL SCREENING - CTO 0337
TCL VOLATILE ORGANIC COMPOUNDS

Sample No. Date collected	MINIMUM NONDETECTED	MAXIMUM NONDETECTED	MINIMUM DETECTED	MAXIMUM DETECTED	LOCATION OF MAXIMUM DETECTED	FREQUENCY OF DETECTION
VOLATILES (ug/L)						
Bromomethane	10 U	10 U	ND	ND		0/6
Vinyl chloride	10 U	10 U	ND	ND		0/6
Chloroethane	10 U	10 U	ND	ND		0/6
Methylene chloride	10 U	10 U	13.8	14	BEQ-RB02	2/6
Acetone	10 UJ	10 UJ	140 J	140 J	BEQ-FB02	1/6
Carbon disulfide	10 U	10 U	ND	ND		0/6
1,1-Dichloroethene	10 U	10 U	ND	ND		0/6
1,1-Dichloroethane	10 U	10 U	ND	ND		0/6
Chloroform	10 U	10 U	ND	ND		0/6
1,2-Dichloroethane	10 UJ	10 UJ	ND	ND		0/6
2-Butanone	10 UJ	10 UJ	ND	ND		0/6
1,1,1-Trichloroethane	10 U	10 U	ND	ND		0/6
Carbon tetrachloride	10 U	10 U	ND	ND		0/6
Bromodichloromethane	10 U	10 U	ND	ND		0/6
1,2-Dichloropropane	10 U	10 U	ND	ND		0/6
cis-1,3-Dichloropropene	10 U	10 U	ND	ND		0/6
Trichloroethene	10 U	10 U	ND	ND		0/6
Dibromochloromethane	10 U	10 U	ND	ND		0/6
1,1,2-Trichloroethane	10 U	10 U	ND	ND		0/6
Benzene	10 U	10 U	ND	ND		0/6
Trans-1,3-dichloropropene	10 U	10 U	ND	ND		0/6
Bromoform	10 U	10 U	ND	ND		0/6
4-Methyl-2-pentanone	10 U	10 U	ND	ND		0/6
2-Hexanone	10 U	10 U	ND	ND		0/6
Tetrachloroethene	10 U	10 U	ND	ND		0/6
1,1,2,2-Tetrachloroethane	10 U	10 U	ND	ND		0/6
Toluene	10 U	10 U	ND	ND		0/6
Chlorobenzene	10 U	10 U	ND	ND		0/6
Ethylbenzene	10 U	10 U	ND	ND		0/6
Styrene	10 U	10 U	ND	ND		0/6
Chloromethane	10 U	10 U	ND	ND		0/6
1,2-Dichloroethene (total	10 U	10 U	ND	ND		0/6
Total xylenes	10 U	10 U	ND	ND		0/6

DATA QUALIFIER DEFINITIONS AND NOTES
MCB CAMP LEJEUNE, NC.
ENVIRONMENTAL SCREENING - CTO 0337

QUALIFIER DEFINITIONS

(NO CODE) = Confirmed identification.

B = Not detected substantially above the level reported in laboratory or field blanks.

J = Analyte present. Reported value may not be accurate or precise.

K = Analyte present. Reported value may be biased high. Actual value is expected lower.

L = Analyte present. Reported value may be biased low. Actual value is expected to be higher.

R = Unreliable result. Analyte may or may not be present in the sample. Supporting data necessary to confirm result.

U = Not detected. The associated number indicates approximate sample concentration necessary to be detected.

UJ = Not detected. Quantitation limit may be inaccurate or imprecise.

UL = Not detected. Quantitation limit is probably higher.

NOTES

mg/kg = milligrams per kilogram.

mg/l = milligrams per liter.

ug/kg = micrograms per kilogram.

ug/l = micrograms per liter.

NA = Not analyzed.

TABLE 4

INCREMENTAL LIFETIME CANCER RISKS (ICRs) AND HAZARD INDICES (HIs)
ENVIRONMENTAL SCREENING FOR MCON P-928 AND P-930
GROUNDWATER
REMEDIAL INVESTIGATION, CTO-0337
MCB CAMP LEJEUNE, NORTH CAROLINA

Exposure Route	Receptor Group	
	Future Construction Worker	
	ILCR	HI
Ingestion	6.2E-09	8.3E-04
Dermal Contact	3.0E-08	4.1E-03
Inhalation of Vapors	4.9E-08	NA
Total	8.5E-08	4.9E-03

NA = No RFDi was available for PCE