Site Investigation
of the G-8 Burning Ground
Former Plum Brook Ordnance Works
Sandusky, Ohio

Submitted To:

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List of Acronyms

ASTM	American Society for Testing and Materials
CLP	Contract Laboratory Program
DERP	Defense Environmental Restoration Program
DNT	dinitrotoluene
DOD	U.S. Department of Defense
EPA	U.S. Environmental Protection Agency
G-8BG	G-8 burning ground
IDW	investigation-derived waste
IT	IT Corporation
LeRC	Lewis Research Center
µg/kg	microgram per liter
mg/L	milligram per liter
mg/kg	milligram per kilogram
MK	Morrison and Knudsen Corporation
MDL	maximum detection limit
NASA	National Aeronautics and Space Administration
NGVD	National Geodetic Vertical Datum
PAH	polycyclic aromatic hydrocarbon
PBOW	Plum Brook Ordnance Works
PBS	Plum Brook Station
PCB	polychlorinated biphenyl
PPE	personal protection equipment
PVC	polyvinyl chloride.
QA	quality assurance
QAPP	quality assurance project plan
QC	quality control
RBC	risk-based concentration
RFA/COC	request for analysis/chain-of-custody
SAP	sampling and analysis plan
SOW	Statement of Work
SVOC	semivolatile organic compounds
TAL	target analyte list
TCL	target compound list

List of Acronyms *(Continued)*

TNT	trinitrotoluene
USACE	U.S.Army Corps of Engineers
USCS	Unified Soil Classification System
VOC	volatile organic compounds

Executive Summary

A site investigation of the former G-8 Burning Ground at the former Plum Brook Ordnance Works (PBOW) in Sandusky, Ohio was conducted by IT Corporation (IT) from December 5 to December 7, 1995, and between May 13 and May 15, 1996 under contract to the Nashville District of the U.S. Army Corps of Engineers (USACE). This work was conducted under the Defense Environmental Restoration Program (DERP) and the scope included a site visit, geophysical survey, field investigation, evaluation of analytical and field data, and preparation and submittal of reports. The objectives of the site investigation at G-8 Burning Ground were to define the location and the extent of the burning ground; to confirm or deny the presence of residual contamination of sediment and soils; and to determine if soil and/or other site media should be further investigated.

A previous investigation was conducted on a limited scale by Morrison and Knudsen Corporation (MK) during their 1993 site inspection. MK investigation consisted of collecting two shallow (less than 2 feet in depth) soil samples and two surface water/sediment samples. All samples were analyzed for volatile organic compounds (VOCs), semivolatile organic compounds (SVOCs), pesticides and polychlorinated biphenyls (PCB), and nitroaromatic compounds. In one soil sample, several coal-tar derivatives were detected including **benzo(b)fluroanthene**, **bis(2-ethylhexyl)phthalate**, **floranthene**, **phenanthrene**, and **pyrene** with estimated concentrations between 61 and 140 µg/kg. MK reported no detection of any organic compounds in surface water sample but in the co-located sediment sample several SVOCs were detected at concentrations ranging from 380 µg/kg (**phenanthrene**) to 1,100 µg/kg (**pyrene**) (MK, 1994).

During the recent site investigation at the G-8 burning ground, a two-day screening geophysical survey was conducted to define the location and extend of the suspected burning pit using conductivity and magnetic approach. The geophysical survey results indicated no significant anomalies representing burn debris/residue within the area surveyed. Followed geophysical survey, five trenches were placed to a maximum depth of 3 feet at the site. The soil profiles were visually inspected to identify any residuals or objects indicative of a burning pit. Soils revealed by trenching activities appeared to be native with no indication of any burn residuals.

Twelve surface soil and subsurface soil samples and two sediment samples were collected at the site according to the work plan. Based on the analytical results, surface and shallow (less than 3 feet) subsurface soils within the suspected former burning ground do not appear to be notably

contaminated by historically reported use of the site. No nitroaromatic compounds were detected in any of the soil samples collected. However, similar to the findings reported by MK, several polynuclear aromatic hydrocarbons (PAH) such as **benzo(a)pyrene**, **fluoranthene**, **anthracene**, **phenanthrene**, and **acenaphthene** were widely detected at low concentrations in soil samples. These PAH compounds are known to be associated with petroleum products, asphalt, coal tar, and creosote and possibly result from the incomplete combustion of fossil fuels. It is possible that the wide occurrence of these compounds may be indicative of past soil contamination which over the past 50 years might have been slowly leached out of the 3-feet soil horizon and into the underlying limestone bedrock. However, those organic compounds at the detected concentrations (low ppb level) can also occur naturally and did not exceed the screening levels except in one surface soil sample. Seven metals were detected at concentrations above screening levels. Among them, **arsenic** was found below the background concentration while the **manganese** concentrations were significantly higher than the background value. Background data for **aluminum**, **barium**, and **iron** were not available. **Beryllium** and **thallium** were reported as nondetects in all background samples, possibly due to high method detection limits. The distribution of detected concentration in both organic and inorganic constituents in soil at the site does not indicate any apparent patterns in term of spacial variations. Nitroaromatic compounds (explosives) and pesticides/PCBs were not detected in any soil and sediment samples.

Only one SVOC (**di-n-butylphthlate**) was detected in the sediment samples at a concentration below the screening level. Most of metal detections in sediment samples were very similar to those found in soils with the exception of **beryllium** and **cadmium** which were detected in sediments but rarely detected in soils. Four metals (**arsenic, beryllium, iron,** and **manganese**) were detected at concentrations above the screening levels in sediment samples.

All detected concentrations of various organic and metal constituents in soil and sediment are compared against the screening criteria. The majority of detected constituents showed concentrations significantly lower than their respective screening levels. Therefore, these detected organic compounds and metals in site soil and sediment are believed to be unlikely to pose a threat to human health or the environment. One surface soil sample (SO-08) contained **benzo(a)pyrene** at a concentration of 160 μg/kg, exceeded the RBC of 88 μg/kg. Seven metals (**aluminum, arsenic, barium, beryllium, iron, manganese,** and **thallium**) in soil and four (**arsenic, iron, beryllium,** and **manganese**) in sediment were found at concentrations exceeding the creening levels. However, soil **arsenic** concentration was within the naturally-occurring range and therefore the presence of **arsenic** in site soil may be attributable to local lithology rather than

contamination. Soil **manganese** and **beryllium** may be indicative of past contamination since their concentrations exceeded both the RBCs and the background values. The detected metals at concentrations exceeding the RBCs and the background values warrant further assessment.

Based on the findings and conclusions, three recommendations were made (**1**) to further evaluate these constituents detected at concentrations above screening levels in soil and sediment; (**2**) no further soil and sediment sampling at this site is necessary, and (**3**) one bedrock monitoring well is recommended be placed in the center of the clear area to characterize groundwater quality at the G-8 site, particularly with respect to the possibility of downward contaminant migration and to provide needed water level information at this southwest corner of the facility for refining the site-wide groundwater flow regime.

1.0 Introduction

The U.S. Army is conducting studies of the environmental impact of suspected hazardous waste sites at properties previously owned by the U.S. Department of Defense (DOD). This work is being pursued by the U.S. Army Corps of Engineers (USACE) under the Defense Environmental Restoration Program (DERP). The former Plum Brook Ordnance Works (PBOW) located in Sandusky, Erie County, Ohio is an Army DERP project and is being managed and technically overseen by the USACE District Office, Nashville, Tennessee. **Figure 1-1** shows the geographical location of the former PBOW site. IT Corporation (IT) performed a site investigation (SI) at the suspected G-8 Burning Ground (G-8 BG) located in the southwest corner of PBOW during December of 1995 and May of 1996. This work was performed under Delivery Order 0015 of Contract Number DACA62-94-D-0030.

1.1 Scope of Work and Project Objectives

The scope of this SI as specified in the statement of work (SOW) (USACE, June 1995) includes a visual site inspection, preparation and completion of site specific work plans, completion of various field investigation activities, evaluation of analytical results from samples collected during the field investigation, preparation and submittal of reports characterizing activities, conclusions, and recommendations for further actions. Although not included in the SOW, a screening geophysical survey was conducted prior to field sampling with the consent of the USACE in an effort to identify possible boundaries or anomalies to further focus subsequent investigative activities.

Activities completed during the field investigation included conducting a site visit and a screening geophysical survey, excavating five trenches, drilling and sampling twelve soil borings, collecting two sediment samples, land surveying, and handling investigation derived waste (IDW). Samples collected for chemical analysis included soil and sediment and field quality control (QC) samples.

The purpose of this SI was to collect information on contamination of site soils possibly resulting from past DOD activities that can be utilized to make initial management decisions and to develop a more detailed and comprehensive sampling regiment should one be determined to be necessary. The specific objectives of the SI at G-8 BG were to:

- Locate the suspected burning ground
- Determine whether or not site soils are contaminated, and

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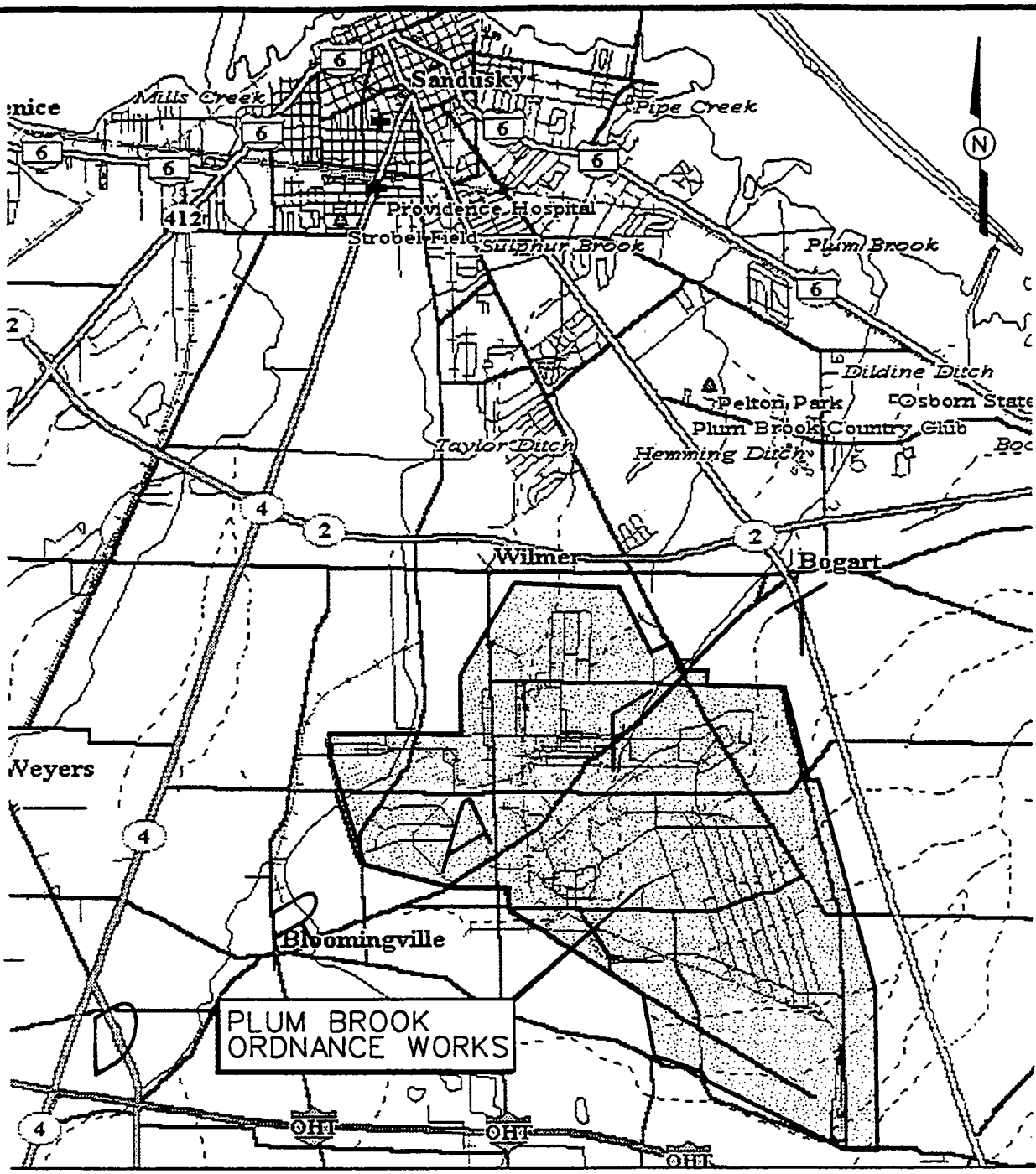

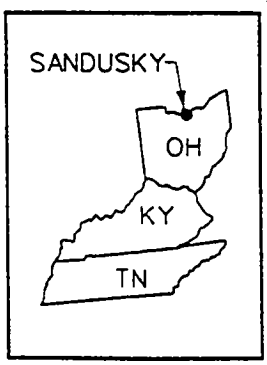

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FIGURE 1-1
VICINITY MAP

PLUM BROOK ORDNANCE WORKS
SANDUSKY, OHIO

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- If site soils were found to be contaminated, whether or not this contamination poses a threat to human health or the environment.

1.2 Site History and Potential for Contamination

The 9,009-acre PBOW site was built in early 1941 as a manufacturing plant for 2,4,6-trinitrotoluene (TNT), dinitrotoluene (DNT), and pentolite. Production of explosives began in December 1941 and continued until 1945. It is estimated that more than one billion pounds of explosives were manufactured during the 4-year operating period.

After the plant was shut down, decontamination of TNT, acid, pentolite, and DNT processing lines began and was completed during the last quarter of 1945. The property was initially transferred to the Ordnance Department, then to the War Assets Administration after it was certified by the U.S.Army to be decontaminated. In 1949, PBOW was transferred to the General Services Administration (GSA).

NASA acquired the PBOW in 1963 and is presently utilizing the site. On April 18, 1978, NASA declared approximately 2,152 acres of land as excess. The Perkins Township Board of Education acquired 46 acres of the excess and uses this area as a bus transportation center. GSA retains the remaining acreage and currently has a use agreement with the Ohio National Guard for 604 acres of the land. NASA presently controls about 6,400 acres and is using the site to conduct space research as a satellite operation of NASA's Lewis Research Center (LeRC) in Cleveland, Ohio. The details of these land transactions are listed in the site management plan and can be found at the NASA PBS.

The G-8 BG is located in the southwestern corner of the former PBOW site, east of Guard House No.8 (**Figure 1-2**). Guard House No.8 used to be located at the corner of Campbell Street and Patrol Road but no longer exists. The area of the burning pit was estimated by MK to be approximately 2 acres. However, MK provides no information on how this estimate was made. Environmental contaminants in this burning ground, according to previous investigations at the PBOW site and review of the site history, may include nitroaromatic compounds (explosives residuals), volatile organic compounds (VOC), semivolatile organic compounds (SVOC), and metals.

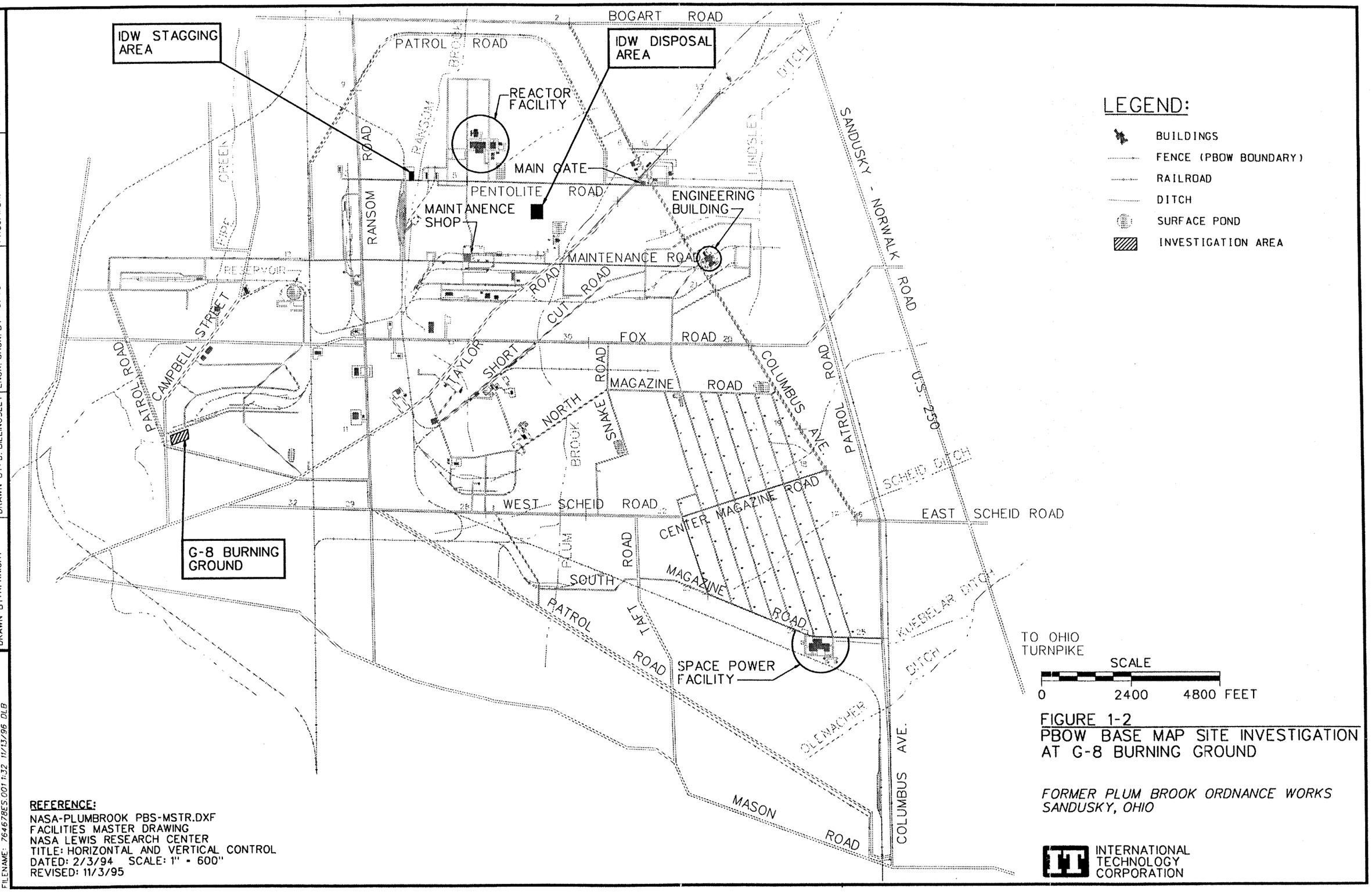

FIGURE 1-2
PBOW BASE MAP SITE INVESTIGATION AT G-8 BURNING GROUND

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SANDUSKY, OHIO

INTERNATIONAL TECHNOLOGY CORPORATION

REFERENCE:
NASA-PLUMBROOK PBS-MSTR.DXF
FACILITIES MASTER DRAWING
NASA LEWIS RESEARCH CENTER
TITLE: HORIZONTAL AND VERTICAL CONTROL
DATED: 2/3/94 SCALE: 1" = 600"
REVISED: 11/3/95

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1.3 Summary of Previous Environmental Studies

Previous investigations of this burning ground include a preliminary assessment (PA), a site inspection, and a limited soil, surface water, and sediment sampling. The PA conducted by Science Applications International Corporation in 1990 identified this site as an area of concern (Dames & Moore, 1995). No environmental sampling was reported during the PA. The site inspection conducted by MK Corporation described this site as a clear area with a small ditch that runs east to west bordering the north side (MK, 1994).

In March 1994 and March 1995, representatives from the USACE-Nashville District and from USACE's subcontractor conducted a site reconnaissance at the burning ground. The area was found to consist of an open area surrounded by hardwood forest, with no readily apparent adverse surface conditions.

Two shallow soil samples (0 to 2 feet in depth), one surface water sample, and one sediment sample were collected by MK Corporation in January 1994, under contract to NASA. Two soil samples were collected from the east and west sides of the center of the site and analyzed for VOCs, SVOCs, pesticides/polychorinated biphenyls (PCB), and nitroaromatics. One of the two samples exhibited polynuclear aromatic hydrocarbons (PAH) at concentrations ranging from 61 to 140 micrograms per kilogram (μg/kg). These concentrations were below the method quantitation limit. A pair of surface water and sediment samples were collected on the east side of the concrete culvert between Patrol Road and the perimeter fence at the head of a small stream that feeds Pipe Creek. Organic compounds were reportedly not detected in the surface water samples. However, several PAHs were reported to have been detected in the sediment sample, but the concentrations were all below the quantitation limit.

1.4 Summary of Existing Site Conditions

The former PBOW site is currently owned by the National Aeronautics and Space Administration (NASA) and is operated as the Plum Brook Station (PBS) of the NASA LeRC based in Cleveland, Ohio. During IT's site visit, the suspected burning pit was seen to be a clearing much smaller than 2-acre in size as estimated in MK report. The area was covered by short grass and infant trees with a ditch forming the north boundary. Access to the site is easy and can be made from Campbell Road.

Public access is restricted at PBOW except during the annual deer hunting season.

2.0 Field Activities

Field activities were conducted at G-8 BG from December 5 through 7, 1995 and from May 12 through May 17, 1996. The land survey was conducted on October 16, 1996, concurrent with land surveys for other PBOW investigations. An oversight representative from the USACE Nashville District Office was present during the screening geophysical survey, trenching, soil and sediment sampling activities.

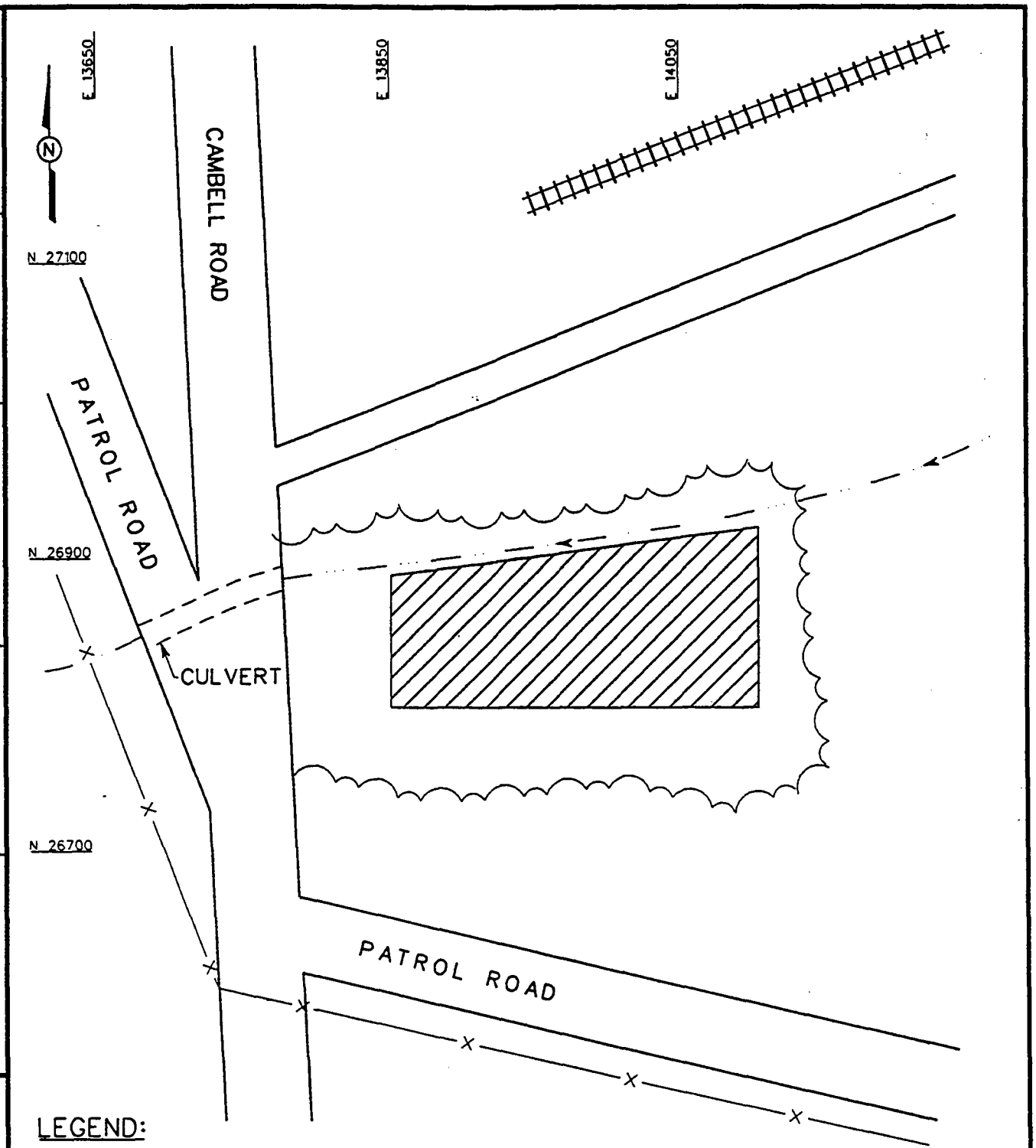
2.1 Screening Geophysical Survey

IT conducted a site visit of the G-8 Burning Ground area from December 5 through 7, 1995, along with a representative from the USACE Nashville District. As part of the site visit, a screening geophysical survey using a Geonics EM-31 terrain conductivity meter and a Geometrics G-858G magnetic gradiometer was conducted in the clear area thought to be the location of the suspected burning ground. Prior to the survey, the IT field geophysist conducted a walk-over of a large area surrounding the clearing with the geophysical survey instrument to collect background data and to see if any notable anomalies would exist. No anomalies were detected during the walk-over. After consulting with the USACE, it was decided that the screening geophysical survey be focused on the approximately 0.4 acre clearing, which was bounded to the north by a creek, to the west by Campbell Road, and to the east and west by the tree lines. The originally scoped 2-acre survey area was based on reviewing the MK report (MK, 1994) and was believed to be grossly overestimated. The survey area was shown in **Figure 2-1**.

The purpose of the screening geophysical survey was to identify geophysical anomalies that could assist in delineating the boundaries of the former burning pit. A total of 2,150 linear feet of data was collected at 5-foot intervals. Geophysical data were processed and color-enhanced contour maps were generated to illustrate the locations of any buried metallic fragments and/or areas of anomalous soil conductivity potentially representing the burning ground. The color-enhanced contour maps are presented in **Figures 2-2, 2-3, 2-4**, and **2-5**. However, no apparent anomalies representing burn debris/residue or buried metallic objects within the surveyed area were found.

2.2 Trenching

Five trenches (BG8-TR01 through -TR05) were placed using a backhole in the general clearing area of the suspected burning ground (**Figure 2-6**). Three trenches (BG8-TR01 through -TR03) were placed first as pilot trenches followed by additional two trenches (BG8-TR04 and -TR05). The soil profile of each trench was visually inspected by IT field geologists for variations in color,



LEGEND:

- CREEK
- PERIMETER FENCE
- SCREENING GEOPHYSICAL SURVEY LOCATION
- TREE LINE

SCALE

0 100 200 FEET

FIGURE 2-1

G-8 BURNING GROUND SITE MAP
SITE INVESTIGATION AT G-8 BURNING GROUND

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SANDUSKY, OHIO

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NASA - PLUM BROOK SITE
BURNING GROUND (G8) SITE
EM-31 CONDUCTIVITY, N-S SURVEY LINES

Contour interval: 1 millisiemen per meter

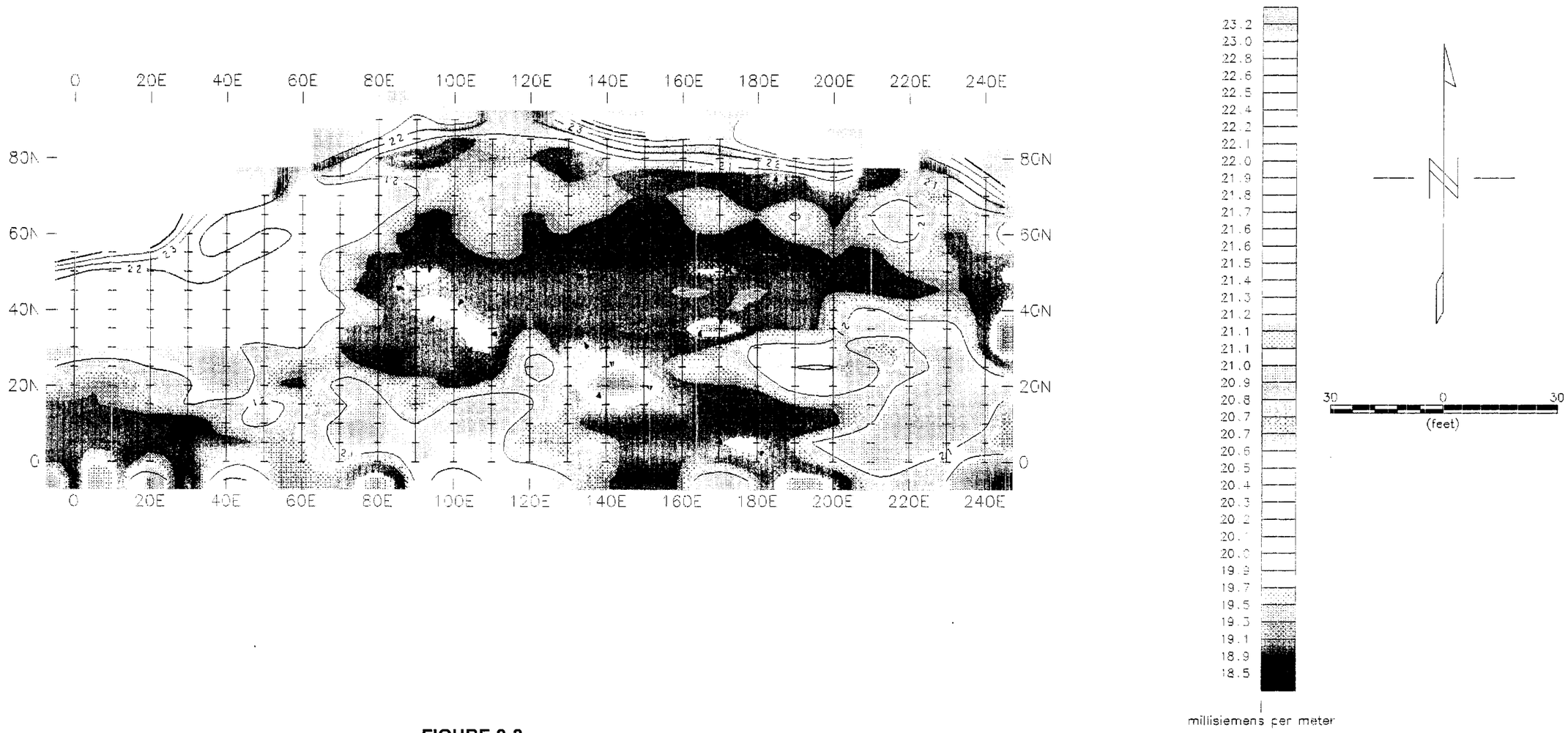

FIGURE 2-2
EM-31 CONDUCTIVITY CONTOUR MAP
SITE INVESTIGATION AT G-8 BURNING GROUND
PBOW, SANDUSKY, OHIO

NASA - PLUM BROOK SITE
BURNING GROUND (G8) SITE
EM-31 IN-PHASE COMPONENT, N-S SURVEY LINES

Contour Interval: .5 parts per thousand

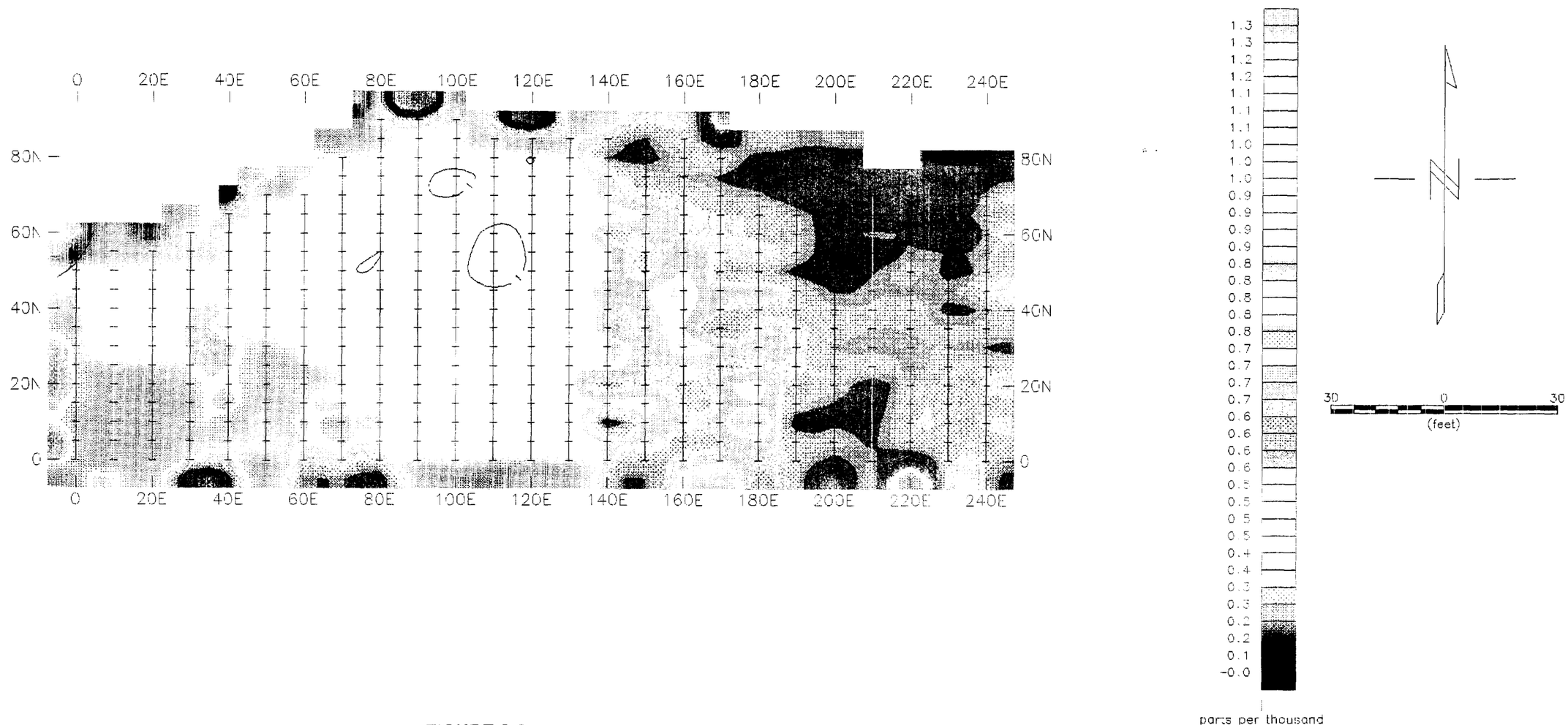

FIGURE 2-3
EM-31 IN-PHASE COMPONENT MAP
SITE INVESTIGATION AT G-8 BURNING GROUND
PBOW, SANDUSKY, OHIO

NASA - PLUM BROOK SITE

BURNING GROUND (G8) SITE

G-858G TOTAL MAGNETIC FIELD (LOWER SENSOR), N-S SURVEY LINES

Contour nterval: 20 nanoTeslas

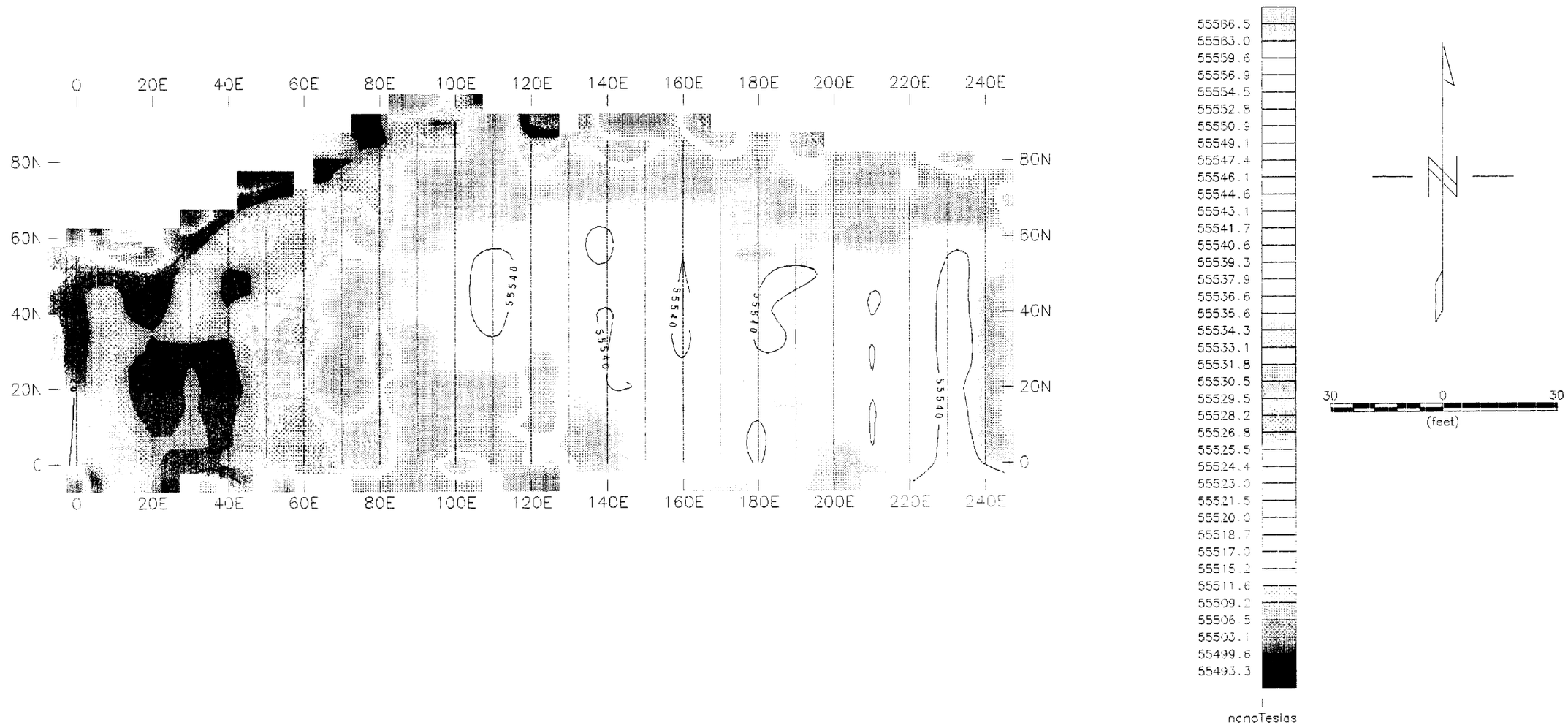

FIGURE 2-4
G-858G TOTAL MAGNETIC FIELD MAP
SITE INVESTIGATION AT G-8 BURNING GROUND
PBOW, SANDUSKY, OHIO

NASA - PLUM BROOK SITE

BURNING GROUND (G8) SITE

G-858G VERTICAL MAGNETIC GRADIENT, N-S SURVEY LINES

Contour Interval: 10 nanoTeslas per meter

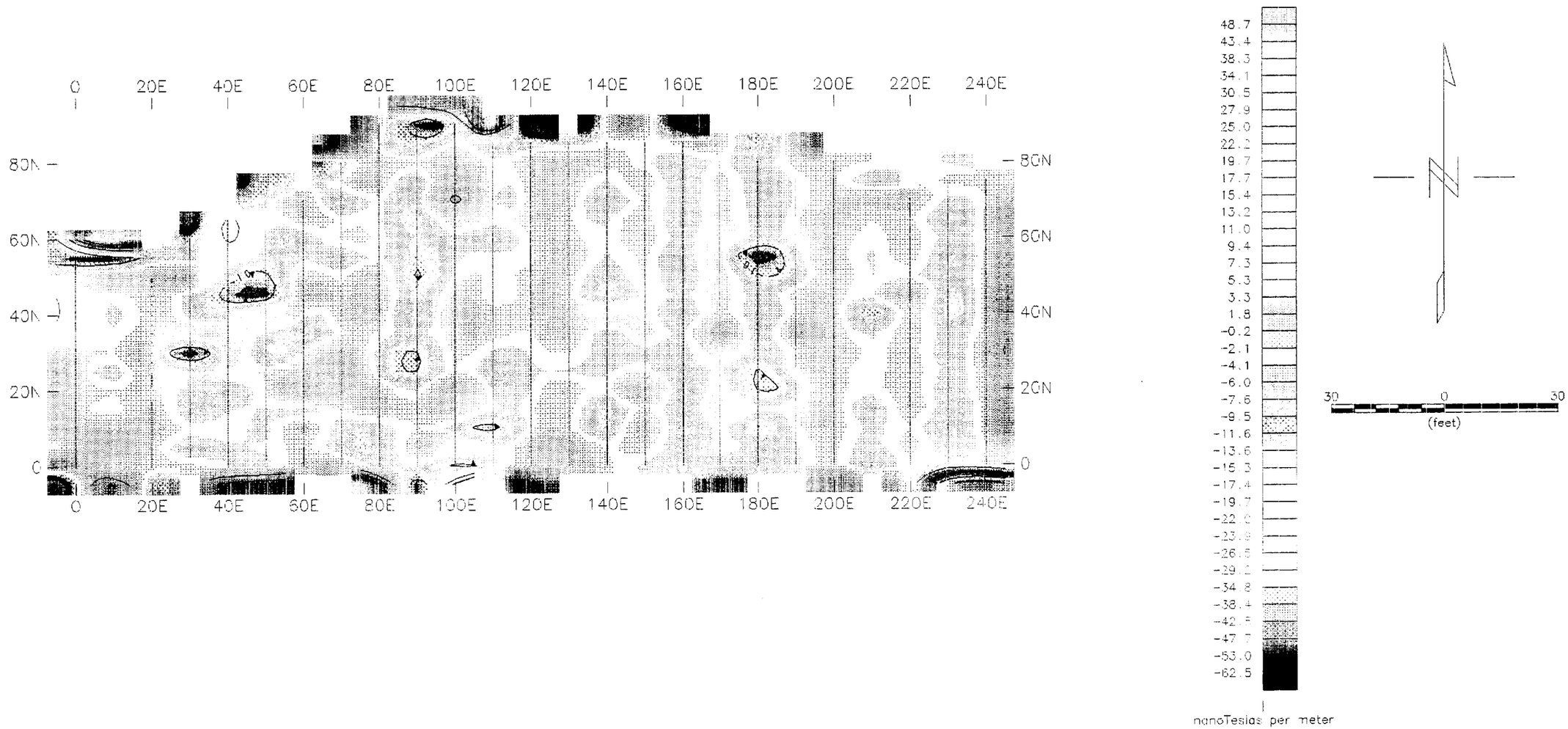

FIGURE 2-5
G-858G VERTICAL MAGNETIC GRADIENT MAP
SITE INVESTIGATION AT G-8 BURNING GROUND
PBOW, SANDUSKY, OHIO

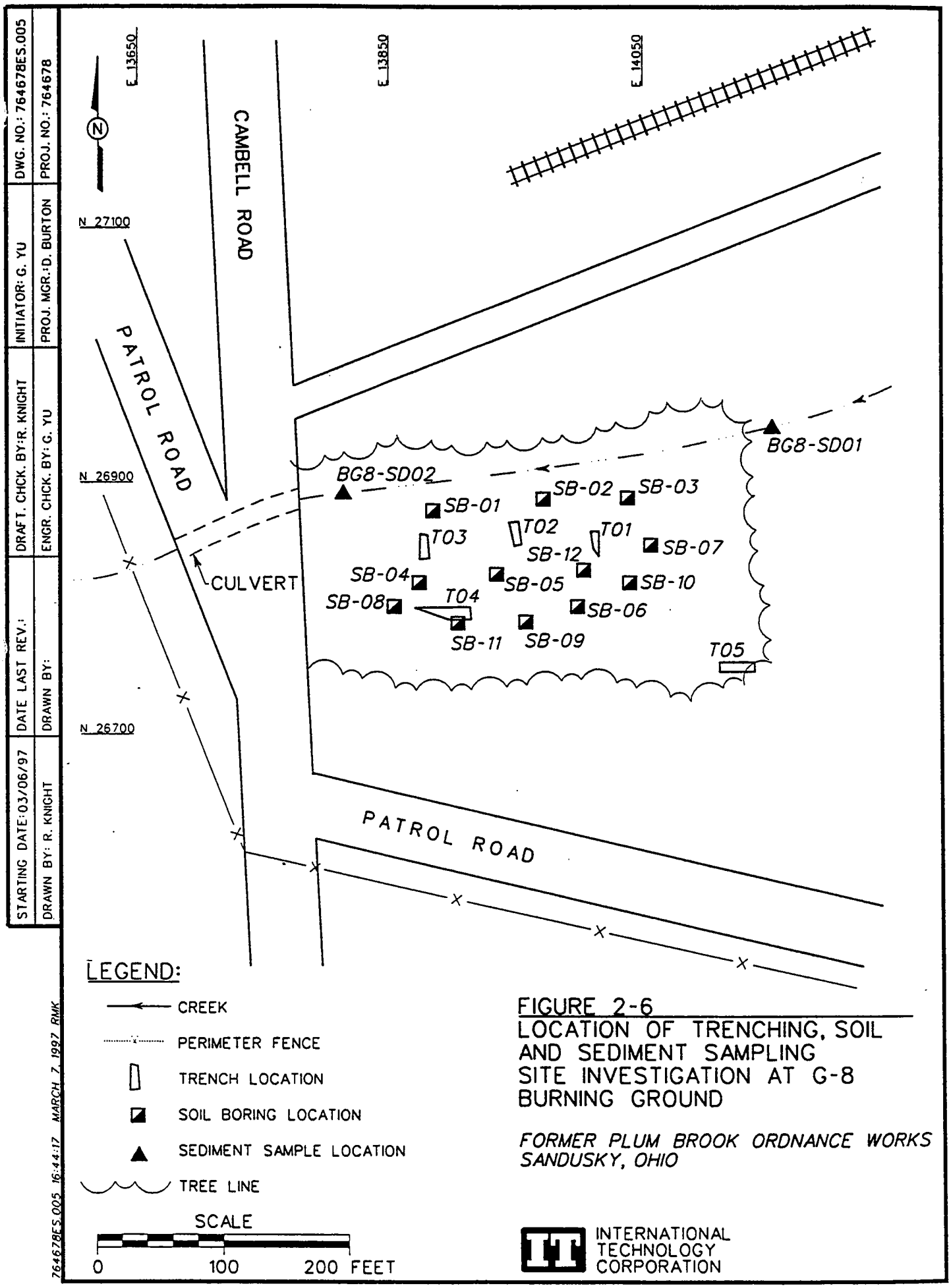

FIGURE 2-6
LOCATION OF TRENCHING, SOIL AND SEDIMENT SAMPLING SITE INVESTIGATION AT G-8 BURNING GROUND

FORMER PLUM BROOK ORDNANCE WORKS SANDUSKY, OHIO

organic content, odor, and any residuals that may indicate previous use of the site. Except for a small piece of broken glass found in Trench No.3, no other foreign objects or apparent burn residues were observed and soils appear to be native and undisturbed. All trenches were backfilled and graded close to the original level. Photographs were taken at each trench and are presented in **Appendix A.** Trench dimensions, air monitoring records, and brief soil descriptions are summarized in **Table 2-1.**

2.3 Soil Boring and Soil Sampling

A total of twelve borings (BG8-SO01 through -SO12) were placed within the suspected burning ground. Since the result of the screening geophysical survey was inconclusive in delineating the boundary of the burning pit, the soil boring locations were selected using a systematic grid sampling strategy which generally followed the geophysical survey grid established within the suspected burning area. Soil boring locations were selected to minimize bias and to provide complete site coverage. **Figure 2-6** presents the soil boring locations within the suspected G-8 BG. Soil samples were sent to the designated off-site laboratory for analyses of target compound list (TCL) volatile organic compounds (VOCs), TCL semivolatile organic compounds (SVOCs), target analyte list (TAL) metals, nitroaromatic compounds, and pesticides/polychlorinated biphenyls (PCB). The soil samples collected and the analytical program are summarized in **Table 2-2.** Field QA/QC samples were also collected to ensure the reliability of field sampling and decontamination procedures and materials. An evaluation of the results of the field QC samples is presented in **Appendix B.**

Surface Soil Sampling. Twelve surface soil samples were collected for chemical analysis following procedures described in Section 4.4 of the Sampling and Analysis Plan (SAP) (IT, 1996a). Specifically, surface soil samples were collected with a stainless steel hand auger from 0 to 6 inches below ground surface (bgs).

Subsurface Soil Sampling. Twelve subsurface soil samples were collected for chemical analysis following procedures described in Section 4.4 of the Sampling and Analysis Plan (SAP) (IT, 1996a). Specifically, subsurface soil samples were collected with a stainless steel hand auger from 2 to 3 feet below ground surface (bgs) or above the soil/bedrock interface. Weathered limestone bedrock was generally encountered at depths between 2 and 3 feet bgs. Bedrock crops out along the creek running westward on the northern boundary of the site. Prior to using hand augers, undisturbed soil samples for VOC samples were attempted at several locations using a slide hammer driving a core soil sampler fitted with a removable retaining brass cylinder. The

Table 2-1
Summary of Trench Dimensions and Soil Description
Site Investigation at G-8 Burning Ground
Former Plum Brook Ordnance Works, Sandusky, Ohio

Trench Number	Date Completed	Length (feet)	Width (feet)	Depth (feet)	HNu Reading (ppm)	Bedrock Encountered	Soil Description
1	5/13/96	18	3	1.5	0	yes	Soft, dark brown silt, roots, increasing amount of limestone fragments with depth. encountered bedrock at 1.5 feet
2	5/13/96	16	3	2	0	yes	Very dark brown silt, worms, trace amount of rock fragments, fine sand lens, wet encountered bedrock at 2 feet
3	5/13/96	15	3	3	0	yes	Soft, reddish brown, sandy silt micaceous, encountered a piece of broken glass, weathered bedrock at bottom (limestone)
4	5/13/96	15	3	3	0	yes	Soft, dark brown silt, roots, increasing amount of limestone fragments with depth. encountered bedrock at 3 feet
5	5/13/96	14.5	3	3	0	no	Soft, dark reddish brown silty clay, increasing amount of limestone fragments with depth. wet at bottom

Table 2-2
Summary of Soil and Sediment Sample Collected
Site Investigation at G-8 Burning Ground
Former Plum Brook Ordnance Works, Sandusky, Ohio

Sample Location	Sample Number	Sample Date	Sample Depth (ft)	Analytical Program				
				TCL VOCs	TCL SVOCs	TAL Metals	Explosives	Pesticides/PCBs
SOIL								
SO-01	3001	5/14/96	0.0-0.5	x	x	x	x	x
	3002	5/14/96	1.0-1.5	x	x	x	x	x
SO-02	3003	5/14/96	0.0-0.5	x	x	x	x	x
	3004	5/14/96	2.0-3.0	x	x	x	x	x
SO-03	3009	5/14/96	0.0-0.5	x	x	x	x	x
	3010	5/14/96	2.0-3.0	x	x	x	x	x
SO-04	3011	5/14/96	0.0-0.5	x	x	x	x	x
	3012	5/14/96	0.5-1.0	x	x	x	x	x
SO-05	3013	5/14/96	0.0-0.5	x	x	x	x	x
	3014	5/14/96	1.0-2.0	x	x	x	x	x
SO-06	3015	5/14/96	0.0-0.5	x	x	x	x	x
	3016	5/14/96	2.0-2.5	x	x	x	x	x
SO-07	3017	5/14/96	0.0-0.5	x	x	x	x	x
	3018	5/14/96	2.0-3.0	x	x	x	x	x
SO-08	3019	5/14/96	0.0-0.5	x	x	x	x	x
	3020	5/14/96	2.0-3.0	x	x	x	x	x
SO-09	3021	5/15/96	0.0-0.5	x	x	x	x	x
	3022	5/15/96	2.0-3.0	x	x	x	x	x
SO-10	3023	5/15/96	0.0-0.5	x	x	x	x	x
	3024	5/15/96	1.0-1.5	x	x	x	x	x
SO-11	3027	5/15/96	0.0-0.5	x	x	x	x	x
	3028	5/15/96	0.5-1.0	x	x	x	x	x
SO-12	3029	5/15/96	0.0-0.5	x	x	x	x	x
	3030	5/15/96	2.0-3.0	x	x	x	x	x
SEDIMENT								
SD-01	2001	5/15/96	0.0-0.3	x	x	x	x	x
SD-02	2004	5/15/96	0.0-0.3	x	x	x	x	x

attempt was not successful due to the large fraction of rock fragments encountered within the sampling depth. Therefore, disturbed soil samples were collected in all locations.

During the drilling of soil borings, HTRW boring logs were completed in the field by the IT geologist which documented all pertinent information including lithology description, depth of boring, date of boring, water table encountered, drilling equipment, and analytical parameters. A sketch showing the approximate location of the boring in relation to known site features was also presented in each log. Lithology description of the shallow soil was based on Unified Soil Classification System (USCS). Soil boring logs are presented in **Appendix C**.

2.4 Sediment Sampling

Two sediment samples (BG8-SD01 and BG8-SD02) were collected along the ditch on northern boundary of the site. One sediment sample (BG8-SD01) was collected from a relative upgradient location while the other (BG8-SD02) was collected from the downgradient location close to the concrete culvert. Sediment sample BG8-SD02 was collected prior to BG8-SD01 to avoid possible impact on sample quality by disturbing water and sediment upstream. There was approximately 1-foot of water in the creek flowing west toward Campbell Road at time of sampling. Sediment samples were collected using a stainless steel bucket auger following procedures described in Section 4.5.2.1 of the SAP (IT, 1996a). Samples submitted for VOC analysis were collected as discrete samples taken from the bottom of the auger to prevent the escape of volatile organics. Sediment samples were analyzed for TCL VOCs, TCL SVOCs, TAL metals, nitroaromatic compounds, and pesticides/PCBs.

2.5 Investigation-Derived Wastes

Investigation-derived wastes (IDW) generated during the SI at G-8 BG include decontamination fluids and disposable personnel protective equipment (PPE). These IDW were disposed of in accordance with the procedures described in Chapter 7.0 of the SAP (IT, 1996a). Specifically, disposable PPE were double-bagged and disposed of in the on-site dumpster. About 25 gallons of decontamination water collected in a 55-gallon drum was transported to and disposed of in the designated outside disposal area located at the Pentolite Road Red Water Pond, south of the Pentolite Road (**Figure 1-2**). No soil cuttings were generated during boring and sampling.

2.6 Land Surveying

The land survey at the suspected G-8 BG was conducted in late October, 1996 by a registered professional land surveyor and included four trench locations and twelve soil boring locations. Two sediment sampling locations and one trench location were not surveyed because of missing

survey marks; however, the approximate locations are shown in **Figure 2-6** of this report. Horizontal coordinates were surveyed to the closest 1.0 foot and referenced to both the Ohio State Plane Coordinate System and the coordinates used by NASA PBS. Vertical coordinates (surface elevation) were surveyed to the nearest 0.01 foot and referenced to the 1929 National Geodetic Vertical Datum (NGVD). Land survey data are presented in **Appendix D**.

2.7 Decontamination Procedures

Decontamination of sampling equipment was performed in accordance with the procedures prescribed in Section 4.4.3 of the SAP (IT, 1996a). Specifically, sampling equipment including hand augers, spoons, and pans were decontaminated according to the following procedures:

- Rinse with potable water obtained from the PBS fire station.
- Wash and scrub using a brush with nonphosphatic detergent.
- Rinse with potable water
- Rinse with deionized water (American Society for Testing and Materials [ASTM]) Type II).
- Rinse with methanol followed by a hexane rinse.
- Final rinse with deionized water (ASTM Type II). The rinse volume was at least five times of the volume of methanol used.
- Air dry.
- Wrap in aluminum foil for transport to sampling locations.

2.8 Variances/Nonconformances

For the purpose of this investigation, variances are defined as necessary changes to the standard operating procedures employed in the field or office activities and modification of original scope of work as specified by the SAP (IT, 1996a) and the quality assurance project plan (QAPP) (IT, 1996b). Variances do not significantly affect the quality of the data or process being changed. However, nonconformances are defined as malfunctions, deficiencies, or deviations that may render the quality of information or data unacceptable or indeterminate.

One nonconformance report (**Appendix E**) was generated during the G-8 BG investigation. Two sediment sample locations (BG8-SD01 and -SD02) and one trench location (BG8-TR5) were not surveyed due to missing survey marks. The original survey marks (wood stake painted orange) at

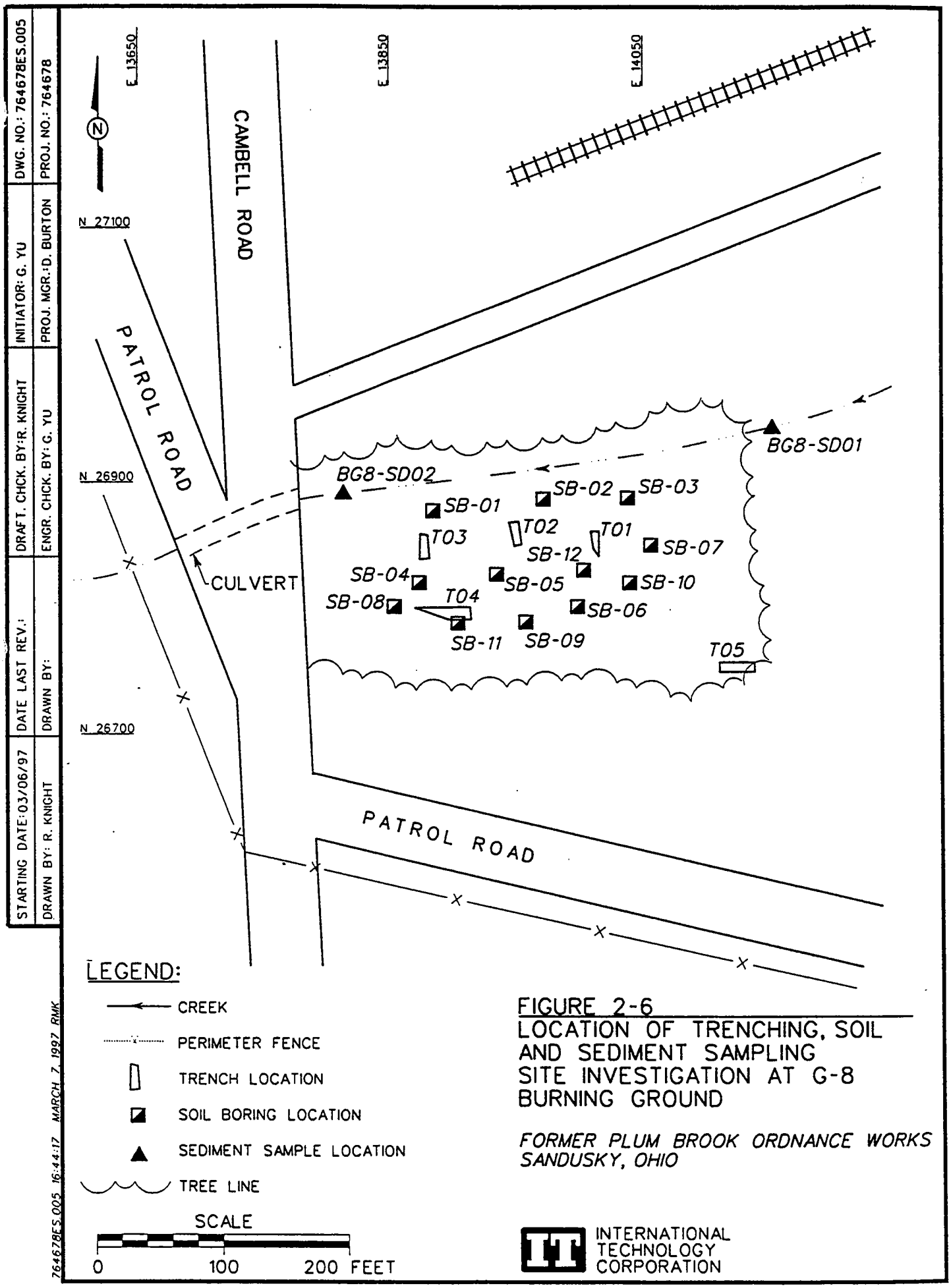

FIGURE 2-6
LOCATION OF TRENCHING, SOIL AND SEDIMENT SAMPLING SITE INVESTIGATION AT G-8 BURNING GROUND

FORMER PLUM BROOK ORDNANCE WORKS SANDUSKY, OHIO

these locations had been removed at the time of surveying. These locations were estimated for placement on **Figure 2-6** according to the site map and site features.

Four variance logs (**Appendix E**) were recorded during the G-8 BG investigation. The first variance concerned the size of the screening geophysical survey area. The SAP specified that the geophysical survey would include approximately a two-acre clear area in the location suspected to be the former burning pit. However, the clear area was in fact about 240 feet by 90 feet (about 0.4 acres). The area was surrounded to the north by a ditch, to the west by Campbell Road and to the south and west by heavy vegetation and trees. After consultation with the USACE-Nashville District, the screening geophysical survey was conducted in the 0.4-acre area.

The second variance log recorded during G-8 BG investigation concerned reducing the number of trenches from the original seven to five. Three pilot trenches and four additional trenches were originally specified in the SAP (IT, 1996a) in an attempt to delineate the boundary of the suspected burning pit. However, since the screening geophysical survey did not give a conclusive result to guide placement of the trenches, the first three pilot trenches were placed in the middle of the clearing area. Visual inspection of soil profiles in these trenches showed no clear indication of any burning residuals. After consultation with the USACE-Nashville District, only two additional trenches were placed south of the clear area.

The third variance log recorded during the investigation concerned the collection of disturbed soil samples for VOC analysis. The original SAP called for the collection of undisturbed soil samples for VOC analysis using a core soil sampler fitted with a removable retaining cylinder. However, due to the large amount of limestone fragments in the shallow soil zone, undisturbed soil samples could not be collected. After contacting USACE Nashville District and IT project manager, it was decided that disturbed soil samples would be collected at all locations for VOC analysis using conventional hand augers.

The last variance log recorded concerned using clear glass jars for SVOC samples. According to the SAP (IT, 1996a), the soil samples collected for SVOC analysis should be placed in 250-ml wide-mouth amber glass bottles. However, clear glass bottles were sent to the job site by the laboratory. The IT field geologist contacted the laboratory for clarification and was told that clear glass bottles were equally acceptable using the analytical methods for this project. At the IT field coordinator's request, the COE oversight representative called USACE Nashville District and confirmed that this change was also acceptable to the USACE.

3.0 Analytical Program

All samples for chemical analysis were analyzed by Quanterra Environmental Services located in Knoxville, Tennessee. The data quality evaluation report is provided in **Appendix B,** and the data validation summary is presented in **Appendix F.** Chemical analytical data packages are presented in **Appendix G**.

3.1 Analytical Parameters and Methodologies

Chemical analyses for the G-8 BG site investigation were performed in accordance with guidelines in the U.S. Environmental Protection Agency (EPA) document entitled "Test Methods for Evaluating Solid Waste" (SW-846) (EPA, 1986). Methods used for analysis by the laboratory are shown in **Table 3-1**. All analytical data were reported in accordance with EPA Definitive Data requirements. The regulatory compound/analyte list reported was the TCL for organics and the TAL for inorganics as defined by the most recent CLP SOW. These data packages have been reviewed for completeness, accuracy, and representativeness as prescribed in the QAPP (IT, 1996b). All analytical data presented in this report were validated and blank corrected. Data validation was performed by an independent subcontractor and the validation summary is presented in **Appendix F**. All samples were submitted to the laboratory accompanied by a request for analysis/chain-of-custody (RFA/COC) form. The RFA portion of the form provides project specific analytical specifications and quality control instruction to the laboratories. A formal COC record was included as part of the document ensuring documentation of custody for sample transportation, storage, and eventual disposition by the laboratory. Copies of all custody documentation are included in the data packages submitted. An assessment of the analytical data with regard to the project specific objectives is presented in **Appendix B** in the data quality evaluation (DQE) report. In the DQE, all elements of data evaluation were compiled and used to determine the usability and overall applicability of the resulting data. Evaluation of the data using the specific data quality objectives (DQO) established for the project resulted in the determination that the data set is valid and of sufficient quality to meet the objectives of the investigation. There were no significant problems observed that would adversely affect the application of the data or the success of the overall investigation.

3.2 Blank Correction

The analytical data generated by the G-8 BG investigation were evaluated in regard to the results in associated field blanks, trip blanks, equipment rinsates, and laboratory method blanks. The method blank results reported with the analytical data were evaluated for high readings character-

Table 3-1

Summary of Analytical Methods
Site Investigation at G-8 Burning Ground
Former Plum Brook Ordnance Works, Sandusky, Ohio

ANALYTICAL PARAMETERS	SOIL ANALYTICAL METHOD	SEDIMENT ANALYTICAL METHOD
TCL Volatile Organic Compounds	EPA SW-846 8260A	EPA SW-846 8260A
TCL Semivolatile Organic Compounds	EPA SW-846 8540/8270B	EPA SW-846 8540/8270B
TAL Metals	EPA SW-846 3050A/6010A 7060A/747A/7740	EPA SW-846 3050A/6010A 7060A/747A/7740
Pesticides/Polychlorinated Biphenyls	EPA SW-846 8081	EPA SW-846 8081
Nitroaromatic Compounds	EPA SW-846 8330	EPA SW-846 8330

TCL – Target compound list.
TAL – Target analyte list. Metals include Ag, Al, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Pb, Tl, V, Zn, As, Hg, and Se.
SW-846 – USEPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, 3rd Edition, September 1986 and subsequent revisions (Revision 1, December 1990, Update 1, July 1992, and Update II, September 1994)

istic of background or process contamination. There were no significant concentrations detected in the designated blank samples that indicated any analytical processes that were out of control or required further corrective action. The analytical data presented in this report were blank corrected as a function of the data validation process.

3.3 Screening Criteria

Soil and sediment analytical data were evaluated using risk-based concentrations (RBC) derived from the Region III EPA table (EPA, 1996). RBCs are media-specific contaminant levels used to reduce the list of detected chemicals to screen down to those warranting further consideration. The RBCs are calculated using toxicity data and standard risk-assessment exposure scenarios to produce concentrations at fixed levels of risk. The RBCs correspond to either a hazard quotient of 1 or a lifetime cancer risk of 10^{-6}, whichever occurs at a lower concentration. The cancer risk of 10^{-6} reflects the lower end of the target risk range as defined in the National Contingency Plan (EPA, 1990). Chemicals present in environmental media at concentrations below the RBCs will not contribute significantly to total site risk. RBCs are provided in the Region III tables for water, air, fish tissue, and soil. The soils are further divided into industrial and residential soils. Although public access to PBOW is currently restricted, considering the possibilities of future change in the use of the site, the residential soil RBCs were used to screen site soil and 10 times of the residential soil RBCs were used to screen sediment analytical data. The use of residential RBCs as screening criteria for both soil and sediment allows for a more conservative evaluation of soil and sediment contamination at the G-8 BG site. The use of 10-time soil RBCs as screening criteria for sediment contaminants reflects the assumption that sediments are less accessible than soils and therefore are less exposed to site receptors.

In addition to RBC screening, soil analytical data were also compared to the soil chemical background information reported by Dames & Moore (D&M) at the conclusion of their 1994 site investigation at PBOW (D&M, 1996). Fourteen background soil samples were collected from eight borings located in areas where no DOD or NASA environmental concerns had been identified. Background soil samples were analyzed for nitroaromatics, metals, BNAs, and VOCs. According to D&M report, no nitroaromatic compounds were detected in any background samples. Four VOCs were detected in some background samples, including **cis-1,2-dichloroethene**, **toluene**, **trichloroethene**, and **xylenes**, all at concentrations below 5 µg/kg. **Bis(2-ethylhexyl)phthalate** was also detected in three background samples. Metals were widely detected in background samples. However, **beryllium**, **cadmium**, **mercury**, **selenium**, **silver**, and **thallium** were reported to be below detection limits in all samples. Statistical analysis of

background soil data were not provided for nitroaromatic and other organic compounds. The statistical evaluation of metal concentrations in background soil samples was performed by D&M. The results are summarized in **Table 3-2** to allow for comparison with the data obtained during the current study. It should be pointed out that with the exception of soil samples collected for VOC analysis, all analyses were done on composite samples collected from various depth intervals. Therefore, soil background concentrations as summarized in **Table 3-2** represent the average concentration of each metal constituent of the entire sampling depth.

Table 3-2
Inorganic Background Concentrations and
Statistical Evaluation in Site Soils
Plum Brook Ordnance Works
Sandusky, Ohio

Metal	Frequency of Detection (%)	Max. DL[a] (mg/kg)	Number of Observations	Minimum Concentration (mg/kg)	Maximum Concentration (mg/kg)	Median Concentration (mg/kg)	Average Concentration (mg/kg)	Standard Deviation	75th % ile	95th % ile
Antimony	42.86	6.1	14	2.7	7.5	2.975	4.457	1.988	6.4	7.5
Arsenic	85.71	3.7	14	1.65	23	9.2	10.4	6.409	15	23
Beryllium	*BDL*[b]	1.2	14	0.55	0.6	0.55	0.564	0.023	0.6	0.6
Cadmium	*BDL*[b]	1.2	14	0.55	0.6	0.55	0.564	0.023	0.6	0.6
Chromium	100	--	14	6	29	13.5	13.5	5.802	17	29
Copper	85.71	2.2	14	1.1	35	7.1	12.285	12.241	17	35
Lead	100	--	14	5.3	25	11	13.343	6.243	15	25
Manganese	100	--	14	16.35	695	187	227.569	183.448	330	695
Mercury	*BDL*[b]	0.3	14	0.135	0.15	0.14	0.142	0.005	0.145	0.15
Nickel	100	--	14	7.6	33	16.5	19.414	8.766	28	33
Selenium	*BDL*[b]	4.9	14	2.15	2.45	2.25	2.267	0.093	2.35	2.45
Silver	*BDL*[b]	1.2	14	0.55	0.6	0.55	0.564	0.023	0.6	0.6
Thallium	*BDL*[b]	6.1	14	2.7	3.05	2.85	2.846	0.102	2.9	3.05
Zinc	100	--	14	11.5	187	44	53.035	41.16	56	187

Source: Table 5-9, TNT Areas Site Investigation Draft Report, Dames & Moore, Inc. May 1996.
a - maximum detection limit.
b - below detection limit in all background samples.

4.0 Analytical Results

Analytical results from the recent site investigation are summarized in **Tables 4-1** through **4-4**, and the laboratory sample summary data packages are provided in **Appendix G**.

4.1 Soil

Twelve surface and subsurface soil samples were collected from the G-8 BG and submitted for laboratory analysis. The soil samples were analyzed for VOCs, SVOCs, metals, pesticides/PCBs, and nitroaromatic compounds. The summarized analytical results are shown in **Tables 4-1** and **4-2**; the laboratory sample summary data package is provided in **Appendix G.**

4.1.1 Volatile Organic Compounds

Surface Soil. All surface soil samples were analyzed for VOCs. Five VOCs were detected in surface soil samples (**Table 4-1**). Among them, **chlorobenzene** was detected only in SO-01 with a concentration of 1 µg/kg; **ethylbenzene** was detected both in SO-01 and SO-09 with concentrations of 1 µg/kg and 6 µg/kg, respectively; **methylene chloride** was detected in 4 of the 12 samples with concentrations ranging from 1 µg/kg (SO-01, SO-03, SO-07) to 2 µg/kg (SO-11); **toluene** was detected in 10 of the 12 surface soil samples collected with concentrations ranging from 1 µg/kg (SO-08) to 17 µg/kg (SO-11); **xylene** (total) was also detected in 6 of the 12 samples collected with concentrations ranging from 2 µg/kg (SO-10) to 8 µg/kg (SO-01 and SO-11). None of the detected concentrations exceeded respective RBCs.

Subsurface Soil. Subsurface soil samples were analyzed for VOCs. Five VOCs were reported above respective detection limits in subsurface soil samples (**Table 4-2**). These VOCs include: **4-methyl-2-pentanone** in SO-05 at a concentration of 2 µg/kg; **ethylbenzene** in 6 of the 12 samples with concentrations ranging from 1 µg/kg (SO-02 and SO-04) to 6 µg/kg (SO-06); **methylene chloride** at concentrations of 1 µg/kg (SO-01 and SO-02) and 2 µg/kg (SO-03) respectively; **toluene** in 9 of the 12 samples with concentrations ranging from 1 µg/kg (SO-08) to 120 µg/kg (SO-03 and SO-06); **xylene** (total) in 9 soil samples with concentrations ranging from 2 µg/kg (SO-11 and SO-12) to 33 µg/kg (SO-06).

Among the detected VOCs in surface and/or subsurface soil samples, two of them **(toluene** and **xylenes)** were also detected in the background soil samples (D&M, 1996) at concentrations below 5 µg/kg, which compares to the average detected **toluene** concentration of 38.6 µg/kg

Table 4-1
Summary of Organic Analytical Results in Surface Soil and Sediment Samples
Site Investigation at G-8 Burning Ground
Former Plum Brook Ordnance Works, Sandusky, Ohio

Sample Location		SO01	SO02	SO03	SO04	SO05	SO06	SO07	SO08	SO09	SO10	SO11	SO12	SD01	SD02
Sample Number		3001	3003	3009	3011	3013	3015	3017	3019	3021	3023	3027	3029	2001	2004
Sample Depth (feet)		0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.3	0-0.3
Sample Date		5/14/96	5/14/96	5/14/96	5/14/96	5/14/96	5/14/96	5/14/96	5/14/96	5/15/96	5/15/96	5/15/96	5/15/96	5/15/96	5/15/96
Parameter	**RBC**														
Volatile Organic Compounds (ug/kg)															
Chlorobenzene	1.6E+5/1.6E+6[a]	1J													
Ethylbenzene	7.8E+5/7.8E+6	1J								6J					
Methylene chloride	8.5E+4/8.5E+5	1J		1J				1J				2J			
Toluene	1.6E+6/1.6E+7	5J	2J	5J	2J	3J	5J		1J	8J	6J	17J			
Xylene (total)	1.6E+7/1.6E+8	8J		6J		3J				7J	2J	8J			
Semivolatile Organic Compounds (ug/kg)															
Phenanthrene	3.1E+4/3.1E+5						57J		150J	44J		49J			
Acenaphthylene	4.7E+5/4.7E+6								100J						
Anthracene	2.3E+6/2.3E+7								58J						
Benzo(a)pyrene	88/880	44J			56J		51J		160J			61J			
Benzo(a)anthracene	880/8,800								140J			51J			
Indeno(1,2,3-cd)pyrene	880/8,800								110J			40J			
Dibenz(a,h)anthracene	88/880								55J						
Benzo(g,h,i)perylene	8,800/8.8E+4								120J			42J			
Benzo(b)fluoranthene	880/8,800				51J		50J		150J						
Benzo(k)fluoranthene	8,800/8.8E+4				68J		56J		210J						
Butyl benzyl phthalate	1.6E+6/1.6E+7			120J											
Carbazole	3.2E+4/3.2E+5								58J						
Chrysene	8.8E+4/8.8E+5	50J			58J		57J		200J	47J		70J			
Di-n-butylphthalate	7.8E+5/7.8E+6													130J	
Phenol	4.7E+6/4.7E+7								92J						
Fluoranthene	3.1E+5/3.1E+6	76J	73J		97J		100J	68J	340J	86J		120J	52J		
Pyrene	2.3E+5/2.3E+6	65J	56J		76J		82J	52J	260J	68J		93J			
Nitroaromatics: all below detection limit (see Appendix G for detection limits)															
Pesticides/PCBs: all below detection limit (see Appendix G for detection limits)															

[a] - 1.6E+5 (soil) /1.6E+6 (sediment) in ug/kg.
Based on the Risk-Based Concentration Table, April 1996, U.S.EPA Region III, residential soil, ingestion scenario

160 J Concentration exceeds RBC

Table 4-2
Summary of Organic Analytical Results in Subsurface Soil Samples
Site Investigation at G-8 Burning Ground
Former Plum Brook Ordnance Works, Sandusky, Ohio

Sample Location		SO01	SO02	SO03	SO04	SO05	SO06	SO07	SO08	SO09	SO10	SO11	SO12
Sample Number		3002	3004	3010	3012	3014	3016	3018	3020	3022	3024	3028	3030
Sample Depth (feet)		1.0-1.5	2.0-3.0	2.0-3.0	0.5-1.0	1.0-2.0	2.0-2.5	2.0-3.0	2.0-3.0	2.0-3.0	1.0-1.5	0.5-1.0	2.0-3.0
Sample Date		5/14/96	5/14/96	5/14/96	5/14/96	5/14/96	5/14/96	5/14/96	5/14/96	5/15/96	5/15/96	5/15/96	5/15/96
Parameter	**RBC[a]**												
Volatile Organic Compounds (ug/kg)													
4-methyl -2-pentanone	6.3E+5					2J							
Ethylbenzene	7.8E+5	3J	1J	4J	1J	2J	6J						
Methylene chloride	8.5E+4	1J	1J	2J									
Toluene	1.6E+6	46	12	120	5J	32	120		1J			10	2J
Xylene (total)	1.6E+7	15	7	24	10J	9	33				5J	2J	2J
Semivolatile Organic Compounds (ug/kg)													
Bis(2-ethylhexyl)phthalate	4.6E+4					420J							
Butyl benzyl phthalate	1.6E+7								49J				47J
Nitroaromatics: all below detection limit (see Appendix G for detection limits)													
Pesticides/PCBs: all below detection limit (see Appendix G for detection limits)													

[a] - RBC value in ug/kg for soil.
Based on the Risk-Based Concentration Table, April 1996, U.S.EPA Region III, residential soil, ingestion scenario

Table 4-3
Summary of Metal Analytical Results in Surface Soil and Sediment Samples
Site Investigation at G-8 Burning Ground
Former Plum Brook Ordnance Works, Sandusky, Ohio

Sample Location		SO01	SO02	SO03	SO04	SO05	SO06	SO07	SO08	SO09	SO10	SO11	SO12	SD01	SD02
Sample Number		3001	3003	3009	3011	3013	3015	3017	3019	3021	3023	3027	3029	2001	2004
Sample Depth (feet)		0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.3	0-0.3
Sample Date		5/14/96	5/14/96	5/14/96	5/14/96	5/14/96	5/14/96	5/14/96	5/14/96	5/15/96	5/15/96	5/15/96	5/15/96	5/15/96	5/15/96
Parameter	**RBC**														
Metals (mg/kg)															
Aluminum	7,800/78,000[a]	6570	9110	9100	5500	6850	6180	8640	4860	7720	5780	5260	5550	20500	18600
Arsenic (as carcinogen)	0.43/4.3	4.6J	6.0J	8.3J	4.7J	4.5J	3.8J	4.5J	3.8J	6.8J	4.0J	4.1J	3.4J	12.1J	8.0J
Barium	550/5,500	65.7J	99.5J	1440J	39.1J	64.7J	52.0J	102J	41.3J	55.9J	39.2	43.1J	49.6J	165J	167J
Beryllium	0.15/1.5		1	0.98				1						8.8	6.9
Cadmium	3.9/39													2.9	3.5
Chromium	39/390	7.2	11.2	12.4	7.2	7.9	7.3	10.5	6	8.8	6.7	7.4	6.5	13.4	11.8
Cobalt	470/4,700	12.5	13.7	44.7	10.7	10.3	9.2	16.4	8.9	11.4	6.9	9.6	7.6	179	251
Copper	310/3,100	10.6	16.5	18.8	10.6	9.5	7.3	16.6	8	12.1J	6.8J	9.0J	4.9J	63.0J	52.7J
Iron	2,300/23,000	33500J	35800J	42300J	27900J	32100J	23000J	25800J	21300J	28100	23500	24500	15200	70700	43900
Lead	400	12.3J	16.6J	14.9J	13.8J	13.2J	12.6J	16.1J	13.7J	11.2J	12.5J	12.9J	10.7J	21.0J	17.9J
Manganese	160/1,600	1910J	1500J	10000J	1600J	1920J	1370J	1170J	1050J	1660J	726J	1410J	711J	1560J	3480J
Mercury (inorganic)	2.3/23		0.05	0.05				0.05							
Nickel	160/1,600	10.5	22.1	49.3	11.4	10.4	7.9	26.5	8.2	16.2	8.6	11.6	7.6	273	403
Selenium	39/390		0.74J	0.86J										1.9J	1.9J
Thallium	0.51/5.1		2.0J	1.7J							2.1J				
Vanadium	55/550	10.8	14.8	20.1	13.5	13	11.8	15.4	10.3	19.1	11.3	11	11.1	23.3	21.3
Zinc	2,300/23,000	67.7J	114J	195J	59.5J	61.0J	121J	114J	44.2J	69.9	57.4	55.3	35.6	537	569

[a] - 7,800 (soil)/78,000 (sediment) in mg/kg.
Based on the Risk-Based Concentration Table, April 1996, U.S.EPA Region III, residential soil, ingestion scenario

2.0J Concentration exceeds RBC

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Table 4-4
Summary of Metal Analytical Results in Subsurface Soil Samples
Site Investigation at G-8 Burning Ground
Former Plum Brook Ordnance Works, Sandusky, Ohio

Sample Location		SO01	SO02	SO03	SO04	SO05	SO06	SO07	SO08	SO09	SO10	SO11	SO12
Sample Number		3002	3004	3010	3012	3014	3016	3018	3020	3022	3024	3028	3030
Sample Depth (feet)		1.0-1.5	2.0-3.0	2.0-3.0	0.5-1.0	1.0-2.0	2.0-2.5	2.0-3.0	2.0-3.0	2.0-3.0	1.0-1.5	0.5-1.0	2.0-3.0
Sample Date		5/14/96	5/14/96	5/14/96	5/14/96	5/14/96	5/14/96	5/14/96	5/14/96	5/15/96	5/15/96	5/15/96	5/15/96
Parameter	**RBC**												
Metals (mg/kg)													
Aluminum	7800[a]	6110	7590	6660	6850	5600	7060	6670	10800	5930	9450	9920	13100
Arsenic (as carcinogen)	0.43	3.7J	8.0J	12.8J	5.4J	5.2J	7.7J	3.0J	5.3J	5.6J	6.9J	5.8J	8.9J
Barium	550	50J	175J	1770	64.4J	104J	255J	37.4J	107J	156J	263J	57.3J	129J
Beryllium	0.15		1.3	1.2			1	0.64	0.87	0.76	1.3	0.63	1.2
Cadmium	3.9			1.2									
Chromium	39	7.3	9.6	10.6	6.1	6.5	9.1	10.7	12.4	6.5	13.2	11.9	17.8
Cobalt	470	12.7	18.3	41.2	10.6	11.7	22.5	10.8	13.4	15.5	18.7	15.3	18.8
Copper	310	7.2	13.5	21.6	11.3	9.6	8.3	6.9	10.8	11.4J	11.3J	13.0J	14.2J
Iron	2,300	38100J	76300J	90700J	33800J	47000J	65800J	28000J	50800J	47100	74700	42700	61800
Lead	400	9.8J	15.4J	14.7J	11.5J	11.2J	13.9J	9.3J	10.6J	13.7J	11.4J	10.2J	12.0J
Manganese	160	2050J	2790J	21700J	2290J	3320J	6610J	367J	2810J	3780J	4910J	1990J	1810J
Mercury (inorganic)	2.3		0.05	0.05					0.05		0.05	0.05	0.06
Nickel	160	9.8	19.4	110	16.3	13.9	21.2	14.3	19.8	18.5	20.5	17.9	23.4
Selenium	39			1.8J									
Thallium	0.51		1.5J						1.4J				1.5J
Vanadium	55	11	12.5	19.3	19.3	13.8	18.6	14.5	18.2	19.7	22.6	18.9	24.5
Zinc	2,300	58.1J	141J	318J	72.0J	65.2J	72.7J	133J	50.2J	138	97.1	64	62.4

[a] - 7,800 (soil) in mg/kg.
Based on the Risk-Based Concentration Table, April 1996, U.S.EPA Region III, residential soil, ingestion scenario

2.0J Concentration exceeds RBC

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(subsurface sample) and 5.4 µg/kg (surface sample); and the average detected **xylene** concentration of 11.9 µg/kg (subsurface sample) and 5.6 µg/kg (surface sample) at the G-8 BG, respectively.

4.1.2 Semivolatile Organic Compounds

Surface Soil. A total of sixteen SVOCs were reported in surface soil samples collected. **Phenanthrene** was detected in 4 of the 12 surface soil samples collected with concentrations ranging from 44 µg/kg (SO-09) to 150 µg/kg (SO-08). **Acenaphyhtlene**, **anthracene**, **phenol**, **dibenz(ah)anthracene**, and **carbazole** were all detected only in SO-08 at concentrations of 100 µg/kg, 58 µg/kg, 92 µg/kg, 55 µg/kg, and 58 µg/kg, respectively. **Benzo(a)pyrene** was detected in 5 of the 12 surface soil samples analyzed with concentrations ranging from 44 µg/kg (SO-01) to 160 µg/kg (SO-08). **Benzo(a)anthracene** was reported in SO-08 and SO-011 at concentrations of 140 µg/kg and 51 µg/kg, respectively. **Indeno(1,2,3-cd)pyrene** was detected in SO-08 and SO-11 at concentations of 110 µg/kg and 40 µg/kg, respectively. **Benzo(g,h,i)-perylene** was also reported in SO-08 and SO-11 at concentrations of 120 µg/kg and 42 µg/kg, respectively. **Benzo(b)fluoranthene** was reported in SO-04, SO-06, and SO-08 at concentrations of 51 µg/kg, 50 µg/kg, and 150 µg/kg, respectively. **Benzo(k)fluoranthene** was also detected in SO-04, SO-06, and SO-08 with concentrations of 68 µg/kg, 56 µg/kg, and 210 µg/kg, respectively. **Buthl benzyl phthalate** was only found in SO-03 at a concentration of 120 µg/kg. **Chrysene** was detected in 6 of the 12 soil samples analyzed with concentrations ranging from 47 µg/kg (SO-09) to 200 µg/kg (SO-08). **Fluoranthene** was detected in 9 of the 12 samples with concentrations ranging from 52 µg/kg (SO-12) to 340 µg/kg (SO-08). **Pyrene** was reported in 8 of the 12 samples with concentrations ranging from 52 µg/kg (SO-07) to 260 µg/kg (SO-08).

Subsurface Soil. Only two SVOCs were reported at concentrations above their respective detection limit in subsurface soils. The compound **bis(2-ethylhexyl)phthalate** was detected in one of the 12 samples collected at a concentration of 420 µg/kg (SO-05). **Buthl benzyl phthalate** was found in samples collected from SO-08 and SO-12 at concentrations of 49 µg/kg and 47 µg/kg, respectively. All detected SVOCs were far below the RBCs.

Among the detected SVOCs in the subsurface soil samples, the compound **bis(2-ethylhexyl)-phthalate** was the only one that was also reported in 3 of the 14 background soil samples (D&M, 1996) at concentrations ranging from 410 µg/kg to 1,070 µg/kg.

4.1.3 Metals

Metals detected in soil samples include **aluminum, arsenic, barium, beryllium, cadmium, calcium, chromium, cobolt, copper, iron, lead, magnesium, manganese, mercury, nickel, potassium, selenium, vanadium, thallium,** and **zinc**. The essential nutrients **calcium, magnesium,** and **potassium** were detected in most samples. **Calcium** concentrations ranged from 1,560 mg/kg (SO-012) to 54,900mg/kg in SO-04. **Magnesium** concentrastions ranged from 699 mg/kg in SO-08 to 22,700 mg/kg in SO-04. **Potassium** concentrations ranged from 673 mg/kg to 1,030 mg/kg. These metals are ubiquitous, nutritionally essential nutrients that are unlikely to be toxic at concentrations ordinarily found in environmental media.

Surface Soil. **Aluminum** was detected in all soil samples at concentrations ranging from 4,860 mg/kg (SO-08) to 9,110 mg/kg (SO-02). **Arsenic** was detected in all soil smaples at concentrations ranging from 3.4 mg/kg (SO-12) to 8.3 mg/kg (SO-03). **Barium** was detected in all soil samples at concentrations ranging from 39.1mg/kg (SO-04) to 1,440 mg/kg (SO-03). **Beryllium** was only detected in SO-02, SO-03, and SO-07 at concentrations of 1 mg/kg, 0.89 mg/kg, and 1 mg/kg respectively. **Cadmium** was not detected in any of the surface soil samples. However, this analyte was detected in sediment samples at concentrations of 2.9 mg/kg (SD-01) and 3.5 mg/kg (SD-02). **Chromium** was detected in all samples at concentrations ranging from 6 mg/kg (SO-08) to 12.4 mg/kg (SO-03). **Cobalt** was detected in every sample at concentrations ranging from 6.9 mg/kg (SO-10) to 44.7 mg/kg (SO-03). **Copper** was detected at concentrations ranging from 4.9 mg/kg (SO-12) to 18.8 mg/kg (SO-03). **Iron** was detected in all samples at concentrations ranging from 15,200 mg/kg (SO-12) to 42,300 mg/kg (SO-03). **Lead** was detected at concentrations ranging from 10.7 mg/kg (SO-12) to 16.6 mg/kg (SO-02). The concentrations of **manganese** ranged from 711 mg/kg (SO-12) to 10,000 mg/kg (SO-03). **Mercury** was detected in SO-02, SO-03, and SO-07 all at a concentration of 0.05 mg/kg. This analyte was not detected in sediment samples. **Nickel** was detected in all samples collected at concentrations ranging from 7.6 mg/kg (SO-12) to 49.3 mg/kg (SO-03). **Selenium** was detected at a concentration of 0.74 mg/kg in SO-02 and 0.86 mg/kg in SO-03. **Thallium** was detected in three surface soil samples SO-02, SO-03, and SO-10 at concentrations of 2.0 mg/kg, 1.7 mg/kg, and 2.1 mg/kg, respectively. This analyte was not found in either sediment samples. **Vanadium** was detected in all surface soil samples collected with concentrations ranging from 11 mg/kg (SO-11) to 20.1 mg/kg (SO-03) while **zinc** concentrations ranged from 44.2 mg/kg in SO-08 to 195 mg/kg in SO-03.

Subsurface Soil. **Aluminum** was detected in all subsurface soil samples at concentrations ranging from 5,600 mg/kg (SO-05) to 13,100 mg/kg (SO-12). **Arsenic** was detected in all soil samples at concentrations ranging from 3.0 mg/kg (SO-07) to 12.8 mg/kg (SO-03). **Barium** was detected in all subsurface soil samples at concentrations ranging from 37.4 mg/kg (SO-07) to 1,770 mg/kg (SO-03). **Beryllium** was detected in 9 of the 12 samples collected at concentrations ranging from 0.63 mg/kg (SO-11) to 1.3 mg/kg (SO-02). **Cadmium** was detected in SO-03 at a concentration of 1.2 mg/kg; however, this analyte was not found in any of the surface soil samples. **Chromium** was detected in all samples at concentrations ranging from 6.1 mg/kg (SO-04) to 17.8 mg/kg (SO-12). **Cobalt** was detected in every sample at concentrations ranging from 10.8 mg/kg (SO-07) to 41.2 mg/kg (SO-03). **Copper** was detected at concentrations ranging from 6.9 mg/kg (SO-07) to 21.6 mg/kg (SO-03). **Iron** was detected in all samples at concentrations ranging from 33,800 mg/kg (SO-04) to 90,700 mg/kg (SO-03). **Lead** was detected at concentrations ranging from 9.3 mg/kg (SO-07) to 15.4 mg/kg (SO-02). The concentrations of **manganese** ranged from 367 mg/kg (SO-07) to 21,700 mg/kg (SO-03). **Mercury** was detected in 6 of the 12 samples collected at concentrations between 0.05 and 0.06 mg/kg. This analyte was not detected in sediment samples. **Nickel** was detected in all samples collected at concentrations ranging from 9.8 mg/kg (SO-01) to 110 mg/kg (SO-03). **Selenium** was detected at a concentration of 1.8 mg/kg in SO-03 only. **Thallium** was detected in three subsurface soil samples SO-02, SO-08, and SO-12 at concentrations of 1.5 mg/kg, 1.4 mg/kg, and 1.5 mg/kg, respectively. This analyte was not found in sediment samples. **Vanadium** was detected in all subsurface soil samples collected with concentrations ranging from 11 mg/kg (SO-01) to 24.5 mg/kg (SO-12) while **zinc** concentrations ranged from 50.2 mg/kg in SO-08 to 318 mg/kg in SO-03.

4.1.4 Pesticides and PCBs

Pesticides and PCBs were not detected in any of the surface or subsurface soil samples collected at the G-8 BG site. The method detection limits reported by the laboratory are provided in **Appendix G**. The background data for pesticides and PCBs in soils are not available.

4.1.5 Nitroaromatic Compounds

Nitroaromatic compounds (explosives residues) were not detected in any of the surface or subsurface soil samples collected at the G-8 BG site. Nor were these compounds detected in the background samples. The method detection limits reported by the laboratory are provided in **Appendix G**.

4.1.6 Comparison with Screening Levels

The soil analytical data from the recent investigation has been compared against RBCs developed for residential soil ingestion as described in Section 3.3 of this report. The VOCs and SVOCs detected in 11 of the 12 surface soil samples and in all subsurface soil samples were all below their respective RBCs (**Tables 4-1** and **4-2**). The only exception was the surface soil sample collected from SO-08 which was exhibited **benzo(a)pyrene** at a concentration of 160 µg/kg, exceeding the corresponding RBC of 88 µg/kg. Seven metals were detected at concentrations exceeded their respective RBCs. **Aluminum** was detected at concentrations exceeded the RBC (7,800 mg/kg) in 3 surface and 4 subsurface soil samples with the maximum concentration of 13,100 mg/kg at SO-12 (2-3 feet). **Arsenic** was detected at concentrations above the RBC (0.43 mg/kg) in all surface and subsurface soil samples collected. The maximum **arsenic** concentration of 12.8 mg/kg was found at SO-03 (2-3 feet). **Barium** was found at concentrations above the RBC (550 mg/kg) in both surface and subsurface samples collected from SO-03. **Beryllium** was detected at concentrations exceeded the RBC (0.15 mg/kg) in 3 surface and 9 subsurface soil samples. The maximum **beryllium** concentration (1.3 mg/kg) was detected at the depth of 2-3 feet at SO-02. **Iron** was detected at concentrations above the RBC of 2,300 mg/kg in all soil samples with the maximum concentration (90,700 mg/kg) occurred at the depth of 2-3 feet at SO-03. **Manganese** was detected at concentrations exceeded the RBC of 160 mg/kg in all soil samples. The maximum **manganese** concentration of 21,700 mg/kg was found in the soil sample collected from SO-03. **Thallium** was detected in 3 surface and 3 subsurface soil samples at concentrations above the RBC of 0.51 mg/kg with the maximum concentration of 2.1 mg/kg from the depth of 0-0.5 feet at SO-10. Other metals were detected at concentrations below the respective RBCs (**Tables 4-3 and 4-4**).

4.2 Sediment

Two sediment samples were collected from G-8 BG and submitted for laboratory analysis. The sediment samples were analyzed for VOCs, SVOCs, metals, pesticides/PCBs, and nitroaromatic compounds. The summarized analytical results are shown in **Tables 4-1** and **4-3**; the laboratory sample summary data package is provided in **Appendix G.**

4.2.1 Volatile Organic Compounds

Unlike in soil samples, VOCs were not detected in either of the two sediment samples (SD-01 and SD-02) collected at concentrations above the method detection limits as provided in **Appendix G**.

4.2.2 Semivolatile Organic Compounds

One SVOC **(di-n-butylphthalate)** was detected in SD-01 at a concentration of 130 µg/kg. This compound was not found in any of the soil samples collected. Other SVOCs detected in soil samples were not found in sediment samples at concentrations above the method detection limits as provided in **Appendix G**.

4.2.3 Metals

Metals detected in the sediment samples include **aluminum**, **arsenic**, **barium**, **beryllium**, **cadmium**, **calcium**, **chromium**, **cobalt**, **copper**, **iron**, **lead**, **magnesium**, **manganese**, **nickel**, **selenium**, **vanadium**, and **zinc**. The essential nutrients calcium and magnesium were detected in both samples. Calcium concentration was 8,800 mg/kg in SD-01 and 12,700 mg/kg in SD-02 while magnesium concentration was 1,750 mg/kg in SD-01 and 3,420 mg/kg in SD-02. These metals are ubiquitous, nutritionally essential nutrients that are unlikely to be toxic at concentrations ordinarily found in environmental media. The other 15 metals were found in both sediment samples and are discussed below.

Aluminum was detected at concentrations of 20,500 mg/kg and 18,600 mg/kg in SD-01 and SD-02, respectively. **Arsenic** was detected at concentrations of 12.1 mg/kg (SD-01) and 8.0 mg/kg (SD-02). **Barium** was detected at concentrations of 165 mg/kg (SD-01) and 167 mg/kg (SD-02). **Beryllium** was detected at concentrations of 8.8 mg/kg (SD-01) and 6.9 mg/kg (SD-02). **Cadmium** was detected at concentrations of 2.9 mg/kg (SD-01) and 3.5 mg/kg (SD-02). **Chromium** was detected at concentrations of 13.4 mg/kg (SD-01) and 11.8 mg/kg (SD-02). **Cobalt** was detected in both samples at concentrations of 179 mg/kg (SD-01) and 251 mg/kg (SD-02). **Copper** was detected at concentrations of 63 mg/kg (SD-01) and 52.7 mg/kg (SD-02). **Iron** was detected in both samples at concentrations of 70,700 mg/kg (SD-01) and 43,900 mg/kg (SD-02). **Lead** was detected at concentrations of 21.0 mg/kg (SD-01) and 17.9 mg/kg (SD-01). The concentrations of **manganese** ranged from 1,560 mg/kg (SD-01) to 3,480 mg/kg (SD-02). **Nickel** was detected at concentrations of 8.8 mg/kg (SD-01) and 6.9 mg/kg (SD-02). **Selenium** was detected at a concentration of 1.9 mg/kg in both samples which compares with only two detections in twelve surface soil samples. **Vanadium** was detected at concentrations of 23.3 mg/kg (SD-01) and 21.3 mg/kg (SD-02) while **zinc** concentrations ranged from 537 mg/kg in SD-01 to 569 mg/kg in SD-02.

4.2.4 Pesticides and PCBs

Pesticides/PCBs were not detected in either of the two sediment samples (SD-01 and SD-02) collected. Method detection limits are provided in **Appendix G.**

4.2.5 Nitroaromatic Compounds

Nitroaromatic compounds were not detected in either of the two sediment samples collected. Method detection limits are provided in **Appendix G.**

4.2.6 Comparison with Screening Levels

The sediment analytical data from the recent investigation has been compared against RBCs as described in Section 3.3 of this report. The one SVOC (**di-n-butylphthalate**) detected in sediment samples was below the RBC (**Table 4-1**). A total of 15 metals were detected in both sediment samples. Among them, **arsenic** was detected at concentrations exceeded the RBC (4.3 mg/kg) in both samples. **Beryllium** was detected in both sediment samples at concentrations above the RBC of 1.5 mg/kg. **Iron** was found in both sidement samples at concentrations above the RBC of 23,000 mg/kg. **Manganese** was detected in both sediment samples at concentrations exceeded the RBC of 1,600 mg/kg.

5.0 Conclusions and Recommendations

5.1 Summary

The analytical results and RBC comparison as discussed in previous chapter are summarized in the following bullet format. This chapter also presents a preliminary statistical evaluation of soil inorganic data and the results of data comparison between soil data acquired during this investigation and the soil background data reported by D&M (D&M, 1996).

5.1.1 Surface Soil

- Five VOCs were detected at concentrations above the method detection limits, including **chlorobenzene**, **ethyl benzene**, **methylene chloride**, **toluene**, and **total xylene.** VOCs were not detected in the sample collected from SO-12. All detected VOCs were at concentrations significantly below their respective RBCs.

- Sixteen SVOCs were detected at concentrations above respective detection limits including **phenanthrene**, **acenaphyhtlene**, **anthracene**, **dibenz(a,h)anthracene**, **carbazole**, **benzo(a)pyrene**, **benzo(a)anthracene**, **indeno(1,2,3-cd)pyrene**, **benzo(g,h,i)perylene**, **phenol**, **benzo(b)fluoranthene**, **benzo(k)fluoranthene**, **buthl benzyl phthalate**, **chrysene**, **fluoranthene**, and **pyrene.** The soil samples collected from SO-08 showed the most frequent detection of various SVOCs (15 of 16 SVOCs) while samples collected from SO-05 and SO-10 had only one SVOC detection. SVOCs showed a wide detection in surface soil samples compared to VOCs. However, the detected SVOC concentrations were all below the respective RBCs with only one exception. The sample collected from SO-08 contained **benzo(a)pyrene** at a concentration of 160 µg/kg which exceeded the RBC of 88 µg/kg.

- Sixteen metal analytes (excluding **calcium**, **magnesium**, and **potassium**) were detected in surface soil samples at various concentrations including **aluminum**, **arsenic**, **barium**, **beryllium**, **chromium**, **cobalt**, **copper**, **iron**, **lead**, **manganese**, **mercury**, **nickel**, **selenium**, **thallium**, **vanadium**, and **zinc.** Among them, **aluminum**, **arsenic**, **barium**, **beryllium**, **iron**, **manganese**, and **thallium** were detected at concentrations exceeded respective RBCs as discussed in Section 4.1.6. The maximum concentrations for **arsenic**, **barium**, **iron**, and **manganese** were all found at depth of 2-3 feet at SO-03.

- Neither pesticides/PCBs nor nitroaromatic compounds were detected at concentrations above the respective method detection limits. These compounds were also found below detection limits in all background samples.

5.1.2 Subsurface Soil

- Five VOCs were detected at concentrations above the method detection limits including **4-methyl-2-pentanone, ethyl benzene, methylene chloride, toluene,** and total **xylene.** VOCs were not detected in samples collected from SO-07 and SO-09. The detected VOC concentrations in all subsurface soil samples were at concentrations significantly below respective RBCs. Two of the detected VOCs (**toluene** and **total xylene**) were also reported in background soil samples.

- Two SVOCs were detected at the concentrations above respective detection limits included **bis(2-ethylhexyl)phthalate** and **butyl benzyl phthalate**. The detected SVOC concentrations in all subsurface soil samples were at concentrations significantly below the respective RBCs. Of the detected SVOCs, **bis(2-ethylhexyl)phthalate** was also found in selective background samples .

- Seventeen metals (excluding **calcium**, **magnesium**, and **potassium**) were detected in subsurface soil samples at various concentrations including **aluminum**, **arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, nickel**; **selenium, thallium, vanadium,** and **zinc**. The concentrations of **aluminum, arsenic, barium, beryllium, iron, manganese,** and **thallium** were found to be above the established RBCs (**Table 4-3**). **Mercury** and **thallium** were detected in site soils but not in the sediment samples.

- Neither pesticides/PCBs nor nitroaromatic compounds were detected at concentrations above the respective method detection limits. These compounds were also found below detection limits in all background samples.

5.1.3 Statistical Comparison of Metals in Soils

Descriptive statistical evaluation was performed on the soil inorganic data (**Table 5-1**) to allow comparison with the available soil background data as presented in **Table 3-2.** The results of this comparison in terms of average concentrations are summarized below:

- **Aluminum** was detected in all G-8 samples at an average concentration of 6,760 mg/kg (0-0.5 ft) and 7,978.3 mg/kg (2-3 ft) respectively. This analyte was not included in the soil background data.
- **Arsenic** was detected in all G-8 soil samples at an average concentration of 4.95 mg/kg (0-0.5 ft) and 6.53 mg/kg (2-3 ft), respectively, which is below 10.4 mg/kg reported in the background samples but exceeds the RBC.
- **Barium** was detected in all G-8 soil samples at average concentrations of 174.34 mg/kg (0-0.5 ft) and 283.46 mg/kg (2-3 ft), respectively. This analyte was not included in the background data.
- **Beryllium** were detected in selective soil samples collected within the G-8 site at an average concentration of 0.49 mg/kg (0-0.5 ft) and 0.82 mg/kg (2-3 ft),

Table 5-1
Statistical Evaluation of Inorganic Analytical Data
Surface and Subsurface soil Samples
Site Investigation at G-8 Burning Ground
Plum Brook Ordnance Works, Sandusky, Ohio
(mg/kg)

Metal	Frequency of Detection		Minimum Concentration		Maximum Concentration		Median		Average		Standard Deviation		75th Percentile		95th Percentile		Skewness	
	Sampling Depth Interval (feet below ground surface)																	
	0 - 0.5	2 - 3	0 - 0.5	2 - 3	0 - 0.5	2 - 3	0 - 0.5	2 - 3	0 - 0.5	2 - 3	0 - 0.5	2 - 3	0 - 0.5	2 - 3	0 - 0.5	2 - 3	0 - 0.5	2 - 3
Aluminum	12/12	12/12	4860	5600	9110	13100	6375	6955	6760	7978.3	1528.7	2319.7	7950	9567.5	9104	11835	0.39	1.15
Arsenic	12/12	12/12	3.4	3	8.3	12.8	4.5	5.7	4.95	6.53	1.49	2.61	5.35	7.78	7.55	10.66	1.39	1.18
Barium	12/12	12/12	39.1	37.4	1440	1770	53.95	129	174.34	283.46	399.16	498.59	74.15	215	704.1	1016.5	3.3	3.18
Beryllium[a]	3/12	9/12	0.3	0.305	1	1.3	0.32	0.82	0.49	0.82	0.31	0.38	0.5	1.2	1	1.3	1.19	0.13
Cadmium	0/12	1/12	---	---	---	1.2	---	---	---	1.2	---	---	---	---	---	---	---	---
Chromium	12/12	12/12	6	6.1	12.4	17.8	7.35	10.1	8.26	10.14	2.04	3.42	9.23	12.03	11.74	15.27	0.96	0.84
Cobalt	12/12	12/12	6.9	10.6	44.7	41.2	10.5	15.4	13.49	17.46	10.17	8.34	12.8	18.73	29.14	30.92	2.97	2.35
Copper	12/12	12/12	4.9	6.9	18.8	21.6	10.05	11.3	10.89	11.59	4.34	3.93	13.2	13.13	17.59	17.53	0.77	1.44
Iron	12/12	12/12	15200	28000	42300	90700	26850	48950	27750	54733	7278.4	19159	32450	68025	38725	82780	0.91	0.48
Lead	12/12	12/12	10.7	9.3	16.6	15.4	13.05	11.45	13.38	11.98	1.79	2	14.08	13.75	16.33	15.02	0.67	0.47
Manganese	12/12	12/12	711	367	10000	21700	1455	2800	2085.6	4335.6	2523.9	5637.9	1722.5	4026.5	5556	13401	3.2	2.99
Mercury[b]	3/12	6/12	0.02	0.02	0.05	0.06	0.02	0.04	0.03	0.04	0.01	0.02	0.03	0.05	0.05	0.05	1.19	0.1
Nickel	12/12	12/12	7.6	9.8	49.3	110	10.95	18.95	15.86	25.42	12.1	26.89	17.68	20.68	36.76	62.37	2.16	3.34
Selenium[c]	2/12	1/12	0.3	---	0.86	1.8	0.32	---	0.4	1.8	0.19	---	0.34	---	0.79	---	1.98	---
Thallium[d]	3/12	3/12	0.6	0.6	2.1	1.5	0.63	0.65	0.95	0.85	0.6	0.37	0.95	0.88	2.05	1.5	1.27	1.31
Vanadium	12/12	12/12	10.3	11	20.1	24.5	12.4	18.75	13.52	17.74	3.27	4.04	14.95	19.4	19.55	23.46	1.02	0.17
Zinc	12/12	12/12	35.6	50.2	195	318	64.35	72.35	82.88	105.98	45.25	74.47	114	134.25	154.3	220.65	1.55	2.39

a, b, c, d - These metal data include both detected and nondetetced results, known as censored data.
During the statistical calculation, nondetects were replaced with one half of the detection limit.

c:\wp51\files\pbow\g_8bg\statis.xls

respectively. Both exceeded the RBC. However, this analyte was not detected in any background samples.

- **Cadmium** was only detected in one soil sample from the G-8 site at an concentration of 1.2 mg/kg (2-3 ft) and was not detected in any background samples.
- **Chromium** was detected in all G-8 soil samples and also in all background samples. The average concentration was 8.26 mg/kg (0-0.5 ft) and 10.14 mg/kg (2-3 ft) for the G-8 samples which compares to 13.5 mg/kg in the background data.
- **Cobalt** was found in all G-8 samples at an average concentration of 13.49 mg/kg (0-0.5 ft) and 17.46 mg/kg (2-3 ft), respectively. This analyte was not included in soil background data.
- **Copper** was detected in all G-8 samples at an average concentration of 10.89 mg/kg (0-0.5 ft) and 11.95 mg/kg (2-3 ft), respectively, compared to 12.285 mg/kg in the background samples.
- **Iron** was found in all G-8 samples at an average concentration of 27,750 mg/kg (0-0.5 ft) and 54,733 mg/kg (2-3ft), respectively. This analyte was not included in soil background data
- **Lead** was detected in all G-8 soil samples at an average concentration of 13.38 mg/kg (0-0.5 ft) and 11.98 mg/kg (2-3 ft), respectively, which is very similar to the background value of 13.34 mg/kg.
- **Manganese** was detected in all G-8 soil samples at an average concentration of 2,085.6 mg/kg (0-0.5 ft) and 4,335.6 mg/kg (2-3 ft), respectively, which was significantly higher than the 227.57 mg/kg in the background samples and also exceeded the RBC value.
- **Mercury** was detected in soil samples at G-8 site at an average concentration of 0.03 mg/kg (0-0.5 ft) and 0.04 mg/kg (2-3 ft), respectively, which is below the 0.142 mg/kg reported for the background samples.
- **Nickel** was detected in all G-8 soil samples at an average concentration of 15.86 mg/kg (0-0.5 ft) and 25.42 mg/kg (2-3 ft), respectively, which compares to 19.414 mg/kg in the background samples.
- **Selenium** was detected in selective G-8 soil samples at an average concentration of 0.4 mg/kg (0-0.5 ft) and 0.44 mg/kg (2-3 ft), respectively. This analyte was not detected in background samples possibly due to a higher detection limit (method detection limit (MDL)= 4.9 mg/kg).

- **Thallium** was detected in a few G-8 soil samples at an average concentration of 0.95 mg/kg (0-0.5 ft) and 0.85 mg/kg (2-3 ft), respectively. This analyte was not detected in background samples possibly due to high detection limit (MDL = 6.1 mg/kg).
- **Vanadium** was detected in all G-8 soil samples at an average concentration of 13.52 mg/kg (0-0.5 ft) and 17.74 mg/kg (2-3 ft), respectively. This analytes was not reported in the background samples.
- **Zinc** was also found in all G-8 soil samples at an average concentration of 82.88 mg/kg (0-0.5 ft) and 105.98 mg/kg (2-3 ft), respectively, exceeded the 53.035 mg/kg reported in the background samples.

5.1.4 Sediment

- VOCS were not detected in either of the two sediment samples collected at concentrations above the method detection limits as provided in **Appendix G.**

- One SVOC (**di-n-butylphthalate**) was detected in SD-01. The concentrations of this compound was significantly below the corresponding RBC (**Table 4-1**).

- Fifteen metals (excluding **calcium**, **magnesium**, and **potassium**) were detected in sediment samples at various concentrations including **aluminum**, **arsenic**, **barium**, **beryllium**, **cadmium**, **chromium**, **cobalt**, **copper**, **iron**, **lead**, **manganese**, **nickel**, **selenium**, **vanadium**, and **zinc.** The concentrations of **arsenic**, **beryllium**, **iron**, and **manganese** were above the established RBCs (**Table 4-3**).

- Neither pesticides/PCBs nor nitroaromatic compounds were detected at concentrations above the respective method detection limits.

5.2 Conclusions

Based on the analytical results, surface and shallow (less than 3 feet) subsurface soils within the suspected former burning ground do not appear to be notably contaminated by historically reported use of the site. Nitroaromatic compounds and pesticides/PCBs were not detected in any of the soil samples collected. However, several PAHs such as **benzo(a)pyrene, fluoranthene**, **anthracene**, **anthracene**, **phenanthrene**, and **acenaphthene** were widely detected at low concentrations in soil samples, which is consistent with previous sampling results reported by MK (MK, 1994). These PAH compounds are known to be associated with petroleum products, asphalt, coal tar, and creosote and possibly result from the incomplete combustion of fossils fuels.

It is possible that the wide occurrence of these compounds may be indicative of past soil contamination which over the past 50 years might have been slowly leached out of the 3-feet soil horizon and into the underlying bedrock. It is also possible that these organic compounds at the detected concentrations (low ppb level) occur naturally since they were also detected in background samples.

Seven metals (**aluminum, arsenic, barium, beryllium, iron, manganese,** and **thallium**) were detected at concentrations above RBCs. Among them, **aluminum** concentrations in soil consistently exceeded the RBC value. The concentrations for **arsenic** and **thallium** in soil were within the reported background range which may represent naturally-occurring concentrations. Therefore, the presence of **arsenic** and **thallium** in site soil may be attributable to the local lithology. Both the average and median concentrations of **manganese** were found significantly higher than the background value and the RBC. The notably elevated **manganese** concentrations in the soil media might be indicative of past soil contamination. **Beryllium** was not detected in the background but was found in some soil samples collected in this investigation. **Iron** was not analyzed for the background samples but the concentrations of **iron** in soil were found to be consistently above the RBC at this study area. **Barium** was detected in all soil samples but only one surface and one subsurface sample exhibited concentrations exceeded the RBC. Background data for **barium** is not available. The detected inorganic analytes in soils at concentrations exceeded the RBCs and/or the background values need further assessment. The distribution of detected concentrations in both organic and inorganic constituents in soil at the G-8 site does not indicate any notable patterns with respect to the spacial variations.

Compared with the soil samples, only one SVOC was detected in sediment but at a concentration below the RBC. Most of metal detections in sediment samples were very similar to those found in soils with the exception of **beryllium** and **cadmium** which were detected in sediments but rarely detected in soils. Four metals (**arsenic, beryllium, iron,** and **manganese**) were detected in sediment samples at concentrations above RBCs.

All detected concentrations of various organic and metal constituents in soil and sediment are compared against the residential RBCs. Soil metal concentrations were also compared with available background data. The majority of detected constituents showed concentrations significantly lower than their respective RBCs. Therefore, these detected organic compounds and metals in site soil and sediment are believed unlikely to pose a threat to human health or the environment. However, one SVOC (**benzo(a)pyrene**) and seven metals (**aluminum, arsenic,**

barium, beryllium, iron, manganese, and **thallium**) in soil and four metals (**arsenic, beryllium, iron**, and **manganese**) in sediment were found at concentrations exceeded respective RBCs and may need further assessment.

5.3 Recommendations

Based on the analytical results and conclusions of the site investigation the following recommendations are made:

- The constituents detected at concentrations above the RBCs in soil and sediment should be evaluated further. The recommended approach would be to examine soil analytical results from investigations of other sites at PBOW to allow for data comparison. Constituents to be evaluated include **benzo(a)pyrene, aluminum, arsenic, barium, beryllium, iron, manganese,** and **thallium**.

- IT recommends no further soil and sediment sampling at this site. However, the soil and sediment analytical data acquired during this investigation should be further evaluated statistically in conjunction with the data obtained from other areas within PBOW.

- One bedrock monitoring well is recommended to be placed in the center of the clear area. This bedrock well will serve two purposes: (1) to characterize groundwater quality at the G-8 site, particularly with respect to the possibility of downward contaminant migration and (2) to provide needed water level information at this southwest corner of the facility for refining the site-wide groundwater flow regime.

6.0 References

Dames & Moore, 1995, Records Review Report, Plum Brook Ordnance Works, Sandusky, Ohio, April, 1995

Dames & Moore, 1996, TNT Areas Site Investigation Draft Report, Plum Brook Ordnance Works, Sandusky, Ohio, May 1996

IT Corporation, 1996a, Sampling and Analysis Plan, Site Investigation at the G-8 Burning Ground, Former Plum Brook Ordnance Works, Sandusky, Ohio, Revision 1. May, 1996

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Morrison Knudsen Corporation, 1994, Site Inspection report, Plum Brook Station, Sandusky, Ohio, January, 1994

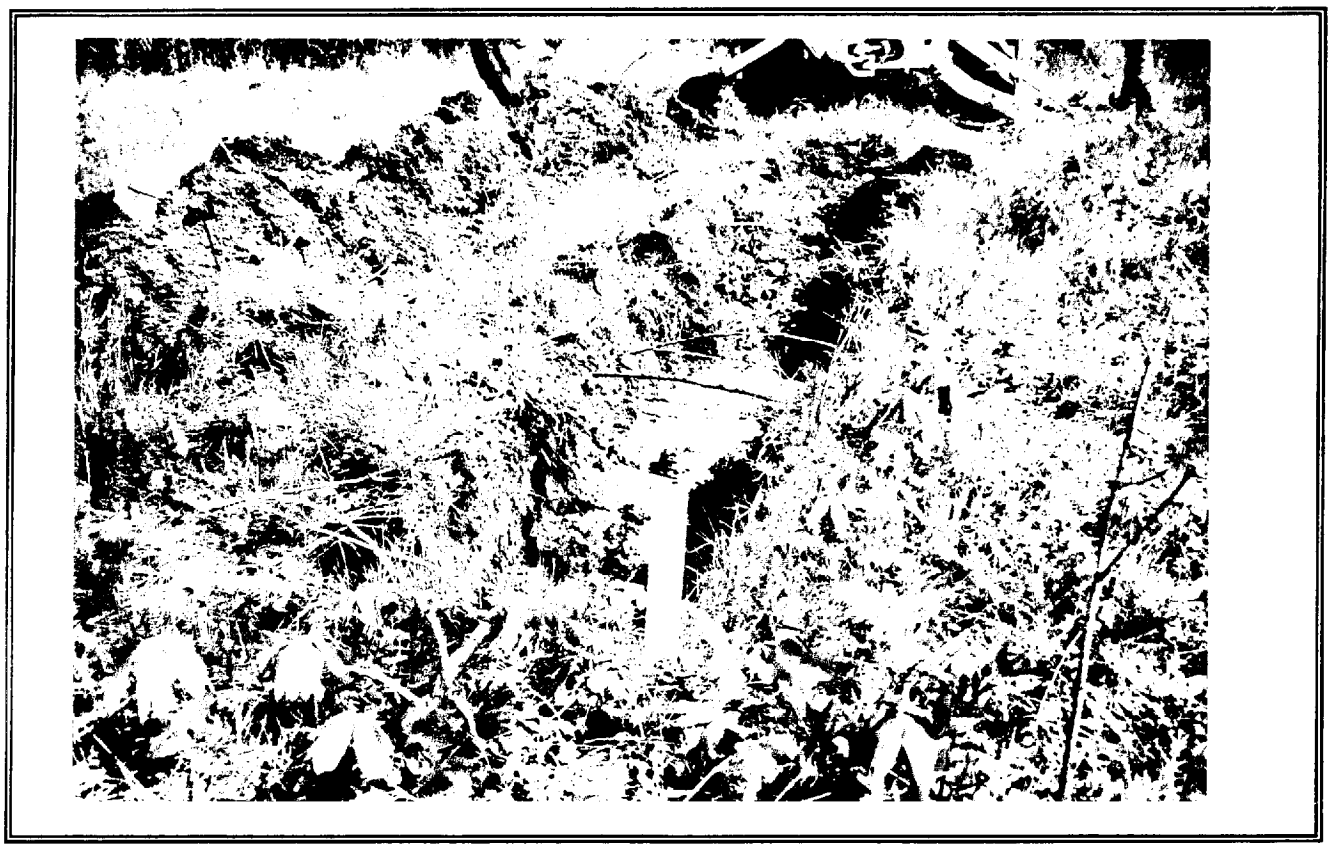
U.S.Army Corps of Engineers (USACE), 1995, Statement of Work, Plum Brook Ordnance Works, June, 1995

U.S. Environmental Protection Agency (EPA), 1996, Risk-Based Concentration Table, EPA Region III, Philadelphia, PA, Dated April 19, 1996.

APPENDIX A

PHOTOGRAPHS OF TRENCHING ACTIVITIES

Trench No.1 (Soil Profile)



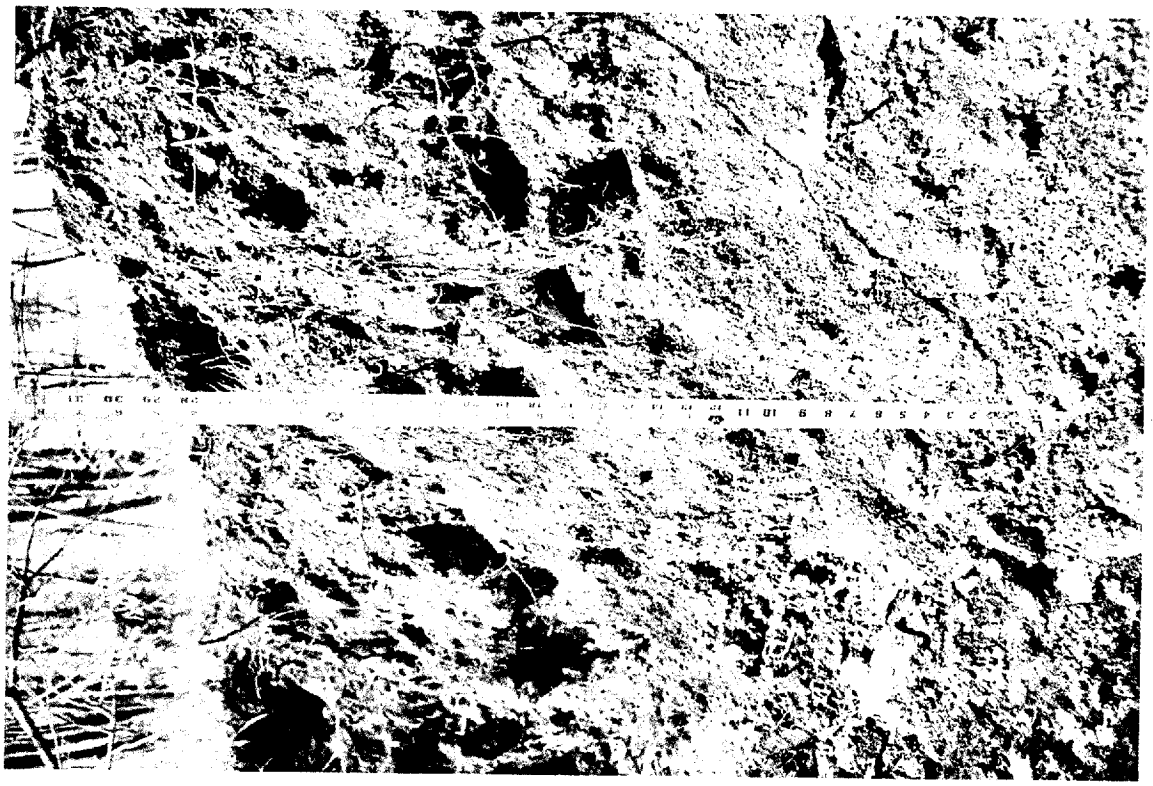
Trench No.1 (Completed 5/13/96, 18 x 3 x 1.5 feet)

Trench No.2 (Completed 5/13/96, 16 x 3 x 2 feet)

Trench No.2 (Air monitoring using HNu)

Trench No.2 (Soil profile)

Trench No.3 (Completed 5/13/96, 15 x 3 x 3 feet)

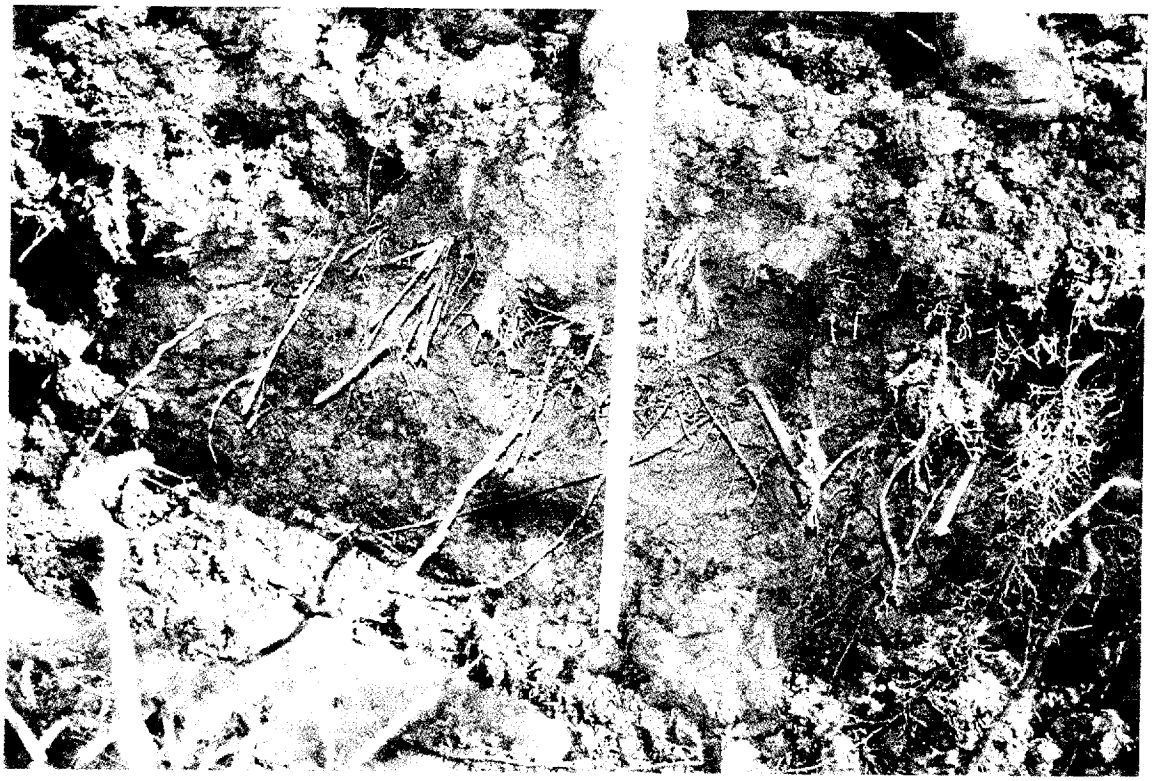


Trench No.3 (Soil Profile)

Piece of Broken Glass Found in Trench No.3

Trench No.4 (Completed 5/13/96, 15 x 3 x 3 feet)

Trench No.4 (Soil profile)



Trench No.5 (Soil Profile)

Trench No.5 (Completed 5/13/96, 14.5 x 3 x 3 feet)

APPENDIX B

DATA QUALITY EVALUATION

Appendix B
Data Quality Evaluation

Plum Brook Ordnance Works
G-8 Burning Grounds

B1.0 Introduction

This appendix of the Plum Brook Ordnance Works (PBOW) G-8 Burning Grounds Site Investigation Report presents the results of the Quality Assurance/Quality Control (QA/QC) protocols implemented during the sampling and analysis portion of the investigation. The quality indicators from every aspect of the data collection process have been reviewed, and an assessment of the data with regard to the project specific objectives is presented. The reliability of the sampling and analytical procedures used during the investigation was demonstrated by implementing the project specific QA procedures specified in the Sampling and Analysis Plan (SAP). Successful execution of these procedures provides strong supporting evidence for the acceptance of the data as being representative of the area under investigation. A complete evaluation of the procedures implemented are summarized in this Data Quality Evaluation (DQE).

The DQE for the PBOW G-8 Burning Grounds site investigation was divided into two phases. The first phase includes the discussion of the overall field sampling effort and the field QC activities employed. The resulting QC data were presented and compared to the procedures and goals established in the SAP, as well as the verification of the completeness, accuracy, and representativeness of the field sampling. The second phase deals with the analytical program and the results of the QC activities employed. An overall comparison to data quality objectives (DQO) was performed as well as a complete data review. All elements of data evaluation were compiled and used to determine the usability and overall applicability of the resulting data.

B2.0 Field Sampling Program

Field Quality Control Activities. To ensure the reliability of the field sampling procedures and analytical data, field QA/QC samples were collected or prepared for each medium sampled,

each sample shipment, and/or each sampling event. These QA/QC samples are then used to address any sample variability and uncertainty in procedures.

B2.1 Field Duplicates

The purpose of the field duplicate is to generate data used to evaluate the precision of the sample collection and analysis process. As required by the SAP, there were two soil field duplicates and one sediment field duplicate submitted for the PBOW G-8 Burning Ground site investigation. The soil field duplicates were collected from boring locations SO02 (2 to 3 feet) and SO10 (1 to 1.5 feet). The sediment duplicate was collected at location SD01.

It can be difficult to collect true duplicate samples, especially for solid matrices that are inherently more heterogeneous than liquid matrices. Greater variations are seen in the precision data measured as the relative percent difference (RPD). Higher RPDs are thought to reflect difficulties often encountered during the collection of duplicate samples or sample handling. Wide variations in soil results may be attributable to actual variations in concentrations rather than denoting problems with precision or sampling effectiveness.

All positive concentrations for the original sample and/or its duplicate are presented in Tables B-1 to B-3. Data for the samples compared well as demonstrated in the RPD calculations. The RPD results were calculated as follows:

$$RPD = \frac{A-B}{[(A+B)/2]} \; 100$$

where:

RPD = Relative percent difference
A = Original sample result
B = Duplicate sample result.

When concentrations are detected in only one of the two samples, "NC" is used to represent the RPD which is then "not calculable" for the parameter. There is no quantifiable result available from the "non-detect" sample to be used in the RPD calculation. When "estimated" (J qualified) concentrations are reported, there is a greater potential for increased variability between the primary and duplicate results as reflected in the RPD calculation.

Table B-1

Field Duplicate Results
PBOW-96-SO02-BG8 (2-3')
Plum Brook Ordnance Works, Sandusky, Ohio

Organics	3004 Result, µg/kg	Q	3005-FD Result, µg/kg	Q	RPD, %
Methylene chloride	1	J	13	U	NC
Toluene	12		8		40.0
Ethyl benzene	1	J	7	U	NC
Xylene (total)	7		7	U	NC
Inorganics					
Aluminum	7590		8810		14.9
Arsenic	8.0	J	8.6	J	7.2
Barium	175	J	33.7	J	135.4
Beryllium	1.3		1.2		8.0
Calcium	4020		3640		9.9
Chromium	9.6		10.7		10.8
Cobalt	18.3		16.0		13.4
Copper	13.5		11.9		12.6
Iron	76300	J	72100	J	5.7
Lead	15.4	J	19.2	J	22.0
Magnesium	1530		1590		3.8
Manganese	2790	J	891	J	96.9
Mercury	0.05		20.04	U	NC
Nickel	19.4		20.3		4.5
Thallium	1.5	J	1.4	J	6.9
Vanadium	12.5		16.3		26.4
Zinc	141	J	155	J	9.5
Potassium	644	U	760		NC

Table B-2

Field Duplicate Results
PBOW-96-SO10-BG8 (1-1.5')
Plum Brook Ordnance Works, Sandusky, Ohio

Organics	3024 Result, µg/kg	Q	3025-FD Result, µg/kg	Q	RPD, %
Xylene (total)	5	J	4	J	22.2
Toluene	7	U	2	J	NC
Ethyl benzene	7	U	3	J	NC
Inorganics					
Aluminum	9450		9240		2.2
Arsenic	6.9	J	8.7	J	23.1
Barium	263	J	338	J	25.0
Beryllium	1.3		1.4		7.4
Calcium	8370		16300		64.3
Chromium	13.2		12.3		7.1
Cobalt	18.7		20.8		10.6
Copper	11.3	J	13.3	J	16.3
Iron	74700		84900		12.8
Lead	11.4	J	14.2	J	21.9
Magnesium	4220		7650		57.8
Manganese	4910	J	6030	J	10.2
Mercury	0.05		0.05		0.0
Nickel	20.5		28.2		12.6
Potassium	721		715	U	NC
Vanadium	22.6		24.1		6.4
Zinc	97.1		106		8.8

Table B-3

Field Duplicate Results
PBOW-96-SD01-BG8
Plum Brook Ordnance Works, Sandusky, Ohio

Organics	2001 Result, µg/kg	Q	2002-FD Result, µg/kg	Q	RPD, %
Di-n-butylphthalate	130	J	910	U	NC
Inorganics					
Aluminum	20500		23000		11.5
Arsenic	12.1	J	7.1	J	52.1
Barium	165	J	130	J	23.7
Beryllium	8.8		8.3		5.8
Cadmium	2.9		2.2		27.4
Calcium	8800		7430		16.9
Chromium	13.4		12.2		9.4
Cobalt	179		146		20.3
Copper	63.0	J	63.0	J	0.0
Iron	70700		42400		50.0
Lead	21.0	J	15.5	J	30.1
Magnesium	1750		1790		2.3
Manganese	1560	J	1260	J	21.3
Nickel	273		217		22.7
Selenium	1.9	J	1.4	J	30.3
Vanadium	23.3		19.8		16.2
Zinc	537		408		27.3

The soil samples and the respective duplicates showed low levels of volatiles and numerous metals. The sediment samples exhibited similar metals results in addition to one phthalate ester. All RPD results fell within acceptable limits for the soil matrices with the exception of Barium, Calcium, Manganese and Magnesium. These elements exhibited a greater degree of variability which should be attributed to the heterogeneous nature of the matrix. Compounds that were reported as "NC" for the RPD were found to be reported just above or below the reporting limit established for the parameter. All remaining reported concentrations compared well, demonstrating good precision in the sample collection process.

B2.2 Trip Blanks

The site investigation involved the collection and analysis of soil and sediment samples only, therefore, trip blanks were not required.

B3.0 Analytical Program

The analytical program determined, with documented precision and accuracy, if specific compounds were present in the soil and sediment samples collected from the G-8 Burning Grounds area being investigated. Chemical analyses for the investigation were performed in accordance with the guidelines prescribed by the U.S. Environmental Protection Agency (EPA) Test Methods for Evaluating Solid Waste (SW-846), Physical/Chemical Methods, Third Edition, September 1986 and subsequent revisions. The soil and sediment samples and associated QA/QC samples were analyzed for volatile organic compounds (VOC), semivolatile organic compounds (SVOC), pesticides/polychlorinated biphenyls (PCB), metals, and a specific list of nitroaromatics and nitroamines using the methods presented in Table B-4. Each sample collected was analyzed for the full suite of parameters.

All analytical data were reported in EPA Level IV CLP-like data packages and a Level III data validation was performed using EPA validation guidelines. The regulatory compound/analyte list reported was the Target Compound List (TCL) for organics and the Target Analyte List (TAL) for inorganics. These data packages have also been reviewed for completeness and compliance to the approved final work plan (IT Corporation [IT], 1995). All samples were submitted to the laboratory accompanied by a request for analysis request/chain of custody (AR/COC) form. The RFA portion of the form provides project specific analytical specifications and QC instruction to the laboratories. A formal COC traceability record was included as part of the document ensuring documentation of custody for sample transportation, storage and eventual

Table B-4

Summary of Chemical Analysis and Methodologies for Soil and Sediment Samples Site Investigation at the G-8 Burning Ground Former Plum Brook Ordnance Works, Sandusky, Ohio

Analytical Parameters	Analytical Method
TCL Volatile Organic Compounds	EPA SW-846 8260A[a]
TCL Semivolatile Organic Compounds	EPA SW-846 3540/8270B[a]
TAL Metals	SW-846 3050A/6010A[b] for Ag, Al, As, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Pb, Sb, Se, Tl, V, Zn 7471A[a] for Hg
Nitroaromatic Compounds	EPA SW-846/8330[c]
TCL PCBs/Pesticides	EPA SW-846 8081[a]

[a]Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, Update II, September 1994.
[b]Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, Update I, July 1992.
[c]Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Third Edition, Revision 1, December 1990.
TCL - Target compound list.
TAL - Target analyte list.
PCB - Polychlorinated biphenyl.

disposition by the laboratory. Copies of all custody documentation are included in the data packages submitted. All samples were received at the laboratory within the 4 plus or minus 2 degrees Celsius (°C) with custody seals intact.

B3.1 QA/QC Procedures

The project QA/QC program described in the SAP was followed for the sample collection and laboratory analysis of samples. The elements of this program are discussed in the sections that follow. The laboratory analytical program consisted of EPA SW-846 methods with Level IV deliverables for the generation of definitive data for the investigation. Deliverables included sample preparation information, calibration records, QC data such as method blanks, spikes, duplicates, surrogate recoveries, internal standards, and copies of the RFA and COC records. Chemical analyses for this project were performed following standardized protocols, which include specific requirements for how compounds are analyzed, identified and reported.

Each of the methods employed included specific QA/QC protocols that are used to support the validity of the sampling event and the resulting data. These QA/QC protocols are a critical part of the analytical method and were followed explicitly during sample analysis. Specific measures included detailed record keeping procedures, analysis of duplicate samples, instrument calibrations, and the analyses of blanks, surrogate and internal standards.

B3.1.1 Reporting Limits

Practical Quantitation Limits (PQL), the laboratories' statistically determined reporting limits, were presented in the SAP section of the Final Work Plan for the investigation for the Quanterra-Knoxville, Tennessee laboratory. The analytical program executed required the use of SW-846 methods which specify the procedures for calculating the PQLs presented. Each laboratory is required to demonstrate method performance through method detection limit (MDL) studies for every method employed. These studies are required to be laboratory specific so that individual laboratory variables such as equipment brands, reagent suppliers, chemist technique, etc., are all factored into the performance study. The PQL is statistically supported by the MDL established. The PQL calculation is designed to use the MDL, established using controlled matrices (i.e. distilled water), and adjusts the limit by a predetermined mathematical factor for the analysis of actual environmental sample matrices (i.e. soil, groundwater, etc.). For purposes of clarity and consistency with respect to definition and terminology, the term "reporting limit" has been substituted for PQL when referencing the limit of detection to which the laboratory reported for each individual sample and parameter. This value has been corrected for all necessary dilution and interference factors as applicable based on the resulting analytical data for the sample.

All laboratory results were reviewed with respect to the actual reporting limits achieved as compared to the limits presented in the SAP. No variations were noted. There were no dilutions, matrix or chemical interferences resulting in elevated limits noted. Data were reported on a dry-weight basis and all reporting limits were adjusted accordingly.

B3.1.2 Holding Times

All laboratory results submitted for the PBOW G-8 Burning Grounds investigation were reviewed with respect to laboratory adherence to analysis holding times. Maximum analytical holding times, as presented in Table 5-1 of the QAPP, were met by the laboratory.

B3.1.3 Method Blanks

Method blanks were analyzed with each analytical "batch" processed. The blanks were carried through the analytical procedure, step-by-step, including the addition of all solvents and other reagents required in the analytical process. The purpose of the blank is to ensure that no contaminants are being introduced to the sample as a result of any part of the analytical process, helping to eliminate the element of doubt as to the origin of reported concentrations.

The method blank results reported with the G-8 Burning Grounds data were evaluated for high readings characteristic of background or process contamination. There were no significant concentrations detected in the designated blank samples that deem any analytical process out of control or require further corrective action. The acetone, methylene chloride, and bis(2-ethylhexyl)phthalate concentrations reported for the method blanks submitted should be attributed to laboratory process contamination. These compounds are common laboratory contaminants. Methylene chloride is a laboratory solvent commonly used for the preparation and extraction of samples for many analyses. Acetone is also used in the laboratory as a solvent. Phthalate esters are often seen in laboratory method or process blanks. They are thought to originate from the extraction portion of the semivolatiles analysis either through the safety gloves that are worn by the extraction technician or other theorized origins. All concentrations thought to be a product of laboratory process contamination based on method blanks results have been qualified (B) accordingly in the reporting process.

All applicable method blank criteria were met for all parameters as specified by the method employed and the SAP. The analytical data presented in the site investigation report are blank corrected as a function of the data validation process.

B3.1.4 Laboratory Control Samples

Laboratory control samples (LCS) were used in the analytical program as a measure of accuracy without the influence of matrix on the analysis. The laboratory control sample is best described as a spiked laboratory blank measured and reported by calculating the percent recovery of the known spiked concentrations. An LCS was analyzed with every batch of samples processed and analyzed. The control limits applied were statistically derived by the laboratory as required by the method. The review of all LCS data associated with the G-8 Burning Grounds data set revealed all data to be within the specified control limits demonstrating accuracy within all analytical processes employed.

B3.1.5 Matrix Spike\Matrix Spike Duplicates

Matrix spikes (MS) are used to provide an indication of bias due to matrix effects and a measure of accuracy of associated results. Duplicate analyses, sometimes performed using a matrix spike duplicate (MSD) in the case of organics analyses, provide a measure of precision in the analytical process. Two MS/MSD pairs were analyzed for the G-8 Burning Grounds site investigation. Samples 3004 and 3021 were collected and submitted for an MS/MSD analysis. The observed percent recovery of the spikes was used to determine accuracy for the analyses. Control limits used to evaluate these recoveries were determined statistically by the laboratory for organics as required by the methods employed. Relative percent difference (RPD) calculations are used to evaluate duplicate sample results as they are for field duplicate samples. The acceptance criteria for the precision data were statistically determined by the laboratory. All precision and accuracy results for the MS/MSD analysis associated with sample 3004 were within all applicable acceptance criteria for organics. Metals data exhibited variances in accuracy data for several elements with recoveries reported as low as 43 percent or as high as 140 percent. The acceptable range for the project was defined as 80 to 120 percent. Associated data were qualified as estimated in the validation process for the effected elements. Similar anomalies were noted in the accuracy data for sample 3021. Associated results were qualified as estimated in the data validation process for this sample as well. Precision data were all within the control limits of 75 to 125 percent with the exception of iron (199.6 percent) and manganese (46.5 percent) for 3004, barium (25.9 percent), and manganese (75.2 percent) for sample 3021. The validation process resulted in estimated data for these elements based on these precision data as well. Sample 3021 exhibited variances in the precision and accuracy data for VOCs in addition to the metals data. These variations were only slight as indicated below, and no qualification was deemed necessary as a result of these recoveries.

Parameter	MS/MSD, %	Control Limits
Benzene	74/71	75-137
Toluene	77/105	70-138
Chlorobenzene	68/66	71-147

B3.1.6 Surrogate Standards

Surrogate standards were used in the analytical program to monitor the percent recovery efficiencies of the sample preparation and analytical procedure on a sample-by-sample basis for organic constituents. The surrogate standards used were those required by the analytical methodology employed and were compliant with the requirements of the method employed. Control limits for the surrogate recovery were determined statistically by the laboratory as required by the methodology. Evaluation of the surrogate standard data exhibited acceptable results for all semivolatile, pesticide/PCB and explosives analyses. Volatile organics analyses exhibited some anomalies in the surrogate standard recoveries, particularly, bromofluorobenzene (BFB), that were attributed to matrix interferences based on internal standard recoveries for the affected samples and the recoveries reported for the sample reanalyses. The variations noted were only slight. Recoveries generally fell within 10 percent of the lower limit of the established acceptance limits. Some data were estimated in the validation process as e result of these variations, but all data were found to be acceptable as reported. No other anomalies were encountered in the surrogate standard data reported.

B4.0 Data Quality Objectives

DQOs are qualitative and quantitative criteria used to guide sample collection and analysis activities. The DQOs for the project were developed at the outset of the investigation to ensure that the data generated during the execution of the analytical program were of appropriate quality to support the anticipated end use of the data. DQOs describe the level of uncertainty that a decision-maker is willing to accept in results derived from the environmental data. This uncertainty is used to the quality of the measurement data, usually in terms of objectives, bias, representativeness, comparability and completeness. DQOs seek to ensure that the right type, amount and quality of data are collected to accomplish the objectives of the project.

The DQOs for this project are to produce scientifically valid data of known accuracy and precision, which are complete with respect to identified critical samples, comparable with similar data types and representative of the media sampled so as to be useful for the cited purposes.

In order to achieve these DQOs, criteria were established in the SAP by which these goals could be achieved. The Site Investigation required that all laboratory analyses be performed and resulting data reported as definitive data. A non-CLP, (SW-846) method was employed and Level IV (Contract Laboratory Program-like) data packages were provided for evaluation for these samples. Definitive data criteria were chosen because compliance with the criteria specified within its guidelines provides quantified concentrations with acceptable reliability for the purposes of the investigation. All reported analytical data met or exceeded the requirements of Level IV QC criteria.

B5.0 Data Useability

The data review process as presented in this report, compares sample results to pre-established criteria to confirm that the data are of acceptable technical quality. Specific criteria were reviewed which verifies the achievement of all precision, accuracy, completeness, comparability and representativeness goals established to meet the project DQOs. To verify that these objectives were met, field measurements, sampling and handling procedures, laboratory analysis and reporting and all nonconformances and discrepancies in the data were examined to determine compliance with the appropriate and applicable procedures. The results of this review were presented in previous sections with all outliers or nonconformances were discussed where they occurred.

Precision data was obtained through the analysis and evaluation of duplicate QA samples. Accuracy was determined through the analysis and evaluation of method blanks, laboratory control samples, trip blanks and matrix spike samples. These QA samples were collected and/or analyzed at the frequency established in the SAP, verifying the completeness element of the goals along with the evaluation of holding times, and reporting limits.

Completeness is a measure of the amount of valid data that are obtained during a sampling event. There were no data points rejected in the evaluation process.

Comparability is a qualitative parameter expressing the confidence with which one data set can be compared with another. Comparability ensures that results for the sampling event can be compared with data from other past and/or future sampling programs. Comparability for this sampling event was achieved through the use of established and recognized techniques and accepted standard EPA methods. All samples collected and analyzed were subjected to the same

sampling, handling, preparation, analysis, reporting and validation criteria for the purpose of achieving comparability goals within the data set.

To verify sample representativeness, field data such as field activity daily logs (FADL), sample collection logs, COC/RFA forms, field instrument calibrations and variances were reviewed. The overall results of the analyses as discussed in this evaluation suggest that representative samples were collected and analyzed with results being indicative of the media analyzed with the exception of the few anomalies noted. Organic chemicals were omitted from consideration if they were a common laboratory contaminant or could be traced to some other source within the analytical investigation process. Overall, the investigation data do reflect expected site conditions.

All analytical results for chemicals are reported using laboratory data qualifiers. Chemicals flagged with a "U" qualifier are considered to be not detected, or detected at a concentration below the normal, random "noise" of the analytical instrument. The "J" qualifier describes an estimated value when a compound is qualitatively identified (spectral identification criteria are met), but at values less that the project-required reporting limit. A full list of laboratory data qualifiers and their definitions are included in the laboratory data report.

B6.0 Data Useability

The goals and objectives for the PBOW G-8 Burning Grounds Site Investigation were to provide information concerning the possible environmental contamination that can be used in making management decisions for the necessity of further work at the site. The investigation is preliminary in nature and the information acquired will provide a foundation upon which other studies of the site, if other studies are deemed necessary and appropriate, should be based. Specifically , the objectives of the site investigation were as follows: define the location and extent of the G-8 Burning Ground; confirm or deny the presence of residual chemical contamination of sediment, surface and subsurface soils; and determine whether or not soils are the sample media of importance, and if other media should be further evaluated. To accomplish this goal, samples were collected and definitive data were generated for the contaminants of potential concern. Evaluation of the data using the specific DQOs established for the project and

the data validation process resulted in the determination that the data set is valid and of sufficient quality to meet the objectives of the investigation. There were no significant problems observed that would adversely affect the application of the data or the success of the overall investigation.

APPENDIX C

SOIL BORING LOGS

HTRW DRILLING LOG

DISTRICT: Nashville COE		HOLE NUMBER: BG8-SB01
1. COMPANY NAME: IT Corporation	2. DRILL SUBCONTRACTOR: IT Corporation	SHEET 1 OF 2 SHEETS

3. PROJECT: G-8 Burning Ground	4. LOCATION: Plum Brook Ordnance Works
5. NAME OF DRILLER: Wesley White	6. MANUFACTURER'S DESIGNATION OF DRILL: NA
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: Shovel, Stinless Steel Spoon	8. HOLE LOCATION: G-8 Burning Grounds, Huron County
	9. SURFACE ELEVATION:
	10. DATE STARTED: 5/14/96 / 11. DATE COMPLETED: 5/14/96
12. OVERBURDEN THICKNESS: 1.5 ft.	15. DEPTH GROUNDWATER ENCOUNTERED: NA
13. DEPTH DRILLED INTO ROCK: NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA
14. TOTAL DEPTH OF HOLE: 1.5 ft.	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA

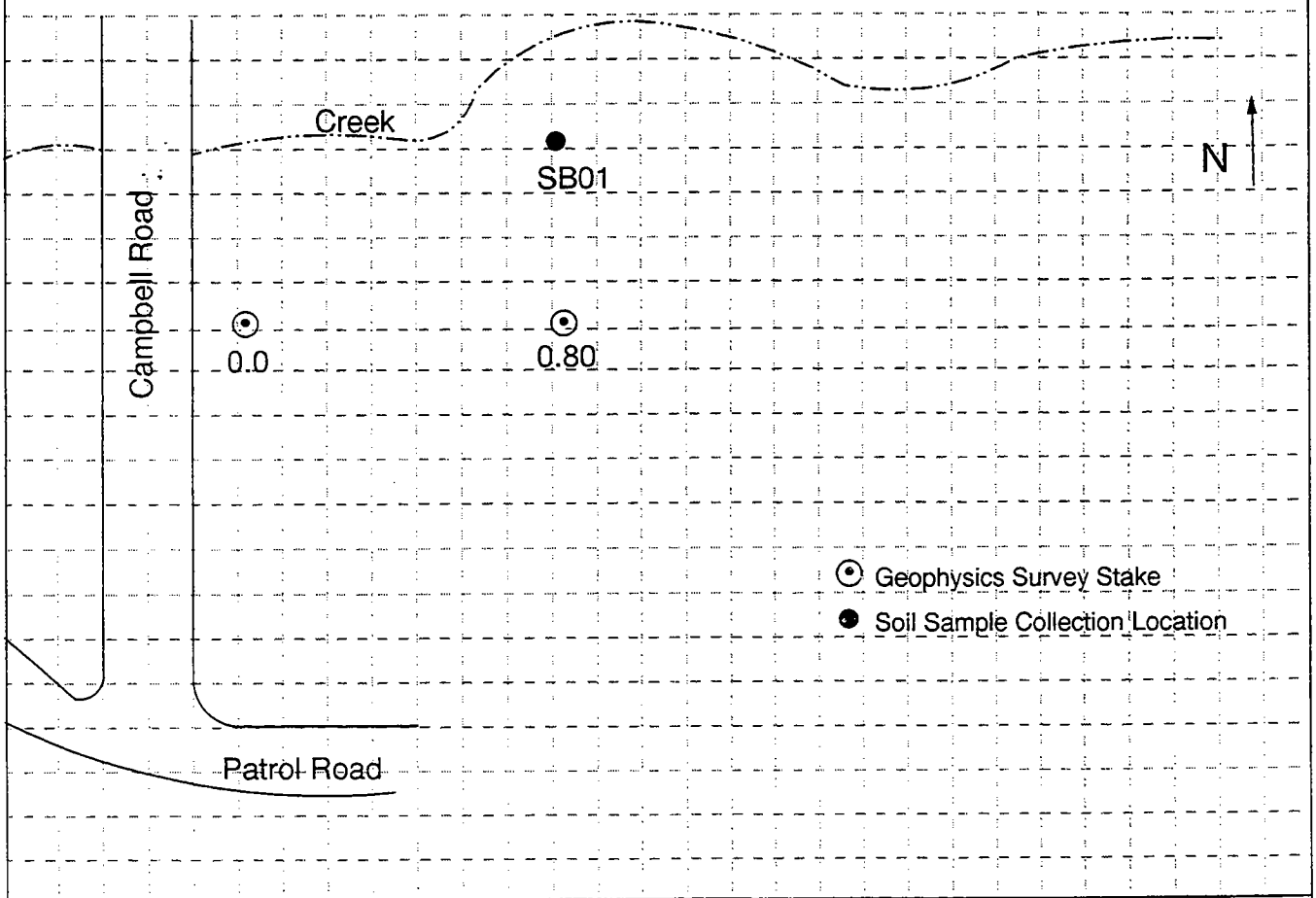
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA	NA	NA	NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	X	X	SVOC	Pest/PCBs	Nitro	NA %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	X	NA	NA	Wesley White/

LOCATION SKETCH/COMMENTS

SCALE: Not to scale



PROJECT	HOLE NO.
PBOW G-8 Burning Ground Site Investigation	BG8-SB01

PBOW/BORINGS/G-8/BG8-SB1.DRW/MC/6-7-96

INTERNATIONAL TECHNOLOGY CORPORATION

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NO. BG8-SB01

PROJECT: PBOW G-8 Burning Ground | INSPECTOR: W. White | SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	USCS e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
		Soft, dark brown, clayey SILT, micaceous, low to medium plasticity, organics			3001 (1055)		
	1		NA	ml		NA	
		Rock fragments throughout			3002 (1100)		
		Bedrock, weathered limestone					
	2	Total Depth = 1.5 FT.					
	3						
	4						
	5						
	6						
	7						
	8						
	9						
	10						

Project: PBOW G-8 Burning Ground Site Investigation | Hole No. BG8-SB01

INTERNATIONAL TECHNOLOGY CORPORATION

HTRW DRILLING LOG

DISTRICT: Nashville COE		HOLE NUMBER: BG8-SB02
1. COMPANY NAME: IT Corporation	2. DRILL SUBCONTRACTOR: IT Corporation	SHEET 1 OF 2 SHEETS
3. PROJECT: G-8 Burning Ground	4. LOCATION: Plum Brook Ordnance Works	
5. NAME OF DRILLER: Wesley White	6. MANUFACTURER'S DESIGNATION OF DRILL: NA	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: Shovel, Stainless Steel Spoon	8. HOLE LOCATION: G-8 Burning Grounds, Huron County	
	9. SURFACE ELEVATION:	
	10. DATE STARTED: 5/14/96	11. DATE COMPLETED: 5/14/96
12. OVERBURDEN THICKNESS: 2.7 ft.	15. DEPTH GROUNDWATER ENCOUNTERED: 2.5 Ft.	
13. DEPTH DRILLED INTO ROCK: NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA	
14. TOTAL DEPTH OF HOLE: 2.7 ft.	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA	

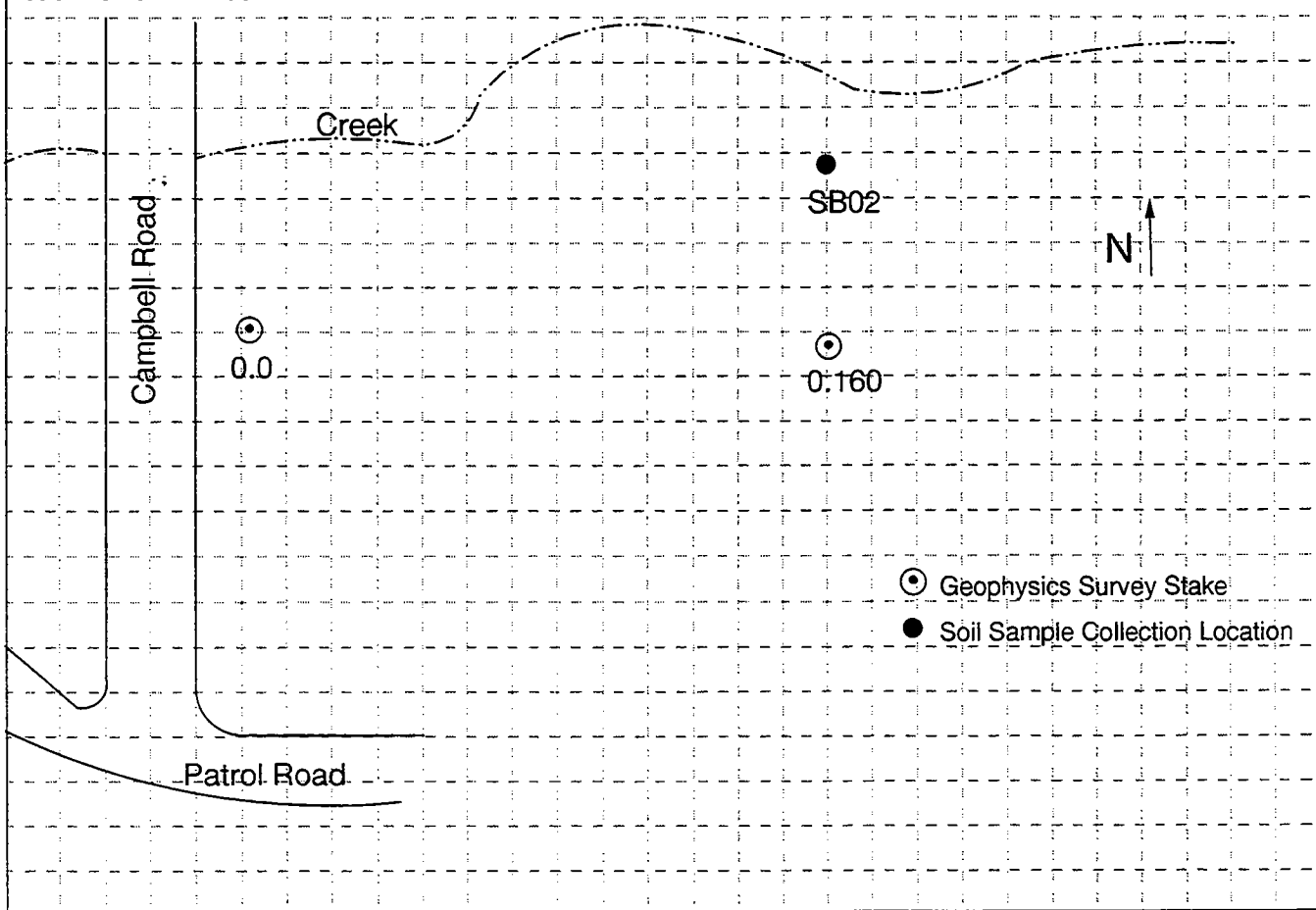
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA	NA	NA	NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	X	X	SVOC	Pest/PCBs	Nitro	NA %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	X	NA	NA	Wesley White/

LOCATION SKETCH/COMMENTS

SCALE: Not to scale



PROJECT	HOLE NO.
PBOW G-8 Burning Ground Site Investigation	BG8-SB02

PBOW/BORINGS/G-8/BG8-SB2.DRW/MC/6-7-96

INTERNATIONAL TECHNOLOGY CORPORATION

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NO. BG8-SB02

PROJECT: PBOW G-8 Burning Ground | INSPECTOR: W. White | SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	USCS e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
	1	Soft, dark brown to black, clayey SILT, micaceous, organic, low to medium plasticity 1.8	NA	ml	3003 (1110)	NA	
	2	Soft, yellowish brown, gravelly silty CLAY, micaceous, medium to low plasticity, increasing gravel content		cl	3004 3005 3006 3007 (1130)		Water entering hole at 2.5 ft. ∇
	3	Bedrock, limestone Total Depth = 2.7 FT.					
	4						
	5						
	6						
	7						
	8						
	9						
	10						

Project: PBOW G-8 Burning Ground Site Investigation | Hole No. BG8-SB02

INTERNATIONAL TECHNOLOGY CORPORATION

HTRW DRILLING LOG

DISTRICT: Nashville COE		HOLE NUMBER: BG8-SB03
1. COMPANY NAME: IT Corporation	2. DRILL SUBCONTRACTOR: IT Corporation	SHEET 1 OF 2 SHEETS
3. PROJECT: G-8 Burning Ground	4. LOCATION: Plum Brook Ordnance Works	
5. NAME OF DRILLER: Wesley White	6. MANUFACTURER'S DESIGNATION OF DRILL: NA	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: Shovel, Stainless Steel Spoon	8. HOLE LOCATION: G-8 Burning Grounds, Huron County	
	9. SURFACE ELEVATION	
	10. DATE STARTED: 5/14/96	11. DATE COMPLETED: 5/14/96
12. OVERBURDEN THICKNESS: 2.5 ft.	15. DEPTH GROUNDWATER ENCOUNTERED: 2.25 Ft.	
13. DEPTH DRILLED INTO ROCK: NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA	
14. TOTAL DEPTH OF HOLE: 2.5 ft.	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA	

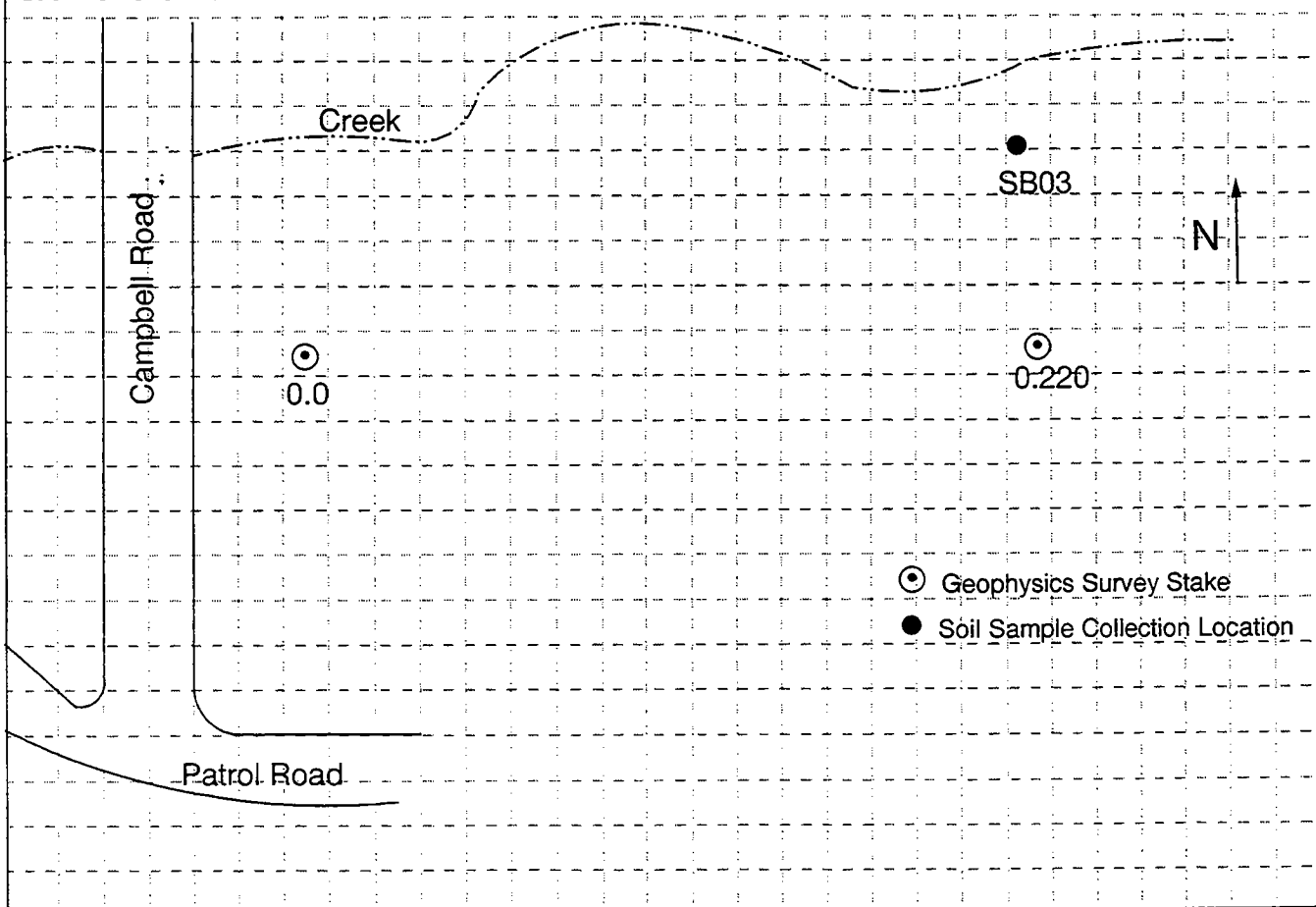
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA	NA	NA	NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	X	X	SVOC	Pest/PCBs	Nitro	NA %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	X	NA	NA	Wesley White/

LOCATION SKETCH/COMMENTS

SCALE: Not to scale



PROJECT	HOLE NO.
PBOW G-8 Burning Ground Site Investigation	BG8-SB03

PBOW/BORINGS/G-8/BG8-SB3.DRW/MC/6-10-96

INTERNATIONAL TECHNOLOGY CORPORATION

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NO. BG8-SB03

PROJECT: PBOW G-8 Burning Ground | INSPECTOR: W. White | SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	USCS e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
		Soft, very dark brown to black, clayey, sandy SILT, medium plasticity, moist, micaceous	NA	ml	3009 (1205)	NA	
	1						
	2	Becoming yellowish brown, rock fragments 2.3					Encountered Groundwater at 2.3 ft. ∇
		Loose, yellowish brown, clayey GRAVEL, wet		gc	3010 (1215)		
		Bedrock Total Depth = 2.5 FT.					
	3						
	4						
	5						
	6						
	7						
	8						
	9						
	10						

Project: PBOW G-8 Burning Ground Site Investigation | Hole No. BG8-SB03

PBOW/BORINGS/G-8/BG8-SB3A.DRW/mc/6-10-96

INTERNATIONAL TECHNOLOGY CORPORATION

HTRW DRILLING LOG

DISTRICT: Nashville COE		HOLE NUMBER: BG8-SB04
1. COMPANY NAME: IT Corporation	2. DRILL SUBCONTRACTOR: IT Corporation	SHEET 1 OF 2 SHEETS
3. PROJECT: G-8 Burning Ground	4. LOCATION: Plum Brook Ordnance Works	
5. NAME OF DRILLER: Wesley White	6. MANUFACTURER'S DESIGNATION OF DRILL: NA	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: Shovel, Stainless Steel Spoon	8. HOLE LOCATION: G-8 Burning Grounds, Huron County	
	9. SURFACE ELEVATION:	
	10. DATE STARTED: 5/14/96	11. DATE COMPLETED: 5/14/96
12. OVERBURDEN THICKNESS: 1.0 ft.	15. DEPTH GROUNDWATER ENCOUNTERED: NA	
13. DEPTH DRILLED INTO ROCK: NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA	
14. TOTAL DEPTH OF HOLE: 1.0 ft.	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA	

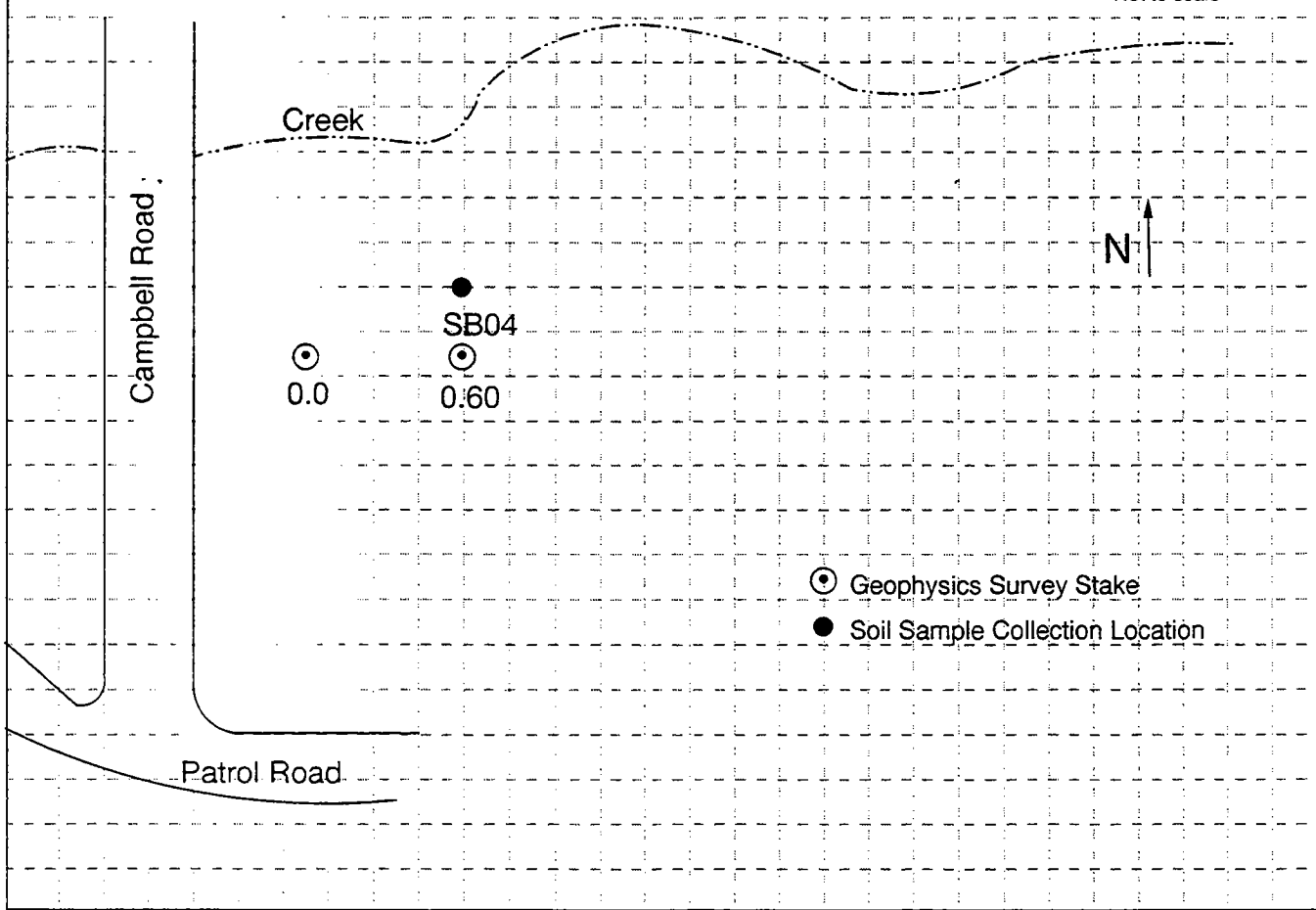
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA	NA	NA	NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	X	X	SVOC	Pest/PCBs	Nitro	NA %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	X	NA	NA	Wesley White/

LOCATION SKETCH/COMMENTS

SCALE: Not to scale



PROJECT	HOLE NO.
PBOW G-8 Burning Ground Site Investigation	BG8-SB04

PBOW/BORINGS/G-8/BG8-SB4.DRW/MC/6-10-96

INTERNATIONAL TECHNOLOGY CORPORATION

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NO. BG8-SB04

PROJECT: PBOW G-8 Burning Ground | INSPECTOR: W. White | SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	USCS e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
		Soft, brown to reddish brown, sandy, clayey SILT, micaceous, medium plasticity, organic matter	NA	ml	3011 (1030)	NA	
		Small rock floats			3012 (1038)		
	1	Bedrock float, small veins of weathered bedrock Total Depth = 1.0 FT.					
	2						
	3						
	4						
	5						
	6						
	7						
	8						
	9						
	10						

Project: PBOW G-8 Burning Ground Site Investigation | Hole No. BG8-SB04

IT INTERNATIONAL TECHNOLOGY CORPORATION

HTRW DRILLING LOG

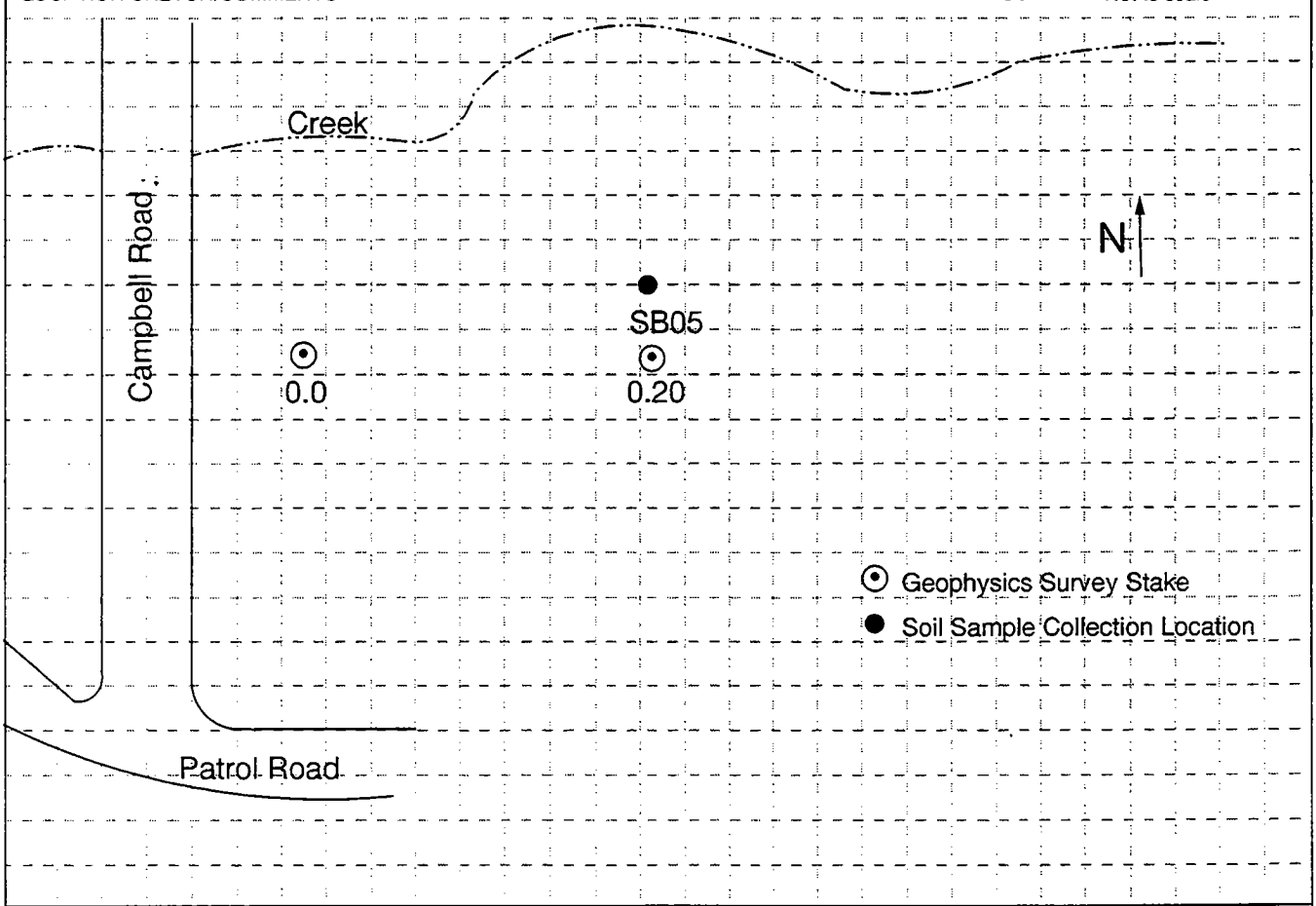
DISTRICT: Nashville COE		HOLE NUMBER: BG8-SB05
1. COMPANY NAME: IT Corporation	2. DRILL SUBCONTRACTOR: IT Corporation	SHEET 1 OF 2 SHEETS
3. PROJECT: G-8 Burning Ground	4. LOCATION: Plum Brook Ordnance Works	
5. NAME OF DRILLER: Wesley White	6. MANUFACTURER'S DESIGNATION OF DRILL: NA	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: Shovel, Stainless Steel Spoon	8. HOLE LOCATION: G-8 Burning Grounds, Huron County	
	9. SURFACE ELEVATION:	
	10. DATE STARTED: 5/14/96	11. DATE COMPLETED: 5/14/96
12. OVERBURDEN THICKNESS: 2.0 ft.	15. DEPTH GROUNDWATER ENCOUNTERED: NA	
13. DEPTH DRILLED INTO ROCK: NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA	
14. TOTAL DEPTH OF HOLE: 2.0 ft.	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA	NA	NA	NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	X	X	SVOC	Pest./PCBs	Nitro	NA %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	X	NA	NA	Wesley White/

LOCATION SKETCH/COMMENTS — SCALE: Not to scale



PROJECT	HOLE NO.
PBOW G-8 Burning Ground Site Investigation	BG8-SB05

PBOW/BORINGS/G-8/BG8-SB5.DRW/MC/6-10-96

INTERNATIONAL TECHNOLOGY CORPORATION

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NO. BG8-SB05

PROJECT: PBOW G-8 Burning Ground | INSPECTOR: W. White | SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	USCS e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
		Soft, very dark brown, sandy, clayey SILT, low plasticity to medium plasticity, moist, organics, micaceous 1.0	NA	ml	3013 (1410)	NA	
	1	Medium dense, yellowish brown, very fine grain, clayey, silty SAND and sandy SILT, subangular, moderately sorted, poorly graded, moist 2.0		ml/sm	3014 (1420)		
	2	Bedrock Total Depth = 2.0 FT.					
	3						
	4						
	5						
	6						
	7						
	8						
	9						
	10						

Project: PBOW G-8 Burning Ground Site Investigation | Hole No. BG8-SB05

PBOW/BORINGS/G-8/BG8-SB5A.DRW/mc/6-10-96

INTERNATIONAL TECHNOLOGY CORPORATION

HTRW DRILLING LOG

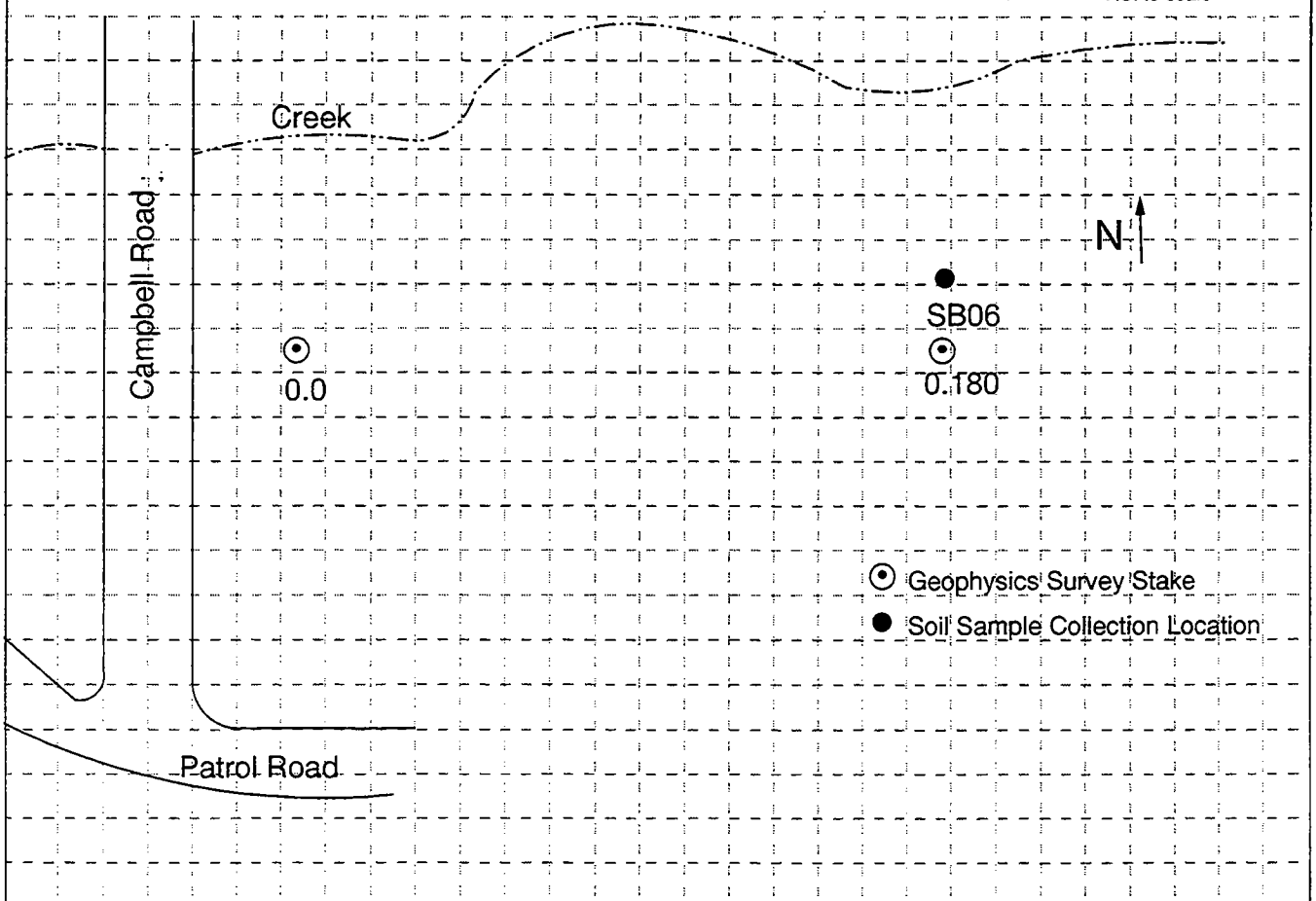
DISTRICT: Nashville COE		HOLE NUMBER: BG8-SB06
1. COMPANY NAME: IT Corporation	2. DRILL SUBCONTRACTOR: IT Corporation	SHEET 1 OF 2 SHEETS
3. PROJECT: G-8 Burning Ground	4. LOCATION: Plum Brook Ordnance Works	
5. NAME OF DRILLER: Wesley White	6. MANUFACTURER'S DESIGNATION OF DRILL: NA	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: Shovel, Stainless Steel Spoon	8. HOLE LOCATION: G-8 Burning Grounds, Huron County	
	9. SURFACE ELEVATION	
	10. DATE STARTED: 5/14/96	11. DATE COMPLETED: 5/14/96
12. OVERBURDEN THICKNESS: 2.5 ft.	15. DEPTH GROUNDWATER ENCOUNTERED: 2.25 Ft.	
13. DEPTH DRILLED INTO ROCK: NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA	
14. TOTAL DEPTH OF HOLE: 2.5 ft.	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA	

18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA	NA	NA	NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	X	X	SVOC	Pest./PCBs	Nitro	NA %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	X	NA	NA	Wesley White/

LOCATION SKETCH/COMMENTS — SCALE: Not to scale



PROJECT	HOLE NO.
PBOW G-8 Burning Ground Site Investigation	BG8-SB06

PBOW/BORINGS/G-8/BG8-SB6.DRW/MC/6-10-96

INTERNATIONAL TECHNOLOGY CORPORATION

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NO. BG8-SB06

PROJECT: PBOW G-8 Burning Ground | INSPECTOR: W. White | SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	USCS e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
	1	Soft, dark brown to black, sandy, clayey SILT, very fine grain, (30% sand), low plasticity, micaceous, moist 1.8	NA	ml	3015 (1440)	NA	
	2	Soft, yellowish brown, very fine grain sandy SILT, (25% sand), low plasticity, moist to wet, rock fragments throughout 2.5		ml	3016 (1448)		Water slowly entering at bottom of hole
	3	Bedrock Total Depth = 2.5 FT.					
	4						
	5						
	6						
	7						
	8						
	9						
	10						

Project: PBOW G-8 Burning Ground Site Investigation | Hole No. BG8-SB06

PBOW/BORINGS/G-8/BG8-SB6A.DRW/mc/6-10-96

INTERNATIONAL TECHNOLOGY CORPORATION

HTRW DRILLING LOG

DISTRICT: Nashville COE		HOLE NUMBER: BG8-SB07
1. COMPANY NAME: IT Corporation	2. DRILL SUBCONTRACTOR: IT Corporation	SHEET 1 OF 2 SHEETS
3. PROJECT: G-8 Burning Ground	4. LOCATION: Plum Brook Ordnance Works	
5. NAME OF DRILLER: Wesley White	6. MANUFACTURER'S DESIGNATION OF DRILL: NA	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: Shovel, Stainless Steel Spoon	8. HOLE LOCATION: G-8 Burning Grounds, Huron County	
	9. SURFACE ELEVATION	
	10. DATE STARTED: 5/14/96	11. DATE COMPLETED: 5/14/96
12. OVERBURDEN THICKNESS: NA	15. DEPTH GROUNDWATER ENCOUNTERED: 2.7 Ft.	
13. DEPTH DRILLED INTO ROCK: NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA	
14. TOTAL DEPTH OF HOLE: 3.0 ft.	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA	

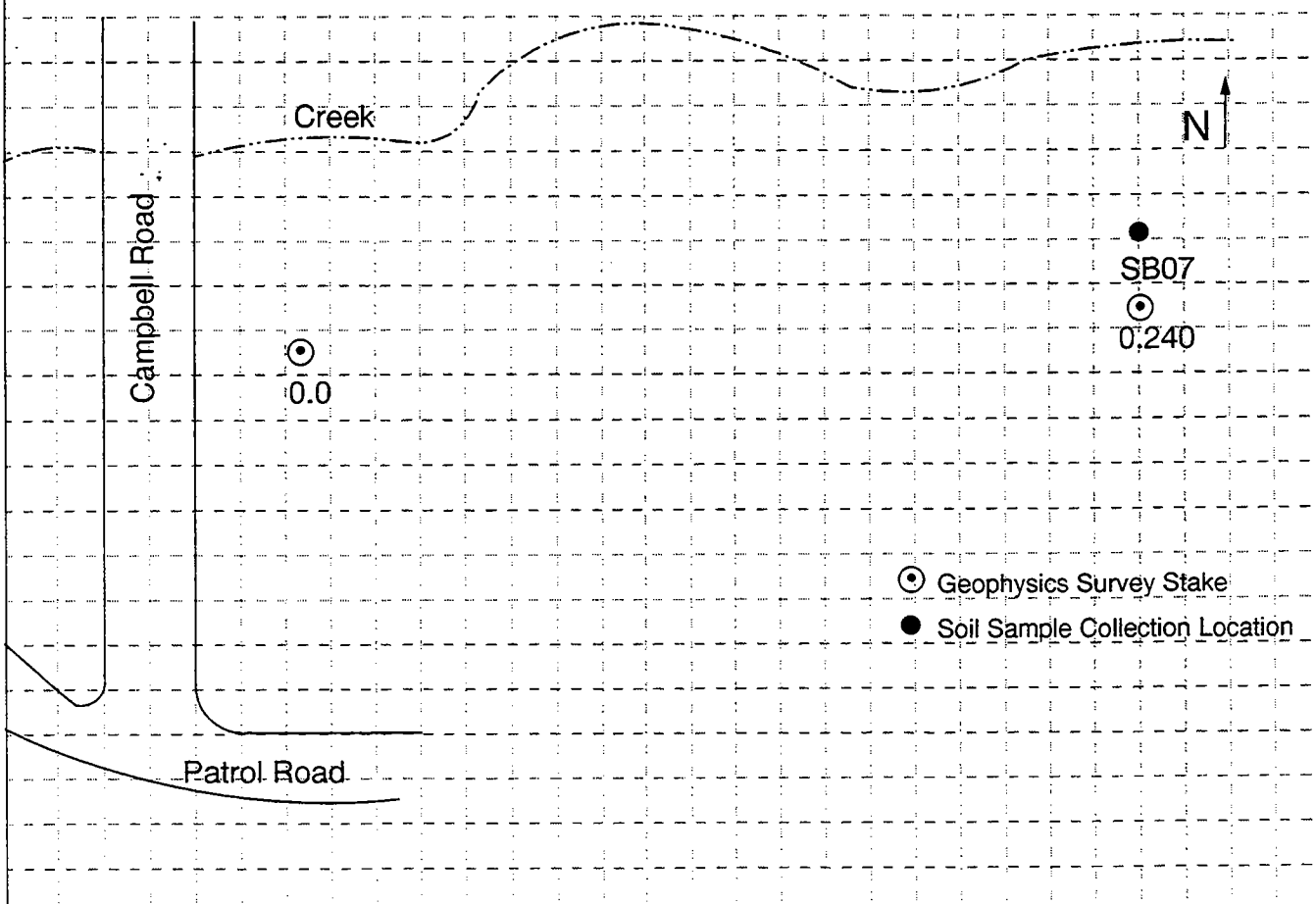
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA	NA	NA	NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	X	X	SVOC	Pest./PCBs	Nitro	NA %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	X	NA	NA	Wesley White/

LOCATION SKETCH/COMMENTS

SCALE: Not to scale



PROJECT	HOLE NO.
PBOW G-8 Burning Ground Site Investigation	BG8-SB07

PBOW/BORINGS/G-8/BG8-SB7.DRW/MC/6-10-96

INTERNATIONAL TECHNOLOGY CORPORATION

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NO. BG8-SB07

PROJECT: PBOW G-8 Burning Ground | INSPECTOR: W. White | SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	USCS e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
		Soft, very dark brown to black, clayey, sandy SILT, moist, medium plasticity, organic matter, micaceous	NA	ml	3017 (1525)	NA	
	1						
	2	2.0					
		Soft to medium dense, very fine grain sandy SILT and silty SAND, trace of gravel		sm/ml	3018 (1535)		Encountered Groundwater at 2.7 ft.
	3	Pieces of bedrock becoming more evident 3.0					
		Total Depth = 3.0 FT.					
	4						
	5						
	6						
	7						
	8						
	9						
	10						

Project: PBOW G-8 Burning Ground Site Investigation | Hole No. BG8-SB07

INTERNATIONAL TECHNOLOGY CORPORATION

HTRW DRILLING LOG

DISTRICT: Nashville COE		HOLE NUMBER: BG8-SB08
1. COMPANY NAME: IT Corporation	2. DRILL SUBCONTRACTOR: IT Corporation	SHEET 1 OF 2 SHEETS
3. PROJECT: G-8 Burning Ground	4. LOCATION: Plum Brook Ordnance Works	
5. NAME OF DRILLER: Wesley White	6. MANUFACTURER'S DESIGNATION OF DRILL: NA	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: Shovel, Stainless Steel Spoon	8. HOLE LOCATION: G-8 Burning Grounds, Huron County	
	9. SURFACE ELEVATION	
	10. DATE STARTED: 5/14/96	11. DATE COMPLETED: 5/14/96
12. OVERBURDEN THICKNESS: NA	15. DEPTH GROUNDWATER ENCOUNTERED: NA	
13. DEPTH DRILLED INTO ROCK: NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA	
14. TOTAL DEPTH OF HOLE: 3.0 ft.	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA	

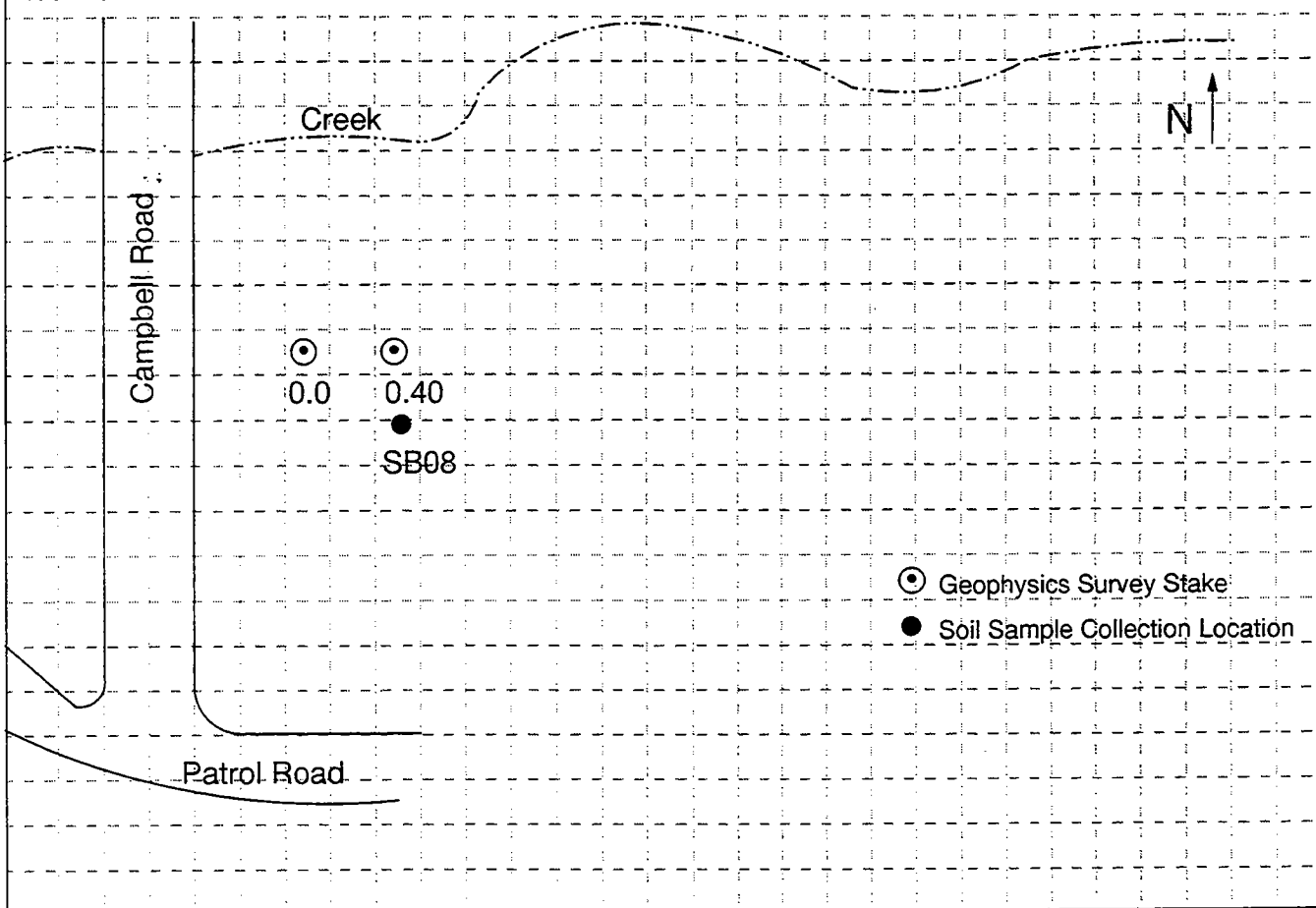
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA	NA	NA	NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	X	X	SVOC	Pest./PCBs	Nitro	NA %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	X	NA	NA	Wesley White/

LOCATION SKETCH/COMMENTS

SCALE: Not to scale



PROJECT	HOLE NO.
PBOW G-8 Burning Ground Site Investigation	BG8-SB08

PBOW/BORINGS/G-8/BG8-SB8.DRW/MC/6-10-96

INTERNATIONAL TECHNOLOGY CORPORATION

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NO. BG8-SB08

PROJECT: PBOW G-8 Burning Ground | INSPECTOR: W. White | SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	USCS e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
	1	Very dark brown, medium dense, very fine grain, silty, clayey SAND, micaceous, 50% sand, subangular, well sorted, moist, organic matter, (worms, etc.) 2.0	NA	sm	3019 (1620)	NA	
	2	Medium dense, yellowish brown, very fine grain, silty SAND, micaceous, 60% sand, subangular, trace amounts of rock fragments 2.8		sm	3020 (1635)		
	3	Limestone, bedrock Total Depth = 2.8 FT.					
	4						
	5						
	6						
	7						
	8						
	9						
	10						

Project: PBOW G-8 Burning Ground Site Investigation | Hole No. BG8-SB08

INTERNATIONAL TECHNOLOGY CORPORATION

HTRW DRILLING LOG

DISTRICT: Nashville COE		HOLE NUMBER: BG8-SB09
1. COMPANY NAME: IT Corporation	2. DRILL SUBCONTRACTOR: IT Corporation	SHEET 1 OF 2 SHEETS

3. PROJECT: G-8 Burning Ground	4. LOCATION: Plum Brook Ordnance Works
5. NAME OF DRILLER: Wesley White	6. MANUFACTURER'S DESIGNATION OF DRILL: NA
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: Shovel, Stainless Steel Spoon	8. HOLE LOCATION: G-8 Burning Grounds, Huron County
	9. SURFACE ELEVATION:
	10. DATE STARTED: 5/15/96 / 11. DATE COMPLETED: 5/15/96
12. OVERBURDEN THICKNESS: NA	15. DEPTH GROUNDWATER ENCOUNTERED: NA
13. DEPTH DRILLED INTO ROCK: NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA
14. TOTAL DEPTH OF HOLE: 3.0 ft.	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA

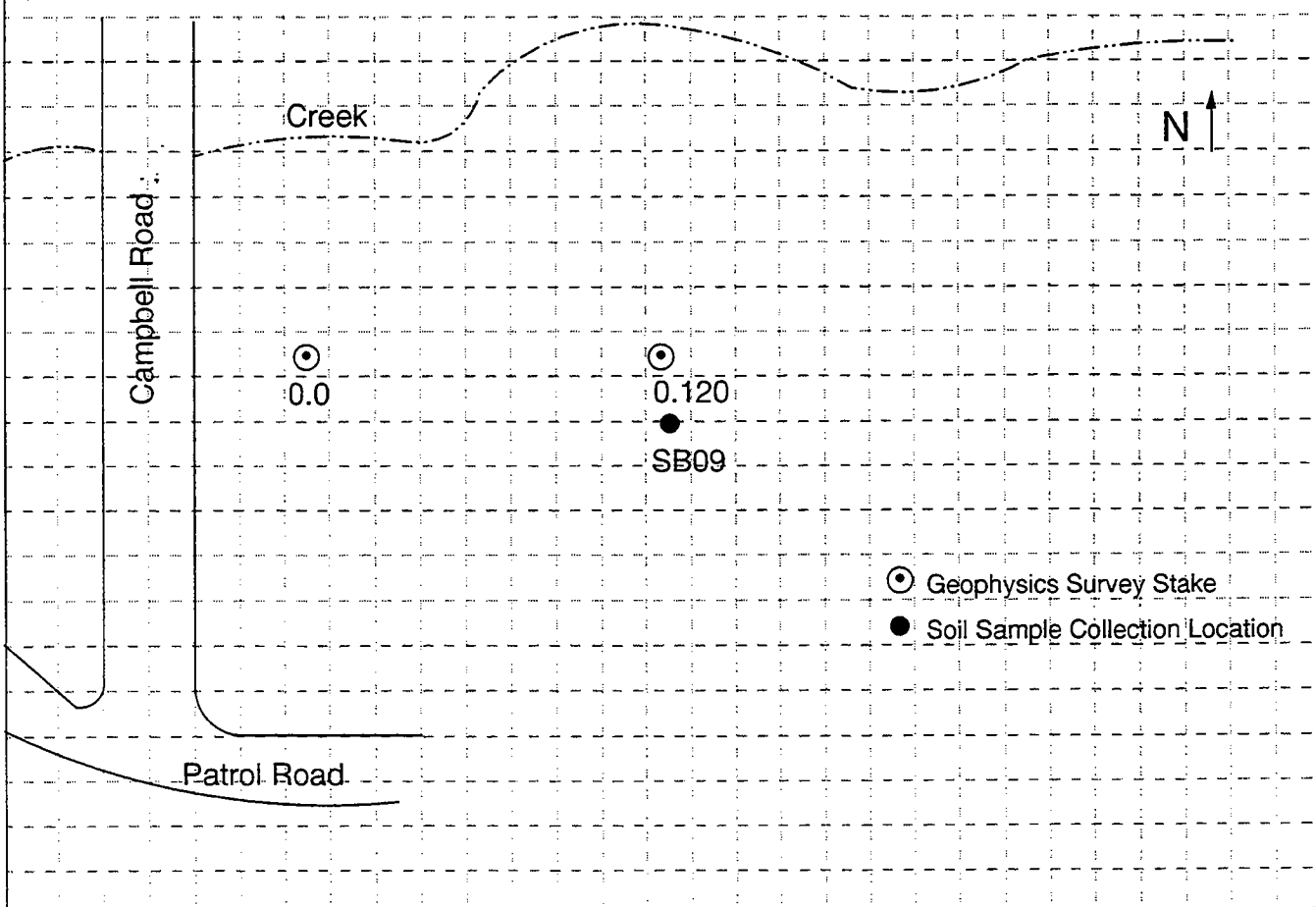
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA	NA	NA	NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	X	X	SVOC	Pest./PCBs	Nitro	NA %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	X	NA	NA	Wesley White/

LOCATION SKETCH/COMMENTS

SCALE: Not to scale



PROJECT	HOLE NO.
PBOW G-8 Burning Ground Site Investigation	BG8-SB09

PBOW/BORINGS/G-8/BG8-SB9.DRW/MC/6-10-96

INTERNATIONAL TECHNOLOGY CORPORATION

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NO. BG8-SB09

PROJECT: PBOW G-8 Burning Ground | INSPECTOR: W. White | SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	USCS e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
	1	Soft to medium dense, dark brown, very fine grain, sandy, clayey SILT and silty SAND, moist, well sorted, subangular, low plasticity, moist, organic matter, micaceous 1.8	NA	ml/sm	3021 (0825)	NA	
	2	Medium dense, yellowish brown, very fine grain, silty SAND, subangular, well sorted, micaceous, organic matter, poorly graded 3.0		sm	3022 (0835)		
	3	Total Depth = 3.0 FT.					
	4						
	5						
	6						
	7						
	8						
	9						
	10						

Project: PBOW G-8 Burning Ground Site Investigation | Hole No. BG8-SB09

HTRW DRILLING LOG

DISTRICT: Nashville COE		HOLE NUMBER: BG8-SB10
1. COMPANY NAME: IT Corporation	2. DRILL SUBCONTRACTOR: IT Corporation	SHEET 1 OF 2 SHEETS
3. PROJECT: G-8 Burning Ground	4. LOCATION: Plum Brook Ordnance Works	
5. NAME OF DRILLER: Wesley White	6. MANUFACTURER'S DESIGNATION OF DRILL: NA	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: Shovel, Stainless Steel Spoon	8. HOLE LOCATION: G-8 Burning Grounds, Huron County	
	9. SURFACE ELEVATION	
	10. DATE STARTED: 5/15/96	11. DATE COMPLETED: 5/15/96
12. OVERBURDEN THICKNESS: 1.5 ft.	15. DEPTH GROUNDWATER ENCOUNTERED: NA	
13. DEPTH DRILLED INTO ROCK: NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA	
14. TOTAL DEPTH OF HOLE: 1.5 ft.	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA	

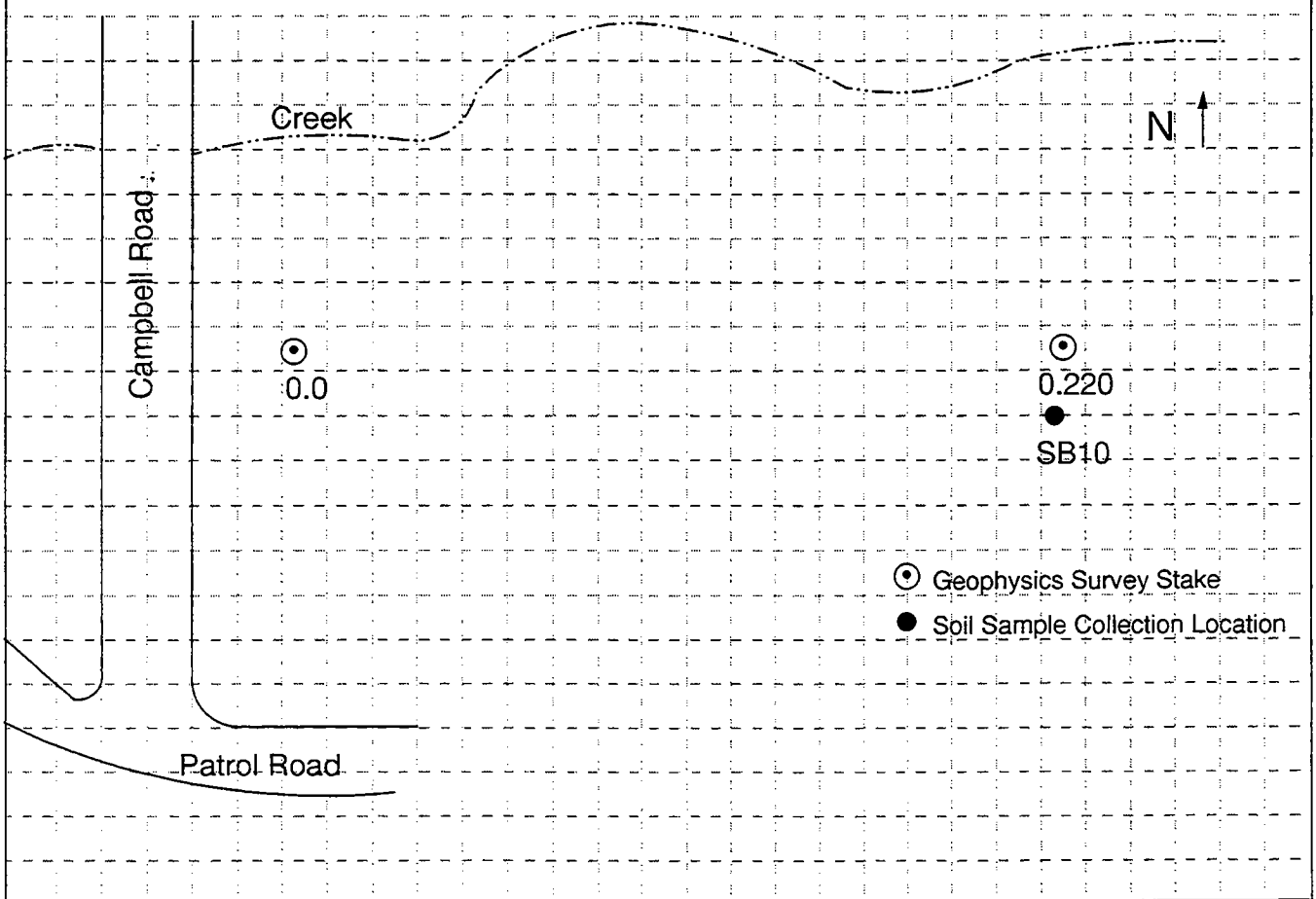
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA	NA	NA	NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	X	X	SVOC	Pest./PCBs	Nitro	NA %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	X	NA	NA	Wesley White/

LOCATION SKETCH/COMMENTS

SCALE: Not to scale



PROJECT	HOLE NO.
PBOW G-8 Burning Ground Site Investigation	BG8-SB10

PBOW/BORINGS/G-8/BG8-SB10.DRW/MC/6-10-96

INTERNATIONAL TECHNOLOGY CORPORATION

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NO. BG8-SB10

PROJECT: PBOW G-8 Burning Ground | INSPECTOR: W. White | SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	USCS e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
		Soft, dark brown, sandy, clayey SILT, 20% very fine grain sand, micaceous, trace gravel, moderately well sorted, poorly graded 1.0	NA	ml	3023 (0905)	NA	
	1	Medium dense, yellowish brown, fine grain, silty, clayey SAND, trace rocks, well sorted, wet to moist, micaceous 1.5		sm	3024 3025 3026 (0915)		
		Limestone bedrock limestone Total Depth = 1.5 FT.					
	2						
	3						
	4						
	5						
	6						
	7						
	8						
	9						
	10						

Project: PBOW G-8 Burning Ground Site Investigation | Hole No. BG8-SB10

HTRW DRILLING LOG

DISTRICT: Nashville COE		HOLE NUMBER: BG8-SB11
1. COMPANY NAME: IT Corporation	2. DRILL SUBCONTRACTOR: IT Corporation	SHEET 1 OF 2 SHEETS
3. PROJECT: G-8 Burning Ground	4. LOCATION: Plum Brook Ordnance Works	
5. NAME OF DRILLER: Wesley White	6. MANUFACTURER'S DESIGNATION OF DRILL: NA	
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: Shovel, Stainless Steel Spoon	8. HOLE LOCATION: G-8 Burning Grounds, Huron County	
	9. SURFACE ELEVATION	
	10. DATE STARTED: 5/15/96	11. DATE COMPLETED: 5/15/96
12. OVERBURDEN THICKNESS: 1.0 ft.	15. DEPTH GROUNDWATER ENCOUNTERED: NA	
13. DEPTH DRILLED INTO ROCK: NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA	
14. TOTAL DEPTH OF HOLE: 1.0 ft.	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA	

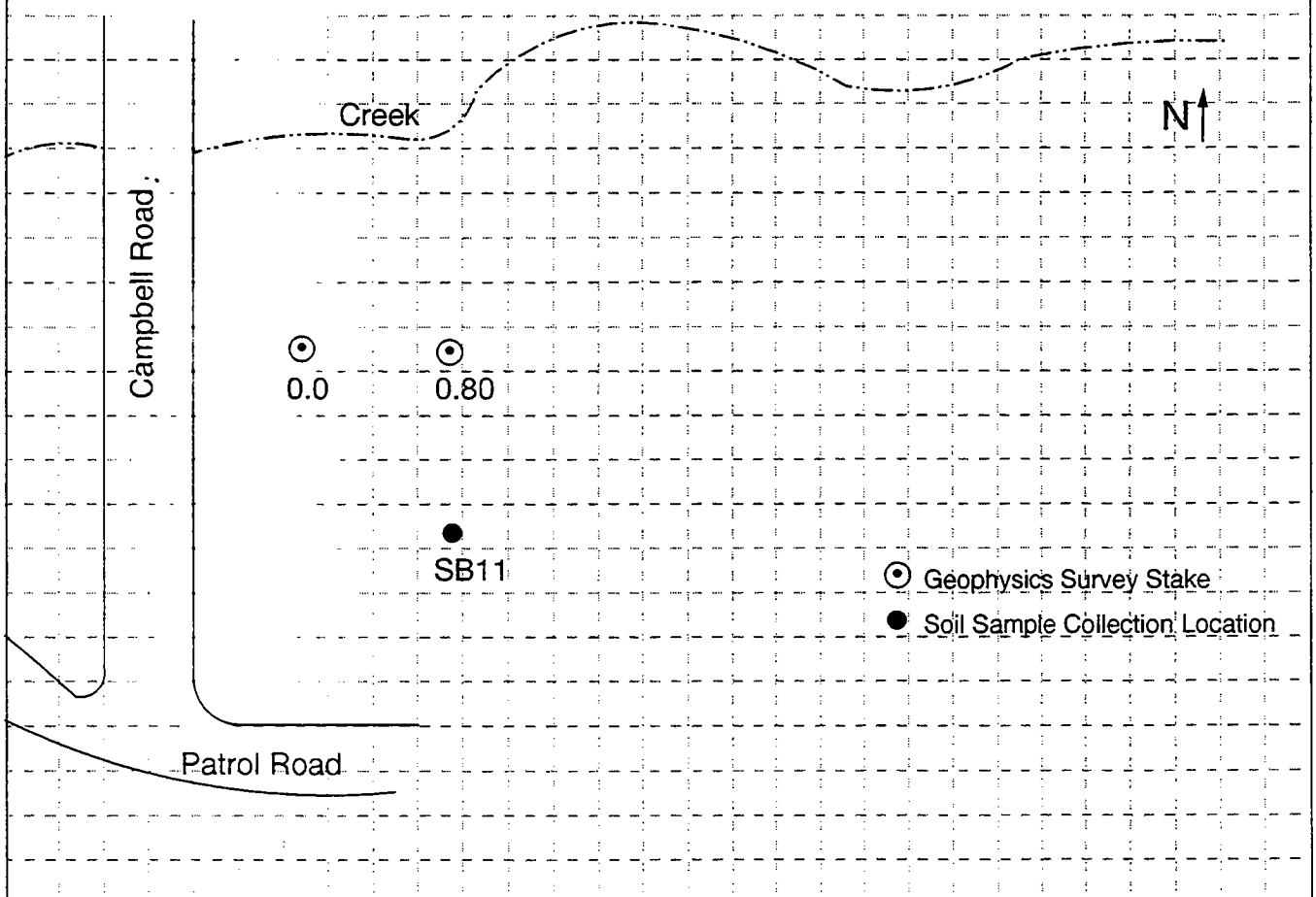
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA	NA	NA	NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	X	X	SVOC	Pest./PCBs	Nitro	NA %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	X	NA	NA	Wesley White/

LOCATION SKETCH/COMMENTS

SCALE: Not to scale



PROJECT	HOLE NO.
PBOW G-8 Burning Ground Site Investigation	BG8-SB11

PBOW/BORINGS/G-8/BG8-SB11.DRW/MC/6-10-96

INTERNATIONAL TECHNOLOGY CORPORATION

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NO. BG8-SB11

PROJECT: PBOW G-8 Burning Ground | INSPECTOR: W. White | SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	USCS e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
		Medium dense, dark brown, very fine grain, silty, clayey, SAND, well sorted, subangular, poorly graded, moist, micaceous, organics	NA	sm	3027 (0940)	NA	
	1.0				3028 (0950)		
	1	Bedrock, limestone Total Depth = 1.0 FT.					
	2						
	3						
	4						
	5						
	6						
	7						
	8						
	9						
	10						

Project: PBOW G-8 Burning Ground Site Investigation | Hole No. BG8-SB11

PBOW/BORINGS/G-8/BG8SB11A.DRW/mc/6-10-96

INTERNATIONAL TECHNOLOGY CORPORATION

HTRW DRILLING LOG

DISTRICT: Nashville COE		HOLE NUMBER: BG8-SB12
1. COMPANY NAME: IT Corporation	2. DRILL SUBCONTRACTOR: IT Corporation	SHEET 1 OF 2 SHEETS

3. PROJECT: G-8 Burning Ground	4. LOCATION: Plum Brook Ordnance Works
5. NAME OF DRILLER: Wesley White	6. MANUFACTURER'S DESIGNATION OF DRILL: NA
7. SIZES AND TYPES OF DRILLING AND SAMPLING EQUIPMENT: Shovel, Stainless Steel Spoon	8. HOLE LOCATION: G-8 Burning Grounds, Huron County
	9. SURFACE ELEVATION:
	10. DATE STARTED: 5/15/96 / 11. DATE COMPLETED: 5/15/96
12. OVERBURDEN THICKNESS: 3.0 ft.	15. DEPTH GROUNDWATER ENCOUNTERED: NA
13. DEPTH DRILLED INTO ROCK: NA	16. DEPTH TO WATER AND ELAPSED TIME AFTER DRILLING COMPLETED: NA
14. TOTAL DEPTH OF HOLE: 3.0 ft.	17. OTHER WATER LEVEL MEASUREMENTS (SPECIFY): NA

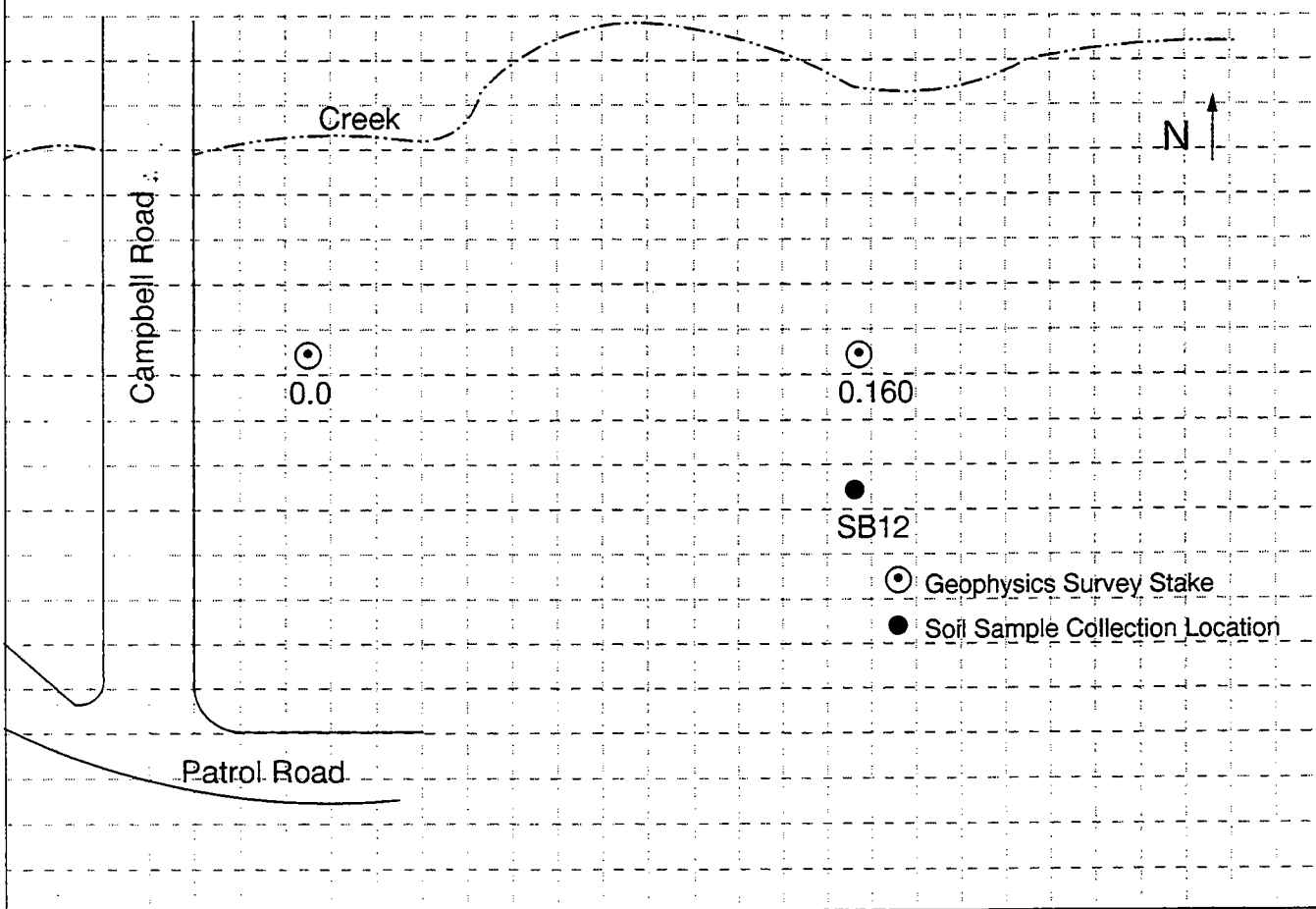
18. GEOTECHNICAL SAMPLES	DISTURBED	UNDISTURBED	19. TOTAL NUMBER OF CORE BOXES
NA	NA	NA	NA

20. SAMPLES FOR CHEMICAL ANALYSIS	VOC	METALS	OTHER (SPECIFY)	OTHER (SPECIFY)	OTHER (SPECIFY)	21. TOTAL CORE RECOVERY
	X	X	SVOC	Pest./PCBs	Nitro	NA %

22. DISPOSITION OF HOLE	BACKFILLED	MONITORING WELL	OTHER (SPECIFY)	23. SIGNATURE OF INSPECTOR
	X	NA	NA	Wesley White/

LOCATION SKETCH/COMMENTS

SCALE: Not to scale



PROJECT	HOLE NO.
PBOW G-8 Burning Ground Site Investigation	BG8-SB12

PBOW/BORINGS/G-8/BG8-SB12.DRW/MC/6-10-96

INTERNATIONAL TECHNOLOGY CORPORATION

HTRW DRILLING LOG (CONTINUATION SHEET)

HOLE NO. BG8-SB12

PROJECT: PBOW G-8 Burning Ground | INSPECTOR: W. White | SHEET 2 OF 2 SHEETS

ELEV. a	DEPTH b	DESCRIPTION OF MATERIALS c	FIELD SCREENING RESULTS d	USCS e	ANALYTICAL SAMPLE NO. f	BLOW COUNTS g	REMARKS h
	1	Medium dense, dark brown, very fine grain, silty, clayey SAND, well sorted, poorly graded, moist, organic matter 1.5	NA	sm	3029 (1000)	NA	
	2	Medium dense, yellowish brown, very fine grain, silty, SAND, well sorted, poorly graded, wet 3.0		sm	3030 (1010)		
	3	Bedrock, limestone Total Depth = 3.0 FT.					
	4						
	5						
	6						
	7						
	8						
	9						
	10						

Project: PBOW G-8 Burning Ground Site Investigation | Hole No. BG8-SB12

INTERNATIONAL TECHNOLOGY CORPORATION

APPENDIX D

LAND SURVEY DATA

G-8 BURNING GROUND (NASA PBS COORDINATES)

PT #	Y	X	ELEV	POSITION
177	26877.324	13884.186	669.590	SB01
199	26886.703	13971.021	669.320	SB02
200	26887.756	14038.001	669.370	SB03
172	26820.266	13873.272	671.310	SB04
189	26827.072	13934.184	670.520	SB05
192	26830.532	14003.186	670.560	SB06
197	26850.401	14056.149	669.890	SB07
171	26801.379	13853.970	670.630	SB08
190	26789.317	13957.150	672.320	SB09
198	26820.538	14039.526	670.070	SB10
182	26788.194	13903.638	672.030	SB11
191	26801.624	13998.307	671.050	SB12

TRENCH LOCATIONS

193	26847.196	14015.185	669.710	T1	SE
194	26847.796	14010.766	669.760	T1	SW
195	26861.128	14008.813	669.610	T1	NW
196	26861.294	14015.176	669.780	T1	NE
185	26851.027	13953.830	670.200	T2	SE
186	26849.431	13948.199	669.870	T2	SW
187	26868.161	13943.960	670.050	T2	NW
188	26868.909	13951.623	669.810	T2	NE
173	26859.064	13874.035	670.210	T3	NW
174	26857.783	13879.838	670.420	T3	NE
175	26839.586	13881.094	671.030	T3	SE
176	26838.725	13873.532	670.860	T3	SW
180	26800.983	13913.310	671.660	T4	NE
181	26791.097	13914.066	671.570	T4	SE
183	26790.962	13896.659	672.310	T4	SW
184	26800.382	13896.556	672.050	T4	NW

G-8 BURNING GROUND (OHIO STATE COORDINATES)

PT #	Y	X	ELEV	POSITION
177	618974.109	1909683.654	669.270	BG8-SB01
199	618981.397	1909770.683	669.000	BG8-SB02
200	618980.840	1909837.664	669.050	BG8-SB03
172	618917.333	1909671.373	670.990	BG8-SB04
189	618922.673	1909732.426	670.200	BG8-SB05
192	618924.474	1909801.487	670.240	BG8-SB06
197	618943.063	1909854.908	669.570	BG8-SB07
171	618898.917	1909651.624	670.310	BG8-SB08
190	618884.380	1909754.477	672.000	BG8-SB09
198	618913.610	1909837.574	669.750	BG8-SB010
182	618884.544	1909700.957	671.710	BG8-SB011
191	618895.694	1909795.915	670.730	BG8-SB012

TRENCH LOCATIONS

193	618940.844	1909813.882	669.390	T1	SE
194	618941.550	1909809.479	669.440	T1	SW
195	618954.924	1909807.847	669.290	T1	NW
196	618954.937	1909814.211	669.460	T1	NE
185	618946.147	1909752.641	669.880	T2	SE
186	618944.687	1909746.974	669.550	T2	SW
187	618963.513	1909743.186	669.730	T2	NW
188	618964.076	1909750.865	669.490	T2	NE
173	618956.099	1909673.068	669.890	T3	NW
174	618954.679	1909678.838	670.100	T3	NE
175	618936.459	1909679.656	670.710	T3	SE
176	618935.780	1909672.076	670.540	T3	SW
180	618897.095	1909710.933	671.340	T4	NE
181	618887.194	1909711.452	671.250	T4	SE
183	618887.478	1909694.047	671.990	T4	SW
184	618896.897	1909694.171	671.730	T4	NW

APPENDIX E

VARIANCE LOGS

INTERNATIONAL TECHNOLOGY CORPORATION

NONCONFORMANCE REPORT

Project: PBOW G-8 Burning Ground Site Investigation
Project No.: 764678

NR No.: 01
Page: 1 of 1
Date: 11/12/96

1. Nonconformance Description:

Two sediment sampling locations and one trench location (TR-05) were not surveyed due to missing survey marks (wood stakes painted orange).

Identified By: George Yu

2. Proposed Corrective Action, Including Initiation and Completion Dates:

These locations will be estimated based on the site map, sample collection logs/boring logs, and site features. Two sediment points are along the creek. The location of TR-5 can be estimated in reference to 4 surveyed trenches.

To be Performed by: George Yu/Wesley White/Tom Hendley

3. Approval for Proposed Corrective Action:

Project Manager	11/13/96 Date
Quality Assurance Coordinator	Date

4. Corrective Action Taken (if different from that proposed):

Three locations were placed on Figure 2-6 based on field records, site features, and my recollection.

5. Corrective Action Complete:

George Yu Performed By	11/7/96 Date
Verified By	Date

cc: Program Manager
Project Manager
Quality Assurance Manager
Quality Assurance Coordinator
Central Files

Other:

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INTERNATIONAL TECHNOLOGY CORPORATION

Variance No. 01

Variance Log

Project No.: 764678

Page _1_ **of** _1_

Project Name: PBOW G-8 Burning Ground SI

Date: 12/6/95

Variance (Include Justification)

The clear area, thought to be the suspected burning ground, is about 240 ft x 90 ft in area, not about 2 acres as stated in the work plan. The area is bounded to the north by a ditch (creek has flowing water) and by trees on the remaining three sides. Since we are conducting a screening level geophysical survey, the clear area with easy accessibility will be surveyed. Tom Lerner of COE Nashville was on site. After consultation with him, we decided to survey only the 240 ft x 90 ft area , not the 2 acres as originally planned.

Note: The project manager, Don Burton, was also on site when this decision was made.

Applicable Document:

Work Plan

Requested By: George Yu 12/6/95
Date

Approved By: Donna C Burton
Project Manager Date

Quality Assurance Officer Date

cc:

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INTERNATIONAL TECHNOLOGY CORPORATION

Variance No. 02

Variance Log

Project No.: 764678

Page _1_ **of** _1_

Project Name: PBOW G-8 Burning Ground SI

Date: 5/13/96

Variance (Include Justification)

The Quanterra Environmental lab in Knoxville sent clear glass soil sample jars instead of amber ones as required in the SAP. Wesley White called the Quanterra Lab. They said the method the lab would be using is EPA-SW-846 not CLP; therefore, clear glass bottles are acceptable to them. Don Burton, project manager, requested that we call Ohio COE QA lab to make sure they would accept it. Jim Cook of Nashville COE came to the site and called Doug Webb (project manager/chemist). He said it was acceptable to the COE. Jim said that we do not need to call Ohio QA lab.

Clear glass jars used for soil samples as approved.

Applicable Document:

Site Sampling and Analysis Plan

Requested By: George Yu 5/13/96
Date

Approved By: Donald C Burton 5/13/96
Project Manager Date

Quality Assurance Officer Date

cc:

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INTERNATIONAL TECHNOLOGY CORPORATION

Variance No. 03

Variance Log

Project No.: 764678

Page _1_ **of** _1_

Project Name: PBOW G-8 Burning Ground SI

Date: 5/13/96

Variance (Include Justification)

Bedrock has been encountered at shallow depths across the site. There are about 1- 1/2 to 2-1/2 feet of overburden which also contain a considerable amount of limestone rock fragments. It is not possible to collect undisturbed soil samples for VOC analysis as required by the SAP/QAPP. We tried to use split spoon with slide hammer with no success. Jim Cook of Nashville COE was on site. After consulting with Jim Cook, we decided that we will not collect undisturbed samples. However, care will be taken to minimize soil disturbance when collecting subsurface samples for VOC analysis

Applicable Document:

QAPP/SAP

Requested By: George Yu — 5/13/96 (Date)

Approved By: Donna C Burton — 5/13/96 (Date)
Project Manager

Quality Assurance Officer — Date

cc:

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INTERNATIONAL TECHNOLOGY CORPORATION

Variance No. 04

Variance Log

Project No.: 764678

Page 1 **of** 1

Project Name: PBOW G-8 Burning Ground SI

Date: 5/13/96

Variance (Include Justification)

Three pilot trenches were placed according to the SAP. Visual inspection of soil profiles in these 3 trenches did not show anything indicative of burn residue or notable coloration changes. HNu did not show any hits either. Considering this, we may not need to place 4 additional trenches here. Talked with Jim Cook of COE Nashville, he agreed. Called home office. We decided to place two more trenches south of the pilot trench. If nothing shows up, no more tenches will be placed at G-8 burning ground. Photographs were taken of all trenches.

Applicable Document:

Work Plan

Requested By: George Yu 5/13/96
Date

Approved By: Thomas C Burton 5/13/96
Project Manager Date

Quality Assurance Officer Date

cc:

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APPENDIX F

DATA VALIDATION SUMMARY

STEP Inc.

SOLUTIONS TO ENVIRONMENTAL PROBLEMS
1620 Market St., Suite 5E • Denver, CO 80202
Telephone 303/629-0176 • Fax 303/629-0215

August 5, 1996

Kim Allen Arrant
IT Corporation
312 Directors Drive
Knoxville, TN 37923

Dear Kim:

Enclosed are the Data Validation Summary and Validated Form Is for Plum Brook Burning Grounds. Please call if you have any questions.

Sincerely,

Tom Kitchings

STEP Inc.

SOLUTIONS TO ENVIRONMENTAL PROBLEMS
1620 Market St., Suite 5E • Denver, CO 80202
Telephone 303/629-0176 • Fax 303/629-0215

PLUM BROOK
DATA VALIDATION SUMMARY

July 1996

Analytical data from Plum Brook G-8 Burning Grounds, May 1996, was validated at one hundred percent (100%) Level III for volatile organic compounds, semivolatile organic compounds, metals, pesticides/PCB's, and explosives. Validation was done according to the EPA Functional Guidelines for Organic and Inorganic Analytical Data.

Volatiles. In seven samples from SDG PBG801 acetone was qualified as nondetect (U) based on its presence in the associated method blank, as was trichloroethene in one sample (3017) from the same SDG. Reanalysis of 11 samples in both SDGs PBG801 and PBG802 were required due to its low surrogate recoveries and internal standards outside the QC limits. The reanalyses were rejected in favor of the original samples since the same problems were encountered. The results in the original samples were qualified as estimated (J/UJ) as appropriate. Additional "J/UJ" qualifiers were added to two samples in PBG801 and four in PBG802 due to low surrogate recoveries. Likewise, five samples in PBG801 and six in PBG802 were qualified as estimated due to internal standards exceeding the QC range. Samples 2001, 2002, and 2004 were reported as soil samples but the moisture content exceeded 50%; no qualifiers were added.

Semivolatiles. Fifteen samples from SDG PBG801 and 12 from PBG802 were qualified as nondetect (U) and the reported value raised to the CRQL for bis(2-ethylhexyl) phthalate due to its presence in the associated method blank. Several "poor response" compounds had %D for the continuing calibrations greater than 25, but no qualifiers were required.

Metals. In SDG PBG801 the QC duplicate results were outside the acceptable limits for iron and manganese, all samples were qualified as estimated (J/UJ) for all analyte results. The same qualifiers were required for barium and manganese in SDG PBG802. Matrix spike recoveries were low for the following: antimony, arsenic, lead, selenium, and thallium in both SDGs; copper in PBG801; and manganese, silver, and zinc in PBG802. All analytes were qualified as estimated (J/UJ).

Pesticides. No qualifications were required.

Explosives. No qualifications were required.

PLUM BROOK DATA VALIDATION

This documents the changes made to STEP's validation of the Plum Brook G-8 Burning Grounds data. The revisions were discussed with STEP and they concurred with the noted changes on 08/09/96. Listed below are the samples affected and the changes made;.

VOLATILES

The reported value for Acetone was raised to the CRQL for samples 3002, 3004, 3009, 3010, 3011, 3012, and 3014. STEP had assigned the correct 'U' qualifier, however, had not raised the reported value. The same change was made for Trichloroethane for sample 3017. It should also be noted that the approproiate qualifiers for 4-Methyl-2-Pentanone for sample 3011 and Xylene for sample 3012 have been marked on the Form I's which were inadvertently omitted by STEP.

SEMIVOLATILES

The reported value for bis(2-Ethylhexyl) Phthalate was raised to the CRQL for sample 3021 and the appropriate qualifier was marked on the Form I for Acenaphthylene for sample 3019. These were inadvertently omitted by STEP.

KKD
8/9/96

SDG: PBG802 Project: IT - Plum Brook

Method: Semivolatiles Matrix/No. of Samples: Soil/ 12

Validation Samples: 2001 2002 2004
3021 3022 3023 3024 3025
3027 3028 3029 3030

Data Validation Report Summary

		Status Code	Comments
1.	Sample Preservation, Handling, and Transport	A	
2.	Chain of Custody	A	
3.	Holding Times	A	
4.	GC/MS Tune/Inst Perf	A	
5.	Calibrations	A	
6.	Blanks	X	
7.	Blank Spike/LCS	A	
8.	Matrix Spike	A	
9.	Surrogates	A	
10.	Internal Standards	A	
11.	Compound Identification	A	
12.	System Performance	X	
13.	Field QC Samples	N/A	
14.	Overall Assessment	X	

Status Codes:
A = Acceptable
R = Data Rejected
X = Data acceptable but qualified due to problems

Qualifications:

Qualify bis(2-Ethylhexyl) Phthalate in the following samples as "U" based on compound results in Method Blank SBLK 44WABB: 2002, 2004, 3021, 3022, 3023, 3024, 3025, 3027, 3028, 3029 & 3030 & 2001 JTK

Samples 2001, 2002 & 2004 ~~were~~ reported % moisture greater than 50%. ~~All results were qualified as estimated (J, UJ) in these three samples.~~ JTK

Significant Findings/Recommendations:

Benzyl alcohol was reported in continuing calibration 6-2-96 with a %D >25%. The compound was a non-detect in samples & no qualifications were required.

Overall Data Quality:

Acceptable as qualified.

Validator's Signature: Clarissa Owenby Date: 7-31-96

Peer Reviewer: J. Thomas Kelly's Date: 8/1/96

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2001

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434M102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C434M

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 64 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: ____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	Q LAB	REV. QUAL.
108-95-2	Phenol	U	
111-44-4	bis(2-Chloroethyl)Ether	U	
95-57-8	2-Chlorophenol	U	
541-73-1	1,3-Dichlorobenzene	U	
106-46-7	1,4-Dichlorobenzene	U	
95-50-1	1,2-Dichlorobenzene	U	
95-48-7	2-Methylphenol	U	
108-60-1	2,2'-Oxybis(1-Chloropropane)	U	
106-44-5	4-Methylphenol	U	
621-64-7	N-Nitroso-Di-n-Propylamine	U	
67-72-1	Hexachloroethane	U	
98-95-3	Nitrobenzene	U	
78-59-1	Isophorone	U	
88-75-5	2-Nitrophenol	U	
105-67-9	2,4-Dimethylphenol	U	
111-91-1	bis(2-Chloroethoxy)Methane	U	
120-83-2	2,4-Dichlorophenol	U	
120-82-1	1,2,4-Trichlorobenzene	U	
91-20-3	Naphthalene	U	
106-47-8	4-Chloroaniline	U	
87-68-3	Hexachlorobutadiene	U	
59-50-7	4-Chloro-3-Methylphenol	U	
91-57-6	2-Methylnaphthalene	U	
77-47-4	Hexachlorocyclopentadiene	U	
88-06-2	2,4,6-Trichlorophenol	U	
95-95-4	2,4,5-Trichlorophenol	U	
91-58-7	2-Chloronaphthalene	U	
88-74-4	2-Nitroaniline	U	
131-11-3	Dimethylphthalate	U	
208-96-8	Acenaphthylene	U	
606-20-2	2,6-Dinitrotoluene	U	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2001

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434M102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C434M

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 64 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q	REV. QUAL.
99-09-2	3-Nitroaniline	4400	U	
83-32-9	Acenaphthene	910	U	
51-28-5	2,4-Dinitrophenol	4400	U	
100-02-7	4-Nitrophenol	4400	U	
132-64-9	Dibenzofuran	910	U	
121-14-2	2,4-Dinitrotoluene	910	U	
84-66-2	Diethylphthalate	910	U	
7005-72-3	4-Chlorophenyl-phenylether	910	U	
86-73-7	Fluorene	910	U	
100-01-6	4-Nitroaniline	4400	U	
534-52-1	4,6-Dinitro-2-Methylphenol	4400	U	
86-30-6	N-Nitrosodiphenylamine (1)	910	U	
101-55-3	4-Bromophenyl-phenylether	910	U	
118-74-1	Hexachlorobenzene	910	U	
87-86-5	Pentachlorophenol	4400	U	
85-01-8	Phenanthrene	910	U	
120-12-7	Anthracene	910	U	
86-74-8	Carbazole	910	U	
84-74-2	Di-n-Butylphthalate	130	J	J
206-44-0	Fluoranthene	910	U	
129-00-0	Pyrene	910	U	
85-68-7	Butylbenzylphthalate	910	U	
91-94-1	3,3'-Dichlorobenzidine	4400	U	
56-55-3	Benzo(a)Anthracene	910	U	
218-01-9	Chrysene	910	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	910 ~~490~~	BJ	
117-84-0	Di-n-Octyl Phthalate	910	U	
205-99-2	Benzo(b)Fluoranthene	910	U	
207-08-9	Benzo(k)Fluoranthene	910	U	
50-32-8	Benzo(a)Pyrene	910	U	
193-39-5	Indeno(1,2,3-cd)Pyrene	910	U	
53-70-3	Dibenz(a,h)Anthracene	910	U	
191-24-2	Benzo(g,h,i)Perylene	910	U	

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2002

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434H102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C434H

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 64 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q	REV. QUAL.
108-95-2	Phenol	910	U	
111-44-4	bis(2-Chloroethyl)Ether	910	U	
95-57-8	2-Chlorophenol	910	U	
541-73-1	1,3-Dichlorobenzene	910	U	
106-46-7	1,4-Dichlorobenzene	910	U	
95-50-1	1,2-Dichlorobenzene	910	U	
95-48-7	2-Methylphenol	910	U	
108-60-1	2,2'-Oxybis(1-Chloropropane)	910	U	
106-44-5	4-Methylphenol	910	U	
621-64-7	N-Nitroso-Di-n-Propylamine	910	U	
67-72-1	Hexachloroethane	910	U	
98-95-3	Nitrobenzene	910	U	
78-59-1	Isophorone	910	U	
88-75-5	2-Nitrophenol	910	U	
105-67-9	2,4-Dimethylphenol	910	U	
111-91-1	bis(2-Chloroethoxy)Methane	910	U	
120-83-2	2,4-Dichlorophenol	910	U	
120-82-1	1,2,4-Trichlorobenzene	910	U	
91-20-3	Naphthalene	910	U	
106-47-8	4-Chloroaniline	910	U	
87-68-3	Hexachlorobutadiene	910	U	
59-50-7	4-Chloro-3-Methylphenol	910	U	
91-57-6	2-Methylnaphthalene	910	U	
77-47-4	Hexachlorocyclopentadiene	4400	U	
88-06-2	2,4,6-Trichlorophenol	910	U	
95-95-4	2,4,5-Trichlorophenol	910	U	
91-58-7	2-Chloronaphthalene	910	U	
88-74-4	2-Nitroaniline	4400	U	
131-11-3	Dimethylphthalate	910	U	
208-96-8	Acenaphthylene	910	U	
606-20-2	2,6-Dinitrotoluene	910	U	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2002

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434H102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C434H

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 64 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00 fulton

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

CAS NO.	COMPOUND		Q	REV.
99-09-2	3-Nitroaniline	4400	U	U
83-32-9	Acenaphthene	910	U	
51-28-5	2,4-Dinitrophenol	4400	U	
100-02-7	4-Nitrophenol	4400	U	
132-64-9	Dibenzofuran	910	U	
121-14-2	2,4-Dinitrotoluene	910	U	
84-66-2	Diethylphthalate	910	U	
7005-72-3	4-Chlorophenyl-phenylether	910	U	
86-73-7	Fluorene	910	U	
100-01-6	4-Nitroaniline	4400	U	
534-52-1	4,6-Dinitro-2-Methylphenol	4400	U	
86-30-6	N-Nitrosodiphenylamine (1)	910	U	
101-55-3	4-Bromophenyl-phenylether	910	U	
118-74-1	Hexachlorobenzene	910	U	
87-86-5	Pentachlorophenol	4400	U	
85-01-8	Phenanthrene	910	U	
120-12-7	Anthracene	910	U	
86-74-8	Carbazole	910	U	
84-74-2	Di-n-Butylphthalate	910	U	
206-44-0	Fluoranthene	910	U	
129-00-0	Pyrene	910	U	
85-68-7	Butylbenzylphthalate	910	U	
91-94-1	3,3'-Dichlorobenzidine	4400	U	
56-55-3	Benzo(a)Anthracene	910	U	
218-01-9	Chrysene	910	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	910 ~~180~~	BJ	
117-84-0	Di-n-Octyl Phthalate	910	U	
205-99-2	Benzo(b)Fluoranthene	910	U	
207-08-9	Benzo(k)Fluoranthene	910	U	
50-32-8	Benzo(a)Pyrene	910	U	
193-39-5	Indeno(1,2,3-cd)Pyrene	910	U	
53-70-3	Dibenz(a,h)Anthracene	910	U	
191-24-2	Benzo(g,h,i)Perylene	910	U	

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2004

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4340102

Sample wt/vol: 29.80 (g/mL) G Lab File ID: C4340

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 53 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q	REV. QUAL.
108-95-2	Phenol	710	U	UJ u
111-44-4	bis(2-Chloroethyl)Ether	710	U	
95-57-8	2-Chlorophenol	710	U	
541-73-1	1,3-Dichlorobenzene	710	U	
106-46-7	1,4-Dichlorobenzene	710	U	
95-50-1	1,2-Dichlorobenzene	710	U	
95-48-7	2-Methylphenol	710	U	
108-60-1	2,2'-Oxybis(1-Chloropropane)	710	U	
106-44-5	4-Methylphenol	710	U	
621-64-7	N-Nitroso-Di-n-Propylamine	710	U	
67-72-1	Hexachloroethane	710	U	
98-95-3	Nitrobenzene	710	U	
78-59-1	Isophorone	710	U	
88-75-5	2-Nitrophenol	710	U	
105-67-9	2,4-Dimethylphenol	710	U	
111-91-1	bis(2-Chloroethoxy)Methane	710	U	
120-83-2	2,4-Dichlorophenol	710	U	
120-82-1	1,2,4-Trichlorobenzene	710	U	
91-20-3	Naphthalene	710	U	
106-47-8	4-Chloroaniline	710	U	
87-68-3	Hexachlorobutadiene	710	U	
59-50-7	4-Chloro-3-Methylphenol	710	U	
91-57-6	2-Methylnaphthalene	710	U	
77-47-4	Hexachlorocyclopentadiene	3400	U	
88-06-2	2,4,6-Trichlorophenol	710	U	
95-95-4	2,4,5-Trichlorophenol	710	U	
91-58-7	2-Chloronaphthalene	710	U	
88-74-4	2-Nitroaniline	3400	U	
131-11-3	Dimethylphthalate	710	U	
208-96-8	Acenaphthylene	710	U	
606-20-2	2,6-Dinitrotoluene	710	U	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2004

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434Q102

Sample wt/vol: 29.80 (g/mL) G Lab File ID: C434Q

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 53 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q	REV. QUAL.
99-09-2	3-Nitroaniline	3400	U	UJU
83-32-9	Acenaphthene	710	U	
51-28-5	2,4-Dinitrophenol	3400	U	
100-02-7	4-Nitrophenol	3400	U	
132-64-9	Dibenzofuran	710	U	
121-14-2	2,4-Dinitrotoluene	710	U	
84-66-2	Diethylphthalate	710	U	
7005-72-3	4-Chlorophenyl-phenylether	710	U	
86-73-7	Fluorene	710	U	
100-01-6	4-Nitroaniline	3400	U	
534-52-1	4,6-Dinitro-2-Methylphenol	3400	U	
86-30-6	N-Nitrosodiphenylamine (1)	710	U	
101-55-3	4-Bromophenyl-phenylether	710	U	
118-74-1	Hexachlorobenzene	710	U	
87-86-5	Pentachlorophenol	3400	U	
85-01-8	Phenanthrene	710	U	
120-12-7	Anthracene	710	U	
86-74-8	Carbazole	710	U	
84-74-2	Di-n-Butylphthalate	710	U	
206-44-0	Fluoranthene	710	U	
129-00-0	Pyrene	710	U	
85-68-7	Butylbenzylphthalate	710	U	
91-94-1	3,3'-Dichlorobenzidine	3400	U	
56-55-3	Benzo(a)Anthracene	710	U	
218-01-9	Chrysene	710	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	710 ~~140~~	BJ	
117-84-0	Di-n-Octyl Phthalate	710	U	
205-99-2	Benzo(b)Fluoranthene	710	U	
207-08-9	Benzo(k)Fluoranthene	710	U	
50-32-8	Benzo(a)Pyrene	710	U	
193-39-5	Indeno(1,2,3-cd)Pyrene	710	U	
53-70-3	Dibenz(a,h)Anthracene	710	U	
191-24-2	Benzo(g,h,i)Perylene	710	U	

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3021

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4330104

Sample wt/vol: 30.00 (g/mL) G Lab File ID: C4330

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 17 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	Q	REV. QUAL.
108-95-2	Phenol	400 U	u
111-44-4	bis(2-Chloroethyl)Ether	400 U	
95-57-8	2-Chlorophenol	400 U	
541-73-1	1,3-Dichlorobenzene	400 U	
106-46-7	1,4-Dichlorobenzene	400 U	
95-50-1	1,2-Dichlorobenzene	400 U	
95-48-7	2-Methylphenol	400 U	
108-60-1	2,2'-Oxybis(1-Chloropropane)	400 U	
106-44-5	4-Methylphenol	400 U	
621-64-7	N-Nitroso-Di-n-Propylamine	400 U	
67-72-1	Hexachloroethane	400 U	
98-95-3	Nitrobenzene	400 U	
78-59-1	Isophorone	400 U	
88-75-5	2-Nitrophenol	400 U	
105-67-9	2,4-Dimethylphenol	400 U	
111-91-1	bis(2-Chloroethoxy)Methane	400 U	
120-83-2	2,4-Dichlorophenol	400 U	
120-82-1	1,2,4-Trichlorobenzene	400 U	
91-20-3	Naphthalene	400 U	
106-47-8	4-Chloroaniline	400 U	
87-68-3	Hexachlorobutadiene	400 U	
59-50-7	4-Chloro-3-Methylphenol	400 U	
91-57-6	2-Methylnaphthalene	400 U	
77-47-4	Hexachlorocyclopentadiene	1900 U	
88-06-2	2,4,6-Trichlorophenol	400 U	
95-95-4	2,4,5-Trichlorophenol	400 U	
91-58-7	2-Chloronaphthalene	400 U	
88-74-4	2-Nitroaniline	1900 U	
131-11-3	Dimethylphthalate	400 U	
208-96-8	Acenaphthylene	400 U	
606-20-2	2,6-Dinitrotoluene	400 U	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3021

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4330104

Sample wt/vol: 30.00 (g/mL) G Lab File ID: C4330

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 17 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

6/19/96 REV Q QC L

CAS NO.	COMPOUND			
99-09-2	3-Nitroaniline	1900	U	u
83-32-9	Acenaphthene	400	U	
51-28-5	2,4-Dinitrophenol	1900	U	
100-02-7	4-Nitrophenol	1900	U	
132-64-9	Dibenzofuran	400	U	
121-14-2	2,4-Dinitrotoluene	400	U	
84-66-2	Diethylphthalate	400	U	
7005-72-3	4-Chlorophenyl-phenylether	400	U	
86-73-7	Fluorene	400	U	
100-01-6	4-Nitroaniline	1900	U	
534-52-1	4,6-Dinitro-2-Methylphenol	1900	U	
86-30-6	N-Nitrosodiphenylamine (1)	400	U	
101-55-3	4-Bromophenyl-phenylether	400	U	
118-74-1	Hexachlorobenzene	400	U	
87-86-5	Pentachlorophenol	1900	U	
85-01-8	Phenanthrene	44	J	J
120-12-7	Anthracene	400	U	u
86-74-8	Carbazole	400	U	
84-74-2	Di-n-Butylphthalate	400	U	
206-44-0	Fluoranthene	86	J	J
129-00-0	Pyrene	68	J	J
85-68-7	Butylbenzylphthalate	400	U	u
91-94-1	3,3'-Dichlorobenzidine	1900	U	
56-55-3	Benzo(a)Anthracene	400	U	
218-01-9	Chrysene	47 ~~47~~	J	J
117-81-7	bis(2-Ethylhexyl)Phthalate	460 ~~110~~	BJ	u
117-84-0	Di-n-Octyl Phthalate	400	U	
205-99-2	Benzo(b)Fluoranthene	400	U	
207-08-9	Benzo(k)Fluoranthene	400	U	
50-32-8	Benzo(a)Pyrene	400	U	
193-39-5	Indeno(1,2,3-cd)Pyrene	400	U	
53-70-3	Dibenz(a,h)Anthracene	400	U	
191-24-2	Benzo(g,h,i)Perylene	400	U	

(1) - Cannot be separated from Diphenylamine

KKN 8/9/96

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3022

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4332102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C4332

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 24 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 100

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

CAS NO.	COMPOUND	Q	REV. QUAL.
108-95-2	Phenol	430 U	U
111-44-4	bis(2-Chloroethyl)Ether	430 U	
95-57-8	2-Chlorophenol	430 U	
541-73-1	1,3-Dichlorobenzene	430 U	
106-46-7	1,4-Dichlorobenzene	430 U	
95-50-1	1,2-Dichlorobenzene	430 U	
95-48-7	2-Methylphenol	430 U	
108-60-1	2,2'-Oxybis(1-Chloropropane)	430 U	
106-44-5	4-Methylphenol	430 U	
621-64-7	N-Nitroso-Di-n-Propylamine	430 U	
67-72-1	Hexachloroethane	430 U	
98-95-3	Nitrobenzene	430 U	
78-59-1	Isophorone	430 U	
88-75-5	2-Nitrophenol	430 U	
105-67-9	2,4-Dimethylphenol	430 U	
111-91-1	bis(2-Chloroethoxy)Methane	430 U	
120-83-2	2,4-Dichlorophenol	430 U	
120-82-1	1,2,4-Trichlorobenzene	430 U	
91-20-3	Naphthalene	430 U	
106-47-8	4-Chloroaniline	430 U	
87-68-3	Hexachlorobutadiene	430 U	
59-50-7	4-Chloro-3-Methylphenol	430 U	
91-57-6	2-Methylnaphthalene	430 U	
77-47-4	Hexachlorocyclopentadiene	2100 U	
88-06-2	2,4,6-Trichlorophenol	430 U	
95-95-4	2,4,5-Trichlorophenol	430 U	
91-58-7	2-Chloronaphthalene	430 U	
88-74-4	2-Nitroaniline	2100 U	
131-11-3	Dimethylphthalate	430 U	
208-96-8	Acenaphthylene	430 U	
606-20-2	2,6-Dinitrotoluene	430 U	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3022

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4332102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C4332

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 24 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	REV. QUAL.
99-09-2	3-Nitroaniline	2100	U	U
83-32-9	Acenaphthene	430	U	
51-28-5	2,4-Dinitrophenol	2100	U	
100-02-7	4-Nitrophenol	2100	U	
132-64-9	Dibenzofuran	430	U	
121-14-2	2,4-Dinitrotoluene	430	U	
84-66-2	Diethylphthalate	430	U	
7005-72-3	4-Chlorophenyl-phenylether	430	U	
86-73-7	Fluorene	430	U	
100-01-6	4-Nitroaniline	2100	U	
534-52-1	4,6-Dinitro-2-Methylphenol	2100	U	
86-30-6	N-Nitrosodiphenylamine (1)	430	U	
101-55-3	4-Bromophenyl-phenylether	430	U	
118-74-1	Hexachlorobenzene	430	U	
87-86-5	Pentachlorophenol	2100	U	
85-01-8	Phenanthrene	430	U	
120-12-7	Anthracene	430	U	
86-74-8	Carbazole	430	U	
84-74-2	Di-n-Butylphthalate	430	U	
206-44-0	Fluoranthene	430	U	
129-00-0	Pyrene	430	U	
85-68-7	Butylbenzylphthalate	430	U	
91-94-1	3,3'-Dichlorobenzidine	2100	U	
56-55-3	Benzo(a)Anthracene	430	U	
218-01-9	Chrysene	430	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	430 ~~75~~	BJ	
117-84-0	Di-n-Octyl Phthalate	430	U	
205-99-2	Benzo(b)Fluoranthene	430	U	
207-08-9	Benzo(k)Fluoranthene	430	U	
50-32-8	Benzo(a)Pyrene	430	U	
193-39-5	Indeno(1,2,3-cd)Pyrene	430	U	
53-70-3	Dibenz(a,h)Anthracene	430	U	
191-24-2	Benzo(g,h,i)Perylene	430	U	

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3023

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4335102

Sample wt/vol: 29.70 (g/mL) G Lab File ID: C4335

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 23 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q	REV. QUAL.
108-95-2	Phenol	430	U	u
111-44-4	bis(2-Chloroethyl)Ether	430	U	
95-57-8	2-Chlorophenol	430	U	
541-73-1	1,3-Dichlorobenzene	430	U	
106-46-7	1,4-Dichlorobenzene	430	U	
95-50-1	1,2-Dichlorobenzene	430	U	
95-48-7	2-Methylphenol	430	U	
108-60-1	2,2'-Oxybis(1-Chloropropane)	430	U	
106-44-5	4-Methylphenol	430	U	
621-64-7	N-Nitroso-Di-n-Propylamine	430	U	
67-72-1	Hexachloroethane	430	U	
98-95-3	Nitrobenzene	430	U	
78-59-1	Isophorone	430	U	
88-75-5	2-Nitrophenol	430	U	
105-67-9	2,4-Dimethylphenol	430	U	
111-91-1	bis(2-Chloroethoxy)Methane	430	U	
120-83-2	2,4-Dichlorophenol	430	U	
120-82-1	1,2,4-Trichlorobenzene	430	U	
91-20-3	Naphthalene	430	U	
106-47-8	4-Chloroaniline	430	U	
87-68-3	Hexachlorobutadiene	430	U	
59-50-7	4-Chloro-3-Methylphenol	430	U	
91-57-6	2-Methylnaphthalene	430	U	
77-47-4	Hexachlorocyclopentadiene	2100	U	
88-06-2	2,4,6-Trichlorophenol	430	U	
95-95-4	2,4,5-Trichlorophenol	430	U	
91-58-7	2-Chloronaphthalene	430	U	
88-74-4	2-Nitroaniline	2100	U	
131-11-3	Dimethylphthalate	430	U	
208-96-8	Acenaphthylene	430	U	
606-20-2	2,6-Dinitrotoluene	430	U	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3023

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4335102

Sample wt/vol: 29.70 (g/mL) G Lab File ID: C4335

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 23 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q	REV. QUAL.
99-09-2	3-Nitroaniline	2100	U	u
83-32-9	Acenaphthene	430	U	
51-28-5	2,4-Dinitrophenol	2100	U	
100-02-7	4-Nitrophenol	2100	U	
132-64-9	Dibenzofuran	430	U	
121-14-2	2,4-Dinitrotoluene	430	U	
84-66-2	Diethylphthalate	430	U	
7005-72-3	4-Chlorophenyl-phenylether	430	U	
86-73-7	Fluorene	430	U	
100-01-6	4-Nitroaniline	2100	U	
534-52-1	4,6-Dinitro-2-Methylphenol	2100	U	
86-30-6	N-Nitrosodiphenylamine (1)	430	U	
101-55-3	4-Bromophenyl-phenylether	430	U	
118-74-1	Hexachlorobenzene	430	U	
87-86-5	Pentachlorophenol	2100	U	
85-01-8	Phenanthrene	430	U	
120-12-7	Anthracene	430	U	
86-74-8	Carbazole	430	U	
84-74-2	Di-n-Butylphthalate	430	U	
206-44-0	Fluoranthene	430	U	
129-00-0	Pyrene	430	U	
85-68-7	Butylbenzylphthalate	430	U	
91-94-1	3,3'-Dichlorobenzidine	2100	U	
56-55-3	Benzo(a)Anthracene	430	U	
218-01-9	Chrysene	430	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	430 ~~190~~	BJ	
117-84-0	Di-n-Octyl Phthalate	430	U	
205-99-2	Benzo(b)Fluoranthene	430	U	
207-08-9	Benzo(k)Fluoranthene	430	U	
50-32-8	Benzo(a)Pyrene	430	U	
193-39-5	Indeno(1,2,3-cd)Pyrene	430	U	
53-70-3	Dibenz(a,h)Anthracene	430	U	
191-24-2	Benzo(g,h,i)Perylene	430	U	

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3024

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C433A102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C433A

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 27 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	UG/KG	Q	REV. QUAL.
108-95-2	Phenol	450	U	u
111-44-4	bis(2-Chloroethyl)Ether	450	U	
95-57-8	2-Chlorophenol	450	U	
541-73-1	1,3-Dichlorobenzene	450	U	
106-46-7	1,4-Dichlorobenzene	450	U	
95-50-1	1,2-Dichlorobenzene	450	U	
95-48-7	2-Methylphenol	450	U	
108-60-1	2,2'-Oxybis(1-Chloropropane)	450	U	
106-44-5	4-Methylphenol	450	U	
621-64-7	N-Nitroso-Di-n-Propylamine	450	U	
67-72-1	Hexachloroethane	450	U	
98-95-3	Nitrobenzene	450	U	
78-59-1	Isophorone	450	U	
88-75-5	2-Nitrophenol	450	U	
105-67-9	2,4-Dimethylphenol	450	U	
111-91-1	bis(2-Chloroethoxy)Methane	450	U	
120-83-2	2,4-Dichlorophenol	450	U	
120-82-1	1,2,4-Trichlorobenzene	450	U	
91-20-3	Naphthalene	450	U	
106-47-8	4-Chloroaniline	450	U	
87-68-3	Hexachlorobutadiene	450	U	
59-50-7	4-Chloro-3-Methylphenol	450	U	
91-57-6	2-Methylnaphthalene	450	U	
77-47-4	Hexachlorocyclopentadiene	2200	U	
88-06-2	2,4,6-Trichlorophenol	450	U	
95-95-4	2,4,5-Trichlorophenol	450	U	
91-58-7	2-Chloronaphthalene	450	U	
88-74-4	2-Nitroaniline	2200	U	
131-11-3	Dimethylphthalate	450	U	
208-96-8	Acenaphthylene	450	U	
606-20-2	2,6-Dinitrotoluene	450	U	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3024

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C433A102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C433A

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 27 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q ug/kg	REV. QUAL.
99-09-2	3-Nitroaniline	2200	U	u
83-32-9	Acenaphthene	450	U	
51-28-5	2,4-Dinitrophenol	2200	U	
100-02-7	4-Nitrophenol	2200	U	
132-64-9	Dibenzofuran	450	U	
121-14-2	2,4-Dinitrotoluene	450	U	
84-66-2	Diethylphthalate	450	U	
7005-72-3	4-Chlorophenyl-phenylether	450	U	
86-73-7	Fluorene	450	U	
100-01-6	4-Nitroaniline	2200	U	
534-52-1	4,6-Dinitro-2-Methylphenol	2200	U	
86-30-6	N-Nitrosodiphenylamine (1)	450	U	
101-55-3	4-Bromophenyl-phenylether	450	U	
118-74-1	Hexachlorobenzene	450	U	
87-86-5	Pentachlorophenol	2200	U	
85-01-8	Phenanthrene	450	U	
120-12-7	Anthracene	450	U	
86-74-8	Carbazole	450	U	
84-74-2	Di-n-Butylphthalate	450	U	
206-44-0	Fluoranthene	450	U	
129-00-0	Pyrene	450	U	
85-68-7	Butylbenzylphthalate	450	U	
91-94-1	3,3'-Dichlorobenzidine	2200	U	
56-55-3	Benzo(a)Anthracene	450	U	
218-01-9	Chrysene	450	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	450 ~~130~~	BJ	
117-84-0	Di-n-Octyl Phthalate	450	U	
205-99-2	Benzo(b)Fluoranthene	450	U	
207-08-9	Benzo(k)Fluoranthene	450	U	
50-32-8	Benzo(a)Pyrene	450	U	
193-39-5	Indeno(1,2,3-cd)Pyrene	450	U	
53-70-3	Dibenz(a,h)Anthracene	450	U	
191-24-2	Benzo(g,h,i)Perylene	450	U	

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3025

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C433F102

Sample wt/vol: 30.30 (g/mL) G Lab File ID: C433F

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 30 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	REV. QUAL.
108-95-2	Phenol	470	U	U
111-44-4	bis(2-Chloroethyl)Ether	470	U	
95-57-8	2-Chlorophenol	470	U	
541-73-1	1,3-Dichlorobenzene	470	U	
106-46-7	1,4-Dichlorobenzene	470	U	
95-50-1	1,2-Dichlorobenzene	470	U	
95-48-7	2-Methylphenol	470	U	
108-60-1	2,2'-Oxybis(1-Chloropropane)	470	U	
106-44-5	4-Methylphenol	470	U	
621-64-7	N-Nitroso-Di-n-Propylamine	470	U	
67-72-1	Hexachloroethane	470	U	
98-95-3	Nitrobenzene	470	U	
78-59-1	Isophorone	470	U	
88-75-5	2-Nitrophenol	470	U	
105-67-9	2,4-Dimethylphenol	470	U	
111-91-1	bis(2-Chloroethoxy)Methane	470	U	
120-83-2	2,4-Dichlorophenol	470	U	
120-82-1	1,2,4-Trichlorobenzene	470	U	
91-20-3	Naphthalene	470	U	
106-47-8	4-Chloroaniline	470	U	
87-68-3	Hexachlorobutadiene	470	U	
59-50-7	4-Chloro-3-Methylphenol	470	U	
91-57-6	2-Methylnaphthalene	470	U	
77-47-4	Hexachlorocyclopentadiene	2300	U	
88-06-2	2,4,6-Trichlorophenol	470	U	
95-95-4	2,4,5-Trichlorophenol	470	U	
91-58-7	2-Chloronaphthalene	470	U	
88-74-4	2-Nitroaniline	2300	U	
131-11-3	Dimethylphthalate	470	U	
208-96-8	Acenaphthylene	470	U	
606-20-2	2,6-Dinitrotoluene	470	U	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3025

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C433F102

Sample wt/vol: 30.30 (g/mL) G Lab File ID: C433F

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 30 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q	REV. QUAL.
99-09-2	3-Nitroaniline	2300	U	U
83-32-9	Acenaphthene	470	U	
51-28-5	2,4-Dinitrophenol	2300	U	
100-02-7	4-Nitrophenol	2300	U	
132-64-9	Dibenzofuran	470	U	
121-14-2	2,4-Dinitrotoluene	470	U	
84-66-2	Diethylphthalate	470	U	
7005-72-3	4-Chlorophenyl-phenylether	470	U	
86-73-7	Fluorene	470	U	
100-01-6	4-Nitroaniline	2300	U	
534-52-1	4,6-Dinitro-2-Methylphenol	2300	U	
86-30-6	N-Nitrosodiphenylamine (1)	470	U	
101-55-3	4-Bromophenyl-phenylether	470	U	
118-74-1	Hexachlorobenzene	470	U	
87-86-5	Pentachlorophenol	2300	U	
85-01-8	Phenanthrene	470	U	
120-12-7	Anthracene	470	U	
86-74-8	Carbazole	470	U	
84-74-2	Di-n-Butylphthalate	470	U	
206-44-0	Fluoranthene	470	U	
129-00-0	Pyrene	470	U	
85-68-7	Butylbenzylphthalate	470	U	
91-94-1	3,3'-Dichlorobenzidine	2300	U	
56-55-3	Benzo(a)Anthracene	470	U	
218-01-9	Chrysene	470	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	470 ~~99~~	BJ	
117-84-0	Di-n-Octyl Phthalate	470	U	
205-99-2	Benzo(b)Fluoranthene	470	U	
207-08-9	Benzo(k)Fluoranthene	470	U	
50-32-8	Benzo(a)Pyrene	470	U	
193-39-5	Indeno(1,2,3-cd)Pyrene	470	U	
53-70-3	Dibenz(a,h)Anthracene	470	U	
191-24-2	Benzo(g,h,i)Perylene	470	U	

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3027

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C433P102

Sample wt/vol: 30.30 (g/mL) G Lab File ID: C433P

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 16 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	Q	REV. QUAL.
108-95-2	Phenol	390 U	u
111-44-4	bis(2-Chloroethyl)Ether	390 U	
95-57-8	2-Chlorophenol	390 U	
541-73-1	1,3-Dichlorobenzene	390 U	
106-46-7	1,4-Dichlorobenzene	390 U	
95-50-1	1,2-Dichlorobenzene	390 U	
95-48-7	2-Methylphenol	390 U	
108-60-1	2,2'-Oxybis(1-Chloropropane)	390 U	
106-44-5	4-Methylphenol	390 U	
621-64-7	N-Nitroso-Di-n-Propylamine	390 U	
67-72-1	Hexachloroethane	390 U	
98-95-3	Nitrobenzene	390 U	
78-59-1	Isophorone	390 U	
88-75-5	2-Nitrophenol	390 U	
105-67-9	2,4-Dimethylphenol	390 U	
111-91-1	bis(2-Chloroethoxy)Methane	390 U	
120-83-2	2,4-Dichlorophenol	390 U	
120-82-1	1,2,4-Trichlorobenzene	390 U	
91-20-3	Naphthalene	390 U	
106-47-8	4-Chloroaniline	390 U	
87-68-3	Hexachlorobutadiene	390 U	
59-50-7	4-Chloro-3-Methylphenol	390 U	
91-57-6	2-Methylnaphthalene	390 U	
77-47-4	Hexachlorocyclopentadiene	1900 U	
88-06-2	2,4,6-Trichlorophenol	390 U	
95-95-4	2,4,5-Trichlorophenol	390 U	
91-58-7	2-Chloronaphthalene	390 U	
88-74-4	2-Nitroaniline	1900 U	
131-11-3	Dimethylphthalate	390 U	
208-96-8	Acenaphthylene	390 U	
606-20-2	2,6-Dinitrotoluene	390 U	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3027

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C433P102

Sample wt/vol: 30.30 (g/mL) G Lab File ID: C433P

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 16 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q	REV. QUAL.
99-09-2	3-Nitroaniline	1900	U	U
83-32-9	Acenaphthene	390	U	
51-28-5	2,4-Dinitrophenol	1900	U	
100-02-7	4-Nitrophenol	1900	U	
132-64-9	Dibenzofuran	390	U	
121-14-2	2,4-Dinitrotoluene	390	U	
84-66-2	Diethylphthalate	390	U	
7005-72-3	4-Chlorophenyl-phenylether	390	U	
86-73-7	Fluorene	390	U	
100-01-6	4-Nitroaniline	1900	U	
534-52-1	4,6-Dinitro-2-Methylphenol	1900	U	
86-30-6	N-Nitrosodiphenylamine (1)	390	U	
101-55-3	4-Bromophenyl-phenylether	390	U	
118-74-1	Hexachlorobenzene	390	U	
87-86-5	Pentachlorophenol	1900	U	
85-01-8	Phenanthrene	49	J	J
120-12-7	Anthracene	390	U	U
86-74-8	Carbazole	390	U	
84-74-2	Di-n-Butylphthalate	390	U	
206-44-0	Fluoranthene	120	J	J
129-00-0	Pyrene	93	J	J
85-68-7	Butylbenzylphthalate	390	U	U
91-94-1	3,3'-Dichlorobenzidine	1900	U	U
56-55-3	Benzo(a)Anthracene	51	J	J
218-01-9	Chrysene	70	J	J
117-81-7	bis(2-Ethylhexyl)Phthalate	390 ~~47~~	BJ	U
117-84-0	Di-n-Octyl Phthalate	390	U	
205-99-2	Benzo(b)Fluoranthene	390	U	
207-08-9	Benzo(k)Fluoranthene	390	U	
50-32-8	Benzo(a)Pyrene	61	J	
193-39-5	Indeno(1,2,3-cd)Pyrene	40	J	J
53-70-3	Dibenz(a,h)Anthracene	390	U	U
191-24-2	Benzo(g,h,i)Perylene	42	J	J

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3028

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4344102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C4344

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 14 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q	REV. QUAL.
108-95-2	Phenol	380	U	U
111-44-4	bis(2-Chloroethyl)Ether	380	U	
95-57-8	2-Chlorophenol	380	U	
541-73-1	1,3-Dichlorobenzene	380	U	
106-46-7	1,4-Dichlorobenzene	380	U	
95-50-1	1,2-Dichlorobenzene	380	U	
95-48-7	2-Methylphenol	380	U	
108-60-1	2,2'-Oxybis(1-Chloropropane)	380	U	
106-44-5	4-Methylphenol	380	U	
621-64-7	N-Nitroso-Di-n-Propylamine	380	U	
67-72-1	Hexachloroethane	380	U	
98-95-3	Nitrobenzene	380	U	
78-59-1	Isophorone	380	U	
88-75-5	2-Nitrophenol	380	U	
105-67-9	2,4-Dimethylphenol	380	U	
111-91-1	bis(2-Chloroethoxy)Methane	380	U	
120-83-2	2,4-Dichlorophenol	380	U	
120-82-1	1,2,4-Trichlorobenzene	380	U	
91-20-3	Naphthalene	380	U	
106-47-8	4-Chloroaniline	380	U	
87-68-3	Hexachlorobutadiene	380	U	
59-50-7	4-Chloro-3-Methylphenol	380	U	
91-57-6	2-Methylnaphthalene	380	U	
77-47-4	Hexachlorocyclopentadiene	1800	U	
88-06-2	2,4,6-Trichlorophenol	380	U	
95-95-4	2,4,5-Trichlorophenol	380	U	
91-58-7	2-Chloronaphthalene	380	U	
88-74-4	2-Nitroaniline	1800	U	
131-11-3	Dimethylphthalate	380	U	
208-96-8	Acenaphthylene	380	U	
606-20-2	2,6-Dinitrotoluene	380	U	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3028

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4344102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C4344

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 14 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q	REV QUAL
99-09-2	3-Nitroaniline	1800	U	U
83-32-9	Acenaphthene	380	U	
51-28-5	2,4-Dinitrophenol	1800	U	
100-02-7	4-Nitrophenol	1800	U	
132-64-9	Dibenzofuran	380	U	
121-14-2	2,4-Dinitrotoluene	380	U	
84-66-2	Diethylphthalate	380	U	
7005-72-3	4-Chlorophenyl-phenylether	380	U	
86-73-7	Fluorene	380	U	
100-01-6	4-Nitroaniline	1800	U	
534-52-1	4,6-Dinitro-2-Methylphenol	1800	U	
86-30-6	N-Nitrosodiphenylamine (1)	380	U	
101-55-3	4-Bromophenyl-phenylether	380	U	
118-74-1	Hexachlorobenzene	380	U	
87-86-5	Pentachlorophenol	1800	U	
85-01-8	Phenanthrene	380	U	
120-12-7	Anthracene	380	U	
86-74-8	Carbazole	380	U	
84-74-2	Di-n-Butylphthalate	380	U	
206-44-0	Fluoranthene	380	U	
129-00-0	Pyrene	380	U	
85-68-7	Butylbenzylphthalate	380	U	
91-94-1	3,3'-Dichlorobenzidine	1800	U	
56-55-3	Benzo(a)Anthracene	380	U	
218-01-9	Chrysene	380	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	380 ~~110~~	BJ	
117-84-0	Di-n-Octyl Phthalate	380	U	
205-99-2	Benzo(b)Fluoranthene	380	U	
207-08-9	Benzo(k)Fluoranthene	380	U	
50-32-8	Benzo(a)Pyrene	380	U	
193-39-5	Indeno(1,2,3-cd)Pyrene	380	U	
53-70-3	Dibenz(a,h)Anthracene	380	U	
191-24-2	Benzo(g,h,i)Perylene	380	U	

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3029

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434C102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C434C

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 25 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	REV. QUAL.
108-95-2	Phenol	440	U	u
111-44-4	bis(2-Chloroethyl)Ether	440	U	
95-57-8	2-Chlorophenol	440	U	
541-73-1	1,3-Dichlorobenzene	440	U	
106-46-7	1,4-Dichlorobenzene	440	U	
95-50-1	1,2-Dichlorobenzene	440	U	
95-48-7	2-Methylphenol	440	U	
108-60-1	2,2'-Oxybis(1-Chloropropane)	440	U	
106-44-5	4-Methylphenol	440	U	
621-64-7	N-Nitroso-Di-n-Propylamine	440	U	
67-72-1	Hexachloroethane	440	U	
98-95-3	Nitrobenzene	440	U	
78-59-1	Isophorone	440	U	
88-75-5	2-Nitrophenol	440	U	
105-67-9	2,4-Dimethylphenol	440	U	
111-91-1	bis(2-Chloroethoxy)Methane	440	U	
120-83-2	2,4-Dichlorophenol	440	U	
120-82-1	1,2,4-Trichlorobenzene	440	U	
91-20-3	Naphthalene	440	U	
106-47-8	4-Chloroaniline	440	U	
87-68-3	Hexachlorobutadiene	440	U	
59-50-7	4-Chloro-3-Methylphenol	440	U	
91-57-6	2-Methylnaphthalene	440	U	
77-47-4	Hexachlorocyclopentadiene	2100	U	
88-06-2	2,4,6-Trichlorophenol	440	U	
95-95-4	2,4,5-Trichlorophenol	440	U	
91-58-7	2-Chloronaphthalene	440	U	
88-74-4	2-Nitroaniline	2100	U	
131-11-3	Dimethylphthalate	440	U	
208-96-8	Acenaphthylene	440	U	
606-20-2	2,6-Dinitrotoluene	440	U	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3029

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434C102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C434C

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 25 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: 0.50 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	REV. QUAL.
99-09-2	3-Nitroaniline	2100	U	U
83-32-9	Acenaphthene	440	U	
51-28-5	2,4-Dinitrophenol	2100	U	
100-02-7	4-Nitrophenol	2100	U	
132-64-9	Dibenzofuran	440	U	
121-14-2	2,4-Dinitrotoluene	440	U	
84-66-2	Diethylphthalate	440	U	
7005-72-3	4-Chlorophenyl-phenylether	440	U	
86-73-7	Fluorene	440	U	
100-01-6	4-Nitroaniline	2100	U	
534-52-1	4,6-Dinitro-2-Methylphenol	2100	U	
86-30-6	N-Nitrosodiphenylamine (1)	440	U	
101-55-3	4-Bromophenyl-phenylether	440	U	
118-74-1	Hexachlorobenzene	440	U	
87-86-5	Pentachlorophenol	2100	U	
85-01-8	Phenanthrene	440	U	
120-12-7	Anthracene	440	U	
86-74-8	Carbazole	440	U	
84-74-2	Di-n-Butylphthalate	440	U	
206-44-0	Fluoranthene	52	J	J
129-00-0	Pyrene	440	U	
85-68-7	Butylbenzylphthalate	440	U	
91-94-1	3,3'-Dichlorobenzidine	2100	U	
56-55-3	Benzo(a)Anthracene	440	U	
218-01-9	Chrysene	440	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	440 ~~70~~	BJ	
117-84-0	Di-n-Octyl Phthalate	440	U	
205-99-2	Benzo(b)Fluoranthene	440	U	
207-08-9	Benzo(k)Fluoranthene	440	U	
50-32-8	Benzo(a)Pyrene	440	U	
193-39-5	Indeno(1,2,3-cd)Pyrene	440	U	
53-70-3	Dibenz(a,h)Anthracene	440	U	
191-24-2	Benzo(g,h,i)Perylene	440	U	

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3030

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434F102

Sample wt/vol: 30.30 (g/mL) G Lab File ID: C434F

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 26 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q	REV. QUAL.
108-95-2	Phenol	440	U	u
111-44-4	bis(2-Chloroethyl)Ether	440	U	
95-57-8	2-Chlorophenol	440	U	
541-73-1	1,3-Dichlorobenzene	440	U	
106-46-7	1,4-Dichlorobenzene	440	U	
95-50-1	1,2-Dichlorobenzene	440	U	
95-48-7	2-Methylphenol	440	U	
108-60-1	2,2'-Oxybis(1-Chloropropane)	440	U	
106-44-5	4-Methylphenol	440	U	
621-64-7	N-Nitroso-Di-n-Propylamine	440	U	
67-72-1	Hexachloroethane	440	U	
98-95-3	Nitrobenzene	440	U	
78-59-1	Isophorone	440	U	
88-75-5	2-Nitrophenol	440	U	
105-67-9	2,4-Dimethylphenol	440	U	
111-91-1	bis(2-Chloroethoxy)Methane	440	U	
120-83-2	2,4-Dichlorophenol	440	U	
120-82-1	1,2,4-Trichlorobenzene	440	U	
91-20-3	Naphthalene	440	U	
106-47-8	4-Chloroaniline	440	U	
87-68-3	Hexachlorobutadiene	440	U	
59-50-7	4-Chloro-3-Methylphenol	440	U	
91-57-6	2-Methylnaphthalene	440	U	
77-47-4	Hexachlorocyclopentadiene	2100	U	
88-06-2	2,4,6-Trichlorophenol	440	U	
95-95-4	2,4,5-Trichlorophenol	440	U	
91-58-7	2-Chloronaphthalene	440	U	
88-74-4	2-Nitroaniline	2100	U	
131-11-3	Dimethylphthalate	440	U	
208-96-8	Acenaphthylene	440	U	
606-20-2	2,6-Dinitrotoluene	440	U	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3030

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434F102

Sample wt/vol: 30.30 (g/mL) G Lab File ID: C434F

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 26 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: ____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	Q	REV. QUAL.
99-09-2	3-Nitroaniline 2100	U	U
83-32-9	Acenaphthene 440	U	
51-28-5	2,4-Dinitrophenol 2100	U	
100-02-7	4-Nitrophenol 2100	U	
132-64-9	Dibenzofuran 440	U	
121-14-2	2,4-Dinitrotoluene 440	U	
84-66-2	Diethylphthalate 440	U	
7005-72-3	4-Chlorophenyl-phenylether 440	U	
86-73-7	Fluorene 440	U	
100-01-6	4-Nitroaniline 2100	U	
534-52-1	4,6-Dinitro-2-Methylphenol 2100	U	
86-30-6	N-Nitrosodiphenylamine (1) 440	U	
101-55-3	4-Bromophenyl-phenylether 440	U	
118-74-1	Hexachlorobenzene 440	U	
87-86-5	Pentachlorophenol 2100	U	
85-01-8	Phenanthrene 440	U	
120-12-7	Anthracene 440	U	
86-74-8	Carbazole 440	U	
84-74-2	Di-n-Butylphthalate 440	U	
206-44-0	Fluoranthene 440	U	
129-00-0	Pyrene 440	U	
85-68-7	Butylbenzylphthalate 47	J	J
91-94-1	3,3'-Dichlorobenzidine 2100	U	U
56-55-3	Benzo(a)Anthracene 440	U	
218-01-9	Chrysene 440	U	
117-81-7	bis(2-Ethylhexyl)Phthalate ~~160~~ 440	BJ	
117-84-0	Di-n-Octyl Phthalate 440	U	
205-99-2	Benzo(b)Fluoranthene 440	U	
207-08-9	Benzo(k)Fluoranthene 440	U	
50-32-8	Benzo(a)Pyrene 440	U	
193-39-5	Indeno(1,2,3-cd)Pyrene 440	U	
53-70-3	Dibenz(a,h)Anthracene 440	U	
191-24-2	Benzo(g,h,i)Perylene 440	U	

(1) - Cannot be separated from Diphenylamine

SDG: PBG801 Project: IT - Plum Brook

Method: Semivolatiles Matrix/No. of Samples: Soil/ 17

Validation Samples: 3001 3002 3003 3004 3005 3009
3010 3011 3012 3013 3014 3015 3016 3017
3018 3019 3020

Data Validation Report Summary

		Status Code	Comments
1.	Sample Preservation, Handling, and Transport	A	
2.	Chain of Custody	A	
3.	Holding Times	A	
4.	GC/MS Tune/Inst Perf	A	
5.	Calibrations	A	
6.	Blanks	X	
7.	Blank Spike/LCS	A	
8.	Matrix Spike	A	
9.	Surrogates	A	
10.	Internal Standards	A	
11.	Compound Identification	A	
12.	System Performance	A	
13.	Field QC Samples	N/A	
14.	Overall Assessment	X	

Status Codes:
A = Acceptable
R = Data Rejected
X = Data acceptable but qualified due to problems

Qualifications:

JTK

Qualify bis (2-Ethylhexyl) ~~Phthate~~ Phthalate as "U" and raise the report value to the CRQL based on compound result ~~at~~ in Method blank SBLKCG44ABB in samples 3001, 3004, 3005, 3009, 3010, 3011, 3012, 3013, 3014, 3015, 3016, 3017, 3018, 3019 & 3020.

Significant Findings/Recommendations:

Several "poor-response" compounds reported %D >25% in the continuing calibration data. No qualifications required.

Overall Data Quality:

Acceptable as qualified.

Validator's Signature: Claussa Owenby Date: 7-31-96

Peer Reviewer: Thomas [illegible] Date: 8/1/96

2/94

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3001

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C431J102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C431JR

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 22 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q	REV. QUAL
108-95-2	Phenol	420	U	U
111-44-4	bis(2-Chloroethyl)Ether	420	U	
95-57-8	2-Chlorophenol	420	U	
541-73-1	1,3-Dichlorobenzene	420	U	
106-46-7	1,4-Dichlorobenzene	420	U	
95-50-1	1,2-Dichlorobenzene	420	U	
95-48-7	2-Methylphenol	420	U	
108-60-1	2,2'-Oxybis(1-Chloropropane)	420	U	
106-44-5	4-Methylphenol	420	U	
621-64-7	N-Nitroso-Di-n-Propylamine	420	U	
67-72-1	Hexachloroethane	420	U	
98-95-3	Nitrobenzene	420	U	
78-59-1	Isophorone	420	U	
88-75-5	2-Nitrophenol	420	U	
105-67-9	2,4-Dimethylphenol	420	U	
111-91-1	bis(2-Chloroethoxy)Methane	420	U	
120-83-2	2,4-Dichlorophenol	420	U	
120-82-1	1,2,4-Trichlorobenzene	420	U	
91-20-3	Naphthalene	420	U	
106-47-8	4-Chloroaniline	420	U	
87-68-3	Hexachlorobutadiene	420	U	
59-50-7	4-Chloro-3-Methylphenol	420	U	
91-57-6	2-Methylnaphthalene	420	U	
77-47-4	Hexachlorocyclopentadiene	2000	U	
88-06-2	2,4,6-Trichlorophenol	420	U	
95-95-4	2,4,5-Trichlorophenol	420	U	
91-58-7	2-Chloronaphthalene	420	U	
88-74-4	2-Nitroaniline	2000	U	
131-11-3	Dimethylphthalate	420	U	
208-96-8	Acenaphthylene	420	U	
606-20-2	2,6-Dinitrotoluene	420	U	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3001

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C431J102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C431JR

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 22 dec. _____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) _____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	REV. QUAL
99-09-2	3-Nitroaniline	2000	U	U
83-32-9	Acenaphthene	420	U	
51-28-5	2,4-Dinitrophenol	2000	U	
100-02-7	4-Nitrophenol	2000	U	
132-64-9	Dibenzofuran	420	U	
121-14-2	2,4-Dinitrotoluene	420	U	
84-66-2	Diethylphthalate	420	U	
7005-72-3	4-Chlorophenyl-phenylether	420	U	
86-73-7	Fluorene	420	U	
100-01-6	4-Nitroaniline	2000	U	
534-52-1	4,6-Dinitro-2-Methylphenol	2000	U	
86-30-6	N-Nitrosodiphenylamine (1)	420	U	
101-55-3	4-Bromophenyl-phenylether	420	U	
118-74-1	Hexachlorobenzene	420	U	
87-86-5	Pentachlorophenol	2000	U	
85-01-8	Phenanthrene	420	U	
120-12-7	Anthracene	420	U	
86-74-8	Carbazole	420	U	
84-74-2	Di-n-Butylphthalate	420	U	
206-44-0	Fluoranthene	76	J	J
129-00-0	Pyrene	65	J	J
85-68-7	Butylbenzylphthalate	420	U	U
91-94-1	3,3'-Dichlorobenzidine	2000	U	
56-55-3	Benzo(a)Anthracene	420	U	
218-01-9	Chrysene	50	J	J
117-81-7	bis(2-Ethylhexyl)Phthalate	420 ~~55~~	BJ	U
117-84-0	Di-n-Octyl Phthalate	420	U	
205-99-2	Benzo(b)Fluoranthene	420	U	
207-08-9	Benzo(k)Fluoranthene	420	U	
50-32-8	Benzo(a)Pyrene	44	J	J
193-39-5	Indeno(1,2,3-cd)Pyrene	420	U	U
53-70-3	Dibenz(a,h)Anthracene	420	U	
191-24-2	Benzo(g,h,i)Perylene	420	U	

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3002

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C432F102

Sample wt/vol: 30.30 (g/mL) G Lab File ID: C432F

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 20 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q	REV. QUAL.
108-95-2	Phenol	410	U	u
111-44-4	bis(2-Chloroethyl)Ether	410	U	
95-57-8	2-Chlorophenol	410	U	
541-73-1	1,3-Dichlorobenzene	410	U	
106-46-7	1,4-Dichlorobenzene	410	U	
95-50-1	1,2-Dichlorobenzene	410	U	
95-48-7	2-Methylphenol	410	U	
108-60-1	2,2'-Oxybis(1-Chloropropane)	410	U	
106-44-5	4-Methylphenol	410	U	
621-64-7	N-Nitroso-Di-n-Propylamine	410	U	
67-72-1	Hexachloroethane	410	U	
98-95-3	Nitrobenzene	410	U	
78-59-1	Isophorone	410	U	
88-75-5	2-Nitrophenol	410	U	
105-67-9	2,4-Dimethylphenol	410	U	
111-91-1	bis(2-Chloroethoxy)Methane	410	U	
120-83-2	2,4-Dichlorophenol	410	U	
120-82-1	1,2,4-Trichlorobenzene	410	U	
91-20-3	Naphthalene	410	U	
106-47-8	4-Chloroaniline	410	U	
87-68-3	Hexachlorobutadiene	410	U	
59-50-7	4-Chloro-3-Methylphenol	410	U	
91-57-6	2-Methylnaphthalene	410	U	
77-47-4	Hexachlorocyclopentadiene	2000	U	
88-06-2	2,4,6-Trichlorophenol	410	U	
95-95-4	2,4,5-Trichlorophenol	410	U	
91-58-7	2-Chloronaphthalene	410	U	
88-74-4	2-Nitroaniline	2000	U	
131-11-3	Dimethylphthalate	410	U	
208-96-8	Acenaphthylene	410	U	
606-20-2	2,6-Dinitrotoluene	410	U	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

3002

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C432F102

Sample wt/vol: 30.30 (g/mL) G Lab File ID: C432F

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 20 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q	REV. QUAL
99-09-2	3-Nitroaniline	2000	U	
83-32-9	Acenaphthene	410	U	
51-28-5	2,4-Dinitrophenol	2000	U	
100-02-7	4-Nitrophenol	2000	U	
132-64-9	Dibenzofuran	410	U	
121-14-2	2,4-Dinitrotoluene	410	U	
84-66-2	Diethylphthalate	410	U	
7005-72-3	4-Chlorophenyl-phenylether	410	U	
86-73-7	Fluorene	410	U	
100-01-6	4-Nitroaniline	2000	U	
534-52-1	4,6-Dinitro-2-Methylphenol	2000	U	
86-30-6	N-Nitrosodiphenylamine (1)	410	U	
101-55-3	4-Bromophenyl-phenylether	410	U	
118-74-1	Hexachlorobenzene	410	U	
87-86-5	Pentachlorophenol	2000	U	
85-01-8	Phenanthrene	410	U	
120-12-7	Anthracene	410	U	
86-74-8	Carbazole	410	U	
84-74-2	Di-n-Butylphthalate	410	U	
206-44-0	Fluoranthene	410	U	
129-00-0	Pyrene	410	U	
85-68-7	Butylbenzylphthalate	410	U	
91-94-1	3,3'-Dichlorobenzidine	2000	U	
56-55-3	Benzo(a)Anthracene	410	U	
218-01-9	Chrysene	410	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	410	U	
117-84-0	Di-n-Octyl Phthalate	410	U	
205-99-2	Benzo(b)Fluoranthene	410	U	
207-08-9	Benzo(k)Fluoranthene	410	U	
50-32-8	Benzo(a)Pyrene	410	U	
193-39-5	Indeno(1,2,3-cd)Pyrene	410	U	
53-70-3	Dibenz(a,h)Anthracene	410	U	
191-24-2	Benzo(g,h,i)Perylene	410	U	

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3003

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C432M102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C432M

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 28 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q	REV. Q
108-95-2	Phenol	460	U	U
111-44-4	bis(2-Chloroethyl)Ether	460	U	
95-57-8	2-Chlorophenol	460	U	
541-73-1	1,3-Dichlorobenzene	460	U	
106-46-7	1,4-Dichlorobenzene	460	U	
95-50-1	1,2-Dichlorobenzene	460	U	
95-48-7	2-Methylphenol	460	U	
108-60-1	2,2'-Oxybis(1-Chloropropane)	460	U	
106-44-5	4-Methylphenol	460	U	
621-64-7	N-Nitroso-Di-n-Propylamine	460	U	
67-72-1	Hexachloroethane	460	U	
98-95-3	Nitrobenzene	460	U	
78-59-1	Isophorone	460	U	
88-75-5	2-Nitrophenol	460	U	
105-67-9	2,4-Dimethylphenol	460	U	
111-91-1	bis(2-Chloroethoxy)Methane	460	U	
120-83-2	2,4-Dichlorophenol	460	U	
120-82-1	1,2,4-Trichlorobenzene	460	U	
91-20-3	Naphthalene	460	U	
106-47-8	4-Chloroaniline	460	U	
87-68-3	Hexachlorobutadiene	460	U	
59-50-7	4-Chloro-3-Methylphenol	460	U	
91-57-6	2-Methylnaphthalene	460	U	
77-47-4	Hexachlorocyclopentadiene	2200	U	
88-06-2	2,4,6-Trichlorophenol	460	U	
95-95-4	2,4,5-Trichlorophenol	460	U	
91-58-7	2-Chloronaphthalene	460	U	
88-74-4	2-Nitroaniline	2200	U	
131-11-3	Dimethylphthalate	460	U	
208-96-8	Acenaphthylene	460	U	
606-20-2	2,6-Dinitrotoluene	460	U	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3003

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C432M102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C432M

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 28 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	Q	REV. QUAL.
99-09-2	3-Nitroaniline	2200 U	U
83-32-9	Acenaphthene	460 U	
51-28-5	2,4-Dinitrophenol	2200 U	
100-02-7	4-Nitrophenol	2200 U	
132-64-9	Dibenzofuran	460 U	
121-14-2	2,4-Dinitrotoluene	460 U	
84-66-2	Diethylphthalate	460 U	
7005-72-3	4-Chlorophenyl-phenylether	460 U	
86-73-7	Fluorene	460 U	
100-01-6	4-Nitroaniline	2200 U	
534-52-1	4,6-Dinitro-2-Methylphenol	2200 U	
86-30-6	N-Nitrosodiphenylamine (1)	460 U	
101-55-3	4-Bromophenyl-phenylether	460 U	
118-74-1	Hexachlorobenzene	460 U	
87-86-5	Pentachlorophenol	2200 U	
85-01-8	Phenanthrene	460 U	
120-12-7	Anthracene	460 U	
86-74-8	Carbazole	460 U	
84-74-2	Di-n-Butylphthalate	460 U	
206-44-0	Fluoranthene	73 J	J
129-00-0	Pyrene	56 J	J
85-68-7	Butylbenzylphthalate	460 U	U
91-94-1	3,3'-Dichlorobenzidine	2200 U	
56-55-3	Benzo(a)Anthracene	460 U	
218-01-9	Chrysene	460 U	
117-81-7	bis(2-Ethylhexyl)Phthalate	460 U	
117-84-0	Di-n-Octyl Phthalate	460 U	
205-99-2	Benzo(b)Fluoranthene	460 U	
207-08-9	Benzo(k)Fluoranthene	460 U	
50-32-8	Benzo(a)Pyrene	460 U	
193-39-5	Indeno(1,2,3-cd)Pyrene	460 U	
53-70-3	Dibenz(a,h)Anthracene	460 U	
191-24-2	Benzo(g,h,i)Perylene	460 U	

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3004

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C432W102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C432W

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 22 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q	REV. QUAL
108-95-2	Phenol	420	U	U
111-44-4	bis(2-Chloroethyl)Ether	420	U	
95-57-8	2-Chlorophenol	420	U	
541-73-1	1,3-Dichlorobenzene	420	U	
106-46-7	1,4-Dichlorobenzene	420	U	
95-50-1	1,2-Dichlorobenzene	420	U	
95-48-7	2-Methylphenol	420	U	
108-60-1	2,2'-Oxybis(1-Chloropropane)	420	U	
106-44-5	4-Methylphenol	420	U	
621-64-7	N-Nitroso-Di-n-Propylamine	420	U	
67-72-1	Hexachloroethane	420	U	
98-95-3	Nitrobenzene	420	U	
78-59-1	Isophorone	420	U	
88-75-5	2-Nitrophenol	420	U	
105-67-9	2,4-Dimethylphenol	420	U	
111-91-1	bis(2-Chloroethoxy)Methane	420	U	
120-83-2	2,4-Dichlorophenol	420	U	
120-82-1	1,2,4-Trichlorobenzene	420	U	
91-20-3	Naphthalene	420	U	
106-47-8	4-Chloroaniline	420	U	
87-68-3	Hexachlorobutadiene	420	U	
59-50-7	4-Chloro-3-Methylphenol	420	U	
91-57-6	2-Methylnaphthalene	420	U	
77-47-4	Hexachlorocyclopentadiene	2000	U	
88-06-2	2,4,6-Trichlorophenol	420	U	
95-95-4	2,4,5-Trichlorophenol	420	U	
91-58-7	2-Chloronaphthalene	420	U	
88-74-4	2-Nitroaniline	2000	U	
131-11-3	Dimethylphthalate	420	U	
208-96-8	Acenaphthylene	420	U	
606-20-2	2,6-Dinitrotoluene	420	U	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3004

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C432W102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C432W

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 22 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

J 6/4/96 REV. Q - QUAL

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	2000	U
83-32-9	Acenaphthene	420	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	420	U
121-14-2	2,4-Dinitrotoluene	420	U
84-66-2	Diethylphthalate	420	U
7005-72-3	4-Chlorophenyl-phenylether	420	U
86-73-7	Fluorene	420	U
100-01-6	4-Nitroaniline	2000	U
534-52-1	4,6-Dinitro-2-Methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	420	U
101-55-3	4-Bromophenyl-phenylether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	420	U
120-12-7	Anthracene	420	U
86-74-8	Carbazole	420	U
84-74-2	Di-n-Butylphthalate	420	U
206-44-0	Fluoranthene	420	U
129-00-0	Pyrene	420	U
85-68-7	Butylbenzylphthalate	420	U
91-94-1	3,3'-Dichlorobenzidine	2000	U
56-55-3	Benzo(a)Anthracene	420	U
218-01-9	Chrysene	420	U
117-81-7	bis(2-Ethylhexyl)Phthalate	420 ~~52~~	BJ
117-84-0	Di-n-Octyl Phthalate	420	U
205-99-2	Benzo(b)Fluoranthene	420	U
207-08-9	Benzo(k)Fluoranthene	420	U
50-32-8	Benzo(a)Pyrene	420	U
193-39-5	Indeno(1,2,3-cd)Pyrene	420	U
53-70-3	Dibenz(a,h)Anthracene	420	U
191-24-2	Benzo(g,h,i)Perylene	420	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3005

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C4334102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C4334

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 25 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	REV QUAL.
108-95-2	Phenol	440	U	U
111-44-4	bis(2-Chloroethyl)Ether	440	U	
95-57-8	2-Chlorophenol	440	U	
541-73-1	1,3-Dichlorobenzene	440	U	
106-46-7	1,4-Dichlorobenzene	440	U	
95-50-1	1,2-Dichlorobenzene	440	U	
95-48-7	2-Methylphenol	440	U	
108-60-1	2,2'-Oxybis(1-Chloropropane)	440	U	
106-44-5	4-Methylphenol	440	U	
621-64-7	N-Nitroso-Di-n-Propylamine	440	U	
67-72-1	Hexachloroethane	440	U	
98-95-3	Nitrobenzene	440	U	
78-59-1	Isophorone	440	U	
88-75-5	2-Nitrophenol	440	U	
105-67-9	2,4-Dimethylphenol	440	U	
111-91-1	bis(2-Chloroethoxy)Methane	440	U	
120-83-2	2,4-Dichlorophenol	440	U	
120-82-1	1,2,4-Trichlorobenzene	440	U	
91-20-3	Naphthalene	440	U	
106-47-8	4-Chloroaniline	440	U	
87-68-3	Hexachlorobutadiene	440	U	
59-50-7	4-Chloro-3-Methylphenol	440	U	
91-57-6	2-Methylnaphthalene	440	U	
77-47-4	Hexachlorocyclopentadiene	2100	U	
88-06-2	2,4,6-Trichlorophenol	440	U	
95-95-4	2,4,5-Trichlorophenol	440	U	
91-58-7	2-Chloronaphthalene	440	U	
88-74-4	2-Nitroaniline	2100	U	
131-11-3	Dimethylphthalate	440	U	
208-96-8	Acenaphthylene	440	U	
606-20-2	2,6-Dinitrotoluene	440	U	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3005

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C4334102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C4334

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 25 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	Concentration (UG/KG)	Q	REV. QUAL.
99-09-2	3-Nitroaniline	2100	U	u
83-32-9	Acenaphthene	440	U	
51-28-5	2,4-Dinitrophenol	2100	U	
100-02-7	4-Nitrophenol	2100	U	
132-64-9	Dibenzofuran	440	U	
121-14-2	2,4-Dinitrotoluene	440	U	
84-66-2	Diethylphthalate	440	U	
7005-72-3	4-Chlorophenyl-phenylether	440	U	
86-73-7	Fluorene	440	U	
100-01-6	4-Nitroaniline	2100	U	
534-52-1	4,6-Dinitro-2-Methylphenol	2100	U	
86-30-6	N-Nitrosodiphenylamine (1)	440	U	
101-55-3	4-Bromophenyl-phenylether	440	U	
118-74-1	Hexachlorobenzene	440	U	
87-86-5	Pentachlorophenol	2100	U	
85-01-8	Phenanthrene	440	U	
120-12-7	Anthracene	440	U	
86-74-8	Carbazole	440	U	
84-74-2	Di-n-Butylphthalate	440	U	
206-44-0	Fluoranthene	440	U	
129-00-0	Pyrene	440	U	
85-68-7	Butylbenzylphthalate	440	U	
91-94-1	3,3'-Dichlorobenzidine	2100	U	
56-55-3	Benzo(a)Anthracene	440	U	
218-01-9	Chrysene	440	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	440 ~~79~~	BJ	
117-84-0	Di-n-Octyl Phthalate	440	U	
205-99-2	Benzo(b)Fluoranthene	440	U	
207-08-9	Benzo(k)Fluoranthene	440	U	
50-32-8	Benzo(a)Pyrene	440	U	
193-39-5	Indeno(1,2,3-cd)Pyrene	440	U	
53-70-3	Dibenz(a,h)Anthracene	440	U	
191-24-2	Benzo(g,h,i)Perylene	440	U	

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3009

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C433C102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C433C

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 27 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q	REV. QUAL
108-95-2	Phenol	450	U	U
111-44-4	bis(2-Chloroethyl)Ether	450	U	
95-57-8	2-Chlorophenol	450	U	
541-73-1	1,3-Dichlorobenzene	450	U	
106-46-7	1,4-Dichlorobenzene	450	U	
95-50-1	1,2-Dichlorobenzene	450	U	
95-48-7	2-Methylphenol	450	U	
108-60-1	2,2'-Oxybis(1-Chloropropane)	450	U	
106-44-5	4-Methylphenol	450	U	
621-64-7	N-Nitroso-Di-n-Propylamine	450	U	
67-72-1	Hexachloroethane	450	U	
98-95-3	Nitrobenzene	450	U	
78-59-1	Isophorone	450	U	
88-75-5	2-Nitrophenol	450	U	
105-67-9	2,4-Dimethylphenol	450	U	
111-91-1	bis(2-Chloroethoxy)Methane	450	U	
120-83-2	2,4-Dichlorophenol	450	U	
120-82-1	1,2,4-Trichlorobenzene	450	U	
91-20-3	Naphthalene	450	U	
106-47-8	4-Chloroaniline	450	U	
87-68-3	Hexachlorobutadiene	450	U	
59-50-7	4-Chloro-3-Methylphenol	450	U	
91-57-6	2-Methylnaphthalene	450	U	
77-47-4	Hexachlorocyclopentadiene	2200	U	
88-06-2	2,4,6-Trichlorophenol	450	U	
95-95-4	2,4,5-Trichlorophenol	450	U	
91-58-7	2-Chloronaphthalene	450	U	
88-74-4	2-Nitroaniline	2200	U	
131-11-3	Dimethylphthalate	450	U	
208-96-8	Acenaphthylene	450	U	
606-20-2	2,6-Dinitrotoluene	450	U	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3009

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C433C102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C433C

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 27 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	Jubles Q	REV. QUAL.
99-09-2	3-Nitroaniline	2200 U	U
83-32-9	Acenaphthene	450 U	
51-28-5	2,4-Dinitrophenol	2200 U	
100-02-7	4-Nitrophenol	2200 U	
132-64-9	Dibenzofuran	450 U	
121-14-2	2,4-Dinitrotoluene	450 U	
84-66-2	Diethylphthalate	450 U	
7005-72-3	4-Chlorophenyl-phenylether	450 U	
86-73-7	Fluorene	450 U	
100-01-6	4-Nitroaniline	2200 U	
534-52-1	4,6-Dinitro-2-Methylphenol	2200 U	
86-30-6	N-Nitrosodiphenylamine (1)	450 U	
101-55-3	4-Bromophenyl-phenylether	450 U	
118-74-1	Hexachlorobenzene	450 U	
87-86-5	Pentachlorophenol	2200 U	
85-01-8	Phenanthrene	450 U	
120-12-7	Anthracene	450 U	
86-74-8	Carbazole	450 U	
84-74-2	Di-n-Butylphthalate	450 U	
206-44-0	Fluoranthene	450 U	
129-00-0	Pyrene	450 U	
85-68-7	Butylbenzylphthalate	120 J	J
91-94-1	3,3'-Dichlorobenzidine	2200 U	U
56-55-3	Benzo(a)Anthracene	450 U	
218-01-9	Chrysene	450 U	
117-81-7	bis(2-Ethylhexyl)Phthalate	450 ~~50~~ BJ	
117-84-0	Di-n-Octyl Phthalate	450 U	
205-99-2	Benzo(b)Fluoranthene	450 U	
207-08-9	Benzo(k)Fluoranthene	450 U	
50-32-8	Benzo(a)Pyrene	450 U	
193-39-5	Indeno(1,2,3-cd)Pyrene	450 U	
53-70-3	Dibenz(a,h)Anthracene	450 U	
191-24-2	Benzo(g,h,i)Perylene	450 U	

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3010

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C433N102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C433N

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 27 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q	REV. QUAL.
108-95-2	Phenol	450	U	U
111-44-4	bis(2-Chloroethyl)Ether	450	U	
95-57-8	2-Chlorophenol	450	U	
541-73-1	1,3-Dichlorobenzene	450	U	
106-46-7	1,4-Dichlorobenzene	450	U	
95-50-1	1,2-Dichlorobenzene	450	U	
95-48-7	2-Methylphenol	450	U	
108-60-1	2,2'-Oxybis(1-Chloropropane)	450	U	
106-44-5	4-Methylphenol	450	U	
621-64-7	N-Nitroso-Di-n-Propylamine	450	U	
67-72-1	Hexachloroethane	450	U	
98-95-3	Nitrobenzene	450	U	
78-59-1	Isophorone	450	U	
88-75-5	2-Nitrophenol	450	U	
105-67-9	2,4-Dimethylphenol	450	U	
111-91-1	bis(2-Chloroethoxy)Methane	450	U	
120-83-2	2,4-Dichlorophenol	450	U	
120-82-1	1,2,4-Trichlorobenzene	450	U	
91-20-3	Naphthalene	450	U	
106-47-8	4-Chloroaniline	450	U	
87-68-3	Hexachlorobutadiene	450	U	
59-50-7	4-Chloro-3-Methylphenol	450	U	
91-57-6	2-Methylnaphthalene	450	U	
77-47-4	Hexachlorocyclopentadiene	2200	U	
88-06-2	2,4,6-Trichlorophenol	450	U	
95-95-4	2,4,5-Trichlorophenol	450	U	
91-58-7	2-Chloronaphthalene	450	U	
88-74-4	2-Nitroaniline	2200	U	
131-11-3	Dimethylphthalate	450	U	
208-96-8	Acenaphthylene	450	U	
606-20-2	2,6-Dinitrotoluene	450	U	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3010

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C433N102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C433N

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 27 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: ____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	2200	U
83-32-9	Acenaphthene	450	U
51-28-5	2,4-Dinitrophenol	2200	U
100-02-7	4-Nitrophenol	2200	U
132-64-9	Dibenzofuran	450	U
121-14-2	2,4-Dinitrotoluene	450	U
84-66-2	Diethylphthalate	450	U
7005-72-3	4-Chlorophenyl-phenylether	450	U
86-73-7	Fluorene	450	U
100-01-6	4-Nitroaniline	2200	U
534-52-1	4,6-Dinitro-2-Methylphenol	2200	U
86-30-6	N-Nitrosodiphenylamine (1)	450	U
101-55-3	4-Bromophenyl-phenylether	450	U
118-74-1	Hexachlorobenzene	450	U
87-86-5	Pentachlorophenol	2200	U
85-01-8	Phenanthrene	450	U
120-12-7	Anthracene	450	U
86-74-8	Carbazole	450	U
84-74-2	Di-n-Butylphthalate	450	U
206-44-0	Fluoranthene	450	U
129-00-0	Pyrene	450	U
85-68-7	Butylbenzylphthalate	450	U
91-94-1	3,3'-Dichlorobenzidine	2200	U
56-55-3	Benzo(a)Anthracene	450	U
218-01-9	Chrysene	450	U
117-81-7	bis(2-Ethylhexyl)Phthalate	450 ~~120~~	BJ
117-84-0	Di-n-Octyl Phthalate	450	U
205-99-2	Benzo(b)Fluoranthene	450	U
207-08-9	Benzo(k)Fluoranthene	450	U
50-32-8	Benzo(a)Pyrene	450	U
193-39-5	Indeno(1,2,3-cd)Pyrene	450	U
53-70-3	Dibenz(a,h)Anthracene	450	U
191-24-2	Benzo(g,h,i)Perylene	450	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3011

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C4341102

Sample wt/vol: 30.00 (g/mL) G Lab File ID: C4341

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 22 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	REV. QUAL.
108-95-2	Phenol	420	U	U
111-44-4	bis(2-Chloroethyl)Ether	420	U	
95-57-8	2-Chlorophenol	420	U	
541-73-1	1,3-Dichlorobenzene	420	U	
106-46-7	1,4-Dichlorobenzene	420	U	
95-50-1	1,2-Dichlorobenzene	420	U	
95-48-7	2-Methylphenol	420	U	
108-60-1	2,2'-Oxybis(1-Chloropropane)	420	U	
106-44-5	4-Methylphenol	420	U	
621-64-7	N-Nitroso-Di-n-Propylamine	420	U	
67-72-1	Hexachloroethane	420	U	
98-95-3	Nitrobenzene	420	U	
78-59-1	Isophorone	420	U	
88-75-5	2-Nitrophenol	420	U	
105-67-9	2,4-Dimethylphenol	420	U	
111-91-1	bis(2-Chloroethoxy)Methane	420	U	
120-83-2	2,4-Dichlorophenol	420	U	
120-82-1	1,2,4-Trichlorobenzene	420	U	
91-20-3	Naphthalene	420	U	
106-47-8	4-Chloroaniline	420	U	
87-68-3	Hexachlorobutadiene	420	U	
59-50-7	4-Chloro-3-Methylphenol	420	U	
91-57-6	2-Methylnaphthalene	420	U	
77-47-4	Hexachlorocyclopentadiene	2100	U	
88-06-2	2,4,6-Trichlorophenol	420	U	
95-95-4	2,4,5-Trichlorophenol	420	U	
91-58-7	2-Chloronaphthalene	420	U	
88-74-4	2-Nitroaniline	2100	U	
131-11-3	Dimethylphthalate	420	U	
208-96-8	Acenaphthylene	420	U	
606-20-2	2,6-Dinitrotoluene	420	U	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

3011

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C4341102

Sample wt/vol: 30.00 (g/mL) G Lab File ID: C4341

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 22 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	REV QUAL
99-09-2	3-Nitroaniline	2100	U	U
83-32-9	Acenaphthene	420	U	|
51-28-5	2,4-Dinitrophenol	2100	U	|
100-02-7	4-Nitrophenol	2100	U	|
132-64-9	Dibenzofuran	420	U	|
121-14-2	2,4-Dinitrotoluene	420	U	|
84-66-2	Diethylphthalate	420	U	|
7005-72-3	4-Chlorophenyl-phenylether	420	U	|
86-73-7	Fluorene	420	U	|
100-01-6	4-Nitroaniline	2100	U	|
534-52-1	4,6-Dinitro-2-Methylphenol	2100	U	|
86-30-6	N-Nitrosodiphenylamine (1)	420	U	|
101-55-3	4-Bromophenyl-phenylether	420	U	|
118-74-1	Hexachlorobenzene	420	U	|
87-86-5	Pentachlorophenol	2100	U	|
85-01-8	Phenanthrene	420	U	|
120-12-7	Anthracene	420	U	|
86-74-8	Carbazole	420	U	|
84-74-2	Di-n-Butylphthalate	420	U	|
206-44-0	Fluoranthene	97	J	J
129-00-0	Pyrene	76	J	J
85-68-7	Butylbenzylphthalate	420	U	U
91-94-1	3,3'-Dichlorobenzidine	2100	U	U
56-55-3	Benzo(a)Anthracene	420	U	U
218-01-9	Chrysene	58	J	J
117-81-7	bis(2-Ethylhexyl)Phthalate	420 ~~87~~	BJ	U
117-84-0	Di-n-Octyl Phthalate	420	U	U
205-99-2	Benzo(b)Fluoranthene	51	J	-
207-08-9	Benzo(k)Fluoranthene	68	J	-
50-32-8	Benzo(a)Pyrene	56	J	J
193-39-5	Indeno(1,2,3-cd)Pyrene	420	U	U
53-70-3	Dibenz(a,h)Anthracene	420	U	|
191-24-2	Benzo(g,h,i)Perylene	420	U	|

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3012

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C4348102

Sample wt/vol: 30.00 (g/mL) G Lab File ID: C4348

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 18 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	400	U
111-44-4	bis(2-Chloroethyl)Ether	400	U
95-57-8	2-Chlorophenol	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
95-50-1	1,2-Dichlorobenzene	400	U
95-48-7	2-Methylphenol	400	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	400	U
106-44-5	4-Methylphenol	400	U
621-64-7	N-Nitroso-Di-n-Propylamine	400	U
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
111-91-1	bis(2-Chloroethoxy)Methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-Methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	2000	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	400	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethylphthalate	400	U
208-96-8	Acenaphthylene	400	U
606-20-2	2,6-Dinitrotoluene	400	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3012

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C4348102

Sample wt/vol: 30.00 (g/mL) G Lab File ID: C4348

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 18 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q	REV. QUAL
99-09-2	3-Nitroaniline	2000	U	U
83-32-9	Acenaphthene	400	U	
51-28-5	2,4-Dinitrophenol	2000	U	
100-02-7	4-Nitrophenol	2000	U	
132-64-9	Dibenzofuran	400	U	
121-14-2	2,4-Dinitrotoluene	400	U	
84-66-2	Diethylphthalate	400	U	
7005-72-3	4-Chlorophenyl-phenylether	400	U	
86-73-7	Fluorene	400	U	
100-01-6	4-Nitroaniline	2000	U	
534-52-1	4,6-Dinitro-2-Methylphenol	2000	U	
86-30-6	N-Nitrosodiphenylamine (1)	400	U	
101-55-3	4-Bromophenyl-phenylether	400	U	
118-74-1	Hexachlorobenzene	400	U	
87-86-5	Pentachlorophenol	2000	U	
85-01-8	Phenanthrene	400	U	
120-12-7	Anthracene	400	U	
86-74-8	Carbazole	400	U	
84-74-2	Di-n-Butylphthalate	400	U	
206-44-0	Fluoranthene	400	U	
129-00-0	Pyrene	400	U	
85-68-7	Butylbenzylphthalate	400	U	
91-94-1	3,3'-Dichlorobenzidine	2000	U	
56-55-3	Benzo(a)Anthracene	400	U	
218-01-9	Chrysene	400	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	400 ~~67~~	BJ	
117-84-0	Di-n-Octyl Phthalate	400	U	
205-99-2	Benzo(b)Fluoranthene	400	U	
207-08-9	Benzo(k)Fluoranthene	400	U	
50-32-8	Benzo(a)Pyrene	400	U	
193-39-5	Indeno(1,2,3-cd)Pyrene	400	U	
53-70-3	Dibenz(a,h)Anthracene	400	U	
191-24-2	Benzo(g,h,i)Perylene	400	U	

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3013

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434E102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C434E

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 22 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00 volume

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	REV. QUAL.
108-95-2	Phenol	420	U	u
111-44-4	bis(2-Chloroethyl)Ether	420	U	
95-57-8	2-Chlorophenol	420	U	
541-73-1	1,3-Dichlorobenzene	420	U	
106-46-7	1,4-Dichlorobenzene	420	U	
95-50-1	1,2-Dichlorobenzene	420	U	
95-48-7	2-Methylphenol	420	U	
108-60-1	2,2'-Oxybis(1-Chloropropane)	420	U	
106-44-5	4-Methylphenol	420	U	
621-64-7	N-Nitroso-Di-n-Propylamine	420	U	
67-72-1	Hexachloroethane	420	U	
98-95-3	Nitrobenzene	420	U	
78-59-1	Isophorone	420	U	
88-75-5	2-Nitrophenol	420	U	
105-67-9	2,4-Dimethylphenol	420	U	
111-91-1	bis(2-Chloroethoxy)Methane	420	U	
120-83-2	2,4-Dichlorophenol	420	U	
120-82-1	1,2,4-Trichlorobenzene	420	U	
91-20-3	Naphthalene	420	U	
106-47-8	4-Chloroaniline	420	U	
87-68-3	Hexachlorobutadiene	420	U	
59-50-7	4-Chloro-3-Methylphenol	420	U	
91-57-6	2-Methylnaphthalene	420	U	
77-47-4	Hexachlorocyclopentadiene	2000	U	
88-06-2	2,4,6-Trichlorophenol	420	U	
95-95-4	2,4,5-Trichlorophenol	420	U	
91-58-7	2-Chloronaphthalene	420	U	
88-74-4	2-Nitroaniline	2000	U	
131-11-3	Dimethylphthalate	420	U	
208-96-8	Acenaphthylene	420	U	
606-20-2	2,6-Dinitrotoluene	420	U	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3013

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434E102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C434E

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 22 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q	RE QL
99-09-2	3-Nitroaniline	2000	U	U
83-32-9	Acenaphthene	420	U	
51-28-5	2,4-Dinitrophenol	2000	U	
100-02-7	4-Nitrophenol	2000	U	
132-64-9	Dibenzofuran	420	U	
121-14-2	2,4-Dinitrotoluene	420	U	
84-66-2	Diethylphthalate	420	U	
7005-72-3	4-Chlorophenyl-phenylether	420	U	
86-73-7	Fluorene	420	U	
100-01-6	4-Nitroaniline	2000	U	
534-52-1	4,6-Dinitro-2-Methylphenol	2000	U	
86-30-6	N-Nitrosodiphenylamine (1)	420	U	
101-55-3	4-Bromophenyl-phenylether	420	U	
118-74-1	Hexachlorobenzene	420	U	
87-86-5	Pentachlorophenol	2000	U	
85-01-8	Phenanthrene	420	U	
120-12-7	Anthracene	420	U	
86-74-8	Carbazole	420	U	
84-74-2	Di-n-Butylphthalate	420	U	
206-44-0	Fluoranthene	67	J	J
129-00-0	Pyrene	52	J	J
85-68-7	Butylbenzylphthalate	420	U	U
91-94-1	3,3'-Dichlorobenzidine	2000	U	
56-55-3	Benzo(a)Anthracene	420	U	
218-01-9	Chrysene	420	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	~~63~~ 420	BJ	
117-84-0	Di-n-Octyl Phthalate	420	U	
205-99-2	Benzo(b)Fluoranthene	420	U	
207-08-9	Benzo(k)Fluoranthene	420	U	
50-32-8	Benzo(a)Pyrene	420	U	
193-39-5	Indeno(1,2,3-cd)Pyrene	420	U	
53-70-3	Dibenz(a,h)Anthracene	420	U	
191-24-2	Benzo(g,h,i)Perylene	420	U	

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3014

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434G102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C434G

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 22 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	UG/KG	Q	REV. QUAL.
108-95-2	Phenol	420	U	U
111-44-4	bis(2-Chloroethyl)Ether	420	U	
95-57-8	2-Chlorophenol	420	U	
541-73-1	1,3-Dichlorobenzene	420	U	
106-46-7	1,4-Dichlorobenzene	420	U	
95-50-1	1,2-Dichlorobenzene	420	U	
95-48-7	2-Methylphenol	420	U	
108-60-1	2,2'-Oxybis(1-Chloropropane)	420	U	
106-44-5	4-Methylphenol	420	U	
621-64-7	N-Nitroso-Di-n-Propylamine	420	U	
67-72-1	Hexachloroethane	420	U	
98-95-3	Nitrobenzene	420	U	
78-59-1	Isophorone	420	U	
88-75-5	2-Nitrophenol	420	U	
105-67-9	2,4-Dimethylphenol	420	U	
111-91-1	bis(2-Chloroethoxy)Methane	420	U	
120-83-2	2,4-Dichlorophenol	420	U	
120-82-1	1,2,4-Trichlorobenzene	420	U	
91-20-3	Naphthalene	420	U	
106-47-8	4-Chloroaniline	420	U	
87-68-3	Hexachlorobutadiene	420	U	
59-50-7	4-Chloro-3-Methylphenol	420	U	
91-57-6	2-Methylnaphthalene	420	U	
77-47-4	Hexachlorocyclopentadiene	2000	U	
88-06-2	2,4,6-Trichlorophenol	420	U	
95-95-4	2,4,5-Trichlorophenol	420	U	
91-58-7	2-Chloronaphthalene	420	U	
88-74-4	2-Nitroaniline	2000	U	
131-11-3	Dimethylphthalate	420	U	
208-96-8	Acenaphthylene	420	U	
606-20-2	2,6-Dinitrotoluene	420	U	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3014

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434G102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C434G

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 22 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q	REV. QUAL.
99-09-2	3-Nitroaniline	2000	U	U
83-32-9	Acenaphthene	420	U	
51-28-5	2,4-Dinitrophenol	2000	U	
100-02-7	4-Nitrophenol	2000	U	
132-64-9	Dibenzofuran	420	U	
121-14-2	2,4-Dinitrotoluene	420	U	
84-66-2	Diethylphthalate	420	U	
7005-72-3	4-Chlorophenyl-phenylether	420	U	
86-73-7	Fluorene	420	U	
100-01-6	4-Nitroaniline	2000	U	
534-52-1	4,6-Dinitro-2-Methylphenol	2000	U	
86-30-6	N-Nitrosodiphenylamine (1)	420	U	
101-55-3	4-Bromophenyl-phenylether	420	U	
118-74-1	Hexachlorobenzene	420	U	
87-86-5	Pentachlorophenol	2000	U	
85-01-8	Phenanthrene	420	U	
120-12-7	Anthracene	420	U	
86-74-8	Carbazole	420	U	
84-74-2	Di-n-Butylphthalate	420	U	
206-44-0	Fluoranthene	420	U	
129-00-0	Pyrene	420	U	
85-68-7	Butylbenzylphthalate	420	U	
91-94-1	3,3'-Dichlorobenzidine	2000	U	
56-55-3	Benzo(a)Anthracene	420	U	
218-01-9	Chrysene	420	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	420 ~~71~~	BJ	
117-84-0	Di-n-Octyl Phthalate	420	U	
205-99-2	Benzo(b)Fluoranthene	420	U	
207-08-9	Benzo(k)Fluoranthene	420	U	
50-32-8	Benzo(a)Pyrene	420	U	
193-39-5	Indeno(1,2,3-cd)Pyrene	420	U	
53-70-3	Dibenz(a,h)Anthracene	420	U	
191-24-2	Benzo(g,h,i)Perylene	420	U	

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3015

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434J102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C434J

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 22 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q	REV. QUAL.
108-95-2	Phenol	420	U	u
111-44-4	bis(2-Chloroethyl)Ether	420	U	
95-57-8	2-Chlorophenol	420	U	
541-73-1	1,3-Dichlorobenzene	420	U	
106-46-7	1,4-Dichlorobenzene	420	U	
95-50-1	1,2-Dichlorobenzene	420	U	
95-48-7	2-Methylphenol	420	U	
108-60-1	2,2'-Oxybis(1-Chloropropane)	420	U	
106-44-5	4-Methylphenol	420	U	
621-64-7	N-Nitroso-Di-n-Propylamine	420	U	
67-72-1	Hexachloroethane	420	U	
98-95-3	Nitrobenzene	420	U	
78-59-1	Isophorone	420	U	
88-75-5	2-Nitrophenol	420	U	
105-67-9	2,4-Dimethylphenol	420	U	
111-91-1	bis(2-Chloroethoxy)Methane	420	U	
120-83-2	2,4-Dichlorophenol	420	U	
120-82-1	1,2,4-Trichlorobenzene	420	U	
91-20-3	Naphthalene	420	U	
106-47-8	4-Chloroaniline	420	U	
87-68-3	Hexachlorobutadiene	420	U	
59-50-7	4-Chloro-3-Methylphenol	420	U	
91-57-6	2-Methylnaphthalene	420	U	
77-47-4	Hexachlorocyclopentadiene	2000	U	
88-06-2	2,4,6-Trichlorophenol	420	U	
95-95-4	2,4,5-Trichlorophenol	420	U	
91-58-7	2-Chloronaphthalene	420	U	
88-74-4	2-Nitroaniline	2000	U	
131-11-3	Dimethylphthalate	420	U	
208-96-8	Acenaphthylene	420	U	
606-20-2	2,6-Dinitrotoluene	420	U	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3015

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434J102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C434J

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 22 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q	
99-09-2	3-Nitroaniline	2000	U	U
83-32-9	Acenaphthene	420	U	
51-28-5	2,4-Dinitrophenol	2000	U	
100-02-7	4-Nitrophenol	2000	U	
132-64-9	Dibenzofuran	420	U	
121-14-2	2,4-Dinitrotoluene	420	U	
84-66-2	Diethylphthalate	420	U	
7005-72-3	4-Chlorophenyl-phenylether	420	U	
86-73-7	Fluorene	420	U	
100-01-6	4-Nitroaniline	2000	U	
534-52-1	4,6-Dinitro-2-Methylphenol	2000	U	
86-30-6	N-Nitrosodiphenylamine (1)	420	U	
101-55-3	4-Bromophenyl-phenylether	420	U	
118-74-1	Hexachlorobenzene	420	U	
87-86-5	Pentachlorophenol	2000	U	
85-01-8	Phenanthrene	57	J	J
120-12-7	Anthracene	420	U	U
86-74-8	Carbazole	420	U	
84-74-2	Di-n-Butylphthalate	420	U	
206-44-0	Fluoranthene	100	J	J
129-00-0	Pyrene	82	J	J
85-68-7	Butylbenzylphthalate	420	U	U
91-94-1	3,3'-Dichlorobenzidine	2000	U	
56-55-3	Benzo(a)Anthracene	420	U	
218-01-9	Chrysene	57	J	J
117-81-7	bis(2-Ethylhexyl)Phthalate	420 ~~55~~	BJ	J
117-84-0	Di-n-Octyl Phthalate	420	U	U
205-99-2	Benzo(b)Fluoranthene	50	J	J
207-08-9	Benzo(k)Fluoranthene	56	J	
50-32-8	Benzo(a)Pyrene	51	J	
193-39-5	Indeno(1,2,3-cd)Pyrene	420	U	U
53-70-3	Dibenz(a,h)Anthracene	420	U	
191-24-2	Benzo(g,h,i)Perylene	420	U	

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3016

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434L102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C434L

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 24 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	REV. QUAL.
108-95-2	Phenol	430	U	U
111-44-4	bis(2-Chloroethyl)Ether	430	U	
95-57-8	2-Chlorophenol	430	U	
541-73-1	1,3-Dichlorobenzene	430	U	
106-46-7	1,4-Dichlorobenzene	430	U	
95-50-1	1,2-Dichlorobenzene	430	U	
95-48-7	2-Methylphenol	430	U	
108-60-1	2,2'-Oxybis(1-Chloropropane)	430	U	
106-44-5	4-Methylphenol	430	U	
621-64-7	N-Nitroso-Di-n-Propylamine	430	U	
67-72-1	Hexachloroethane	430	U	
98-95-3	Nitrobenzene	430	U	
78-59-1	Isophorone	430	U	
88-75-5	2-Nitrophenol	430	U	
105-67-9	2,4-Dimethylphenol	430	U	
111-91-1	bis(2-Chloroethoxy)Methane	430	U	
120-83-2	2,4-Dichlorophenol	430	U	
120-82-1	1,2,4-Trichlorobenzene	430	U	
91-20-3	Naphthalene	430	U	
106-47-8	4-Chloroaniline	430	U	
87-68-3	Hexachlorobutadiene	430	U	
59-50-7	4-Chloro-3-Methylphenol	430	U	
91-57-6	2-Methylnaphthalene	430	U	
77-47-4	Hexachlorocyclopentadiene	2100	U	
88-06-2	2,4,6-Trichlorophenol	430	U	
95-95-4	2,4,5-Trichlorophenol	430	U	
91-58-7	2-Chloronaphthalene	430	U	
88-74-4	2-Nitroaniline	2100	U	
131-11-3	Dimethylphthalate	430	U	
208-96-8	Acenaphthylene	430	U	
606-20-2	2,6-Dinitrotoluene	430	U	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3016

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434L102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C434L

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 24 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q	REV. QUAL
99-09-2	3-Nitroaniline	2100	U	U
83-32-9	Acenaphthene	430	U	
51-28-5	2,4-Dinitrophenol	2100	U	
100-02-7	4-Nitrophenol	2100	U	
132-64-9	Dibenzofuran	430	U	
121-14-2	2,4-Dinitrotoluene	430	U	
84-66-2	Diethylphthalate	430	U	
7005-72-3	4-Chlorophenyl-phenylether	430	U	
86-73-7	Fluorene	430	U	
100-01-6	4-Nitroaniline	2100	U	
534-52-1	4,6-Dinitro-2-Methylphenol	2100	U	
86-30-6	N-Nitrosodiphenylamine (1)	430	U	
101-55-3	4-Bromophenyl-phenylether	430	U	
118-74-1	Hexachlorobenzene	430	U	
87-86-5	Pentachlorophenol	2100	U	
85-01-8	Phenanthrene	430	U	
120-12-7	Anthracene	430	U	
86-74-8	Carbazole	430	U	
84-74-2	Di-n-Butylphthalate	430	U	
206-44-0	Fluoranthene	430	U	
129-00-0	Pyrene	430	U	
85-68-7	Butylbenzylphthalate	430	U	
91-94-1	3,3'-Dichlorobenzidine	2100	U	
56-55-3	Benzo(a)Anthracene	430	U	
218-01-9	Chrysene	430	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	430 ~~92~~	BJ	
117-84-0	Di-n-Octyl Phthalate	430	U	
205-99-2	Benzo(b)Fluoranthene	430	U	
207-08-9	Benzo(k)Fluoranthene	430	U	
50-32-8	Benzo(a)Pyrene	430	U	
193-39-5	Indeno(1,2,3-cd)Pyrene	430	U	
53-70-3	Dibenz(a,h)Anthracene	430	U	
191-24-2	Benzo(g,h,i)Perylene	430	U	

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3017

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434N102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C434N

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 29 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q	REV. QUAL
108-95-2	Phenol	460	U	u
111-44-4	bis(2-Chloroethyl)Ether	460	U	
95-57-8	2-Chlorophenol	460	U	
541-73-1	1,3-Dichlorobenzene	460	U	
106-46-7	1,4-Dichlorobenzene	460	U	
95-50-1	1,2-Dichlorobenzene	460	U	
95-48-7	2-Methylphenol	460	U	
108-60-1	2,2'-Oxybis(1-Chloropropane)	460	U	
106-44-5	4-Methylphenol	460	U	
621-64-7	N-Nitroso-Di-n-Propylamine	460	U	
67-72-1	Hexachloroethane	460	U	
98-95-3	Nitrobenzene	460	U	
78-59-1	Isophorone	460	U	
88-75-5	2-Nitrophenol	460	U	
105-67-9	2,4-Dimethylphenol	460	U	
111-91-1	bis(2-Chloroethoxy)Methane	460	U	
120-83-2	2,4-Dichlorophenol	460	U	
120-82-1	1,2,4-Trichlorobenzene	460	U	
91-20-3	Naphthalene	460	U	
106-47-8	4-Chloroaniline	460	U	
87-68-3	Hexachlorobutadiene	460	U	
59-50-7	4-Chloro-3-Methylphenol	460	U	
91-57-6	2-Methylnaphthalene	460	U	
77-47-4	Hexachlorocyclopentadiene	2200	U	
88-06-2	2,4,6-Trichlorophenol	460	U	
95-95-4	2,4,5-Trichlorophenol	460	U	
91-58-7	2-Chloronaphthalene	460	U	
88-74-4	2-Nitroaniline	2200	U	
131-11-3	Dimethylphthalate	460	U	
208-96-8	Acenaphthylene	460	U	
606-20-2	2,6-Dinitrotoluene	460	U	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3017

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434N102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C434N

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 29 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	2200	U
83-32-9	Acenaphthene	460	U
51-28-5	2,4-Dinitrophenol	2200	U
100-02-7	4-Nitrophenol	2200	U
132-64-9	Dibenzofuran	460	U
121-14-2	2,4-Dinitrotoluene	460	U
84-66-2	Diethylphthalate	460	U
7005-72-3	4-Chlorophenyl-phenylether	460	U
86-73-7	Fluorene	460	U
100-01-6	4-Nitroaniline	2200	U
534-52-1	4,6-Dinitro-2-Methylphenol	2200	U
86-30-6	N-Nitrosodiphenylamine (1)	460	U
101-55-3	4-Bromophenyl-phenylether	460	U
118-74-1	Hexachlorobenzene	460	U
87-86-5	Pentachlorophenol	2200	U
85-01-8	Phenanthrene	460	U
120-12-7	Anthracene	460	U
86-74-8	Carbazole	460	U
84-74-2	Di-n-Butylphthalate	460	U
206-44-0	Fluoranthene	68	J
129-00-0	Pyrene	52	J
85-68-7	Butylbenzylphthalate	460	U
91-94-1	3,3'-Dichlorobenzidine	2200	U
56-55-3	Benzo(a)Anthracene	460	U
218-01-9	Chrysene	460	U
117-81-7	bis(2-Ethylhexyl)Phthalate	460 ~~79~~	BJ
117-84-0	Di-n-Octyl Phthalate	460	U
205-99-2	Benzo(b)Fluoranthene	460	U
207-08-9	Benzo(k)Fluoranthene	460	U
50-32-8	Benzo(a)Pyrene	460	U
193-39-5	Indeno(1,2,3-cd)Pyrene	460	U
53-70-3	Dibenz(a,h)Anthracene	460	U
191-24-2	Benzo(g,h,i)Perylene	460	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3018

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434P102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C434P

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 20 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	410	U	u
111-44-4	bis(2-Chloroethyl)Ether	410	U	
95-57-8	2-Chlorophenol	410	U	
541-73-1	1,3-Dichlorobenzene	410	U	
106-46-7	1,4-Dichlorobenzene	410	U	
95-50-1	1,2-Dichlorobenzene	410	U	
95-48-7	2-Methylphenol	410	U	
108-60-1	2,2'-Oxybis(1-Chloropropane)	410	U	
106-44-5	4-Methylphenol	410	U	
621-64-7	N-Nitroso-Di-n-Propylamine	410	U	
67-72-1	Hexachloroethane	410	U	
98-95-3	Nitrobenzene	410	U	
78-59-1	Isophorone	410	U	
88-75-5	2-Nitrophenol	410	U	
105-67-9	2,4-Dimethylphenol	410	U	
111-91-1	bis(2-Chloroethoxy)Methane	410	U	
120-83-2	2,4-Dichlorophenol	410	U	
120-82-1	1,2,4-Trichlorobenzene	410	U	
91-20-3	Naphthalene	410	U	
106-47-8	4-Chloroaniline	410	U	
87-68-3	Hexachlorobutadiene	410	U	
59-50-7	4-Chloro-3-Methylphenol	410	U	
91-57-6	2-Methylnaphthalene	410	U	
77-47-4	Hexachlorocyclopentadiene	2000	U	
88-06-2	2,4,6-Trichlorophenol	410	U	
95-95-4	2,4,5-Trichlorophenol	410	U	
91-58-7	2-Chloronaphthalene	410	U	
88-74-4	2-Nitroaniline	2000	U	
131-11-3	Dimethylphthalate	410	U	
208-96-8	Acenaphthylene	410	U	
606-20-2	2,6-Dinitrotoluene	410	U	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

3018

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434P102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C434P

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 20 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

Q 6/11/96

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	REV QUAL.
99-09-2	3-Nitroaniline	2000	U	U
83-32-9	Acenaphthene	410	U	
51-28-5	2,4-Dinitrophenol	2000	U	
100-02-7	4-Nitrophenol	2000	U	
132-64-9	Dibenzofuran	410	U	
121-14-2	2,4-Dinitrotoluene	410	U	
84-66-2	Diethylphthalate	410	U	
7005-72-3	4-Chlorophenyl-phenylether	410	U	
86-73-7	Fluorene	410	U	
100-01-6	4-Nitroaniline	2000	U	
534-52-1	4,6-Dinitro-2-Methylphenol	2000	U	
86-30-6	N-Nitrosodiphenylamine (1)	410	U	
101-55-3	4-Bromophenyl-phenylether	410	U	
118-74-1	Hexachlorobenzene	410	U	
87-86-5	Pentachlorophenol	2000	U	
85-01-8	Phenanthrene	410	U	
120-12-7	Anthracene	410	U	
86-74-8	Carbazole	410	U	
84-74-2	Di-n-Butylphthalate	410	U	
206-44-0	Fluoranthene	410	U	
129-00-0	Pyrene	410	U	
85-68-7	Butylbenzylphthalate	410	U	
91-94-1	3,3'-Dichlorobenzidine	2000	U	
56-55-3	Benzo(a)Anthracene	410	U	
218-01-9	Chrysene	410	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	40 ~~71~~	BJ	
117-84-0	Di-n-Octyl Phthalate	410	U	
205-99-2	Benzo(b)Fluoranthene	410	U	
207-08-9	Benzo(k)Fluoranthene	410	U	
50-32-8	Benzo(a)Pyrene	410	U	
193-39-5	Indeno(1,2,3-cd)Pyrene	410	U	
53-70-3	Dibenz(a,h)Anthracene	410	U	
191-24-2	Benzo(g,h,i)Perylene	410	U	

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3019

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434R102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C434R

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 17 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	92	J
111-44-4	bis(2-Chloroethyl)Ether	400	U
95-57-8	2-Chlorophenol	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
95-50-1	1,2-Dichlorobenzene	400	U
95-48-7	2-Methylphenol	400	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	400	U
106-44-5	4-Methylphenol	400	U
621-64-7	N-Nitroso-Di-n-Propylamine	400	U
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
111-91-1	bis(2-Chloroethoxy)Methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-Methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	1900	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	400	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	400	U
208-96-8	Acenaphthylene	100	J
606-20-2	2,6-Dinitrotoluene	400	U

J
U
J

KKN 8/8/96

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3019

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434R102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C434R

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 17 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q	REV. QUAL
99-09-2	3-Nitroaniline	1900	U	U
83-32-9	Acenaphthene	400	U	
51-28-5	2,4-Dinitrophenol	1900	U	
100-02-7	4-Nitrophenol	1900	U	
132-64-9	Dibenzofuran	400	U	
121-14-2	2,4-Dinitrotoluene	400	U	
84-66-2	Diethylphthalate	400	U	
7005-72-3	4-Chlorophenyl-phenylether	400	U	
86-73-7	Fluorene	400	U	
100-01-6	4-Nitroaniline	1900	U	
534-52-1	4,6-Dinitro-2-Methylphenol	1900	U	
86-30-6	N-Nitrosodiphenylamine (1)	400	U	
101-55-3	4-Bromophenyl-phenylether	400	U	
118-74-1	Hexachlorobenzene	400	U	
87-86-5	Pentachlorophenol	1900	U	
85-01-8	Phenanthrene	150	J	J
120-12-7	Anthracene	58	J	J
86-74-8	Carbazole	58	J	J
84-74-2	Di-n-Butylphthalate	400	U	U
206-44-0	Fluoranthene	340	J	J
129-00-0	Pyrene	260	J	J
85-68-7	Butylbenzylphthalate	400	U	U
91-94-1	3,3'-Dichlorobenzidine	1900	U	U
56-55-3	Benzo(a)Anthracene	140	J	J
218-01-9	Chrysene	200	J	J
117-81-7	bis(2-Ethylhexyl)Phthalate	400 ~~100~~	BJ	U
117-84-0	Di-n-Octyl Phthalate	400	U	U
205-99-2	Benzo(b)Fluoranthene	150	J	J
207-08-9	Benzo(k)Fluoranthene	210	J	
50-32-8	Benzo(a)Pyrene	160	J	
193-39-5	Indeno(1,2,3-cd)Pyrene	110	J	
53-70-3	Dibenz(a,h)Anthracene	55	J	
191-24-2	Benzo(g,h,i)Perylene	120	J	

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3020

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434T102

Sample wt/vol: 30.00 (g/mL) G Lab File ID: C434T

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 20 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
108-95-2	Phenol	410	U
111-44-4	bis(2-Chloroethyl)Ether	410	U
95-57-8	2-Chlorophenol	410	U
541-73-1	1,3-Dichlorobenzene	410	U
106-46-7	1,4-Dichlorobenzene	410	U
95-50-1	1,2-Dichlorobenzene	410	U
95-48-7	2-Methylphenol	410	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	410	U
106-44-5	4-Methylphenol	410	U
621-64-7	N-Nitroso-Di-n-Propylamine	410	U
67-72-1	Hexachloroethane	410	U
98-95-3	Nitrobenzene	410	U
78-59-1	Isophorone	410	U
88-75-5	2-Nitrophenol	410	U
105-67-9	2,4-Dimethylphenol	410	U
111-91-1	bis(2-Chloroethoxy)Methane	410	U
120-83-2	2,4-Dichlorophenol	410	U
120-82-1	1,2,4-Trichlorobenzene	410	U
91-20-3	Naphthalene	410	U
106-47-8	4-Chloroaniline	410	U
87-68-3	Hexachlorobutadiene	410	U
59-50-7	4-Chloro-3-Methylphenol	410	U
91-57-6	2-Methylnaphthalene	410	U
77-47-4	Hexachlorocyclopentadiene	2000	U
88-06-2	2,4,6-Trichlorophenol	410	U
95-95-4	2,4,5-Trichlorophenol	410	U
91-58-7	2-Chloronaphthalene	410	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethylphthalate	410	U
208-96-8	Acenaphthylene	410	U
606-20-2	2,6-Dinitrotoluene	410	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3020

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434T102

Sample wt/vol: 30.00 (g/mL) G Lab File ID: C434T

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 20 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q	
99-09-2	3-Nitroaniline	2000	U	U
83-32-9	Acenaphthene	410	U	
51-28-5	2,4-Dinitrophenol	2000	U	
100-02-7	4-Nitrophenol	2000	U	
132-64-9	Dibenzofuran	410	U	
121-14-2	2,4-Dinitrotoluene	410	U	
84-66-2	Diethylphthalate	410	U	
7005-72-3	4-Chlorophenyl-phenylether	410	U	
86-73-7	Fluorene	410	U	
100-01-6	4-Nitroaniline	2000	U	
534-52-1	4,6-Dinitro-2-Methylphenol	2000	U	
86-30-6	N-Nitrosodiphenylamine (1)	410	U	
101-55-3	4-Bromophenyl-phenylether	410	U	
118-74-1	Hexachlorobenzene	410	U	
87-86-5	Pentachlorophenol	2000	U	
85-01-8	Phenanthrene	410	U	
120-12-7	Anthracene	410	U	
86-74-8	Carbazole	410	U	
84-74-2	Di-n-Butylphthalate	410	U	
206-44-0	Fluoranthene	410	U	
129-00-0	Pyrene	410	U	
85-68-7	Butylbenzylphthalate	49	J	J
91-94-1	3,3'-Dichlorobenzidine	2000	U	U
56-55-3	Benzo(a)Anthracene	410	U	
218-01-9	Chrysene	410	U	
117-81-7	bis(2-Ethylhexyl)Phthalate	45 ~~74~~	BJ	
117-84-0	Di-n-Octyl Phthalate	410	U	
205-99-2	Benzo(b)Fluoranthene	410	U	
207-08-9	Benzo(k)Fluoranthene	410	U	
50-32-8	Benzo(a)Pyrene	410	U	
193-39-5	Indeno(1,2,3-cd)Pyrene	410	U	
53-70-3	Dibenz(a,h)Anthracene	410	U.	
191-24-2	Benzo(g,h,i)Perylene	410	U	

(1) - Cannot be separated from Diphenylamine

SDG: PBG801 Project: IT - Plum Brook

Method: Volatiles Matrix/No. of Samples: Soil / 22

Validation Samples: 3001 3001RE 3002 3003 3004 3005 3009 3009RE
3010 3011 3011RE 3012 3012RE 3013 3014 3015
3016 3017 3017RE 3018 3019 3020

Data Validation Report Summary

		Status Code	Comments
1.	Sample Preservation, Handling, and Transport	A	
2.	Chain of Custody	A	
3.	Holding Times	A	
4.	GC/MS Tune/Inst Perf	A	
5.	Calibrations	A	
6.	Blanks	X	
7.	Blank Spike/LCS	A	
8.	Matrix Spike	A	
9.	Surrogates	X, R	repeat samples rejected
10.	Internal Standards	X, R	repeat samples rejected
11.	Compound Identification	A	
12.	System Performance	A	
13.	Field QC Samples	N/A	
14.	Overall Assessment	X, R	

Status Codes:
A = Acceptable
X = Data acceptable but qualified due to problems
R = Data Rejected

Qualifications:

Qualify acetone as "U" based on the compound's results in method Blank VBLKC471101 for samples 3002, 3004, 3009, 3010, 3011, 3012, 3014

Qualify Trichlorethene as "U" in sample 3017 based its method blank result in VBLK4733101.

The following samples were rejected in favor of ~~based on~~ the original samples: 3001RE, 3003RE, 3009RE, 3012RE 3017RE & 3011RE. The same problems with the surrogate recoveries & internal standards were reported in the repeat analyses.

Significant Findings/Recommendations:

Several compounds reported %D > 25% in continuing calibration data, however no qualifications were required per EPA guidelines

- VOA Blanks -

When Applying 5X/10X rule. Sample results Should be raised to CRQL when sample results < CRQL & < 5X/10 Blank. Just like BNA. Consistency -

Overall Data Quality:

Acceptable as qualified

Validator's Signature: Claussa Owenby Date: 7-30-96

Peer Reviewer: J. Thomas Kelly Date: 8/5/96

Qualifications:

Qualifications (J, UJ) were given to ~~sample associated~~ certain sample results based on their internal standard areas which were outside QC limits. The following samples were affected: 3001, 3009, 3003, 3011, 3012 & 3017

All results in samples 3003 & 3017 were qualified as estimated based on poor surrogate recoveries.

Significant Findings/Recommendations:

Overall Data Quality:

Validator's Signature:_____ Date:_____

Peer Reviewer: JK Date: 8/5/96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

3001

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C431J101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC431J

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 22 Date Analyzed: 05/21/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
74-87-3	Chloromethane	13	U	u
74-83-9	Bromomethane	13	U	
75-01-4	Vinyl Chloride	13	U	
75-00-3	Chloroethane	13	U	
75-09-2	Methylene Chloride	1	J	
67-64-1	Acetone	26	U	u
75-15-0	Carbon Disulfide	13	U	
75-35-4	1,1-Dichloroethene	6	U	
75-34-3	1,1-Dichloroethane	6	U	
540-59-0	1,2-Dichloroethene (total)	6	U	
67-66-3	Chloroform	6	U	
107-06-2	1,2-Dichloroethane	6	U	
78-93-3	2-Butanone	26	U	
71-55-6	1,1,1-Trichloroethane	6	U	
56-23-5	Carbon Tetrachloride	6	U	
75-27-4	Bromodichloromethane	6	U	
78-87-5	1,2-Dichloropropane	6	U	
79-01-6	Trichloroethene	6	U	
124-48-1	Dibromochloromethane	6	U	
79-00-5	1,1,2-Trichloroethane	6	U	
71-43-2	Benzene	6	U	
10061-01-5	cis-1,3-Dichloropropene	6	U	
10061-02-6	trans-1,3-Dichloropropene	6	U	
75-25-2	Bromoform	6	U	
108-10-1	4-Methyl-2-Pentanone	26	U	uJ
591-78-6	2-Hexanone	26	U	uJ
127-18-4	Tetrachloroethene	6	U	uJ
79-34-5	1,1,2,2-Tetrachloroethane	6	U	uJ
108-88-3	Toluene	5	J	J
108-90-7	Chlorobenzene	1	J	J
100-41-4	Ethylbenzene	1	J	J
100-42-5	Styrene	6	U	uJ
1330-20-7	Xylene (total)	8		J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3001RE

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C431J201

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC431JR

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 22 Date Analyzed: 05/24/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	26	U
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	26	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	26	U
591-78-6	2-Hexanone	26	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	2	J
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	4	J

R

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

3002

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C432F101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC432F

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 20 Date Analyzed: 05/21/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
74-87-3	Chloromethane	12	U	u
74-83-9	Bromomethane	12	U	
75-01-4	Vinyl Chloride	12	U	
75-00-3	Chloroethane	12	U	
75-09-2	Methylene Chloride	1	J	
67-64-1	Acetone	25 ~~17~~	J	u
75-15-0	Carbon Disulfide	12	U	
75-35-4	1,1-Dichloroethene	6	U	
75-34-3	1,1-Dichloroethane	6	U	
540-59-0	1,2-Dichloroethene (total)	6	U	
67-66-3	Chloroform	6	U	
107-06-2	1,2-Dichloroethane	6	U	
78-93-3	2-Butanone	25	U	
71-55-6	1,1,1-Trichloroethane	6	U	
56-23-5	Carbon Tetrachloride	6	U	
75-27-4	Bromodichloromethane	6	U	
78-87-5	1,2-Dichloropropane	6	U	
79-01-6	Trichloroethene	6	U	
124-48-1	Dibromochloromethane	6	U	
79-00-5	1,1,2-Trichloroethane	6	U	
71-43-2	Benzene	6	U	
10061-01-5	cis-1,3-Dichloropropene	6	U	
10061-02-6	trans-1,3-Dichloropropene	6	U	
75-25-2	Bromoform	6	U	
108-10-1	4-Methyl-2-Pentanone	25	U	
591-78-6	2-Hexanone	25	U	
127-18-4	Tetrachloroethene	6	U	
79-34-5	1,1,2,2-Tetrachloroethane	6	U	
108-88-3	Toluene	46		
108-90-7	Chlorobenzene	6	U	
100-41-4	Ethylbenzene	3	J	
100-42-5	Styrene	6	U	u
1330-20-7	Xylene (total)	15		

KKN 8/9/96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3003

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C432M101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC432MRR

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 28 Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution

I think this date is wrong & should be 5/21/96
Date changed to 5/21

CAS NO.	COMPOUND	CONCENTRATION (ug/L or ug/Kg)		
74-87-3	Chloromethane	14	U	
74-83-9	Bromomethane	14	U	
75-01-4	Vinyl Chloride	7	U	
75-00-3	Chloroethane	28	U	
75-09-2	Methylene Chloride	14	U	
67-64-1	Acetone	7	U	
75-15-0	Carbon Disulfide	7	U	
75-35-4	1,1-Dichloroethene	7	U	
75-34-3	1,1-Dichloroethane	7	U	
540-59-0	1,2-Dichloroethene (total)	7	U	
67-66-3	Chloroform	7	U	
107-06-2	1,2-Dichloroethane	7	U	
78-93-3	2-Butanone	28	U	
71-55-6	1,1,1-Trichloroethane	7	U	UJ
56-23-5	Carbon Tetrachloride	7	U	UJ
75-27-4	Bromodichloromethane	7	U	UJ
78-87-5	1,2-Dichloropropane	7	U	UJ
79-01-6	Trichloroethene	7	U	UJ
124-48-1	Dibromochloromethane	7	U	UJ
79-00-5	1,1,2-Trichloroethane	7	U	UJ
71-43-2	Benzene	7	U	UJ
10061-01-5	cis-1,3-Dichloropropene	7	U	UJ
10061-02-6	trans-1,3-Dichloropropene	7	U	UJ
75-25-2	Bromoform	7	U	UJ
108-10-1	4-Methyl-2-Pentanone	28	U	UJ
591-78-6	2-Hexanone	28	U	UJ
127-18-4	Tetrachloroethene	7	U	UJ
79-34-5	1,1,2,2-Tetrachloroethane	7	U	UJ
108-88-3	Toluene	2	J	J
108-90-7	Chlorobenzene	7	U	UJ
100-41-4	Ethylbenzene	7	U	
100-42-5	Styrene	7	U	
1330-20-7	Xylene (total)	7	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE No.

3003RE

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C432M201

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC432MR

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 28 Date Analyzed: 05/24/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	7	U
67-64-1	Acetone	28	U
75-15-0	Carbon Disulfide	14	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	28	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	28	U
591-78-6	2-Hexanone	28	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	18	
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	8	

R

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3004

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C432W101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC432W

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 22 Date Analyzed: 05/21/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
74-87-3	Chloromethane	13	U	u
74-83-9	Bromomethane	13	U	
75-01-4	Vinyl Chloride	13	U	
75-00-3	Chloroethane	13	U	
75-09-2	Methylene Chloride	1	J	J
67-64-1	Acetone	26 ~~6~~	J	u
75-15-0	Carbon Disulfide	13	U	
75-35-4	1,1-Dichloroethene	6	U	
75-34-3	1,1-Dichloroethane	6	U	
540-59-0	1,2-Dichloroethene (total)	6	U	
67-66-3	Chloroform	6	U	
107-06-2	1,2-Dichloroethane	6	U	
78-93-3	2-Butanone	26	U	
71-55-6	1,1,1-Trichloroethane	6	U	
56-23-5	Carbon Tetrachloride	6	U	
75-27-4	Bromodichloromethane	6	U	
78-87-5	1,2-Dichloropropane	6	U	
79-01-6	Trichloroethene	6	U	
124-48-1	Dibromochloromethane	6	U	
79-00-5	1,1,2-Trichloroethane	6	U	
71-43-2	Benzene	6	U	
10061-01-5	cis-1,3-Dichloropropene	6	U	
10061-02-6	trans-1,3-Dichloropropene	6	U	
75-25-2	Bromoform	6	U	
108-10-1	4-Methyl-2-Pentanone	26	U	
591-78-6	2-Hexanone	26	U	
127-18-4	Tetrachloroethene	6	U	
79-34-5	1,1,2,2-Tetrachloroethane	6	U	
108-88-3	Toluene	12		
108-90-7	Chlorobenzene	6	U	u
100-41-4	Ethylbenzene	1	J	J
100-42-5	Styrene	6	U	u
1330-20-7	Xylene (total)	7		

KKN
8/9/96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

3005

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C4334101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC4334

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 25 Date Analyzed: 05/24/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
74-87-3	Chloromethane	13	U	u
74-83-9	Bromomethane	13	U	
75-01-4	Vinyl Chloride	13	U	
75-00-3	Chloroethane	13	U	
75-09-2	Methylene Chloride	13	U	
67-64-1	Acetone	13	U	
75-15-0	Carbon Disulfide	13	U	
75-35-4	1,1-Dichloroethene	7	U	
75-34-3	1,1-Dichloroethane	7	U	
540-59-0	1,2-Dichloroethene (total)	7	U	
67-66-3	Chloroform	7	U	
107-06-2	1,2-Dichloroethane	7	U	
78-93-3	2-Butanone	27	U	
71-55-6	1,1,1-Trichloroethane	7	U	
56-23-5	Carbon Tetrachloride	7	U	
75-27-4	Bromodichloromethane	7	U	
78-87-5	1,2-Dichloropropane	7	U	
79-01-6	Trichloroethene	7	U	
124-48-1	Dibromochloromethane	7	U	
79-00-5	1,1,2-Trichloroethane	7	U	
71-43-2	Benzene	7	U	
10061-01-5	cis-1,3-Dichloropropene	7	U	
10061-02-6	trans-1,3-Dichloropropene	7	U	
75-25-2	Bromoform	7	U	
108-10-1	4-Methyl-2-Pentanone	27	U	
591-78-6	2-Hexanone	27	U	
127-18-4	Tetrachloroethene	7	U	
79-34-5	1,1,2,2-Tetrachloroethane	7	U	
108-88-3	Toluene	8		
108-90-7	Chlorobenzene	7	U	
100-41-4	Ethylbenzene	7	U	
100-42-5	Styrene	7	U	
1330-20-7	Xylene (total)	7	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3009

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C433C101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC433C

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 27 Date Analyzed: 05/21/96

Column: (pack/cap) CAP Dilution Factor: 1.0

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

KW 8/9/96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

3009RE

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C433C201

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC433CR

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 27 Date Analyzed: 05/24/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	7	U
67-64-1	Acetone	27	U
75-15-0	Carbon Disulfide	14	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	27	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	27	U
591-78-6	2-Hexanone	27	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	17	
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	4	J
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	38	

R

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3010

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C433N101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC433N

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 27 Date Analyzed: 05/21/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
74-87-3	Chloromethane	14	U	u
74-83-9	Bromomethane	14	U	
75-01-4	Vinyl Chloride	14	U	
75-00-3	Chloroethane	14	U	
75-09-2	Methylene Chloride	2	J	J
67-64-1	Acetone	27 ~~16~~	J	u
75-15-0	Carbon Disulfide	14	U	u
75-35-4	1,1-Dichloroethene	7	U	
75-34-3	1,1-Dichloroethane	7	U	
540-59-0	1,2-Dichloroethene (total)	7	U	
67-66-3	Chloroform	7	U	
107-06-2	1,2-Dichloroethane	7	U	
78-93-3	2-Butanone	27	U	
71-55-6	1,1,1-Trichloroethane	7	U	
56-23-5	Carbon Tetrachloride	7	U	
75-27-4	Bromodichloromethane	7	U	
78-87-5	1,2-Dichloropropane	7	U	
79-01-6	Trichloroethene	7	U	
124-48-1	Dibromochloromethane	7	U	
79-00-5	1,1,2-Trichloroethane	7	U	
71-43-2	Benzene	7	U	
10061-01-5	cis-1,3-Dichloropropene	7	U	
10061-02-6	trans-1,3-Dichloropropene	7	U	
75-25-2	Bromoform	7	U	
108-10-1	4-Methyl-2-Pentanone	27	U	
591-78-6	2-Hexanone	27	U	
127-18-4	Tetrachloroethene	7	U	
79-34-5	1,1,2,2-Tetrachloroethane	7	U	
108-88-3	Toluene	120		
108-90-7	Chlorobenzene	7	U	u
100-41-4	Ethylbenzene	4	J	J
100-42-5	Styrene	7	U	u
1330-20-7	Xylene (total)	24		

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

3011

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C4341101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC4341

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 22 Date Analyzed: 05/22/96

Column: (pack/cap) CAP Dilution Factor: 1.0

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

CAS NO.	COMPOUND		Q	
74-87-3	Chloromethane	13	U	U
74-83-9	Bromomethane	13	U	
75-01-4	Vinyl Chloride	13	U	
75-00-3	Chloroethane	13	U	
75-09-2	Methylene Chloride	6	U	
67-64-1	Acetone	26 ~~12~~	J	
75-15-0	Carbon Disulfide	13	U	
75-35-4	1,1-Dichloroethene	6	U	
75-34-3	1,1-Dichloroethane	6	U	
540-59-0	1,2-Dichloroethene (total)	6	U	
67-66-3	Chloroform	6	U	
107-06-2	1,2-Dichloroethane	6	U	
78-93-3	2-Butanone	26	U	
71-55-6	1,1,1-Trichloroethane	6	U	
56-23-5	Carbon Tetrachloride	6	U	
75-27-4	Bromodichloromethane	6	U	
78-87-5	1,2-Dichloropropane	6	U	
79-01-6	Trichloroethene	6	U	
124-48-1	Dibromochloromethane	6	U	
79-00-5	1,1,2-Trichloroethane	6	U	
71-43-2	Benzene	6	U	
10061-01-5	cis-1,3-Dichloropropene	6	U	
10061-02-6	trans-1,3-Dichloropropene	6	U	
75-25-2	Bromoform	6	U	
108-10-1	4-Methyl-2-Pentanone	26	U	UJ
591-78-6	2-Hexanone	26	U	UJ
127-18-4	Tetrachloroethene	6	U	
79-34-5	1,1,2,2-Tetrachloroethane	6	U	
108-88-3	Toluene	2	J	J
108-90-7	Chlorobenzene	6	U	
100-41-4	Ethylbenzene	6	U	
100-42-5	Styrene	6	U	
1330-20-7	Xylene (total)	6	U	

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3011RE

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C4341201

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC4341R

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 22 Date Analyzed: 05/24/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	26	U
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	26	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	26	U
591-78-6	2-Hexanone	26	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	J
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	J

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE

3012

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C4348101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC4348

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 18 Date Analyzed: 05/22/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
74-87-3	Chloromethane	12	U	u
74-83-9	Bromomethane	12	U	
75-01-4	Vinyl Chloride	12	U	
75-00-3	Chloroethane	12	U	
75-09-2	Methylene Chloride	6	U	
67-64-1	Acetone	24 ~~11~~	J	
75-15-0	Carbon Disulfide	12	U	
75-35-4	1,1-Dichloroethene	6	U	
75-34-3	1,1-Dichloroethane	6	U	
540-59-0	1,2-Dichloroethene (total)	6	U	
67-66-3	Chloroform	6	U	
107-06-2	1,2-Dichloroethane	6	U	
78-93-3	2-Butanone	24	U	
71-55-6	1,1,1-Trichloroethane	6	U	
56-23-5	Carbon Tetrachloride	6	U	
75-27-4	Bromodichloromethane	6	U	
78-87-5	1,2-Dichloropropane	6	U	
79-01-6	Trichloroethene	6	U	
124-48-1	Dibromochloromethane	6	U	
79-00-5	1,1,2-Trichloroethane	6	U	
71-43-2	Benzene	6	U	
10061-01-5	cis-1,3-Dichloropropene	6	U	
10061-02-6	trans-1,3-Dichloropropene	6	U	
75-25-2	Bromoform	6	U	
108-10-1	4-Methyl-2-Pentanone	24	U	UJ
591-78-6	2-Hexanone	24	U	
127-18-4	Tetrachloroethene	6	U	
79-34-5	1,1,2,2-Tetrachloroethane	6	U	
108-88-3	Toluene	5	J	J
108-90-7	Chlorobenzene	6	U	
100-41-4	Ethylbenzene	1	J	
100-42-5	Styrene	6	U	UJ
1330-20-7	Xylene (total)	10		J

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3012RE

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C4348201

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC4348R

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 18 Date Analyzed: 05/24/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	24	U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	24	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	24	U
591-78-6	2-Hexanone	24	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	9	
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	J
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	8	

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3013

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434E101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434E

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 22 Date Analyzed: 05/22/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
74-87-3	Chloromethane	13	U	u
74-83-9	Bromomethane	13	U	
75-01-4	Vinyl Chloride	13	U	
75-00-3	Chloroethane	13	U	
75-09-2	Methylene Chloride	6	U	
67-64-1	Acetone	26	U	
75-15-0	Carbon Disulfide	13	U	
75-35-4	1,1-Dichloroethene	6	U	
75-34-3	1,1-Dichloroethane	6	U	
540-59-0	1,2-Dichloroethene (total)	6	U	
67-66-3	Chloroform	6	U	
107-06-2	1,2-Dichloroethane	6	U	
78-93-3	2-Butanone	26	U	
71-55-6	1,1,1-Trichloroethane	6	U	
56-23-5	Carbon Tetrachloride	6	U	
75-27-4	Bromodichloromethane	6	U	
78-87-5	1,2-Dichloropropane	6	U	
79-01-6	Trichloroethene	6	U	
124-48-1	Dibromochloromethane	6	U	
79-00-5	1,1,2-Trichloroethane	6	U	
71-43-2	Benzene	6	U	
10061-01-5	cis-1,3-Dichloropropene	6	U	
10061-02-6	trans-1,3-Dichloropropene	6	U	
75-25-2	Bromoform	6	U	
108-10-1	4-Methyl-2-Pentanone	26	U	
591-78-6	2-Hexanone	26	U	
127-18-4	Tetrachloroethene	6	U	
79-34-5	1,1,2,2-Tetrachloroethane	6	U	
108-88-3	Toluene	3	J	J
108-90-7	Chlorobenzene	6	U	u
100-41-4	Ethylbenzene	6	U	
100-42-5	Styrene	6	U	
1330-20-7	Xylene (total)	3	J	J

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3014

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434G101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434G

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 22 Date Analyzed: 05/22/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
74-87-3	Chloromethane	13	U	u
74-83-9	Bromomethane	13	U	
75-01-4	Vinyl Chloride	13	U	
75-00-3	Chloroethane	13	U	
75-09-2	Methylene Chloride	6	U	
67-64-1	Acetone	26 ~~2~~	J	
75-15-0	Carbon Disulfide	13	U	
75-35-4	1,1-Dichloroethene	6	U	
75-34-3	1,1-Dichloroethane	6	U	
540-59-0	1,2-Dichloroethene (total)	6	U	
67-66-3	Chloroform	6	U	
107-06-2	1,2-Dichloroethane	6	U	
78-93-3	2-Butanone	26	U	
71-55-6	1,1,1-Trichloroethane	6	U	
56-23-5	Carbon Tetrachloride	6	U	
75-27-4	Bromodichloromethane	6	U	
78-87-5	1,2-Dichloropropane	6	U	
79-01-6	Trichloroethene	6	U	
124-48-1	Dibromochloromethane	6	U	
79-00-5	1,1,2-Trichloroethane	6	U	
71-43-2	Benzene	6	U	
10061-01-5	cis-1,3-Dichloropropene	6	U	
10061-02-6	trans-1,3-Dichloropropene	6	U	
75-25-2	Bromoform	6	U	
108-10-1	4-Methyl-2-Pentanone	2	J	J
591-78-6	2-Hexanone	26	U	u
127-18-4	Tetrachloroethene	6	U	
79-34-5	1,1,2,2-Tetrachloroethane	6	U	
108-88-3	Toluene	32		
108-90-7	Chlorobenzene	6	U	u
100-41-4	Ethylbenzene	2	J	J
100-42-5	Styrene	6	U	u
1330-20-7	Xylene (total)	9		

KKD 8/9/96

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3015

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434J101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434J

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 22 Date Analyzed: 05/24/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	26	U
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	26	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	26	U
591-78-6	2-Hexanone	26	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	5	J
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3016

ab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C4334L01

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434L

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 24 Date Analyzed: 05/22/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
74-87-3	Chloromethane	13	U	u
74-83-9	Bromomethane	13	U	
75-01-4	Vinyl Chloride	13	U	
75-00-3	Chloroethane	13	U	
75-09-2	Methylene Chloride	7	U	
67-64-1	Acetone	26	U	
75-15-0	Carbon Disulfide	13	U	
75-35-4	1,1-Dichloroethene	7	U	
75-34-3	1,1-Dichloroethane	7	U	
540-59-0	1,2-Dichloroethene (total)	7	U	
67-66-3	Chloroform	7	U	
107-06-2	1,2-Dichloroethane	7	U	
78-93-3	2-Butanone	26	U	
71-55-6	1,1,1-Trichloroethane	7	U	
56-23-5	Carbon Tetrachloride	7	U	
75-27-4	Bromodichloromethane	7	U	
78-87-5	1,2-Dichloropropane	7	U	
79-01-6	Trichloroethene	7	U	
124-48-1	Dibromochloromethane	7	U	
79-00-5	1,1,2-Trichloroethane	7	U	
71-43-2	Benzene	7	U	
10061-01-5	cis-1,3-Dichloropropene	7	U	
10061-02-6	trans-1,3-Dichloropropene	7	U	
75-25-2	Bromoform	7	U	
108-10-1	4-Methyl-2-Pentanone	26	U	
591-78-6	2-Hexanone	26	U	
127-18-4	Tetrachloroethene	7	U	
79-34-5	1,1,2,2-Tetrachloroethane	7	U	
108-88-3	Toluene	120		
108-90-7	Chlorobenzene	7	U	u
100-41-4	Ethylbenzene	6	J	J
100-42-5	Styrene	7	U	u
1330-20-7	Xylene (total)	33		

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE N

3017

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434N101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434N

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 29 Date Analyzed: 05/24/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
74-87-3	Chloromethane	14	U	UJ
74-83-9	Bromomethane	14	U	
75-01-4	Vinyl Chloride	14	U	
75-00-3	Chloroethane	14	U	
75-09-2	Methylene Chloride	1	J	J
67-64-1	Acetone	28	U	U
75-15-0	Carbon Disulfide	14	U	
75-35-4	1,1-Dichloroethene	7	U	
75-34-3	1,1-Dichloroethane	7	U	
540-59-0	1,2-Dichloroethene (total)	7	U	
67-66-3	Chloroform	7	U	
107-06-2	1,2-Dichloroethane	7	U	
78-93-3	2-Butanone	28	U	
71-55-6	1,1,1-Trichloroethane	7	U	
56-23-5	Carbon Tetrachloride	7	U	
75-27-4	Bromodichloromethane	7	U	
78-87-5	1,2-Dichloropropane	7	U	
79-01-6	Trichloroethene	7 ~~2~~	BJ	
124-48-1	Dibromochloromethane	7	U	
79-00-5	1,1,2-Trichloroethane	7	U	
71-43-2	Benzene	7	U	
10061-01-5	cis-1,3-Dichloropropene	7	U	
10061-02-6	trans-1,3-Dichloropropene	7	U	
75-25-2	Bromoform	7	U	
108-10-1	4-Methyl-2-Pentanone	28	U	
591-78-6	2-Hexanone	28	U	
127-18-4	Tetrachloroethene	7	U	
79-34-5	1,1,2,2-Tetrachloroethane	7	U	
108-88-3	Toluene	7	U	
108-90-7	Chlorobenzene	7	U	
100-41-4	Ethylbenzene	7	U	
100-42-5	Styrene	7	U	
1330-20-7	Xylene (total)	7	U	

KKW 8/9/96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3017RE

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434N201

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434NRR

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 29 Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
74-87-3	Chloromethane	14	U	R
74-83-9	Bromomethane	14	U	
75-01-4	Vinyl Chloride	14	U	
75-00-3	Chloroethane	14	U	
75-09-2	Methylene Chloride	7	U	
67-64-1	Acetone	28	U	
75-15-0	Carbon Disulfide	14	U	
75-35-4	1,1-Dichloroethene	7	U	
75-34-3	1,1-Dichloroethane	7	U	
540-59-0	1,2-Dichloroethene (total)	7	U	
67-66-3	Chloroform	7	U	
107-06-2	1,2-Dichloroethane	7	U	
78-93-3	2-Butanone	28	U	
71-55-6	1,1,1-Trichloroethane	7	U	
56-23-5	Carbon Tetrachloride	7	U	
75-27-4	Bromodichloromethane	7	U	
78-87-5	1,2-Dichloropropane	7	U	
79-01-6	Trichloroethene	7	U	
124-48-1	Dibromochloromethane	7	U	
79-00-5	1,1,2-Trichloroethane	7	U	
71-43-2	Benzene	7	U	
10061-01-5	cis-1,3-Dichloropropene	7	U	
10061-02-6	trans-1,3-Dichloropropene	7	U	
75-25-2	Bromoform	7	U	
108-10-1	4-Methyl-2-Pentanone	28	U	
591-78-6	2-Hexanone	28	U	
127-18-4	Tetrachloroethene	7	U	
79-34-5	1,1,2,2-Tetrachloroethane	7	U	
108-88-3	Toluene	7	J	
108-90-7	Chlorobenzene	7	U	
100-41-4	Ethylbenzene	7	U	
100-42-5	Styrene	7	U	
1330-20-7	Xylene (total)	7	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3018

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434P101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434PR

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 20 Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

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

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3019

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434R101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434R

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 17 Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
74-87-3	Chloromethane	12	U	u
74-83-9	Bromomethane	12	U	
75-01-4	Vinyl Chloride	12	U	
75-00-3	Chloroethane	12	U	
75-09-2	Methylene Chloride	6	U	
67-64-1	Acetone	24	U	
75-15-0	Carbon Disulfide	12	U	
75-35-4	1,1-Dichloroethene	6	U	
75-34-3	1,1-Dichloroethane	6	U	
540-59-0	1,2-Dichloroethene (total)	6	U	
67-66-3	Chloroform	6	U	
107-06-2	1,2-Dichloroethane	6	U	
78-93-3	2-Butanone	24	U	
71-55-6	1,1,1-Trichloroethane	6	U	
56-23-5	Carbon Tetrachloride	6	U	
75-27-4	Bromodichloromethane	6	U	
78-87-5	1,2-Dichloropropane	6	U	
79-01-6	Trichloroethene	6	U	
124-48-1	Dibromochloromethane	6	U	
79-00-5	1,1,2-Trichloroethane	6	U	
71-43-2	Benzene	6	U	
10061-01-5	cis-1,3-Dichloropropene	6	U	
10061-02-6	trans-1,3-Dichloropropene	6	U	
75-25-2	Bromoform	6	U	
108-10-1	4-Methyl-2-Pentanone	24	U	UJ
591-78-6	2-Hexanone	24	U	
127-18-4	Tetrachloroethene	6	U	
79-34-5	1,1,2,2-Tetrachloroethane	6	U	
108-88-3	Toluene	1	J	J
108-90-7	Chlorobenzene	6	U	UJ
100-41-4	Ethylbenzene	6	U	
100-42-5	Styrene	6	U	
1330-20-7	Xylene (total)	6	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3020

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434T101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434T

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 20 Date Analyzed: 05/24/96

Column: (pack/cap) CAP Dilution Factor: 1.0

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

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SDG: PBG802 Project: IT - Plum Brook

Method: Volatiles Matrix/No. of Samples: Soil / 17

Validation Samples: 2001 2001RE 2002 2002RE 2004 2004RE
3021 3022 3023 3024 3024RE 3025 3027
3028 3029 3029RE 3030

Data Validation Report Summary

		Status Code	Comments
1.	Sample Preservation, Handling, and Transport	A	
2.	Chain of Custody	A	
3.	Holding Times	A	
4.	GC/MS Tune/Inst Perf	A	
5.	Calibrations	A	
6.	Blanks	A	
7.	Blank Spike/LCS	A	
8.	Matrix Spike	A	see findings
9.	Surrogates	X	
10.	Internal Standards	X, R	repeated analyses rejected
11.	Compound Identification	A	
12.	System Performance	X	
13.	Field QC Samples	N/A	
14.	Overall Assessment	X, R	

Status Codes:
A = Acceptable
X = Data acceptable but qualified due to problems
R = Data Rejected

Qualifications:

No quals added JTK

Samples 2001, 2002 & 2004 were reported as soil samples ~~and~~ but listed with % moistures greater than 50%. ~~All results in these samples were qualified as estimated (J, UJ)~~

All repeated analysis were rejected in favor of the original analyses based on same problems encountered with the internal standards & poor surrogate recoveries. Samples rejected were 2001RE, 2002RE, 2004RE, 3024RE & 3029RE.

All results in sample 3021 were qualified as estimated (J, UJ) based on 4 out 10 % Recoveries outside QC limits, surrogate recovery #2 outside QC limits and IS #3 outside QC limits.

Significant Findings/Recommendations:

Several compounds reported %D > 25% in the continuing calibration data. The compounds were either non-detects in their associated samples or "poor response" compounds. No qualifications required.

Samples 2001, 2002 & 2004 had poor surrogate recoveries reported ~~however they have already been qualified as estimated based on their % moisture content~~. and were qualified as "UJ / J". JTK

The internal standard areas for samples 2001, 2002, 2004, 3021 & 3027 were outside QC limits (areas #2 & 3), ~~however~~ the samples have already been qualified for surrogate recovery problems. ~~& % moisture content.~~ JTK

Overall Data Quality:

Acceptable as qualified

Validator's Signature: Claussa Owenby Date: 7-30-96

Peer Reviewer: Thomas Kibdis Date: 8/5/96

Qualifications:

Qualify all results in samples 3024, 3027 & 3029 as estimated based on poor surrogate recoveries due to matrix interference.

• MS/MSD Values for benzene and chlorobenzene exceeded QC limits, no additional qualifiers required. JTE

Significant Findings/Recommendations:

~~Sa~~ CO

Overall Data Quality:

Validator's Signature:_____ Date:_____

Peer Reviewer: JTE Date: 8/5/96

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2001

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434M101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434M

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 64 Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	REV. QUAL.
74-87-3	Chloromethane	28	U	UJ
74-83-9	Bromomethane	28	U	
75-01-4	Vinyl Chloride	28	U	
75-00-3	Chloroethane	28	U	
75-09-2	Methylene Chloride	14	U	
67-64-1	Acetone	56	U	
75-15-0	Carbon Disulfide	28	U	
75-35-4	1,1-Dichloroethene	14	U	
75-34-3	1,1-Dichloroethane	14	U	
540-59-0	1,2-Dichloroethene (total)	14	U	
67-66-3	Chloroform	14	U	
107-06-2	1,2-Dichloroethane	14	U	
78-93-3	2-Butanone	56	U	
71-55-6	1,1,1-Trichloroethane	14	U	
56-23-5	Carbon Tetrachloride	14	U	
75-27-4	Bromodichloromethane	14	U	
78-87-5	1,2-Dichloropropane	14	U	
79-01-6	Trichloroethene	14	U	
124-48-1	Dibromochloromethane	14	U	
79-00-5	1,1,2-Trichloroethane	14	U	
71-43-2	Benzene	14	U	
10061-01-5	cis-1,3-Dichloropropene	14	U	
10061-02-6	trans-1,3-Dichloropropene	14	U	
75-25-2	Bromoform	14	U	
108-10-1	4-Methyl-2-Pentanone	56	U	
591-78-6	2-Hexanone	56	U	
127-18-4	Tetrachloroethene	14	U	
79-34-5	1,1,2,2-Tetrachloroethane	14	U	
108-88-3	Toluene	14	U	
108-90-7	Chlorobenzene	14	U	
100-41-4	Ethylbenzene	14	U	
100-42-5	Styrene	14	U	
1330-20-7	Xylene (total)	14	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2001RE

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434M201

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434MR

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 64 Date Analyzed: 05/29/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	REV. QUAL.
74-87-3	Chloromethane	28	U	R
74-83-9	Bromomethane	28	U	
75-01-4	Vinyl Chloride	28	U	
75-00-3	Chloroethane	28	U	
75-09-2	Methylene Chloride	14	U	
67-64-1	Acetone	56	U	
75-15-0	Carbon Disulfide	28	U	
75-35-4	1,1-Dichloroethene	14	U	
75-34-3	1,1-Dichloroethane	14	U	
540-59-0	1,2-Dichloroethene (total)	14	U	
67-66-3	Chloroform	14	U	
107-06-2	1,2-Dichloroethane	14	U	
78-93-3	2-Butanone	56	U	
71-55-6	1,1,1-Trichloroethane	14	U	
56-23-5	Carbon Tetrachloride	14	U	
75-27-4	Bromodichloromethane	14	U	
78-87-5	1,2-Dichloropropane	14	U	
79-01-6	Trichloroethene	14	U	
124-48-1	Dibromochloromethane	14	U	
79-00-5	1,1,2-Trichloroethane	14	U	
71-43-2	Benzene	14	U	
10061-01-5	cis-1,3-Dichloropropene	14	U	
10061-02-6	trans-1,3-Dichloropropene	14	U	
75-25-2	Bromoform	14	U	
108-10-1	4-Methyl-2-Pentanone	56	U	
591-78-6	2-Hexanone	56	U	
127-18-4	Tetrachloroethene	14	U	
79-34-5	1,1,2,2-Tetrachloroethane	14	U	
108-88-3	Toluene	14	U	
108-90-7	Chlorobenzene	14	U	
100-41-4	Ethylbenzene	14	U	
100-42-5	Styrene	14	U	
1330-20-7	Xylene (total)	14	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2002

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434H101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434H

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 64 Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	REV. QUAL.
74-87-3	Chloromethane	28	U	UJ
74-83-9	Bromomethane	28	U	
75-01-4	Vinyl Chloride	28	U	
75-00-3	Chloroethane	28	U	
75-09-2	Methylene Chloride	14	U	
67-64-1	Acetone	56	U	
75-15-0	Carbon Disulfide	28	U	
75-35-4	1,1-Dichloroethene	14	U	
75-34-3	1,1-Dichloroethane	14	U	
540-59-0	1,2-Dichloroethene (total)	14	U	
67-66-3	Chloroform	14	U	
107-06-2	1,2-Dichloroethane	14	U	
78-93-3	2-Butanone	56	U	
71-55-6	1,1,1-Trichloroethane	14	U	
56-23-5	Carbon Tetrachloride	14	U	
75-27-4	Bromodichloromethane	14	U	
78-87-5	1,2-Dichloropropane	14	U	
79-01-6	Trichloroethene	14	U	
124-48-1	Dibromochloromethane	14	U	
79-00-5	1,1,2-Trichloroethane	14	U	
71-43-2	Benzene	14	U	
10061-01-5	cis-1,3-Dichloropropene	14	U	
10061-02-6	trans-1,3-Dichloropropene	14	U	
75-25-2	Bromoform	14	U	
108-10-1	4-Methyl-2-Pentanone	56	U	
591-78-6	2-Hexanone	56	U	
127-18-4	Tetrachloroethene	14	U	
79-34-5	1,1,2,2-Tetrachloroethane	14	U	
108-88-3	Toluene	14	U	
108-90-7	Chlorobenzene	14	U	
100-41-4	Ethylbenzene	14	U	
100-42-5	Styrene	14	U	
1330-20-7	Xylene (total)	14	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2002RE

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434H201

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434HR

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 64 Date Analyzed: 05/29/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	REV. QUAL.
74-87-3	Chloromethane	28	U	R
74-83-9	Bromomethane	28	U	
75-01-4	Vinyl Chloride	28	U	
75-00-3	Chloroethane	28	U	
75-09-2	Methylene Chloride	14	U	
67-64-1	Acetone	56	U	
75-15-0	Carbon Disulfide	28	U	
75-35-4	1,1-Dichloroethene	14	U	
75-34-3	1,1-Dichloroethane	14	U	
540-59-0	1,2-Dichloroethene (total)	14	U	
67-66-3	Chloroform	14	U	
107-06-2	1,2-Dichloroethane	14	U	
78-93-3	2-Butanone	56	U	
71-55-6	1,1,1-Trichloroethane	14	U	
56-23-5	Carbon Tetrachloride	14	U	
75-27-4	Bromodichloromethane	14	U	
78-87-5	1,2-Dichloropropane	14	U	
79-01-6	Trichloroethene	14	U	
124-48-1	Dibromochloromethane	14	U	
79-00-5	1,1,2-Trichloroethane	14	U	
71-43-2	Benzene	14	U	
10061-01-5	cis-1,3-Dichloropropene	14	U	
10061-02-6	trans-1,3-Dichloropropene	14	U	
75-25-2	Bromoform	14	U	
108-10-1	4-Methyl-2-Pentanone	56	U	
591-78-6	2-Hexanone	56	U	
127-18-4	Tetrachloroethene	14	U	
79-34-5	1,1,2,2-Tetrachloroethane	14	U	
108-88-3	Toluene	14	U	
108-90-7	Chlorobenzene	14	U	
100-41-4	Ethylbenzene	14	U	
100-42-5	Styrene	14	U	
1330-20-7	Xylene (total)	14	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2004

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4340101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434Q

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 53 Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	REV. QUAL.
74-87-3	Chloromethane	21	U	UJ
74-83-9	Bromomethane	21	U	
75-01-4	Vinyl Chloride	21	U	
75-00-3	Chloroethane	21	U	
75-09-2	Methylene Chloride	11	U	
67-64-1	Acetone	43	U	
75-15-0	Carbon Disulfide	21	U	
75-35-4	1,1-Dichloroethene	11	U	
75-34-3	1,1-Dichloroethane	11	U	
540-59-0	1,2-Dichloroethene (total)	11	U	
67-66-3	Chloroform	11	U	
107-06-2	1,2-Dichloroethane	11	U	
78-93-3	2-Butanone	43	U	
71-55-6	1,1,1-Trichloroethane	11	U	
56-23-5	Carbon Tetrachloride	11	U	
75-27-4	Bromodichloromethane	11	U	
78-87-5	1,2-Dichloropropane	11	U	
79-01-6	Trichloroethene	11	U	
124-48-1	Dibromochloromethane	11	U	
79-00-5	1,1,2-Trichloroethane	11	U	
71-43-2	Benzene	11	U	
10061-01-5	cis-1,3-Dichloropropene	11	U	
10061-02-6	trans-1,3-Dichloropropene	11	U	
75-25-2	Bromoform	11	U	
108-10-1	4-Methyl-2-Pentanone	43	U	
591-78-6	2-Hexanone	43	U	
127-18-4	Tetrachloroethene	11	U	
79-34-5	1,1,2,2-Tetrachloroethane	11	U	
108-88-3	Toluene	11	U	
108-90-7	Chlorobenzene	11	U	
100-41-4	Ethylbenzene	11	U	
100-42-5	Styrene	11	U	
1330-20-7	Xylene (total)	11	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2004RE

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434Q201

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434QR

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 53 Date Analyzed: 05/29/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	REV. QUAL.
74-87-3	Chloromethane	21	U	R
74-83-9	Bromomethane	21	U	
75-01-4	Vinyl Chloride	21	U	
75-00-3	Chloroethane	21	U	
75-09-2	Methylene Chloride	2	J	
67-64-1	Acetone	43	U	
75-15-0	Carbon Disulfide	21	U	
75-35-4	1,1-Dichloroethene	11	U	
75-34-3	1,1-Dichloroethane	11	U	
540-59-0	1,2-Dichloroethene (total)	11	U	
67-66-3	Chloroform	11	U	
107-06-2	1,2-Dichloroethane	11	U	
78-93-3	2-Butanone	43	U	
71-55-6	1,1,1-Trichloroethane	11	U	
56-23-5	Carbon Tetrachloride	11	U	
75-27-4	Bromodichloromethane	11	U	
78-87-5	1,2-Dichloropropane	11	U	
79-01-6	Trichloroethene	11	U	
124-48-1	Dibromochloromethane	11	U	
79-00-5	1,1,2-Trichloroethane	11	U	
71-43-2	Benzene	11	U	
10061-01-5	cis-1,3-Dichloropropene	11	U	
10061-02-6	trans-1,3-Dichloropropene	11	U	
75-25-2	Bromoform	11	U	
108-10-1	4-Methyl-2-Pentanone	43	U	
591-78-6	2-Hexanone	43	U	
127-18-4	Tetrachloroethene	11	U	
79-34-5	1,1,2,2-Tetrachloroethane	11	U	
108-88-3	Toluene	11	U	
108-90-7	Chlorobenzene	11	U	
100-41-4	Ethylbenzene	11	U	
100-42-5	Styrene	11	U	
1330-20-7	Xylene (total)	11	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3021

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4330101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC4330

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 17 Date Analyzed: 05/24/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	REV QUAL
74-87-3	Chloromethane	12	U	u
74-83-9	Bromomethane	12	U	
75-01-4	Vinyl Chloride	12	U	
75-00-3	Chloroethane	12	U	
75-09-2	Methylene Chloride	6	U	
67-64-1	Acetone	24	U	
75-15-0	Carbon Disulfide	12	U	
75-35-4	1,1-Dichloroethene	6	U	
75-34-3	1,1-Dichloroethane	6	U	
540-59-0	1,2-Dichloroethene (total)	6	U	
67-66-3	Chloroform	6	U	
107-06-2	1,2-Dichloroethane	6	U	
78-93-3	2-Butanone	24	U	
71-55-6	1,1,1-Trichloroethane	6	U	
56-23-5	Carbon Tetrachloride	6	U	
75-27-4	Bromodichloromethane	6	U	
78-87-5	1,2-Dichloropropane	6	U	
79-01-6	Trichloroethene	6	U	
124-48-1	Dibromochloromethane	6	U	
79-00-5	1,1,2-Trichloroethane	6	U	
71-43-2	Benzene	6	U	
10061-01-5	cis-1,3-Dichloropropene	6	U	
10061-02-6	trans-1,3-Dichloropropene	6	U	
75-25-2	Bromoform	6	U	
108-10-1	4-Methyl-2-Pentanone	24	U	UJ
591-78-6	2-Hexanone	24	U	
127-18-4	Tetrachloroethene	6	U	
79-34-5	1,1,2,2-Tetrachloroethane	6	U	
108-88-3	Toluene	8		J
108-90-7	Chlorobenzene	6	U	UJ
100-41-4	Ethylbenzene	6	J	J
100-42-5	Styrene	6	U	U
1330-20-7	Xylene (total)	7		~~U~~ J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3022

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4332101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC4332

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 24 Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	REV. QUAL.
74-87-3	Chloromethane	13	U	u
74-83-9	Bromomethane	13	U	
75-01-4	Vinyl Chloride	13	U	
75-00-3	Chloroethane	13	U	
75-09-2	Methylene Chloride	7	U	
67-64-1	Acetone	26	U	
75-15-0	Carbon Disulfide	13	U	
75-35-4	1,1-Dichloroethene	7	U	
75-34-3	1,1-Dichloroethane	7	U	
540-59-0	1,2-Dichloroethene (total)	7	U	
67-66-3	Chloroform	7	U	
107-06-2	1,2-Dichloroethane	7	U	
78-93-3	2-Butanone	26	U	
71-55-6	1,1,1-Trichloroethane	7	U	
56-23-5	Carbon Tetrachloride	7	U	
75-27-4	Bromodichloromethane	7	U	
78-87-5	1,2-Dichloropropane	7	U	
79-01-6	Trichloroethene	7	U	
124-48-1	Dibromochloromethane	7	U	
79-00-5	1,1,2-Trichloroethane	7	U	
71-43-2	Benzene	7	U	
10061-01-5	cis-1,3-Dichloropropene	7	U	
10061-02-6	trans-1,3-Dichloropropene	7	U	
75-25-2	Bromoform	7	U	
108-10-1	4-Methyl-2-Pentanone	26	U	
591-78-6	2-Hexanone	26	U	
127-18-4	Tetrachloroethene	7	U	
79-34-5	1,1,2,2-Tetrachloroethane	7	U	
108-88-3	Toluene	7	U	
108-90-7	Chlorobenzene	7	U	
100-41-4	Ethylbenzene	7	U	
100-42-5	Styrene	7	U	
1330-20-7	Xylene (total)	7	U	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3023

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4335101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC4335RE

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 23 Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	REV. QUAL.
74-87-3	Chloromethane	13	U	U
74-83-9	Bromomethane	13	U	
75-01-4	Vinyl Chloride	13	U	
75-00-3	Chloroethane	13	U	
75-09-2	Methylene Chloride	6	U	
67-64-1	Acetone	26	U	
75-15-0	Carbon Disulfide	13	U	
75-35-4	1,1-Dichloroethene	6	U	
75-34-3	1,1-Dichloroethane	6	U	
540-59-0	1,2-Dichloroethene (total)	6	U	
67-66-3	Chloroform	6	U	
107-06-2	1,2-Dichloroethane	6	U	
78-93-3	2-Butanone	26	U	
71-55-6	1,1,1-Trichloroethane	6	U	
56-23-5	Carbon Tetrachloride	6	U	
75-27-4	Bromodichloromethane	6	U	
78-87-5	1,2-Dichloropropane	6	U	
79-01-6	Trichloroethene	6	U	
124-48-1	Dibromochloromethane	6	U	
79-00-5	1,1,2-Trichloroethane	6	U	
71-43-2	Benzene	6	U	
10061-01-5	cis-1,3-Dichloropropene	6	U	
10061-02-6	trans-1,3-Dichloropropene	6	U	
75-25-2	Bromoform	6	U	
108-10-1	4-Methyl-2-Pentanone	26	U	
591-78-6	2-Hexanone	26	U	
127-18-4	Tetrachloroethene	6	U	
79-34-5	1,1,2,2-Tetrachloroethane	6	U	
108-88-3	Toluene	6	J	J
108-90-7	Chlorobenzene	6	U	U
100-41-4	Ethylbenzene	6	U	
100-42-5	Styrene	6	U	
1330-20-7	Xylene (total)	2	J	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3024

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C433A101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC433A

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 27 Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3024RE

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C433A201

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC433ARE

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 27 Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	REV. QUAL.
74-87-3	Chloromethane	14	U	R
74-83-9	Bromomethane	14	U	
75-01-4	Vinyl Chloride	14	U	
75-00-3	Chloroethane	14	U	
75-09-2	Methylene Chloride	7	U	
67-64-1	Acetone	27	U	
75-15-0	Carbon Disulfide	14	U	
75-35-4	1,1-Dichloroethene	7	U	
75-34-3	1,1-Dichloroethane	7	U	
540-59-0	1,2-Dichloroethene (total)	7	U	
67-66-3	Chloroform	7	U	
107-06-2	1,2-Dichloroethane	7	U	
78-93-3	2-Butanone	27	U	
71-55-6	1,1,1-Trichloroethane	7	U	
56-23-5	Carbon Tetrachloride	7	U	
75-27-4	Bromodichloromethane	7	U	
78-87-5	1,2-Dichloropropane	7	U	
79-01-6	Trichloroethene	7	U	
124-48-1	Dibromochloromethane	7	U	
79-00-5	1,1,2-Trichloroethane	7	U	
71-43-2	Benzene	7	U	
10061-01-5	cis-1,3-Dichloropropene	7	U	
10061-02-6	trans-1,3-Dichloropropene	7	U	
75-25-2	Bromoform	7	U	
108-10-1	4-Methyl-2-Pentanone	27	U	
591-78-6	2-Hexanone	27	U	
127-18-4	Tetrachloroethene	7	U	
79-34-5	1,1,2,2-Tetrachloroethane	7	U	
108-88-3	Toluene	11		
108-90-7	Chlorobenzene	7	U	
100-41-4	Ethylbenzene	7	U	
100-42-5	Styrene	7	U	
1330-20-7	Xylene (total)	2	J	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3025

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C433F101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC433F

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 30 Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
74-87-3	Chloromethane	14	U	u
74-83-9	Bromomethane	14	U	
75-01-4	Vinyl Chloride	14	U	
75-00-3	Chloroethane	14	U	
75-09-2	Methylene Chloride	7	U	
67-64-1	Acetone	29	U	
75-15-0	Carbon Disulfide	14	U	
75-35-4	1,1-Dichloroethene	7	U	
75-34-3	1,1-Dichloroethane	7	U	
540-59-0	1,2-Dichloroethene (total)	7	U	
67-66-3	Chloroform	7	U	
107-06-2	1,2-Dichloroethane	7	U	
78-93-3	2-Butanone	29	U	
71-55-6	1,1,1-Trichloroethane	7	U	
56-23-5	Carbon Tetrachloride	7	U	
75-27-4	Bromodichloromethane	7	U	
78-87-5	1,2-Dichloropropane	7	U	
79-01-6	Trichloroethene	7	U	
124-48-1	Dibromochloromethane	7	U	
79-00-5	1,1,2-Trichloroethane	7	U	
71-43-2	Benzene	7	U	
10061-01-5	cis-1,3-Dichloropropene	7	U	
10061-02-6	trans-1,3-Dichloropropene	7	U	
75-25-2	Bromoform	7	U	
108-10-1	4-Methyl-2-Pentanone	29	U	
591-78-6	2-Hexanone	29	U	
127-18-4	Tetrachloroethene	7	U	
79-34-5	1,1,2,2-Tetrachloroethane	7	U	
108-88-3	Toluene	2	J	J
108-90-7	Chlorobenzene	7	U	u
100-41-4	Ethylbenzene	3	J	J
100-42-5	Styrene	7	U	u
1330-20-7	Xylene (total)	4	J	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3027

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C433P101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC433PR

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 16 Date Analyzed: 05/29/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
74-87-3	Chloromethane	12	U	UJ
74-83-9	Bromomethane	12	U	
75-01-4	Vinyl Chloride	12	U	
75-00-3	Chloroethane	12	U	
75-09-2	Methylene Chloride	2	J	J
67-64-1	Acetone	24	U	
75-15-0	Carbon Disulfide	12	U	
75-35-4	1,1-Dichloroethene	6	U	
75-34-3	1,1-Dichloroethane	6	U	
540-59-0	1,2-Dichloroethene (total)	6	U	
67-66-3	Chloroform	6	U	
107-06-2	1,2-Dichloroethane	6	U	
78-93-3	2-Butanone	24	U	
71-55-6	1,1,1-Trichloroethane	6	U	
56-23-5	Carbon Tetrachloride	6	U	
75-27-4	Bromodichloromethane	6	U	
78-87-5	1,2-Dichloropropane	6	U	
79-01-6	Trichloroethene	6	U	
124-48-1	Dibromochloromethane	6	U	
79-00-5	1,1,2-Trichloroethane	6	U	
71-43-2	Benzene	6	U	
10061-01-5	cis-1,3-Dichloropropene	6	U	
10061-02-6	trans-1,3-Dichloropropene	6	U	
75-25-2	Bromoform	6	U	
108-10-1	4-Methyl-2-Pentanone	24	U	
591-78-6	2-Hexanone	24	U	
127-18-4	Tetrachloroethene	6	U	
79-34-5	1,1,2,2-Tetrachloroethane	6	U	
108-88-3	Toluene	17		J
108-90-7	Chlorobenzene	6	U	UJ
100-41-4	Ethylbenzene	6	U	
100-42-5	Styrene	6	U	
1330-20-7	Xylene (total)	8		J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3028

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4344101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC4344R

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 14 Date Analyzed: 05/29/96

Column: (pack/cap) CAP Dilution Factor: 1.0

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3029

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434C101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434C

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 25 Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3029RE

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434C201

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434CR

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 25 Date Analyzed: 05/29/96

Column: (pack/cap) CAP Dilution Factor: 1.0

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

R

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3030

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4343F101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434F

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 26 Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

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

SDG: PBG801 Project: IT - Plum Brook Burning Ground
Method: METALS Matrix/No. of Samples: SOIL/17

Validation Samples: 3001, 3002, 3003, 3004, 3005, 3009, 3010, 3011, 3012, 3013, 3014, 3015, 3016, 3017, 3018, 3019, 3020

Data Validation Report Summary

		Status Code	Comments
1.	Sample Preservation, Handling, and Transport	A	
2.	Chain of Custody	A	See Findings
3.	Holding Times	A	
4.	Calibrations	A	
5.	Blanks	A	
6.	ICP Interference Check Sample	A	
7.	Blank Spike/LCS	A	
8.	Duplicates	X	See Qualifications
9.	Matrix Spike	X	See Qualifications
10.	Furnace Atomic Absorption QC	N/A	No FAA Analyses Performed
11.	ICP Serial Dilution	X	See Qualifications
12.	Sample Result Verification	N/A	Not Required for Level III Review
13.	Field QC Samples	A	See Findings
14.	Overall Assessment	X	Acceptable as Qualified

Status Codes:
A = Acceptable R = Data Rejected
X = Data acceptable but qualified due to problems

Qualifications:

Duplicate QC results were outside of acceptable limits for iron and manganese. All samples in this SDG were qualified as estimated ("J" for detects, "UJ" for nondetects) for these analytes based on these results.

Matrix spike recoveries were below acceptable limits for antimony, arsenic, lead, manganese, selenium, silver, thallium and zinc. All samples in this SDG were qualified as estimated ("J" for detects, "UJ" for nondetects) for these analytes based on these results.

The matrix spike recovery for barium was above acceptable limits. All barium detects were qualified as estimated "J".

Significant Findings/Recommendations:

The Chain-of-Custody Forms list the sample collection dates as 3/15/96. The Condition-Upon-Receipt Forms indicate that the sample containers list the collection dates as 4/14/96. According to the IT Project Contact, the actual collection date is 5/14/96 for all samples. The data has been reviewed based on this date.

Duplicate samples are actually matrix spike duplicates. Duplicate spike QC results for iron and manganese were outside of acceptable limits.

Matrix spike recoveries for several analytes were outside of acceptable limits.

The Relative Percent Differences for barium and manganese in field duplicate pair 3004/3005 were above acceptable limits (>100%). No qualifications were assigned based on this information.

Overall Data Quality: Acceptable as reviewed and qualified.

Date: August 2, 1996

Validator's Signature: Michael P. Neyme

Peer Reviewer: J. Thomas Kubelis

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3001

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___
Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801
Matrix (soil/water): SOIL_ Lab Sample ID: C431J
Level (low/med): LOW_ Date Received: 05/16/96
% Solids: _77.7

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

CAS No.	Analyte	Concentration	C	Q	M	REV. QUAL.
7429-90-5	Aluminum	6570			P	
7440-36-0	Antimony	7.7	U	N	P	UJ
7440-38-2	Arsenic	4.6		N	P	J
7440-39-3	Barium	65.7		N	P	J
7440-41-7	Beryllium	0.64	U		P	U
7440-43-9	Cadmium	0.64	U		P	U
7440-70-2	Calcium	6380			P	
7440-47-3	Chromium	7.2			P	
7440-48-4	Cobalt	12.5			P	
7440-50-8	Copper	10.6			P	
7439-89-6	Iron	33500		*	P	J
7439-92-1	Lead	12.3		N	P	J
7439-95-4	Magnesium	2510			P	
7439-96-5	Manganese	1910		*	P	J
7439-97-6	Mercury	0.04	U		CV	U
7440-02-0	Nickel	10.5			P	
7440-09-7	Potassium	644	U		P	U
7782-49-2	Selenium	0.64	U	N	P	UJ
7440-22-4	Silver	1.3	U	N	P	UJ
7440-23-5	Sodium	644	U		P	U
7440-28-0	Thallium	1.3	U	N	P	UJ
7440-62-2	Vanadium	10.8			P	
7440-66-6	Zinc	67.7		N	P	J

Color Before: BROWN Clarity Before: N/A Texture: MEDIUM
Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3002

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___
Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801
Matrix (soil/water): SOIL_ Lab Sample ID: C432F
Level (low/med): LOW__ Date Received: 05/16/96
% Solids: _80.0

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

CAS No.	Analyte	Concentration	C	Q	M	REV. QUAL.
7429-90-5	Aluminum	6110			P	
7440-36-0	Antimony	7.5	U	N	P	UJ
7440-38-2	Arsenic	3.7		N	P	J
7440-39-3	Barium	50.0		N	P	J
7440-41-7	Beryllium	0.62	U		P	U
7440-43-9	Cadmium	0.62	U		P	U
7440-70-2	Calcium	10700			P	
7440-47-3	Chromium	7.3			P	
7440-48-4	Cobalt	12.7			P	
7440-50-8	Copper	7.2			P	
7439-89-6	Iron	38100		*	P	J
7439-92-1	Lead	9.8		N	P	J
7439-95-4	Magnesium	4750			P	
7439-96-5	Manganese	2050		*	P	J
7439-97-6	Mercury	0.04	U		CV	U
7440-02-0	Nickel	9.8			P	
7440-09-7	Potassium	625	U		P	U
7782-49-2	Selenium	0.62	U	N	P	UJ
7440-22-4	Silver	1.2	U	N	P	UJ
7440-23-5	Sodium	625	U		P	U
7440-28-0	Thallium	1.2	U	N	P	UJ
7440-62-2	Vanadium	11.0			P	
7440-66-6	Zinc	58.1		N	P	J

Color Before: BROWN____ Clarity Before: N/A___ Texture: MEDIUM
Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3003

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___
Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801
Matrix (soil/water): SOIL_ Lab Sample ID: C432M
Level (low/med): LOW__ Date Received: 05/16/96
% Solids: _72.5

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

CAS No.	Analyte	Concentration	C	Q	M	REV. QUAL.
7429-90-5	Aluminum_	9110			P	
7440-36-0	Antimony_	8.3	U	N	P	UJ
7440-38-2	Arsenic__	6.0		N	P	J
7440-39-3	Barium___	99.5		N	P	J
7440-41-7	Beryllium	1.0			P	
7440-43-9	Cadmium__	0.69	U		P	U
7440-70-2	Calcium__	5890			P	
7440-47-3	Chromium_	11.2			P	
7440-48-4	Cobalt___	13.7			P	
7440-50-8	Copper___	16.5			P	
7439-89-6	Iron____	35800		*	P	J
7439-92-1	Lead____	16.6		N	P	J
7439-95-4	Magnesium	1530			P	
7439-96-5	Manganese	1500		*	P	J
7439-97-6	Mercury__	0.05			CV	
7440-02-0	Nickel___	22.1			P	
7440-09-7	Potassium	740			P	
7782-49-2	Selenium_	0.74		N	P	J
7440-22-4	Silver___	1.4	U	N	P	UJ
7440-23-5	Sodium___	690	U		P	UJ
7440-28-0	Thallium_	2.0		N	P	J
7440-62-2	Vanadium_	14.8			P	
7440-66-6	Zinc____	114		N	P	J

Color Before: BROWN____ Clarity Before: N/A___ Texture: MEDIUM
Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3004

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___
Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801
Matrix (soil/water): SOIL_ Lab Sample ID: C432W
Level (low/med): LOW__ Date Received: 05/16/96
% Solids: _77.6

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

CAS No.	Analyte	Concentration	C	Q	M	REV. QUAL.
7429-90-5	Aluminum_	7590			P	
7440-36-0	Antimony_	7.7	U	N	P	UJ
7440-38-2	Arsenic__	8.0		N	P	J
7440-39-3	Barium___	175		N	P	J
7440-41-7	Beryllium	1.3			P	
7440-43-9	Cadmium__	0.64	U		P	U
7440-70-2	Calcium__	4020			P	
7440-47-3	Chromium_	9.6			P	
7440-48-4	Cobalt___	18.3			P	
7440-50-8	Copper___	13.5			P	
7439-89-6	Iron____	76300		*	P	J
7439-92-1	Lead____	15.4		N	P	J
7439-95-4	Magnesium	1530			P	
7439-96-5	Manganese	2790		*	P	J
7439-97-6	Mercury__	0.05			CV	
7440-02-0	Nickel___	19.4			P	
7440-09-7	Potassium	644	U		P	U
7782-49-2	Selenium_	0.64	U	N	P	UJ
7440-22-4	Silver___	1.3	U	N	P	UJ
7440-23-5	Sodium___	644	U		P	U
7440-28-0	Thallium_	1.5		N	P	J
7440-62-2	Vanadium_	12.5			P	
7440-66-6	Zinc____	141		N	P	J

Color Before: BROWN____ Clarity Before: N/A___ Texture: MEDIUM
Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3005

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___

Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix (soil/water): SOIL_ Lab Sample ID: C4334

Level (low/med): LOW_ Date Received: 05/16/96

% Solids: _75.2

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

CAS No.	Analyte	Concentration	C	Q	M	REV. QUAL.
7429-90-5	Aluminum	8810			P	
7440-36-0	Antimony	8.0	U	N	P	UJ
7440-38-2	Arsenic	8.6		N	P	J
7440-39-3	Barium	33.7		N	P	J
7440-41-7	Beryllium	1.2			P	
7440-43-9	Cadmium	0.66	U		P	U
7440-70-2	Calcium	3640			P	
7440-47-3	Chromium	10.7			P	
7440-48-4	Cobalt	16.0			P	
7440-50-8	Copper	11.9			P	
7439-89-6	Iron	72100		*	P	J
7439-92-1	Lead	19.2		N	P	J
7439-95-4	Magnesium	1590			P	
7439-96-5	Manganese	891		*	P	J
7439-97-6	Mercury	0.04	U		CV	U
7440-02-0	Nickel	20.3			P	
7440-09-7	Potassium	760			P	
7782-49-2	Selenium	0.66	U	N	P	UJ
7440-22-4	Silver	1.3	U	N	P	UJ
7440-23-5	Sodium	665	U		P	U
7440-28-0	Thallium	1.4		N	P	J
7440-62-2	Vanadium	16.3			P	
7440-66-6	Zinc	155		N	P	J

Color Before: BROWN____ Clarity Before: N/A___ Texture: MEDIUM

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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EPA SAMPLE NO.

3009

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___
Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801
Matrix (soil/water): SOIL_ Lab Sample ID: C433C
Level (low/med): LOW__ Date Received: 05/16/96
% Solids: _73.0

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

CAS No.	Analyte	Concentration	C	Q	M	REV. QUAL.
7429-90-5	Aluminum	9100			P	
7440-36-0	Antimony	8.2	U	N	P	UJ
7440-38-2	Arsenic	8.3		N	P	J
7440-39-3	Barium	1440		N	P	J
7440-41-7	Beryllium	0.98			P	
7440-43-9	Cadmium	0.68	U		P	U
7440-70-2	Calcium	5100			P	
7440-47-3	Chromium	12.4			P	
7440-48-4	Cobalt	44.7			P	
7440-50-8	Copper	18.8			P	
7439-89-6	Iron	42300		*	P	J
7439-92-1	Lead	14.9		N	P	J
7439-95-4	Magnesium	1420			P	
7439-96-5	Manganese	10000		*	P	J
7439-97-6	Mercury	0.05			CV	
7440-02-0	Nickel	49.3			P	
7440-09-7	Potassium	1030			P	
7782-49-2	Selenium	0.86		N	P	J
7440-22-4	Silver	1.4	U	N	P	UJ
7440-23-5	Sodium	685	U		P	U
7440-28-0	Thallium	1.7		N	P	J
7440-62-2	Vanadium	20.1			P	
7440-66-6	Zinc	195		N	P	J

Color Before: BROWN____ Clarity Before: N/A___ Texture: MEDIUM
Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3010

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___
Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801
Matrix (soil/water): SOIL_ Lab Sample ID: C433N
Level (low/med): LOW__ Date Received: 05/16/96
% Solids: _72.9

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

CAS No.	Analyte	Concentration	C	Q	M	REV. QUAL.
7429-90-5	Aluminum_	6660			P	
7440-36-0	Antimony_	8.2	U	N	P	UJ
7440-38-2	Arsenic__	12.8		N	P	J
7440-39-3	Barium___	1770		N	P	J
7440-41-7	Beryllium	1.2			P	
7440-43-9	Cadmium__	1.2			P	
7440-70-2	Calcium__	4680			P	
7440-47-3	Chromium_	10.6			P	
7440-48-4	Cobalt___	41.2			P	
7440-50-8	Copper___	21.6			P	
7439-89-6	Iron_____	90700		*	P	J
7439-92-1	Lead_____	14.7		N	P	J
7439-95-4	Magnesium	1300			P	
7439-96-5	Manganese	21700		*	P	J
7439-97-6	Mercury__	0.05			CV	
7440-02-0	Nickel___	110			P	
7440-09-7	Potassium	715			P	
7782-49-2	Selenium_	1.8		N	P	J
7440-22-4	Silver___	1.4	U	N	P	UJ
7440-23-5	Sodium___	686	U		P	U
7440-28-0	Thallium_	1.4	U	N	P	UJ
7440-62-2	Vanadium_	19.3			P	
7440-66-6	Zinc_____	318		N	P	J

Color Before: BROWN____ Clarity Before: N/A___ Texture: MEDIUM
Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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EPA SAMPLE NO.

3011

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___
Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801
Matrix (soil/water): SOIL_ Lab Sample ID: C4341
Level (low/med): LOW__ Date Received: 05/16/96
% Solids: _77.5

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

CAS No.	Analyte	Concentration	C	Q	M	REV. QUAL.
7429-90-5	Aluminum_	5500			P	
7440-36-0	Antimony_	7.7	U	N	P	UJ
7440-38-2	Arsenic__	4.7		N	P	J
7440-39-3	Barium___	39.1		N	P	J
7440-41-7	Beryllium	0.65	U		P	U
7440-43-9	Cadmium__	0.65	U		P	U
7440-70-2	Calcium__	13500			P	
7440-47-3	Chromium_	7.2			P	
7440-48-4	Cobalt___	10.7			P	
7440-50-8	Copper___	10.6			P	
7439-89-6	Iron_____	27900		*	P	J
7439-92-1	Lead_____	13.8		N	P	J
7439-95-4	Magnesium	5290			P	
7439-96-5	Manganese	1600		*	P	J
7439-97-6	Mercury__	0.04	U		CV	U
7440-02-0	Nickel___	11.4			P	
7440-09-7	Potassium	645	U		P	U
7782-49-2	Selenium_	0.65	U	N	P	UJ
7440-22-4	Silver___	1.3	U	N	P	UJ
7440-23-5	Sodium___	645	U		P	U
7440-28-0	Thallium_	1.3	U	N	P	UJ
7440-62-2	Vanadium_	13.5			P	
7440-66-6	Zinc_____	59.5		N	P	J

Color Before: BROWN____ Clarity Before: N/A___ Texture: MEDIUM
Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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EPA SAMPLE NO.

3012

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___
Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801
Matrix (soil/water): SOIL_ Lab Sample ID: C4348
Level (low/med): LOW_ Date Received: 05/16/96
% Solids: _81.6

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

CAS No.	Analyte	Concentration	C	Q	M	REV. QUAL.
7429-90-5	Aluminum	6850			P	
7440-36-0	Antimony	7.4	U	N	P	UJ
7440-38-2	Arsenic	5.4		N	P	J
7440-39-3	Barium	64.4		N	P	J
7440-41-7	Beryllium	0.61	U		P	U
7440-43-9	Cadmium	0.61	U		P	U
7440-70-2	Calcium	54900			P	
7440-47-3	Chromium	6.1			P	
7440-48-4	Cobalt	10.6			P	
7440-50-8	Copper	11.3			P	
7439-89-6	Iron	33800		*	P	J
7439-92-1	Lead	11.5		N	P	J
7439-95-4	Magnesium	22700			P	
7439-96-5	Manganese	2290		*	P	J
7439-97-6	Mercury	0.04	U		CV	U
7440-02-0	Nickel	16.3			P	
7440-09-7	Potassium	823			P	
7782-49-2	Selenium	0.61	U	N	P	UJ
7440-22-4	Silver	1.2	U	N	P	UJ
7440-23-5	Sodium	613	U		P	U
7440-28-0	Thallium	1.2	U	N	P	UJ
7440-62-2	Vanadium	19.3			P	
7440-66-6	Zinc	72.0		N	P	J

Color Before: BROWN Clarity Before: N/A Texture: MEDIUM
Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

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EPA SAMPLE NO.

3013

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___
Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801
Matrix (soil/water): SOIL_ Lab Sample ID: C434E
Level (low/med): LOW__ Date Received: 05/16/96
% Solids: _77.9

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

CAS No.	Analyte	Concentration	C	Q	M	REV. QUAL.
7429-90-5	Aluminum	6850			P	
7440-36-0	Antimony	7.7	U	N	P	UJ
7440-38-2	Arsenic	4.5		N	P	J
7440-39-3	Barium	64.7		N	P	J
7440-41-7	Beryllium	0.64	U		P	U
7440-43-9	Cadmium	0.64	U		P	U
7440-70-2	Calcium	3290			P	
7440-47-3	Chromium	7.9			P	
7440-48-4	Cobalt	10.3			P	
7440-50-8	Copper	9.5			P	
7439-89-6	Iron	32100		*	P	J
7439-92-1	Lead	13.2		N	P	J
7439-95-4	Magnesium	1340			P	
7439-96-5	Manganese	1920		*	P	J
7439-97-6	Mercury	0.04	U		CV	U
7440-02-0	Nickel	10.4			P	
7440-09-7	Potassium	642	U		P	U
7782-49-2	Selenium	0.64	U	N	P	UJ
7440-22-4	Silver	1.3	U	N	P	UJ
7440-23-5	Sodium	642	U		P	U
7440-28-0	Thallium	1.3	U	N	P	UJ
7440-62-2	Vanadium	13.0			P	
7440-66-6	Zinc	61.0		N	P	J

Color Before: BROWN____ Clarity Before: N/A___ Texture: MEDIUM
Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3014

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___
Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801
Matrix (soil/water): SOIL_ Lab Sample ID: C434G
Level (low/med): LOW__ Date Received: 05/16/96
% Solids: _77.5

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

CAS No.	Analyte	Concentration	C	Q	M	REV. QUAL.
7429-90-5	Aluminum	5600			P	
7440-36-0	Antimony	7.7	U	N	P	UJ
7440-38-2	Arsenic	5.2		N	P	J
7440-39-3	Barium	104		N	P	J
7440-41-7	Beryllium	0.65	U		P	U
7440-43-9	Cadmium	0.65	U		P	U
7440-70-2	Calcium	28800			P	
7440-47-3	Chromium	6.5			P	
7440-48-4	Cobalt	11.7			P	
7440-50-8	Copper	9.6			P	
7439-89-6	Iron	47000		*	P	J
7439-92-1	Lead	11.2		N	P	J
7439-95-4	Magnesium	12000			P	
7439-96-5	Manganese	3320		*	P	J
7439-97-6	Mercury	0.04	U		CV	U
7440-02-0	Nickel	13.9			P	
7440-09-7	Potassium	645	U		P	U
7782-49-2	Selenium	0.65	U	N	P	UJ
7440-22-4	Silver	1.3	U	N	P	UJ
7440-23-5	Sodium	645	U		P	U
7440-28-0	Thallium	1.3	U	N	P	UJ
7440-62-2	Vanadium	13.8			P	
7440-66-6	Zinc	65.2		N	P	J

Color Before: BROWN____ Clarity Before: N/A___ Texture: MEDIUM
Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3015

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___
Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801
Matrix (soil/water): SOIL_ Lab Sample ID: C434J
Level (low/med): LOW_ Date Received: 05/16/96
% Solids: _78.5

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

CAS No.	Analyte	Concentration	C	Q	M	REV. QUAL.
7429-90-5	Aluminum	6180			P	
7440-36-0	Antimony	7.6	U	N	P	UJ
7440-38-2	Arsenic	3.8		N	P	J
7440-39-3	Barium	52.0		N	P	J
7440-41-7	Beryllium	0.64	U		P	U
7440-43-9	Cadmium	0.64	U		P	U
7440-70-2	Calcium	2340			P	
7440-47-3	Chromium	7.3			P	
7440-48-4	Cobalt	9.2			P	
7440-50-8	Copper	7.3			P	
7439-89-6	Iron	23000		*	P	J
7439-92-1	Lead	12.6		N	P	J
7439-95-4	Magnesium	932			P	
7439-96-5	Manganese	1370		*	P	J
7439-97-6	Mercury	0.04	U		CV	U
7440-02-0	Nickel	7.9			P	
7440-09-7	Potassium	637	U		P	U
7782-49-2	Selenium	0.64	U	N	P	UJ
7440-22-4	Silver	1.3	U	N	P	UJ
7440-23-5	Sodium	637	U		P	U
7440-28-0	Thallium	1.3	U	N	P	UJ
7440-62-2	Vanadium	11.8			P	
7440-66-6	Zinc	121		N	P	J

Color Before: BROWN Clarity Before: N/A Texture: MEDIUM
Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

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EPA SAMPLE NO.

3016

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___
Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801
Matrix (soil/water): SOIL_ Lab Sample ID: C434L
Level (low/med): LOW__ Date Received: 05/16/96
% Solids: _75.8

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

CAS No.	Analyte	Concentration	C	Q	M	REV. QUAL.
7429-90-5	Aluminum	7060			P	
7440-36-0	Antimony	7.9	U	N	P	UJ
7440-38-2	Arsenic	7.7		N	P	J
7440-39-3	Barium	255		N	P	J
7440-41-7	Beryllium	1.0			P	
7440-43-9	Cadmium	0.66	U		P	U
7440-70-2	Calcium	12200			P	
7440-47-3	Chromium	9.1			P	
7440-48-4	Cobalt	22.5			P	
7440-50-8	Copper	8.3			P	
7439-89-6	Iron	65800		*	P	J
7439-92-1	Lead	13.9		N	P	J
7439-95-4	Magnesium	5500			P	
7439-96-5	Manganese	6610		*	P	J
7439-97-6	Mercury	0.04	U		CV	U
7440-02-0	Nickel	21.2			P	
7440-09-7	Potassium	660	U		P	U
7782-49-2	Selenium	0.66	U	N	P	UJ
7440-22-4	Silver	1.3	U	N	P	UJ
7440-23-5	Sodium	660	U		P	U
7440-28-0	Thallium	1.3	U	N	P	UJ
7440-62-2	Vanadium	18.6			P	
7440-66-6	Zinc	72.7		N	P	J

Color Before: BROWN____ Clarity Before: N/A___ Texture: MEDIUM
Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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EPA SAMPLE NO.

3017

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___
Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801
Matrix (soil/water): SOIL_ Lab Sample ID: C434N
Level (low/med): LOW__ Date Received: 05/16/96
% Solids: _71.1

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

CAS No.	Analyte	Concentration	C	Q	M	REV. QUAL.
7429-90-5	Aluminum	8640			P	
7440-36-0	Antimony	8.4	U	N	P	UJ
7440-38-2	Arsenic	4.5		N	P	J
7440-39-3	Barium	102		N	P	J
7440-41-7	Beryllium	1.0			P	
7440-43-9	Cadmium	0.70	U		P	U
7440-70-2	Calcium	5450			P	
7440-47-3	Chromium	10.5			P	
7440-48-4	Cobalt	16.4			P	
7440-50-8	Copper	16.6			P	
7439-89-6	Iron	25800		*	P	J
7439-92-1	Lead	16.1		N	P	J
7439-95-4	Magnesium	1490			P	
7439-96-5	Manganese	1170		*	P	J
7439-97-6	Mercury	0.05			CV	
7440-02-0	Nickel	26.5			P	
7440-09-7	Potassium	844			P	
7782-49-2	Selenium	0.70	U	N	P	UJ
7440-22-4	Silver	1.4	U	N	P	UJ
7440-23-5	Sodium	703	U		P	U
7440-28-0	Thallium	1.4	U	N	P	UJ
7440-62-2	Vanadium	15.4			P	
7440-66-6	Zinc	114		N	P	J

Color Before: BROWN____ Clarity Before: N/A___ Texture: MEDIUM
Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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EPA SAMPLE NO.

3018

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___
Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801
Matrix (soil/water): SOIL_ Lab Sample ID: C434P
Level (low/med): LOW__ Date Received: 05/16/96
% Solids: _79.8

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

CAS No.	Analyte	Concentration	C	Q	M	REV. QUAL.
7429-90-5	Aluminum	6670			P	
7440-36-0	Antimony	7.5	U	N	P	UJ
7440-38-2	Arsenic	3.0		N	P	J
7440-39-3	Barium	37.4		N	P	J
7440-41-7	Beryllium	0.64			P	
7440-43-9	Cadmium	0.63	U		P	U
7440-70-2	Calcium	2910			P	
7440-47-3	Chromium	10.7			P	
7440-48-4	Cobalt	10.8			P	
7440-50-8	Copper	6.9			P	
7439-89-6	Iron	28000		*	P	J
7439-92-1	Lead	9.3		N	P	J
7439-95-4	Magnesium	1360			P	
7439-96-5	Manganese	367		*	P	J
7439-97-6	Mercury	0.04	U		CV	U
7440-02-0	Nickel	14.3			P	
7440-09-7	Potassium	627	U		P	U
7782-49-2	Selenium	0.63	U	N	P	UJ
7440-22-4	Silver	1.3	U	N	P	UJ
7440-23-5	Sodium	627	U		P	U
7440-28-0	Thallium	1.3	U	N	P	UJ
7440-62-2	Vanadium	14.5			P	
7440-66-6	Zinc	133		N	P	J

Color Before: BROWN____ Clarity Before: N/A___ Texture: MEDIUM
Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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EPA SAMPLE NO.

3019

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___
Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801
Matrix (soil/water): SOIL_ Lab Sample ID: C434R
Level (low/med): LOW__ Date Received: 05/16/96
% Solids: _83.3

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

CAS No.	Analyte	Concentration	C	Q	M	REV. QUAL.
7429-90-5	Aluminum	4860			P	
7440-36-0	Antimony	7.2	U	N	P	UJ
7440-38-2	Arsenic	3.8		N	P	J
7440-39-3	Barium	41.3		N	P	J
7440-41-7	Beryllium	0.60	U		P	U
7440-43-9	Cadmium	0.60	U		P	U
7440-70-2	Calcium	1720			P	
7440-47-3	Chromium	6.0			P	
7440-48-4	Cobalt	8.9			P	
7440-50-8	Copper	8.0			P	
7439-89-6	Iron	21300		*	P	J
7439-92-1	Lead	13.7		N	P	J
7439-95-4	Magnesium	699			P	
7439-96-5	Manganese	1050		*	P	J
7439-97-6	Mercury	0.04	U		CV	U
7440-02-0	Nickel	8.2			P	
7440-09-7	Potassium	600	U		P	U
7782-49-2	Selenium	0.60	U	N	P	UJ
7440-22-4	Silver	1.2	U	N	P	UJ
7440-23-5	Sodium	600	U		P	U
7440-28-0	Thallium	1.2	U	N	P	UJ
7440-62-2	Vanadium	10.3			P	
7440-66-6	Zinc	44.2		N	P	J

Color Before: BROWN____ Clarity Before: N/A___ Texture: MEDIUM
Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3020

Lab Name: QUANTERRA_KNOXVILLE Contract: IT_CORP
Lab Code: ITSTU Case No.: EG141 SAS No.: SDG No.: PBG801
Matrix (soil/water): SOIL Lab Sample ID: C434T
Level (low/med): LOW Date Received: 05/16/96
% Solids: 79.8

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

CAS No.	Analyte	Concentration	C	Q	M	REV. QUAL.
7429-90-5	Aluminum	10800			P	
7440-36-0	Antimony	7.5	U	N	P	UJ
7440-38-2	Arsenic	5.3		N	P	J
7440-39-3	Barium	107		N	P	J
7440-41-7	Beryllium	0.87			P	
7440-43-9	Cadmium	0.63	U		P	U
7440-70-2	Calcium	1950			P	
7440-47-3	Chromium	12.4			P	
7440-48-4	Cobalt	13.4			P	
7440-50-8	Copper	10.8			P	
7439-89-6	Iron	50800		*	P	J
7439-92-1	Lead	10.6		N	P	J
7439-95-4	Magnesium	1470			P	
7439-96-5	Manganese	2810		*	P	J
7439-97-6	Mercury	0.05			CV	
7440-02-0	Nickel	19.8			P	
7440-09-7	Potassium	673			P	
7782-49-2	Selenium	0.63	U	N	P	UJ
7440-22-4	Silver	1.3	U	N	P	UJ
7440-23-5	Sodium	627	U		P	U
7440-28-0	Thallium	1.4		N	P	J
7440-62-2	Vanadium	18.2			P	
7440-66-6	Zinc	50.2		N	P	J

Color Before: BROWN Clarity Before: N/A Texture: MEDIUM
Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

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ILM02.1

SDG: PBG802 Project: IT - Plum Brook Burning Ground
Method: METALS Matrix/No. of Samples: SOIL/12

Validation Samples: 2001, 2002, 2004, 3021, 3022, 3023, 3024, 3025, 3027, 3028, 3029, 3030

Data Validation Report Summary

		Status Code	Comments
1.	Sample Preservation, Handling, and Transport	A	
2.	Chain of Custody	A	
3.	Holding Times	A	
4.	Calibrations	A	
5.	Blanks	A	
6.	ICP Interference Check Sample	A	
7.	Blank Spike/LCS	A	
8.	Duplicates	X	See Qualifications
9.	Matrix Spike	X	See Qualifications
10.	Furnace Atomic Absorption QC	N/A	No FAA Analyses Performed
11.	ICP Serial Dilution	X	See Qualifications
12.	Sample Result Verification	N/A	Not Required for Level III Review
13.	Field QC Samples	A	Duplicates only
14.	Overall Assessment	X	Acceptable as Qualified

Status Codes:
A = Acceptable R = Data Rejected
X = Data acceptable but qualified due to problems

Qualifications:

Duplicate QC results were outside of acceptable limits for barium and manganese. All samples in this SDG were qualified as estimated ("J" for detects, "UJ" for nondetects) for these analytes based on these results.

Matrix spike recoveries were below acceptable limits for antimony, arsenic, copper, lead, selenium, and thallium. All samples in this SDG were qualified as estimated ("J" for detects, "UJ" for nondetects) for these analytes based on these results.

Significant Findings/Recommendations:

Duplicate spike QC results for barium and manganese were outside of acceptable limits.

Matrix spike recoveries for several analytes were outside of acceptable limits.

Overall Data Quality: Acceptable as reviewed and qualified.

Date: August 2, 1996

Validator's Signature: Michael P. Nawm

Peer Reviewer: J. Thomas Fitch

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2001

Lab Name: QUANTERRA_KNOXVILLE Contract: BURNING_GR
Lab Code: ITSTU Case No.: EG147 SAS No.: SDG No.: PBG802
Matrix (soil/water): SOIL Lab Sample ID: C434M
Level (low/med): LOW Date Received: 05/16/96
% Solids: 36.4

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

CAS No.	Analyte	Concentration	C	Q	M	REV. QUAL.
7429-90-5	Aluminum	20500			P	
7440-36-0	Antimony	16.5	U	N	P	UJ
7440-38-2	Arsenic	12.1		N	P	J
7440-39-3	Barium	165		N *	P	J
7440-41-7	Beryllium	8.8			P	
7440-43-9	Cadmium	2.9			P	
7440-70-2	Calcium	8800			P	
7440-47-3	Chromium	13.4			P	
7440-48-4	Cobalt	179			P	
7440-50-8	Copper	63.0		N	P	J
7439-89-6	Iron	70700			P	
7439-92-1	Lead	21.0		N	P	J
7439-95-4	Magnesium	1750			P	
7439-96-5	Manganese	1560		*	P	J
7439-97-6	Mercury	0.09	U		CV	U
7440-02-0	Nickel	273			P	
7440-09-7	Potassium	1370	U		P	U
7782-49-2	Selenium	1.9		N	P	J
7440-22-4	Silver	2.7	U		P	U
7440-23-5	Sodium	1370	U		P	U
7440-28-0	Thallium	2.7	U	N	P	UJ
7440-62-2	Vanadium	23.3			P	
7440-66-6	Zinc	537			P	

Color Before: BROWN Clarity Before: Texture: MEDIUM
Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
COMPLETE_CLIENT_I.D.: PBOW-96-SD01-BG8-2001-(SD)

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2002

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: BURNING_GR
Lab Code: ITSTU_ Case No.: EG147 SAS No.: _____ SDG No.: PBG802
Matrix (soil/water): SOIL_ Lab Sample ID: C434H
Level (low/med): LOW__ Date Received: 05/16/96
% Solids: _36.4

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

CAS No.	Analyte	Concentration	C	Q	M	REV. QUAL.
7429-90-5	Aluminum_	23000			P	
7440-36-0	Antimony_	16.5	U	N	P	UJ
7440-38-2	Arsenic__	7.1		N	P	J
7440-39-3	Barium__	130		N *	P	J
7440-41-7	Beryllium	8.3			P	
7440-43-9	Cadmium__	2.2			P	
7440-70-2	Calcium__	7430			P	
7440-47-3	Chromium_	12.2			P	
7440-48-4	Cobalt___	146			P	
7440-50-8	Copper___	63.0		N	P	J
7439-89-6	Iron____	42400			P	
7439-92-1	Lead____	15.5		N	P	J
7439-95-4	Magnesium	1790			P	
7439-96-5	Manganese	1260		*	P	J
7439-97-6	Mercury__	0.09	U		CV	U
7440-02-0	Nickel___	217			P	
7440-09-7	Potassium	1370	U		P	U
7782-49-2	Selenium_	1.4		N	P	J
7440-22-4	Silver___	2.7	U		P	U
7440-23-5	Sodium___	1370	U		P	U
7440-28-0	Thallium_	2.7	U	N	P	UJ
7440-62-2	Vanadium_	19.8			P	
7440-66-6	Zinc____	408			P	

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM
Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:
COMPLETE_CLIENT_I.D.:_PBOW-96-FD01-BG8-2002-(SD)

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2004

Lab Name: QUANTERRA_KNOXVILLE Contract: BURNING_GR
Lab Code: ITSTU Case No.: EG147 SAS No.: SDG No.: PBG802
Matrix (soil/water): SOIL Lab Sample ID: C434Q
Level (low/med): LOW Date Received: 05/16/96
% Solids: 46.6

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

CAS No.	Analyte	Concentration	C	Q	M	REV. QUAL.
7429-90-5	Aluminum	18600			P	
7440-36-0	Antimony	12.9	U	N	P	UJ
7440-38-2	Arsenic	8.0		N	P	J
7440-39-3	Barium	167		N *	P	J
7440-41-7	Beryllium	6.9			P	
7440-43-9	Cadmium	3.5			P	
7440-70-2	Calcium	12700			P	
7440-47-3	Chromium	11.8			P	
7440-48-4	Cobalt	251			P	
7440-50-8	Copper	52.7		N	P	J
7439-89-6	Iron	43900			P	
7439-92-1	Lead	17.9		N	P	J
7439-95-4	Magnesium	3420			P	
7439-96-5	Manganese	3480		*	P	J
7439-97-6	Mercury	0.07	U		CV	U
7440-02-0	Nickel	403			P	
7440-09-7	Potassium	1070	U		P	U
7782-49-2	Selenium	1.9		N	P	J
7440-22-4	Silver	2.1	U		P	U
7440-23-5	Sodium	1070	U		P	U
7440-28-0	Thallium	2.1	U	N	P	UJ
7440-62-2	Vanadium	21.3			P	
7440-66-6	Zinc	569			P	

Color Before: BROWN Clarity Before: Texture: MEDIUM
Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
COMPLETE_CLIENT_I.D.: PBOW-96-SD02-BG8-2004-(SD)

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3021

Lab Name: QUANTERRA_KNOXVILLE Contract: BURNING_GR
Lab Code: ITSTU Case No.: EG147 SAS No.: SDG No.: PBG802
Matrix (soil/water): SOIL Lab Sample ID: C4330
Level (low/med): LOW Date Received: 05/16/96
% Solids: 82.8

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

CAS No.	Analyte	Concentration	C	Q	M	REV. QUAL.
7429-90-5	Aluminum	7720			P	
7440-36-0	Antimony	7.2	U	N	P	UJ
7440-38-2	Arsenic	6.8		N	P	J
7440-39-3	Barium	55.9		N *	P	J
7440-41-7	Beryllium	0.60	U		P	U
7440-43-9	Cadmium	0.60	U		P	U
7440-70-2	Calcium	29500			P	
7440-47-3	Chromium	8.8			P	
7440-48-4	Cobalt	11.4			P	
7440-50-8	Copper	12.1		N	P	J
7439-89-6	Iron	28100			P	
7439-92-1	Lead	11.2		N	P	J
7439-95-4	Magnesium	12000			P	
7439-96-5	Manganese	1660		*	P	J
7439-97-6	Mercury	0.04	U		CV	U
7440-02-0	Nickel	16.2			P	
7440-09-7	Potassium	785			P	
7782-49-2	Selenium	0.60	U	N	P	UJ
7440-22-4	Silver	1.2	U		P	U
7440-23-5	Sodium	604	U		P	U
7440-28-0	Thallium	1.2	U	N	P	UJ
7440-62-2	Vanadium	19.1			P	
7440-66-6	Zinc	69.9			P	

Color Before: BROWN Clarity Before: Texture: MEDIUM
Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
COMPLETE_CLIENT_I.D.: PBOW-96-SO09-BG8-3021-(0-0.5)

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EPA SAMPLE NO.

3022

Lab Name: QUANTERRA_KNOXVILLE Contract: BURNING_GR
Lab Code: ITSTU Case No.: EG147 SAS No.: SDG No.: PBG802
Matrix (soil/water): SOIL Lab Sample ID: C4332
Level (low/med): LOW Date Received: 05/16/96
% Solids: 76.0

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

CAS No.	Analyte	Concentration	C	Q	M	REV. QUAL.
7429-90-5	Aluminum	5930			P	
7440-36-0	Antimony	7.9	U	N	P	UJ
7440-38-2	Arsenic	5.6		N	P	J
7440-39-3	Barium	156		N*	P	J
7440-41-7	Beryllium	0.76			P	
7440-43-9	Cadmium	0.66	U		P	U
7440-70-2	Calcium	38700			P	
7440-47-3	Chromium	6.5			P	
7440-48-4	Cobalt	15.5			P	
7440-50-8	Copper	11.4		N	P	J
7439-89-6	Iron	47100			P	
7439-92-1	Lead	13.7		N	P	J
7439-95-4	Magnesium	17100			P	
7439-96-5	Manganese	3780		*	P	J
7439-97-6	Mercury	0.04	U		CV	U
7440-02-0	Nickel	18.5			P	
7440-09-7	Potassium	658	U		P	U
7782-49-2	Selenium	0.66	U	N	P	UJ
7440-22-4	Silver	1.3	U		P	U
7440-23-5	Sodium	658	U		P	U
7440-28-0	Thallium	1.3	U	N	P	UJ
7440-62-2	Vanadium	19.7			P	
7440-66-6	Zinc	138			P	

Color Before: BROWN Clarity Before: Texture: MEDIUM
Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
COMPLETE_CLIENT_I.D.: PBOW-96-SO09-BG8-3022-(2-3)

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EPA SAMPLE NO.

3023

Lab Name: QUANTERRA_KNOXVILLE Contract: BURNING_GR
Lab Code: ITSTU Case No.: EG147 SAS No.: SDG No.: PBG802
Matrix (soil/water): SOIL Lab Sample ID: C4335
Level (low/med): LOW Date Received: 05/16/96
% Solids: 77.0

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

CAS No.	Analyte	Concentration	C	Q	M	REV. QUAL
7429-90-5	Aluminum	5780			P	
7440-36-0	Antimony	7.8	U	N	P	UJ
7440-38-2	Arsenic	4.0		N	P	J
7440-39-3	Barium	39.2		N*	P	J
7440-41-7	Beryllium	0.65	U		P	U
7440-43-9	Cadmium	0.65	U		P	U
7440-70-2	Calcium	2990			P	
7440-47-3	Chromium	6.7			P	
7440-48-4	Cobalt	6.9			P	
7440-50-8	Copper	6.8		N	P	J
7439-89-6	Iron	23500			P	
7439-92-1	Lead	12.5		N	P	J
7439-95-4	Magnesium	926			P	
7439-96-5	Manganese	726		*	P	J
7439-97-6	Mercury	0.04	U		CV	U
7440-02-0	Nickel	8.6			P	
7440-09-7	Potassium	649	U		P	U
7782-49-2	Selenium	0.65	U	N	P	UJ
7440-22-4	Silver	1.3	U		P	U
7440-23-5	Sodium	649	U		P	U
7440-28-0	Thallium	2.1		N	P	J
7440-62-2	Vanadium	11.3			P	
7440-66-6	Zinc	57.4			P	

Color Before: BROWN Clarity Before: Texture: MEDIUM
Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
COMPLETE_CLIENT_I.D.: PBOW-96-SO10-BG8-3023-(0-0.5)

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EPA SAMPLE NO.

3024

Lab Name: QUANTERRA_KNOXVILLE Contract: BURNING_GR
Lab Code: ITSTU Case No.: EG147 SAS No.: SDG No.: PBG802
Matrix (soil/water): SOIL Lab Sample ID: C433A
Level (low/med): LOW Date Received: 05/16/96
% Solids: 73.2

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

CAS No.	Analyte	Concentration	C	Q	M	REV. QUAL.
7429-90-5	Aluminum	9450			P	
7440-36-0	Antimony	8.2	U	N	P	UJ
7440-38-2	Arsenic	6.9		N	P	J
7440-39-3	Barium	263		N*	P	J
7440-41-7	Beryllium	1.3			P	
7440-43-9	Cadmium	0.68	U		P	U
7440-70-2	Calcium	8370			P	
7440-47-3	Chromium	13.2			P	
7440-48-4	Cobalt	18.7			P	
7440-50-8	Copper	11.3		N	P	J
7439-89-6	Iron	74700			P	
7439-92-1	Lead	11.4		N	P	J
7439-95-4	Magnesium	4220			P	
7439-96-5	Manganese	4910		*	P	J
7439-97-6	Mercury	0.05			CV	
7440-02-0	Nickel	20.5			P	
7440-09-7	Potassium	721			P	
7782-49-2	Selenium	0.68	U	N	P	UJ
7440-22-4	Silver	1.4	U		P	U
7440-23-5	Sodium	683	U		P	U
7440-28-0	Thallium	1.4	U	N	P	UJ
7440-62-2	Vanadium	22.6			P	
7440-66-6	Zinc	97.1			P	

Color Before: BROWN Clarity Before: Texture: MEDIUM
Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
COMPLETE_CLIENT_I.D.: PBOW-96-SO10-BG8-3024-(1-1.5)

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3025

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: BURNING_GR
Lab Code: ITSTU_ Case No.: EG147 SAS No.: _____ SDG No.: PBG802
Matrix (soil/water): SOIL_ Lab Sample ID: C433F
Level (low/med): LOW__ Date Received: 05/16/96
% Solids: _69.9

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

CAS No.	Analyte	Concentration	C	Q	M	REV. QUAL.
7429-90-5	Aluminum	9240			P	
7440-36-0	Antimony	8.6	U	N	P	UJ
7440-38-2	Arsenic	8.7		N	P	J
7440-39-3	Barium	338		N *	P	J
7440-41-7	Beryllium	1.4			P	
7440-43-9	Cadmium	0.72	U		P	U
7440-70-2	Calcium	16300			P	
7440-47-3	Chromium	12.3			P	
7440-48-4	Cobalt	20.8			P	
7440-50-8	Copper	13.3		N	P	J
7439-89-6	Iron	84900			P	
7439-92-1	Lead	14.2		N	P	J
7439-95-4	Magnesium	7650			P	
7439-96-5	Manganese	6030		*	P	J
7439-97-6	Mercury	0.05			CV	
7440-02-0	Nickel	23.2			P	
7440-09-7	Potassium	715	U		P	U
7782-49-2	Selenium	0.72	U	N	P	UJ
7440-22-4	Silver	1.4	U		P	U
7440-23-5	Sodium	715	U		P	U
7440-28-0	Thallium	1.4	U	N	P	UJ
7440-62-2	Vanadium	24.1			P	
7440-66-6	Zinc	106			P	

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM
Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:
COMPLETE_CLIENT_I.D.:_PBOW-96-FD10-BG8-3025-(1-1.5)_____
MANGANESE_IS_REPORTED_FROM_A_1/2_DILUTION_ON_A_SECOND_ICP_RUN._____

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3027

Lab Name: QUANTERRA_KNOXVILLE Contract: BURNING_GR
Lab Code: ITSTU Case No.: EG147 SAS No.: SDG No.: PBG802
Matrix (soil/water): SOIL Lab Sample ID: C433P
Level (low/med): LOW Date Received: 05/16/96
% Solids: 83.8

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

CAS No.	Analyte	Concentration	C	Q	M	REV. QUAL.
7429-90-5	Aluminum	5260			P	
7440-36-0	Antimony	7.2	U	N	P	UJ
7440-38-2	Arsenic	4.1		N	P	J
7440-39-3	Barium	43.1		N	P	J
7440-41-7	Beryllium	0.60	U		P	U
7440-43-9	Cadmium	0.60	U		P	U
7440-70-2	Calcium	3290			P	
7440-47-3	Chromium	7.4			P	
7440-48-4	Cobalt	9.6			P	
7440-50-8	Copper	9.0		N	P	J
7439-89-6	Iron	24500			P	
7439-92-1	Lead	12.9		N	P	J
7439-95-4	Magnesium	1320			P	
7439-96-5	Manganese	1410			P	J
7439-97-6	Mercury	0.04	U		CV	U
7440-02-0	Nickel	11.6			P	
7440-09-7	Potassium	597	U		P	U
7782-49-2	Selenium	0.60	U	N	P	UJ
7440-22-4	Silver	1.2	U		P	U
7440-23-5	Sodium	597	U		P	U
7440-28-0	Thallium	1.2	U	N	P	UJ
7440-62-2	Vanadium	11.0			P	
7440-66-6	Zinc	55.3			P	

Color Before: BROWN Clarity Before: Texture: MEDIUM
Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
COMPLETE_CLIENT_I.D.: PBOW-96-SO11-BG8-3027-(0-0.5)

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3028

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: BURNING_GR

Lab Code: ITSTU_ Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix (soil/water): SOIL_ Lab Sample ID: C4344

Level (low/med): LOW__ Date Received: 05/16/96

% Solids: _85.6

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

CAS No.	Analyte	Concentration	C	Q	M	REV. QUAL.
7429-90-5	Aluminum	9920			P	
7440-36-0	Antimony	7.0	U	N	P	UJ
7440-38-2	Arsenic	5.8		N	P	J
7440-39-3	Barium	57.3		N*	P	J
7440-41-7	Beryllium	0.63			P	
7440-43-9	Cadmium	0.58	U		P	U
7440-70-2	Calcium	6150			P	
7440-47-3	Chromium	11.9			P	
7440-48-4	Cobalt	15.3			P	
7440-50-8	Copper	13.0		N	P	J
7439-89-6	Iron	42700			P	
7439-92-1	Lead	10.2		N	P	J
7439-95-4	Magnesium	2840			P	
7439-96-5	Manganese	1990		*	P	J
7439-97-6	Mercury	0.05			CV	
7440-02-0	Nickel	17.9			P	
7440-09-7	Potassium	686			P	
7782-49-2	Selenium	0.58	U	N	P	UJ
7440-22-4	Silver	1.2	U		P	U
7440-23-5	Sodium	584	U		P	U
7440-28-0	Thallium	1.2	U	N	P	UJ
7440-62-2	Vanadium	18.9			P	
7440-66-6	Zinc	64.0			P	

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

COMPLETE_CLIENT_I.D.:_PBOW-96-SO11-BG8-3028-(0.5-1.0)

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EPA SAMPLE NO.

3029

Lab Name: QUANTERRA_KNOXVILLE Contract: BURNING_GR
Lab Code: ITSTU Case No.: EG147 SAS No.: SDG No.: PBG802
Matrix (soil/water): SOIL Lab Sample ID: C434C
Level (low/med): LOW Date Received: 05/16/96
% Solids: 75.1

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

CAS No.	Analyte	Concentration	C	Q	M	REV. QUAL.
7429-90-5	Aluminum	5550			P	
7440-36-0	Antimony	8.0	U	N	P	UJ
7440-38-2	Arsenic	3.4		N	P	J
7440-39-3	Barium	49.6		N	P	J
7440-41-7	Beryllium	0.67	U		P	U
7440-43-9	Cadmium	0.67	U		P	U
7440-70-2	Calcium	1560			P	
7440-47-3	Chromium	6.5			P	
7440-48-4	Cobalt	7.6			P	
7440-50-8	Copper	4.9		N	P	J
7439-89-6	Iron	15200			P	
7439-92-1	Lead	10.7		N	P	J
7439-95-4	Magnesium	722			P	
7439-96-5	Manganese	711			P	J
7439-97-6	Mercury	0.04	U		CV	U
7440-02-0	Nickel	7.6			P	
7440-09-7	Potassium	666	U		P	U
7782-49-2	Selenium	0.67	U	N	P	UJ
7440-22-4	Silver	1.3	U		P	U
7440-23-5	Sodium	666	U		P	U
7440-28-0	Thallium	1.3	U	N	P	UJ
7440-62-2	Vanadium	11.1			P	
7440-66-6	Zinc	35.6			P	

Color Before: BROWN Clarity Before: Texture: MEDIUM
Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
COMPLETE_CLIENT_I.D.: PBOW-96-SO12-BG8-3029-(0.0-0.5)

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3030

Lab Name: QUANTERRA_KNOXVILLE Contract: BURNING_GR
Lab Code: ITSTU Case No.: EG147 SAS No.: SDG No.: PBG802
Matrix (soil/water): SOIL Lab Sample ID: C434F
Level (low/med): LOW Date Received: 05/16/96
% Solids: 74.5

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

CAS No.	Analyte	Concentration	C	Q	M	REV. QUAL.
7429-90-5	Aluminum	13100			P	
7440-36-0	Antimony	8.1	U	N	P	UJ
7440-38-2	Arsenic	8.9		N	P	J
7440-39-3	Barium	129		N	P	J
7440-41-7	Beryllium	1.2			P	
7440-43-9	Cadmium	0.67	U		P	U
7440-70-2	Calcium	1980			P	
7440-47-3	Chromium	17.8			P	
7440-48-4	Cobalt	18.8			P	
7440-50-8	Copper	14.2		N	P	J
7439-89-6	Iron	61800			P	
7439-92-1	Lead	12.0		N	P	J
7439-95-4	Magnesium	1790			P	
7439-96-5	Manganese	1810			P	J
7439-97-6	Mercury	0.06			CV	
7440-02-0	Nickel	23.4			P	
7440-09-7	Potassium	674			P	
7782-49-2	Selenium	0.67	U	N	P	UJ
7440-22-4	Silver	1.3	U		P	U
7440-23-5	Sodium	671	U		P	U
7440-28-0	Thallium	1.5		N	P	J
7440-62-2	Vanadium	24.5			P	
7440-66-6	Zinc	62.4			P	

Color Before: BROWN Clarity Before: Texture: MEDIUM
Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
COMPLETE_CLIENT_I.D.: PBOW-96-SO12-BG8-3030-(2.0-3.0)

FORM I - IN

ILM02.1

SDG: PBG801 Project: IT - Plum Brook

Method: Pesticides/PCB Matrix/No. of Samples: Soil / 17

Validation Samples: 3001 3002 3003 3004 3005 3009 3010
3011 3012 3013 3014 3015 3016 3017
3018 3019 3020

Data Validation Report Summary

		Status Code	Comments
1.	Sample Preservation, Handling, and Transport	A	
2.	Chain of Custody	A	
3.	Holding Times	A	
4.	GC/MS Tune/Inst Perf	A	ok
5.	Calibrations	A	see finding
6.	Blanks	A	
7.	Blank Spike/LCS	A	
8.	Matrix Spike	A	
9.	Surrogates	A	
10.	Internal Standards	A	
11.	Compound Identification	N/A	NOT REQUIRED FOR LEVEL III
12.	System Performance	A	
13.	Field QC Samples	~~N/A~~ A	~~NONE IDENTIFIED~~ Acceptable
14.	Overall Assessment	A	

Status Codes:
A = Acceptable
R = Data Rejected
X = Data acceptable but qualified due to problems

Qualifications:

None

Significant Findings/Recommendations:

- No summary forms - VIII - Pest
  VI - Pest IV
  VII - PEST I or 2
  No % breakdowns.
  No VIII E
  No VI 1, 2 or 3
  No Form IX 1, or 2 all missing from data package.

All information taken from Raw Data

- The supporting documentation form indicates that some %D's for the calib. verification are high, but the raw data shows all %D's <25 - no quals were required.

- Lack of summary forms makes it impossible to verify certain parameters, e.g. RSDs for the ICALS.

Overall Data Quality:

Acceptable as is

Validator's Signature: J. Thomas Kelly Date: 8/2/96

Peer Reviewer: Tom Kutching Date: 8/2/96

IT Corporation - Knoxville

3001

WO # : C431J103
LAB # : H6E160141-001
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 10:55
DATE RECEIVED: 5/16/96
% MOISTURE : 22.3

GC Semi-Volatiles

PREV. QUAL.

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT		METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.2	U	SW846 8081	05/21-06/01/96	6142131
Aroclor 1016	ND	42		SW846 8081	05/21-06/01/96	6142131
Aroclor 1221	ND	42		SW846 8081	05/21-06/01/96	6142131
Aroclor 1232	ND	42		SW846 8081	05/21-06/01/96	6142131
Aroclor 1242	ND	42		SW846 8081	05/21-06/01/96	6142131
Aroclor 1248	ND	42		SW846 8081	05/21-06/01/96	6142131
Aroclor 1254	ND	42		SW846 8081	05/21-06/01/96	6142131
Aroclor 1260	ND	42		SW846 8081	05/21-06/01/96	6142131
alpha-BHC	ND	2.2		SW846 8081	05/21-06/01/96	6142131
beta-BHC	ND	2.2		SW846 8081	05/21-06/01/96	6[illegible]1
delta-BHC	ND	2.2		SW846 8081	05/21-06/01/96	6142131
gamma-BHC (Lindane)	ND	2.2		SW846 8081	05/21-06/01/96	6142131
4,4'-DDD	ND	2.2		SW846 8081	05/21-06/01/96	6142131
4,4'-DDE	ND	2.2		SW846 8081	05/21-06/01/96	6142131
4,4'-DDT	ND	2.2		SW846 8081	05/21-06/01/96	6142131
Dieldrin	ND	2.2		SW846 8081	05/21-06/01/96	6142131
Endrin	ND	2.2		SW846 8081	05/21-06/01/96	6142131
Endrin aldehyde	ND	2.2		SW846 8081	05/21-06/01/96	6142131
Endosulfan I	ND	2.2		SW846 8081	05/21-06/01/96	6142131
Endosulfan II	ND	2.2		SW846 8081	05/21-06/01/96	6142131
Endosulfan sulfate	ND	2.2	U	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	86	(30 - 150)
Decachlorobiphenyl	121	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3001

WO # : C431J103
LAB # : H6E160141-001
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 10:55
DATE RECEIVED: 5/16/96
% MOISTURE : 22.3

GC Semi-Volatiles

REV

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.2	U	SW846 8081	05/21-06/01/96	6142131
Heptachlor epoxide	ND	2.2		SW846 8081	05/21-06/01/96	6142131
Methoxychlor	ND	4.2		SW846 8081	05/21-06/01/96	6142131
Toxaphene	ND	86		SW846 8081	05/21-06/01/96	6142131
alpha-Chlordane	ND	2.2		SW846 8081	05/21-06/01/96	6142131
gamma-Chlordane	ND	2.2		SW846 8081	05/21-06/01/96	6142131
Endrin ketone	ND	2.2	U	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	86	(30 - 150)
Decachlorobiphenyl	121	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3002

WO # : C432F103
LAB # : H6E160141-002
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 11:00
DATE RECEIVED: 5/16/96
% MOISTURE : 20.0

GC Semi-Volatiles

1 OF 2

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. QUAL	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.1	U	SW846 8081	05/21-05/29/96	6142131
Aroclor 1016	ND	41		SW846 8081	05/21-05/29/96	6142131
Aroclor 1221	ND	41		SW846 8081	05/21-05/29/96	6142131
Aroclor 1232	ND	41		SW846 8081	05/21-05/29/96	6142131
Aroclor 1242	ND	41		SW846 8081	05/21-05/29/96	6142131
Aroclor 1248	ND	41		SW846 8081	05/21-05/29/96	6142131
Aroclor 1254	ND	41		SW846 8081	05/21-05/29/96	6142131
Aroclor 1260	ND	41		SW846 8081	05/21-05/29/96	6142131
alpha-BHC	ND	2.1		SW846 8081	05/21-05/29/96	6142131
beta-BHC	ND	2.1		SW846 8081	05/21-05/29/96	6 1
delta-BHC	ND	2.1		SW846 8081	05/21-05/29/96	6142131
gamma-BHC (Lindane)	ND	2.1		SW846 8081	05/21-05/29/96	6142131
4,4'-DDD	ND	2.1		SW846 8081	05/21-05/29/96	6142131
4,4'-DDE	ND	2.1		SW846 8081	05/21-05/29/96	6142131
4,4'-DDT	ND	2.1		SW846 8081	05/21-05/29/96	6142131
Dieldrin	ND	2.1		SW846 8081	05/21-05/29/96	6142131
Endrin	ND	2.1		SW846 8081	05/21-05/29/96	6142131
Endrin aldehyde	ND	2.1		SW846 8081	05/21-05/29/96	6142131
Endosulfan I	ND	2.1		SW846 8081	05/21-05/29/96	6142131
Endosulfan II	ND	2.1		SW846 8081	05/21-05/29/96	6142131
Endosulfan sulfate	ND	2.1	U	SW846 8081	05/21-05/29/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	75	(30 - 150)
Decachlorobiphenyl	94	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3002

WO # : C432F103
LAB # : H6E160141-002
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 11:00
DATE RECEIVED: 5/16/96
% MOISTURE : 20.0

GC Semi-Volatiles

2 OF 2

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.1	U	SW846 8081	05/21-05/29/96	6142131
Heptachlor epoxide	ND	2.1		SW846 8081	05/21-05/29/96	6142131
Methoxychlor	ND	4.1		SW846 8081	05/21-05/29/96	6142131
Toxaphene	ND	84		SW846 8081	05/21-05/29/96	6142131
alpha-Chlordane	ND	2.1		SW846 8081	05/21-05/29/96	6142131
gamma-Chlordane	ND	2.1		SW846 8081	05/21-05/29/96	6142131
Endrin ketone	ND	2.1	U	SW846 8081	05/21-05/29/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	75	(30 - 150)
Decachlorobiphenyl	94	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3003

WO # : C432M103
LAB # : H6E160141-003
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 11:10
DATE RECEIVED: 5/16/96
% MOISTURE : 27.5

GC Semi-Volatiles

REV.

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.3	SW846 8081	05/21-05/31/96	6142131
Aroclor 1016	ND	46	SW846 8081	05/21-05/31/96	6142131
Aroclor 1221	ND	46	SW846 8081	05/21-05/31/96	6142131
Aroclor 1232	ND	46	SW846 8081	05/21-05/31/96	6142131
Aroclor 1242	ND	46	SW846 8081	05/21-05/31/96	6142131
Aroclor 1248	ND	46	SW846 8081	05/21-05/31/96	6142131
Aroclor 1254	ND	46	SW846 8081	05/21-05/31/96	6142131
Aroclor 1260	ND	46	SW846 8081	05/21-05/31/96	6142131
alpha-BHC	ND	2.3	SW846 8081	05/21-05/31/96	6142131
beta-BHC	ND	2.3	SW846 8081	05/21-05/31/96	6 1
delta-BHC	ND	2.3	SW846 8081	05/21-05/31/96	6142131
gamma-BHC (Lindane)	ND	2.3	SW846 8081	05/21-05/31/96	6142131
4,4'-DDD	ND	2.3	SW846 8081	05/21-05/31/96	6142131
4,4'-DDE	ND	2.3	SW846 8081	05/21-05/31/96	6142131
4,4'-DDT	ND	2.3	SW846 8081	05/21-05/31/96	6142131
Dieldrin	ND	2.3	SW846 8081	05/21-05/31/96	6142131
Endrin	ND	2.3	SW846 8081	05/21-05/31/96	6142131
Endrin aldehyde	ND	2.3	SW846 8081	05/21-05/31/96	6142131
Endosulfan I	ND	2.3	SW846 8081	05/21-05/31/96	6142131
Endosulfan II	ND	2.3	SW846 8081	05/21-05/31/96	6142131
Endosulfan sulfate	ND	2.3	SW846 8081	05/21-05/31/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	93	(30 - 150)
Decachlorobiphenyl	149	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3003

WO # : C432M103
LAB # : H6E160141-003
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 11:10
DATE RECEIVED: 5/16/96
% MOISTURE : 27.5

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. QUAL	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.3	U	SW846 8081	05/21-05/31/96	6142131
Heptachlor epoxide	ND	2.3		SW846 8081	05/21-05/31/96	6142131
Methoxychlor	ND	4.6		SW846 8081	05/21-05/31/96	6142131
Toxaphene	ND	92		SW846 8081	05/21-05/31/96	6142131
alpha-Chlordane	ND	2.3		SW846 8081	05/21-05/31/96	6142131
gamma-Chlordane	ND	2.3		SW846 8081	05/21-05/31/96	6142131
Endrin ketone	ND	2.3	U	SW846 8081	05/21-05/31/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	93	(30 - 150)
Decachlorobiphenyl	149	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3004

WO # : C432W107
LAB # : H6E160141-004
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 11:30
DATE RECEIVED: 5/16/96
% MOISTURE : 22.4

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.2	U	SW846 8081	05/21-05/29/96	6142131
Aroclor 1016	ND	43		SW846 8081	05/21-05/29/96	6142131
Aroclor 1221	ND	43		SW846 8081	05/21-05/29/96	6142131
Aroclor 1232	ND	43		SW846 8081	05/21-05/29/96	6142131
Aroclor 1242	ND	43		SW846 8081	05/21-05/29/96	6142131
Aroclor 1248	ND	43		SW846 8081	05/21-05/29/96	6142131
Aroclor 1254	ND	43		SW846 8081	05/21-05/29/96	6142131
Aroclor 1260	ND	43		SW846 8081	05/21-05/29/96	6142131
alpha-BHC	ND	2.2		SW846 8081	05/21-05/29/96	6142131
beta-BHC	ND	2.2		SW846 8081	05/21-05/29/96	6 1
delta-BHC	ND	2.2		SW846 8081	05/21-05/29/96	6142131
gamma-BHC (Lindane)	ND	2.2		SW846 8081	05/21-05/29/96	6142131
4,4'-DDD	ND	2.2		SW846 8081	05/21-05/29/96	6142131
4,4'-DDE	ND	2.2		SW846 8081	05/21-05/29/96	6142131
4,4'-DDT	ND	2.2		SW846 8081	05/21-05/29/96	6142131
Dieldrin	ND	2.2		SW846 8081	05/21-05/29/96	6142131
Endrin	ND	2.2		SW846 8081	05/21-05/29/96	6142131
Endrin aldehyde	ND	2.2		SW846 8081	05/21-05/29/96	6142131
Endosulfan I	ND	2.2		SW846 8081	05/21-05/29/96	6142131
Endosulfan II	ND	2.2		SW846 8081	05/21-05/29/96	6142131
Endosulfan sulfate	ND	2.2	U	SW846 8081	05/21-05/29/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	77	(30 - 150)
Decachlorobiphenyl	93	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3004

WO # : C432W107
LAB # : H6E160141-004
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 11:30
DATE RECEIVED: 5/16/96
% MOISTURE : 22.4

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.2	U	SW846 8081	05/21-05/29/96	6142131
Heptachlor epoxide	ND	2.2		SW846 8081	05/21-05/29/96	6142131
Methoxychlor	ND	4.3		SW846 8081	05/21-05/29/96	6142131
Toxaphene	ND	86		SW846 8081	05/21-05/29/96	6142131
alpha-Chlordane	ND	2.2		SW846 8081	05/21-05/29/96	6142131
gamma-Chlordane	ND	2.2		SW846 8081	05/21-05/29/96	6142131
Endrin ketone	ND	2.2	U	SW846 8081	05/21-05/29/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	77	(30 - 150)
Decachlorobiphenyl	93	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3005

WO # : C4334103
LAB # : H6E160141-005
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 11:30
DATE RECEIVED: 5/16/96
% MOISTURE : 24.8

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.3	U	SW846 8081	05/21-05/29/96	614213J
Aroclor 1016	ND	44		SW846 8081	05/21-05/29/96	614213J
Aroclor 1221	ND	44		SW846 8081	05/21-05/29/96	614213J
Aroclor 1232	ND	44		SW846 8081	05/21-05/29/96	614213J
Aroclor 1242	ND	44		SW846 8081	05/21-05/29/96	614213J
Aroclor 1248	ND	44		SW846 8081	05/21-05/29/96	614213J
Aroclor 1254	ND	44		SW846 8081	05/21-05/29/96	614213J
Aroclor 1260	ND	44		SW846 8081	05/21-05/29/96	614213J
alpha-BHC	ND	2.3		SW846 8081	05/21-05/29/96	614213J
beta-BHC	ND	2.3		SW846 8081	05/21-05/29/96	[illegible]
delta-BHC	ND	2.3		SW846 8081	05/21-05/29/96	614213J
gamma-BHC (Lindane)	ND	2.3		SW846 8081	05/21-05/29/96	614213J
4,4'-DDD	ND	2.3		SW846 8081	05/21-05/29/96	614213J
4,4'-DDE	ND	2.3		SW846 8081	05/21-05/29/96	614213J
4,4'-DDT	ND	2.3		SW846 8081	05/21-05/29/96	614213J
Dieldrin	ND	2.3		SW846 8081	05/21-05/29/96	614213J
Endrin	ND	2.3		SW846 8081	05/21-05/29/96	614213J
Endrin aldehyde	ND	2.3		SW846 8081	05/21-05/29/96	614213J
Endosulfan I	ND	2.3		SW846 8081	05/21-05/29/96	614213J
Endosulfan II	ND	2.3		SW846 8081	05/21-05/29/96	614213J
Endosulfan sulfate	ND	2.3	U	SW846 8081	05/21-05/29/96	614213J

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	78	(30 - 150)
Decachlorobiphenyl	94	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3005

WO # : C4334103
LAB # : H6E160141-005
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 11:30
DATE RECEIVED: 5/16/96
% MOISTURE : 24.8

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.3	U	SW846 8081	05/21-05/29/96	6142131
Heptachlor epoxide	ND	2.3		SW846 8081	05/21-05/29/96	6142131
Methoxychlor	ND	4.4		SW846 8081	05/21-05/29/96	6142131
Toxaphene	ND	89		SW846 8081	05/21-05/29/96	6142131
alpha-Chlordane	ND	2.3		SW846 8081	05/21-05/29/96	6142131
gamma-Chlordane	ND	2.3		SW846 8081	05/21-05/29/96	6142131
Endrin ketone	ND	2.3	U	SW846 8081	05/21-05/29/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	78	(30 - 150)
Decachlorobiphenyl	94	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3009

WO # : C433C103
LAB # : H6E160141-006
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 12:05
DATE RECEIVED: 5/16/96
% MOISTURE : 27.0

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.3	U	SW846 8081	05/21-06/01/96	6142131
Aroclor 1016	ND	45		SW846 8081	05/21-06/01/96	6142131
Aroclor 1221	ND	45		SW846 8081	05/21-06/01/96	6142131
Aroclor 1232	ND	45		SW846 8081	05/21-06/01/96	6142131
Aroclor 1242	ND	45		SW846 8081	05/21-06/01/96	6142131
Aroclor 1248	ND	45		SW846 8081	05/21-06/01/96	6142131
Aroclor 1254	ND	45		SW846 8081	05/21-06/01/96	6142131
Aroclor 1260	ND	45		SW846 8081	05/21-06/01/96	6142131
alpha-BHC	ND	2.3		SW846 8081	05/21-06/01/96	6142131
beta-BHC	ND	2.3		SW846 8081	05/21-06/01/96	6 1
delta-BHC	ND	2.3		SW846 8081	05/21-06/01/96	6142131
gamma-BHC (Lindane)	ND	2.3		SW846 8081	05/21-06/01/96	6142131
4,4'-DDD	ND	2.3		SW846 8081	05/21-06/01/96	6142131
4,4'-DDE	ND	2.3		SW846 8081	05/21-06/01/96	6142131
4,4'-DDT	ND	2.3		SW846 8081	05/21-06/01/96	6142131
Dieldrin	ND	2.3		SW846 8081	05/21-06/01/96	6142131
Endrin	ND	2.3		SW846 8081	05/21-06/01/96	6142131
Endrin aldehyde	ND	2.3		SW846 8081	05/21-06/01/96	6142131
Endosulfan I	ND	2.3		SW846 8081	05/21-06/01/96	6142131
Endosulfan II	ND	2.3		SW846 8081	05/21-06/01/96	6142131
Endosulfan sulfate	ND	2.3	U	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	83	(30 - 150)
Decachlorobiphenyl	87	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3009

WO # : C433C103
LAB # : H6E160141-006
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 12:05
DATE RECEIVED: 5/16/96
% MOISTURE : 27.0

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. QUAL	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.3	U	SW846 8081	05/21-06/01/96	6142131
Heptachlor epoxide	ND	2.3		SW846 8081	05/21-06/01/96	6142131
Methoxychlor	ND	4.5		SW846 8081	05/21-06/01/96	6142131
Toxaphene	ND	92		SW846 8081	05/21-06/01/96	6142131
alpha-Chlordane	ND	2.3		SW846 8081	05/21-06/01/96	6142131
gamma-Chlordane	ND	2.3		SW846 8081	05/21-06/01/96	6142131
Endrin ketone	ND	2.3	U	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	83	(30 - 150)
Decachlorobiphenyl	87	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3010

WO # : C433N103
LAB # : H6E160141-007
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 12:15
DATE RECEIVED: 5/16/96
% MOISTURE : 27.1

GC Semi-Volatiles

1 OF 2

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.3	U	SW846 8081	05/21-06/01/96	6142131
Aroclor 1016	ND	45		SW846 8081	05/21-06/01/96	6142131
Aroclor 1221	ND	45		SW846 8081	05/21-06/01/96	6142131
Aroclor 1232	ND	45		SW846 8081	05/21-06/01/96	6142131
Aroclor 1242	ND	45		SW846 8081	05/21-06/01/96	6142131
Aroclor 1248	ND	45		SW846 8081	05/21-06/01/96	6142131
Aroclor 1254	ND	45		SW846 8081	05/21-06/01/96	6142131
Aroclor 1260	ND	45		SW846 8081	05/21-06/01/96	6142131
alpha-BHC	ND	2.3		SW846 8081	05/21-06/01/96	6142131
beta-BHC	ND	2.3		SW846 8081	05/21-06/01/96	6 1
delta-BHC	ND	2.3		SW846 8081	05/21-06/01/96	6142131
gamma-BHC (Lindane)	ND	2.3		SW846 8081	05/21-06/01/96	6142131
4,4'-DDD	ND	2.3		SW846 8081	05/21-06/01/96	6142131
4,4'-DDE	ND	2.3		SW846 8081	05/21-06/01/96	6142131
4,4'-DDT	ND	2.3		SW846 8081	05/21-06/01/96	6142131
Dieldrin	ND	2.3		SW846 8081	05/21-06/01/96	6142131
Endrin	ND	2.3		SW846 8081	05/21-06/01/96	6142131
Endrin aldehyde	ND	2.3		SW846 8081	05/21-06/01/96	6142131
Endosulfan I	ND	2.3		SW846 8081	05/21-06/01/96	6142131
Endosulfan II	ND	2.3		SW846 8081	05/21-06/01/96	6142131
Endosulfan sulfate	ND	2.3	U	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	82	(30 - 150)
Decachlorobiphenyl	94	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3010

WO # : C433N103
LAB # : H6E160141-007
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 12:15
DATE RECEIVED: 5/16/96
% MOISTURE : 27.1

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. QUAL	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.3	U	SW846 8081	05/21-06/01/96	6142131
Heptachlor epoxide	ND	2.3		SW846 8081	05/21-06/01/96	6142131
Methoxychlor	ND	4.5		SW846 8081	05/21-06/01/96	6142131
Toxaphene	ND	92		SW846 8081	05/21-06/01/96	6142131
alpha-Chlordane	ND	2.3		SW846 8081	05/21-06/01/96	6142131
gamma-Chlordane	ND	2.3		SW846 8081	05/21-06/01/96	6142131
Endrin ketone	ND	2.3	U	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	82	(30 - 150)
Decachlorobiphenyl	94	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3011

WO # : C4341103
LAB # : H6E160141-008
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 10:20
DATE RECEIVED: 5/16/96
% MOISTURE : 22.5

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.2	U	SW846 8081	05/21-05/30/96	6142131
Aroclor 1016	ND	43		SW846 8081	05/21-05/30/96	6142131
Aroclor 1221	ND	43		SW846 8081	05/21-05/30/96	6142131
Aroclor 1232	ND	43		SW846 8081	05/21-05/30/96	6142131
Aroclor 1242	ND	43		SW846 8081	05/21-05/30/96	6142131
Aroclor 1248	ND	43		SW846 8081	05/21-05/30/96	6142131
Aroclor 1254	ND	43		SW846 8081	05/21-05/30/96	6142131
Aroclor 1260	ND	43		SW846 8081	05/21-05/30/96	6142131
alpha-BHC	ND	2.2		SW846 8081	05/21-05/30/96	6142131
beta-BHC	ND	2.2		SW846 8081	05/21-05/30/96	6[illegible]1
delta-BHC	ND	2.2		SW846 8081	05/21-05/30/96	6142131
gamma-BHC (Lindane)	ND	2.2		SW846 8081	05/21-05/30/96	6142131
4,4'-DDD	ND	2.2		SW846 8081	05/21-05/30/96	6142131
4,4'-DDE	ND	2.2		SW846 8081	05/21-05/30/96	6142131
4,4'-DDT	ND	2.2		SW846 8081	05/21-05/30/96	6142131
Dieldrin	ND	2.2		SW846 8081	05/21-05/30/96	6142131
Endrin	ND	2.2		SW846 8081	05/21-05/30/96	6142131
Endrin aldehyde	ND	2.2		SW846 8081	05/21-05/30/96	6142131
Endosulfan I	ND	2.2		SW846 8081	05/21-05/30/96	6142131
Endosulfan II	ND	2.2		SW846 8081	05/21-05/30/96	6142131
Endosulfan sulfate	ND	2.2	U	SW846 8081	05/21-05/30/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	83	(30 - 150)
Decachlorobiphenyl	115	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3011

WO # : C4341103
LAB # : H6E160141-008
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 10:20
DATE RECEIVED: 5/16/96
% MOISTURE : 22.5

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.2	U	SW846 8081	05/21-05/30/96	6142131
Heptachlor epoxide	ND	2.2		SW846 8081	05/21-05/30/96	6142131
Methoxychlor	ND	4.3		SW846 8081	05/21-05/30/96	6142131
Toxaphene	ND	86		SW846 8081	05/21-05/30/96	6142131
alpha-Chlordane	ND	2.2		SW846 8081	05/21-05/30/96	6142131
gamma-Chlordane	ND	2.2		SW846 8081	05/21-05/30/96	6142131
Endrin ketone	ND	2.2	U	SW846 8081	05/21-05/30/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	83	(30 - 150)
Decachlorobiphenyl	115	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3012

WO # : C4348103
LAB # : H6E160141-009
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 10:38
DATE RECEIVED: 5/16/96
% MOISTURE : 18.4

GC Semi-Volatiles

1 OF 2

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. QUAL	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.1	U	SW846 8081	05/21-06/01/96	6142131
Aroclor 1016	ND	40		SW846 8081	05/21-06/01/96	6142131
Aroclor 1221	ND	40		SW846 8081	05/21-06/01/96	6142131
Aroclor 1232	ND	40		SW846 8081	05/21-06/01/96	6142131
Aroclor 1242	ND	40		SW846 8081	05/21-06/01/96	6142131
Aroclor 1248	ND	40		SW846 8081	05/21-06/01/96	6142131
Aroclor 1254	ND	40		SW846 8081	05/21-06/01/96	6142131
Aroclor 1260	ND	40		SW846 8081	05/21-06/01/96	6142131
alpha-BHC	ND	2.1		SW846 8081	05/21-06/01/96	6142131
beta-BHC	ND	2.1		SW846 8081	05/21-06/01/96	6[illegible]1
delta-BHC	ND	2.1		SW846 8081	05/21-06/01/96	6142131
gamma-BHC (Lindane)	ND	2.1		SW846 8081	05/21-06/01/96	6142131
4,4'-DDD	ND	2.1		SW846 8081	05/21-06/01/96	6142131
4,4'-DDE	ND	2.1		SW846 8081	05/21-06/01/96	6142131
4,4'-DDT	ND	2.1		SW846 8081	05/21-06/01/96	6142131
Dieldrin	ND	2.1		SW846 8081	05/21-06/01/96	6142131
Endrin	ND	2.1		SW846 8081	05/21-06/01/96	6142131
Endrin aldehyde	ND	2.1		SW846 8081	05/21-06/01/96	6142131
Endosulfan I	ND	2.1		SW846 8081	05/21-06/01/96	6142131
Endosulfan II	ND	2.1		SW846 8081	05/21-06/01/96	6142131
Endosulfan sulfate	ND	2.1	U	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	86	(30 - 150)
Decachlorobiphenyl	114	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3012

WO # : C4348103
LAB # : H6E160141-009
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 10:38
DATE RECEIVED: 5/16/96
% MOISTURE : 18.4

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. QUAL	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.1	U	SW846 8081	05/21-06/01/96	6142131
Heptachlor epoxide	ND	2.1		SW846 8081	05/21-06/01/96	6142131
Methoxychlor	ND	4.0		SW846 8081	05/21-06/01/96	6142131
Toxaphene	ND	82		SW846 8081	05/21-06/01/96	6142131
alpha-Chlordane	ND	2.1		SW846 8081	05/21-06/01/96	6142131
gamma-Chlordane	ND	2.1		SW846 8081	05/21-06/01/96	6142131
Endrin ketone	ND	2.1	U	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	86	(30 - 150)
Decachlorobiphenyl	114	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3013

WO # : C434E103
LAB # : H6E160141-010
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 14:10
DATE RECEIVED: 5/16/96
% MOISTURE : 22.1

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.2	U	SW846 8081	05/21-06/01/96	6142131
Aroclor 1016	ND	42		SW846 8081	05/21-06/01/96	6142131
Aroclor 1221	ND	42		SW846 8081	05/21-06/01/96	6142131
Aroclor 1232	ND	42		SW846 8081	05/21-06/01/96	6142131
Aroclor 1242	ND	42		SW846 8081	05/21-06/01/96	6142131
Aroclor 1248	ND	42		SW846 8081	05/21-06/01/96	6142131
Aroclor 1254	ND	42		SW846 8081	05/21-06/01/96	6142131
Aroclor 1260	ND	42		SW846 8081	05/21-06/01/96	6142131
alpha-BHC	ND	2.2		SW846 8081	05/21-06/01/96	6142131
beta-BHC	ND	2.2		SW846 8081	05/21-06/01/96	6[illegible]1
delta-BHC	ND	2.2		SW846 8081	05/21-06/01/96	6142131
gamma-BHC (Lindane)	ND	2.2		SW846 8081	05/21-06/01/96	6142131
4,4'-DDD	ND	2.2		SW846 8081	05/21-06/01/96	6142131
4,4'-DDE	ND	2.2		SW846 8081	05/21-06/01/96	6142131
4,4'-DDT	ND	2.2		SW846 8081	05/21-06/01/96	6142131
Dieldrin	ND	2.2		SW846 8081	05/21-06/01/96	6142131
Endrin	ND	2.2		SW846 8081	05/21-06/01/96	6142131
Endrin aldehyde	ND	2.2		SW846 8081	05/21-06/01/96	6142131
Endosulfan I	ND	2.2		SW846 8081	05/21-06/01/96	6142131
Endosulfan II	ND	2.2		SW846 8081	05/21-06/01/96	6142131
Endosulfan sulfate	ND	2.2	U	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	88	(30 - 150)
Decachlorobiphenyl	92	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3013

WO # : C434E103
LAB # : H6E160141-010
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 14:10
DATE RECEIVED: 5/16/96
% MOISTURE : 22.1

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.2	U	SW846 8081	05/21-06/01/96	6142131
Heptachlor epoxide	ND	2.2		SW846 8081	05/21-06/01/96	6142131
Methoxychlor	ND	4.2		SW846 8081	05/21-06/01/96	6142131
Toxaphene	ND	86		SW846 8081	05/21-06/01/96	6142131
alpha-Chlordane	ND	2.2		SW846 8081	05/21-06/01/96	6142131
gamma-Chlordane	ND	2.2		SW846 8081	05/21-06/01/96	6142131
Endrin ketone	ND	2.2	U	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	88	(30 - 150)
Decachlorobiphenyl	92	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3014

WO # : C434G103
LAB # : H6E160141-011
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 14:20
DATE RECEIVED: 5/16/96
% MOISTURE : 22.5

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.2	U	SW846 8081	05/21-05/29/96	6142131
Aroclor 1016	ND	43		SW846 8081	05/21-05/29/96	6142131
Aroclor 1221	ND	43		SW846 8081	05/21-05/29/96	6142131
Aroclor 1232	ND	43		SW846 8081	05/21-05/29/96	6142131
Aroclor 1242	ND	43		SW846 8081	05/21-05/29/96	6142131
Aroclor 1248	ND	43		SW846 8081	05/21-05/29/96	6142131
Aroclor 1254	ND	43		SW846 8081	05/21-05/29/96	6142131
Aroclor 1260	ND	43		SW846 8081	05/21-05/29/96	6142131
alpha-BHC	ND	2.2		SW846 8081	05/21-05/29/96	6142131
beta-BHC	ND	2.2		SW846 8081	05/21-05/29/96	6[illegible]1
delta-BHC	ND	2.2		SW846 8081	05/21-05/29/96	6142131
gamma-BHC (Lindane)	ND	2.2		SW846 8081	05/21-05/29/96	6142131
4,4'-DDD	ND	2.2		SW846 8081	05/21-05/29/96	6142131
4,4'-DDE	ND	2.2		SW846 8081	05/21-05/29/96	6142131
4,4'-DDT	ND	2.2		SW846 8081	05/21-05/29/96	6142131
Dieldrin	ND	2.2		SW846 8081	05/21-05/29/96	6142131
Endrin	ND	2.2		SW846 8081	05/21-05/29/96	6142131
Endrin aldehyde	ND	2.2		SW846 8081	05/21-05/29/96	6142131
Endosulfan I	ND	2.2		SW846 8081	05/21-05/29/96	6142131
Endosulfan II	ND	2.2		SW846 8081	05/21-05/29/96	6142131
Endosulfan sulfate	ND	2.2	U	SW846 8081	05/21-05/29/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	86	(30 - 150)
Decachlorobiphenyl	100	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3014

WO # : C434G103
LAB # : H6E160141-011
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 14:20
DATE RECEIVED: 5/16/96
% MOISTURE : 22.5

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.2	SW846 8081	05/21-05/29/96	6142131
Heptachlor epoxide	ND	2.2	SW846 8081	05/21-05/29/96	6142131
Methoxychlor	ND	4.3	SW846 8081	05/21-05/29/96	6142131
Toxaphene	ND	86	SW846 8081	05/21-05/29/96	6142131
alpha-Chlordane	ND	2.2	SW846 8081	05/21-05/29/96	6142131
gamma-Chlordane	ND	2.2	SW846 8081	05/21-05/29/96	6142131
Endrin ketone	ND	2.2	SW846 8081	05/21-05/29/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	86	(30 - 150)
Decachlorobiphenyl	100	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3015

WO # : C434J103
LAB # : H6E160141-012
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 14:40
DATE RECEIVED: 5/16/96
% MOISTURE : 21.5

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. QUAL	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.2	U	SW846 8081	05/21-05/30/96	6142131
Aroclor 1016	ND	42		SW846 8081	05/21-05/30/96	6142131
Aroclor 1221	ND	42		SW846 8081	05/21-05/30/96	6142131
Aroclor 1232	ND	42		SW846 8081	05/21-05/30/96	6142131
Aroclor 1242	ND	42		SW846 8081	05/21-05/30/96	6142131
Aroclor 1248	ND	42		SW846 8081	05/21-05/30/96	6142131
Aroclor 1254	ND	42		SW846 8081	05/21-05/30/96	6142131
Aroclor 1260	ND	42		SW846 8081	05/21-05/30/96	6142131
alpha-BHC	ND	2.2		SW846 8081	05/21-05/30/96	6142131
beta-BHC	ND	2.2		SW846 8081	05/21-05/30/96	6[illegible]1
delta-BHC	ND	2.2		SW846 8081	05/21-05/30/96	6142131
gamma-BHC (Lindane)	ND	2.2		SW846 8081	05/21-05/30/96	6142131
4,4'-DDD	ND	2.2		SW846 8081	05/21-05/30/96	6142131
4,4'-DDE	ND	2.2		SW846 8081	05/21-05/30/96	6142131
4,4'-DDT	ND	2.2		SW846 8081	05/21-05/30/96	6142131
Dieldrin	ND	2.2		SW846 8081	05/21-05/30/96	6142131
Endrin	ND	2.2		SW846 8081	05/21-05/30/96	6142131
Endrin aldehyde	ND	2.2		SW846 8081	05/21-05/30/96	6142131
Endosulfan I	ND	2.2		SW846 8081	05/21-05/30/96	6142131
Endosulfan II	ND	2.2		SW846 8081	05/21-05/30/96	6142131
Endosulfan sulfate	ND	2.2	U	SW846 8081	05/21-05/30/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	88	(30 - 150)
Decachlorobiphenyl	108	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3015

WO # : C434J103
LAB # : H6E160141-012
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 14:40
DATE RECEIVED: 5/16/96
% MOISTURE : 21.5

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. QUAL	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.2	U	SW846 8081	05/21-05/30/96	6142131
Heptachlor epoxide	ND	2.2		SW846 8081	05/21-05/30/96	6142131
Methoxychlor	ND	4.2		SW846 8081	05/21-05/30/96	6142131
Toxaphene	ND	85		SW846 8081	05/21-05/30/96	6142131
alpha-Chlordane	ND	2.2		SW846 8081	05/21-05/30/96	6142131
gamma-Chlordane	ND	2.2		SW846 8081	05/21-05/30/96	6142131
Endrin ketone	ND	2.2	U	SW846 8081	05/21-05/30/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	88	(30 - 150)
Decachlorobiphenyl	108	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3016

WO # : C434L103
LAB # : H6E160141-013
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 14:48
DATE RECEIVED: 5/16/96
% MOISTURE : 24.2

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. QUAL	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.2	U	SW846 8081	05/21-06/01/96	6142131
Aroclor 1016	ND	44		SW846 8081	05/21-06/01/96	6142131
Aroclor 1221	ND	44		SW846 8081	05/21-06/01/96	6142131
Aroclor 1232	ND	44		SW846 8081	05/21-06/01/96	6142131
Aroclor 1242	ND	44		SW846 8081	05/21-06/01/96	6142131
Aroclor 1248	ND	44		SW846 8081	05/21-06/01/96	6142131
Aroclor 1254	ND	44		SW846 8081	05/21-06/01/96	6142131
Aroclor 1260	ND	44		SW846 8081	05/21-06/01/96	6142131
alpha-BHC	ND	2.2		SW846 8081	05/21-06/01/96	6142131
beta-BHC	ND	2.2		SW846 8081	05/21-06/01/96	6 1
delta-BHC	ND	2.2		SW846 8081	05/21-06/01/96	6142131
gamma-BHC (Lindane)	ND	2.2		SW846 8081	05/21-06/01/96	6142131
4,4'-DDD	ND	2.2		SW846 8081	05/21-06/01/96	6142131
4,4'-DDE	ND	2.2		SW846 8081	05/21-06/01/96	6142131
4,4'-DDT	ND	2.2		SW846 8081	05/21-06/01/96	6142131
Dieldrin	ND	2.2		SW846 8081	05/21-06/01/96	6142131
Endrin	ND	2.2		SW846 8081	05/21-06/01/96	6142131
Endrin aldehyde	ND	2.2		SW846 8081	05/21-06/01/96	6142131
Endosulfan I	ND	2.2		SW846 8081	05/21-06/01/96	6142131
Endosulfan II	ND	2.2		SW846 8081	05/21-06/01/96	6142131
Endosulfan sulfate	ND	2.2	U	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	89	(30 - 150)
Decachlorobiphenyl	98	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3016

WO # : C434L103
LAB # : H6E160141-013
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 14:48
DATE RECEIVED: 5/16/96
% MOISTURE : 24.2

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. QUAL	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.2	U	SW846 8081	05/21-06/01/96	6142131
Heptachlor epoxide	ND	2.2		SW846 8081	05/21-06/01/96	6142131
Methoxychlor	ND	4.4		SW846 8081	05/21-06/01/96	6142131
Toxaphene	ND	88		SW846 8081	05/21-06/01/96	6142131
alpha-Chlordane	ND	2.2		SW846 8081	05/21-06/01/96	6142131
gamma-Chlordane	ND	2.2		SW846 8081	05/21-06/01/96	6142131
Endrin ketone	ND	2.2	U	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	89	(30 - 150)
Decachlorobiphenyl	98	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3017

WO # : C434N103
LAB # : H6E160141-014
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 15:25
DATE RECEIVED: 5/16/96
% MOISTURE : 28.9

GC Semi-Volatiles

REV.

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.4	U	SW846 8081	05/21-05/30/96	6142131
Aroclor 1016	ND	46		SW846 8081	05/21-05/30/96	6142131
Aroclor 1221	ND	46		SW846 8081	05/21-05/30/96	6142131
Aroclor 1232	ND	46		SW846 8081	05/21-05/30/96	6142131
Aroclor 1242	ND	46		SW846 8081	05/21-05/30/96	6142131
Aroclor 1248	ND	46		SW846 8081	05/21-05/30/96	6142131
Aroclor 1254	ND	46		SW846 8081	05/21-05/30/96	6142131
Aroclor 1260	ND	46		SW846 8081	05/21-05/30/96	6142131
alpha-BHC	ND	2.4		SW846 8081	05/21-05/30/96	6142131
beta-BHC	ND	2.4		SW846 8081	05/21-05/30/96	6 1
delta-BHC	ND	2.4		SW846 8081	05/21-05/30/96	6142131
gamma-BHC (Lindane)	ND	2.4		SW846 8081	05/21-05/30/96	6142131
4,4'-DDD	ND	2.4		SW846 8081	05/21-05/30/96	6142131
4,4'-DDE	ND	2.4		SW846 8081	05/21-05/30/96	6142131
4,4'-DDT	ND	2.4		SW846 8081	05/21-05/30/96	6142131
Dieldrin	ND	2.4		SW846 8081	05/21-05/30/96	6142131
Endrin	ND	2.4		SW846 8081	05/21-05/30/96	6142131
Endrin aldehyde	ND	2.4		SW846 8081	05/21-05/30/96	6142131
Endosulfan I	ND	2.4		SW846 8081	05/21-05/30/96	6142131
Endosulfan II	ND	2.4		SW846 8081	05/21-05/30/96	6142131
Endosulfan sulfate	ND	2.4	U	SW846 8081	05/21-05/30/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	86	(30 - 150)
Decachlorobiphenyl	102	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3017

WO # : C434N103
LAB # : H6E160141-014
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 15:25
DATE RECEIVED: 5/16/96
% MOISTURE : 28.9

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.4	U	SW846 8081	05/21-05/30/96	6142131
Heptachlor epoxide	ND	2.4		SW846 8081	05/21-05/30/96	6142131
Methoxychlor	ND	4.6		SW846 8081	05/21-05/30/96	6142131
Toxaphene	ND	94		SW846 8081	05/21-05/30/96	6142131
alpha-Chlordane	ND	2.4		SW846 8081	05/21-05/30/96	6142131
gamma-Chlordane	ND	2.4		SW846 8081	05/21-05/30/96	6142131
Endrin ketone	ND	2.4	U	SW846 8081	05/21-05/30/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	86	(30 - 150)
Decachlorobiphenyl	102	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3018

WO # : C434P103
LAB # : H6E160141-015
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 15:35
DATE RECEIVED: 5/16/96
% MOISTURE : 20.2

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. QUAL	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.1	U	SW846 8081	05/21-06/01/96	6142131
Aroclor 1016	ND	41		SW846 8081	05/21-06/01/96	6142131
Aroclor 1221	ND	41		SW846 8081	05/21-06/01/96	6142131
Aroclor 1232	ND	41		SW846 8081	05/21-06/01/96	6142131
Aroclor 1242	ND	41		SW846 8081	05/21-06/01/96	6142131
Aroclor 1248	ND	41		SW846 8081	05/21-06/01/96	6142131
Aroclor 1254	ND	41		SW846 8081	05/21-06/01/96	6142131
Aroclor 1260	ND	41		SW846 8081	05/21-06/01/96	6142131
alpha-BHC	ND	2.1		SW846 8081	05/21-06/01/96	6142131
beta-BHC	ND	2.1		SW846 8081	05/21-06/01/96	6 1
delta-BHC	ND	2.1		SW846 8081	05/21-06/01/96	6142131
gamma-BHC (Lindane)	ND	2.1		SW846 8081	05/21-06/01/96	6142131
4,4'-DDD	ND	2.1		SW846 8081	05/21-06/01/96	6142131
4,4'-DDE	ND	2.1		SW846 8081	05/21-06/01/96	6142131
4,4'-DDT	ND	2.1		SW846 8081	05/21-06/01/96	6142131
Dieldrin	ND	2.1		SW846 8081	05/21-06/01/96	6142131
Endrin	ND	2.1		SW846 8081	05/21-06/01/96	6142131
Endrin aldehyde	ND	2.1		SW846 8081	05/21-06/01/96	6142131
Endosulfan I	ND	2.1		SW846 8081	05/21-06/01/96	6142131
Endosulfan II	ND	2.1		SW846 8081	05/21-06/01/96	6142131
Endosulfan sulfate	ND	2.1	U	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	92	(30 - 150)
Decachlorobiphenyl	102	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3018

WO # : C434P103
LAB # : H6E160141-015
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 15:35
DATE RECEIVED: 5/16/96
% MOISTURE : 20.2

GC Semi-Volatiles

REV. QUAL

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.1 U	SW846 8081	05/21-06/01/96	6142131
Heptachlor epoxide	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Methoxychlor	ND	4.1	SW846 8081	05/21-06/01/96	6142131
Toxaphene	ND	84	SW846 8081	05/21-06/01/96	6142131
alpha-Chlordane	ND	2.1	SW846 8081	05/21-06/01/96	6142131
gamma-Chlordane	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Endrin ketone	ND	2.1 U	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	92	(30 - 150)
Decachlorobiphenyl	102	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3019

WO # : C434R103
LAB # : H6E160141-016
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 16:20
DATE RECEIVED: 5/16/96
% MOISTURE : 16.7

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.0	U	SW846 8081	05/21-05/30/96	6142131
Aroclor 1016	ND	40		SW846 8081	05/21-05/30/96	6142131
Aroclor 1221	ND	40		SW846 8081	05/21-05/30/96	6142131
Aroclor 1232	ND	40		SW846 8081	05/21-05/30/96	6142131
Aroclor 1242	ND	40		SW846 8081	05/21-05/30/96	6142131
Aroclor 1248	ND	40		SW846 8081	05/21-05/30/96	6142131
Aroclor 1254	ND	40		SW846 8081	05/21-05/30/96	6142131
Aroclor 1260	ND	40		SW846 8081	05/21-05/30/96	6142131
alpha-BHC	ND	2.0		SW846 8081	05/21-05/30/96	6142131
beta-BHC	ND	2.0		SW846 8081	05/21-05/30/96	6[illegible]
delta-BHC	ND	2.0		SW846 8081	05/21-05/30/96	61[illegible]31
gamma-BHC (Lindane)	ND	2.0		SW846 8081	05/21-05/30/96	6142131
4,4'-DDD	ND	2.0		SW846 8081	05/21-05/30/96	6142131
4,4'-DDE	ND	2.0		SW846 8081	05/21-05/30/96	6142131
4,4'-DDT	ND	2.0		SW846 8081	05/21-05/30/96	6142131
Dieldrin	ND	2.0		SW846 8081	05/21-05/30/96	6142131
Endrin	ND	2.0		SW846 8081	05/21-05/30/96	6142131
Endrin aldehyde	ND	2.0		SW846 8081	05/21-05/30/96	6142131
Endosulfan I	ND	2.0		SW846 8081	05/21-05/30/96	6142131
Endosulfan II	ND	2.0		SW846 8081	05/21-05/30/96	6142131
Endosulfan sulfate	ND	2.0	U	SW846 8081	05/21-05/30/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	94	(30 - 150)
Decachlorobiphenyl	133	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3019

WO # : C434R103
LAB # : H6E160141-016
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 16:20
DATE RECEIVED: 5/16/96
% MOISTURE : 16.7

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.0	U	SW846 8081	05/21-05/30/96	6142131
Heptachlor epoxide	ND	2.0		SW846 8081	05/21-05/30/96	6142131
Methoxychlor	ND	4.0		SW846 8081	05/21-05/30/96	6142131
Toxaphene	ND	80		SW846 8081	05/21-05/30/96	6142131
alpha-Chlordane	ND	2.0		SW846 8081	05/21-05/30/96	6142131
gamma-Chlordane	ND	2.0		SW846 8081	05/21-05/30/96	6142131
Endrin ketone	ND	2.0	U	SW846 8081	05/21-05/30/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	94	(30 - 150)
Decachlorobiphenyl	133	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3020

WO # : C434T103
LAB # : H6E160141-017
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 16:35
DATE RECEIVED: 5/16/96
% MOISTURE : 20.2

GC Semi-Volatiles

REV.

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	QUAL	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.1	U	SW846 8081	05/21-06/01/96	6142131
Aroclor 1016	ND	41		SW846 8081	05/21-06/01/96	6142131
Aroclor 1221	ND	41		SW846 8081	05/21-06/01/96	6142131
Aroclor 1232	ND	41		SW846 8081	05/21-06/01/96	6142131
Aroclor 1242	ND	41		SW846 8081	05/21-06/01/96	6142131
Aroclor 1248	ND	41		SW846 8081	05/21-06/01/96	6142131
Aroclor 1254	ND	41		SW846 8081	05/21-06/01/96	6142131
Aroclor 1260	ND	41		SW846 8081	05/21-06/01/96	6142131
alpha-BHC	ND	2.1		SW846 8081	05/21-06/01/96	6142131
beta-BHC	ND	2.1		SW846 8081	05/21-06/01/96	6 1
delta-BHC	ND	2.1		SW846 8081	05/21-06/01/96	6142131
gamma-BHC (Lindane)	ND	2.1		SW846 8081	05/21-06/01/96	6142131
4,4'-DDD	ND	2.1		SW846 8081	05/21-06/01/96	6142131
4,4'-DDE	ND	2.1		SW846 8081	05/21-06/01/96	6142131
4,4'-DDT	ND	2.1		SW846 8081	05/21-06/01/96	6142131
Dieldrin	ND	2.1		SW846 8081	05/21-06/01/96	6142131
Endrin	ND	2.1		SW846 8081	05/21-06/01/96	6142131
Endrin aldehyde	ND	2.1		SW846 8081	05/21-06/01/96	6142131
Endosulfan I	ND	2.1		SW846 8081	05/21-06/01/96	6142131
Endosulfan II	ND	2.1		SW846 8081	05/21-06/01/96	6142131
Endosulfan sulfate	ND	2.1	U	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	90	(30 - 150)
Decachlorobiphenyl	93	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3020

WO # : C434T103
LAB # : H6E160141-017
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 16:35
DATE RECEIVED: 5/16/96
% MOISTURE : 20.2

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. QUAL	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.1	U	SW846 8081	05/21-06/01/96	6142131
Heptachlor epoxide	ND	2.1		SW846 8081	05/21-06/01/96	6142131
Methoxychlor	ND	4.1		SW846 8081	05/21-06/01/96	6142131
Toxaphene	ND	84		SW846 8081	05/21-06/01/96	6142131
alpha-Chlordane	ND	2.1		SW846 8081	05/21-06/01/96	6142131
gamma-Chlordane	ND	2.1		SW846 8081	05/21-06/01/96	6142131
Endrin ketone	ND	2.1	U	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	90	(30 - 150)
Decachlorobiphenyl	93	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

SDG: PBG802 Project: IT - Plum Brook

Method: Pesticides/PCB Matrix/No. of Samples: Soil / 12

Validation Samples: 2001 2002 2004
3021 3022 3023 3024 3025
3027 3028 3029 3030

Data Validation Report Summary

		Status Code	Comments
1.	Sample Preservation, Handling, and Transport	A	
2.	Chain of Custody	A	
3.	Holding Times	A	
4.	GC/MS Tune/Inst Perf	A	
5.	Calibrations	A	see findings
6.	Blanks	A	
7.	Blank Spike/LCS	A	
8.	Matrix Spike	A	
9.	Surrogates	A	
10.	Internal Standards	A	
11.	Compound Identification	N/A	
12.	System Performance	A	
13.	Field QC Samples	A	Field Dups ONLY
14.	Overall Assessment	A	

Status Codes:
A = Acceptable
R = Data Rejected
X = Data acceptable but qualified due to problems

Qualifications:

None

Significant Findings/Recommendations:

Forms missing. VI 1, 2, 3 & 4
VII 1, & 2
VIII
unable to verify certain parameters. eg. ICAL RSDs
same std data as PBG 901

Overall Data Quality:

Acceptable as is

Validator's Signature: Thomas Kolodzi Date: 8/2/96

Peer Reviewer: Pam Kitching Date: 8/2/96

IT Corporation - Knoxville

2001

WO # : C434M103
LAB # : H6E160147-011
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 10:30
DATE RECEIVED: 5/16/96
% MOISTURE : 63.6

GC Semi-Volatiles

1 OF 2

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV QUAL	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	4.7	U	SW846 8081	05/22-06/01/96	6143122
Aroclor 1016	ND	91		SW846 8081	05/22-06/01/96	6143122
Aroclor 1221	ND	91		SW846 8081	05/22-06/01/96	6143122
Aroclor 1232	ND	91		SW846 8081	05/22-06/01/96	6143122
Aroclor 1242	ND	91		SW846 8081	05/22-06/01/96	6143122
Aroclor 1248	ND	91		SW846 8081	05/22-06/01/96	6143122
Aroclor 1254	ND	91		SW846 8081	05/22-06/01/96	6143122
Aroclor 1260	ND	91		SW846 8081	05/22-06/01/96	6143122
alpha-BHC	ND	4.7		SW846 8081	05/22-06/01/96	6143122
beta-BHC	ND	4.7		SW846 8081	05/22-06/01/96	6[illegible]
delta-BHC	ND	4.7		SW846 8081	05/22-06/01/96	6[illegible]2
gamma-BHC (Lindane)	ND	4.7		SW846 8081	05/22-06/01/96	6143122
4,4'-DDD	ND	4.7		SW846 8081	05/22-06/01/96	6143122
4,4'-DDE	ND	4.7		SW846 8081	05/22-06/01/96	6143122
4,4'-DDT	ND	4.7		SW846 8081	05/22-06/01/96	6143122
Dieldrin	ND	4.7		SW846 8081	05/22-06/01/96	6143122
Endrin	ND	4.7		SW846 8081	05/22-06/01/96	6143122
Endrin aldehyde	ND	4.7		SW846 8081	05/22-06/01/96	6143122
Endosulfan I	ND	4.7		SW846 8081	05/22-06/01/96	6143122
Endosulfan II	ND	4.7		SW846 8081	05/22-06/01/96	6143122
Endosulfan sulfate	ND	4.7	U	SW846 8081	05/22-06/01/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	88	(30 - 150)
Decachlorobiphenyl	130	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

2001

WO # : C434M103
LAB # : H6E160147-011
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 10:30
DATE RECEIVED: 5/16/96
% MOISTURE : 63.6

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	Rev. Qual	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	4.7	U	SW846 8081	05/22-06/01/96	6143122
Heptachlor epoxide	ND	4.7		SW846 8081	05/22-06/01/96	6143122
Methoxychlor	ND	9.1		SW846 8081	05/22-06/01/96	6143122
Toxaphene	ND	180		SW846 8081	05/22-06/01/96	6143122
alpha-Chlordane	ND	4.7		SW846 8081	05/22-06/01/96	6143122
gamma-Chlordane	ND	4.7		SW846 8081	05/22-06/01/96	6143122
Endrin ketone	ND	4.7	U	SW846 8081	05/22-06/01/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	88	(30 - 150)
Decachlorobiphenyl	130	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

2002

WO # : C434H103
LAB # : H6E160147-010
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 10:30
DATE RECEIVED: 5/16/96
% MOISTURE : 63.6

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	Rev. Qual	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	4.7	U	SW846 8081	05/22-06/01/96	6143122
Aroclor 1016	ND	91		SW846 8081	05/22-06/01/96	6143122
Aroclor 1221	ND	91		SW846 8081	05/22-06/01/96	6143122
Aroclor 1232	ND	91		SW846 8081	05/22-06/01/96	6143122
Aroclor 1242	ND	91		SW846 8081	05/22-06/01/96	6143122
Aroclor 1248	ND	91		SW846 8081	05/22-06/01/96	6143122
Aroclor 1254	ND	91		SW846 8081	05/22-06/01/96	6143122
Aroclor 1260	ND	91		SW846 8081	05/22-06/01/96	6143122
alpha-BHC	ND	4.7		SW846 8081	05/22-06/01/96	6143122
beta-BHC	ND	4.7		SW846 8081	05/22-06/01/96	6[illegible]2
delta-BHC	ND	4.7		SW846 8081	05/22-06/01/96	61[illegible]22
gamma-BHC (Lindane)	ND	4.7		SW846 8081	05/22-06/01/96	6143122
4,4'-DDD	ND	4.7		SW846 8081	05/22-06/01/96	6143122
4,4'-DDE	ND	4.7		SW846 8081	05/22-06/01/96	6143122
4,4'-DDT	ND	4.7		SW846 8081	05/22-06/01/96	6143122
Dieldrin	ND	4.7		SW846 8081	05/22-06/01/96	6143122
Endrin	ND	4.7		SW846 8081	05/22-06/01/96	6143122
Endrin aldehyde	ND	4.7		SW846 8081	05/22-06/01/96	6143122
Endosulfan I	ND	4.7		SW846 8081	05/22-06/01/96	6143122
Endosulfan II	ND	4.7		SW846 8081	05/22-06/01/96	6143122
Endosulfan sulfate	ND	4.7	U	SW846 8081	05/22-06/01/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	84	(30 - 150)
Decachlorobiphenyl	116	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

2002

WO # : C434H103
LAB # : H6E160147-010
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 10:30
DATE RECEIVED: 5/16/96
% MOISTURE : 63.6

GC Semi-Volatiles

2 OF 2

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. QUAL	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	4.7	U	SW846 8081	05/22-06/01/96	6143122
Heptachlor epoxide	ND	4.7		SW846 8081	05/22-06/01/96	6143122
Methoxychlor	ND	9.1		SW846 8081	05/22-06/01/96	6143122
Toxaphene	ND	180		SW846 8081	05/22-06/01/96	6143122
alpha-Chlordane	ND	4.7		SW846 8081	05/22-06/01/96	6143122
gamma-Chlordane	ND	4.7		SW846 8081	05/22-06/01/96	6143122
Endrin ketone	ND	4.7	U	SW846 8081	05/22-06/01/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	84	(30 - 150)
Decachlorobiphenyl	116	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

2004

WO # : C434Q103
LAB # : H6E160147-012
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 10:20
DATE RECEIVED: 5/16/96
% MOISTURE : 53.4

- GC Semi-Volatiles -

1 OF 2

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	Rev. Qual.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	3.6	U	SW846 8081	05/22-06/01/96	6143122
Aroclor 1016	ND	71		SW846 8081	05/22-06/01/96	6143122
Aroclor 1221	ND	71		SW846 8081	05/22-06/01/96	6143122
Aroclor 1232	ND	71		SW846 8081	05/22-06/01/96	6143122
Aroclor 1242	ND	71		SW846 8081	05/22-06/01/96	6143122
Aroclor 1248	ND	71		SW846 8081	05/22-06/01/96	6143122
Aroclor 1254	ND	71		SW846 8081	05/22-06/01/96	6143122
Aroclor 1260	ND	71		SW846 8081	05/22-06/01/96	6143122
alpha-BHC	ND	3.6		SW846 8081	05/22-06/01/96	6143122
beta-BHC	ND	3.6		SW846 8081	05/22-06/01/96	6[illegible]22
delta-BHC	ND	3.6		SW846 8081	05/22-06/01/96	6[illegible]22
gamma-BHC (Lindane)	ND	3.6		SW846 8081	05/22-06/01/96	6143122
4,4'-DDD	ND	3.6		SW846 8081	05/22-06/01/96	6143122
4,4'-DDE	ND	3.6		SW846 8081	05/22-06/01/96	6143122
4,4'-DDT	ND	3.6		SW846 8081	05/22-06/01/96	6143122
Dieldrin	ND	3.6		SW846 8081	05/22-06/01/96	6143122
Endrin	ND	3.6		SW846 8081	05/22-06/01/96	6143122
Endrin aldehyde	ND	3.6		SW846 8081	05/22-06/01/96	6143122
Endosulfan I	ND	3.6		SW846 8081	05/22-06/01/96	6143122
Endosulfan II	ND	3.6		SW846 8081	05/22-06/01/96	6143122
Endosulfan sulfate	ND	3.6	U	SW846 8081	05/22-06/01/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	82	(30 - 150)
Decachlorobiphenyl	97	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

2004

WO # : C434Q103
LAB # : H6E160147-012
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 10:20
DATE RECEIVED: 5/16/96
% MOISTURE : 53.4

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. Qual.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	3.6	U	SW846 8081	05/22-06/01/96	6143122
Heptachlor epoxide	ND	3.6		SW846 8081	05/22-06/01/96	6143122
Methoxychlor	ND	7.1		SW846 8081	05/22-06/01/96	6143122
Toxaphene	ND	140		SW846 8081	05/22-06/01/96	6143122
alpha-Chlordane	ND	3.6		SW846 8081	05/22-06/01/96	6143122
gamma-Chlordane	ND	3.6		SW846 8081	05/22-06/01/96	6143122
Endrin ketone	ND	3.6	U	SW846 8081	05/22-06/01/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	82	(30 - 150)
Decachlorobiphenyl	97	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3021

WO # : C4330107
LAB # : H6E160147-001
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 8:25
DATE RECEIVED: 5/16/96
% MOISTURE : 17.2

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	Rev. Qual	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.1	U	SW846 8081	05/22-06/01/96	6143122
Aroclor 1016	ND	40		SW846 8081	05/22-06/01/96	6143122
Aroclor 1221	ND	40		SW846 8081	05/22-06/01/96	6143122
Aroclor 1232	ND	40		SW846 8081	05/22-06/01/96	6143122
Aroclor 1242	ND	40		SW846 8081	05/22-06/01/96	6143122
Aroclor 1248	ND	40		SW846 8081	05/22-06/01/96	6143122
Aroclor 1254	ND	40		SW846 8081	05/22-06/01/96	6143122
Aroclor 1260	ND	40		SW846 8081	05/22-06/01/96	6143122
alpha-BHC	ND	2.1		SW846 8081	05/22-06/01/96	6143122
beta-BHC	ND	2.1		SW846 8081	05/22-06/01/96	6[illegible]2
delta-BHC	ND	2.1		SW846 8081	05/22-06/01/96	6[illegible]22
gamma-BHC (Lindane)	ND	2.1		SW846 8081	05/22-06/01/96	6143122
4,4'-DDD	ND	2.1		SW846 8081	05/22-06/01/96	6143122
4,4'-DDE	ND	2.1		SW846 8081	05/22-06/01/96	6143122
4,4'-DDT	ND	2.1		SW846 8081	05/22-06/01/96	6143122
Dieldrin	ND	2.1		SW846 8081	05/22-06/01/96	6143122
Endrin	ND	2.1		SW846 8081	05/22-06/01/96	6143122
Endrin aldehyde	ND	2.1		SW846 8081	05/22-06/01/96	6143122
Endosulfan I	ND	2.1		SW846 8081	05/22-06/01/96	6143122
Endosulfan II	ND	2.1		SW846 8081	05/22-06/01/96	6143122
Endosulfan sulfate	ND	2.1	U	SW846 8081	05/22-06/01/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	89	(30 - 150)
Decachlorobiphenyl	133	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3021

WO # : C4330107
LAB # : H6E160147-001
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 8:25
DATE RECEIVED: 5/16/96
% MOISTURE : 17.2

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. Qual	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.1	U	SW846 8081	05/22-06/01/96	6143122
Heptachlor epoxide	ND	2.1		SW846 8081	05/22-06/01/96	6143122
Methoxychlor	ND	4.0		SW846 8081	05/22-06/01/96	6143122
Toxaphene	ND	81		SW846 8081	05/22-06/01/96	6143122
alpha-Chlordane	ND	2.1		SW846 8081	05/22-06/01/96	6143122
gamma-Chlordane	ND	2.1		SW846 8081	05/22-06/01/96	6143122
Endrin ketone	ND	2.1	U	SW846 8081	05/22-06/01/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	89	(30 - 150)
Decachlorobiphenyl	133	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3022

WO # : C4332103
LAB # : H6E160147-002
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 8:35
DATE RECEIVED: 5/16/96
% MOISTURE : 24.0

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	Qual	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.2	U	SW846 8081	05/22-05/30/96	6143122
Aroclor 1016	ND	43		SW846 8081	05/22-05/30/96	6143122
Aroclor 1221	ND	43		SW846 8081	05/22-05/30/96	6143122
Aroclor 1232	ND	43		SW846 8081	05/22-05/30/96	6143122
Aroclor 1242	ND	43		SW846 8081	05/22-05/30/96	6143122
Aroclor 1248	ND	43		SW846 8081	05/22-05/30/96	6143122
Aroclor 1254	ND	43		SW846 8081	05/22-05/30/96	6143122
Aroclor 1260	ND	43		SW846 8081	05/22-05/30/96	6143122
alpha-BHC	ND	2.2		SW846 8081	05/22-05/30/96	6143122
beta-BHC	ND	2.2		SW846 8081	05/22-05/30/96	6[illegible]2
delta-BHC	ND	2.2		SW846 8081	05/22-05/30/96	6[illegible]2
gamma-BHC (Lindane)	ND	2.2		SW846 8081	05/22-05/30/96	6143122
4,4'-DDD	ND	2.2		SW846 8081	05/22-05/30/96	6143122
4,4'-DDE	ND	2.2		SW846 8081	05/22-05/30/96	6143122
4,4'-DDT	ND	2.2		SW846 8081	05/22-05/30/96	6143122
Dieldrin	ND	2.2		SW846 8081	05/22-05/30/96	6143122
Endrin	ND	2.2		SW846 8081	05/22-05/30/96	6143122
Endrin aldehyde	ND	2.2		SW846 8081	05/22-05/30/96	6143122
Endosulfan I	ND	2.2		SW846 8081	05/22-05/30/96	6143122
Endosulfan II	ND	2.2		SW846 8081	05/22-05/30/96	6143122
Endosulfan sulfate	ND	2.2	U	SW846 8081	05/22-05/30/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	84	(30 - 150)
Decachlorobiphenyl	101	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3022

WO # : C4332103
LAB # : H6E160147-002
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 8:35
DATE RECEIVED: 5/16/96
% MOISTURE : 24.0

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	Rev. Qual	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.2	U	SW846 8081	05/22-05/30/96	6143122
Heptachlor epoxide	ND	2.2		SW846 8081	05/22-05/30/96	6143122
Methoxychlor	ND	4.3		SW846 8081	05/22-05/30/96	6143122
Toxaphene	ND	88		SW846 8081	05/22-05/30/96	6143122
alpha-Chlordane	ND	2.2		SW846 8081	05/22-05/30/96	6143122
gamma-Chlordane	ND	2.2		SW846 8081	05/22-05/30/96	6143122
Endrin ketone	ND	2.2	U	SW846 8081	05/22-05/30/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	84	(30 - 150)
Decachlorobiphenyl	101	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3023

WO # : C4335103
LAB # : H6E160147-003
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 9:05
DATE RECEIVED: 5/16/96
% MOISTURE : 23.0

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	Rev. Qual.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.2	U	SW846 8081	05/22-05/30/96	6143122
Aroclor 1016	ND	43		SW846 8081	05/22-05/30/96	6143122
Aroclor 1221	ND	43		SW846 8081	05/22-05/30/96	6143122
Aroclor 1232	ND	43		SW846 8081	05/22-05/30/96	6143122
Aroclor 1242	ND	43		SW846 8081	05/22-05/30/96	6143122
Aroclor 1248	ND	43		SW846 8081	05/22-05/30/96	6143122
Aroclor 1254	ND	43		SW846 8081	05/22-05/30/96	6143122
Aroclor 1260	ND	43		SW846 8081	05/22-05/30/96	6143122
alpha-BHC	ND	2.2		SW846 8081	05/22-05/30/96	6143122
beta-BHC	ND	2.2		SW846 8081	05/22-05/30/96	6143122
delta-BHC	ND	2.2		SW846 8081	05/22-05/30/96	6143122
gamma-BHC (Lindane)	ND	2.2		SW846 8081	05/22-05/30/96	6143122
4,4'-DDD	ND	2.2		SW846 8081	05/22-05/30/96	6143122
4,4'-DDE	ND	2.2		SW846 8081	05/22-05/30/96	6143122
4,4'-DDT	ND	2.2		SW846 8081	05/22-05/30/96	6143122
Dieldrin	ND	2.2		SW846 8081	05/22-05/30/96	6143122
Endrin	ND	2.2		SW846 8081	05/22-05/30/96	6143122
Endrin aldehyde	ND	2.2		SW846 8081	05/22-05/30/96	6143122
Endosulfan I	ND	2.2		SW846 8081	05/22-05/30/96	6143122
Endosulfan II	ND	2.2		SW846 8081	05/22-05/30/96	6143122
Endosulfan sulfate	ND	2.2	U	SW846 8081	05/22-05/30/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	77	(30 - 150)
Decachlorobiphenyl	86	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3023

WO # : C4335103
LAB # : H6E160147-003
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 9:05
DATE RECEIVED: 5/16/96
% MOISTURE : 23.0

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. QUAL	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.2	U	SW846 8081	05/22-05/30/96	6143122
Heptachlor epoxide	ND	2.2		SW846 8081	05/22-05/30/96	6143122
Methoxychlor	ND	4.3		SW846 8081	05/22-05/30/96	6143122
Toxaphene	ND	87		SW846 8081	05/22-05/30/96	6143122
alpha-Chlordane	ND	2.2		SW846 8081	05/22-05/30/96	6143122
gamma-Chlordane	ND	2.2		SW846 8081	05/22-05/30/96	6143122
Endrin ketone	ND	2.2	U	SW846 8081	05/22-05/30/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	77	(30 - 150)
Decachlorobiphenyl	86	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3024

WO # : C433A103
LAB # : H6E160147-004
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 9:15
DATE RECEIVED: 5/16/96
% MOISTURE : 26.8

- GC Semi-Volatiles -

1 OF 2

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REG. QUAL	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.3	U	SW846 8081	05/22-05/30/96	6143122
Aroclor 1016	ND	45		SW846 8081	05/22-05/30/96	6143122
Aroclor 1221	ND	45		SW846 8081	05/22-05/30/96	6143122
Aroclor 1232	ND	45		SW846 8081	05/22-05/30/96	6143122
Aroclor 1242	ND	45		SW846 8081	05/22-05/30/96	6143122
Aroclor 1248	ND	45		SW846 8081	05/22-05/30/96	6143122
Aroclor 1254	ND	45		SW846 8081	05/22-05/30/96	6143122
Aroclor 1260	ND	45		SW846 8081	05/22-05/30/96	6143122
alpha-BHC	ND	2.3		SW846 8081	05/22-05/30/96	6143122
beta-BHC	ND	2.3		SW846 8081	05/22-05/30/96	6143122
delta-BHC	ND	2.3		SW846 8081	05/22-05/30/96	6143[illegible]
gamma-BHC (Lindane)	ND	2.3		SW846 8081	05/22-05/30/96	614[illegible]
4,4'-DDD	ND	2.3		SW846 8081	05/22-05/30/96	6143122
4,4'-DDE	ND	2.3		SW846 8081	05/22-05/30/96	6143122
4,4'-DDT	ND	2.3		SW846 8081	05/22-05/30/96	6143122
Dieldrin	ND	2.3		SW846 8081	05/22-05/30/96	6143122
Endrin	ND	2.3		SW846 8081	05/22-05/30/96	6143122
Endrin aldehyde	ND	2.3		SW846 8081	05/22-05/30/96	6143122
Endosulfan I	ND	2.3		SW846 8081	05/22-05/30/96	6143122
Endosulfan II	ND	2.3		SW846 8081	05/22-05/30/96	6143122
Endosulfan sulfate	ND	2.3	U	SW846 8081	05/22-05/30/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	88	(30 - 150)
Decachlorobiphenyl	131	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3024

WO # : C433A103
LAB # : H6E160147-004
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 9:15
DATE RECEIVED: 5/16/96
% MOISTURE : 26.8

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	Rev. Qual	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.3	U	SW846 8081	05/22-05/30/96	6143122
Heptachlor epoxide	ND	2.3		SW846 8081	05/22-05/30/96	6143122
Methoxychlor	ND	4.5		SW846 8081	05/22-05/30/96	6143122
Toxaphene	ND	92		SW846 8081	05/22-05/30/96	6143122
alpha-Chlordane	ND	2.3		SW846 8081	05/22-05/30/96	6143122
gamma-Chlordane	ND	2.3		SW846 8081	05/22-05/30/96	6143122
Endrin ketone	ND	2.3	U	SW846 8081	05/22-05/30/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	88	(30 - 150)
Decachlorobiphenyl	131	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3025

WO # : C433F103
LAB # : H6E160147-005
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 9:15
DATE RECEIVED: 5/16/96
% MOISTURE : 30.1

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	REV. QUAL	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.4	U	SW846 8081	05/22-05/30/96	6143122
Aroclor 1016	ND	47		SW846 8081	05/22-05/30/96	6143122
Aroclor 1221	ND	47		SW846 8081.	05/22-05/30/96	6143122
Aroclor 1232	ND	47		SW846 8081	05/22-05/30/96	6143122
Aroclor 1242	ND	47		SW846 8081	05/22-05/30/96	6143122
Aroclor 1248	ND	47		SW846 8081	05/22-05/30/96	6143122
Aroclor 1254	ND	47		SW846 8081	05/22-05/30/96	6143122
Aroclor 1260	ND	47		SW846 8081	05/22-05/30/96	6143122
alpha-BHC	ND	2.4		SW846 8081	05/22-05/30/96	6143122
beta-BHC	ND	2.4		SW846 8081	05/22-05/30/96	6[illegible]2
delta-BHC	ND	2.4		SW846 8081	05/22-05/30/96	61[illegible]22
gamma-BHC (Lindane)	ND	2.4		SW846 8081	05/22-05/30/96	6143122
4,4'-DDD	ND	2.4		SW846 8081	05/22-05/30/96	6143122
4,4'-DDE	ND	2.4		SW846 8081	05/22-05/30/96	6143122
4,4'-DDT	ND	2.4		SW846 8081	05/22-05/30/96	6143122
Dieldrin	ND	2.4		SW846 8081	05/22-05/30/96	6143122
Endrin	ND	2.4		SW846 8081	05/22-05/30/96	6143122
Endrin aldehyde	ND	2.4		SW846 8081	05/22-05/30/96	6143122
Endosulfan I	ND	2.4		SW846 8081	05/22-05/30/96	6143122
Endosulfan II	ND	2.4		SW846 8081	05/22-05/30/96	6143122
Endosulfan sulfate	ND	2.4	U	SW846 8081	05/22-05/30/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	81	(30 - 150)
Decachlorobiphenyl	98	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3025

WO # : C433F103
LAB # : H6E160147-005
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 9:15
DATE RECEIVED: 5/16/96
% MOISTURE : 30.1

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	Rev. Qual.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.4	U	SW846 8081	05/22-05/30/96	6143122
Heptachlor epoxide	ND	2.4		SW846 8081	05/22-05/30/96	6143122
Methoxychlor	ND	4.7		SW846 8081	05/22-05/30/96	6143122
Toxaphene	ND	96		SW846 8081	05/22-05/30/96	6143122
alpha-Chlordane	ND	2.4		SW846 8081	05/22-05/30/96	6143122
gamma-Chlordane	ND	2.4		SW846 8081	05/22-05/30/96	6143122
Endrin ketone	ND	2.4	U	SW846 8081	05/22-05/30/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	81	(30 - 150)
Decachlorobiphenyl	98	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3027

WO # : C433P103
LAB # : H6E160147-006
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 9:40
DATE RECEIVED: 5/16/96
% MOISTURE : 16.2

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	Qual.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.0	U	SW846 8081	05/22-05/31/96	6143122
Aroclor 1016	ND	39		SW846 8081	05/22-05/31/96	6143122
Aroclor 1221	ND	39		SW846 8081	05/22-05/31/96	6143122
Aroclor 1232	ND	39		SW846 8081	05/22-05/31/96	6143122
Aroclor 1242	ND	39		SW846 8081	05/22-05/31/96	6143122
Aroclor 1248	ND	39		SW846 8081	05/22-05/31/96	6143122
Aroclor 1254	ND	39		SW846 8081	05/22-05/31/96	6143122
Aroclor 1260	ND	39		SW846 8081	05/22-05/31/96	6143122
alpha-BHC	ND	2.0		SW846 8081	05/22-05/31/96	6143122
beta-BHC	ND	2.0		SW846 8081	05/22-05/31/96	6[illegible]2
delta-BHC	ND	2.0		SW846 8081	05/22-05/31/96	61[illegible]122
gamma-BHC (Lindane)	ND	2.0		SW846 8081	05/22-05/31/96	6143122
4,4'-DDD	ND	2.0		SW846 8081	05/22-05/31/96	6143122
4,4'-DDE	ND	2.0		SW846 8081	05/22-05/31/96	6143122
4,4'-DDT	ND	2.0		SW846 8081	05/22-05/31/96	6143122
Dieldrin	ND	2.0		SW846 8081	05/22-05/31/96	6143122
Endrin	ND	2.0		SW846 8081	05/22-05/31/96	6143122
Endrin aldehyde	ND	2.0		SW846 8081	05/22-05/31/96	6143122
Endosulfan I	ND	2.0		SW846 8081	05/22-05/31/96	6143122
Endosulfan II	ND	2.0		SW846 8081	05/22-05/31/96	6143122
Endosulfan sulfate	ND	2.0	U	SW846 8081	05/22-05/31/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	80	(30 - 150)
Decachlorobiphenyl	94	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3027

WO # : C433P103
LAB # : H6E160147-006
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 9:40
DATE RECEIVED: 5/16/96
% MOISTURE : 16.2

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	Rev. Qual	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.0	U	SW846 8081	05/22-05/31/96	6143122
Heptachlor epoxide	ND	2.0		SW846 8081	05/22-05/31/96	6143122
Methoxychlor	ND	3.9		SW846 8081	05/22-05/31/96	6143122
Toxaphene	ND	80		SW846 8081	05/22-05/31/96	6143122
alpha-Chlordane	ND	2.0		SW846 8081	05/22-05/31/96	6143122
gamma-Chlordane	ND	2.0		SW846 8081	05/22-05/31/96	6143122
Endrin ketone	ND	2.0	U	SW846 8081	05/22-05/31/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	80	(30 - 150)
Decachlorobiphenyl	94	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3028

WO # : C4344103
LAB # : H6E160147-007
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 9:50
DATE RECEIVED: 5/16/96
% MOISTURE : 14.4

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	Rev. Qual.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.0	U	SW846 8081	05/22-05/30/96	6143122
Aroclor 1016	ND	39		SW846 8081	05/22-05/30/96	6143122
Aroclor 1221	ND	39		SW846 8081	05/22-05/30/96	6143122
Aroclor 1232	ND	39		SW846 8081	05/22-05/30/96	6143122
Aroclor 1242	ND	39		SW846 8081	05/22-05/30/96	6143122
Aroclor 1248	ND	39		SW846 8081	05/22-05/30/96	6143122
Aroclor 1254	ND	39		SW846 8081	05/22-05/30/96	6143122
Aroclor 1260	ND	39		SW846 8081	05/22-05/30/96	6143122
alpha-BHC	ND	2.0		SW846 8081	05/22-05/30/96	6143122
beta-BHC	ND	2.0		SW846 8081	05/22-05/30/96	61[illegible]
delta-BHC	ND	2.0		SW846 8081	05/22-05/30/96	6[illegible]
gamma-BHC (Lindane)	ND	2.0		SW846 8081	05/22-05/30/96	6143122
4,4'-DDD	ND	2.0		SW846 8081	05/22-05/30/96	6143122
4,4'-DDE	ND	2.0		SW846 8081	05/22-05/30/96	6143122
4,4'-DDT	ND	2.0		SW846 8081	05/22-05/30/96	6143122
Dieldrin	ND	2.0		SW846 8081	05/22-05/30/96	6143122
Endrin	ND	2.0		SW846 8081	05/22-05/30/96	6143122
Endrin aldehyde	ND	2.0		SW846 8081	05/22-05/30/96	6143122
Endosulfan I	ND	2.0		SW846 8081	05/22-05/30/96	6143122
Endosulfan II	ND	2.0		SW846 8081	05/22-05/30/96	6143122
Endosulfan sulfate	ND	2.0	U	SW846 8081	05/22-05/30/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	87	(30 - 150)
Decachlorobiphenyl	96	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3028

WO # : C4344103
LAB # : H6E160147-007
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 9:50
DATE RECEIVED: 5/16/96
% MOISTURE : 14.4

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	Qual	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.0	U	SW846 8081	05/22-05/30/96	6143122
Heptachlor epoxide	ND	2.0		SW846 8081	05/22-05/30/96	6143122
Methoxychlor	ND	3.9		SW846 8081	05/22-05/30/96	6143122
Toxaphene	ND	78		SW846 8081	05/22-05/30/96	6143122
alpha-Chlordane	ND	2.0		SW846 8081	05/22-05/30/96	6143122
gamma-Chlordane	ND	2.0		SW846 8081	05/22-05/30/96	6143122
Endrin ketone	ND	2.0	U	SW846 8081	05/22-05/30/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	87	(30 - 150)
Decachlorobiphenyl	96	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3029

WO # : C434C103
LAB # : H6E160147-008
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 10:00
DATE RECEIVED: 5/16/96
% MOISTURE : 24.9

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	Rev. Qual.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.3	U	SW846 8081	05/22-05/31/96	6143122
Aroclor 1016	ND	44		SW846 8081	05/22-05/31/96	6143122
Aroclor 1221	ND	44		SW846 8081	05/22-05/31/96	6143122
Aroclor 1232	ND	44		SW846 8081	05/22-05/31/96	6143122
Aroclor 1242	ND	44		SW846 8081	05/22-05/31/96	6143122
Aroclor 1248	ND	44		SW846 8081	05/22-05/31/96	6143122
Aroclor 1254	ND	44		SW846 8081	05/22-05/31/96	6143122
Aroclor 1260	ND	44		SW846 8081	05/22-05/31/96	6143122
alpha-BHC	ND	2.3		SW846 8081	05/22-05/31/96	6143122
beta-BHC	ND	2.3		SW846 8081	05/22-05/31/96	6[illegible]
delta-BHC	ND	2.3		SW846 8081	05/22-05/31/96	6[illegible]
gamma-BHC (Lindane)	ND	2.3		SW846 8081	05/22-05/31/96	6143122
4,4'-DDD	ND	2.3		SW846 8081	05/22-05/31/96	6143122
4,4'-DDE	ND	2.3		SW846 8081	05/22-05/31/96	6143122
4,4'-DDT	ND	2.3		SW846 8081	05/22-05/31/96	6143122
Dieldrin	ND	2.3		SW846 8081	05/22-05/31/96	6143122
Endrin	ND	2.3		SW846 8081	05/22-05/31/96	6143122
Endrin aldehyde	ND	2.3		SW846 8081	05/22-05/31/96	6143122
Endosulfan I	ND	2.3		SW846 8081	05/22-05/31/96	6143122
Endosulfan II	ND	2.3		SW846 8081	05/22-05/31/96	6143122
Endosulfan sulfate	ND	2.3	U	SW846 8081	05/22-05/31/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	88	(30 - 150)
Decachlorobiphenyl	135	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3029

WO # : C434C103
LAB # : H6E160147-008
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 10:00
DATE RECEIVED: 5/16/96
% MOISTURE : 24.9

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	Rev. Qual.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.3	U	SW846 8081	05/22-05/31/96	6143122
Heptachlor epoxide	ND	2.3		SW846 8081	05/22-05/31/96	6143122
Methoxychlor	ND	4.4		SW846 8081	05/22-05/31/96	6143122
Toxaphene	ND	89		SW846 8081	05/22-05/31/96	6143122
alpha-Chlordane	ND	2.3		SW846 8081	05/22-05/31/96	6143122
gamma-Chlordane	ND	2.3		SW846 8081	05/22-05/31/96	6143122
Endrin ketone	ND	2.3	U	SW846 8081	05/22-05/31/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	88	(30 - 150)
Decachlorobiphenyl	135	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3030

WO # : C434F103
LAB # : H6E160147-009
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 10:10
DATE RECEIVED: 5/16/96
% MOISTURE : 25.5

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	Qual.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.3	U	SW846 8081	05/22-05/30/96	6143122
Aroclor 1016	ND	44		SW846 8081	05/22-05/30/96	6143122
Aroclor 1221	ND	44		SW846 8081	05/22-05/30/96	6143122
Aroclor 1232	ND	44		SW846 8081	05/22-05/30/96	6143122
Aroclor 1242	ND	44		SW846 8081	05/22-05/30/96	6143122
Aroclor 1248	ND	44		SW846 8081	05/22-05/30/96	6143122
Aroclor 1254	ND	44		SW846 8081	05/22-05/30/96	6143122
Aroclor 1260	ND	44		SW846 8081	05/22-05/30/96	6143122
alpha-BHC	ND	2.3		SW846 8081	05/22-05/30/96	6143122
beta-BHC	ND	2.3		SW846 8081	05/22-05/30/96	61
delta-BHC	ND	2.3		SW846 8081	05/22-05/30/96	61 2
gamma-BHC (Lindane)	ND	2.3		SW846 8081	05/22-05/30/96	6143122
4,4'-DDD	ND	2.3		SW846 8081	05/22-05/30/96	6143122
4,4'-DDE	ND	2.3		SW846 8081	05/22-05/30/96	6143122
4,4'-DDT	ND	2.3		SW846 8081	05/22-05/30/96	6143122
Dieldrin	ND	2.3		SW846 8081	05/22-05/30/96	6143122
Endrin	ND	2.3		SW846 8081	05/22-05/30/96	6143122
Endrin aldehyde	ND	2.3		SW846 8081	05/22-05/30/96	6143122
Endosulfan I	ND	2.3		SW846 8081	05/22-05/30/96	6143122
Endosulfan II	ND	2.3		SW846 8081	05/22-05/30/96	6143122
Endosulfan sulfate	ND	2.3	U	SW846 8081	05/22-05/30/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	84	(30 - 150)
Decachlorobiphenyl	103	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3030

WO # : C434F103
LAB # : H6E160147-009
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 10:10
DATE RECEIVED: 5/16/96
% MOISTURE : 25.5

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	Rev. QMR	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.3	U	SW846 8081	05/22-05/30/96	6143122
Heptachlor epoxide	ND	2.3		SW846 8081	05/22-05/30/96	6143122
Methoxychlor	ND	4.4		SW846 8081	05/22-05/30/96	6143122
Toxaphene	ND	90		SW846 8081	05/22-05/30/96	6143122
alpha-Chlordane	ND	2.3		SW846 8081	05/22-05/30/96	6143122
gamma-Chlordane	ND	2.3		SW846 8081	05/22-05/30/96	6143122
Endrin ketone	ND	2.3	U	SW846 8081	05/22-05/30/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	84	(30 - 150)
Decachlorobiphenyl	103	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

METHOD BLANK REPORT

LAB #: H6E220000-122 **WO #:** C44VG

- **GC Semi-Volatiles** -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	Rev. Quan.	PREPARATION - ANALYSIS DATE	QC BATCH
Aldrin	ND	1.7		5/22- 5/28/96	6143122
alpha-BHC	ND	1.7		5/22- 5/28/96	6143122
beta-BHC	ND	1.7		5/22- 5/28/96	6143122
delta-BHC	ND	1.7		5/22- 5/28/96	6143122
gamma-BHC (Lindane)	ND	1.7		5/22- 5/28/96	6143122
alpha-Chlordane	ND	1.7		5/22- 5/28/96	6143122
gamma-Chlordane	ND	1.7		5/22- 5/28/96	6143122
4,4'-DDD	ND	1.7		5/22- 5/28/96	6143122
4,4'-DDE	ND	1.7		5/22- 5/28/96	6143122
4,4'-DDT	ND	1.7		5/22- 5/28/96	61[illegible]
Dieldrin	ND	1.7		5/22- 5/28/96	61[illegible]
Endosulfan I	ND	1.7		5/22- 5/28/96	6143122
Endosulfan II	ND	1.7		5/22- 5/28/96	6143122
Endosulfan sulfate	ND	1.7		5/22- 5/28/96	6143122
Endrin	ND	1.7		5/22- 5/28/96	6143122
Endrin aldehyde	ND	1.7		5/22- 5/28/96	6143122
Endrin ketone	ND	1.7		5/22- 5/28/96	6143122
Heptachlor	ND	1.7		5/22- 5/28/96	6143122
Heptachlor epoxide	ND	1.7		5/22- 5/28/96	6143122
Methoxychlor	ND	3.3		5/22- 5/28/96	6143122
Aroclor 1016	ND	33		5/22- 5/28/96	6143122
Aroclor 1221	ND	33		5/22- 5/28/96	6143122
Aroclor 1232	ND	33		5/22- 5/28/96	6143122
Aroclor 1242	ND	33		5/22- 5/28/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	90	(30 - 150)
Decachlorobiphenyl	102	(60 - 150)

NOTE:

ND (NONE DETECTED)

METHOD BLANK REPORT

LAB #: H6E220000-122 **WO #:** C44VG

- **GC Semi-Volatiles** -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	Rev. Qual	PREPARATION - ANALYSIS DATE	QC BATCH
Aroclor 1248	ND	33	U	5/22- 5/28/96	6143122
Aroclor 1254	ND	33		5/22- 5/28/96	6143122
Aroclor 1260	ND	33		5/22- 5/28/96	6143122
Toxaphene	ND	67	U	5/22- 5/28/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	90	(30 - 150)
Decachlorobiphenyl	102	(60 - 150)

NOTE:

ND (NONE DETECTED)

SDG: PBG801 Project: IT - Plum Brook

Method: Explosives Matrix/No. of Samples: Soil / 17

Validation Samples: 3001 3002 3004 3009 3010 3003
3011 3012 3013 3014 3015 3005
3016 3017 3018 3019 3020

Data Validation Report Summary

		Status Code	Comments
1.	Sample Preservation, Handling, and Transport	A	All Coolers @ 2° C
2.	Chain of Custody	A	
3.	Holding Times	A	
4.	GC/MS Tune/Inst Perf	N/A	
5.	Calibrations	A	see funding #1
6.	Blanks	A	all non-detects
7.	Blank Spike/LCS	A	
8.	Matrix Spike	A	3004 MS/MSD used for all samples
9.	Surrogates	A	
10.	Internal Standards	N/A	
11.	Compound Identification	A	
12.	System Performance	A	
13.	Field QC Samples	A	
14.	Overall Assessment	A	

Status Codes:
A = Acceptable
R = Data Rejected
X = Data acceptable but qualified due to problems

Qualifications:

None

Significant Findings/Recommendations:

#1 > samples 3010, 3011, 3013, 3014, and 3016 had an ending standard for 4-amino-2,6 dinitrotoluene which exceeded QC limits by > 20%D value. Since there were no positive values in the samples, no qualification was required.

Overall Data Quality:

Acceptable as is

Validator's Signature: Deborah L. Street Date: 7/29/96

Peer Reviewer: J. Hymes Kidd's Date: 8/5/96

2/94

IT Corporation - Knoxville

3001

WO # : C431J104
LAB # : H6E160141-001
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 10:55
DATE RECEIVED: 5/16/96
% MOISTURE : 22.3

- - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	REV. Q	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.32	u	SW846 8330	05/21-05/22/96	6141167
2,4-Dinitrotoluene	ND	0.32	u	SW846 8330	05/21-05/22/96	6141167
2,6-Dinitrotoluene	ND	0.32	u	SW846 8330	05/21-05/22/96	6141167
HMX	ND	0.64	u	SW846 8330	05/21-05/22/96	6141167
Nitrobenzene	ND	0.32	u	SW846 8330	05/21-05/22/96	6141167
2-Nitrotoluene	ND	0.32	u	SW846 8330	05/21-05/22/96	6141167
3-Nitrotoluene	ND	0.32	u	SW846 8330	05/21-05/22/96	6141167
RDX	ND	0.64	u	SW846 8330	05/21-05/22/96	6141167
Tetryl	ND	0.84	u	SW846 8330	05/21-05/22/96	6[illegible]
1,3,5-Trinitrobenzene	ND	0.32	u	SW846 8330	05/21-05/22/96	6141167
2,4,6-Trinitrotoluene	ND	0.32	u	SW846 8330	05/21-05/22/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.32	u	SW846 8330	05/21-05/22/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	92	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3002

WO # : C432F104
LAB # : H6E160141-002
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 11:00
DATE RECEIVED: 5/16/96
% MOISTURE : 20.0

- REQUESTED PARAMETERS -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	REV C	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.31	u	SW846 8330	05/21-05/23/96	6141167
2,4-Dinitrotoluene	ND	0.31	u	SW846 8330	05/21-05/23/96	6141167
2,6-Dinitrotoluene	ND	0.31	u	SW846 8330	05/21-05/23/96	6141167
HMX	ND	0.62	u	SW846 8330	05/21-05/23/96	6141167
Nitrobenzene	ND	0.31	u	SW846 8330	05/21-05/23/96	6141167
2-Nitrotoluene	ND	0.31	u	SW846 8330	05/21-05/23/96	6141167
3-Nitrotoluene	ND	0.31	u	SW846 8330	05/21-05/23/96	6141167
RDX	ND	0.62	u	SW846 8330	05/21-05/23/96	6141167
Tetryl	ND	0.81	u	SW846 8330	05/21-05/23/96	6141167
1,3,5-Trinitrobenzene	ND	0.31	u	SW846 8330	05/21-05/23/96	6141167
2,4,6-Trinitrotoluene	ND	0.31	u	SW846 8330	05/21-05/23/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.31	u	SW846 8330	05/21-05/23/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	94	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3003

WO # : C432M104
LAB # : H6E160141-003
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 11:10
DATE RECEIVED: 5/16/96
% MOISTURE : 27.5

- - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	C	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141167
2,4-Dinitrotoluene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141167
2,6-Dinitrotoluene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141167
HMX	ND	0.69	U	SW846 8330	05/21-05/23/96	6141167
Nitrobenzene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141167
2-Nitrotoluene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141167
3-Nitrotoluene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141167
RDX	ND	0.69	U	SW846 8330	05/21-05/23/96	6141167
Tetryl	ND	0.90	U	SW846 8330	05/21-05/23/96	6[illegible]
1,3,5-Trinitrobenzene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141167
2,4,6-Trinitrotoluene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	93	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3004

WO # : C432W10A
LAB # : H6E160141-004
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 11:30
DATE RECEIVED: 5/16/96
% MOISTURE : 22.4

- - - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.32	U	SW846 8330	05/21-05/22/96	6141167
2,4-Dinitrotoluene	ND	0.32	U	SW846 8330	05/21-05/22/96	6141167
2,6-Dinitrotoluene	ND	0.32	U	SW846 8330	05/21-05/22/96	6141167
HMX	ND	0.64	U	SW846 8330	05/21-05/22/96	6141167
Nitrobenzene	ND	0.32	U	SW846 8330	05/21-05/22/96	6141167
2-Nitrotoluene	ND	0.32	U	SW846 8330	05/21-05/22/96	6141167
3-Nitrotoluene	ND	0.32	U	SW846 8330	05/21-05/22/96	6141167
RDX	ND	0.64	U	SW846 8330	05/21-05/22/96	6141167
Tetryl	ND	0.84	U	SW846 8330	05/21-05/22/96	6141167
1,3,5-Trinitrobenzene	ND	0.32	U	SW846 8330	05/21-05/22/96	6141167
2,4,6-Trinitrotoluene	ND	0.32	U	SW846 8330	05/21-05/22/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.32	U	SW846 8330	05/21-05/22/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	92	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3005

WO # : C4334104
LAB # : H6E160141-005
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 11:30
DATE RECEIVED: 5/16/96
% MOISTURE : 24.8

- - - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.33	U	SW846 8330	05/21-05/22/96	6141167
2,4-Dinitrotoluene	ND	0.33	U	SW846 8330	05/21-05/22/96	6141167
2,6-Dinitrotoluene	ND	0.33	U	SW846 8330	05/21-05/22/96	6141167
HMX	ND	0.66	U	SW846 8330	05/21-05/22/96	6141167
Nitrobenzene	ND	0.33	U	SW846 8330	05/21-05/22/96	6141167
2-Nitrotoluene	ND	0.33	U	SW846 8330	05/21-05/22/96	6141167
3-Nitrotoluene	ND	0.33	U	SW846 8330	05/21-05/22/96	6141167
RDX	ND	0.66	U	SW846 8330	05/21-05/22/96	6141167
Tetryl	ND	0.86	U	SW846 8330	05/21-05/22/96	6[illegible]7
1,3,5-Trinitrobenzene	ND	0.33	U	SW846 8330	05/21-05/22/96	6141167
2,4,6-Trinitrotoluene	ND	0.33	U	SW846 8330	05/21-05/22/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.33	U	SW846 8330	05/21-05/22/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	95	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3009

WO # : C433C104
LAB # : H6E160141-006
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 12:05
DATE RECEIVED: 5/16/96
% MOISTURE : 27.0

- - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.34	U	SW846 8330	05/21-05/22/96	614116
2,4-Dinitrotoluene	ND	0.34	U	SW846 8330	05/21-05/22/96	614116
2,6-Dinitrotoluene	ND	0.34	U	SW846 8330	05/21-05/22/96	614116
HMX	ND	0.68	U	SW846 8330	05/21-05/22/96	614116
Nitrobenzene	ND	0.34	U	SW846 8330	05/21-05/22/96	614116
2-Nitrotoluene	ND	0.34	U	SW846 8330	05/21-05/22/96	614116
3-Nitrotoluene	ND	0.34	U	SW846 8330	05/21-05/22/96	614116
RDX	ND	0.68	U	SW846 8330	05/21-05/22/96	614116
Tetryl	ND	0.89	U	SW846 8330	05/21-05/22/96	614116
1,3,5-Trinitrobenzene	ND	0.34	U	SW846 8330	05/21-05/22/96	614116
2,4,6-Trinitrotoluene	ND	0.34	U	SW846 8330	05/21-05/22/96	614116
4-Amino-2,6-dinitrotoluene	ND	0.34	U	SW846 8330	05/21-05/22/96	614116

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	92	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3010

WO # : C433N104
LAB # : H6E160141-007
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 12:15
DATE RECEIVED: 5/16/96
% MOISTURE : 27.1

- - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141167
2,4-Dinitrotoluene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141167
2,6-Dinitrotoluene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141167
HMX	ND	0.69	U	SW846 8330	05/21-05/23/96	6141167
Nitrobenzene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141167
2-Nitrotoluene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141167
3-Nitrotoluene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141167
RDX	ND	0.69	U	SW846 8330	05/21-05/23/96	6141167
Tetryl	ND	0.89	U	SW846 8330	05/21-05/23/96	6[illegible]7
1,3,5-Trinitrobenzene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141167
2,4,6-Trinitrotoluene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	102	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3011

WO # : C4341104
LAB # : H6E160141-008
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 10:20
DATE RECEIVED: 5/16/96
% MOISTURE : 22.5

- - - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.32	U	SW846 8330	05/21-05/23/96	6141167
2,4-Dinitrotoluene	ND	0.32	U	SW846 8330	05/21-05/23/96	6141167
2,6-Dinitrotoluene	ND	0.32	U	SW846 8330	05/21-05/23/96	6141167
HMX	ND	0.65	U	SW846 8330	05/21-05/23/96	6141167
Nitrobenzene	ND	0.32	U	SW846 8330	05/21-05/23/96	6141167
2-Nitrotoluene	ND	0.32	U	SW846 8330	05/21-05/23/96	6141167
3-Nitrotoluene	ND	0.32	U	SW846 8330	05/21-05/23/96	6141167
RDX	ND	0.65	U	SW846 8330	05/21-05/23/96	6141167
Tetryl	ND	0.84	U	SW846 8330	05/21-05/23/96	6141167
1,3,5-Trinitrobenzene	ND	0.32	U	SW846 8330	05/21-05/23/96	6141167
2,4,6-Trinitrotoluene	ND	0.32	U	SW846 8330	05/21-05/23/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.32	U	SW846 8330	05/21-05/23/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	100	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3012

WO # : C4348104
LAB # : H6E160141-009
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 10:38
DATE RECEIVED: 5/16/96
% MOISTURE : 18.4

- - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	REV. QUAL	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.31	U	SW846 8330	05/21-05/22/96	6141167
2,4-Dinitrotoluene	ND	0.31	U	SW846 8330	05/21-05/22/96	6141167
2,6-Dinitrotoluene	ND	0.31	U	SW846 8330	05/21-05/22/96	6141167
HMX	ND	0.61	U	SW846 8330	05/21-05/22/96	6141167
Nitrobenzene	ND	0.31	U	SW846 8330	05/21-05/22/96	6141167
2-Nitrotoluene	ND	0.31	U	SW846 8330	05/21-05/22/96	6141167
3-Nitrotoluene	ND	0.31	U	SW846 8330	05/21-05/22/96	6141167
RDX	ND	0.61	U	SW846 8330	05/21-05/22/96	6141167
Tetryl	ND	0.80	U	SW846 8330	05/21-05/22/96	6[illegible]
1,3,5-Trinitrobenzene	ND	0.31	U	SW846 8330	05/21-05/22/96	6141167
2,4,6-Trinitrotoluene	ND	0.31	U	SW846 8330	05/21-05/22/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.31	U	SW846 8330	05/21-05/22/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	93	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3013

WO # : C434E104
LAB # : H6E160141-010
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 14:10
DATE RECEIVED: 5/16/96
% MOISTURE : 22.1

- - - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.32	U	SW846 8330	05/21-05/23/96	6141167
2,4-Dinitrotoluene	ND	0.32	U	SW846 8330	05/21-05/23/96	6141167
2,6-Dinitrotoluene	ND	0.32	U	SW846 8330	05/21-05/23/96	6141167
HMX	ND	0.64	U	SW846 8330	05/21-05/23/96	6141167
Nitrobenzene	ND	0.32	U	SW846 8330	05/21-05/23/96	6141167
2-Nitrotoluene	ND	0.32	U	SW846 8330	05/21-05/23/96	6141167
3-Nitrotoluene	ND	0.32	U	SW846 8330	05/21-05/23/96	6141167
RDX	ND	0.64	U	SW846 8330	05/21-05/23/96	6141167
Tetryl	ND	0.83	U	SW846 8330	05/21-05/23/96	6141167
1,3,5-Trinitrobenzene	ND	0.32	U	SW846 8330	05/21-05/23/96	6141167
2,4,6-Trinitrotoluene	ND	0.32	U	SW846 8330	05/21-05/23/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.32	U	SW846 8330	05/21-05/23/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	94	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3014

WO # : C434G104
LAB # : H6E160141-011
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 14:20
DATE RECEIVED: 5/16/96
% MOISTURE : 22.5

- - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.32	U	SW846 8330	05/21-05/23/96	6141167
2,4-Dinitrotoluene	ND	0.32	U	SW846 8330	05/21-05/23/96	6141167
2,6-Dinitrotoluene	ND	0.32	U	SW846 8330	05/21-05/23/96	6141167
HMX	ND	0.65	U	SW846 8330	05/21-05/23/96	6141167
Nitrobenzene	ND	0.32	U	SW846 8330	05/21-05/23/96	6141167
2-Nitrotoluene	ND	0.32	U	SW846 8330	05/21-05/23/96	6141167
3-Nitrotoluene	ND	0.32	U	SW846 8330	05/21-05/23/96	6141167
RDX	ND	0.65	U	SW846 8330	05/21-05/23/96	6141167
Tetryl	ND	0.84	U	SW846 8330	05/21-05/23/96	6[illegible]
1,3,5-Trinitrobenzene	ND	0.32	U	SW846 8330	05/21-05/23/96	6141167
2,4,6-Trinitrotoluene	ND	0.32	U	SW846 8330	05/21-05/23/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.32	U	SW846 8330	05/21-05/23/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	93	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3015

WO # : C434J104
LAB # : H6E160141-012
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 14:40
DATE RECEIVED: 5/16/96
% MOISTURE : 21.5

- - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.32	U	SW846 8330	05/21-05/22/96	6141167
2,4-Dinitrotoluene	ND	0.32	U	SW846 8330	05/21-05/22/96	6141167
2,6-Dinitrotoluene	ND	0.32	U	SW846 8330	05/21-05/22/96	6141167
HMX	ND	0.64	U	SW846 8330	05/21-05/22/96	6141167
Nitrobenzene	ND	0.32	U	SW846 8330	05/21-05/22/96	6141167
2-Nitrotoluene	ND	0.32	U	SW846 8330	05/21-05/22/96	6141167
3-Nitrotoluene	ND	0.32	U	SW846 8330	05/21-05/22/96	6141167
RDX	ND	0.64	U	SW846 8330	05/21-05/22/96	6141167
Tetryl	ND	0.83	U	SW846 8330	05/21-05/22/96	6141167
1,3,5-Trinitrobenzene	ND	0.32	U	SW846 8330	05/21-05/22/96	6141167
2,4,6-Trinitrotoluene	ND	0.32	U	SW846 8330	05/21-05/22/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.32	U	SW846 8330	05/21-05/22/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	94	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3016

WO # : C434L104
LAB # : H6E160141-013
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 14:48
DATE RECEIVED: 5/16/96
% MOISTURE : 24.2

- - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.33	U	SW846 8330	05/21-05/23/96	6141167
2,4-Dinitrotoluene	ND	0.33	U	SW846 8330	05/21-05/23/96	6141167
2,6-Dinitrotoluene	ND	0.33	U	SW846 8330	05/21-05/23/96	6141167
HMX	ND	0.66	U	SW846 8330	05/21-05/23/96	6141167
Nitrobenzene	ND	0.33	U	SW846 8330	05/21-05/23/96	6141167
2-Nitrotoluene	ND	0.33	U	SW846 8330	05/21-05/23/96	6141167
3-Nitrotoluene	ND	0.33	U	SW846 8330	05/21-05/23/96	6141167
RDX	ND	0.66	U	SW846 8330	05/21-05/23/96	6141167
Tetryl	ND	0.86	U	SW846 8330	05/21-05/23/96	6141167
1,3,5-Trinitrobenzene	ND	0.33	U	SW846 8330	05/21-05/23/96	6141167
2,4,6-Trinitrotoluene	ND	0.33	U	SW846 8330	05/21-05/23/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.33	U	SW846 8330	05/21-05/23/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	88	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3017

WO # : C434N104
LAB # : H6E160141-014
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 15:25
DATE RECEIVED: 5/16/96
% MOISTURE : 28.9

- - - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.35	U	SW846 8330	05/21-05/22/96	6141167
2,4-Dinitrotoluene	ND	0.35	U	SW846 8330	05/21-05/22/96	6141167
2,6-Dinitrotoluene	ND	0.35	U	SW846 8330	05/21-05/22/96	6141167
HMX	ND	0.70	U	SW846 8330	05/21-05/22/96	6141167
Nitrobenzene	ND	0.35	U	SW846 8330	05/21-05/22/96	6141167
2-Nitrotoluene	ND	0.35	U	SW846 8330	05/21-05/22/96	6141167
3-Nitrotoluene	ND	0.35	U	SW846 8330	05/21-05/22/96	6141167
RDX	ND	0.70	U	SW846 8330	05/21-05/22/96	6141167
Tetryl	ND	0.91	U	SW846 8330	05/21-05/22/96	6141167
1,3,5-Trinitrobenzene	ND	0.35	U	SW846 8330	05/21-05/22/96	6141167
2,4,6-Trinitrotoluene	ND	0.35	U	SW846 8330	05/21-05/22/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.35	U	SW846 8330	05/21-05/22/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	91	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3018

WO # : C434P104
LAB # : H6E160141-015
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 15:35
DATE RECEIVED: 5/16/96
% MOISTURE : 20.2

- - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.31	U	SW846 8330	05/21-05/22/96	6141167
2,4-Dinitrotoluene	ND	0.31	U	SW846 8330	05/21-05/22/96	6141167
2,6-Dinitrotoluene	ND	0.31	U	SW846 8330	05/21-05/22/96	6141167
HMX	ND	0.63	U	SW846 8330	05/21-05/22/96	6141167
Nitrobenzene	ND	0.31	U	SW846 8330	05/21-05/22/96	6141167
2-Nitrotoluene	ND	0.31	U	SW846 8330	05/21-05/22/96	6141167
3-Nitrotoluene	ND	0.31	U	SW846 8330	05/21-05/22/96	6141167
RDX	ND	0.63	U	SW846 8330	05/21-05/22/96	6141167
Tetryl	ND	0.81	U	SW846 8330	05/21-05/22/96	614[illegible]7
1,3,5-Trinitrobenzene	ND	0.31	U	SW846 8330	05/21-05/22/96	6141167
2,4,6-Trinitrotoluene	ND	0.31	U	SW846 8330	05/21-05/22/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.31	U	SW846 8330	05/21-05/22/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	91	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3019

WO # : C434R104
LAB # : H6E160141-016
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 16:20
DATE RECEIVED: 5/16/96
% MOISTURE : 16.7

- REQUESTED PARAMETERS -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.30	U	SW846 8330	05/21-05/23/96	6141167
2,4-Dinitrotoluene	ND	0.30	U	SW846 8330	05/21-05/23/96	6141167
2,6-Dinitrotoluene	ND	0.30	U	SW846 8330	05/21-05/23/96	6141167
HMX	ND	0.60	U	SW846 8330	05/21-05/23/96	6141167
Nitrobenzene	ND	0.30	U	SW846 8330	05/21-05/23/96	6141167
2-Nitrotoluene	ND	0.30	U	SW846 8330	05/21-05/23/96	6141167
3-Nitrotoluene	ND	0.30	U	SW846 8330	05/21-05/23/96	6141167
RDX	ND	0.60	U	SW846 8330	05/21-05/23/96	6141167
Tetryl	ND	0.78	U	SW846 8330	05/21-05/23/96	6141167
1,3,5-Trinitrobenzene	ND	0.30	U	SW846 8330	05/21-05/23/96	6141167
2,4,6-Trinitrotoluene	ND	0.30	U	SW846 8330	05/21-05/23/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.30	U	SW846 8330	05/21-05/23/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	95	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3020

WO # : C434T104
LAB # : H6E160141-017
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 16:35
DATE RECEIVED: 5/16/96
% MOISTURE : 20.2

- - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.31	U	SW846 8330	05/21-05/22/96	6141167
2,4-Dinitrotoluene	ND	0.31	U	SW846 8330	05/21-05/22/96	6141167
2,6-Dinitrotoluene	ND	0.31	U	SW846 8330	05/21-05/22/96	6141167
HMX	ND	0.63	U	SW846 8330	05/21-05/22/96	6141167
Nitrobenzene	ND	0.31	U	SW846 8330	05/21-05/22/96	6141167
2-Nitrotoluene	ND	0.31	U	SW846 8330	05/21-05/22/96	6141167
3-Nitrotoluene	ND	0.31	U	SW846 8330	05/21-05/22/96	6141167
RDX	ND	0.63	U	SW846 8330	05/21-05/22/96	6141167
Tetryl	ND	0.81	U	SW846 8330	05/21-05/22/96	614[illegible]
1,3,5-Trinitrobenzene	ND	0.31	U	SW846 8330	05/21-05/22/96	6141167
2,4,6-Trinitrotoluene	ND	0.31	U	SW846 8330	05/21-05/22/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.31	U	SW846 8330	05/21-05/22/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	87	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

SDG: PBG802 Project: IT - Plum Brook

Method: Explosives Matrix/No. of Samples: Soil / 12

Validation Samples: 2001 2002 2004
3021 3022 3023 3024 3025
3027 3028 3029 3030

Data Validation Report Summary

		Status Code	Comments
1.	Sample Preservation, Handling, and Transport	A	all coolers @ 3°C
2.	Chain of Custody	A	
3.	Holding Times	A	
4.	GC/MS Tune/Inst Perf	N/A	
5.	Calibrations	A	
6.	Blanks	A	all non-detects
7.	Blank Spike/LCS	A	
8.	Matrix Spike	A	2001 MS/MSD used for all samples
9.	Surrogates	A	
10.	Internal Standards	N/A	
11.	Compound Identification	A	see findings
12.	System Performance	A	
13.	Field QC Samples	A	
14.	Overall Assessment	A	

Status Codes:
A = Acceptable
R = Data Rejected
X = Data acceptable but qualified due to problems

Qualifications:

None

Significant Findings/Recommendations:

#1 > samples 2001, 2002, and 2004 have >50% moisture, no qualifications were required

Overall Data Quality:

Acceptable as is.

Validator's Signature: Deborah L. Stout Date: 7/29/96

Peer Reviewer: J. Thomas Kilcoyne Date: 8/5/96

2/94

IT Corporation - Knoxville

2001

WO # : C434M104
LAB # : H6E160147-011
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 10:30
DATE RECEIVED: 5/16/96
% MOISTURE : 63.6

- **REQUESTED PARAMETERS** -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	REV. QUAL	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.69	U	SW846 8330	05/21-05/23/96	6141169
2,4-Dinitrotoluene	ND	0.69	U	SW846 8330	05/21-05/23/96	6141169
2,6-Dinitrotoluene	ND	0.69	U	SW846 8330	05/21-05/23/96	6141169
HMX	ND	1.4	U	SW846 8330	05/21-05/23/96	6141169
Nitrobenzene	ND	0.69	U	SW846 8330	05/21-05/23/96	6141169
2-Nitrotoluene	ND	0.69	U	SW846 8330	05/21-05/23/96	6141169
3-Nitrotoluene	ND	0.69	U	SW846 8330	05/21-05/23/96	6141169
RDX	ND	1.4	U	SW846 8330	05/21-05/23/96	6141169
Tetryl	ND	1.8	U	SW846 8330	05/21-05/23/96	6141169
1,3,5-Trinitrobenzene	ND	0.69	U	SW846 8330	05/21-05/23/96	6141169
2,4,6-Trinitrotoluene	ND	0.69	U	SW846 8330	05/21-05/23/96	6141169
4-Amino-2,6-dinitrotoluene	ND	0.69	U	SW846 8330	05/21-05/23/96	6141169

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	73	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

2002

WO # : C434H104
LAB # : H6E160147-010
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 10:30
DATE RECEIVED: 5/16/96
% MOISTURE : 63.6

- - - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT		METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.69	U	SW846 8330	05/21-05/23/96	6141169
2,4-Dinitrotoluene	ND	0.69	U	SW846 8330	05/21-05/23/96	6141169
2,6-Dinitrotoluene	ND	0.69	U	SW846 8330	05/21-05/23/96	6141169
HMX	ND	1.4	U	SW846 8330	05/21-05/23/96	6141169
Nitrobenzene	ND	0.69	U	SW846 8330	05/21-05/23/96	6141169
2-Nitrotoluene	ND	0.69	U	SW846 8330	05/21-05/23/96	6141169
3-Nitrotoluene	ND	0.69	U	SW846 8330	05/21-05/23/96	6141169
RDX	ND	1.4	U	SW846 8330	05/21-05/23/96	6141169
Tetryl	ND	1.8	U	SW846 8330	05/21-05/23/96	6141169
1,3,5-Trinitrobenzene	ND	0.69	U	SW846 8330	05/21-05/23/96	6141169
2,4,6-Trinitrotoluene	ND	0.69	U	SW846 8330	05/21-05/23/96	6141169
4-Amino-2,6-dinitrotoluene	ND	0.69	U	SW846 8330	05/21-05/23/96	6141169

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	78	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

2004

WO # : C434Q104
LAB # : H6E160147-012
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 10:20
DATE RECEIVED: 5/16/96
% MOISTURE : 53.4

- - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.54	u	SW846 8330	05/21-05/23/96	6141169
2,4-Dinitrotoluene	ND	0.54	u	SW846 8330	05/21-05/23/96	6141169
2,6-Dinitrotoluene	ND	0.54	u	SW846 8330	05/21-05/23/96	6141169
HMX	ND	1.1	u	SW846 8330	05/21-05/23/96	6141169
Nitrobenzene	ND	0.54	u	SW846 8330	05/21-05/23/96	6141169
2-Nitrotoluene	ND	0.54	u	SW846 8330	05/21-05/23/96	6141169
3-Nitrotoluene	ND	0.54	u	SW846 8330	05/21-05/23/96	6141169
RDX	ND	1.1	u	SW846 8330	05/21-05/23/96	6141169
Tetryl	ND	1.4	u	SW846 8330	05/21-05/23/96	6141169
1,3,5-Trinitrobenzene	ND	0.54	u	SW846 8330	05/21-05/23/96	6141169
2,4,6-Trinitrotoluene	ND	0.54	u	SW846 8330	05/21-05/23/96	6141169
4-Amino-2,6-dinitrotoluene	ND	0.54	u	SW846 8330	05/21-05/23/96	6141169

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	89	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3021

WO # : C433010A
LAB # : H6E160147-001
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 8:25
DATE RECEIVED: 5/16/96
% MOISTURE : 17.2

- - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	BEV.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.30	u	SW846 8330	05/21-05/22/96	6141169
2,4-Dinitrotoluene	ND	0.30	u	SW846 8330	05/21-05/22/96	6141169
2,6-Dinitrotoluene	ND	0.30	u	SW846 8330	05/21-05/22/96	6141169
HMX	ND	0.60	u	SW846 8330	05/21-05/22/96	6141169
Nitrobenzene	ND	0.30	u	SW846 8330	05/21-05/22/96	6141169
2-Nitrotoluene	ND	0.30	u	SW846 8330	05/21-05/22/96	6141169
3-Nitrotoluene	ND	0.30	u	SW846 8330	05/21-05/22/96	6141169
RDX	ND	0.60	u	SW846 8330	05/21-05/22/96	6141169
Tetryl	ND	0.79	u	SW846 8330	05/21-05/22/96	614[illegible]
1,3,5-Trinitrobenzene	ND	0.30	u	SW846 8330	05/21-05/22/96	6141169
2,4,6-Trinitrotoluene	ND	0.30	u	SW846 8330	05/21-05/22/96	6141169
4-Amino-2,6-dinitrotoluene	ND	0.30	u	SW846 8330	05/21-05/22/96	6141169

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	92	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3022

WO # : C4332104
LAB # : H6E160147-002
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 8:35
DATE RECEIVED: 5/16/96
% MOISTURE : 24.0

- - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	REV. C	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.33	U	SW846 8330	05/21-05/22/96	6141169
2,4-Dinitrotoluene	ND	0.33	U	SW846 8330	05/21-05/22/96	6141169
2,6-Dinitrotoluene	ND	0.33	U	SW846 8330	05/21-05/22/96	6141169
HMX	ND	0.66	U	SW846 8330	05/21-05/22/96	6141169
Nitrobenzene	ND	0.33	U	SW846 8330	05/21-05/22/96	6141169
2-Nitrotoluene	ND	0.33	U	SW846 8330	05/21-05/22/96	6141169
3-Nitrotoluene	ND	0.33	U	SW846 8330	05/21-05/22/96	6141169
RDX	ND	0.66	U	SW846 8330	05/21-05/22/96	6141169
Tetryl	ND	0.86	U	SW846 8330	05/21-05/22/96	6141169
1,3,5-Trinitrobenzene	ND	0.33	U	SW846 8330	05/21-05/22/96	6141169
2,4,6-Trinitrotoluene	ND	0.33	U	SW846 8330	05/21-05/22/96	6141169
4-Amino-2,6-dinitrotoluene	ND	0.33	U	SW846 8330	05/21-05/22/96	6141169

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	87	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3023

WO # : C4335104
LAB # : H6E160147-003
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 9:05
DATE RECEIVED: 5/16/96
% MOISTURE : 23.0

- REQUESTED PARAMETERS -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	REV.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.32	u	SW846 8330	05/21-05/23/96	6141169
2,4-Dinitrotoluene	ND	0.32	u	SW846 8330	05/21-05/23/96	6141169
2,6-Dinitrotoluene	ND	0.32	u	SW846 8330	05/21-05/23/96	6141169
HMX	ND	0.65	u	SW846 8330	05/21-05/23/96	6141169
Nitrobenzene	ND	0.32	u	SW846 8330	05/21-05/23/96	6141169
2-Nitrotoluene	ND	0.32	u	SW846 8330	05/21-05/23/96	6141169
3-Nitrotoluene	ND	0.32	u	SW846 8330	05/21-05/23/96	6141169
RDX	ND	0.65	u	SW846 8330	05/21-05/23/96	6141169
Tetryl	ND	0.84	u	SW846 8330	05/21-05/23/96	6141169
1,3,5-Trinitrobenzene	ND	0.32	u	SW846 8330	05/21-05/23/96	6141169
2,4,6-Trinitrotoluene	ND	0.32	u	SW846 8330	05/21-05/23/96	6141169
4-Amino-2,6-dinitrotoluene	ND	0.32	u	SW846 8330	05/21-05/23/96	6141169

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	97	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3024

WO # : C433A104
LAB # : H6E160147-004
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 9:15
DATE RECEIVED: 5/16/96
% MOISTURE : 26.8

- **REQUESTED PARAMETERS** -

REV

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	QUAL	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141169
2,4-Dinitrotoluene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141169
2,6-Dinitrotoluene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141169
HMX	ND	0.68	U	SW846 8330	05/21-05/23/96	6141169
Nitrobenzene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141169
2-Nitrotoluene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141169
3-Nitrotoluene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141169
RDX	ND	0.68	U	SW846 8330	05/21-05/23/96	6141169
Tetryl	ND	0.89	U	SW846 8330	05/21-05/23/96	6141169
1,3,5-Trinitrobenzene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141169
2,4,6-Trinitrotoluene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141169
4-Amino-2,6-dinitrotoluene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141169

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	90	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3025

WO # : C433F104
LAB # : H6E160147-005
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 9:15
DATE RECEIVED: 5/16/96
% MOISTURE : 30.1

- **REQUESTED PARAMETERS** -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT		METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.36	u	SW846 8330	05/21-05/23/96	6141169
2,4-Dinitrotoluene	ND	0.36	u	SW846 8330	05/21-05/23/96	6141169
2,6-Dinitrotoluene	ND	0.36	u	SW846 8330	05/21-05/23/96	6141169
HMX	ND	0.72	u	SW846 8330	05/21-05/23/96	6141169
Nitrobenzene	ND	0.36	u	SW846 8330	05/21-05/23/96	6141169
2-Nitrotoluene	ND	0.36	u	SW846 8330	05/21-05/23/96	6141169
3-Nitrotoluene	ND	0.36	u	SW846 8330	05/21-05/23/96	6141169
RDX	ND	0.72	u	SW846 8330	05/21-05/23/96	6141169
Tetryl	ND	0.93	u	SW846 8330	05/21-05/23/96	614[illegible]69
1,3,5-Trinitrobenzene	ND	0.36	u	SW846 8330	05/21-05/23/96	6141169
2,4,6-Trinitrotoluene	ND	0.36	u	SW846 8330	05/21-05/23/96	6141169
4-Amino-2,6-dinitrotoluene	ND	0.36	u	SW846 8330	05/21-05/23/96	6141169

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	96	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3027

WO # : C433P104
LAB # : H6E160147-006
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 9:40
DATE RECEIVED: 5/16/96
% MOISTURE : 16.2

- - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.30	U	SW846 8330	05/21-05/23/96	6141169
2,4-Dinitrotoluene	ND	0.30	U	SW846 8330	05/21-05/23/96	6141169
2,6-Dinitrotoluene	ND	0.30	U	SW846 8330	05/21-05/23/96	6141169
HMX	ND	0.60	U	SW846 8330	05/21-05/23/96	6141169
Nitrobenzene	ND	0.30	U	SW846 8330	05/21-05/23/96	6141169
2-Nitrotoluene	ND	0.30	U	SW846 8330	05/21-05/23/96	6141169
3-Nitrotoluene	ND	0.30	U	SW846 8330	05/21-05/23/96	6141169
RDX	ND	0.60	U	SW846 8330	05/21-05/23/96	6141169
Tetryl	ND	0.78	U	SW846 8330	05/21-05/23/96	6141169
1,3,5-Trinitrobenzene	ND	0.30	U	SW846 8330	05/21-05/23/96	6141169
2,4,6-Trinitrotoluene	ND	0.30	U	SW846 8330	05/21-05/23/96	6141169
4-Amino-2,6-dinitrotoluene	ND	0.30	U	SW846 8330	05/21-05/23/96	6141169

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	84	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3028

WO # : C4344104
LAB # : H6E160147-007
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 9:50
DATE RECEIVED: 5/16/96
% MOISTURE : 14.4

- **REQUESTED PARAMETERS** -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	REV. QUAL.	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.29	U	SW846 8330	05/21-05/23/96	6141169
2,4-Dinitrotoluene	ND	0.29	U	SW846 8330	05/21-05/23/96	6141169
2,6-Dinitrotoluene	ND	0.29	U	SW846 8330	05/21-05/23/96	6141169
HMX	ND	0.58	U	SW846 8330	05/21-05/23/96	6141169
Nitrobenzene	ND	0.29	U	SW846 8330	05/21-05/23/96	6141169
2-Nitrotoluene	ND	0.29	U	SW846 8330	05/21-05/23/96	6141169
3-Nitrotoluene	ND	0.29	U	SW846 8330	05/21-05/23/96	6141169
RDX	ND	0.58	U	SW846 8330	05/21-05/23/96	6141169
Tetryl	ND	0.76	U	SW846 8330	05/21-05/23/96	6141169
1,3,5-Trinitrobenzene	ND	0.29	U	SW846 8330	05/21-05/23/96	6141169
2,4,6-Trinitrotoluene	ND	0.29	U	SW846 8330	05/21-05/23/96	6141169
4-Amino-2,6-dinitrotoluene	ND	0.29	U	SW846 8330	05/21-05/23/96	6141169

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	84	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3029

WO # : C434C104
LAB # : H6E160147-008
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 10:00
DATE RECEIVED: 5/16/96
% MOISTURE : 24.9

- - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	PEV	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.33	U	SW846 8330	05/21-05/23/96	6141169
2,4-Dinitrotoluene	ND	0.33	U	SW846 8330	05/21-05/23/96	6141169
2,6-Dinitrotoluene	ND	0.33	U	SW846 8330	05/21-05/23/96	6141169
HMX	ND	0.67	U	SW846 8330	05/21-05/23/96	6141169
Nitrobenzene	ND	0.33	U	SW846 8330	05/21-05/23/96	6141169
2-Nitrotoluene	ND	0.33	U	SW846 8330	05/21-05/23/96	6141169
3-Nitrotoluene	ND	0.33	U	SW846 8330	05/21-05/23/96	6141169
RDX	ND	0.67	U	SW846 8330	05/21-05/23/96	6141169
Tetryl	ND	0.87	U	SW846 8330	05/21-05/23/96	6141169
1,3,5-Trinitrobenzene	ND	0.33	U	SW846 8330	05/21-05/23/96	6141169
2,4,6-Trinitrotoluene	ND	0.33	U	SW846 8330	05/21-05/23/96	6141169
4-Amino-2,6-dinitrotoluene	ND	0.33	U	SW846 8330	05/21-05/23/96	6141169

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	88	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3030

WO # : C434F104
LAB # : H6E160147-009
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 10:10
DATE RECEIVED: 5/16/96
% MOISTURE : 25.5

- - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	REV	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141169
2,4-Dinitrotoluene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141169
2,6-Dinitrotoluene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141169
HMX	ND	0.67	U	SW846 8330	05/21-05/23/96	6141169
Nitrobenzene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141169
2-Nitrotoluene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141169
3-Nitrotoluene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141169
RDX	ND	0.67	U	SW846 8330	05/21-05/23/96	6141169
Tetryl	ND	0.87	U	SW846 8330	05/21-05/23/96	61[illegible]9
1,3,5-Trinitrobenzene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141169
2,4,6-Trinitrotoluene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141169
4-Amino-2,6-dinitrotoluene	ND	0.34	U	SW846 8330	05/21-05/23/96	6141169

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	90	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

APPENDIX G

CHEMICAL ANALYTICAL DATA

Quanterra Incorporated
5815 Middlebrook Pike
Knoxville, Tennessee 37921

423 588-6401 Telephone
423 584-4315 Fax

Quanterra
Environmental Services

ANALYTICAL REPORT

PROJECT NO. 764678

G-8 Burning Ground PBG801
Lot#: **H6E160147**

Kim Allen Arrant

IT Corporation - Knoxville

QUANTERRA INCORPORATED

Tara L Pipes for
John D. Reynolds
Project Manager

June 6, 1996

Quanterra Environmental Services

SAMPLE SUMMARY

The analytical results of the samples listed below are presented on the following pages.

WO #	LABORATORY ID	SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	
C4330	H6E160147-001	3021	5/15/96	8:25
C4332	H6E160147-002	3022	5/15/96	8:35
C4335	H6E160147-003	3023	5/15/96	9:05
C433A	H6E160147-004	3024	5/15/96	9:15
C433F	H6E160147-005	3025	5/15/96	9:15
C433P	H6E160147-006	3027	5/15/96	9:40
C4344	H6E160147-007	3028	5/15/96	9:50
C434C	H6E160147-008	3029	5/15/96	10:00
C434F	H6E160147-009	3030	5/15/96	10:10
C434H	H6E160147-010	2002	5/15/96	10:30
C434M	H6E160147-011	2001	5/15/96	10:30
C434Q	H6E160147-012	2004	5/15/96	10:20

Quanterra
Environmental Services

ANALYTICAL METHODS SUMMARY
H6E160147

Parameters	Methods
Nitroaromatics and Nitramines by HPLC	SW846 8330
Semivolatile Organic Compounds by GC/MS	SW846 8270B
Organochlorine Pesticides and PCB's	SW846 8081
Volatile Organics by GC/MS	SW846 8260A
Inductively Coupled Plasma (ICP) Metals	SW846 6010A
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010A
Total Residue as Percent Moisture	MCAWW 160.3 MOD

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

Quanterra
Environmental Services

PROJECT NARRATIVE

All holding times and QC criteria were met with the following exceptions:

Volatiles

Samples 2001, 2002, 2004, 3024, 3027, and 3029 had surrogate bromofluorobenzene and/or internal standards 1,4-difluorobenzene-d4 and chlorobenzene-d5 below QC limits due to matrix effects as confirmed by re-analyses. The matrix spike/matrix spike duplicate (MS/MSD) had percent recoveries for spikes benzene and chlorobenzene below QC limits, and the relative percent difference (RPD) for toluene was outside QC limits; since the laboratory control sample (LCS) had all spike recoveries within limits, matrix effects are suspected.

Metals

The matrix spike that was performed on sample 3021 was within acceptance limits for all parameters except for antimony, arsenic, lead, selenium and thallium. The matrix spike duplicate that was performed was within acceptance limits for all parameters except for antimony, arsenic, barium, copper, lead, selenium and thallium. Those analytes outside acceptance limits for the matrix spike/matrix spike duplicate appear to be attributable to either matrix interferences and/or sample inhomogeneity.

The relative percent difference (RPD) that was determined fromthe matrix spike/matrix spike duplicate spike recovery results was within acceptance limits for all parameters except for barium and manganese.

Pesticides/PCBs

Due to sample matrix interferences, some analytes in the continuing check standards did not meet method criteria, due to increasing instrument response. No positive hits were found for these analytes.

Explosives

Samples 3023, 3028 and 2001 had a ending standard that failed high for 4-amino-2,6-dinitrotoluene due to increase in instrument sensitivity.. Since there was no positives for 4-amino-2,6-dinitotoluene the data was accepted and submitted.

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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3001

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C431J102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C431JR

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 22 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	2000	U
83-32-9	Acenaphthene	420	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	420	U
121-14-2	2,4-Dinitrotoluene	420	U
84-66-2	Diethylphthalate	420	U
7005-72-3	4-Chlorophenyl-phenylether	420	U
86-73-7	Fluorene	420	U
100-01-6	4-Nitroaniline	2000	U
534-52-1	4,6-Dinitro-2-Methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	420	U
101-55-3	4-Bromophenyl-phenylether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	420	U
120-12-7	Anthracene	420	U
86-74-8	Carbazole	420	U
84-74-2	Di-n-Butylphthalate	420	U
206-44-0	Fluoranthene	76	J
129-00-0	Pyrene	65	J
85-68-7	Butylbenzylphthalate	420	U
91-94-1	3,3'-Dichlorobenzidine	2000	U
56-55-3	Benzo(a)Anthracene	420	U
218-01-9	Chrysene	50	J
117-81-7	bis(2-Ethylhexyl)Phthalate	55	BJ
117-84-0	Di-n-Octyl Phthalate	420	U
205-99-2	Benzo(b)Fluoranthene	420	U
207-08-9	Benzo(k)Fluoranthene	420	U
50-32-8	Benzo(a)Pyrene	44	J
193-39-5	Indeno(1,2,3-cd)Pyrene	420	U
53-70-3	Dibenz(a,h)Anthracene	420	U
191-24-2	Benzo(g,h,i)Perylene	420	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3002

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C432F102

Sample wt/vol: 30.30 (g/mL) G Lab File ID: C432F

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 20 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	410	U
111-44-4	bis(2-Chloroethyl)Ether	410	U
95-57-8	2-Chlorophenol	410	U
541-73-1	1,3-Dichlorobenzene	410	U
106-46-7	1,4-Dichlorobenzene	410	U
95-50-1	1,2-Dichlorobenzene	410	U
95-48-7	2-Methylphenol	410	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	410	U
106-44-5	4-Methylphenol	410	U
621-64-7	N-Nitroso-Di-n-Propylamine	410	U
67-72-1	Hexachloroethane	410	U
98-95-3	Nitrobenzene	410	U
78-59-1	Isophorone	410	U
88-75-5	2-Nitrophenol	410	U
105-67-9	2,4-Dimethylphenol	410	U
111-91-1	bis(2-Chloroethoxy)Methane	410	U
120-83-2	2,4-Dichlorophenol	410	U
120-82-1	1,2,4-Trichlorobenzene	410	U
91-20-3	Naphthalene	410	U
106-47-8	4-Chloroaniline	410	U
87-68-3	Hexachlorobutadiene	410	U
59-50-7	4-Chloro-3-Methylphenol	410	U
91-57-6	2-Methylnaphthalene	410	U
77-47-4	Hexachlorocyclopentadiene	2000	U
88-06-2	2,4,6-Trichlorophenol	410	U
95-95-4	2,4,5-Trichlorophenol	410	U
91-58-7	2-Chloronaphthalene	410	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethylphthalate	410	U
208-96-8	Acenaphthylene	410	U
606-20-2	2,6-Dinitrotoluene	410	U

SEMI-VOLATILE ORGANICS

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3001

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C431J102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C431JR

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 22 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	420	U
111-44-4	bis(2-Chloroethyl)Ether	420	U
95-57-8	2-Chlorophenol	420	U
541-73-1	1,3-Dichlorobenzene	420	U
106-46-7	1,4-Dichlorobenzene	420	U
95-50-1	1,2-Dichlorobenzene	420	U
95-48-7	2-Methylphenol	420	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	420	U
106-44-5	4-Methylphenol	420	U
621-64-7	N-Nitroso-Di-n-Propylamine	420	U
67-72-1	Hexachloroethane	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2,4-Dimethylphenol	420	U
111-91-1	bis(2-Chloroethoxy)Methane	420	U
120-83-2	2,4-Dichlorophenol	420	U
120-82-1	1,2,4-Trichlorobenzene	420	U
91-20-3	Naphthalene	420	U
106-47-8	4-Chloroaniline	420	U
87-68-3	Hexachlorobutadiene	420	U
59-50-7	4-Chloro-3-Methylphenol	420	U
91-57-6	2-Methylnaphthalene	420	U
77-47-4	Hexachlorocyclopentadiene	2000	U
88-06-2	2,4,6-Trichlorophenol	420	U
95-95-4	2,4,5-Trichlorophenol	420	U
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethylphthalate	420	U
208-96-8	Acenaphthylene	420	U
606-20-2	2,6-Dinitrotoluene	420	U

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Lab File ID: QB0524 Lab Sample ID: C4733101

Date Analyzed: 05/24/96 Time Analyzed: 1245

Matrix: (soil/water) SOIL Level:(low/med) LOW

Instrument ID: I500A

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	3001RE	C431J201	VC431JR	2222
02	3003RE	C432M201	VC432MR	1913
03	3005	C4334101	VC4334	2122
04	3009RE	C433C201	VC433CR	1841
05	3011RE	C4341201	VC4341R	1809
06	3012RE	C4348201	VC4348R	1631
07	3015	C434J101	VC434J	2047
08	3017	C434N101	VC434N	2016
09	3020	C434T101	VC434T	1944
10	VLCSC4733102	C4733102	QLCS0524	1315

COMMENTS: CLP,,,VBLK_____,L,S,_____,V,BLANK,
CAP,QS0524,QBFB0524,,,,,

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Lab File ID: QB0528 Lab Sample ID: C47G3101

Date Analyzed: 05/28/96 Time Analyzed: 1141

Matrix: (soil/water) SOIL Level: (low/med) LOW

Instrument ID: I500A

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	3003	C432M101	VC432MRR	1513
02	3017RE	C434N201	VC434NRR	1543
03	3018	C434P101	VC434PR	1613
04	3019	C434R101	VC434R	1343
05	VLCSC47G3102	C47G3102	QLCS0528	1220

COMMENTS: CLP,,,VBLK_____,L,S,_____,V,BLANK,
CAP,QS0528,QBFB0528,,,,,

3B
SOIL VOLATILE LCS RECOVERY

b Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix Spike - EPA Sample No.: VBLKC47G3101 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	50.0	0	49.9	100	36-144
Trichloroethene	50.0	0	56.6	113	72-134
Benzene	50.0	0	45.3	91	75-137
Toluene	50.0	0	46.6	93	70-138
Chlorobenzene	50.0	0	42.6	85	71-147

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

* Values outside of QC limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS: CLP,,,VBLK_____,L,S,_____,V,BLANK,
CAP,QS0528,QBFB0528,,,,,

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Lab File ID: WB0521B Lab Sample ID: C47G1101

Date Analyzed: 05/21/96 Time Analyzed: 1821

Matrix: (soil/water) SOIL Level:(low/med) LOW

Instrument ID: I500A

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	3001	C431J101	VC431J	2123
02	3002	C432F101	VC432F	2152
03	3004	C432W101	VC432W	1943
04	3009	C433C101	VC433C	2318
05	3010	C433N101	VC433N	2347
06	3011	C4341101	VC4341	0015
07	3012	C4348101	VC4348	0042
08	3013	C434E101	VC434E	0110
09	3014	C434G101	VC434G	0138
10	3016	C434L101	VC434L	0234
11	VLCSC47G1102	C47G1102	WLCS0521	1906
12	3004MS	C432W102	VC432WMS	2026
13	3004MSD	C432W103	VC432WMD	2055

COMMENTS: CLP,,,VBLK_____,L,S,_____,V,B,
CAP,WS0521,WBFB0521B,,,,,

3B
SOIL VOLATILE LCS RECOVERY

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix Spike - EPA Sample No.: VBLKC471101 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	50.0	0	50.1	100	36-144
Trichloroethene	50.0	0	45.8	92	72-134
Benzene	50.0	0	46.2	92	75-137
Toluene	50.0	0	44.5	89	70-138
Chlorobenzene	50.0	0	44.6	89	71-147

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

* Values outside of QC limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS: CLP,,,VBLK_____,L,S,_____,V,B,
CAP,WS0521,WBFB0521B,,,,,

3B
SOIL VOLATILE LCS RECOVERY

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix Spike - EPA Sample No.: VBLKC4733101 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	50.0	0	56.1	112	36-144
Trichloroethene	50.0	1.06	65.0	128	72-134
Benzene	50.0	0	52.2	104	75-137
Toluene	50.0	0	59.6	119	70-138
Chlorobenzene	50.0	0	47.8	96	71-147

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

* Values outside of QC limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS: CLP,,,VBLK_____,L,S,_____,V,BLANK,
CAP,QS0524,QBFB0524,,,,,

2B
SOIL VOLATILE SURROGATE RECOVERY

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (TOL) #	S2 (BFB) #	S3 (DCE) #	OTHER	TOT OUT
01	VBLKC47G3101	103	91	97	0	0

		QC LIMITS
S1 (TOL)	= Toluene-d8	(80-120)
S2 (BFB)	= Bromofluorobenzene	(80-120)
S3 (DCE)	= 1,2-Dichloroethane-d4	(80-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix Spike - EPA Sample No.: 3004 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	64.1	0	67.1	105	36-144
Trichloroethene	64.1	0	56.9	89	72-134
Benzene	64.1	0	58.9	92	75-137
Toluene	64.1	12.2	60.8	76	70-138
Chlorobenzene	64.1	0	56.8	89	71-147

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	64.1	69.8	109	-4	22	36-144
Trichloroethene	64.1	58.6	91	-2	24	72-134
Benzene	64.1	62.2	97	-5	21	75-137
Toluene	64.1	63.5	80	-5	21	70-138
Chlorobenzene	64.1	58.1	91	-2	21	71-147

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: CLP,EG141,,3004,L,S,C432W101,V,E,
CAP,WS0521,WBFB0521B,WB0521B,,,,

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKC47G3101

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C47G3101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: QB0528

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

% Moisture: not dec. ____ Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

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

2B
SOIL VOLATILE SURROGATE RECOVERY

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (TOL) #	S2 (BFB) #	S3 (DCE) #	OTHER	TOT OUT
01	3001	98	95	105	0	0
02	3001RE	95	75 *	113	0	1
03	3002	105	100	105	0	0
04	3003	90	69 *	99	0	1
05	3003RE	97	77 *	125 *	0	2
06	3004	96	88	91	0	0
07	3005	112	82	112	0	0
08	3009	103	94	116	0	0
09	3009RE	85	69 *	114	0	1
10	3010	102	96	99	0	0
11	3011	96	93	106	0	0
12	3011RE	79 *	72 *	99	0	2
13	3012	90	90	103	0	0
14	3012RE	95	85	112	0	0
15	3013	99	96	103	0	0
16	3014	91	90	96	0	0
17	3015	114	87	110	0	0
18	3016	95	86	86	0	0
19	3017	114	85	129 *	0	1
20	3017RE	102	82	112	0	0
21	3018	102	84	101	0	0
22	3019	120	85	105	0	0
23	3020	116	93	110	0	0
24	VLCSC4733102	114	93	109	0	0
25	VLCSC47G3102	101	86	93	0	0
26	3004MS	92	93	93	0	0
27	3004MSD	99	87	102	0	0
28	VLCSC47G1102	95	94	89	0	0
29	VBLKC471101	94	96	90	0	0
30	VBLKC4733101	112	90	112	0	0

		QC LIMITS
S1 (TOL)	= Toluene-d8	(80-120)
S2 (BFB)	= Bromofluorobenzene	(80-120)
S3 (DCE)	= 1,2-Dichloroethane-d4	(80-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKC471101

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C47G1101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: WB0521B

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

% Moisture: not dec. _____ Date Analyzed: 05/21/96

Column: (pack/cap) CAP Dilution Factor: 1.0

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKC4733101

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C4733101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: QB0524

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

% Moisture: not dec. ____ Date Analyzed: 05/24/96

Column: (pack/cap) CAP Dilution Factor: 1.0

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VLCSC4733102

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C4733102

Sample wt/vol: 5.00 (g/mL) G Lab File ID: QLCS0524

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

% Moisture: not dec. _____ Date Analyzed: 05/24/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	20	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	56	
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	20	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
79-01-6	Trichloroethene	65	B
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	52	
10061-01-5	cis-1,3-Dichloropropene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	20	U
591-78-6	2-Hexanone	20	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	60	
108-90-7	Chlorobenzene	48	
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VLCSC47G3102

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C47G3102

Sample wt/vol: 5.00 (g/mL) G Lab File ID: OLCS0528

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

% Moisture: not dec. ____ Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	20	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	50	
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	20	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
79-01-6	Trichloroethene	57	
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	45	
10061-01-5	cis-1,3-Dichloropropene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	20	U
591-78-6	2-Hexanone	20	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	47	
108-90-7	Chlorobenzene	43	
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3004MSD

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C432W103

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC432WMD

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 22 Date Analyzed: 05/21/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	3	BJ
67-64-1	Acetone	12	BJ
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	70	
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	26	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
79-01-6	Trichloroethene	59	
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	62	B
10061-01-5	cis-1,3-Dichloropropene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	26	U
591-78-6	2-Hexanone	26	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	63	B
108-90-7	Chlorobenzene	58	B
100-41-4	Ethylbenzene	2	J
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	2	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VLCSC47G1102

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C47G1102

Sample wt/vol: 5.00 (g/mL) G Lab File ID: WLCS0521

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

% Moisture: not dec. _____ Date Analyzed: 05/21/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	2	BJ
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	50	
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	20	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
79-01-6	Trichloroethene	46	
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	46	B
10061-01-5	cis-1,3-Dichloropropene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	20	U
591-78-6	2-Hexanone	20	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	44	B
108-90-7	Chlorobenzene	45	B
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3020

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434T101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434T

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 20 Date Analyzed: 05/24/96

Column: (pack/cap) CAP Dilution Factor: 1.0

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3004MS

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C432W102

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC432WMS

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 22 Date Analyzed: 05/21/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	1	BJ
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	2	BJ
67-64-1	Acetone	9	BJ
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	67	
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	26	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
79-01-6	Trichloroethene	57	
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	59	B
10061-01-5	cis-1,3-Dichloropropene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	26	U
591-78-6	2-Hexanone	26	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	61	B
108-90-7	Chlorobenzene	57	B
100-41-4	Ethylbenzene	2	J
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	2	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3018

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434P101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434PR

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 20 Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3019

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434R101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434R

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 17 Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	24	U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	24	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	24	U
591-78-6	2-Hexanone	24	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	1	J
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3017

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434N101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434N

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 29 Date Analyzed: 05/24/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	1	J
67-64-1	Acetone	28	U
75-15-0	Carbon Disulfide	14	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	28	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
79-01-6	Trichloroethene	2	BJ
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	28	U
591-78-6	2-Hexanone	28	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	7	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3017RE

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434N201

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434NRR

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 29 Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	7	U
67-64-1	Acetone	28	U
75-15-0	Carbon Disulfide	14	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	28	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	28	U
591-78-6	2-Hexanone	28	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	7	J
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	7	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3015

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434J101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434J

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 22 Date Analyzed: 05/24/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	26	U
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	26	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	26	U
591-78-6	2-Hexanone	26	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	5	J
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3016

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C4334L01

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434L

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 24 Date Analyzed: 05/22/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	7	U
67-64-1	Acetone	26	U
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	26	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	26	U
591-78-6	2-Hexanone	26	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	120	
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	6	J
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	33	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3013

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434E101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434E

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 22 Date Analyzed: 05/22/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	26	U
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	26	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	26	U
591-78-6	2-Hexanone	26	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	3	J
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	3	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3014

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434G101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434G

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 22 Date Analyzed: 05/22/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	2	J
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	26	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	2	J
591-78-6	2-Hexanone	26	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	32	
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	2	J
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	9	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3012

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C4348101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC4348

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 18 Date Analyzed: 05/22/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	11	J
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	24	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	24	U
591-78-6	2-Hexanone	24	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	5	J
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	1	J
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	10	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3012RE

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C4348201

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC4348R

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 18 Date Analyzed: 05/24/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	24	U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	24	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	24	U
591-78-6	2-Hexanone	24	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	9	
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	J
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	8	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3011

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C4341101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC4341

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 22 Date Analyzed: 05/22/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	12	J
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	26	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	26	U
591-78-6	2-Hexanone	26	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	2	J
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3011RE

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C4341201

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC4341R

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 22 Date Analyzed: 05/24/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	26	U
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	26	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	26	U
591-78-6	2-Hexanone	26	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	J
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3009RE

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C433C201

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC433CR

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 27 Date Analyzed: 05/24/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	7	U
67-64-1	Acetone	27	U
75-15-0	Carbon Disulfide	14	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	27	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	27	U
591-78-6	2-Hexanone	27	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	17	
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	4	J
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	38	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3010

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C433N101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC433N

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 27 Date Analyzed: 05/21/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	16	J
75-15-0	Carbon Disulfide	14	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	27	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	27	U
591-78-6	2-Hexanone	27	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	120	
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	4	J
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	24	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3005

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C4334101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC4334

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 25 Date Analyzed: 05/24/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	13	U
67-64-1	Acetone	13	U
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	27	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	27	U
591-78-6	2-Hexanone	27	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	8	
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	7	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

3009

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C433C101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC433C

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 27 Date Analyzed: 05/21/96

Column: (pack/cap) CAP Dilution Factor: 1.0

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3003

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C432M101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC432MRR

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 28 Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	7	U
67-64-1	Acetone	28	U
75-15-0	Carbon Disulfide	14	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	28	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	28	U
591-78-6	2-Hexanone	28	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	2	J
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	7	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3004

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C432W101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC432W

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 22 Date Analyzed: 05/21/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	1	J
67-64-1	Acetone	6	J
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	26	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	26	U
591-78-6	2-Hexanone	26	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	12	
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	1	J
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	7	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3001RE

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C431J201

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC431JR

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 22 Date Analyzed: 05/24/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	26	U
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	26	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	26	U
591-78-6	2-Hexanone	26	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	2	J
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	4	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3002

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C432F101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC432F

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 20 Date Analyzed: 05/21/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	1	J
67-64-1	Acetone	17	J
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	25	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	25	U
591-78-6	2-Hexanone	25	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	46	
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	3	J
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	15	

VOLATILE ORGANICS

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3001

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C431J101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC431J

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 22 Date Analyzed: 05/21/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	1	J
67-64-1	Acetone	26	U
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	26	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	26	U
591-78-6	2-Hexanone	26	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	5	J
108-90-7	Chlorobenzene	1	J
100-41-4	Ethylbenzene	1	J
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	8	

Quanterra
Environmental Services

PROJECT NARRATIVE

Comments:

Volatiles and Semivolatiles data were reported with qualifiers as follows:

U- Compound analyzed for but not detected; value given is quantitation limit.
E- Compound exceeded calibration range.
D- Compound analyzed at a secondary dilution factor.
J - Compound detected but below quantitation limit; value estimated.
S - Spiked compound.
B- Compound found in method blank.
A- Suspected aldol condensation product.
Y- Indistinguishable isomer in tentatively identified compounds.
N- Presumptive evidence of compound presence.

Metals data were reported with qualifiers as follows:

"C" Qualifiers

U - Compound was analyzed for but not detected. The number is the reporting limit for the sample.
B - Value greater than instrument detection limit, but less than contract required quantitation limit.

"Q" Qualifiers

* - Duplicate analysis outside control limits.
N - Spiked sample recovery outside control limits.
S - The reported value was determined by method of standard additions.

"M" Qualifiers

P - Analysis performed by ICP.
V - Analysis performed by CVAA.

Miscellaneous

D - Duplicate.
S - Spike.
NR- Not required.
G - Native analyte > 4 times spike added, therefore, acceptance criteria do not apply.
X - Detection limits higher than normal due to sample matrix interferences.

SAMPLE RECEIPT DOCUMENTATION

Quanterra

Environmental Services

ANALYTICAL METHODS SUMMARY
H6E160141

Parameters	Methods
Nitroaromatics and Nitramines by HPLC	SW846 8330
Semivolatile Organic Compounds by GC/MS	SW846 8270B
Organochlorine Pesticides and PCB's	SW846 8081
Volatile Organics by GC/MS	SW846 8260A
Inductively Coupled Plasma (ICP) Metals	SW846 6010A
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010A
Total Residue as Percent Moisture	MCAWW 160.3 MOD

References:

MCAWW "Methods for Chemical Analysis of Water and Wastes", EPA-600/4-79-020, March 1983 and subsequent revisions.

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

Quanterra
Environmental Services

PROJECT NARRATIVE

All holding times and QC criteria were met with the following exceptions:

Volatiles

Samples 3001,3003, 3009, 3011, 3012, 3017, and 3019 had internal standards and/or surrogates outside of QC limits due to matrix effects.

Metals

The matrix spike that was performed on sample 3004 was within acceptance for all parameters except antimony, arsenic, barium, lead, selenium, silver, thallium and zinc.

The relative percent difference (RPD) between the matrix spike and matrix spike duplicate was within limits for all parameters except for iron and manganese.

Those elements outside acceptance limits for the matrix spike and matrix spike duplicate are attributable to matrix interference's. Those elements outside acceptance limits for the RPD criteria are attributable to sample inhomogeneity.

Pesticides/PCBs

Due to the effects of the sample matrix on the GC system, some analytes in the continuing check standards did not meet 15% method criteria, due to increasing instrument response. No positive hits were found for these analytes.

Explosives

Samples 3010,3011,3013,3014 and 3016 had a ending standard that failed high for 4-amino-2,6-dinitrotoluene due to increase in instrument sensitivity.. Since there was no positives for 4-amino-2,6-dinitotoluene the data was accepted and submitted.

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Quanterra Environmental Services

Quanterra Condition Upon Receipt Anomaly Report (CUR)
QES - Knoxville

CUR No. N/A
Lot HLE16014

Client: IT CORP
Project Name: PLUMBROOK G-8

Date Received: 5-16-96
Initiated By: BKD
RFA/COC Nos.: 473817

Condition/Anomaly/Variance (select from legend - on back):

Client Sample ID	Analysis Requested	Condition (see legend)	Comments/Action
PBOW-96-MS02-B68-3006-(2-3)	SW846	7A	PBOW-96-MS02-B68-3006-(2-3) B
PBOW-96-MD02-B68-3007-(2-3)	↓	↓	PBOW-96-MS02-B68-3007-(2-3)
SAMPLES BETWEEN 3001-THUR 3020 LISTED ON COC AS 3-15-96			FOR COLLECTION DATE, CONTAINERS
HAVE 4-14-96 AS COLLECTION DATE		7A	
			* Collection date is
			5/14/96 per Kim Arrant/IT
			* Log in all samples per
			RFA/COC.

Corrective Action:

- [x] Client informed verbally on 5/16/96 By: JDR In writing on: _____ By: _____
- [ ] Sample(s) processed "as is"
- [ ] Sample(s) ON HOLD until further notice
- [ ] Other action required (see above comments)
- [ ] No action required

Sample Control Reviewer: Bryan Blanks Project Manager: [signature]

Quanterra Condition Upon Receipt Anomaly Report (CUR)
QES - Knoxville

Legend:

Cooler:
1a Not received, COC available
1b Leaking
1c Other: _____

Temperature:
2a Temp. Blank= _____
2b Cooler Temp= _____
(cooler temp should only be used if there is no Temp. Blank)

Containers:
3a Leaking
3b Broken
3c Extra
3d No labels
3e Headspace (VOA only)
3f Other: _____

Samples:
4a Samples received but not on COC
4b Samples not received but on COC
4c Other: _____

Custody Seals:
5a None
5b Not intact
5c Other: _____

ain of Custody (COC):
6a Not relinquished by client
6b incomplete information
6c Other: _____

Container Labels:
7a Doesn't match COC
7b Incomplete information
7c Marking smeared
7d Label torn
7e Other: _____

Other (8): _____
_____
_____

QUOTE # 14866 H6516014 1

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 473817
Page 1 of 2

Project Name/No. 1 PBOW G-8 Burn Ground
Sample Team Members 2 W. white, T. Henley, G. Yu
Profit Center No. 3 764678.040.00.000
Project Manager 4 Don Burton
Purchase Order No. 6 —
Required Report Date 11 April 10, 96

Samples Shipment Date 7 05-16-96
Lab Destination 8 Quanterra Environ.
Lab Contact 9
Project Contact/Phone 12 Kim Allen / George Yu
Carrier/Waybill No. 13 8213306474 (FedEx) 8213306485 (FedEx)

Bill to: 5 Don Burton IT Corp. 312 Directors Drive Knoxville, TN 37923

Report to: 10 Kim Allen / George Yu 312 Directors Drive Knoxville, TN 37923

ONE CONTAINER PER LINE

Sample Number 14	Sample Description/Type 15	Date/Time Collected 16	Container Type 17	Sample Volume 18	Pre-servative 19	Requested Testing Program 20	Condition on Receipt 21	Disposal Record No. 22
PBOW-96-S001-BG8-3001-(0-0.5)	Soil	3-15-96 1055	2x 60ml 1x 4oz 1x 250ml		No	VOC metals SVOCs/Pest/PCBs/Nitro	Rec'd @ 2°C w/custody seals Intact 5/16/96	
PBOW-96-S001-BG8-3002-(1-1.5)		3-15-96 1100						
PBOW-96-S002-BG8-3003-(0-0.5)		3-15-96 1110						
PBOW-96-S002-BG8-3004-(2-3)		3-15-96 1130						
PBOW-96-FD02-BG8-3005-(2-3)		3-15-96 1130						
PBOW-96-MS02-BG8-3006-(2-3)		3-15-96 1130						
PBOW-96-MSD02-BG8-3007-(2-3)		3-15-96 1130						
PBOW-96-S003-BG8-3009-(0-0.5)		3-15-96 1205						

FOR LAB USE ONLY

FOR LAB USE ONLY

Special Instructions: 23 Call Kim Allen if you have questions

Possible Hazard Identification: 24
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐

Sample Disposal: 25
Return to Client ☐ Disposal by Lab ☒ Archive _____ (mos.)

Turnaround Time Required: 26
Normal ☒ Rush ☐

QC Level: 27
I. ☐ II. ☐ III. ☐ Project Specific (specify): PBOW G-8 BG QAPP

1. Relinquished by 28 (Signature/Affiliation) (IT CORP)	Date: 05-16-96 Time: 0700	1. Received by 28 (Signature/Affiliation) QESKH	Date: 5/16/95 Time: 08:50
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: 29

White: To accompany samples
Yellow: Field copy
*See back of form for special instructions.

MCA 3/18/91

Quanterra
Environmental Services
5815 Middlebrook Pike
Knoxville, Tennessee 37921
(615) 588-6401

QUOTE # 14866 H6E16041

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] 473817
Page 2 of 2

Project Name PBOW G-8 Burning Ground Project No. 764678.050.02.000 Samples Shipment Date 05-16-96

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	Condition on[21] Receipt	Disposal[22] Record No.
PBOW-96-S003-BG8-3010-(2-3)	✓ soil	3-15-96 1215	2x 60ml 1x 4 oz 1x 250ml		NO	VOCs metals SVOC/pest/PCB/Nitro	Rec'd @ 2°C	
PBOW-96-S004-BG8-3011-(0-0.5)	✓	3-15-96 1020					BPB 5/16/96	
PBOW-96-S004-BG8-3012-(.5-1.0)	✓	3-15-96 1038						
PBOW-96-S005-BG8-3013-(0-.05)	✓	3-15-96 1410						
PBOW-96-S005-BG8-3014-(1-2)	✓	3-15-96 1420						
PBOW-96-S006-BG8-3015-(0-0.5)	✓	3-15-96 1440						
PBOW-96-S006-BG8-3016-(2-2.5)	✓	3-15-96 1448						
PBOW-96-S007-BG8-3017-(0-0.5)	✓	3-15-96 1525						
PBOW-96-S007-BG8-3018-(2-3)	✓	3-15-96 1535						
PBOW-96-S008-BG8-3019-(0-0.5)	✓	3-15-96 1620						
PBOW-96-S008-BG8-3020-(2-3)	✓	3-15-96 1635						
	Temperature Blank	3-15-96				Temperature		

White: To accompany samples
Yellow: Field copy
*See back of form for special instructions.

MCA 3/15/91

Quanterra Environmental Services

Quanterra Incorporated
5815 Middlebrook Pike
Knoxville, Tennessee 37921

423 588-6401 Telephone
423 584-4315 Fax

ANALYTICAL REPORT

PROJECT NO. 764678

G-8 Burning Ground PBG801
Lot#: H6E160141

Kim Allen Arrant

IT Corporation - Knoxville

QUANTERRA INCORPORATED

Tara L. Reis for
John D. Reynolds
Project Manager

June 6, 1996

Quanterra
Environmental Services

SAMPLE SUMMARY

The analytical results of the samples listed below are presented on the following pages.

WO #	LABORATORY ID	SAMPLE IDENTIFICATION	DATE/TIME SAMPLED
C431J	H6E160141-001	3001	5/14/96 10:55
C432F	H6E160141-002	3002	5/14/96 11:00
C432M	H6E160141-003	3003	5/14/96 11:10
C432W	H6E160141-004	3004	5/14/96 11:30
C4334	H6E160141-005	3005	5/14/96 11:30
C433C	H6E160141-006	3009	5/14/96 12:05
C433N	H6E160141-007	3010	5/14/96 12:15
C4341	H6E160141-008	3011	5/14/96 10:20
C4348	H6E160141-009	3012	5/14/96 10:38
C434E	H6E160141-010	3013	5/14/96 14:10
C434G	H6E160141-011	3014	5/14/96 14:20
C434J	H6E160141-012	3015	5/14/96 14:40
C434L	H6E160141-013	3016	5/14/96 14:48
C434N	H6E160141-014	3017	5/14/96 15:25
C434P	H6E160141-015	3018	5/14/96 15:35
C434R	H6E160141-016	3019	5/14/96 1[illegible]
C434T	H6E160141-017	3020	5/14/96 16:55

LABORATORY CONTROL SAMPLE REPORT

LAB #.....: H6E160147
QC BATCH..: 6141169
WORK ORDER: C4480102
UNITS.....: mg/kg

PREPARATION DATE: 5/21/96
DATE ANALYZED...: 5/22/96

- HPLC -

PARAMETER		TRUE SPIKE	MEASURED SPIKE	PERCENT RECOVERY	RECOVERY LIMITS
HMX	***	3.0	2.8	93	(25-150)
RDX	***	3.0	2.8	93	(26-154)
1,3,5-Trinitrobenzene	***	3.0	2.9	97	(26-153)
1,3-Dinitrobenzene	***	3.0	2.9	97	(26-150)
Tetryl	***	3.0	2.9	97	(22-152)
Nitrobenzene	***	3.1	2.9	94	(27-153)
2,4,6-Trinitrotoluene	***	3.0	2.8	93	(27-153)
2,6-Dinitrotoluene	***	3.0	2.7	90	(27-155)
2,4-Dinitrotoluene	***	2.9	2.9	100	(26-153)
2-Nitrotoluene	***	3.1	2.9	94	(25-156)
3-Nitrotoluene	***	3.0	2.8	93	(26-157)

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	92	(53 - 140)

NOTE:

Calculations are performed before rounding to avoid round-off errors in calculated results.

*** Control parameters.

MATRIX SPIKE SAMPLE REPORT

LAB #.....: H6E160147
SAMPLE NO.: 001
QC BATCH..: 6141169
MS W.O.#..: C433010C
MSD W.O.#.: C433010D
UNITS.....: mg/kg

PREPARATION DATE: 5/21/96
DATE ANALYZED...: 5/22/96

- HPLC -

PARAMETER		TRUE SPIKE	SPIKE AMOUNT	SPIKE %REC	DUPLICATE AMOUNT	DUPLICATE %REC	RECOVERY LIMITS	RELATIVE PERCENT DIFFERENCE	RPD LIMITS
HMX	***	3.6	3.1	87	3.3	90	(25-150)	3.8	(0-30)
RDX	***	3.6	3.3	90	3.3	90	(26-154)	0	(0-30)
1,3,5-Trinitrobenzene	***	3.6	3.5	97	3.3	90	(26-153)	7.1	(0-30)
1,3-Dinitrobenzene	***	3.6	3.5	97	3.5	97	(26-150)	0	(0-30)
Tetryl	***	3.6	3.1	87	3.1	87	(22-152)	0	(0-30)
Nitrobenzene	***	3.7	3.5	94	3.5	94	(27-153)	0	(0-30)
2,4,6-Trinitrotoluene	***	3.6	3.3	90	3.1	87	(27-153)	3.8	(0-30)
2,6-Dinitrotoluene	***	3.6	3.6	100	2.9	80	(27-155)	22	(0-
2,4-Dinitrotoluene	***	3.5	3.4	97	3.6	103	(26-153)	6.9	(0-30)
2-Nitrotoluene	***	3.7	3.4	90	3.4	90	(25-156)	0	(0-30)
3-Nitrotoluene	***	3.6	3.5	97	3.4	93	(26-157)	3.5	(0-30)

SURROGATE RECOVERY	SPIKE %	DUP. %	ACCEPTABLE LIMITS
4-Nitrotoluene	90	90	(53 - 140)

NOTE:

Calculations are performed before rounding to avoid round-off errors in calculated results.

*** Control parameters.

IT Corporation - Knoxville

3030

WO # : C434F104
LAB # : H6E160147-009
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 10:10
DATE RECEIVED: 5/16/96
% MOISTURE : 25.5

- - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.34	SW846 8330	05/21-05/23/96	6141169
2,4-Dinitrotoluene	ND	0.34	SW846 8330	05/21-05/23/96	6141169
2,6-Dinitrotoluene	ND	0.34	SW846 8330	05/21-05/23/96	6141169
HMX	ND	0.67	SW846 8330	05/21-05/23/96	6141169
Nitrobenzene	ND	0.34	SW846 8330	05/21-05/23/96	6141169
2-Nitrotoluene	ND	0.34	SW846 8330	05/21-05/23/96	6141169
3-Nitrotoluene	ND	0.34	SW846 8330	05/21-05/23/96	6141169
RDX	ND	0.67	SW846 8330	05/21-05/23/96	6141169
Tetryl	ND	0.87	SW846 8330	05/21-05/23/96	6141169
1,3,5-Trinitrobenzene	ND	0.34	SW846 8330	05/21-05/23/96	6141169
2,4,6-Trinitrotoluene	ND	0.34	SW846 8330	05/21-05/23/96	6141169
4-Amino-2,6-dinitrotoluene	ND	0.34	SW846 8330	05/21-05/23/96	6141169

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	90	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

METHOD BLANK REPORT

LAB #: H6E200000-169

- - - - - - - - - - - - - NITROAROMATICS AND NITRAMINES BY HPLC - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.25	5/21- 5/22/96	6141169
2,4-Dinitrotoluene	ND	0.25	5/21- 5/22/96	6141169
2,6-Dinitrotoluene	ND	0.25	5/21- 5/22/96	6141169
Nitrobenzene	ND	0.25	5/21- 5/22/96	6141169
1,3,5-Trinitrobenzene	ND	0.25	5/21- 5/22/96	6141169
2,4,6-Trinitrotoluene	ND	0.25	5/21- 5/22/96	6141169
HMX	ND	0.50	5/21- 5/22/96	6141169
RDX	ND	0.50	5/21- 5/22/96	6141169
Tetryl	ND	0.65	5/21- 5/22/96	6141169
2-Nitrotoluene	ND	0.25	5/21- 5/22/96	61[illegible]
3-Nitrotoluene	ND	0.25	5/21- 5/22/96	6[illegible]
4-Amino-2,6-dinitrotoluene	ND	0.25	5/21- 5/22/96	6141169

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	100	(53 - 140)

NOTE:

ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3028

WO # : C4344104
LAB # : H6E160147-007
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 9:50
DATE RECEIVED: 5/16/96
% MOISTURE : 14.4

- **REQUESTED PARAMETERS** -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.29	SW846 8330	05/21-05/23/96	6141169
2,4-Dinitrotoluene	ND	0.29	SW846 8330	05/21-05/23/96	6141169
2,6-Dinitrotoluene	ND	0.29	SW846 8330	05/21-05/23/96	6141169
HMX	ND	0.58	SW846 8330	05/21-05/23/96	6141169
Nitrobenzene	ND	0.29	SW846 8330	05/21-05/23/96	6141169
2-Nitrotoluene	ND	0.29	SW846 8330	05/21-05/23/96	6141169
3-Nitrotoluene	ND	0.29	SW846 8330	05/21-05/23/96	6141169
RDX	ND	0.58	SW846 8330	05/21-05/23/96	6141169
Tetryl	ND	0.76	SW846 8330	05/21-05/23/96	6141169
1,3,5-Trinitrobenzene	ND	0.29	SW846 8330	05/21-05/23/96	6141169
2,4,6-Trinitrotoluene	ND	0.29	SW846 8330	05/21-05/23/96	6141169
4-Amino-2,6-dinitrotoluene	ND	0.29	SW846 8330	05/21-05/23/96	6141169

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	84	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3029

WO # : C434C104
LAB # : H6E160147-008
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 10:00
DATE RECEIVED: 5/16/96
% MOISTURE : 24.9

- - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.33	SW846 8330	05/21-05/23/96	6141169
2,4-Dinitrotoluene	ND	0.33	SW846 8330	05/21-05/23/96	6141169
2,6-Dinitrotoluene	ND	0.33	SW846 8330	05/21-05/23/96	6141169
HMX	ND	0.67	SW846 8330	05/21-05/23/96	6141169
Nitrobenzene	ND	0.33	SW846 8330	05/21-05/23/96	6141169
2-Nitrotoluene	ND	0.33	SW846 8330	05/21-05/23/96	6141169
3-Nitrotoluene	ND	0.33	SW846 8330	05/21-05/23/96	6141169
RDX	ND	0.67	SW846 8330	05/21-05/23/96	6141169
Tetryl	ND	0.87	SW846 8330	05/21-05/23/96	6141169
1,3,5-Trinitrobenzene	ND	0.33	SW846 8330	05/21-05/23/96	61
2,4,6-Trinitrotoluene	ND	0.33	SW846 8330	05/21-05/23/96	6141169
4-Amino-2,6-dinitrotoluene	ND	0.33	SW846 8330	05/21-05/23/96	6141169

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	88	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3025

WO # : C433F104
LAB # : H6E160147-005
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 9:15
DATE RECEIVED: 5/16/96
% MOISTURE : 30.1

- **REQUESTED PARAMETERS** -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.36	SW846 8330	05/21-05/23/96	6141169
2,4-Dinitrotoluene	ND	0.36	SW846 8330	05/21-05/23/96	6141169
2,6-Dinitrotoluene	ND	0.36	SW846 8330	05/21-05/23/96	6141169
HMX	ND	0.72	SW846 8330	05/21-05/23/96	6141169
Nitrobenzene	ND	0.36	SW846 8330	05/21-05/23/96	6141169
2-Nitrotoluene	ND	0.36	SW846 8330	05/21-05/23/96	6141169
3-Nitrotoluene	ND	0.36	SW846 8330	05/21-05/23/96	6141169
RDX	ND	0.72	SW846 8330	05/21-05/23/96	6141169
Tetryl	ND	0.93	SW846 8330	05/21-05/23/96	6141169
1,3,5-Trinitrobenzene	ND	0.36	SW846 8330	05/21-05/23/96	6141169
2,4,6-Trinitrotoluene	ND	0.36	SW846 8330	05/21-05/23/96	6141169
4-Amino-2,6-dinitrotoluene	ND	0.36	SW846 8330	05/21-05/23/96	6141169

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	96	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3027

WO # : C433P104
LAB # : H6E160147-006
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 9:40
DATE RECEIVED: 5/16/96
% MOISTURE : 16.2

- **REQUESTED PARAMETERS** -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.30	SW846 8330	05/21-05/23/96	6141169
2,4-Dinitrotoluene	ND	0.30	SW846 8330	05/21-05/23/96	6141169
2,6-Dinitrotoluene	ND	0.30	SW846 8330	05/21-05/23/96	6141169
HMX	ND	0.60	SW846 8330	05/21-05/23/96	6141169
Nitrobenzene	ND	0.30	SW846 8330	05/21-05/23/96	6141169
2-Nitrotoluene	ND	0.30	SW846 8330	05/21-05/23/96	6141169
3-Nitrotoluene	ND	0.30	SW846 8330	05/21-05/23/96	6141169
RDX	ND	0.60	SW846 8330	05/21-05/23/96	6141169
Tetryl	ND	0.78	SW846 8330	05/21-05/23/96	6141169
1,3,5-Trinitrobenzene	ND	0.30	SW846 8330	05/21-05/23/96	61[illegible]
2,4,6-Trinitrotoluene	ND	0.30	SW846 8330	05/21-05/23/96	6141169
4-Amino-2,6-dinitrotoluene	ND	0.30	SW846 8330	05/21-05/23/96	6141169

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	84	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3023

WO # : C4335104
LAB # : H6E160147-003
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 9:05
DATE RECEIVED: 5/16/96
% MOISTURE : 23.0

- **REQUESTED PARAMETERS** -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.32	SW846 8330	05/21-05/23/96	6141169
2,4-Dinitrotoluene	ND	0.32	SW846 8330	05/21-05/23/96	6141169
2,6-Dinitrotoluene	ND	0.32	SW846 8330	05/21-05/23/96	6141169
HMX	ND	0.65	SW846 8330	05/21-05/23/96	6141169
Nitrobenzene	ND	0.32	SW846 8330	05/21-05/23/96	6141169
2-Nitrotoluene	ND	0.32	SW846 8330	05/21-05/23/96	6141169
3-Nitrotoluene	ND	0.32	SW846 8330	05/21-05/23/96	6141169
RDX	ND	0.65	SW846 8330	05/21-05/23/96	6141169
Tetryl	ND	0.84	SW846 8330	05/21-05/23/96	6141169
1,3,5-Trinitrobenzene	ND	0.32	SW846 8330	05/21-05/23/96	6141169
2,4,6-Trinitrotoluene	ND	0.32	SW846 8330	05/21-05/23/96	6141169
4-Amino-2,6-dinitrotoluene	ND	0.32	SW846 8330	05/21-05/23/96	6141169

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	97	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3024

WO # : C433A104
LAB # : H6E160147-004
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 9:15
DATE RECEIVED: 5/16/96
% MOISTURE : 26.8

- - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.34	SW846 8330	05/21-05/23/96	6141169
2,4-Dinitrotoluene	ND	0.34	SW846 8330	05/21-05/23/96	6141169
2,6-Dinitrotoluene	ND	0.34	SW846 8330	05/21-05/23/96	6141169
HMX	ND	0.68	SW846 8330	05/21-05/23/96	6141169
Nitrobenzene	ND	0.34	SW846 8330	05/21-05/23/96	6141169
2-Nitrotoluene	ND	0.34	SW846 8330	05/21-05/23/96	6141169
3-Nitrotoluene	ND	0.34	SW846 8330	05/21-05/23/96	6141169
RDX	ND	0.68	SW846 8330	05/21-05/23/96	6141169
Tetryl	ND	0.89	SW846 8330	05/21-05/23/96	6141169
1,3,5-Trinitrobenzene	ND	0.34	SW846 8330	05/21-05/23/96	61
2,4,6-Trinitrotoluene	ND	0.34	SW846 8330	05/21-05/23/96	6141169
4-Amino-2,6-dinitrotoluene	ND	0.34	SW846 8330	05/21-05/23/96	6141169

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	90	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3021

WO # : C433010A
LAB # : H6E160147-001
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 8:25
DATE RECEIVED: 5/16/96
% MOISTURE : 17.2

- **REQUESTED PARAMETERS** -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.30	SW846 8330	05/21-05/22/96	6141169
2,4-Dinitrotoluene	ND	0.30	SW846 8330	05/21-05/22/96	6141169
2,6-Dinitrotoluene	ND	0.30	SW846 8330	05/21-05/22/96	6141169
HMX	ND	0.60	SW846 8330	05/21-05/22/96	6141169
Nitrobenzene	ND	0.30	SW846 8330	05/21-05/22/96	6141169
2-Nitrotoluene	ND	0.30	SW846 8330	05/21-05/22/96	6141169
3-Nitrotoluene	ND	0.30	SW846 8330	05/21-05/22/96	6141169
RDX	ND	0.60	SW846 8330	05/21-05/22/96	6141169
Tetryl	ND	0.79	SW846 8330	05/21-05/22/96	6141169
1,3,5-Trinitrobenzene	ND	0.30	SW846 8330	05/21-05/22/96	6141169
2,4,6-Trinitrotoluene	ND	0.30	SW846 8330	05/21-05/22/96	6141169
4-Amino-2,6-dinitrotoluene	ND	0.30	SW846 8330	05/21-05/22/96	6141169

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	92	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3022

WO # : C4332104
LAB # : H6E160147-002
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 8:35
DATE RECEIVED: 5/16/96
% MOISTURE : 24.0

- **REQUESTED PARAMETERS** -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.33	SW846 8330	05/21-05/22/96	6141169
2,4-Dinitrotoluene	ND	0.33	SW846 8330	05/21-05/22/96	6141169
2,6-Dinitrotoluene	ND	0.33	SW846 8330	05/21-05/22/96	6141169
HMX	ND	0.66	SW846 8330	05/21-05/22/96	6141169
Nitrobenzene	ND	0.33	SW846 8330	05/21-05/22/96	6141169
2-Nitrotoluene	ND	0.33	SW846 8330	05/21-05/22/96	6141169
3-Nitrotoluene	ND	0.33	SW846 8330	05/21-05/22/96	6141169
RDX	ND	0.66	SW846 8330	05/21-05/22/96	6141169
Tetryl	ND	0.86	SW846 8330	05/21-05/22/96	6141169
1,3,5-Trinitrobenzene	ND	0.33	SW846 8330	05/21-05/22/96	61[illegible]
2,4,6-Trinitrotoluene	ND	0.33	SW846 8330	05/21-05/22/96	6141169
4-Amino-2,6-dinitrotoluene	ND	0.33	SW846 8330	05/21-05/22/96	6141169

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	87	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

2002

WO # : C434H104
LAB # : H6E160147-010
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 10:30
DATE RECEIVED: 5/16/96
% MOISTURE : 63.6

- **REQUESTED PARAMETERS** -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.69	SW846 8330	05/21-05/23/96	6141169
2,4-Dinitrotoluene	ND	0.69	SW846 8330	05/21-05/23/96	6141169
2,6-Dinitrotoluene	ND	0.69	SW846 8330	05/21-05/23/96	6141169
HMX	ND	1.4	SW846 8330	05/21-05/23/96	6141169
Nitrobenzene	ND	0.69	SW846 8330	05/21-05/23/96	6141169
2-Nitrotoluene	ND	0.69	SW846 8330	05/21-05/23/96	6141169
3-Nitrotoluene	ND	0.69	SW846 8330	05/21-05/23/96	6141169
RDX	ND	1.4	SW846 8330	05/21-05/23/96	6141169
Tetryl	ND	1.8	SW846 8330	05/21-05/23/96	6141169
1,3,5-Trinitrobenzene	ND	0.69	SW846 8330	05/21-05/23/96	6141169
2,4,6-Trinitrotoluene	ND	0.69	SW846 8330	05/21-05/23/96	6141169
4-Amino-2,6-dinitrotoluene	ND	0.69	SW846 8330	05/21-05/23/96	6141169

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	78	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

2004

WO # : C434Q104
LAB # : H6E160147-012
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 10:20
DATE RECEIVED: 5/16/96
% MOISTURE : 53.4

- - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.54	SW846 8330	05/21-05/23/96	6141169
2,4-Dinitrotoluene	ND	0.54	SW846 8330	05/21-05/23/96	6141169
2,6-Dinitrotoluene	ND	0.54	SW846 8330	05/21-05/23/96	6141169
HMX	ND	1.1	SW846 8330	05/21-05/23/96	6141169
Nitrobenzene	ND	0.54	SW846 8330	05/21-05/23/96	6141169
2-Nitrotoluene	ND	0.54	SW846 8330	05/21-05/23/96	6141169
3-Nitrotoluene	ND	0.54	SW846 8330	05/21-05/23/96	6141169
RDX	ND	1.1	SW846 8330	05/21-05/23/96	6141169
Tetryl	ND	1.4	SW846 8330	05/21-05/23/96	6141169
1,3,5-Trinitrobenzene	ND	0.54	SW846 8330	05/21-05/23/96	61[illegible]
2,4,6-Trinitrotoluene	ND	0.54	SW846 8330	05/21-05/23/96	6141169
4-Amino-2,6-dinitrotoluene	ND	0.54	SW846 8330	05/21-05/23/96	6141169

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	89	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

HPLC

IT Corporation - Knoxville

2001

WO # : C434M104
LAB # : H6E160147-011
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 10:30
DATE RECEIVED: 5/16/96
% MOISTURE : 63.6

- **REQUESTED PARAMETERS** -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.69	SW846 8330	05/21-05/23/96	6141169
2,4-Dinitrotoluene	ND	0.69	SW846 8330	05/21-05/23/96	6141169
2,6-Dinitrotoluene	ND	0.69	SW846 8330	05/21-05/23/96	6141169
HMX	ND	1.4	SW846 8330	05/21-05/23/96	6141169
Nitrobenzene	ND	0.69	SW846 8330	05/21-05/23/96	6141169
2-Nitrotoluene	ND	0.69	SW846 8330	05/21-05/23/96	6141169
3-Nitrotoluene	ND	0.69	SW846 8330	05/21-05/23/96	6141169
RDX	ND	1.4	SW846 8330	05/21-05/23/96	6141169
Tetryl	ND	1.8	SW846 8330	05/21-05/23/96	6141169
1,3,5-Trinitrobenzene	ND	0.69	SW846 8330	05/21-05/23/96	61
2,4,6-Trinitrotoluene	ND	0.69	SW846 8330	05/21-05/23/96	6141169
4-Amino-2,6-dinitrotoluene	ND	0.69	SW846 8330	05/21-05/23/96	6141169

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	73	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

LABORATORY CONTROL SAMPLE REPORT

LAB #.....: H6E160147
QC BATCH..: 6143122
WORK ORDER: C44VG102
UNITS.....: ug/kg

PREPARATION DATE: 5/22/96
DATE ANALYZED...: 5/28/96

- **GC Semivolatiles** -

PARAMETER	TRUE SPIKE	MEASURED SPIKE	PERCENT RECOVERY	RECOVERY LIMITS
gamma-BHC (Lindane)	17	17	104	(80-120)
Aldrin	17	16	98	(80-120)
4,4'-DDT	33	34	101	(80-120)
Dieldrin	33	37	110	(80-120)
Endrin	33	36	109	(80-120)
Heptachlor	17	17	103	(80-120)

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	88	(30 - 150)
Decachlorobiphenyl	99	(60 - 150)

NOTE:

Calculations are performed before rounding to avoid round-off errors in calculated results.

MATRIX SPIKE SAMPLE REPORT

LAB #.....: H6E160147
SAMPLE NO.: 001
QC BATCH..: 6143122
MS W.O.#..: C4330108
MSD W.O.#.: C4330109
UNITS.....: ug/kg

PREPARATION DATE: 5/22/96
DATE ANALYZED...: 6/01/96

- GC Semivolatiles -

PARAMETER	TRUE SPIKE	SPIKE AMOUNT	SPIKE %REC	DUPLICATE AMOUNT	DUPLICATE %REC	RECOVERY LIMITS	RELATIVE PERCENT DIFFERENCE	RPD LIMITS
gamma-BHC (Lindane)	20	19	94	20	99	(45-127)	5.2	(0-30)
Aldrin	20	17	82	17	86	(46-122)	4.8	(0-30)
4,4'-DDT	40	32	79	34	84	(56-128)	7.1	(0-30)
Dieldrin	40	38	93	40	99	(47-126)	5.4	(0-30)
Endrin	40	37	93	39	96	(42-138)	4.0	(0-30)
Heptachlor	20	18	90	19	94	(48-111)	5.1	(0-30)

SURROGATE RECOVERY	SPIKE %	DUP. %	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	87	88	(30 - 150)
Decachlorobiphenyl	91	133	(60 - 150)

NOTE:
Calculations are performed before rounding to avoid round-off errors in calculated results.

METHOD BLANK REPORT

LAB #: H6E220000-122 **WO #:** C44VG

- **GC Semi-Volatiles** -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	PREPARATION - ANALYSIS DATE	QC BATCH
Aldrin	ND	1.7	5/22- 5/28/96	6143122
alpha-BHC	ND	1.7	5/22- 5/28/96	6143122
beta-BHC	ND	1.7	5/22- 5/28/96	6143122
delta-BHC	ND	1.7	5/22- 5/28/96	6143122
gamma-BHC (Lindane)	ND	1.7	5/22- 5/28/96	6143122
alpha-Chlordane	ND	1.7	5/22- 5/28/96	6143122
gamma-Chlordane	ND	1.7	5/22- 5/28/96	6143122
4,4'-DDD	ND	1.7	5/22- 5/28/96	6143122
4,4'-DDE	ND	1.7	5/22- 5/28/96	6143122
4,4'-DDT	ND	1.7	5/22- 5/28/96	6143122
Dieldrin	ND	1.7	5/22- 5/28/96	6143122
Endosulfan I	ND	1.7	5/22- 5/28/96	6143122
Endosulfan II	ND	1.7	5/22- 5/28/96	6143122
Endosulfan sulfate	ND	1.7	5/22- 5/28/96	6143122
Endrin	ND	1.7	5/22- 5/28/96	6143122
Endrin aldehyde	ND	1.7	5/22- 5/28/96	6143122
Endrin ketone	ND	1.7	5/22- 5/28/96	6143122
Heptachlor	ND	1.7	5/22- 5/28/96	6143122
Heptachlor epoxide	ND	1.7	5/22- 5/28/96	6143122
Methoxychlor	ND	3.3	5/22- 5/28/96	6143122
Aroclor 1016	ND	33	5/22- 5/28/96	6143122
Aroclor 1221	ND	33	5/22- 5/28/96	6143122
Aroclor 1232	ND	33	5/22- 5/28/96	6143122
Aroclor 1242	ND	33	5/22- 5/28/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	90	(30 - 150)
Decachlorobiphenyl	102	(60 - 150)

NOTE:

ND (NONE DETECTED)

METHOD BLANK REPORT

LAB #: H6E220000-122 **WO #:** C44VG

- **GC Semi-Volatiles** -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	PREPARATION - ANALYSIS DATE	QC BATCH
Aroclor 1248	ND	33	5/22- 5/28/96	6143122
Aroclor 1254	ND	33	5/22- 5/28/96	6143122
Aroclor 1260	ND	33	5/22- 5/28/96	6143122
Toxaphene	ND	67	5/22- 5/28/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	90	(30 - 150)
Decachlorobiphenyl	102	(60 - 150)

NOTE:

ND (NONE DETECTED)

IT Corporation - Knoxville

3030

WO # : C434F103
LAB # : H6E160147-009
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 10:10
DATE RECEIVED: 5/16/96
% MOISTURE : 25.5

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.3	SW846 8081	05/22-05/30/96	6143122
Aroclor 1016	ND	44	SW846 8081	05/22-05/30/96	6143122
Aroclor 1221	ND	44	SW846 8081	05/22-05/30/96	6143122
Aroclor 1232	ND	44	SW846 8081	05/22-05/30/96	6143122
Aroclor 1242	ND	44	SW846 8081	05/22-05/30/96	6143122
Aroclor 1248	ND	44	SW846 8081	05/22-05/30/96	6143122
Aroclor 1254	ND	44	SW846 8081	05/22-05/30/96	6143122
Aroclor 1260	ND	44	SW846 8081	05/22-05/30/96	6143122
alpha-BHC	ND	2.3	SW846 8081	05/22-05/30/96	6143122
beta-BHC	ND	2.3	SW846 8081	05/22-05/30/96	6143122
delta-BHC	ND	2.3	SW846 8081	05/22-05/30/96	6143122
gamma-BHC (Lindane)	ND	2.3	SW846 8081	05/22-05/30/96	6143122
4,4'-DDD	ND	2.3	SW846 8081	05/22-05/30/96	6143122
4,4'-DDE	ND	2.3	SW846 8081	05/22-05/30/96	6143122
4,4'-DDT	ND	2.3	SW846 8081	05/22-05/30/96	6143122
Dieldrin	ND	2.3	SW846 8081	05/22-05/30/96	6143122
Endrin	ND	2.3	SW846 8081	05/22-05/30/96	6143122
Endrin aldehyde	ND	2.3	SW846 8081	05/22-05/30/96	6143122
Endosulfan I	ND	2.3	SW846 8081	05/22-05/30/96	6143122
Endosulfan II	ND	2.3	SW846 8081	05/22-05/30/96	6143122
Endosulfan sulfate	ND	2.3	SW846 8081	05/22-05/30/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	84	(30 - 150)
Decachlorobiphenyl	103	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3030

WO # : C434F103
LAB # : H6E160147-009
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 10:10
DATE RECEIVED: 5/16/96
% MOISTURE : 25.5

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.3	SW846 8081	05/22-05/30/96	6143122
Heptachlor epoxide	ND	2.3	SW846 8081	05/22-05/30/96	6143122
Methoxychlor	ND	4.4	SW846 8081	05/22-05/30/96	6143122
Toxaphene	ND	90	SW846 8081	05/22-05/30/96	6143122
alpha-Chlordane	ND	2.3	SW846 8081	05/22-05/30/96	6143122
gamma-Chlordane	ND	2.3	SW846 8081	05/22-05/30/96	6143122
Endrin ketone	ND	2.3	SW846 8081	05/22-05/30/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	84	(30 - 150)
Decachlorobiphenyl	103	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3029

WO # : C434C103
LAB # : H6E160147-008
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 10:00
DATE RECEIVED: 5/16/96
% MOISTURE : 24.9

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.3	SW846 8081	05/22-05/31/96	6143122
Aroclor 1016	ND	44	SW846 8081	05/22-05/31/96	6143122
Aroclor 1221	ND	44	SW846 8081	05/22-05/31/96	6143122
Aroclor 1232	ND	44	SW846 8081	05/22-05/31/96	6143122
Aroclor 1242	ND	44	SW846 8081	05/22-05/31/96	6143122
Aroclor 1248	ND	44	SW846 8081	05/22-05/31/96	6143122
Aroclor 1254	ND	44	SW846 8081	05/22-05/31/96	6143122
Aroclor 1260	ND	44	SW846 8081	05/22-05/31/96	6143122
alpha-BHC	ND	2.3	SW846 8081	05/22-05/31/96	6143122
beta-BHC	ND	2.3	SW846 8081	05/22-05/31/96	6143122
delta-BHC	ND	2.3	SW846 8081	05/22-05/31/96	6143122
gamma-BHC (Lindane)	ND	2.3	SW846 8081	05/22-05/31/96	6143122
4,4'-DDD	ND	2.3	SW846 8081	05/22-05/31/96	6143122
4,4'-DDE	ND	2.3	SW846 8081	05/22-05/31/96	6143122
4,4'-DDT	ND	2.3	SW846 8081	05/22-05/31/96	6143122
Dieldrin	ND	2.3	SW846 8081	05/22-05/31/96	6143122
Endrin	ND	2.3	SW846 8081	05/22-05/31/96	6143122
Endrin aldehyde	ND	2.3	SW846 8081	05/22-05/31/96	6143122
Endosulfan I	ND	2.3	SW846 8081	05/22-05/31/96	6143122
Endosulfan II	ND	2.3	SW846 8081	05/22-05/31/96	6143122
Endosulfan sulfate	ND	2.3	SW846 8081	05/22-05/31/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	88	(30 - 150)
Decachlorobiphenyl	135	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3029

WO # : C434C103
LAB # : H6E160147-008
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 10:00
DATE RECEIVED: 5/16/96
% MOISTURE : 24.9

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.3	SW846 8081	05/22-05/31/96	6143122
Heptachlor epoxide	ND	2.3	SW846 8081	05/22-05/31/96	6143122
Methoxychlor	ND	4.4	SW846 8081	05/22-05/31/96	6143122
Toxaphene	ND	89	SW846 8081	05/22-05/31/96	6143122
alpha-Chlordane	ND	2.3	SW846 8081	05/22-05/31/96	6143122
gamma-Chlordane	ND	2.3	SW846 8081	05/22-05/31/96	6143122
Endrin ketone	ND	2.3	SW846 8081	05/22-05/31/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	88	(30 - 150)
Decachlorobiphenyl	135	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3028

WO # : C4344103
LAB # : H6E160147-007
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 9:50
DATE RECEIVED: 5/16/96
% MOISTURE : 14.4

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.0	SW846 8081	05/22-05/30/96	6143122
Aroclor 1016	ND	39	SW846 8081	05/22-05/30/96	6143122
Aroclor 1221	ND	39	SW846 8081	05/22-05/30/96	6143122
Aroclor 1232	ND	39	SW846 8081	05/22-05/30/96	6143122
Aroclor 1242	ND	39	SW846 8081	05/22-05/30/96	6143122
Aroclor 1248	ND	39	SW846 8081	05/22-05/30/96	6143122
Aroclor 1254	ND	39	SW846 8081	05/22-05/30/96	6143122
Aroclor 1260	ND	39	SW846 8081	05/22-05/30/96	6143122
alpha-BHC	ND	2.0	SW846 8081	05/22-05/30/96	6143122
beta-BHC	ND	2.0	SW846 8081	05/22-05/30/96	6143122
delta-BHC	ND	2.0	SW846 8081	05/22-05/30/96	6143122
gamma-BHC (Lindane)	ND	2.0	SW846 8081	05/22-05/30/96	6143122
4,4'-DDD	ND	2.0	SW846 8081	05/22-05/30/96	6143122
4,4'-DDE	ND	2.0	SW846 8081	05/22-05/30/96	6143122
4,4'-DDT	ND	2.0	SW846 8081	05/22-05/30/96	6143122
Dieldrin	ND	2.0	SW846 8081	05/22-05/30/96	6143122
Endrin	ND	2.0	SW846 8081	05/22-05/30/96	6143122
Endrin aldehyde	ND	2.0	SW846 8081	05/22-05/30/96	6143122
Endosulfan I	ND	2.0	SW846 8081	05/22-05/30/96	6143122
Endosulfan II	ND	2.0	SW846 8081	05/22-05/30/96	6143122
Endosulfan sulfate	ND	2.0	SW846 8081	05/22-05/30/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	87	(30 - 150)
Decachlorobiphenyl	96	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3028

WO # : C4344103
LAB # : H6E160147-007
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 9:50
DATE RECEIVED: 5/16/96
% MOISTURE : 14.4

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.0	SW846 8081	05/22-05/30/96	6143122
Heptachlor epoxide	ND	2.0	SW846 8081	05/22-05/30/96	6143122
Methoxychlor	ND	3.9	SW846 8081	05/22-05/30/96	6143122
Toxaphene	ND	78	SW846 8081	05/22-05/30/96	6143122
alpha-Chlordane	ND	2.0	SW846 8081	05/22-05/30/96	6143122
gamma-Chlordane	ND	2.0	SW846 8081	05/22-05/30/96	6143122
Endrin ketone	ND	2.0	SW846 8081	05/22-05/30/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	87	(30 - 150)
Decachlorobiphenyl	96	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3027

WO # : C433P103
LAB # : H6E160147-006
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 9:40
DATE RECEIVED: 5/16/96
% MOISTURE : 16.2

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.0	SW846 8081	05/22-05/31/96	6143122
Aroclor 1016	ND	39	SW846 8081	05/22-05/31/96	6143122
Aroclor 1221	ND	39	SW846 8081	05/22-05/31/96	6143122
Aroclor 1232	ND	39	SW846 8081	05/22-05/31/96	6143122
Aroclor 1242	ND	39	SW846 8081	05/22-05/31/96	6143122
Aroclor 1248	ND	39	SW846 8081	05/22-05/31/96	6143122
Aroclor 1254	ND	39	SW846 8081	05/22-05/31/96	6143122
Aroclor 1260	ND	39	SW846 8081	05/22-05/31/96	6143122
alpha-BHC	ND	2.0	SW846 8081	05/22-05/31/96	6143122
beta-BHC	ND	2.0	SW846 8081	05/22-05/31/96	6143122
delta-BHC	ND	2.0	SW846 8081	05/22-05/31/96	6143122
gamma-BHC (Lindane)	ND	2.0	SW846 8081	05/22-05/31/96	6143122
4,4'-DDD	ND	2.0	SW846 8081	05/22-05/31/96	6143122
4,4'-DDE	ND	2.0	SW846 8081	05/22-05/31/96	6143122
4,4'-DDT	ND	2.0	SW846 8081	05/22-05/31/96	6143122
Dieldrin	ND	2.0	SW846 8081	05/22-05/31/96	6143122
Endrin	ND	2.0	SW846 8081	05/22-05/31/96	6143122
Endrin aldehyde	ND	2.0	SW846 8081	05/22-05/31/96	6143122
Endosulfan I	ND	2.0	SW846 8081	05/22-05/31/96	6143122
Endosulfan II	ND	2.0	SW846 8081	05/22-05/31/96	6143122
Endosulfan sulfate	ND	2.0	SW846 8081	05/22-05/31/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	80	(30 - 150)
Decachlorobiphenyl	94	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3027

WO # : C433P103
LAB # : H6E160147-006
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 9:40
DATE RECEIVED: 5/16/96
% MOISTURE : 16.2

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.0	SW846 8081	05/22-05/31/96	6143122
Heptachlor epoxide	ND	2.0	SW846 8081	05/22-05/31/96	6143122
Methoxychlor	ND	3.9	SW846 8081	05/22-05/31/96	6143122
Toxaphene	ND	80	SW846 8081	05/22-05/31/96	6143122
alpha-Chlordane	ND	2.0	SW846 8081	05/22-05/31/96	6143122
gamma-Chlordane	ND	2.0	SW846 8081	05/22-05/31/96	6143122
Endrin ketone	ND	2.0	SW846 8081	05/22-05/31/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	80	(30 - 150)
Decachlorobiphenyl	94	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3025

WO # : C433F103
LAB # : H6E160147-005
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 9:15
DATE RECEIVED: 5/16/96
% MOISTURE : 30.1

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.4	SW846 8081	05/22-05/30/96	6143122
Aroclor 1016	ND	47	SW846 8081	05/22-05/30/96	6143122
Aroclor 1221	ND	47	SW846 8081	05/22-05/30/96	6143122
Aroclor 1232	ND	47	SW846 8081	05/22-05/30/96	6143122
Aroclor 1242	ND	47	SW846 8081	05/22-05/30/96	6143122
Aroclor 1248	ND	47	SW846 8081	05/22-05/30/96	6143122
Aroclor 1254	ND	47	SW846 8081	05/22-05/30/96	6143122
Aroclor 1260	ND	47	SW846 8081	05/22-05/30/96	6143122
alpha-BHC	ND	2.4	SW846 8081	05/22-05/30/96	6143122
beta-BHC	ND	2.4	SW846 8081	05/22-05/30/96	6143122
delta-BHC	ND	2.4	SW846 8081	05/22-05/30/96	6143122
gamma-BHC (Lindane)	ND	2.4	SW846 8081	05/22-05/30/96	6143122
4,4'-DDD	ND	2.4	SW846 8081	05/22-05/30/96	6143122
4,4'-DDE	ND	2.4	SW846 8081	05/22-05/30/96	6143122
4,4'-DDT	ND	2.4	SW846 8081	05/22-05/30/96	6143122
Dieldrin	ND	2.4	SW846 8081	05/22-05/30/96	6143122
Endrin	ND	2.4	SW846 8081	05/22-05/30/96	6143122
Endrin aldehyde	ND	2.4	SW846 8081	05/22-05/30/96	6143122
Endosulfan I	ND	2.4	SW846 8081	05/22-05/30/96	6143122
Endosulfan II	ND	2.4	SW846 8081	05/22-05/30/96	6143122
Endosulfan sulfate	ND	2.4	SW846 8081	05/22-05/30/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	81	(30 - 150)
Decachlorobiphenyl	98	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3025

WO # : C433F103
LAB # : H6E160147-005
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 9:15
DATE RECEIVED: 5/16/96
% MOISTURE : 30.1

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.4	SW846 8081	05/22-05/30/96	6143122
Heptachlor epoxide	ND	2.4	SW846 8081	05/22-05/30/96	6143122
Methoxychlor	ND	4.7	SW846 8081	05/22-05/30/96	6143122
Toxaphene	ND	96	SW846 8081	05/22-05/30/96	6143122
alpha-Chlordane	ND	2.4	SW846 8081	05/22-05/30/96	6143122
gamma-Chlordane	ND	2.4	SW846 8081	05/22-05/30/96	6143122
Endrin ketone	ND	2.4	SW846 8081	05/22-05/30/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	81	(30 - 150)
Decachlorobiphenyl	98	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3024

WO # : C433A103
LAB # : H6E160147-004
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 9:15
DATE RECEIVED: 5/16/96
% MOISTURE : 26.8

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.3	SW846 8081	05/22-05/30/96	6143122
Aroclor 1016	ND	45	SW846 8081	05/22-05/30/96	6143122
Aroclor 1221	ND	45	SW846 8081	05/22-05/30/96	6143122
Aroclor 1232	ND	45	SW846 8081	05/22-05/30/96	6143122
Aroclor 1242	ND	45	SW846 8081	05/22-05/30/96	6143122
Aroclor 1248	ND	45	SW846 8081	05/22-05/30/96	6143122
Aroclor 1254	ND	45	SW846 8081	05/22-05/30/96	6143122
Aroclor 1260	ND	45	SW846 8081	05/22-05/30/96	6143122
alpha-BHC	ND	2.3	SW846 8081	05/22-05/30/96	6143122
beta-BHC	ND	2.3	SW846 8081	05/22-05/30/96	6143122
delta-BHC	ND	2.3	SW846 8081	05/22-05/30/96	6143122
gamma-BHC (Lindane)	ND	2.3	SW846 8081	05/22-05/30/96	6143122
4,4'-DDD	ND	2.3	SW846 8081	05/22-05/30/96	6143122
4,4'-DDE	ND	2.3	SW846 8081	05/22-05/30/96	6143122
4,4'-DDT	ND	2.3	SW846 8081	05/22-05/30/96	6143122
Dieldrin	ND	2.3	SW846 8081	05/22-05/30/96	6143122
Endrin	ND	2.3	SW846 8081	05/22-05/30/96	6143122
Endrin aldehyde	ND	2.3	SW846 8081	05/22-05/30/96	6143122
Endosulfan I	ND	2.3	SW846 8081	05/22-05/30/96	6143122
Endosulfan II	ND	2.3	SW846 8081	05/22-05/30/96	6143122
Endosulfan sulfate	ND	2.3	SW846 8081	05/22-05/30/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	88	(30 - 150)
Decachlorobiphenyl	131	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3024

WO # : C433A103
LAB # : H6E160147-004
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 9:15
DATE RECEIVED: 5/16/96
% MOISTURE : 26.8

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.3	SW846 8081	05/22-05/30/96	6143122
Heptachlor epoxide	ND	2.3	SW846 8081	05/22-05/30/96	6143122
Methoxychlor	ND	4.5	SW846 8081	05/22-05/30/96	6143122
Toxaphene	ND	92	SW846 8081	05/22-05/30/96	6143122
alpha-Chlordane	ND	2.3	SW846 8081	05/22-05/30/96	6143122
gamma-Chlordane	ND	2.3	SW846 8081	05/22-05/30/96	6143122
Endrin ketone	ND	2.3	SW846 8081	05/22-05/30/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	88	(30 - 150)
Decachlorobiphenyl	131	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3023

WO # : C4335103
LAB # : H6E160147-003
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 9:05
DATE RECEIVED: 5/16/96
% MOISTURE : 23.0

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.2	SW846 8081	05/22-05/30/96	6143122
Aroclor 1016	ND	43	SW846 8081	05/22-05/30/96	6143122
Aroclor 1221	ND	43	SW846 8081	05/22-05/30/96	6143122
Aroclor 1232	ND	43	SW846 8081	05/22-05/30/96	6143122
Aroclor 1242	ND	43	SW846 8081	05/22-05/30/96	6143122
Aroclor 1248	ND	43	SW846 8081	05/22-05/30/96	6143122
Aroclor 1254	ND	43	SW846 8081	05/22-05/30/96	6143122
Aroclor 1260	ND	43	SW846 8081	05/22-05/30/96	6143122
alpha-BHC	ND	2.2	SW846 8081	05/22-05/30/96	6143122
beta-BHC	ND	2.2	SW846 8081	05/22-05/30/96	6143122
delta-BHC	ND	2.2	SW846 8081	05/22-05/30/96	6143122
gamma-BHC (Lindane)	ND	2.2	SW846 8081	05/22-05/30/96	6143122
4,4'-DDD	ND	2.2	SW846 8081	05/22-05/30/96	6143122
4,4'-DDE	ND	2.2	SW846 8081	05/22-05/30/96	6143122
4,4'-DDT	ND	2.2	SW846 8081	05/22-05/30/96	6143122
Dieldrin	ND	2.2	SW846 8081	05/22-05/30/96	6143122
Endrin	ND	2.2	SW846 8081	05/22-05/30/96	6143122
Endrin aldehyde	ND	2.2	SW846 8081	05/22-05/30/96	6143122
Endosulfan I	ND	2.2	SW846 8081	05/22-05/30/96	6143122
Endosulfan II	ND	2.2	SW846 8081	05/22-05/30/96	6143122
Endosulfan sulfate	ND	2.2	SW846 8081	05/22-05/30/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	77	(30 - 150)
Decachlorobiphenyl	86	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3023

WO # : C4335103
LAB # : H6E160147-003
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 9:05
DATE RECEIVED: 5/16/96
% MOISTURE : 23.0

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.2	SW846 8081	05/22-05/30/96	6143122
Heptachlor epoxide	ND	2.2	SW846 8081	05/22-05/30/96	6143122
Methoxychlor	ND	4.3	SW846 8081	05/22-05/30/96	6143122
Toxaphene	ND	87	SW846 8081	05/22-05/30/96	6143122
alpha-Chlordane	ND	2.2	SW846 8081	05/22-05/30/96	6143122
gamma-Chlordane	ND	2.2	SW846 8081	05/22-05/30/96	6143122
Endrin ketone	ND	2.2	SW846 8081	05/22-05/30/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	77	(30 - 150)
Decachlorobiphenyl	86	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3022

WO # : C4332103
LAB # : H6E160147-002
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 8:35
DATE RECEIVED: 5/16/96
% MOISTURE : 24.0

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.2	SW846 8081	05/22-05/30/96	6143122
Aroclor 1016	ND	43	SW846 8081	05/22-05/30/96	6143122
Aroclor 1221	ND	43	SW846 8081	05/22-05/30/96	6143122
Aroclor 1232	ND	43	SW846 8081	05/22-05/30/96	6143122
Aroclor 1242	ND	43	SW846 8081	05/22-05/30/96	6143122
Aroclor 1248	ND	43	SW846 8081	05/22-05/30/96	6143122
Aroclor 1254	ND	43	SW846 8081	05/22-05/30/96	6143122
Aroclor 1260	ND	43	SW846 8081	05/22-05/30/96	6143122
alpha-BHC	ND	2.2	SW846 8081	05/22-05/30/96	6143122
beta-BHC	ND	2.2	SW846 8081	05/22-05/30/96	6143122
delta-BHC	ND	2.2	SW846 8081	05/22-05/30/96	6143122
gamma-BHC (Lindane)	ND	2.2	SW846 8081	05/22-05/30/96	6143122
4,4'-DDD	ND	2.2	SW846 8081	05/22-05/30/96	6143122
4,4'-DDE	ND	2.2	SW846 8081	05/22-05/30/96	6143122
4,4'-DDT	ND	2.2	SW846 8081	05/22-05/30/96	6143122
Dieldrin	ND	2.2	SW846 8081	05/22-05/30/96	6143122
Endrin	ND	2.2	SW846 8081	05/22-05/30/96	6143122
Endrin aldehyde	ND	2.2	SW846 8081	05/22-05/30/96	6143122
Endosulfan I	ND	2.2	SW846 8081	05/22-05/30/96	6143122
Endosulfan II	ND	2.2	SW846 8081	05/22-05/30/96	6143122
Endosulfan sulfate	ND	2.2	SW846 8081	05/22-05/30/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	84	(30 - 150)
Decachlorobiphenyl	101	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3022

WO # : C4332103
LAB # : H6E160147-002
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 8:35
DATE RECEIVED: 5/16/96
% MOISTURE : 24.0

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.2	SW846 8081	05/22-05/30/96	6143122
Heptachlor epoxide	ND	2.2	SW846 8081	05/22-05/30/96	6143122
Methoxychlor	ND	4.3	SW846 8081	05/22-05/30/96	6143122
Toxaphene	ND	88	SW846 8081	05/22-05/30/96	6143122
alpha-Chlordane	ND	2.2	SW846 8081	05/22-05/30/96	6143122
gamma-Chlordane	ND	2.2	SW846 8081	05/22-05/30/96	6143122
Endrin ketone	ND	2.2	SW846 8081	05/22-05/30/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	84	(30 - 150)
Decachlorobiphenyl	101	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3021

WO # : C4330107
LAB # : H6E160147-001
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 8:25
DATE RECEIVED: 5/16/96
% MOISTURE : 17.2

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.1	SW846 8081	05/22-06/01/96	6143122
Aroclor 1016	ND	40	SW846 8081	05/22-06/01/96	6143122
Aroclor 1221	ND	40	SW846 8081	05/22-06/01/96	6143122
Aroclor 1232	ND	40	SW846 8081	05/22-06/01/96	6143122
Aroclor 1242	ND	40	SW846 8081	05/22-06/01/96	6143122
Aroclor 1248	ND	40	SW846 8081	05/22-06/01/96	6143122
Aroclor 1254	ND	40	SW846 8081	05/22-06/01/96	6143122
Aroclor 1260	ND	40	SW846 8081	05/22-06/01/96	6143122
alpha-BHC	ND	2.1	SW846 8081	05/22-06/01/96	6143122
beta-BHC	ND	2.1	SW846 8081	05/22-06/01/96	6143122
delta-BHC	ND	2.1	SW846 8081	05/22-06/01/96	6143122
gamma-BHC (Lindane)	ND	2.1	SW846 8081	05/22-06/01/96	6143122
4,4'-DDD	ND	2.1	SW846 8081	05/22-06/01/96	6143122
4,4'-DDE	ND	2.1	SW846 8081	05/22-06/01/96	6143122
4,4'-DDT	ND	2.1	SW846 8081	05/22-06/01/96	6143122
Dieldrin	ND	2.1	SW846 8081	05/22-06/01/96	6143122
Endrin	ND	2.1	SW846 8081	05/22-06/01/96	6143122
Endrin aldehyde	ND	2.1	SW846 8081	05/22-06/01/96	6143122
Endosulfan I	ND	2.1	SW846 8081	05/22-06/01/96	6143122
Endosulfan II	ND	2.1	SW846 8081	05/22-06/01/96	6143122
Endosulfan sulfate	ND	2.1	SW846 8081	05/22-06/01/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	89	(30 - 150)
Decachlorobiphenyl	133	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3021

WO # : C4330107
LAB # : H6E160147-001
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 8:25
DATE RECEIVED: 5/16/96
% MOISTURE : 17.2

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.1	SW846 8081	05/22-06/01/96	6143122
Heptachlor epoxide	ND	2.1	SW846 8081	05/22-06/01/96	6143122
Methoxychlor	ND	4.0	SW846 8081	05/22-06/01/96	6143122
Toxaphene	ND	81	SW846 8081	05/22-06/01/96	6143122
alpha-Chlordane	ND	2.1	SW846 8081	05/22-06/01/96	6143122
gamma-Chlordane	ND	2.1	SW846 8081	05/22-06/01/96	6143122
Endrin ketone	ND	2.1	SW846 8081	05/22-06/01/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	89	(30 - 150)
Decachlorobiphenyl	133	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

2004

WO # : C434Q103
LAB # : H6E160147-012
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 10:20
DATE RECEIVED: 5/16/96
% MOISTURE : 53.4

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	3.6	SW846 8081	05/22-06/01/96	6143122
Aroclor 1016	ND	71	SW846 8081	05/22-06/01/96	6143122
Aroclor 1221	ND	71	SW846 8081	05/22-06/01/96	6143122
Aroclor 1232	ND	71	SW846 8081	05/22-06/01/96	6143122
Aroclor 1242	ND	71	SW846 8081	05/22-06/01/96	6143122
Aroclor 1248	ND	71	SW846 8081	05/22-06/01/96	6143122
Aroclor 1254	ND	71	SW846 8081	05/22-06/01/96	6143122
Aroclor 1260	ND	71	SW846 8081	05/22-06/01/96	6143122
alpha-BHC	ND	3.6	SW846 8081	05/22-06/01/96	6143122
beta-BHC	ND	3.6	SW846 8081	05/22-06/01/96	6143122
delta-BHC	ND	3.6	SW846 8081	05/22-06/01/96	6143122
gamma-BHC (Lindane)	ND	3.6	SW846 8081	05/22-06/01/96	6143122
4,4'-DDD	ND	3.6	SW846 8081	05/22-06/01/96	6143122
4,4'-DDE	ND	3.6	SW846 8081	05/22-06/01/96	6143122
4,4'-DDT	ND	3.6	SW846 8081	05/22-06/01/96	6143122
Dieldrin	ND	3.6	SW846 8081	05/22-06/01/96	6143122
Endrin	ND	3.6	SW846 8081	05/22-06/01/96	6143122
Endrin aldehyde	ND	3.6	SW846 8081	05/22-06/01/96	6143122
Endosulfan I	ND	3.6	SW846 8081	05/22-06/01/96	6143122
Endosulfan II	ND	3.6	SW846 8081	05/22-06/01/96	6143122
Endosulfan sulfate	ND	3.6	SW846 8081	05/22-06/01/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	82	(30 - 150)
Decachlorobiphenyl	97	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

2004

WO # : C434Q103
LAB # : H6E160147-012
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 10:20
DATE RECEIVED: 5/16/96
% MOISTURE : 53.4

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	3.6	SW846 8081	05/22-06/01/96	6143122
Heptachlor epoxide	ND	3.6	SW846 8081	05/22-06/01/96	6143122
Methoxychlor	ND	7.1	SW846 8081	05/22-06/01/96	6143122
Toxaphene	ND	140	SW846 8081	05/22-06/01/96	6143122
alpha-Chlordane	ND	3.6	SW846 8081	05/22-06/01/96	6143122
gamma-Chlordane	ND	3.6	SW846 8081	05/22-06/01/96	6143122
Endrin ketone	ND	3.6	SW846 8081	05/22-06/01/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	82	(30 - 150)
Decachlorobiphenyl	97	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

2002

WO # : C434H103
LAB # : H6E160147-010
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 10:30
DATE RECEIVED: 5/16/96
% MOISTURE : 63.6

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	4.7	SW846 8081	05/22-06/01/96	6143122
Aroclor 1016	ND	91	SW846 8081	05/22-06/01/96	6143122
Aroclor 1221	ND	91	SW846 8081	05/22-06/01/96	6143122
Aroclor 1232	ND	91	SW846 8081	05/22-06/01/96	6143122
Aroclor 1242	ND	91	SW846 8081	05/22-06/01/96	6143122
Aroclor 1248	ND	91	SW846 8081	05/22-06/01/96	6143122
Aroclor 1254	ND	91	SW846 8081	05/22-06/01/96	6143122
Aroclor 1260	ND	91	SW846 8081	05/22-06/01/96	6143122
alpha-BHC	ND	4.7	SW846 8081	05/22-06/01/96	6143122
beta-BHC	ND	4.7	SW846 8081	05/22-06/01/96	6143122
delta-BHC	ND	4.7	SW846 8081	05/22-06/01/96	6143122
gamma-BHC (Lindane)	ND	4.7	SW846 8081	05/22-06/01/96	6143122
4,4'-DDD	ND	4.7	SW846 8081	05/22-06/01/96	6143122
4,4'-DDE	ND	4.7	SW846 8081	05/22-06/01/96	6143122
4,4'-DDT	ND	4.7	SW846 8081	05/22-06/01/96	6143122
Dieldrin	ND	4.7	SW846 8081	05/22-06/01/96	6143122
Endrin	ND	4.7	SW846 8081	05/22-06/01/96	6143122
Endrin aldehyde	ND	4.7	SW846 8081	05/22-06/01/96	6143122
Endosulfan I	ND	4.7	SW846 8081	05/22-06/01/96	6143122
Endosulfan II	ND	4.7	SW846 8081	05/22-06/01/96	6143122
Endosulfan sulfate	ND	4.7	SW846 8081	05/22-06/01/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	84	(30 - 150)
Decachlorobiphenyl	116	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

2002

WO # : C434H103
LAB # : H6E160147-010
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 10:30
DATE RECEIVED: 5/16/96
% MOISTURE : 63.6

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	4.7	SW846 8081	05/22-06/01/96	6143122
Heptachlor epoxide	ND	4.7	SW846 8081	05/22-06/01/96	6143122
Methoxychlor	ND	9.1	SW846 8081	05/22-06/01/96	6143122
Toxaphene	ND	180	SW846 8081	05/22-06/01/96	6143122
alpha-Chlordane	ND	4.7	SW846 8081	05/22-06/01/96	6143122
gamma-Chlordane	ND	4.7	SW846 8081	05/22-06/01/96	6143122
Endrin ketone	ND	4.7	SW846 8081	05/22-06/01/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	84	(30 - 150)
Decachlorobiphenyl	116	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

2001

WO # : C434M103
LAB # : H6E160147-011
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 10:30
DATE RECEIVED: 5/16/96
% MOISTURE : 63.6

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	4.7	SW846 8081	05/22-06/01/96	6143122
Aroclor 1016	ND	91	SW846 8081	05/22-06/01/96	6143122
Aroclor 1221	ND	91	SW846 8081	05/22-06/01/96	6143122
Aroclor 1232	ND	91	SW846 8081	05/22-06/01/96	6143122
Aroclor 1242	ND	91	SW846 8081	05/22-06/01/96	6143122
Aroclor 1248	ND	91	SW846 8081	05/22-06/01/96	6143122
Aroclor 1254	ND	91	SW846 8081	05/22-06/01/96	6143122
Aroclor 1260	ND	91	SW846 8081	05/22-06/01/96	6143122
alpha-BHC	ND	4.7	SW846 8081	05/22-06/01/96	6143122
beta-BHC	ND	4.7	SW846 8081	05/22-06/01/96	6143122
delta-BHC	ND	4.7	SW846 8081	05/22-06/01/96	6143122
gamma-BHC (Lindane)	ND	4.7	SW846 8081	05/22-06/01/96	6143122
4,4'-DDD	ND	4.7	SW846 8081	05/22-06/01/96	6143122
4,4'-DDE	ND	4.7	SW846 8081	05/22-06/01/96	6143122
4,4'-DDT	ND	4.7	SW846 8081	05/22-06/01/96	6143122
Dieldrin	ND	4.7	SW846 8081	05/22-06/01/96	6143122
Endrin	ND	4.7	SW846 8081	05/22-06/01/96	6143122
Endrin aldehyde	ND	4.7	SW846 8081	05/22-06/01/96	6143122
Endosulfan I	ND	4.7	SW846 8081	05/22-06/01/96	6143122
Endosulfan II	ND	4.7	SW846 8081	05/22-06/01/96	6143122
Endosulfan sulfate	ND	4.7	SW846 8081	05/22-06/01/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	88	(30 - 150)
Decachlorobiphenyl	130	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

2001

WO # : C434M103
LAB # : H6E160147-011
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/15/96
TIME SAMPLED : 10:30
DATE RECEIVED: 5/16/96
% MOISTURE : 63.6

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	4.7	SW846 8081	05/22-06/01/96	6143122
Heptachlor epoxide	ND	4.7	SW846 8081	05/22-06/01/96	6143122
Methoxychlor	ND	9.1	SW846 8081	05/22-06/01/96	6143122
Toxaphene	ND	180	SW846 8081	05/22-06/01/96	6143122
alpha-Chlordane	ND	4.7	SW846 8081	05/22-06/01/96	6143122
gamma-Chlordane	ND	4.7	SW846 8081	05/22-06/01/96	6143122
Endrin ketone	ND	4.7	SW846 8081	05/22-06/01/96	6143122

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	88	(30 - 150)
Decachlorobiphenyl	130	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

U.S. EPA - CLP

7

LABORATORY CONTROL SAMPLE

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: BURNING_GR

Lab Code: ITSTU_ Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Solid LCS Source: ULTRA_____

Aqueous LCS Source: _____

C44NPC

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury				0.8	0.9		0.7	1.0	112.5
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									

GC/HPLC

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

3021D

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: BURNING_GR

Lab Code: ITSTU_ Case No.: EG147 SAS No.: _____ SDG No.: eg147_

Matrix (soil/water): SOIL_ Level (low/med): _LOW__

% Solids for Sample: _82.8 % Solids for Duplicate: __82.8

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		9182.5580		9970.7138		8.2		P
Antimony	7.2	36.7295		34.6063		6.0		P
Arsenic		172.1087		179.6558		4.3		P
Barium		348.8502		268.8998		25.9	*	P
Beryllium		5.7258		5.8418		2.0		P
Cadmium		5.0870		5.3829		5.7		P
Calcium		34094.8490		33660.2246		1.3		P
Chromium		30.3816		30.9070		1.7		P
Cobalt		64.5060		62.8768		2.6		P
Copper		36.1208		36.8768		2.1		P
Iron		28653.9130		25189.6027		12.9		P
Lead		51.9143		53.4348		2.9		P
Magnesium		16848.1981		17009.9819		1.0		P
Manganese		3638.0713		1650.0773		75.2	*	P
Mercury		0.2134		0.2114		0.9		CV
Nickel		72.4638		67.7717		6.7		P
Potassium		6122.6353		6404.8188		4.5		P
Selenium		161.6099		169.2935		4.6		P
Silver	1.2	4.9058		4.9758		1.4		P
Sodium		5321.1763		5453.5181		2.5		P
Thallium		161.5254		170.7065		5.5		P
Vanadium		74.5725		75.5193		1.3		P
Zinc		120.5447		124.4227		3.2		P

U.S. EPA - CLP

7

LABORATORY CONTROL SAMPLE

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: BURNING_GR

Lab Code: ITSTU_ Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Solid LCS Source: ULTRA_____

Aqueous LCS Source: _____

C44NEC

Analyte	Aqueous (ug/L) True	Aqueous (ug/L) Found	Aqueous (ug/L) %R	Solid (mg/kg) True	Solid (mg/kg) Found	C	Limits	Limits	%R
Aluminum				200.0	184.0		160.0	240.0	92.0
Antimony				50.0	45.9		40.0	60.0	91.8
Arsenic				200.0	172.0		160.0	240.0	86.0
Barium				200.0	180.5		160.0	240.0	90.2
Beryllium				5.0	4.5		4.0	6.0	90.0
Cadmium				5.0	4.5		4.0	6.0	90.0
Calcium				5000.0	4537.6		4000.0	6000.0	90.8
Chromium				20.0	18.4		16.0	24.0	92.0
Cobalt				50.0	45.5		40.0	60.0	91.0
Copper				25.0	22.2		20.0	30.0	88.8
Iron				100.0	93.9		80.0	120.0	93.9
Lead				50.0	43.9		40.0	60.0	87.8
Magnesium				5000.0	4459.9		4000.0	6000.0	89.[illegible]
Manganese				50.0	46.1		40.0	60.0	92
Mercury									
Nickel				50.0	45.8		40.0	60.0	91.6
Potassium				5000.0	4352.0		4000.0	6000.0	87.0
Selenium				200.0	167.2		160.0	240.0	83.6
Silver				5.0	4.5		4.0	6.0	90.0
Sodium				5000.0	4418.3		4000.0	6000.0	88.4
Thallium				200.0	172.0		160.0	240.0	86.0
Vanadium				50.0	47.1		40.0	60.0	94.2
Zinc				50.0	46.5		40.0	60.0	93.0

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

3021D

Lab Name: QUANTERRA_KNOXVILLE_____ Contract:BURNING_GR

Lab Code: ITSTU_ Case No.: EG147 SAS No.: _____ SDG No.: PBG802
Matrix: __SOIL_____ Level (low/med): _LOW____
% Solids for Sample: _82.8

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony	80-120	34.6063		7.2464	U	60.39	57.3	N	P
Arsenic	80-120	179.6558		6.7681		241.55	71.6	N	P
Barium	80-120	268.8998		55.8865		241.55	88.2		P
Beryllium	80-120	5.8418		0.6039	U	6.04	96.7		P
Cadmium	80-120	5.3829		0.6039	U	6.04	89.1		P
Calcium									NR
Chromium	80-120	30.9070		8.8128		24.15	91.5		P
Cobalt	80-120	62.8768		11.3647		60.39	85.3		P
Copper	80-120	36.8768		12.0978		30.19	82.1		P
Iron									NR
ad	80-120	53.4348		11.2017		60.39	69.9	N	P
gnesium									NR
Manganese		1650.0773		1662.7077		60.39	-20.9		P
Mercury	80-120	0.2114		0.0403	U	0.20	105.7		CV
Nickel	80-120	67.7717		16.2065		60.39	85.4		P
Potassium									NR
Selenium	80-120	169.2935		0.6039	U	241.55	70.1	N	P
Silver	80-120	4.9758		1.2077	U	6.04	82.4		P
Sodium									NR
Thallium	80-120	170.7065		1.2077	U	241.55	70.7	N	P
Vanadium	80-120	75.5193		19.1087		60.39	93.4		P
Zinc	80-120	124.4227		69.9396		60.39	90.2		P

Comments:
COMPLETE_CLIENT_I.D.:_PBOW-96-SO09-BG8-3021-(0-0.5)

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

3021S

Lab Name: QUANTERRA_KNOXVILLE_____ Contract:BURNING_GR

Lab Code: ITSTU_ Case No.: EG147 SAS No.: _____ SDG No.: PBG802
Matrix: __SOIL_____ Level (low/med): _LOW____
% Solids for Sample: _82.8

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony	80-120	36.7295		7.2464	U	60.39	60.8	N	P
Arsenic	80-120	172.1087		6.7681		241.55	68.4	N	P
Barium	80-120	348.8502		55.8865		241.55	121.3	N	P
Beryllium	80-120	5.7258		0.6039	U	6.04	94.8		P
Cadmium	80-120	5.0870		0.6039	U	6.04	84.2		P
Calcium									NR
Chromium	80-120	30.3816		8.8128		24.15	89.3		P
Cobalt	80-120	64.5060		11.3647		60.39	88.0		P
Copper	80-120	36.1208		12.0978		30.19	79.6	N	P
Iron									NR
Lead	80-120	51.9143		11.2017		60.39	67.4	N	P
Magnesium									N
Manganese		3638.0713		1662.7077		60.39	3271.0		P
Mercury	80-120	0.2134		0.0403	U	0.20	106.7		CV
Nickel	80-120	72.4638		16.2065		60.39	93.2		P
Potassium									NR
Selenium	80-120	161.6099		0.6039	U	241.55	66.9	N	P
Silver	80-120	4.9058		1.2077	U	6.04	81.2		P
Sodium									NR
Thallium	80-120	161.5254		1.2077	U	241.55	66.9	N	P
Vanadium	80-120	74.5725		19.1087		60.39	91.8		P
Zinc	80-120	120.5447		69.9396		60.39	83.8		P

Comments:
COMPLETE_CLIENT_I.D.:_PBOW-96-SO09-BG8-3021-(0-0.5)

U.S. EPA - CLP

3
BLANKS

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: BURNING_GR

Lab Code: ITSTU_ Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
›per											NR
›n											NR
Lead											NR
Magnesium											NR
Manganese	15.0	U	15.0	U	15.0	U	15.0	U			P
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: BURNING_GR

Lab Code: ITSTU_ Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead											NR
Magnesium											NR
Manganese			15.0	U							P
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: BURNING_GR

Lab Code: ITSTU_ Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Preparation Blank Matrix (soil/water): SOIL_

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

C44NPB
C44NEB

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	200.0	U	200.0	U	200.0	U	200.0	U	20.000	U	P
Antimony	60.0	U	60.0	U	60.0	U	60.0	U	6.000	U	P
Arsenic	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	P
Barium	200.0	U	200.0	U	200.0	U	200.0	U	20.000	U	P
Beryllium	5.0	U	5.0	U	5.0	U	5.0	U	0.500	U	P
Cadmium	5.0	U	5.0	U	5.0	U	5.0	U	0.500	U	P
Calcium	5000.0	U	5000.0	U	5000.0	U	5000.0	U	500.000	U	P
Chromium	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	P
Cobalt	50.0	U	50.0	U	50.0	U	50.0	U	5.000	U	P
·pper	25.0	U	25.0	U	25.0	U	25.0	U	2.500	U	P
·on	100.0	U	100.0	U	100.0	U	100.0	U	10.000	U	P
Lead	3.0	U	3.0	U	3.0	U	3.0	U	0.300	U	P
Magnesium	5000.0	U	5000.0	U	5000.0	U	5000.0	U	500.000	U	P
Manganese	15.0	U	15.0	U	15.0	U	15.0	U	1.500	U	P
·ercury	0.2	U	0.2	U	0.2	U	0.2	U	0.033	U	CV
Nickel	40.0	U	40.0	U	40.0	U	40.0	U	4.000	U	P
Potassium	5000.0	U	5000.0	U	5000.0	U	5000.0	U	500.000	U	P
Selenium	5.0	U	5.0	U	5.0	U	5.0	U	0.500	U	P
Silver	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	P
Sodium	5000.0	U	5000.0	U	5000.0	U	5000.0	U	500.000	U	P
Thallium	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	P
Vanadium	50.0	U	50.0	U	50.0	U	50.0	U	5.000	U	P
Zinc	20.0	U	20.0	U	20.0	U	20.0	U	2.000	U	P

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3
BLANKS

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: BURNING_GR

Lab Code: ITSTU_ Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			200.0	U	200.0	U	200.0	U			P
Antimony			60.0	U	60.0	U	60.0	U			P
Arsenic			10.0	U	10.0	U	10.0	U			P
Barium			200.0	U	200.0	U	200.0	U			P
Beryllium			5.0	U	5.0	U	5.0	U			P
Cadmium			5.0	U	5.0	U	5.0	U			P
Calcium			5000.0	U	5000.0	U	5000.0	U			P
Chromium			10.0	U	10.0	U	10.0	U			P
Cobalt			50.0	U	50.0	U	50.0	U			P
Copper			25.0	U	25.0	U	25.0	U			P
Iron			100.0	U	100.0	U	100.0	U			P
Lead			3.0	U	3.0	U	3.0	U			P
Magnesium			5000.0	U	5000.0	U	5000.0	U			P
Manganese			15.0	U	15.0	U	15.0	U			P
Mercury			0.2	U	0.2	U					CV
Nickel			40.0	U	40.0	U	40.0	U			P
Potassium			5000.0	U	5000.0	U	5000.0	U			P
Selenium			5.0	U	5.0	U	5.0	U			P
Silver			10.0	U	10.0	U	10.0	U			P
Sodium			5000.0	U	5000.0	U	5000.0	U			P
Thallium			10.0	U	10.0	U	10.0	U			P
Vanadium			50.0	U	50.0	U	50.0	U			P
Zinc			20.0	U	20.0	U	20.0	U			P

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3029

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: BURNING_GR

Lab Code: ITSTU_ Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix (soil/water): SOIL_ Lab Sample ID: C434C

Level (low/med): LOW__ Date Received: 05/16/96

% Solids: _75.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	5550			P
7440-36-0	Antimony_	8.0	U	N	P
7440-38-2	Arsenic__	3.4		N	P
7440-39-3	Barium___	49.6		N	P
7440-41-7	Beryllium	0.67	U		P
7440-43-9	Cadmium__	0.67	U		P
7440-70-2	Calcium__	1560			P
7440-47-3	Chromium_	6.5			P
7440-48-4	Cobalt___	7.6			P
7440-50-8	Copper___	4.9		N	P
7439-89-6	Iron_____	15200			P
7439-92-1	Lead_____	10.7		N	P
7439-95-4	Magnesium	722			P
7439-96-5	Manganese	711			P
7439-97-6	Mercury__	0.04	U		CV
7440-02-0	Nickel___	7.6			P
7440-09-7	Potassium	666	U		P
7782-49-2	Selenium_	0.67	U	N	P
7440-22-4	Silver___	1.3	U		P
7440-23-5	Sodium___	666	U		P
7440-28-0	Thallium_	1.3	U	N	P
7440-62-2	Vanadium_	11.1			P
7440-66-6	Zinc_____	35.6			P

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

COMPLETE_CLIENT_I.D.:_PBOW-96-SO12-BG8-3029-(0.0-0.5)

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3030

Lab Name: QUANTERRA_KNOXVILLE Contract: BURNING_GR
Lab Code: ITSTU Case No.: EG147 SAS No.: SDG No.: PBG802
Matrix (soil/water): SOIL Lab Sample ID: C434F
Level (low/med): LOW Date Received: 05/16/96
% Solids: 74.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	13100			P
7440-36-0	Antimony	8.1	U	N	P
7440-38-2	Arsenic	8.9		N	P
7440-39-3	Barium	129		N	P
7440-41-7	Beryllium	1.2			P
7440-43-9	Cadmium	0.67	U		P
7440-70-2	Calcium	1980			P
7440-47-3	Chromium	17.8			P
7440-48-4	Cobalt	18.8			P
7440-50-8	Copper	14.2		N	P
7439-89-6	Iron	61800			P
7439-92-1	Lead	12.0		N	P
7439-95-4	Magnesium	1790			P
7439-96-5	Manganese	1810			P
7439-97-6	Mercury	0.06			CV
7440-02-0	Nickel	23.4			P
7440-09-7	Potassium	674			P
7782-49-2	Selenium	0.67	U	N	P
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	671	U		P
7440-28-0	Thallium	1.5		N	P
7440-62-2	Vanadium	24.5			P
7440-66-6	Zinc	62.4			P

Color Before: BROWN Clarity Before: Texture: MEDIUM
Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
COMPLETE_CLIENT_I.D.: PBOW-96-SO12-BG8-3030-(2.0-3.0)

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3027

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: BURNING_GR
Lab Code: ITSTU_ Case No.: EG147 SAS No.: _____ SDG No.: PBG802
Matrix (soil/water): SOIL_ Lab Sample ID: C433P
Level (low/med): LOW__ Date Received: 05/16/96
% Solids: _83.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	5260			P
7440-36-0	Antimony_	7.2	U	N	P
7440-38-2	Arsenic__	4.1		N	P
7440-39-3	Barium___	43.1		N	P
7440-41-7	Beryllium	0.60	U		P
7440-43-9	Cadmium__	0.60	U		P
7440-70-2	Calcium__	3290			P
7440-47-3	Chromium_	7.4			P
7440-48-4	Cobalt___	9.6			P
7440-50-8	Copper___	9.0		N	P
7439-89-6	Iron_____	24500			P
7439-92-1	Lead_____	12.9		N	P
7439-95-4	Magnesium	1320			P
7439-96-5	Manganese	1410			P
7439-97-6	Mercury__	0.04	U		CV
7440-02-0	Nickel___	11.6			P
7440-09-7	Potassium	597	U		P
7782-49-2	Selenium_	0.60	U	N	P
7440-22-4	Silver___	1.2	U		P
7440-23-5	Sodium___	597	U		P
7440-28-0	Thallium_	1.2	U	N	P
7440-62-2	Vanadium_	11.0			P
7440-66-6	Zinc_____	55.3			P

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM
Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:
COMPLETE_CLIENT_I.D.:_PBOW-96-SO11-BG8-3027-(0-0.5)

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3028

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: BURNING_GR

Lab Code: ITSTU_ Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix (soil/water): SOIL_ Lab Sample ID: C4344

Level (low/med): LOW_ Date Received: 05/16/96

% Solids: _85.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9920			P
7440-36-0	Antimony	7.0	U	N	P
7440-38-2	Arsenic	5.8		N	P
7440-39-3	Barium	57.3		N*	P
7440-41-7	Beryllium	0.63			P
7440-43-9	Cadmium	0.58	U		P
7440-70-2	Calcium	6150			P
7440-47-3	Chromium	11.9			P
7440-48-4	Cobalt	15.3			P
7440-50-8	Copper	13.0		N	P
7439-89-6	Iron	42700			P
7439-92-1	Lead	10.2		N	P
7439-95-4	Magnesium	2840			P
7439-96-5	Manganese	1990		*	P
7439-97-6	Mercury	0.05			CV
7440-02-0	Nickel	17.9			P
7440-09-7	Potassium	686			P
7782-49-2	Selenium	0.58	U	N	P
7440-22-4	Silver	1.2	U		P
7440-23-5	Sodium	584	U		P
7440-28-0	Thallium	1.2	U	N	P
7440-62-2	Vanadium	18.9			P
7440-66-6	Zinc	64.0			P

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

COMPLETE_CLIENT_I.D.:_PBOW-96-SO11-BG8-3028-(0.5-1.0)

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3024

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: BURNING_GR
Lab Code: ITSTU_ Case No.: EG147 SAS No.: _____ SDG No.: PBG802
Matrix (soil/water): SOIL_ Lab Sample ID: C433A
Level (low/med): LOW__ Date Received: 05/16/96
% Solids: _73.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9450			P
7440-36-0	Antimony	8.2	U	N	P
7440-38-2	Arsenic	6.9		N	P
7440-39-3	Barium	263		N*	P
7440-41-7	Beryllium	1.3			P
7440-43-9	Cadmium	0.68	U		P
7440-70-2	Calcium	8370			P
7440-47-3	Chromium	13.2			P
7440-48-4	Cobalt	18.7			P
7440-50-8	Copper	11.3		N	P
7439-89-6	Iron	74700			P
7439-92-1	Lead	11.4		N	P
7439-95-4	Magnesium	4220			P
7439-96-5	Manganese	4910		*	P
7439-97-6	Mercury	0.05			CV
7440-02-0	Nickel	20.5			P
7440-09-7	Potassium	721			P
7782-49-2	Selenium	0.68	U	N	P
7440-22-4	Silver	1.4	U		P
7440-23-5	Sodium	683	U		P
7440-28-0	Thallium	1.4	U	N	P
7440-62-2	Vanadium	22.6			P
7440-66-6	Zinc	97.1			P

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM
Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:
COMPLETE_CLIENT_I.D.:_PBOW-96-SO10-BG8-3024-(1-1.5)

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3025

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: BURNING_GR

Lab Code: ITSTU_ Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix (soil/water): SOIL_ Lab Sample ID: C433F

Level (low/med): LOW__ Date Received: 05/16/96

% Solids: _69.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	9240			P
7440-36-0	Antimony_	8.6	U	N	P
7440-38-2	Arsenic__	8.7		N	P
7440-39-3	Barium___	338		N *	P
7440-41-7	Beryllium	1.4			P
7440-43-9	Cadmium__	0.72	U		P
7440-70-2	Calcium__	16300			P
7440-47-3	Chromium_	12.3			P
7440-48-4	Cobalt___	20.8			P
7440-50-8	Copper___	13.3		N	P
7439-89-6	Iron_____	84900			P
7439-92-1	Lead_____	14.2		N	P
7439-95-4	Magnesium	7650			P
7439-96-5	Manganese	6030		*	P
7439-97-6	Mercury__	0.05			CV
7440-02-0	Nickel___	23.2			P
7440-09-7	Potassium	715	U		P
7782-49-2	Selenium_	0.72	U	N	P
7440-22-4	Silver___	1.4	U		P
7440-23-5	Sodium___	715	U		P
7440-28-0	Thallium_	1.4	U	N	P
7440-62-2	Vanadium_	24.1			P
7440-66-6	Zinc_____	106			P

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

COMPLETE_CLIENT_I.D.:_PBOW-96-FD10-BG8-3025-(1-1.5)

MANGANESE_IS_REPORTED_FROM_A_1/2_DILUTION_ON_A_SECOND_ICP_RUN.

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EPA SAMPLE NO.

3022

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: BURNING_GR
Lab Code: ITSTU_ Case No.: EG147 SAS No.: _____ SDG No.: PBG802
Matrix (soil/water): SOIL_ Lab Sample ID: C4332
Level (low/med): LOW__ Date Received: 05/16/96
% Solids: _76.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5930			P
7440-36-0	Antimony	7.9	U	N	P
7440-38-2	Arsenic	5.6		N	P
7440-39-3	Barium	156		N *	P
7440-41-7	Beryllium	0.76			P
7440-43-9	Cadmium	0.66	U		P
7440-70-2	Calcium	38700			P
7440-47-3	Chromium	6.5			P
7440-48-4	Cobalt	15.5			P
7440-50-8	Copper	11.4		N	P
7439-89-6	Iron	47100			P
7439-92-1	Lead	13.7		N	P
7439-95-4	Magnesium	17100			P
7439-96-5	Manganese	3780		*	P
7439-97-6	Mercury	0.04	U		CV
7440-02-0	Nickel	18.5			P
7440-09-7	Potassium	658	U		P
7782-49-2	Selenium	0.66	U	N	P
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	658	U		P
7440-28-0	Thallium	1.3	U	N	P
7440-62-2	Vanadium	19.7			P
7440-66-6	Zinc	138			P

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM
Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:
COMPLETE_CLIENT_I.D.:_PBOW-96-SO09-BG8-3022-(2-3)

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3023

Lab Name: QUANTERRA_KNOXVILLE Contract: BURNING_GR

Lab Code: ITSTU Case No.: EG147 SAS No.: SDG No.: PBG802

Matrix (soil/water): SOIL Lab Sample ID: C4335

Level (low/med): LOW Date Received: 05/16/96

% Solids: 77.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5780			P
7440-36-0	Antimony	7.8	U	N	P
7440-38-2	Arsenic	4.0		N	P
7440-39-3	Barium	39.2		N*	P
7440-41-7	Beryllium	0.65	U		P
7440-43-9	Cadmium	0.65	U		P
7440-70-2	Calcium	2990			P
7440-47-3	Chromium	6.7			P
7440-48-4	Cobalt	6.9			P
7440-50-8	Copper	6.8		N	P
7439-89-6	Iron	23500			P
7439-92-1	Lead	12.5		N	P
7439-95-4	Magnesium	926			P
7439-96-5	Manganese	726		*	P
7439-97-6	Mercury	0.04	U		CV
7440-02-0	Nickel	8.6			P
7440-09-7	Potassium	649	U		P
7782-49-2	Selenium	0.65	U	N	P
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	649	U		P
7440-28-0	Thallium	2.1		N	P
7440-62-2	Vanadium	11.3			P
7440-66-6	Zinc	57.4			P

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

COMPLETE_CLIENT_I.D.: PBOW-96-SO10-BG8-3023-(0-0.5)

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2004

Lab Name: QUANTERRA_KNOXVILLE Contract: BURNING_GR

Lab Code: ITSTU Case No.: EG147 SAS No.: SDG No.: PBG802

Matrix (soil/water): SOIL Lab Sample ID: C434Q

Level (low/med): LOW Date Received: 05/16/96

% Solids: 46.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	18600			P
7440-36-0	Antimony	12.9	U	N	P
7440-38-2	Arsenic	8.0		N	P
7440-39-3	Barium	167		N *	P
7440-41-7	Beryllium	6.9			P
7440-43-9	Cadmium	3.5			P
7440-70-2	Calcium	12700			P
7440-47-3	Chromium	11.8			P
7440-48-4	Cobalt	251			P
7440-50-8	Copper	52.7		N	P
7439-89-6	Iron	43900			P
7439-92-1	Lead	17.9		N	P
7439-95-4	Magnesium	3420			P
7439-96-5	Manganese	3480		*	P
7439-97-6	Mercury	0.07	U		CV
7440-02-0	Nickel	403			P
7440-09-7	Potassium	1070	U		P
7782-49-2	Selenium	1.9		N	P
7440-22-4	Silver	2.1	U		P
7440-23-5	Sodium	1070	U		P
7440-28-0	Thallium	2.1	U	N	P
7440-62-2	Vanadium	21.3			P
7440-66-6	Zinc	569			P

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

COMPLETE_CLIENT_I.D.: PBOW-96-SD02-BG8-2004-(SD)

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3021

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: BURNING_GR

Lab Code: ITSTU_ Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix (soil/water): SOIL_ Lab Sample ID: C4330

Level (low/med): LOW_ Date Received: 05/16/96

% Solids: _82.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7720			P
7440-36-0	Antimony	7.2	U	N	P
7440-38-2	Arsenic	6.8		N	P
7440-39-3	Barium	55.9		N *	P
7440-41-7	Beryllium	0.60	U		P
7440-43-9	Cadmium	0.60	U		P
7440-70-2	Calcium	29500			P
7440-47-3	Chromium	8.8			P
7440-48-4	Cobalt	11.4			P
7440-50-8	Copper	12.1		N	P
7439-89-6	Iron	28100			P
7439-92-1	Lead	11.2		N	P
7439-95-4	Magnesium	12000			P
7439-96-5	Manganese	1660		*	P
7439-97-6	Mercury	0.04	U		CV
7440-02-0	Nickel	16.2			P
7440-09-7	Potassium	785			P
7782-49-2	Selenium	0.60	U	N	P
7440-22-4	Silver	1.2	U		P
7440-23-5	Sodium	604	U		P
7440-28-0	Thallium	1.2	U	N	P
7440-62-2	Vanadium	19.1			P
7440-66-6	Zinc	69.9			P

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

COMPLETE_CLIENT_I.D.:_PBOW-96-SO09-BG8-3021-(0-0.5)

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2001

Lab Name: QUANTERRA_KNOXVILLE Contract: BURNING_GR
Lab Code: ITSTU Case No.: EG147 SAS No.: SDG No.: PBG802
Matrix (soil/water): SOIL Lab Sample ID: C434M
Level (low/med): LOW Date Received: 05/16/96
% Solids: 36.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	20500			P
7440-36-0	Antimony	16.5	U	N	P
7440-38-2	Arsenic	12.1		N	P
7440-39-3	Barium	165		N *	P
7440-41-7	Beryllium	8.8			P
7440-43-9	Cadmium	2.9			P
7440-70-2	Calcium	8800			P
7440-47-3	Chromium	13.4			P
7440-48-4	Cobalt	179			P
7440-50-8	Copper	63.0		N	P
7439-89-6	Iron	70700			P
7439-92-1	Lead	21.0		N	P
7439-95-4	Magnesium	1750			P
7439-96-5	Manganese	1560		*	P
7439-97-6	Mercury	0.09	U		CV
7440-02-0	Nickel	273			P
7440-09-7	Potassium	1370	U		P
7782-49-2	Selenium	1.9		N	P
7440-22-4	Silver	2.7	U		P
7440-23-5	Sodium	1370	U		P
7440-28-0	Thallium	2.7	U	N	P
7440-62-2	Vanadium	23.3			P
7440-66-6	Zinc	537			P

Color Before: BROWN Clarity Before: Texture: MEDIUM
Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:
COMPLETE_CLIENT_I.D.: PBOW-96-SD01-BG8-2001-(SD)

FORM I - IN

ILM02.1

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2002

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: BURNING_GR

Lab Code: ITSTU_ Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix (soil/water): SOIL_ Lab Sample ID: C434H

Level (low/med): LOW_ Date Received: 05/16/96

% Solids: _36.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23000			P
7440-36-0	Antimony	16.5	U	N	P
7440-38-2	Arsenic	7.1		N	P
7440-39-3	Barium	130		N *	P
7440-41-7	Beryllium	8.3			P
7440-43-9	Cadmium	2.2			P
7440-70-2	Calcium	7430			P
7440-47-3	Chromium	12.2			P
7440-48-4	Cobalt	146			P
7440-50-8	Copper	63.0		N	P
7439-89-6	Iron	42400			P
7439-92-1	Lead	15.5		N	P
7439-95-4	Magnesium	1790			P
7439-96-5	Manganese	1260		*	P
7439-97-6	Mercury	0.09	U		CV
7440-02-0	Nickel	217			P
7440-09-7	Potassium	1370	U		P
7782-49-2	Selenium	1.4		N	P
7440-22-4	Silver	2.7	U		P
7440-23-5	Sodium	1370	U		P
7440-28-0	Thallium	2.7	U	N	P
7440-62-2	Vanadium	19.8			P
7440-66-6	Zinc	408			P

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

COMPLETE_CLIENT_I.D.:_PBOW-96-FD01-BG8-2002-(SD)

FORM I - IN

ILM02.1

METALS

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: BURNING_GR

Lab Code: ITSTU_ Case No.: EG147 SAS No.: _____ SDG No.:PBG802

SOW No.: ILM02

EPA Sample No.	Lab Sample ID
2001	C434M
2002	C434H
2004	C434Q
3021	C4330
3021D	C4330D
3021S	C4330S
3022	C4332
3023	C4335
3024	C433A
3025	C433F
3027	C433P
3028	C4344
3029	C434C
3030	C434F

Were ICP interelement corrections applied ? Yes/No YES

Were ICP background corrections applied ? Yes/No YES
If yes - were raw data generated before application of background corrections ? Yes/No NO_

Comments:

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 on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Christopher Kanker Name: Christopher Kanker

Date: May 30, 1996 Title: Group Supervisor

3D
SOIL SEMIVOLATILE LCS RECOVERY

Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix Spike - EPA Sample No.: SBLKC44WAB101 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
Phenol	2500	0	1810	72	37-115
2-Chlorophenol	2500	0	1920	77	37-113
1,4-Dichlorobenzene	1670	0	1220	73	29-101
N-Nitroso-di-n-prop.(1)	1670	0	1070	64	26-104
1,2,4-Trichlorobenzene	1670	0	1350	81	28-112
4-Chloro-3-methylphenol	2500	0	2000	80	42-116
Acenaphthene	1670	0	1320	79	38-106
4-Nitrophenol	2500	0	2040	82	22-122
2,4-Dinitrotoluene	1670	0	1330	80	37-117
Pentachlorophenol	2500	0	2410	96	19-129
Pyrene	1670	0	1470	88	36-128

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

Spike Recovery: 0 out of 11 outside limits

COMMENTS: CLP,EG147,,SBLKC44WABB,L,S,C44WA101,BNA,BLANK,
INST:4500 RESTEK XTI-5 30M/.32UMID 40-325@12DEG/M 2UL INJ

4B
SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Lab File ID: C44WAB Lab Sample ID: C44WA101

Date Extracted: 05/22/96 Extraction:(SepF/Cont/Sonc) ____

Date Analyzed: 06/02/96 Time Analyzed: 0831

Matrix: (soil/water) SOIL Level:(low/med) LOW

Instrument ID: 4500

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	2001	C434M102	C434M	06/02/96
02	2002	C434H102	C434H	06/02/96
03	2004	C434Q102	C434Q	06/02/96
04	3021	C4330104	C4330	06/02/96
05	3022	C4332102	C4332	06/02/96
06	3023	C4335102	C4335	06/02/96
07	3024	C433A102	C433A	06/02/96
08	3025	C433F102	C433F	06/02/96
09	3027	C433P102	C433P	06/02/96
10	3028	C4344102	C4344	06/02/96
11	3029	C434C102	C434C	06/02/96
12	3030	C434F102	C434F	06/02/96
13	SLCSC44WACB	C44WA102	C44WAC	06/02/96
14	3021MS	C4330105	C4330S	06/02/96
15	3021MSD	C4330106	C4330D	06/02/96

COMMENTS: CLP,EG147,,SBLKC44WABB,L,S,C44WA101,BNA,BLANK,
INST:4500 RESTEK XTI-5 30M/.32UMID 40-325@12DEG/M 2UL INJ

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

ab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
01	2001	84	78	105	82	83	108	0	0
02	2002	84	79	106	84	84	107	0	0
03	2004	76	74	104	78	77	104	0	0
04	3021	74	73	100	76	77	90	0	0
05	3022	63	62	104	66	65	96	0	0
06	3023	78	75	101	78	80	102	0	0
07	3024	68	65	100	69	68	94	0	0
08	3025	72	69	93	73	74	90	0	0
09	3027	79	74	98	78	78	97	0	0
10	3028	79	74	106	78	79	102	0	0
11	3029	74	70	101	74	74	101	0	0
12	3030	70	68	101	71	73	92	0	0
13	SLCSC44WACB	78	77	103	79	82	87	0	0
14	3021MS	77	77	109	79	78	109	0	0
15	3021MSD	78	78	101	81	82	106	0	0
16	SBLKC44WABB	76	74	104	77	77	75	0	0

		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(23-120)
S2 (FBP)	= 2-Fluorobiphenyl	(30-115)
S3 (TPH)	= Terphenyl	(18-137)
S4 (PHL)	= Phenol-d5	(24-113)
S5 (2FP)	= 2-Fluorophenol	(25-121)
S6 (TBP)	= 2,4,6-Tribromophenol	(19-122)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix Spike - EPA Sample No.: 3021 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
Phenol	3010	0	2160	72	37-115
2-Chlorophenol	3010	0	2270	75	37-113
1,4-Dichlorobenzene	2010	0	1360	68	29 101
N-Nitroso-di-n-prop.(1)	2010	0	1380	69	26 104
1,2,4-Trichlorobenzene	2010	0	1560	78	28 112
4-Chloro-3-methylphenol	3010	0	2500	83	42 116
Acenaphthene	2010	0	1570	78	38-106
4-Nitrophenol	3010	0	3020	100	22-122
2,4-Dinitrotoluene	2010	0	1600	80	37-117
Pentachlorophenol	3010	0	3630	121	19-129
Pyrene	2010	67.6	1910	92	36-128

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	3010	2230	74	-3	35	37-115
2-Chlorophenol	3010	2310	77	-3	50	37-113
1,4-Dichlorobenzene	2010	1330	66	3	27	29 101
N-Nitroso-di-n-prop.(1)	2010	1340	67	3	38	26 104
1,2,4-Trichlorobenzene	2010	1540	77	1	23	28 112
4-Chloro-3-methylphenol	3010	2530	84	-1	33	42 116
Acenaphthene	2010	1590	79	-1	19	38-106
4-Nitrophenol	3010	2640	88	13	50	22-122
2,4-Dinitrotoluene	2010	1620	81	-1	47	37-117
Pentachlorophenol	3010	2740	91	28	47	19-129
Pyrene	2010	1790	86	7	36	36-128

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

COMMENTS: CLP,EG147,,3021,L,W,C4330104,BNA,EPA,
INST:4500 RESTEK XTI-5 30M/.32UMID 40-325@12DEG/M 2UL INJ

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3021MSD

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4330106

Sample wt/vol: 30.00 (g/mL) G Lab File ID: C4330D

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 17 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 2.00

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

CAS NO.	COMPOUND		Q
108-95-2	Phenol	2200	
111-44-4	bis(2-Chloroethyl)Ether	400	U
95-57-8	2-Chlorophenol	2300	
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	1300	
95-50-1	1,2-Dichlorobenzene	400	U
95-48-7	2-Methylphenol	400	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	400	U
106-44-5	4-Methylphenol	400	U
621-64-7	N-Nitroso-Di-n-Propylamine	1300	
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
111-91-1	bis(2-Chloroethoxy)Methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	1500	
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-Methylphenol	2500	
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	1900	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	400	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	400	U
208-96-8	Acenaphthylene	400	U
606-20-2	2,6-Dinitrotoluene	400	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3021MSD

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4330106

Sample wt/vol: 30.00 (g/mL) G Lab File ID: C4330D

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 17 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	1600	
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	2600	
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	1600	
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
86-73-7	Fluorene	400	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-Methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	2700	
85-01-8	Phenanthrene	400	U
120-12-7	Anthracene	400	U
86-74-8	Carbazole	400	U
84-74-2	Di-n-Butylphthalate	400	U
206-44-0	Fluoranthene	65	J
129-00-0	Pyrene	1800	
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	1900	U
56-55-3	Benzo(a)Anthracene	400	U
218-01-9	Chrysene	400	U
117-81-7	bis(2-Ethylhexyl)Phthalate	62	BJ
117-84-0	Di-n-Octyl Phthalate	400	U
205-99-2	Benzo(b)Fluoranthene	400	U
207-08-9	Benzo(k)Fluoranthene	400	U
50-32-8	Benzo(a)Pyrene	400	U
193-39-5	Indeno(1,2,3-cd)Pyrene	400	U
53-70-3	Dibenz(a,h)Anthracene	400	U
191-24-2	Benzo(g,h,i)Perylene	400	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3021MS

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4330105

Sample wt/vol: 30.00 (g/mL) G Lab File ID: C4330S

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 17 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
108-95-2	Phenol	2200	
111-44-4	bis(2-Chloroethyl)Ether	400	U
95-57-8	2-Chlorophenol	2300	
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	1400	
95-50-1	1,2-Dichlorobenzene	400	U
95-48-7	2-Methylphenol	400	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	400	U
106-44-5	4-Methylphenol	400	U
621-64-7	N-Nitroso-Di-n-Propylamine	1400	
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
111-91-1	bis(2-Chloroethoxy)Methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	1600	
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-Methylphenol	2500	
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	1900	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	400	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	400	U
208-96-8	Acenaphthylene	400	U
606-20-2	2,6-Dinitrotoluene	400	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3021MS

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4330105

Sample wt/vol: 30.00 (g/mL) G Lab File ID: C4330S

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 17 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: ____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	1600	
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	3000	
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	1600	
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
86-73-7	Fluorene	400	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-Methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	3600	
85-01-8	Phenanthrene	400	U
120-12-7	Anthracene	400	U
86-74-8	Carbazole	400	U
84-74-2	Di-n-Butylphthalate	400	U
206-44-0	Fluoranthene	88	J
129-00-0	Pyrene	1900	
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	1900	U
56-55-3	Benzo(a)Anthracene	400	U
218-01-9	Chrysene	49	J
117-81-7	bis(2-Ethylhexyl)Phthalate	84	BJ
117-84-0	Di-n-Octyl Phthalate	400	U
205-99-2	Benzo(b)Fluoranthene	400	U
207-08-9	Benzo(k)Fluoranthene	400	U
50-32-8	Benzo(a)Pyrene	42	J
193-39-5	Indeno(1,2,3-cd)Pyrene	400	U
53-70-3	Dibenz(a,h)Anthracene	400	U
191-24-2	Benzo(g,h,i)Perylene	400	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SLCSC44WACB

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C44WA102

Sample wt/vol: 30.00 (g/mL) G Lab File ID: C44WAC

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. ____ dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1800	
111-44-4	bis(2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	1900	
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	1200	
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-Di-n-Propylamine	1100	
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	bis(2-Chloroethoxy)Methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	1300	
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	2000	
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	1600	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	330	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SLCSC44WACB

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C44WA102

Sample wt/vol: 30.00 (g/mL) G Lab File ID: C44WAC

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. ____ dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	UG/KG	Q
99-09-2	3-Nitroaniline	1600	U
83-32-9	Acenaphthene	1300	
51-28-5	2,4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	2000	
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	1300	
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	1600	U
534-52-1	4,6-Dinitro-2-Methylphenol	1600	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	2400	
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	1500	
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	1600	U
56-55-3	Benzo(a)Anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	48	BJ
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	330	U
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	330	U
193-39-5	Indeno(1,2,3-cd)Pyrene	330	U
53-70-3	Dibenz(a,h)Anthracene	330	U
191-24-2	Benzo(g,h,i)Perylene	330	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKC44WABB

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C44WA101

Sample wt/vol: 30.00 (g/mL) G Lab File ID: C44WAB

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. ____ dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-Di-n-Propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	bis(2-Chloroethoxy)Methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	1600	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	330	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKC44WABb

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C44WA101

Sample wt/vol: 30.00 (g/mL) G Lab File ID: C44WAB

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. ____ dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	1600	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	1600	U
534-52-1	4,6-Dinitro-2-Methylphenol	1600	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	1600	U
56-55-3	Benzo(a)Anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	41	J
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	330	U
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	330	U
193-39-5	Indeno(1,2,3-cd)Pyrene	330	U
53-70-3	Dibenz(a,h)Anthracene	330	U
191-24-2	Benzo(g,h,i)Perylene	330	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3030

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434F102

Sample wt/vol: 30.30 (g/mL) G Lab File ID: C434F

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 26 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
108-95-2	Phenol	440	U
111-44-4	bis(2-Chloroethyl)Ether	440	U
95-57-8	2-Chlorophenol	440	U
541-73-1	1,3-Dichlorobenzene	440	U
106-46-7	1,4-Dichlorobenzene	440	U
95-50-1	1,2-Dichlorobenzene	440	U
95-48-7	2-Methylphenol	440	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	440	U
106-44-5	4-Methylphenol	440	U
621-64-7	N-Nitroso-Di-n-Propylamine	440	U
67-72-1	Hexachloroethane	440	U
98-95-3	Nitrobenzene	440	U
78-59-1	Isophorone	440	U
88-75-5	2-Nitrophenol	440	U
105-67-9	2,4-Dimethylphenol	440	U
111-91-1	bis(2-Chloroethoxy)Methane	440	U
120-83-2	2,4-Dichlorophenol	440	U
120-82-1	1,2,4-Trichlorobenzene	440	U
91-20-3	Naphthalene	440	U
106-47-8	4-Chloroaniline	440	U
87-68-3	Hexachlorobutadiene	440	U
59-50-7	4-Chloro-3-Methylphenol	440	U
91-57-6	2-Methylnaphthalene	440	U
77-47-4	Hexachlorocyclopentadiene	2100	U
88-06-2	2,4,6-Trichlorophenol	440	U
95-95-4	2,4,5-Trichlorophenol	440	U
91-58-7	2-Chloronaphthalene	440	U
88-74-4	2-Nitroaniline	2100	U
131-11-3	Dimethylphthalate	440	U
208-96-8	Acenaphthylene	440	U
606-20-2	2,6-Dinitrotoluene	440	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3030

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434F102

Sample wt/vol: 30.30 (g/mL) G Lab File ID: C434F

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 26 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	2100	U
83-32-9	Acenaphthene	440	U
51-28-5	2,4-Dinitrophenol	2100	U
100-02-7	4-Nitrophenol	2100	U
132-64-9	Dibenzofuran	440	U
121-14-2	2,4-Dinitrotoluene	440	U
84-66-2	Diethylphthalate	440	U
7005-72-3	4-Chlorophenyl-phenylether	440	U
86-73-7	Fluorene	440	U
100-01-6	4-Nitroaniline	2100	U
534-52-1	4,6-Dinitro-2-Methylphenol	2100	U
86-30-6	N-Nitrosodiphenylamine (1)	440	U
101-55-3	4-Bromophenyl-phenylether	440	U
118-74-1	Hexachlorobenzene	440	U
87-86-5	Pentachlorophenol	2100	U
85-01-8	Phenanthrene	440	U
120-12-7	Anthracene	440	U
86-74-8	Carbazole	440	U
84-74-2	Di-n-Butylphthalate	440	U
206-44-0	Fluoranthene	440	U
129-00-0	Pyrene	440	U
85-68-7	Butylbenzylphthalate	47	J
91-94-1	3,3'-Dichlorobenzidine	2100	U
56-55-3	Benzo(a)Anthracene	440	U
218-01-9	Chrysene	440	U
117-81-7	bis(2-Ethylhexyl)Phthalate	160	BJ
117-84-0	Di-n-Octyl Phthalate	440	U
205-99-2	Benzo(b)Fluoranthene	440	U
207-08-9	Benzo(k)Fluoranthene	440	U
50-32-8	Benzo(a)Pyrene	440	U
193-39-5	Indeno(1,2,3-cd)Pyrene	440	U
53-70-3	Dibenz(a,h)Anthracene	440	U
191-24-2	Benzo(g,h,i)Perylene	440	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3029

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434C102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C434C

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 25 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: ____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	440	U
111-44-4	bis(2-Chloroethyl)Ether	440	U
95-57-8	2-Chlorophenol	440	U
541-73-1	1,3-Dichlorobenzene	440	U
106-46-7	1,4-Dichlorobenzene	440	U
95-50-1	1,2-Dichlorobenzene	440	U
95-48-7	2-Methylphenol	440	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	440	U
106-44-5	4-Methylphenol	440	U
621-64-7	N-Nitroso-Di-n-Propylamine	440	U
67-72-1	Hexachloroethane	440	U
98-95-3	Nitrobenzene	440	U
78-59-1	Isophorone	440	U
88-75-5	2-Nitrophenol	440	U
105-67-9	2,4-Dimethylphenol	440	U
111-91-1	bis(2-Chloroethoxy)Methane	440	U
120-83-2	2,4-Dichlorophenol	440	U
120-82-1	1,2,4-Trichlorobenzene	440	U
91-20-3	Naphthalene	440	U
106-47-8	4-Chloroaniline	440	U
87-68-3	Hexachlorobutadiene	440	U
59-50-7	4-Chloro-3-Methylphenol	440	U
91-57-6	2-Methylnaphthalene	440	U
77-47-4	Hexachlorocyclopentadiene	2100	U
88-06-2	2,4,6-Trichlorophenol	440	U
95-95-4	2,4,5-Trichlorophenol	440	U
91-58-7	2-Chloronaphthalene	440	U
88-74-4	2-Nitroaniline	2100	U
131-11-3	Dimethylphthalate	440	U
208-96-8	Acenaphthylene	440	U
606-20-2	2,6-Dinitrotoluene	440	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3029

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434C102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C434C

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 25 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	2100	U
83-32-9	Acenaphthene	440	U
51-28-5	2,4-Dinitrophenol	2100	U
100-02-7	4-Nitrophenol	2100	U
132-64-9	Dibenzofuran	440	U
121-14-2	2,4-Dinitrotoluene	440	U
84-66-2	Diethylphthalate	440	U
7005-72-3	4-Chlorophenyl-phenylether	440	U
86-73-7	Fluorene	440	U
100-01-6	4-Nitroaniline	2100	U
534-52-1	4,6-Dinitro-2-Methylphenol	2100	U
86-30-6	N-Nitrosodiphenylamine (1)	440	U
101-55-3	4-Bromophenyl-phenylether	440	U
118-74-1	Hexachlorobenzene	440	U
87-86-5	Pentachlorophenol	2100	U
85-01-8	Phenanthrene	440	U
120-12-7	Anthracene	440	U
86-74-8	Carbazole	440	U
84-74-2	Di-n-Butylphthalate	440	U
206-44-0	Fluoranthene	52	J
129-00-0	Pyrene	440	U
85-68-7	Butylbenzylphthalate	440	U
91-94-1	3,3'-Dichlorobenzidine	2100	U
56-55-3	Benzo(a)Anthracene	440	U
218-01-9	Chrysene	440	U
117-81-7	bis(2-Ethylhexyl)Phthalate	70	BJ
117-84-0	Di-n-Octyl Phthalate	440	U
205-99-2	Benzo(b)Fluoranthene	440	U
207-08-9	Benzo(k)Fluoranthene	440	U
50-32-8	Benzo(a)Pyrene	440	U
193-39-5	Indeno(1,2,3-cd)Pyrene	440	U
53-70-3	Dibenz(a,h)Anthracene	440	U
191-24-2	Benzo(g,h,i)Perylene	440	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3028

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4344102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C4344

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 14 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	380	U
111-44-4	bis(2-Chloroethyl)Ether	380	U
95-57-8	2-Chlorophenol	380	U
541-73-1	1,3-Dichlorobenzene	380	U
106-46-7	1,4-Dichlorobenzene	380	U
95-50-1	1,2-Dichlorobenzene	380	U
95-48-7	2-Methylphenol	380	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	380	U
106-44-5	4-Methylphenol	380	U
621-64-7	N-Nitroso-Di-n-Propylamine	380	U
67-72-1	Hexachloroethane	380	U
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone	380	U
88-75-5	2-Nitrophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
111-91-1	bis(2-Chloroethoxy)Methane	380	U
120-83-2	2,4-Dichlorophenol	380	U
120-82-1	1,2,4-Trichlorobenzene	380	U
91-20-3	Naphthalene	380	U
106-47-8	4-Chloroaniline	380	U
87-68-3	Hexachlorobutadiene	380	U
59-50-7	4-Chloro-3-Methylphenol	380	U
91-57-6	2-Methylnaphthalene	380	U
77-47-4	Hexachlorocyclopentadiene	1800	U
88-06-2	2,4,6-Trichlorophenol	380	U
95-95-4	2,4,5-Trichlorophenol	380	U
91-58-7	2-Chloronaphthalene	380	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethylphthalate	380	U
208-96-8	Acenaphthylene	380	U
606-20-2	2,6-Dinitrotoluene	380	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3028

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4344102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C4344

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 14 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	380	U
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	380	U
121-14-2	2,4-Dinitrotoluene	380	U
84-66-2	Diethylphthalate	380	U
7005-72-3	4-Chlorophenyl-phenylether	380	U
86-73-7	Fluorene	380	U
100-01-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-Methylphenol	1800	U
86-30-6	N-Nitrosodiphenylamine (1)	380	U
101-55-3	4-Bromophenyl-phenylether	380	U
118-74-1	Hexachlorobenzene	380	U
87-86-5	Pentachlorophenol	1800	U
85-01-8	Phenanthrene	380	U
120-12-7	Anthracene	380	U
86-74-8	Carbazole	380	U
84-74-2	Di-n-Butylphthalate	380	U
206-44-0	Fluoranthene	380	U
129-00-0	Pyrene	380	U
85-68-7	Butylbenzylphthalate	380	U
91-94-1	3,3'-Dichlorobenzidine	1800	U
56-55-3	Benzo(a)Anthracene	380	U
218-01-9	Chrysene	380	U
117-81-7	bis(2-Ethylhexyl)Phthalate	110	BJ
117-84-0	Di-n-Octyl Phthalate	380	U
205-99-2	Benzo(b)Fluoranthene	380	U
207-08-9	Benzo(k)Fluoranthene	380	U
50-32-8	Benzo(a)Pyrene	380	U
193-39-5	Indeno(1,2,3-cd)Pyrene	380	U
53-70-3	Dibenz(a,h)Anthracene	380	U
191-24-2	Benzo(g,h,i)Perylene	380	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3027

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C433P102

Sample wt/vol: 30.30 (g/mL) G Lab File ID: C433P

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 16 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	Q
108-95-2	Phenol	390 U
111-44-4	bis(2-Chloroethyl)Ether	390 U
95-57-8	2-Chlorophenol	390 U
541-73-1	1,3-Dichlorobenzene	390 U
106-46-7	1,4-Dichlorobenzene	390 U
95-50-1	1,2-Dichlorobenzene	390 U
95-48-7	2-Methylphenol	390 U
108-60-1	2,2'-Oxybis(1-Chloropropane)	390 U
106-44-5	4-Methylphenol	390 U
621-64-7	N-Nitroso-Di-n-Propylamine	390 U
67-72-1	Hexachloroethane	390 U
98-95-3	Nitrobenzene	390 U
78-59-1	Isophorone	390 U
88-75-5	2-Nitrophenol	390 U
105-67-9	2,4-Dimethylphenol	390 U
111-91-1	bis(2-Chloroethoxy)Methane	390 U
120-83-2	2,4-Dichlorophenol	390 U
120-82-1	1,2,4-Trichlorobenzene	390 U
91-20-3	Naphthalene	390 U
106-47-8	4-Chloroaniline	390 U
87-68-3	Hexachlorobutadiene	390 U
59-50-7	4-Chloro-3-Methylphenol	390 U
91-57-6	2-Methylnaphthalene	390 U
77-47-4	Hexachlorocyclopentadiene	1900 U
88-06-2	2,4,6-Trichlorophenol	390 U
95-95-4	2,4,5-Trichlorophenol	390 U
91-58-7	2-Chloronaphthalene	390 U
88-74-4	2-Nitroaniline	1900 U
131-11-3	Dimethylphthalate	390 U
208-96-8	Acenaphthylene	390 U
606-20-2	2,6-Dinitrotoluene	390 U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3027

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C433P102

Sample wt/vol: 30.30 (g/mL) G Lab File ID: C433P

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 16 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Qualifier Q
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	390	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-Methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	49	J
120-12-7	Anthracene	390	U
86-74-8	Carbazole	390	U
84-74-2	Di-n-Butylphthalate	390	U
206-44-0	Fluoranthene	120	J
129-00-0	Pyrene	93	J
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	1900	U
56-55-3	Benzo(a)Anthracene	51	J
218-01-9	Chrysene	70	J
117-81-7	bis(2-Ethylhexyl)Phthalate	47	BJ
117-84-0	Di-n-Octyl Phthalate	390	U
205-99-2	Benzo(b)Fluoranthene	390	U
207-08-9	Benzo(k)Fluoranthene	390	U
50-32-8	Benzo(a)Pyrene	61	J
193-39-5	Indeno(1,2,3-cd)Pyrene	40	J
53-70-3	Dibenz(a,h)Anthracene	390	U
191-24-2	Benzo(g,h,i)Perylene	42	J

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3025

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C433F102

Sample wt/vol: 30.30 (g/mL) G Lab File ID: C433F

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 30 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: ____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
108-95-2	Phenol	470	U
111-44-4	bis(2-Chloroethyl)Ether	470	U
95-57-8	2-Chlorophenol	470	U
541-73-1	1,3-Dichlorobenzene	470	U
106-46-7	1,4-Dichlorobenzene	470	U
95-50-1	1,2-Dichlorobenzene	470	U
95-48-7	2-Methylphenol	470	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	470	U
106-44-5	4-Methylphenol	470	U
621-64-7	N-Nitroso-Di-n-Propylamine	470	U
67-72-1	Hexachloroethane	470	U
98-95-3	Nitrobenzene	470	U
78-59-1	Isophorone	470	U
88-75-5	2-Nitrophenol	470	U
105-67-9	2,4-Dimethylphenol	470	U
111-91-1	bis(2-Chloroethoxy)Methane	470	U
120-83-2	2,4-Dichlorophenol	470	U
120-82-1	1,2,4-Trichlorobenzene	470	U
91-20-3	Naphthalene	470	U
106-47-8	4-Chloroaniline	470	U
87-68-3	Hexachlorobutadiene	470	U
59-50-7	4-Chloro-3-Methylphenol	470	U
91-57-6	2-Methylnaphthalene	470	U
77-47-4	Hexachlorocyclopentadiene	2300	U
88-06-2	2,4,6-Trichlorophenol	470	U
95-95-4	2,4,5-Trichlorophenol	470	U
91-58-7	2-Chloronaphthalene	470	U
88-74-4	2-Nitroaniline	2300	U
131-11-3	Dimethylphthalate	470	U
208-96-8	Acenaphthylene	470	U
606-20-2	2,6-Dinitrotoluene	470	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3025

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C433F102

Sample wt/vol: 30.30 (g/mL) G Lab File ID: C433F

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 30 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2300	U
83-32-9	Acenaphthene	470	U
51-28-5	2,4-Dinitrophenol	2300	U
100-02-7	4-Nitrophenol	2300	U
132-64-9	Dibenzofuran	470	U
121-14-2	2,4-Dinitrotoluene	470	U
84-66-2	Diethylphthalate	470	U
7005-72-3	4-Chlorophenyl-phenylether	470	U
86-73-7	Fluorene	470	U
100-01-6	4-Nitroaniline	2300	U
534-52-1	4,6-Dinitro-2-Methylphenol	2300	U
86-30-6	N-Nitrosodiphenylamine (1)	470	U
101-55-3	4-Bromophenyl-phenylether	470	U
118-74-1	Hexachlorobenzene	470	U
87-86-5	Pentachlorophenol	2300	U
85-01-8	Phenanthrene	470	U
120-12-7	Anthracene	470	U
86-74-8	Carbazole	470	U
84-74-2	Di-n-Butylphthalate	470	U
206-44-0	Fluoranthene	470	U
129-00-0	Pyrene	470	U
85-68-7	Butylbenzylphthalate	470	U
91-94-1	3,3'-Dichlorobenzidine	2300	U
56-55-3	Benzo(a)Anthracene	470	U
218-01-9	Chrysene	470	U
117-81-7	bis(2-Ethylhexyl)Phthalate	99	BJ
117-84-0	Di-n-Octyl Phthalate	470	U
205-99-2	Benzo(b)Fluoranthene	470	U
207-08-9	Benzo(k)Fluoranthene	470	U
50-32-8	Benzo(a)Pyrene	470	U
193-39-5	Indeno(1,2,3-cd)Pyrene	470	U
53-70-3	Dibenz(a,h)Anthracene	470	U
191-24-2	Benzo(g,h,i)Perylene	470	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3024

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C433A102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C433A

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 27 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: ____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
108-95-2	Phenol	450	U
111-44-4	bis(2-Chloroethyl)Ether	450	U
95-57-8	2-Chlorophenol	450	U
541-73-1	1,3-Dichlorobenzene	450	U
106-46-7	1,4-Dichlorobenzene	450	U
95-50-1	1,2-Dichlorobenzene	450	U
95-48-7	2-Methylphenol	450	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	450	U
106-44-5	4-Methylphenol	450	U
621-64-7	N-Nitroso-Di-n-Propylamine	450	U
67-72-1	Hexachloroethane	450	U
98-95-3	Nitrobenzene	450	U
78-59-1	Isophorone	450	U
88-75-5	2-Nitrophenol	450	U
105-67-9	2,4-Dimethylphenol	450	U
111-91-1	bis(2-Chloroethoxy)Methane	450	U
120-83-2	2,4-Dichlorophenol	450	U
120-82-1	1,2,4-Trichlorobenzene	450	U
91-20-3	Naphthalene	450	U
106-47-8	4-Chloroaniline	450	U
87-68-3	Hexachlorobutadiene	450	U
59-50-7	4-Chloro-3-Methylphenol	450	U
91-57-6	2-Methylnaphthalene	450	U
77-47-4	Hexachlorocyclopentadiene	2200	U
88-06-2	2,4,6-Trichlorophenol	450	U
95-95-4	2,4,5-Trichlorophenol	450	U
91-58-7	2-Chloronaphthalene	450	U
88-74-4	2-Nitroaniline	2200	U
131-11-3	Dimethylphthalate	450	U
208-96-8	Acenaphthylene	450	U
606-20-2	2,6-Dinitrotoluene	450	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3024

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C433A102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C433A

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 27 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	2200	U
83-32-9	Acenaphthene	450	U
51-28-5	2,4-Dinitrophenol	2200	U
100-02-7	4-Nitrophenol	2200	U
132-64-9	Dibenzofuran	450	U
121-14-2	2,4-Dinitrotoluene	450	U
84-66-2	Diethylphthalate	450	U
7005-72-3	4-Chlorophenyl-phenylether	450	U
86-73-7	Fluorene	450	U
100-01-6	4-Nitroaniline	2200	U
534-52-1	4,6-Dinitro-2-Methylphenol	2200	U
86-30-6	N-Nitrosodiphenylamine (1)	450	U
101-55-3	4-Bromophenyl-phenylether	450	U
118-74-1	Hexachlorobenzene	450	U
87-86-5	Pentachlorophenol	2200	U
85-01-8	Phenanthrene	450	U
120-12-7	Anthracene	450	U
86-74-8	Carbazole	450	U
84-74-2	Di-n-Butylphthalate	450	U
206-44-0	Fluoranthene	450	U
129-00-0	Pyrene	450	U
85-68-7	Butylbenzylphthalate	450	U
91-94-1	3,3'-Dichlorobenzidine	2200	U
56-55-3	Benzo(a)Anthracene	450	U
218-01-9	Chrysene	450	U
117-81-7	bis(2-Ethylhexyl)Phthalate	130	BJ
117-84-0	Di-n-Octyl Phthalate	450	U
205-99-2	Benzo(b)Fluoranthene	450	U
207-08-9	Benzo(k)Fluoranthene	450	U
50-32-8	Benzo(a)Pyrene	450	U
193-39-5	Indeno(1,2,3-cd)Pyrene	450	U
53-70-3	Dibenz(a,h)Anthracene	450	U
191-24-2	Benzo(g,h,i)Perylene	450	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3023

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4335102

Sample wt/vol: 29.70 (g/mL) G Lab File ID: C4335

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 23 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	430	U
111-44-4	bis(2-Chloroethyl)Ether	430	U
95-57-8	2-Chlorophenol	430	U
541-73-1	1,3-Dichlorobenzene	430	U
106-46-7	1,4-Dichlorobenzene	430	U
95-50-1	1,2-Dichlorobenzene	430	U
95-48-7	2-Methylphenol	430	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	430	U
106-44-5	4-Methylphenol	430	U
621-64-7	N-Nitroso-Di-n-Propylamine	430	U
67-72-1	Hexachloroethane	430	U
98-95-3	Nitrobenzene	430	U
78-59-1	Isophorone	430	U
88-75-5	2-Nitrophenol	430	U
105-67-9	2,4-Dimethylphenol	430	U
111-91-1	bis(2-Chloroethoxy)Methane	430	U
120-83-2	2,4-Dichlorophenol	430	U
120-82-1	1,2,4-Trichlorobenzene	430	U
91-20-3	Naphthalene	430	U
106-47-8	4-Chloroaniline	430	U
87-68-3	Hexachlorobutadiene	430	U
59-50-7	4-Chloro-3-Methylphenol	430	U
91-57-6	2-Methylnaphthalene	430	U
77-47-4	Hexachlorocyclopentadiene	2100	U
88-06-2	2,4,6-Trichlorophenol	430	U
95-95-4	2,4,5-Trichlorophenol	430	U
91-58-7	2-Chloronaphthalene	430	U
88-74-4	2-Nitroaniline	2100	U
131-11-3	Dimethylphthalate	430	U
208-96-8	Acenaphthylene	430	U
606-20-2	2,6-Dinitrotoluene	430	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3023

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4335102

Sample wt/vol: 29.70 (g/mL) G Lab File ID: C4335

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 23 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: ____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	2100	U
83-32-9	Acenaphthene	430	U
51-28-5	2,4-Dinitrophenol	2100	U
100-02-7	4-Nitrophenol	2100	U
132-64-9	Dibenzofuran	430	U
121-14-2	2,4-Dinitrotoluene	430	U
84-66-2	Diethylphthalate	430	U
7005-72-3	4-Chlorophenyl-phenylether	430	U
86-73-7	Fluorene	430	U
100-01-6	4-Nitroaniline	2100	U
534-52-1	4,6-Dinitro-2-Methylphenol	2100	U
86-30-6	N-Nitrosodiphenylamine (1)	430	U
101-55-3	4-Bromophenyl-phenylether	430	U
118-74-1	Hexachlorobenzene	430	U
87-86-5	Pentachlorophenol	2100	U
85-01-8	Phenanthrene	430	U
120-12-7	Anthracene	430	U
86-74-8	Carbazole	430	U
84-74-2	Di-n-Butylphthalate	430	U
206-44-0	Fluoranthene	430	U
129-00-0	Pyrene	430	U
85-68-7	Butylbenzylphthalate	430	U
91-94-1	3,3'-Dichlorobenzidine	2100	U
56-55-3	Benzo(a)Anthracene	430	U
218-01-9	Chrysene	430	U
117-81-7	bis(2-Ethylhexyl)Phthalate	190	BJ
117-84-0	Di-n-Octyl Phthalate	430	U
205-99-2	Benzo(b)Fluoranthene	430	U
207-08-9	Benzo(k)Fluoranthene	430	U
50-32-8	Benzo(a)Pyrene	430	U
193-39-5	Indeno(1,2,3-cd)Pyrene	430	U
53-70-3	Dibenz(a,h)Anthracene	430	U
191-24-2	Benzo(g,h,i)Perylene	430	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3022

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4332102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C4332

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 24 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 100

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

CAS NO.	COMPOUND		Q
108-95-2	Phenol	430	U
111-44-4	bis(2-Chloroethyl)Ether	430	U
95-57-8	2-Chlorophenol	430	U
541-73-1	1,3-Dichlorobenzene	430	U
106-46-7	1,4-Dichlorobenzene	430	U
95-50-1	1,2-Dichlorobenzene	430	U
95-48-7	2-Methylphenol	430	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	430	U
106-44-5	4-Methylphenol	430	U
621-64-7	N-Nitroso-Di-n-Propylamine	430	U
67-72-1	Hexachloroethane	430	U
98-95-3	Nitrobenzene	430	U
78-59-1	Isophorone	430	U
88-75-5	2-Nitrophenol	430	U
105-67-9	2,4-Dimethylphenol	430	U
111-91-1	bis(2-Chloroethoxy)Methane	430	U
120-83-2	2,4-Dichlorophenol	430	U
120-82-1	1,2,4-Trichlorobenzene	430	U
91-20-3	Naphthalene	430	U
106-47-8	4-Chloroaniline	430	U
87-68-3	Hexachlorobutadiene	430	U
59-50-7	4-Chloro-3-Methylphenol	430	U
91-57-6	2-Methylnaphthalene	430	U
77-47-4	Hexachlorocyclopentadiene	2100	U
88-06-2	2,4,6-Trichlorophenol	430	U
95-95-4	2,4,5-Trichlorophenol	430	U
91-58-7	2-Chloronaphthalene	430	U
88-74-4	2-Nitroaniline	2100	U
131-11-3	Dimethylphthalate	430	U
208-96-8	Acenaphthylene	430	U
606-20-2	2,6-Dinitrotoluene	430	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3022

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4332102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C4332

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 24 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2100	U
83-32-9	Acenaphthene	430	U
51-28-5	2,4-Dinitrophenol	2100	U
100-02-7	4-Nitrophenol	2100	U
132-64-9	Dibenzofuran	430	U
121-14-2	2,4-Dinitrotoluene	430	U
84-66-2	Diethylphthalate	430	U
7005-72-3	4-Chlorophenyl-phenylether	430	U
86-73-7	Fluorene	430	U
100-01-6	4-Nitroaniline	2100	U
534-52-1	4,6-Dinitro-2-Methylphenol	2100	U
86-30-6	N-Nitrosodiphenylamine (1)	430	U
101-55-3	4-Bromophenyl-phenylether	430	U
118-74-1	Hexachlorobenzene	430	U
87-86-5	Pentachlorophenol	2100	U
85-01-8	Phenanthrene	430	U
120-12-7	Anthracene	430	U
86-74-8	Carbazole	430	U
84-74-2	Di-n-Butylphthalate	430	U
206-44-0	Fluoranthene	430	U
129-00-0	Pyrene	430	U
85-68-7	Butylbenzylphthalate	430	U
91-94-1	3,3'-Dichlorobenzidine	2100	U
56-55-3	Benzo(a)Anthracene	430	U
218-01-9	Chrysene	430	U
117-81-7	bis(2-Ethylhexyl)Phthalate	75	BJ
117-84-0	Di-n-Octyl Phthalate	430	U
205-99-2	Benzo(b)Fluoranthene	430	U
207-08-9	Benzo(k)Fluoranthene	430	U
50-32-8	Benzo(a)Pyrene	430	U
193-39-5	Indeno(1,2,3-cd)Pyrene	430	U
53-70-3	Dibenz(a,h)Anthracene	430	U
191-24-2	Benzo(g,h,i)Perylene	430	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3021

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4330104

Sample wt/vol: 30.00 (g/mL) G Lab File ID: C4330

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 17 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
108-95-2	Phenol	400	U
111-44-4	bis(2-Chloroethyl)Ether	400	U
95-57-8	2-Chlorophenol	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
95-50-1	1,2-Dichlorobenzene	400	U
95-48-7	2-Methylphenol	400	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	400	U
106-44-5	4-Methylphenol	400	U
621-64-7	N-Nitroso-Di-n-Propylamine	400	U
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
111-91-1	bis(2-Chloroethoxy)Methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-Methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	1900	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	400	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	400	U
208-96-8	Acenaphthylene	400	U
606-20-2	2,6-Dinitrotoluene	400	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3021

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4330104

Sample wt/vol: 30.00 (g/mL) G Lab File ID: C4330

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 17 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	400	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
86-73-7	Fluorene	400	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-Methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	44	J
120-12-7	Anthracene	400	U
86-74-8	Carbazole	400	U
84-74-2	Di-n-Butylphthalate	400	U
206-44-0	Fluoranthene	86	J
129-00-0	Pyrene	68	J
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	1900	U
56-55-3	Benzo(a)Anthracene	400	U
218-01-9	Chrysene	47	J
117-81-7	bis(2-Ethylhexyl)Phthalate	110	BJ
117-84-0	Di-n-Octyl Phthalate	400	U
205-99-2	Benzo(b)Fluoranthene	400	U
207-08-9	Benzo(k)Fluoranthene	400	U
50-32-8	Benzo(a)Pyrene	400	U
193-39-5	Indeno(1,2,3-cd)Pyrene	400	U
53-70-3	Dibenz(a,h)Anthracene	400	U
191-24-2	Benzo(g,h,i)Perylene	400	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2004

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4340102

Sample wt/vol: 29.80 (g/mL) G Lab File ID: C4340

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 53 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	710	U
111-44-4	bis(2-Chloroethyl)Ether	710	U
95-57-8	2-Chlorophenol	710	U
541-73-1	1,3-Dichlorobenzene	710	U
106-46-7	1,4-Dichlorobenzene	710	U
95-50-1	1,2-Dichlorobenzene	710	U
95-48-7	2-Methylphenol	710	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	710	U
106-44-5	4-Methylphenol	710	U
621-64-7	N-Nitroso-Di-n-Propylamine	710	U
67-72-1	Hexachloroethane	710	U
98-95-3	Nitrobenzene	710	U
78-59-1	Isophorone	710	U
88-75-5	2-Nitrophenol	710	U
105-67-9	2,4-Dimethylphenol	710	U
111-91-1	bis(2-Chloroethoxy)Methane	710	U
120-83-2	2,4-Dichlorophenol	710	U
120-82-1	1,2,4-Trichlorobenzene	710	U
91-20-3	Naphthalene	710	U
106-47-8	4-Chloroaniline	710	U
87-68-3	Hexachlorobutadiene	710	U
59-50-7	4-Chloro-3-Methylphenol	710	U
91-57-6	2-Methylnaphthalene	710	U
77-47-4	Hexachlorocyclopentadiene	3400	U
88-06-2	2,4,6-Trichlorophenol	710	U
95-95-4	2,4,5-Trichlorophenol	710	U
91-58-7	2-Chloronaphthalene	710	U
88-74-4	2-Nitroaniline	3400	U
131-11-3	Dimethylphthalate	710	U
208-96-8	Acenaphthylene	710	U
606-20-2	2,6-Dinitrotoluene	710	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2004

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434Q102

Sample wt/vol: 29.80 (g/mL) G Lab File ID: C434Q

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 53 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	3400	U
83-32-9	Acenaphthene	710	U
51-28-5	2,4-Dinitrophenol	3400	U
100-02-7	4-Nitrophenol	3400	U
132-64-9	Dibenzofuran	710	U
121-14-2	2,4-Dinitrotoluene	710	U
84-66-2	Diethylphthalate	710	U
7005-72-3	4-Chlorophenyl-phenylether	710	U
86-73-7	Fluorene	710	U
100-01-6	4-Nitroaniline	3400	U
534-52-1	4,6-Dinitro-2-Methylphenol	3400	U
86-30-6	N-Nitrosodiphenylamine (1)	710	U
101-55-3	4-Bromophenyl-phenylether	710	U
118-74-1	Hexachlorobenzene	710	U
87-86-5	Pentachlorophenol	3400	U
85-01-8	Phenanthrene	710	U
120-12-7	Anthracene	710	U
86-74-8	Carbazole	710	U
84-74-2	Di-n-Butylphthalate	710	U
206-44-0	Fluoranthene	710	U
129-00-0	Pyrene	710	U
85-68-7	Butylbenzylphthalate	710	U
91-94-1	3,3'-Dichlorobenzidine	3400	U
56-55-3	Benzo(a)Anthracene	710	U
218-01-9	Chrysene	710	U
117-81-7	bis(2-Ethylhexyl)Phthalate	140	BJ
117-84-0	Di-n-Octyl Phthalate	710	U
205-99-2	Benzo(b)Fluoranthene	710	U
207-08-9	Benzo(k)Fluoranthene	710	U
50-32-8	Benzo(a)Pyrene	710	U
193-39-5	Indeno(1,2,3-cd)Pyrene	710	U
53-70-3	Dibenz(a,h)Anthracene	710	U
191-24-2	Benzo(g,h,i)Perylene	710	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2002

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434H102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C434H

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 64 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
108-95-2	Phenol	910	U
111-44-4	bis(2-Chloroethyl)Ether	910	U
95-57-8	2-Chlorophenol	910	U
541-73-1	1,3-Dichlorobenzene	910	U
106-46-7	1,4-Dichlorobenzene	910	U
95-50-1	1,2-Dichlorobenzene	910	U
95-48-7	2-Methylphenol	910	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	910	U
106-44-5	4-Methylphenol	910	U
621-64-7	N-Nitroso-Di-n-Propylamine	910	U
67-72-1	Hexachloroethane	910	U
98-95-3	Nitrobenzene	910	U
78-59-1	Isophorone	910	U
88-75-5	2-Nitrophenol	910	U
105-67-9	2,4-Dimethylphenol	910	U
111-91-1	bis(2-Chloroethoxy)Methane	910	U
120-83-2	2,4-Dichlorophenol	910	U
120-82-1	1,2,4-Trichlorobenzene	910	U
91-20-3	Naphthalene	910	U
106-47-8	4-Chloroaniline	910	U
87-68-3	Hexachlorobutadiene	910	U
59-50-7	4-Chloro-3-Methylphenol	910	U
91-57-6	2-Methylnaphthalene	910	U
77-47-4	Hexachlorocyclopentadiene	4400	U
88-06-2	2,4,6-Trichlorophenol	910	U
95-95-4	2,4,5-Trichlorophenol	910	U
91-58-7	2-Chloronaphthalene	910	U
88-74-4	2-Nitroaniline	4400	U
131-11-3	Dimethylphthalate	910	U
208-96-8	Acenaphthylene	910	U
606-20-2	2,6-Dinitrotoluene	910	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2002

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434H102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C434H

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 64 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00 qvlrtm

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	4400	U
83-32-9	Acenaphthene	910	U
51-28-5	2,4-Dinitrophenol	4400	U
100-02-7	4-Nitrophenol	4400	U
132-64-9	Dibenzofuran	910	U
121-14-2	2,4-Dinitrotoluene	910	U
84-66-2	Diethylphthalate	910	U
7005-72-3	4-Chlorophenyl-phenylether	910	U
86-73-7	Fluorene	910	U
100-01-6	4-Nitroaniline	4400	U
534-52-1	4,6-Dinitro-2-Methylphenol	4400	U
86-30-6	N-Nitrosodiphenylamine (1)	910	U
101-55-3	4-Bromophenyl-phenylether	910	U
118-74-1	Hexachlorobenzene	910	U
87-86-5	Pentachlorophenol	4400	U
85-01-8	Phenanthrene	910	U
120-12-7	Anthracene	910	U
86-74-8	Carbazole	910	U
84-74-2	Di-n-Butylphthalate	910	U
206-44-0	Fluoranthene	910	U
129-00-0	Pyrene	910	U
85-68-7	Butylbenzylphthalate	910	U
91-94-1	3,3'-Dichlorobenzidine	4400	U
56-55-3	Benzo(a)Anthracene	910	U
218-01-9	Chrysene	910	U
117-81-7	bis(2-Ethylhexyl)Phthalate	180	BJ
117-84-0	Di-n-Octyl Phthalate	910	U
205-99-2	Benzo(b)Fluoranthene	910	U
207-08-9	Benzo(k)Fluoranthene	910	U
50-32-8	Benzo(a)Pyrene	910	U
193-39-5	Indeno(1,2,3-cd)Pyrene	910	U
53-70-3	Dibenz(a,h)Anthracene	910	U
191-24-2	Benzo(g,h,i)Perylene	910	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2001

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434M102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C434M

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 64 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: ____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
108-95-2	Phenol	910	U
111-44-4	bis(2-Chloroethyl)Ether	910	U
95-57-8	2-Chlorophenol	910	U
541-73-1	1,3-Dichlorobenzene	910	U
106-46-7	1,4-Dichlorobenzene	910	U
95-50-1	1,2-Dichlorobenzene	910	U
95-48-7	2-Methylphenol	910	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	910	U
106-44-5	4-Methylphenol	910	U
621-64-7	N-Nitroso-Di-n-Propylamine	910	U
67-72-1	Hexachloroethane	910	U
98-95-3	Nitrobenzene	910	U
78-59-1	Isophorone	910	U
88-75-5	2-Nitrophenol	910	U
105-67-9	2,4-Dimethylphenol	910	U
111-91-1	bis(2-Chloroethoxy)Methane	910	U
120-83-2	2,4-Dichlorophenol	910	U
120-82-1	1,2,4-Trichlorobenzene	910	U
91-20-3	Naphthalene	910	U
106-47-8	4-Chloroaniline	910	U
87-68-3	Hexachlorobutadiene	910	U
59-50-7	4-Chloro-3-Methylphenol	910	U
91-57-6	2-Methylnaphthalene	910	U
77-47-4	Hexachlorocyclopentadiene	4400	U
88-06-2	2,4,6-Trichlorophenol	910	U
95-95-4	2,4,5-Trichlorophenol	910	U
91-58-7	2-Chloronaphthalene	910	U
88-74-4	2-Nitroaniline	4400	U
131-11-3	Dimethylphthalate	910	U
208-96-8	Acenaphthylene	910	U
606-20-2	2,6-Dinitrotoluene	910	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2001

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434M102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C434M

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 64 dec. ____ Date Extracted: 05/22/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	4400	U
83-32-9	Acenaphthene	910	U
51-28-5	2,4-Dinitrophenol	4400	U
100-02-7	4-Nitrophenol	4400	U
132-64-9	Dibenzofuran	910	U
121-14-2	2,4-Dinitrotoluene	910	U
84-66-2	Diethylphthalate	910	U
7005-72-3	4-Chlorophenyl-phenylether	910	U
86-73-7	Fluorene	910	U
100-01-6	4-Nitroaniline	4400	U
534-52-1	4,6-Dinitro-2-Methylphenol	4400	U
86-30-6	N-Nitrosodiphenylamine (1)	910	U
101-55-3	4-Bromophenyl-phenylether	910	U
118-74-1	Hexachlorobenzene	910	U
87-86-5	Pentachlorophenol	4400	U
85-01-8	Phenanthrene	910	U
120-12-7	Anthracene	910	U
86-74-8	Carbazole	910	U
84-74-2	Di-n-Butylphthalate	130	J
206-44-0	Fluoranthene	910	U
129-00-0	Pyrene	910	U
85-68-7	Butylbenzylphthalate	910	U
91-94-1	3,3'-Dichlorobenzidine	4400	U
56-55-3	Benzo(a)Anthracene	910	U
218-01-9	Chrysene	910	U
117-81-7	bis(2-Ethylhexyl)Phthalate	490	BJ
117-84-0	Di-n-Octyl Phthalate	910	U
205-99-2	Benzo(b)Fluoranthene	910	U
207-08-9	Benzo(k)Fluoranthene	910	U
50-32-8	Benzo(a)Pyrene	910	U
193-39-5	Indeno(1,2,3-cd)Pyrene	910	U
53-70-3	Dibenz(a,h)Anthracene	910	U
191-24-2	Benzo(g,h,i)Perylene	910	U

(1) - Cannot be separated from Diphenylamine

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Lab File ID: QB0529 Lab Sample ID: C4833101

Date Analyzed: 05/29/96 Time Analyzed: 1039

Matrix: (soil/water) SOIL Level:(low/med) LOW

Instrument ID: I500A

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	2001RE	C434M201	VC434MR	1510
02	2002RE	C434H201	VC434HR	1440
03	2004RE	C434Q201	VC434QR	1540
04	3027	C433P101	VC433PR	1157
05	3028	C4344101	VC4344R	1340
06	3029RE	C434C201	VC434CR	1410
07	VLCSC4833102	C4833102	QLCS0529	1119

COMMENTS: CLP,BLANK,,VBLK_____,L,S,_____,V/H,BLANK,
CAP,QS0529,QBFB0529,,,,,

FORM IV VOA 1/87 Rev.

SEMI-VOLATILE ORGANICS

4A
VOLATILE METHOD BLANK SUMMARY

.b Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Lab File ID: QB0524 Lab Sample ID: C4733101

Date Analyzed: 05/24/96 Time Analyzed: 1245

Matrix: (soil/water) SOIL Level:(low/med) LOW

Instrument ID: I500A

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	3021	C4330101	VC4330	1454
02	VLCSC4733102	C4733102	QLCS0524	1315
03	3021MS	C4330102	VC4330MS	1526
04	3021MSD	C4330103	VC4330MD	1558

MMENTS: CLP,,,VBLK_____,L,S,_____,V,BLANK,
CAP,QS0524,QBFB0524,,,,,

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Lab File ID: QB0528 Lab Sample ID: C47G3101

Date Analyzed: 05/28/96 Time Analyzed: 1141

Matrix: (soil/water) SOIL Level: (low/med) LOW

Instrument ID: I500A

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	2001	C434M101	VC434M	2115
02	2002	C434H101	VC434H	2045
03	2004	C434Q101	VC434Q	2145
04	3022	C4332101	VC4332	1643
05	3023	C4335101	VC4335RE	2215
06	3024	C433A101	VC433A	1744
07	3024RE	C433A201	VC433ARE	2244
08	3025	C433F101	VC433F	1814
09	3029	C434C101	VC434C	1945
10	3030	C4343F101	VC434F	2015
11	VLCSC47G3102	C47G3102	QLCS0528	1220

COMMENTS: CLP,,,VBLK_____,L,S,_____,V,BLANK,
CAP,QS0528,QBFB0528,,,,,

3B
SOIL VOLATILE LCS RECOVERY

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix Spike - EPA Sample No.: VBLKC47G3101 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	50.0	0	49.9	100	36-144
Trichloroethene	50.0	0	56.6	113	72-134
Benzene	50.0	0	45.3	91	75-137
Toluene	50.0	0	46.6	93	70-138
Chlorobenzene	50.0	0	42.6	85	71-147

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

* Values outside of QC limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS: CLP,,,VBLK_____,L,S,_____,V,BLANK,
CAP,QS0528,QBFB0528,,,,,

3B

SOIL VOLATILE LCS RECOVERY

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix Spike - EPA Sample No.: VBLKC4833101 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	50.0	0	53.2	106	36-144
Trichloroethene	50.0	0	60.3	121	72-134
Benzene	50.0	0	47.8	96	75-137
Toluene	50.0	0	49.1	98	70-138
Chlorobenzene	50.0	0	46.0	92	71-147

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

* Values outside of QC limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS: CLP,BLANK,,VBLK_____,L,S,_____,V/H,BLANK,
CAP,QS0529,QBFB0529,,,,,

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

b Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix Spike - EPA Sample No.: 3021 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	60.2	0	53.9	90	36-144
Trichloroethene	60.2	0	50.6	84	72-134
Benzene	60.2	0	44.7	74 *	75-137
Toluene	60.2	7.88	54.4	77	70-138
Chlorobenzene	60.2	0	41.2	68 *	71-147

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	60.2	49.2	82	9	22	36-144
Trichloroethene	60.2	52.3	87	-4	24	72-134
Benzene	60.2	43.0	71 *	4	21	75-137
Toluene	60.2	71.0	105	-31 *	21	70-138
Chlorobenzene	60.2	39.7	66 *	3	21	71-147

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

* Values outside of QC limits

RPD: 1 out of 5 outside limits
Spike Recovery: 4 out of 10 outside limits

COMMENTS: CLP,EG147,,3021,L,S,C4330101,V,E,
CAP,QS0524,QBFB0524,QB0524,,,,,

3B
SOIL VOLATILE LCS RECOVERY

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix Spike - EPA Sample No.: VBLKC4733101 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	50.0	0	56.1	112	36-144
Trichloroethene	50.0	1.06	65.0	128	72-134
Benzene	50.0	0	52.2	104	75-137
Toluene	50.0	0	59.6	119	70-138
Chlorobenzene	50.0	0	47.8	96	71-147

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

* Values outside of QC limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS: CLP,,,VBLK_____,L,S,_____,V,BLANK,
CAP,QS0524,QBFB0524,,,,,

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VLCSC4833102

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4833102

Sample wt/vol: 5.00 (g/mL) G Lab File ID: QLCS0529

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

% Moisture: not dec. ____ Date Analyzed: 05/29/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	J
67-64-1	Acetone	20	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	53	
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	20	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
79-01-6	Trichloroethene	60	
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	48	
10061-01-5	cis-1,3-Dichloropropene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	20	U
591-78-6	2-Hexanone	20	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	49	
108-90-7	Chlorobenzene	46	
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

2B
SOIL VOLATILE SURROGATE RECOVERY

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (TOL) #	S2 (BFB) #	S3 (DCE) #	OTHER	TOT OUT
01	2001	98	78 *	107	0	1
02	2001RE	95	73 *	99	0	1
03	2002	89	67 *	101	0	1
04	2002RE	95	70 *	95	0	1
05	2004	95	76 *	116	0	1
06	2004RE	98	77 *	107	0	1
07	3021	105	81	111	0	0
08	3022	99	80	103	0	0
09	3023	110	90	104	0	0
10	3024	92	75 *	99	0	1
11	3024RE	97	72 *	106	0	1
12	3025	98	82	104	0	0
13	3027	96	72 *	97	0	1
14	3028	109	82	105	0	0
15	3029	91	73 *	91	0	1
16	3029RE	87	65 *	95	0	1
17	3030	98	84	94	0	0
18	VLCSC4733102	114	93	109	0	0
19	VLCSC47G3102	101	86	93	0	0
20	VLCSC4833102	107	82	97	0	0
21	3021MS	96	78 *	104	0	1
22	3021MSD	104	82	113	0	0
25	VBLKC4733101	112	90	112	0	0
26	VBLKC47G3101	103	91	97	0	0
27	VBLKC4833101	107	86	98	0	0

		QC LIMITS
S1 (TOL)	= Toluene-d8	(80-120)
S2 (BFB)	= Bromofluorobenzene	(80-120)
S3 (DCE)	= 1,2-Dichloroethane-d4	(80-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VLCSC4733102

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4733102

Sample wt/vol: 5.00 (g/mL) G Lab File ID: OLCS0524

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

% Moisture: not dec. _____ Date Analyzed: 05/24/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	20	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	56	
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	20	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
79-01-6	Trichloroethene	65	B
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	52	
10061-01-5	cis-1,3-Dichloropropene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	20	U
591-78-6	2-Hexanone	20	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	60	
108-90-7	Chlorobenzene	48	
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VLCSC47G310

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C47G3102

Sample wt/vol: 5.00 (g/mL) G Lab File ID: OLCS0528

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

% Moisture: not dec. ____ Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	20	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	50	
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	20	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
79-01-6	Trichloroethene	57	
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	45	
10061-01-5	cis-1,3-Dichloropropene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	20	U
591-78-6	2-Hexanone	20	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	47	
108-90-7	Chlorobenzene	43	
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3021MS

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4330102

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC4330MS

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 17 Date Analyzed: 05/24/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	24	U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	54	
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	24	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
79-01-6	Trichloroethene	51	B
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	45	
10061-01-5	cis-1,3-Dichloropropene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	24	U
591-78-6	2-Hexanone	24	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	54	
108-90-7	Chlorobenzene	41	
100-41-4	Ethylbenzene	6	J
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	8	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3021MSD

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4330103

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC4330MD

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 17 Date Analyzed: 05/24/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	24	U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	49	
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	24	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
79-01-6	Trichloroethene	52	B
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	43	
10061-01-5	cis-1,3-Dichloropropene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	24	U
591-78-6	2-Hexanone	24	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	71	
108-90-7	Chlorobenzene	40	
100-41-4	Ethylbenzene	2	J
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	26	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKC47G3101

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C47G3101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: QB0528

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

% Moisture: not dec. _____ Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKC48331C

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4833101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: QB0529

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

% Moisture: not dec. ____ Date Analyzed: 05/29/96

Column: (pack/cap) CAP Dilution Factor: 1.0

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3030

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4343F101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434F

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 26 Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKC473310

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4733101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: QB0524

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

% Moisture: not dec. ____ Date Analyzed: 05/24/96

Column: (pack/cap) CAP Dilution Factor: 1.0

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3029

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434C101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434C

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 25 Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3029RE

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434C201

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434CR

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 25 Date Analyzed: 05/29/96

Column: (pack/cap) CAP Dilution Factor: 1.0

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3027

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C433P101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC433PR

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 16 Date Analyzed: 05/29/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	24	U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	24	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	24	U
591-78-6	2-Hexanone	24	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	17	
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	8	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3028

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4344101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC4344R

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 14 Date Analyzed: 05/29/96

Column: (pack/cap) CAP Dilution Factor: 1.0

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3024RE

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C433A201

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC433ARE

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 27 Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	7	U
67-64-1	Acetone	27	U
75-15-0	Carbon Disulfide	14	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	27	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	27	U
591-78-6	2-Hexanone	27	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	11	
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	2	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3025

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C433F101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC433F

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 30 Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	7	U
67-64-1	Acetone	29	U
75-15-0	Carbon Disulfide	14	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	29	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	29	U
591-78-6	2-Hexanone	29	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	2	J
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	3	J
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	4	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3023

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4335101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC4335RE

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 23 Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	26	U
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	26	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	26	U
591-78-6	2-Hexanone	26	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	J
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	2	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3024

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C433A101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC433A

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 27 Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

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

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3021

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4330101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC4330

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 17 Date Analyzed: 05/24/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	24	U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	24	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	24	U
591-78-6	2-Hexanone	24	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	8	
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	J
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	7	

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3022

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C4332101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC4332

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 24 Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	7	U
67-64-1	Acetone	26	U
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	26	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	26	U
591-78-6	2-Hexanone	26	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	7	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2004

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434Q101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434Q

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 53 Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	21	U
74-83-9	Bromomethane	21	U
75-01-4	Vinyl Chloride	21	U
75-00-3	Chloroethane	21	U
75-09-2	Methylene Chloride	11	U
67-64-1	Acetone	43	U
75-15-0	Carbon Disulfide	21	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	43	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	43	U
591-78-6	2-Hexanone	43	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (total)	11	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2004RE

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434Q201

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434QR

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 53 Date Analyzed: 05/29/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	21	U
74-83-9	Bromomethane	21	U
75-01-4	Vinyl Chloride	21	U
75-00-3	Chloroethane	21	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	43	U
75-15-0	Carbon Disulfide	21	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	43	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	43	U
591-78-6	2-Hexanone	43	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (total)	11	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2002

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434H101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434H

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 64 Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	28	U
74-83-9	Bromomethane	28	U
75-01-4	Vinyl Chloride	28	U
75-00-3	Chloroethane	28	U
75-09-2	Methylene Chloride	14	U
67-64-1	Acetone	56	U
75-15-0	Carbon Disulfide	28	U
75-35-4	1,1-Dichloroethene	14	U
75-34-3	1,1-Dichloroethane	14	U
540-59-0	1,2-Dichloroethene (total)	14	U
67-66-3	Chloroform	14	U
107-06-2	1,2-Dichloroethane	14	U
78-93-3	2-Butanone	56	U
71-55-6	1,1,1-Trichloroethane	14	U
56-23-5	Carbon Tetrachloride	14	U
75-27-4	Bromodichloromethane	14	U
78-87-5	1,2-Dichloropropane	14	U
79-01-6	Trichloroethene	14	U
124-48-1	Dibromochloromethane	14	U
79-00-5	1,1,2-Trichloroethane	14	U
71-43-2	Benzene	14	U
10061-01-5	cis-1,3-Dichloropropene	14	U
10061-02-6	trans-1,3-Dichloropropene	14	U
75-25-2	Bromoform	14	U
108-10-1	4-Methyl-2-Pentanone	56	U
591-78-6	2-Hexanone	56	U
127-18-4	Tetrachloroethene	14	U
79-34-5	1,1,2,2-Tetrachloroethane	14	U
108-88-3	Toluene	14	U
108-90-7	Chlorobenzene	14	U
100-41-4	Ethylbenzene	14	U
100-42-5	Styrene	14	U
1330-20-7	Xylene (total)	14	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2002RE

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434H201

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434HR

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 64 Date Analyzed: 05/29/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	28	U
74-83-9	Bromomethane	28	U
75-01-4	Vinyl Chloride	28	U
75-00-3	Chloroethane	28	U
75-09-2	Methylene Chloride	14	U
67-64-1	Acetone	56	U
75-15-0	Carbon Disulfide	28	U
75-35-4	1,1-Dichloroethene	14	U
75-34-3	1,1-Dichloroethane	14	U
540-59-0	1,2-Dichloroethene (total)	14	U
67-66-3	Chloroform	14	U
107-06-2	1,2-Dichloroethane	14	U
78-93-3	2-Butanone	56	U
71-55-6	1,1,1-Trichloroethane	14	U
56-23-5	Carbon Tetrachloride	14	U
75-27-4	Bromodichloromethane	14	U
78-87-5	1,2-Dichloropropane	14	U
79-01-6	Trichloroethene	14	U
124-48-1	Dibromochloromethane	14	U
79-00-5	1,1,2-Trichloroethane	14	U
71-43-2	Benzene	14	U
10061-01-5	cis-1,3-Dichloropropene	14	U
10061-02-6	trans-1,3-Dichloropropene	14	U
75-25-2	Bromoform	14	U
108-10-1	4-Methyl-2-Pentanone	56	U
591-78-6	2-Hexanone	56	U
127-18-4	Tetrachloroethene	14	U
79-34-5	1,1,2,2-Tetrachloroethane	14	U
108-88-3	Toluene	14	U
108-90-7	Chlorobenzene	14	U
100-41-4	Ethylbenzene	14	U
100-42-5	Styrene	14	U
1330-20-7	Xylene (total)	14	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2001

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434M101

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434M

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 64 Date Analyzed: 05/28/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	28	U
74-83-9	Bromomethane	28	U
75-01-4	Vinyl Chloride	28	U
75-00-3	Chloroethane	28	U
75-09-2	Methylene Chloride	14	U
67-64-1	Acetone	56	U
75-15-0	Carbon Disulfide	28	U
75-35-4	1,1-Dichloroethene	14	U
75-34-3	1,1-Dichloroethane	14	U
540-59-0	1,2-Dichloroethene (total)	14	U
67-66-3	Chloroform	14	U
107-06-2	1,2-Dichloroethane	14	U
78-93-3	2-Butanone	56	U
71-55-6	1,1,1-Trichloroethane	14	U
56-23-5	Carbon Tetrachloride	14	U
75-27-4	Bromodichloromethane	14	U
78-87-5	1,2-Dichloropropane	14	U
79-01-6	Trichloroethene	14	U
124-48-1	Dibromochloromethane	14	U
79-00-5	1,1,2-Trichloroethane	14	U
71-43-2	Benzene	14	U
10061-01-5	cis-1,3-Dichloropropene	14	U
10061-02-6	trans-1,3-Dichloropropene	14	U
75-25-2	Bromoform	14	U
108-10-1	4-Methyl-2-Pentanone	56	U
591-78-6	2-Hexanone	56	U
127-18-4	Tetrachloroethene	14	U
79-34-5	1,1,2,2-Tetrachloroethane	14	U
108-88-3	Toluene	14	U
108-90-7	Chlorobenzene	14	U
100-41-4	Ethylbenzene	14	U
100-42-5	Styrene	14	U
1330-20-7	Xylene (total)	14	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

2001RE

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG147 SAS No.: _____ SDG No.: PBG802

Matrix: (soil/water) SOIL Lab Sample ID: C434M201

Sample wt/vol: 5.00 (g/mL) G Lab File ID: VC434MR

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. 64 Date Analyzed: 05/29/96

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	28	U
74-83-9	Bromomethane	28	U
75-01-4	Vinyl Chloride	28	U
75-00-3	Chloroethane	28	U
75-09-2	Methylene Chloride	14	U
67-64-1	Acetone	56	U
75-15-0	Carbon Disulfide	28	U
75-35-4	1,1-Dichloroethene	14	U
75-34-3	1,1-Dichloroethane	14	U
540-59-0	1,2-Dichloroethene (total)	14	U
67-66-3	Chloroform	14	U
107-06-2	1,2-Dichloroethane	14	U
78-93-3	2-Butanone	56	U
71-55-6	1,1,1-Trichloroethane	14	U
56-23-5	Carbon Tetrachloride	14	U
75-27-4	Bromodichloromethane	14	U
78-87-5	1,2-Dichloropropane	14	U
79-01-6	Trichloroethene	14	U
124-48-1	Dibromochloromethane	14	U
79-00-5	1,1,2-Trichloroethane	14	U
71-43-2	Benzene	14	U
10061-01-5	cis-1,3-Dichloropropene	14	U
10061-02-6	trans-1,3-Dichloropropene	14	U
75-25-2	Bromoform	14	U
108-10-1	4-Methyl-2-Pentanone	56	U
591-78-6	2-Hexanone	56	U
127-18-4	Tetrachloroethene	14	U
79-34-5	1,1,2,2-Tetrachloroethane	14	U
108-88-3	Toluene	14	U
108-90-7	Chlorobenzene	14	U
100-41-4	Ethylbenzene	14	U
100-42-5	Styrene	14	U
1330-20-7	Xylene (total)	14	U

Quanterra Condition Upon Receipt Anomaly Report (CUR)
QES - Knoxville

Legend:

Cooler:
1a Not received, COC available
1b Leaking
1c Other: _____

Temperature:
2a Temp. Blank= _____
2b Cooler Temp= _____
(cooler temp should only be used if there is no Temp. Blank)

Containers:
3a Leaking
3b Broken
3c Extra
3d No labels
3e Headspace (VOA only)
3f Other: _____

Samples:
4a Samples received but not on COC
4b Samples not received but on COC
4c Other: _____

Custody Seals:
5a None
5b Not intact
5c Other: _____

ain of Custody (COC):
6a Not relinquished by client
6b incomplete information
6c Other: _____

Container Labels:
7a Doesn't match COC
7b Incomplete information
7c Marking smeared
7d Label torn
7e Other: _____

Other (8): _____
_____
_____

VOLATILE ORGANICS

INTERNATIONAL TECHNOLOGY CORPORATION

Quote # 14866

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

H6E160147

Reference Document No. 473805 473802

Page 1 of 3

Project Name/No. 1 Plum Brook 764678.040

Samples Shipment Date 7

Bill to: 5

Sample Team Members 2

Lab Destination 8

Profit Center No. 3

Lab Contact 9

Project Manager 4

Project Contact/Phone 12

Report to: 10

Purchase Order No. 6

Carrier/Waybill No. 13

Required Report Date 11

ONE CONTAINER PER LINE

Sample Number 14	Sample Description/Type 15	Date/Time Collected 16	Container Type 17	Sample Volume 18	Pre-servative 19	Requested Testing Program 20	Condition on Receipt 21	Disposal Record No. 22
PBOW-96-SD01-B68-2001-(SD)	Soil/Sediment	5/15/96 1030	2x60ml	120ml	NA	VOC	Rec'd @ 3°C	
↓	↓	↓	250ml	250ml	↓	SVOC, Pest/PCBs, Nitro	BPB	FOR LAB USE ONLY
↓	↓	↓	4 oz	4 oz	↓	Metals		
PBOW-96-SD02-B68-B004-(SD)	Sediment/Soil	5/15/96 1020	2x60ml	120ml	NA	VOC		
↓	↓	↓	250ml	250ml	↓	SVOC, Pest/PCBs, Nitro		FOR LAB USE ONLY
↓	↓	↓	4 oz	4 oz	↓	Metals		
PBOW-96-FD01-B68-2002-(SD)	Sediment/Soil	5/15/96 1030	250ml	250ml	NA	SVOC, Pest/PCBs, Nitro		
↓	↓	↓	4 oz	4 oz	↓	Metals		

Special Instructions: 23

Possible Hazard Identification: 24
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☑

Sample Disposal: 25
Return to Client ☐ Disposal by Lab ☑ Archive _____ (mos.)

Turnaround Time Required: 26
Normal ☑ Rush ☐

QC Level: 27
I. ☐ II. ☐ III. ☐ Project Specific (specify): _____

1. Relinquished by 28 (Signature/Affiliation) W	Date: 5/15/96 Time: 1700	1. Received by 28 (Signature/Affiliation) Bryan Blomquist QESKW	Date: 5/16/96 Time: 0850
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: 29

White: To accompany samples

Yellow: Field copy

*See back of form for special instructions.

MCA 3/18/91

Quanterra Environmental Services

Quanterra Condition Upon Receipt Anomaly Report (CUR)
QES - Knoxville

CUR No. N/A
Lot H6E 160 147

Client: IT Corp
Project Name: Plumbrook G-8

Date Received: 5/16/96
Initiated By: BPB
RFA/COC Nos.: 473802

Condition/Anomaly/Variance (select from legend - on back):

Client Sample ID	Analysis Requested	Condition (see legend)	Comments/Action
PBOW-96-SD01-BG8-2001 (SD)	Full SW-846	7a	PBOW-96-SD-BG8-2001
PBOW-96-SD01-BG8-2004 (SD)	↓	7c	PBOW-96-SD-BG8-2004
			* LOG IN PER RFA/COC

Corrective Action:

- [ ] Client informed verbally on _____ By: _____ In writing on: _____ By: _____
- [ ] Sample(s) processed "as is"
- [ ] Sample(s) ON HOLD until further notice
- [x] Other action required (see above comments)
- [x] No action required

Sample Control Reviewer: [signature] Project Manager: [signature]

INTERNATIONAL TECHNOLOGY CORPORATION

Quote # 14866

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

H&E160147

Reference Document No. 413802
Page 1 of 3

Project Name/No. [1] Plum Brook 764678.040
Samples Shipment Date [7] 5/15/96
Bill to: [5]
Sample Team Members [2] Tom Hendley, Wesley White
Lab Destination [8] Middlebrook, Quantera
Profit Center No. [3]
Lab Contact: [9]
Project Manager [4] D. Burton
Project Contact/Phone [12] George Yu (423)690-3211
Report to: [10] D. Burton, 312 Directors Drive, Knoxville, TN 37923
Purchase Order No. [6]
Carrier/Waybill No. [13] 8213306496
Required Report Date [11] Normal Turnaround time

ONE CONTAINER PER LINE

Sample Number [14]	Sample Description/Type [15]	Date/Time Collected [16]	Container Type [17]	Sample Volume [18]	Pre-servative [19]	Requested Testing Program [20]	Condition on Receipt [21]	Disposal Record No. [22]
PBOW-96-5049-B68-3021-(0-0.5)	Soil	5/15/96 0825	2x60ml	120ml	NA	VOC	Rec'd @ 3°C w/cus[illegible] Tuesday [illegible] 5/[illegible]	
PBOW-	Soil		250ml	250ml	NA	SVOC, Pest/PCBs, Nitro		
			4oz	4oz		Metals		
PBOW-96-5049-B68-3022-(2-3)	Soil	5/15/96 0835	2x60ml	120ml	NA	VOC		
			250ml	250ml		SVOC, Pest/PCBs, Nitro		
			4oz	4oz		Metals		
PBOW-96-5050-B68-3023-(0-0.5)	Soil	5/15/96 0905	2x60ml	120ml	NA	VOC		
			250ml	250		SVOC, Pest/PCBs, Nitro		

FOR LAB USE ONLY

FOR LAB USE ONLY

Special Instructions: [23]

Possible Hazard Identification: [24]
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☑

Sample Disposal: [25]
Return to Client ☐ Disposal by Lab ☑ Archive _____ (mos.)

Turnaround Time Required: [26]
Normal ☑ Rush ☐

QC Level: [27]
I. ☐ II. ☐ III. ☐ Project Specific (specify):

1. Relinquished by [28] (Signature/Affiliation) Wesley White / IT Corp — Date: 5/15/96 Time: 1700	1. Received by [28] (Signature/Affiliation) [illegible] — Date: 5/16/96 Time: 0850
2. Relinquished by (Signature/Affiliation) — Date: Time:	2. Received by (Signature/Affiliation) — Date: Time:
3. Relinquished by (Signature/Affiliation) — Date: Time:	3. Received by (Signature/Affiliation) — Date: Time:

Comments: [29] Your reference # 96-02-2

White: To accompany samples
Yellow: Field copy
*See back of form for special instructions.

Quanterra Environmental Services
5815 Middlebrook Pike
Knoxville, Tennessee 37921
(615) 588-6401

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

H6E160147

Reference Document No.[30] 473802
Page 2 of 3

Project Name Plum Brook

Project No. 764675.040

Samples Shipment Date 5/15/96

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	Condition on[21] Receipt	Disposal[22] Record No.
PBOW-96-SO14-B68-3023-(0-0.5)	Soil	5/15/96 0905	4 oz	4 oz	NA	Metals	Rec'd @ 3°C	
PBOW-96-SO14-B68-3024-(1-1.5)	Soil	5/15/96 0915	2x60ml	60ml	NA	VOC	BPB 5/16/96	
↓	↓	↓	250ml	250ml	NA	SVOC, Pest/PCBs, Nitro		
↓	↓	↓	4 oz	4 oz	NA	Metals		
PBOW-96-FD14-B68-3025-(1-1.5)	Soil	5/15/96 0915	2x60ml	120ml	NA	VOC		
↓	↓	↓	250ml	250ml	↓	SVOC, Pest/PCBs, Nitro		
↓	↓	↓	4 oz	4 oz	↓	Metals		
PBOW-96-SO11-B68-3027-(0-0.5)	Soil	5/15/96 0940	2x60ml	120ml	NA	VOC		
↓	↓	↓	250ml	250ml	↓	SVOC, Pest/PCBs, Nitro		
↓	↓	↓	4 oz	4 oz	↓	Metals		
PBOW-96-SO11-B68-3028-(.5-1.0)	Soil	5/15/96 0950	2x60ml	120ml	NA	VOC		
↓	↓	↓	250ml	250ml	↓	SVOC, Pest/PCBs, Nitro		
↓	↓	↓	4 oz	4 oz	↓	Metals		
PBOW-96-SO12-B68-3029-(0-0.5)	Soil	5/15/96 1000	2x60ml	120ml	NA	VOC		
↓	↓	↓	250ml	250ml	↓	SVOC, Pest/PCBs, Nitro		
↓	↓	↓	4 oz	4 oz	↓	Metals		
PBOW-96-SO12-B68-3030-(2-3)	Soil	5/15/96 1010	2x60ml	120ml	NA	VOC		
↓	↓	↓	250ml	250ml	↓	SVOC, Pest/PCBs, Nitro		
↓	↓	↓	4 oz	4 oz	↓	Metals		
PBOW-96-FD[illegible] B68-3002-([illegible]	Sediment/Soil	5/15/96 1030	2x60ml	120ml		VOC		

White: To accompany samples
Yellow: Field copy

*See back of form for special instructions.

MCA 3/15/91

Quanterra
Environmental Services

PROJECT NARRATIVE

Comments:

Volatiles and Semivolatiles data were reported with qualifiers as follows:

U- Compound analyzed for but not detected; value given is quantitation limit.
E- Compound exceeded calibration range.
D- Compound analyzed at a secondary dilution factor.
J - Compound detected but below quantitation limit; value estimated.
S - Spiked compound.
B- Compound found in method blank.
A- Suspected aldol condensation product.
Y- Indistinguishable isomer in tentatively identified compounds.
N- Presumptive evidence of compound presence.

Metals data were reported with qualifiers as follows:

"C" Qualifiers

U - Compound was analyzed for but not detected. The number is the reporting limit for the sample.
B - Value greater than instrument detection limit, but less than contract required quantitation limit.

"Q" Qualifiers

* - Duplicate analysis outside control limits.
N - Spiked sample recovery outside control limits.
S - The reported value was determined by method of standard additions.

"M" Qualifiers

P - Analysis performed by ICP.
V - Analysis performed by CVAA.

Miscellaneous

D - Duplicate.
S - Spike.
NR- Not required.
G - Native analyte > 4 times spike added, therefore, acceptance criteria do not apply.
X - Detection limits higher than normal due to sample matrix interferences.

SAMPLE RECEIPT DOCUMENTATION

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3002

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C432F102

Sample wt/vol: 30.30 (g/mL) G Lab File ID: C432F

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 20 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	UG/KG	Q
99-09-2	3-Nitroaniline	2000	U
83-32-9	Acenaphthene	410	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	410	U
84-66-2	Diethylphthalate	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
86-73-7	Fluorene	410	U
100-01-6	4-Nitroaniline	2000	U
534-52-1	4,6-Dinitro-2-Methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	410	U
120-12-7	Anthracene	410	U
86-74-8	Carbazole	410	U
84-74-2	Di-n-Butylphthalate	410	U
206-44-0	Fluoranthene	410	U
129-00-0	Pyrene	410	U
85-68-7	Butylbenzylphthalate	410	U
91-94-1	3,3'-Dichlorobenzidine	2000	U
56-55-3	Benzo(a)Anthracene	410	U
218-01-9	Chrysene	410	U
117-81-7	bis(2-Ethylhexyl)Phthalate	410	U
117-84-0	Di-n-Octyl Phthalate	410	U
205-99-2	Benzo(b)Fluoranthene	410	U
207-08-9	Benzo(k)Fluoranthene	410	U
50-32-8	Benzo(a)Pyrene	410	U
193-39-5	Indeno(1,2,3-cd)Pyrene	410	U
53-70-3	Dibenz(a,h)Anthracene	410	U
191-24-2	Benzo(g,h,i)Perylene	410	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3003

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C432M102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C432M

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 28 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	460	U
111-44-4	bis(2-Chloroethyl)Ether	460	U
95-57-8	2-Chlorophenol	460	U
541-73-1	1,3-Dichlorobenzene	460	U
106-46-7	1,4-Dichlorobenzene	460	U
95-50-1	1,2-Dichlorobenzene	460	U
95-48-7	2-Methylphenol	460	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	460	U
106-44-5	4-Methylphenol	460	U
621-64-7	N-Nitroso-Di-n-Propylamine	460	U
67-72-1	Hexachloroethane	460	U
98-95-3	Nitrobenzene	460	U
78-59-1	Isophorone	460	U
88-75-5	2-Nitrophenol	460	U
105-67-9	2,4-Dimethylphenol	460	U
111-91-1	bis(2-Chloroethoxy)Methane	460	U
120-83-2	2,4-Dichlorophenol	460	U
120-82-1	1,2,4-Trichlorobenzene	460	U
91-20-3	Naphthalene	460	U
106-47-8	4-Chloroaniline	460	U
87-68-3	Hexachlorobutadiene	460	U
59-50-7	4-Chloro-3-Methylphenol	460	U
91-57-6	2-Methylnaphthalene	460	U
77-47-4	Hexachlorocyclopentadiene	2200	U
88-06-2	2,4,6-Trichlorophenol	460	U
95-95-4	2,4,5-Trichlorophenol	460	U
91-58-7	2-Chloronaphthalene	460	U
88-74-4	2-Nitroaniline	2200	U
131-11-3	Dimethylphthalate	460	U
208-96-8	Acenaphthylene	460	U
606-20-2	2,6-Dinitrotoluene	460	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3003

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C432M102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C432M

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 28 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	2200	U
83-32-9	Acenaphthene	460	U
51-28-5	2,4-Dinitrophenol	2200	U
100-02-7	4-Nitrophenol	2200	U
132-64-9	Dibenzofuran	460	U
121-14-2	2,4-Dinitrotoluene	460	U
84-66-2	Diethylphthalate	460	U
7005-72-3	4-Chlorophenyl-phenylether	460	U
86-73-7	Fluorene	460	U
100-01-6	4-Nitroaniline	2200	U
534-52-1	4,6-Dinitro-2-Methylphenol	2200	U
86-30-6	N-Nitrosodiphenylamine (1)	460	U
101-55-3	4-Bromophenyl-phenylether	460	U
118-74-1	Hexachlorobenzene	460	U
87-86-5	Pentachlorophenol	2200	U
85-01-8	Phenanthrene	460	U
120-12-7	Anthracene	460	U
86-74-8	Carbazole	460	U
84-74-2	Di-n-Butylphthalate	460	U
206-44-0	Fluoranthene	73	J
129-00-0	Pyrene	56	J
85-68-7	Butylbenzylphthalate	460	U
91-94-1	3,3'-Dichlorobenzidine	2200	U
56-55-3	Benzo(a)Anthracene	460	U
218-01-9	Chrysene	460	U
117-81-7	bis(2-Ethylhexyl)Phthalate	460	U
117-84-0	Di-n-Octyl Phthalate	460	U
205-99-2	Benzo(b)Fluoranthene	460	U
207-08-9	Benzo(k)Fluoranthene	460	U
50-32-8	Benzo(a)Pyrene	460	U
193-39-5	Indeno(1,2,3-cd)Pyrene	460	U
53-70-3	Dibenz(a,h)Anthracene	460	U
191-24-2	Benzo(g,h,i)Perylene	460	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3004

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C432W102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C432W

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 22 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
108-95-2	Phenol	420	U
111-44-4	bis(2-Chloroethyl)Ether	420	U
95-57-8	2-Chlorophenol	420	U
541-73-1	1,3-Dichlorobenzene	420	U
106-46-7	1,4-Dichlorobenzene	420	U
95-50-1	1,2-Dichlorobenzene	420	U
95-48-7	2-Methylphenol	420	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	420	U
106-44-5	4-Methylphenol	420	U
621-64-7	N-Nitroso-Di-n-Propylamine	420	U
67-72-1	Hexachloroethane	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2,4-Dimethylphenol	420	U
111-91-1	bis(2-Chloroethoxy)Methane	420	U
120-83-2	2,4-Dichlorophenol	420	U
120-82-1	1,2,4-Trichlorobenzene	420	U
91-20-3	Naphthalene	420	U
106-47-8	4-Chloroaniline	420	U
87-68-3	Hexachlorobutadiene	420	U
59-50-7	4-Chloro-3-Methylphenol	420	U
91-57-6	2-Methylnaphthalene	420	U
77-47-4	Hexachlorocyclopentadiene	2000	U
88-06-2	2,4,6-Trichlorophenol	420	U
95-95-4	2,4,5-Trichlorophenol	420	U
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethylphthalate	420	U
208-96-8	Acenaphthylene	420	U
606-20-2	2,6-Dinitrotoluene	420	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3004

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C432W102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C432W

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 22 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	2000	U
83-32-9	Acenaphthene	420	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	420	U
121-14-2	2,4-Dinitrotoluene	420	U
84-66-2	Diethylphthalate	420	U
7005-72-3	4-Chlorophenyl-phenylether	420	U
86-73-7	Fluorene	420	U
100-01-6	4-Nitroaniline	2000	U
534-52-1	4,6-Dinitro-2-Methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	420	U
101-55-3	4-Bromophenyl-phenylether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	420	U
120-12-7	Anthracene	420	U
86-74-8	Carbazole	420	U
84-74-2	Di-n-Butylphthalate	420	U
206-44-0	Fluoranthene	420	U
129-00-0	Pyrene	420	U
85-68-7	Butylbenzylphthalate	420	U
91-94-1	3,3'-Dichlorobenzidine	2000	U
56-55-3	Benzo(a)Anthracene	420	U
218-01-9	Chrysene	420	U
117-81-7	bis(2-Ethylhexyl)Phthalate	52	BJ
117-84-0	Di-n-Octyl Phthalate	420	U
205-99-2	Benzo(b)Fluoranthene	420	U
207-08-9	Benzo(k)Fluoranthene	420	U
50-32-8	Benzo(a)Pyrene	420	U
193-39-5	Indeno(1,2,3-cd)Pyrene	420	U
53-70-3	Dibenz(a,h)Anthracene	420	U
191-24-2	Benzo(g,h,i)Perylene	420	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3005

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C4334102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C4334

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 25 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	440	U
111-44-4	bis(2-Chloroethyl)Ether	440	U
95-57-8	2-Chlorophenol	440	U
541-73-1	1,3-Dichlorobenzene	440	U
106-46-7	1,4-Dichlorobenzene	440	U
95-50-1	1,2-Dichlorobenzene	440	U
95-48-7	2-Methylphenol	440	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	440	U
106-44-5	4-Methylphenol	440	U
621-64-7	N-Nitroso-Di-n-Propylamine	440	U
67-72-1	Hexachloroethane	440	U
98-95-3	Nitrobenzene	440	U
78-59-1	Isophorone	440	U
88-75-5	2-Nitrophenol	440	U
105-67-9	2,4-Dimethylphenol	440	U
111-91-1	bis(2-Chloroethoxy)Methane	440	U
120-83-2	2,4-Dichlorophenol	440	U
120-82-1	1,2,4-Trichlorobenzene	440	U
91-20-3	Naphthalene	440	U
106-47-8	4-Chloroaniline	440	U
87-68-3	Hexachlorobutadiene	440	U
59-50-7	4-Chloro-3-Methylphenol	440	U
91-57-6	2-Methylnaphthalene	440	U
77-47-4	Hexachlorocyclopentadiene	2100	U
88-06-2	2,4,6-Trichlorophenol	440	U
95-95-4	2,4,5-Trichlorophenol	440	U
91-58-7	2-Chloronaphthalene	440	U
88-74-4	2-Nitroaniline	2100	U
131-11-3	Dimethylphthalate	440	U
208-96-8	Acenaphthylene	440	U
606-20-2	2,6-Dinitrotoluene	440	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3005

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C4334102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C4334

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 25 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	UG/KG	Q
99-09-2	3-Nitroaniline	2100	U
83-32-9	Acenaphthene	440	U
51-28-5	2,4-Dinitrophenol	2100	U
100-02-7	4-Nitrophenol	2100	U
132-64-9	Dibenzofuran	440	U
121-14-2	2,4-Dinitrotoluene	440	U
84-66-2	Diethylphthalate	440	U
7005-72-3	4-Chlorophenyl-phenylether	440	U
86-73-7	Fluorene	440	U
100-01-6	4-Nitroaniline	2100	U
534-52-1	4,6-Dinitro-2-Methylphenol	2100	U
86-30-6	N-Nitrosodiphenylamine (1)	440	U
101-55-3	4-Bromophenyl-phenylether	440	U
118-74-1	Hexachlorobenzene	440	U
87-86-5	Pentachlorophenol	2100	U
85-01-8	Phenanthrene	440	U
120-12-7	Anthracene	440	U
86-74-8	Carbazole	440	U
84-74-2	Di-n-Butylphthalate	440	U
206-44-0	Fluoranthene	440	U
129-00-0	Pyrene	440	U
85-68-7	Butylbenzylphthalate	440	U
91-94-1	3,3'-Dichlorobenzidine	2100	U
56-55-3	Benzo(a)Anthracene	440	U
218-01-9	Chrysene	440	U
117-81-7	bis(2-Ethylhexyl)Phthalate	79	BJ
117-84-0	Di-n-Octyl Phthalate	440	U
205-99-2	Benzo(b)Fluoranthene	440	U
207-08-9	Benzo(k)Fluoranthene	440	U
50-32-8	Benzo(a)Pyrene	440	U
193-39-5	Indeno(1,2,3-cd)Pyrene	440	U
53-70-3	Dibenz(a,h)Anthracene	440	U
191-24-2	Benzo(g,h,i)Perylene	440	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3009

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C433C102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C433C

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 27 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: ____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
108-95-2	Phenol	450	U
111-44-4	bis(2-Chloroethyl)Ether	450	U
95-57-8	2-Chlorophenol	450	U
541-73-1	1,3-Dichlorobenzene	450	U
106-46-7	1,4-Dichlorobenzene	450	U
95-50-1	1,2-Dichlorobenzene	450	U
95-48-7	2-Methylphenol	450	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	450	U
106-44-5	4-Methylphenol	450	U
621-64-7	N-Nitroso-Di-n-Propylamine	450	U
67-72-1	Hexachloroethane	450	U
98-95-3	Nitrobenzene	450	U
78-59-1	Isophorone	450	U
88-75-5	2-Nitrophenol	450	U
105-67-9	2,4-Dimethylphenol	450	U
111-91-1	bis(2-Chloroethoxy)Methane	450	U
120-83-2	2,4-Dichlorophenol	450	U
120-82-1	1,2,4-Trichlorobenzene	450	U
91-20-3	Naphthalene	450	U
106-47-8	4-Chloroaniline	450	U
87-68-3	Hexachlorobutadiene	450	U
59-50-7	4-Chloro-3-Methylphenol	450	U
91-57-6	2-Methylnaphthalene	450	U
77-47-4	Hexachlorocyclopentadiene	2200	U
88-06-2	2,4,6-Trichlorophenol	450	U
95-95-4	2,4,5-Trichlorophenol	450	U
91-58-7	2-Chloronaphthalene	450	U
88-74-4	2-Nitroaniline	2200	U
131-11-3	Dimethylphthalate	450	U
208-96-8	Acenaphthylene	450	U
606-20-2	2,6-Dinitrotoluene	450	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3009

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C433C102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C433C

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 27 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q (Jubles)
99-09-2	3-Nitroaniline	2200	U
83-32-9	Acenaphthene	450	U
51-28-5	2,4-Dinitrophenol	2200	U
100-02-7	4-Nitrophenol	2200	U
132-64-9	Dibenzofuran	450	U
121-14-2	2,4-Dinitrotoluene	450	U
84-66-2	Diethylphthalate	450	U
7005-72-3	4-Chlorophenyl-phenylether	450	U
86-73-7	Fluorene	450	U
100-01-6	4-Nitroaniline	2200	U
534-52-1	4,6-Dinitro-2-Methylphenol	2200	U
86-30-6	N-Nitrosodiphenylamine (1)	450	U
101-55-3	4-Bromophenyl-phenylether	450	U
118-74-1	Hexachlorobenzene	450	U
87-86-5	Pentachlorophenol	2200	U
85-01-8	Phenanthrene	450	U
120-12-7	Anthracene	450	U
86-74-8	Carbazole	450	U
84-74-2	Di-n-Butylphthalate	450	U
206-44-0	Fluoranthene	450	U
129-00-0	Pyrene	450	U
85-68-7	Butylbenzylphthalate	120	J
91-94-1	3,3'-Dichlorobenzidine	2200	U
56-55-3	Benzo(a)Anthracene	450	U
218-01-9	Chrysene	450	U
117-81-7	bis(2-Ethylhexyl)Phthalate	50	BJ
117-84-0	Di-n-Octyl Phthalate	450	U
205-99-2	Benzo(b)Fluoranthene	450	U
207-08-9	Benzo(k)Fluoranthene	450	U
50-32-8	Benzo(a)Pyrene	450	U
193-39-5	Indeno(1,2,3-cd)Pyrene	450	U
53-70-3	Dibenz(a,h)Anthracene	450	U
191-24-2	Benzo(g,h,i)Perylene	450	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3010

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C433N102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C433N

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 27 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	UG/KG	Q
108-95-2	Phenol	450	U
111-44-4	bis(2-Chloroethyl)Ether	450	U
95-57-8	2-Chlorophenol	450	U
541-73-1	1,3-Dichlorobenzene	450	U
106-46-7	1,4-Dichlorobenzene	450	U
95-50-1	1,2-Dichlorobenzene	450	U
95-48-7	2-Methylphenol	450	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	450	U
106-44-5	4-Methylphenol	450	U
621-64-7	N-Nitroso-Di-n-Propylamine	450	U
67-72-1	Hexachloroethane	450	U
98-95-3	Nitrobenzene	450	U
78-59-1	Isophorone	450	U
88-75-5	2-Nitrophenol	450	U
105-67-9	2,4-Dimethylphenol	450	U
111-91-1	bis(2-Chloroethoxy)Methane	450	U
120-83-2	2,4-Dichlorophenol	450	U
120-82-1	1,2,4-Trichlorobenzene	450	U
91-20-3	Naphthalene	450	U
106-47-8	4-Chloroaniline	450	U
87-68-3	Hexachlorobutadiene	450	U
59-50-7	4-Chloro-3-Methylphenol	450	U
91-57-6	2-Methylnaphthalene	450	U
77-47-4	Hexachlorocyclopentadiene	2200	U
88-06-2	2,4,6-Trichlorophenol	450	U
95-95-4	2,4,5-Trichlorophenol	450	U
91-58-7	2-Chloronaphthalene	450	U
88-74-4	2-Nitroaniline	2200	U
131-11-3	Dimethylphthalate	450	U
208-96-8	Acenaphthylene	450	U
606-20-2	2,6-Dinitrotoluene	450	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3010

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C433N102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C433N

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 27 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	2200	U
83-32-9	Acenaphthene	450	U
51-28-5	2,4-Dinitrophenol	2200	U
100-02-7	4-Nitrophenol	2200	U
132-64-9	Dibenzofuran	450	U
121-14-2	2,4-Dinitrotoluene	450	U
84-66-2	Diethylphthalate	450	U
7005-72-3	4-Chlorophenyl-phenylether	450	U
86-73-7	Fluorene	450	U
100-01-6	4-Nitroaniline	2200	U
534-52-1	4,6-Dinitro-2-Methylphenol	2200	U
86-30-6	N-Nitrosodiphenylamine (1)	450	U
101-55-3	4-Bromophenyl-phenylether	450	U
118-74-1	Hexachlorobenzene	450	U
87-86-5	Pentachlorophenol	2200	U
85-01-8	Phenanthrene	450	U
120-12-7	Anthracene	450	U
86-74-8	Carbazole	450	U
84-74-2	Di-n-Butylphthalate	450	U
206-44-0	Fluoranthene	450	U
129-00-0	Pyrene	450	U
85-68-7	Butylbenzylphthalate	450	U
91-94-1	3,3'-Dichlorobenzidine	2200	U
56-55-3	Benzo(a)Anthracene	450	U
218-01-9	Chrysene	450	U
117-81-7	bis(2-Ethylhexyl)Phthalate	120	BJ
117-84-0	Di-n-Octyl Phthalate	450	U
205-99-2	Benzo(b)Fluoranthene	450	U
207-08-9	Benzo(k)Fluoranthene	450	U
50-32-8	Benzo(a)Pyrene	450	U
193-39-5	Indeno(1,2,3-cd)Pyrene	450	U
53-70-3	Dibenz(a,h)Anthracene	450	U
191-24-2	Benzo(g,h,i)Perylene	450	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3011

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C4341102

Sample wt/vol: 30.00 (g/mL) G Lab File ID: C4341

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 22 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
108-95-2	Phenol	420	U
111-44-4	bis(2-Chloroethyl)Ether	420	U
95-57-8	2-Chlorophenol	420	U
541-73-1	1,3-Dichlorobenzene	420	U
106-46-7	1,4-Dichlorobenzene	420	U
95-50-1	1,2-Dichlorobenzene	420	U
95-48-7	2-Methylphenol	420	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	420	U
106-44-5	4-Methylphenol	420	U
621-64-7	N-Nitroso-Di-n-Propylamine	420	U
67-72-1	Hexachloroethane	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2,4-Dimethylphenol	420	U
111-91-1	bis(2-Chloroethoxy)Methane	420	U
120-83-2	2,4-Dichlorophenol	420	U
120-82-1	1,2,4-Trichlorobenzene	420	U
91-20-3	Naphthalene	420	U
106-47-8	4-Chloroaniline	420	U
87-68-3	Hexachlorobutadiene	420	U
59-50-7	4-Chloro-3-Methylphenol	420	U
91-57-6	2-Methylnaphthalene	420	U
77-47-4	Hexachlorocyclopentadiene	2100	U
88-06-2	2,4,6-Trichlorophenol	420	U
95-95-4	2,4,5-Trichlorophenol	420	U
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	2100	U
131-11-3	Dimethylphthalate	420	U
208-96-8	Acenaphthylene	420	U
606-20-2	2,6-Dinitrotoluene	420	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3011

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C4341102

Sample wt/vol: 30.00 (g/mL) G Lab File ID: C4341

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 22 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2100	U
83-32-9	Acenaphthene	420	U
51-28-5	2,4-Dinitrophenol	2100	U
100-02-7	4-Nitrophenol	2100	U
132-64-9	Dibenzofuran	420	U
121-14-2	2,4-Dinitrotoluene	420	U
84-66-2	Diethylphthalate	420	U
7005-72-3	4-Chlorophenyl-phenylether	420	U
86-73-7	Fluorene	420	U
100-01-6	4-Nitroaniline	2100	U
534-52-1	4,6-Dinitro-2-Methylphenol	2100	U
86-30-6	N-Nitrosodiphenylamine (1)	420	U
101-55-3	4-Bromophenyl-phenylether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	2100	U
85-01-8	Phenanthrene	420	U
120-12-7	Anthracene	420	U
86-74-8	Carbazole	420	U
84-74-2	Di-n-Butylphthalate	420	U
206-44-0	Fluoranthene	97	J
129-00-0	Pyrene	76	J
85-68-7	Butylbenzylphthalate	420	U
91-94-1	3,3'-Dichlorobenzidine	2100	U
56-55-3	Benzo(a)Anthracene	420	U
218-01-9	Chrysene	58	J
117-81-7	bis(2-Ethylhexyl)Phthalate	87	BJ
117-84-0	Di-n-Octyl Phthalate	420	U
205-99-2	Benzo(b)Fluoranthene	51	J
207-08-9	Benzo(k)Fluoranthene	68	J
50-32-8	Benzo(a)Pyrene	56	J
193-39-5	Indeno(1,2,3-cd)Pyrene	420	U
53-70-3	Dibenz(a,h)Anthracene	420	U
191-24-2	Benzo(g,h,i)Perylene	420	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3012

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C4348102

Sample wt/vol: 30.00 (g/mL) G Lab File ID: C4348

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 18 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	400	U
111-44-4	bis(2-Chloroethyl)Ether	400	U
95-57-8	2-Chlorophenol	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
95-50-1	1,2-Dichlorobenzene	400	U
95-48-7	2-Methylphenol	400	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	400	U
106-44-5	4-Methylphenol	400	U
621-64-7	N-Nitroso-Di-n-Propylamine	400	U
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
111-91-1	bis(2-Chloroethoxy)Methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-Methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	2000	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	400	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethylphthalate	400	U
208-96-8	Acenaphthylene	400	U
606-20-2	2,6-Dinitrotoluene	400	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3012

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C4348102

Sample wt/vol: 30.00 (g/mL) G Lab File ID: C4348

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 18 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2000	U
83-32-9	Acenaphthene	400	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
86-73-7	Fluorene	400	U
100-01-6	4-Nitroaniline	2000	U
534-52-1	4,6-Dinitro-2-Methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	400	U
120-12-7	Anthracene	400	U
86-74-8	Carbazole	400	U
84-74-2	Di-n-Butylphthalate	400	U
206-44-0	Fluoranthene	400	U
129-00-0	Pyrene	400	U
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	2000	U
56-55-3	Benzo(a)Anthracene	400	U
218-01-9	Chrysene	400	U
117-81-7	bis(2-Ethylhexyl)Phthalate	67	BJ
117-84-0	Di-n-Octyl Phthalate	400	U
205-99-2	Benzo(b)Fluoranthene	400	U
207-08-9	Benzo(k)Fluoranthene	400	U
50-32-8	Benzo(a)Pyrene	400	U
193-39-5	Indeno(1,2,3-cd)Pyrene	400	U
53-70-3	Dibenz(a,h)Anthracene	400	U
191-24-2	Benzo(g,h,i)Perylene	400	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3013

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434E102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C434E

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 22 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	UG/KG	Q
108-95-2	Phenol	420	U
111-44-4	bis(2-Chloroethyl)Ether	420	U
95-57-8	2-Chlorophenol	420	U
541-73-1	1,3-Dichlorobenzene	420	U
106-46-7	1,4-Dichlorobenzene	420	U
95-50-1	1,2-Dichlorobenzene	420	U
95-48-7	2-Methylphenol	420	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	420	U
106-44-5	4-Methylphenol	420	U
621-64-7	N-Nitroso-Di-n-Propylamine	420	U
67-72-1	Hexachloroethane	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2,4-Dimethylphenol	420	U
111-91-1	bis(2-Chloroethoxy)Methane	420	U
120-83-2	2,4-Dichlorophenol	420	U
120-82-1	1,2,4-Trichlorobenzene	420	U
91-20-3	Naphthalene	420	U
106-47-8	4-Chloroaniline	420	U
87-68-3	Hexachlorobutadiene	420	U
59-50-7	4-Chloro-3-Methylphenol	420	U
91-57-6	2-Methylnaphthalene	420	U
77-47-4	Hexachlorocyclopentadiene	2000	U
88-06-2	2,4,6-Trichlorophenol	420	U
95-95-4	2,4,5-Trichlorophenol	420	U
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethylphthalate	420	U
208-96-8	Acenaphthylene	420	U
606-20-2	2,6-Dinitrotoluene	420	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3013

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434E102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C434E

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 22 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: ____ Dilution Factor: ~~0.50~~ 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2000	U
83-32-9	Acenaphthene	420	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	420	U
121-14-2	2,4-Dinitrotoluene	420	U
84-66-2	Diethylphthalate	420	U
7005-72-3	4-Chlorophenyl-phenylether	420	U
86-73-7	Fluorene	420	U
100-01-6	4-Nitroaniline	2000	U
534-52-1	4,6-Dinitro-2-Methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	420	U
101-55-3	4-Bromophenyl-phenylether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	420	U
120-12-7	Anthracene	420	U
86-74-8	Carbazole	420	U
84-74-2	Di-n-Butylphthalate	420	U
206-44-0	Fluoranthene	67	J
129-00-0	Pyrene	52	J
85-68-7	Butylbenzylphthalate	420	U
91-94-1	3,3'-Dichlorobenzidine	2000	U
56-55-3	Benzo(a)Anthracene	420	U
218-01-9	Chrysene	420	U
117-81-7	bis(2-Ethylhexyl)Phthalate	63	BJ
117-84-0	Di-n-Octyl Phthalate	420	U
205-99-2	Benzo(b)Fluoranthene	420	U
207-08-9	Benzo(k)Fluoranthene	420	U
50-32-8	Benzo(a)Pyrene	420	U
193-39-5	Indeno(1,2,3-cd)Pyrene	420	U
53-70-3	Dibenz(a,h)Anthracene	420	U
191-24-2	Benzo(g,h,i)Perylene	420	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3014

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434G102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C434G

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 22 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
108-95-2	Phenol	420	U
111-44-4	bis(2-Chloroethyl)Ether	420	U
95-57-8	2-Chlorophenol	420	U
541-73-1	1,3-Dichlorobenzene	420	U
106-46-7	1,4-Dichlorobenzene	420	U
95-50-1	1,2-Dichlorobenzene	420	U
95-48-7	2-Methylphenol	420	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	420	U
106-44-5	4-Methylphenol	420	U
621-64-7	N-Nitroso-Di-n-Propylamine	420	U
67-72-1	Hexachloroethane	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2,4-Dimethylphenol	420	U
111-91-1	bis(2-Chloroethoxy)Methane	420	U
120-83-2	2,4-Dichlorophenol	420	U
120-82-1	1,2,4-Trichlorobenzene	420	U
91-20-3	Naphthalene	420	U
106-47-8	4-Chloroaniline	420	U
87-68-3	Hexachlorobutadiene	420	U
59-50-7	4-Chloro-3-Methylphenol	420	U
91-57-6	2-Methylnaphthalene	420	U
77-47-4	Hexachlorocyclopentadiene	2000	U
88-06-2	2,4,6-Trichlorophenol	420	U
95-95-4	2,4,5-Trichlorophenol	420	U
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethylphthalate	420	U
208-96-8	Acenaphthylene	420	U
606-20-2	2,6-Dinitrotoluene	420	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3014

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434G102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C434G

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 22 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	2000	U
83-32-9	Acenaphthene	420	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	420	U
121-14-2	2,4-Dinitrotoluene	420	U
84-66-2	Diethylphthalate	420	U
7005-72-3	4-Chlorophenyl-phenylether	420	U
86-73-7	Fluorene	420	U
100-01-6	4-Nitroaniline	2000	U
534-52-1	4,6-Dinitro-2-Methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	420	U
101-55-3	4-Bromophenyl-phenylether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	420	U
120-12-7	Anthracene	420	U
86-74-8	Carbazole	420	U
84-74-2	Di-n-Butylphthalate	420	U
206-44-0	Fluoranthene	420	U
129-00-0	Pyrene	420	U
85-68-7	Butylbenzylphthalate	420	U
91-94-1	3,3'-Dichlorobenzidine	2000	U
56-55-3	Benzo(a)Anthracene	420	U
218-01-9	Chrysene	420	U
117-81-7	bis(2-Ethylhexyl)Phthalate	71	BJ
117-84-0	Di-n-Octyl Phthalate	420	U
205-99-2	Benzo(b)Fluoranthene	420	U
207-08-9	Benzo(k)Fluoranthene	420	U
50-32-8	Benzo(a)Pyrene	420	U
193-39-5	Indeno(1,2,3-cd)Pyrene	420	U
53-70-3	Dibenz(a,h)Anthracene	420	U
191-24-2	Benzo(g,h,i)Perylene	420	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3015

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434J102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C434J

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 22 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	420	U
111-44-4	bis(2-Chloroethyl)Ether	420	U
95-57-8	2-Chlorophenol	420	U
541-73-1	1,3-Dichlorobenzene	420	U
106-46-7	1,4-Dichlorobenzene	420	U
95-50-1	1,2-Dichlorobenzene	420	U
95-48-7	2-Methylphenol	420	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	420	U
106-44-5	4-Methylphenol	420	U
621-64-7	N-Nitroso-Di-n-Propylamine	420	U
67-72-1	Hexachloroethane	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2,4-Dimethylphenol	420	U
111-91-1	bis(2-Chloroethoxy)Methane	420	U
120-83-2	2,4-Dichlorophenol	420	U
120-82-1	1,2,4-Trichlorobenzene	420	U
91-20-3	Naphthalene	420	U
106-47-8	4-Chloroaniline	420	U
87-68-3	Hexachlorobutadiene	420	U
59-50-7	4-Chloro-3-Methylphenol	420	U
91-57-6	2-Methylnaphthalene	420	U
77-47-4	Hexachlorocyclopentadiene	2000	U
88-06-2	2,4,6-Trichlorophenol	420	U
95-95-4	2,4,5-Trichlorophenol	420	U
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethylphthalate	420	U
208-96-8	Acenaphthylene	420	U
606-20-2	2,6-Dinitrotoluene	420	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3015

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434J102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C434J

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 22 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2000	U
83-32-9	Acenaphthene	420	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	420	U
121-14-2	2,4-Dinitrotoluene	420	U
84-66-2	Diethylphthalate	420	U
7005-72-3	4-Chlorophenyl-phenylether	420	U
86-73-7	Fluorene	420	U
100-01-6	4-Nitroaniline	2000	U
534-52-1	4,6-Dinitro-2-Methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	420	U
101-55-3	4-Bromophenyl-phenylether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	57	J
120-12-7	Anthracene	420	U
86-74-8	Carbazole	420	U
84-74-2	Di-n-Butylphthalate	420	U
206-44-0	Fluoranthene	100	J
129-00-0	Pyrene	82	J
85-68-7	Butylbenzylphthalate	420	U
91-94-1	3,3'-Dichlorobenzidine	2000	U
56-55-3	Benzo(a)Anthracene	420	U
218-01-9	Chrysene	57	J
117-81-7	bis(2-Ethylhexyl)Phthalate	55	BJ
117-84-0	Di-n-Octyl Phthalate	420	U
205-99-2	Benzo(b)Fluoranthene	50	J
207-08-9	Benzo(k)Fluoranthene	56	J
50-32-8	Benzo(a)Pyrene	51	J
193-39-5	Indeno(1,2,3-cd)Pyrene	420	U
53-70-3	Dibenz(a,h)Anthracene	420	U
191-24-2	Benzo(g,h,i)Perylene	420	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3016

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434L102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C434L

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 24 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	430	U
111-44-4	bis(2-Chloroethyl)Ether	430	U
95-57-8	2-Chlorophenol	430	U
541-73-1	1,3-Dichlorobenzene	430	U
106-46-7	1,4-Dichlorobenzene	430	U
95-50-1	1,2-Dichlorobenzene	430	U
95-48-7	2-Methylphenol	430	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	430	U
106-44-5	4-Methylphenol	430	U
621-64-7	N-Nitroso-Di-n-Propylamine	430	U
67-72-1	Hexachloroethane	430	U
98-95-3	Nitrobenzene	430	U
78-59-1	Isophorone	430	U
88-75-5	2-Nitrophenol	430	U
105-67-9	2,4-Dimethylphenol	430	U
111-91-1	bis(2-Chloroethoxy)Methane	430	U
120-83-2	2,4-Dichlorophenol	430	U
120-82-1	1,2,4-Trichlorobenzene	430	U
91-20-3	Naphthalene	430	U
106-47-8	4-Chloroaniline	430	U
87-68-3	Hexachlorobutadiene	430	U
59-50-7	4-Chloro-3-Methylphenol	430	U
91-57-6	2-Methylnaphthalene	430	U
77-47-4	Hexachlorocyclopentadiene	2100	U
88-06-2	2,4,6-Trichlorophenol	430	U
95-95-4	2,4,5-Trichlorophenol	430	U
91-58-7	2-Chloronaphthalene	430	U
88-74-4	2-Nitroaniline	2100	U
131-11-3	Dimethylphthalate	430	U
208-96-8	Acenaphthylene	430	U
606-20-2	2,6-Dinitrotoluene	430	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3016

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434L102

Sample wt/vol: 30.20 (g/mL) G Lab File ID: C434L

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 24 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	UG/KG	Q
99-09-2	3-Nitroaniline	2100	U
83-32-9	Acenaphthene	430	U
51-28-5	2,4-Dinitrophenol	2100	U
100-02-7	4-Nitrophenol	2100	U
132-64-9	Dibenzofuran	430	U
121-14-2	2,4-Dinitrotoluene	430	U
84-66-2	Diethylphthalate	430	U
7005-72-3	4-Chlorophenyl-phenylether	430	U
86-73-7	Fluorene	430	U
100-01-6	4-Nitroaniline	2100	U
534-52-1	4,6-Dinitro-2-Methylphenol	2100	U
86-30-6	N-Nitrosodiphenylamine (1)	430	U
101-55-3	4-Bromophenyl-phenylether	430	U
118-74-1	Hexachlorobenzene	430	U
87-86-5	Pentachlorophenol	2100	U
85-01-8	Phenanthrene	430	U
120-12-7	Anthracene	430	U
86-74-8	Carbazole	430	U
84-74-2	Di-n-Butylphthalate	430	U
206-44-0	Fluoranthene	430	U
129-00-0	Pyrene	430	U
85-68-7	Butylbenzylphthalate	430	U
91-94-1	3,3'-Dichlorobenzidine	2100	U
56-55-3	Benzo(a)Anthracene	430	U
218-01-9	Chrysene	430	U
117-81-7	bis(2-Ethylhexyl)Phthalate	92	BJ
117-84-0	Di-n-Octyl Phthalate	430	U
205-99-2	Benzo(b)Fluoranthene	430	U
207-08-9	Benzo(k)Fluoranthene	430	U
50-32-8	Benzo(a)Pyrene	430	U
193-39-5	Indeno(1,2,3-cd)Pyrene	430	U
53-70-3	Dibenz(a,h)Anthracene	430	U
191-24-2	Benzo(g,h,i)Perylene	430	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3017

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434N102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C434N

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 29 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
108-95-2	Phenol	460	U
111-44-4	bis(2-Chloroethyl)Ether	460	U
95-57-8	2-Chlorophenol	460	U
541-73-1	1,3-Dichlorobenzene	460	U
106-46-7	1,4-Dichlorobenzene	460	U
95-50-1	1,2-Dichlorobenzene	460	U
95-48-7	2-Methylphenol	460	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	460	U
106-44-5	4-Methylphenol	460	U
621-64-7	N-Nitroso-Di-n-Propylamine	460	U
67-72-1	Hexachloroethane	460	U
98-95-3	Nitrobenzene	460	U
78-59-1	Isophorone	460	U
88-75-5	2-Nitrophenol	460	U
105-67-9	2,4-Dimethylphenol	460	U
111-91-1	bis(2-Chloroethoxy)Methane	460	U
120-83-2	2,4-Dichlorophenol	460	U
120-82-1	1,2,4-Trichlorobenzene	460	U
91-20-3	Naphthalene	460	U
106-47-8	4-Chloroaniline	460	U
87-68-3	Hexachlorobutadiene	460	U
59-50-7	4-Chloro-3-Methylphenol	460	U
91-57-6	2-Methylnaphthalene	460	U
77-47-4	Hexachlorocyclopentadiene	2200	U
88-06-2	2,4,6-Trichlorophenol	460	U
95-95-4	2,4,5-Trichlorophenol	460	U
91-58-7	2-Chloronaphthalene	460	U
88-74-4	2-Nitroaniline	2200	U
131-11-3	Dimethylphthalate	460	U
208-96-8	Acenaphthylene	460	U
606-20-2	2,6-Dinitrotoluene	460	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3017

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434N102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C434N

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 29 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	2200	U
83-32-9	Acenaphthene	460	U
51-28-5	2,4-Dinitrophenol	2200	U
100-02-7	4-Nitrophenol	2200	U
132-64-9	Dibenzofuran	460	U
121-14-2	2,4-Dinitrotoluene	460	U
84-66-2	Diethylphthalate	460	U
7005-72-3	4-Chlorophenyl-phenylether	460	U
86-73-7	Fluorene	460	U
100-01-6	4-Nitroaniline	2200	U
534-52-1	4,6-Dinitro-2-Methylphenol	2200	U
86-30-6	N-Nitrosodiphenylamine (1)	460	U
101-55-3	4-Bromophenyl-phenylether	460	U
118-74-1	Hexachlorobenzene	460	U
87-86-5	Pentachlorophenol	2200	U
85-01-8	Phenanthrene	460	U
120-12-7	Anthracene	460	U
86-74-8	Carbazole	460	U
84-74-2	Di-n-Butylphthalate	460	U
206-44-0	Fluoranthene	68	J
129-00-0	Pyrene	52	J
85-68-7	Butylbenzylphthalate	460	U
91-94-1	3,3'-Dichlorobenzidine	2200	U
56-55-3	Benzo(a)Anthracene	460	U
218-01-9	Chrysene	460	U
117-81-7	bis(2-Ethylhexyl)Phthalate	79	BJ
117-84-0	Di-n-Octyl Phthalate	460	U
205-99-2	Benzo(b)Fluoranthene	460	U
207-08-9	Benzo(k)Fluoranthene	460	U
50-32-8	Benzo(a)Pyrene	460	U
193-39-5	Indeno(1,2,3-cd)Pyrene	460	U
53-70-3	Dibenz(a,h)Anthracene	460	U
191-24-2	Benzo(g,h,i)Perylene	460	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3018

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434P102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C434P

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 20 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	UG/KG	Q
108-95-2	Phenol	410	U
111-44-4	bis(2-Chloroethyl)Ether	410	U
95-57-8	2-Chlorophenol	410	U
541-73-1	1,3-Dichlorobenzene	410	U
106-46-7	1,4-Dichlorobenzene	410	U
95-50-1	1,2-Dichlorobenzene	410	U
95-48-7	2-Methylphenol	410	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	410	U
106-44-5	4-Methylphenol	410	U
621-64-7	N-Nitroso-Di-n-Propylamine	410	U
67-72-1	Hexachloroethane	410	U
98-95-3	Nitrobenzene	410	U
78-59-1	Isophorone	410	U
88-75-5	2-Nitrophenol	410	U
105-67-9	2,4-Dimethylphenol	410	U
111-91-1	bis(2-Chloroethoxy)Methane	410	U
120-83-2	2,4-Dichlorophenol	410	U
120-82-1	1,2,4-Trichlorobenzene	410	U
91-20-3	Naphthalene	410	U
106-47-8	4-Chloroaniline	410	U
87-68-3	Hexachlorobutadiene	410	U
59-50-7	4-Chloro-3-Methylphenol	410	U
91-57-6	2-Methylnaphthalene	410	U
77-47-4	Hexachlorocyclopentadiene	2000	U
88-06-2	2,4,6-Trichlorophenol	410	U
95-95-4	2,4,5-Trichlorophenol	410	U
91-58-7	2-Chloronaphthalene	410	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethylphthalate	410	U
208-96-8	Acenaphthylene	410	U
606-20-2	2,6-Dinitrotoluene	410	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3018

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434P102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C434P

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 20 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	UG/KG	Q
99-09-2	3-Nitroaniline	2000	U
83-32-9	Acenaphthene	410	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	410	U
84-66-2	Diethylphthalate	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
86-73-7	Fluorene	410	U
100-01-6	4-Nitroaniline	2000	U
534-52-1	4,6-Dinitro-2-Methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	410	U
120-12-7	Anthracene	410	U
86-74-8	Carbazole	410	U
84-74-2	Di-n-Butylphthalate	410	U
206-44-0	Fluoranthene	410	U
129-00-0	Pyrene	410	U
85-68-7	Butylbenzylphthalate	410	U
91-94-1	3,3'-Dichlorobenzidine	2000	U
56-55-3	Benzo(a)Anthracene	410	U
218-01-9	Chrysene	410	U
117-81-7	bis(2-Ethylhexyl)Phthalate	71	BJ
117-84-0	Di-n-Octyl Phthalate	410	U
205-99-2	Benzo(b)Fluoranthene	410	U
207-08-9	Benzo(k)Fluoranthene	410	U
50-32-8	Benzo(a)Pyrene	410	U
193-39-5	Indeno(1,2,3-cd)Pyrene	410	U
53-70-3	Dibenz(a,h)Anthracene	410	U
191-24-2	Benzo(g,h,i)Perylene	410	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3019

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434R102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C434R

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 17 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	92	J
111-44-4	bis(2-Chloroethyl)Ether	400	U
95-57-8	2-Chlorophenol	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
95-50-1	1,2-Dichlorobenzene	400	U
95-48-7	2-Methylphenol	400	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	400	U
106-44-5	4-Methylphenol	400	U
621-64-7	N-Nitroso-Di-n-Propylamine	400	U
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
111-91-1	bis(2-Chloroethoxy)Methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-Methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	1900	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	400	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	400	U
208-96-8	Acenaphthylene	100	J
606-20-2	2,6-Dinitrotoluene	400	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3019

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434R102

Sample wt/vol: 30.10 (g/mL) G Lab File ID: C434R

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 17 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	400	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
86-73-7	Fluorene	400	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-Methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	150	J
120-12-7	Anthracene	58	J
86-74-8	Carbazole	58	J
84-74-2	Di-n-Butylphthalate	400	U
206-44-0	Fluoranthene	340	J
129-00-0	Pyrene	260	J
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	1900	U
56-55-3	Benzo(a)Anthracene	140	J
218-01-9	Chrysene	200	J
117-81-7	bis(2-Ethylhexyl)Phthalate	100	BJ
117-84-0	Di-n-Octyl Phthalate	400	U
205-99-2	Benzo(b)Fluoranthene	150	J
207-08-9	Benzo(k)Fluoranthene	210	J
50-32-8	Benzo(a)Pyrene	160	J
193-39-5	Indeno(1,2,3-cd)Pyrene	110	J
53-70-3	Dibenz(a,h)Anthracene	55	J
191-24-2	Benzo(g,h,i)Perylene	120	J

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3020

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434T102

Sample wt/vol: 30.00 (g/mL) G Lab File ID: C434T

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 20 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
108-95-2	Phenol	410	U
111-44-4	bis(2-Chloroethyl)Ether	410	U
95-57-8	2-Chlorophenol	410	U
541-73-1	1,3-Dichlorobenzene	410	U
106-46-7	1,4-Dichlorobenzene	410	U
95-50-1	1,2-Dichlorobenzene	410	U
95-48-7	2-Methylphenol	410	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	410	U
106-44-5	4-Methylphenol	410	U
621-64-7	N-Nitroso-Di-n-Propylamine	410	U
67-72-1	Hexachloroethane	410	U
98-95-3	Nitrobenzene	410	U
78-59-1	Isophorone	410	U
88-75-5	2-Nitrophenol	410	U
105-67-9	2,4-Dimethylphenol	410	U
111-91-1	bis(2-Chloroethoxy)Methane	410	U
120-83-2	2,4-Dichlorophenol	410	U
120-82-1	1,2,4-Trichlorobenzene	410	U
91-20-3	Naphthalene	410	U
106-47-8	4-Chloroaniline	410	U
87-68-3	Hexachlorobutadiene	410	U
59-50-7	4-Chloro-3-Methylphenol	410	U
91-57-6	2-Methylnaphthalene	410	U
77-47-4	Hexachlorocyclopentadiene	2000	U
88-06-2	2,4,6-Trichlorophenol	410	U
95-95-4	2,4,5-Trichlorophenol	410	U
91-58-7	2-Chloronaphthalene	410	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethylphthalate	410	U
208-96-8	Acenaphthylene	410	U
606-20-2	2,6-Dinitrotoluene	410	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3020

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C434T102

Sample wt/vol: 30.00 (g/mL) G Lab File ID: C434T

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 20 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/02/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2000	U
83-32-9	Acenaphthene	410	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	410	U
84-66-2	Diethylphthalate	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
86-73-7	Fluorene	410	U
100-01-6	4-Nitroaniline	2000	U
534-52-1	4,6-Dinitro-2-Methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	410	U
120-12-7	Anthracene	410	U
86-74-8	Carbazole	410	U
84-74-2	Di-n-Butylphthalate	410	U
206-44-0	Fluoranthene	410	U
129-00-0	Pyrene	410	U
85-68-7	Butylbenzylphthalate	49	J
91-94-1	3,3'-Dichlorobenzidine	2000	U
56-55-3	Benzo(a)Anthracene	410	U
218-01-9	Chrysene	410	U
117-81-7	bis(2-Ethylhexyl)Phthalate	74	BJ
117-84-0	Di-n-Octyl Phthalate	410	U
205-99-2	Benzo(b)Fluoranthene	410	U
207-08-9	Benzo(k)Fluoranthene	410	U
50-32-8	Benzo(a)Pyrene	410	U
193-39-5	Indeno(1,2,3-cd)Pyrene	410	U
53-70-3	Dibenz(a,h)Anthracene	410	U
191-24-2	Benzo(g,h,i)Perylene	410	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3004MS

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C432W105

Sample wt/vol: 30.00 (g/mL) G Lab File ID: C432WS

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 22 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

Q calculated

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	2300	
111-44-4	bis(2-Chloroethyl)Ether	420	U
95-57-8	2-Chlorophenol	2700	
541-73-1	1,3-Dichlorobenzene	420	U
106-46-7	1,4-Dichlorobenzene	1400	
95-50-1	1,2-Dichlorobenzene	420	U
95-48-7	2-Methylphenol	420	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	420	U
106-44-5	4-Methylphenol	420	U
621-64-7	N-Nitroso-Di-n-Propylamine	1500	
67-72-1	Hexachloroethane	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2,4-Dimethylphenol	420	U
111-91-1	bis(2-Chloroethoxy)Methane	420	U
120-83-2	2,4-Dichlorophenol	420	U
120-82-1	1,2,4-Trichlorobenzene	1500	
91-20-3	Naphthalene	420	U
106-47-8	4-Chloroaniline	420	U
87-68-3	Hexachlorobutadiene	420	U
59-50-7	4-Chloro-3-Methylphenol	2400	
91-57-6	2-Methylnaphthalene	420	U
77-47-4	Hexachlorocyclopentadiene	2100	U
88-06-2	2,4,6-Trichlorophenol	420	U
95-95-4	2,4,5-Trichlorophenol	420	U
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	2100	U
131-11-3	Dimethylphthalate	420	U
208-96-8	Acenaphthylene	420	U
606-20-2	2,6-Dinitrotoluene	420	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3004MS

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C432W105

Sample wt/vol: 30.00 (g/mL) G Lab File ID: C432WS

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 22 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: ____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	2100	U
83-32-9	Acenaphthene	1600	
51-28-5	2,4-Dinitrophenol	2100	U
100-02-7	4-Nitrophenol	2000	J
132-64-9	Dibenzofuran	420	U
121-14-2	2,4-Dinitrotoluene	1600	
84-66-2	Diethylphthalate	420	U
7005-72-3	4-Chlorophenyl-phenylether	420	U
86-73-7	Fluorene	420	U
100-01-6	4-Nitroaniline	2100	U
534-52-1	4,6-Dinitro-2-Methylphenol	2100	U
86-30-6	N-Nitrosodiphenylamine (1)	420	U
101-55-3	4-Bromophenyl-phenylether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	3300	
85-01-8	Phenanthrene	420	U
120-12-7	Anthracene	420	U
86-74-8	Carbazole	420	U
84-74-2	Di-n-Butylphthalate	420	U
206-44-0	Fluoranthene	420	U
129-00-0	Pyrene	1600	
85-68-7	Butylbenzylphthalate	420	U
91-94-1	3,3'-Dichlorobenzidine	2100	U
56-55-3	Benzo(a)Anthracene	420	U
218-01-9	Chrysene	420	U
117-81-7	bis(2-Ethylhexyl)Phthalate	45	BJ
117-84-0	Di-n-Octyl Phthalate	420	U
205-99-2	Benzo(b)Fluoranthene	420	U
207-08-9	Benzo(k)Fluoranthene	420	U
50-32-8	Benzo(a)Pyrene	420	U
193-39-5	Indeno(1,2,3-cd)Pyrene	420	U
53-70-3	Dibenz(a,h)Anthracene	420	U
191-24-2	Benzo(g,h,i)Perylene	420	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3004MSD

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C432W106

Sample wt/vol: 30.00 (g/mL) G Lab File ID: C432WD

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 22 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q qualifier
108-95-2	Phenol	2300	
111-44-4	bis(2-Chloroethyl)Ether	420	U
95-57-8	2-Chlorophenol	2500	
541-73-1	1,3-Dichlorobenzene	420	U
106-46-7	1,4-Dichlorobenzene	1400	
95-50-1	1,2-Dichlorobenzene	420	U
95-48-7	2-Methylphenol	420	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	420	U
106-44-5	4-Methylphenol	420	U
621-64-7	N-Nitroso-Di-n-Propylamine	1400	
67-72-1	Hexachloroethane	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2,4-Dimethylphenol	420	U
111-91-1	bis(2-Chloroethoxy)Methane	420	U
120-83-2	2,4-Dichlorophenol	420	U
120-82-1	1,2,4-Trichlorobenzene	1500	
91-20-3	Naphthalene	420	U
106-47-8	4-Chloroaniline	420	U
87-68-3	Hexachlorobutadiene	420	U
59-50-7	4-Chloro-3-Methylphenol	2300	
91-57-6	2-Methylnaphthalene	420	U
77-47-4	Hexachlorocyclopentadiene	2100	U
88-06-2	2,4,6-Trichlorophenol	420	U
95-95-4	2,4,5-Trichlorophenol	420	U
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	2100	U
131-11-3	Dimethylphthalate	420	U
208-96-8	Acenaphthylene	420	U
606-20-2	2,6-Dinitrotoluene	420	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3004MSD

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: C432W106

Sample wt/vol: 30.00 (g/mL) G Lab File ID: C432WD

Level: (low/med) LOW Date Received: 05/17/96

% Moisture: not dec. 22 dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 05/30/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2100	U
83-32-9	Acenaphthene	1500	
51-28-5	2,4-Dinitrophenol	2100	U
100-02-7	4-Nitrophenol	1900	J
132-64-9	Dibenzofuran	420	U
121-14-2	2,4-Dinitrotoluene	1500	
84-66-2	Diethylphthalate	420	U
7005-72-3	4-Chlorophenyl-phenylether	420	U
86-73-7	Fluorene	420	U
100-01-6	4-Nitroaniline	2100	U
534-52-1	4,6-Dinitro-2-Methylphenol	2100	U
86-30-6	N-Nitrosodiphenylamine (1)	420	U
101-55-3	4-Bromophenyl-phenylether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	2900	
85-01-8	Phenanthrene	420	U
120-12-7	Anthracene	420	U
86-74-8	Carbazole	420	U
84-74-2	Di-n-Butylphthalate	420	U
206-44-0	Fluoranthene	420	U
129-00-0	Pyrene	1600	
85-68-7	Butylbenzylphthalate	420	U
91-94-1	3,3'-Dichlorobenzidine	2100	U
56-55-3	Benzo(a)Anthracene	420	U
218-01-9	Chrysene	420	U
117-81-7	bis(2-Ethylhexyl)Phthalate	69	BJ
117-84-0	Di-n-Octyl Phthalate	420	U
205-99-2	Benzo(b)Fluoranthene	420	U
207-08-9	Benzo(k)Fluoranthene	420	U
50-32-8	Benzo(a)Pyrene	420	U
193-39-5	Indeno(1,2,3-cd)Pyrene	420	U
53-70-3	Dibenz(a,h)Anthracene	420	U
191-24-2	Benzo(g,h,i)Perylene	420	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SLCSCG44ACB

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: CG44A102

Sample wt/vol: 30.00 (g/mL) G Lab File ID: CG44ACR

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. ____ dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/04/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1800	
111-44-4	bis(2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	2000	
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	1300	
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-Di-n-Propylamine	1200	
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	bis(2-Chloroethoxy)Methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	1500	
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	2100	
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	1600	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	330	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SLCSCG44ACB

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: CG44A102

Sample wt/vol: 30.00 (g/mL) G Lab File ID: CG44ACR

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. ____ dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/04/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1600	U
83-32-9	Acenaphthene	1400	
51-28-5	2,4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	2200	
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	1500	
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	1600	U
534-52-1	4,6-Dinitro-2-Methylphenol	1600	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	2500	
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	1400	
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	1600	U
56-55-3	Benzo(a)Anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	36	BJ
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	330	U
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	330	U
193-39-5	Indeno(1,2,3-cd)Pyrene	330	U
53-70-3	Dibenz(a,h)Anthracene	330	U
191-24-2	Benzo(g,h,i)Perylene	330	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKCG44ABB

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: CG44A101

Sample wt/vol: 30.00 (g/mL) G Lab File ID: CG44ABR

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. ____ dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/04/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-Oxybis(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-Di-n-Propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	bis(2-Chloroethoxy)Methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	1600	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	330	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKCG44ABB

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: (soil/water) SOIL Lab Sample ID: CG44A101

Sample wt/vol: 30.00 (g/mL) G Lab File ID: CG44ABR

Level: (low/med) LOW Date Received: 05/16/96

% Moisture: not dec. ____ dec. ____ Date Extracted: 05/21/96

Extraction: (SepF/Cont/Sonc) ____ Date Analyzed: 06/04/96

GPC Cleanup: (Y/N) Y pH: _____ Dilution Factor: ~~0.50~~ 1.00

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

CAS NO.	COMPOUND	UG/KG	Q
99-09-2	3-Nitroaniline	1600	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	1600	U
534-52-1	4,6-Dinitro-2-Methylphenol	1600	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	1600	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-Butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	1600	U
56-55-3	Benzo(a)Anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	38	J
117-84-0	Di-n-Octyl Phthalate	330	U
205-99-2	Benzo(b)Fluoranthene	330	U
207-08-9	Benzo(k)Fluoranthene	330	U
50-32-8	Benzo(a)Pyrene	330	U
193-39-5	Indeno(1,2,3-cd)Pyrene	330	U
53-70-3	Dibenz(a,h)Anthracene	330	U
191-24-2	Benzo(g,h,i)Perylene	330	U

(1) - Cannot be separated from Diphenylamine

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
01	3001	90	89	111	92	94	101	0	0
02	3002	74	74	90	76	82	92	0	0
03	3003	80	81	98	83	88	101	0	0
04	3004	75	76	101	80	84	93	0	0
05	3005	76	77	95	80	84	86	0	0
06	3009	71	72	90	72	78	83	0	0
07	3010	83	82	114	92	95	111	0	0
08	3011	61	62	91	66	68	85	0	0
09	3012	61	60	75	65	69	71	0	0
10	3013	71	72	93	76	80	92	0	0
11	3014	53	52	62	60	62	58	0	0
12	3015	68	64	74	85	87	75	0	0
13	3016	68	71	85	74	78	79	0	0
14	3017	77	76	99	80	84	96	0	0
15	3018	75	75	88	80	83	82	0	0
16	3019	55	54	102	57	58	96	0	0
17	3020	77	75	95	78	80	87	0	0
18	SLCSCG44ACB	83	86	102	82	86	117	0	0
19	3004MS	73	74	88	79	82	84	0	0
20	3004MSD	70	71	87	75	79	82	0	0
21	SBLKCG44ABB	81	86	108	78	83	116	0	0

		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(23-120)
S2 (FBP)	= 2-Fluorobiphenyl	(30-115)
S3 (TPH)	= Terphenyl	(18-137)
S4 (PHL)	= Phenol-d5	(24-113)
S5 (2FP)	= 2-Fluorophenol	(25-121)
S6 (TBP)	= 2,4,6-Tribromophenol	(19-122)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix Spike - EPA Sample No.: 3004 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
Phenol	3200	0	2330	73	37-115
2-Chlorophenol	3200	0	2690	84	37-113
1,4-Dichlorobenzene	2140	0	1430	67	29 101
N-Nitroso-di-n-prop.(1)	2140	0	1470	69	26 104
1,2,4-Trichlorobenzene	2140	0	1540	72	28 112
4-Chloro-3-methylphenol	3200	0	2440	76	42 116
Acenaphthene	2140	0	1560	73	38-106
4-Nitrophenol	3200	0	2000	62	22-122
2,4-Dinitrotoluene	2140	0	1560	73	37-117
Pentachlorophenol	3200	0	3280	102	19-129
Pyrene	2140	0	1620	76	36-128

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	3200	2260	71	3	35	37-115
2-Chlorophenol	3200	2450	77	9	50	37-113
1,4-Dichlorobenzene	2140	1370	64	5	27	29 101
N-Nitroso-di-n-prop.(1)	2140	1440	67	3	38	26 104
1,2,4-Trichlorobenzene	2140	1470	69	4	23	28 112
4-Chloro-3-methylphenol	3200	2280	71	7	33	42 116
Acenaphthene	2140	1480	69	6	19	38-106
4-Nitrophenol	3200	1900	59	5	50	22-122
2,4-Dinitrotoluene	2140	1520	71	3	47	37-117
Pentachlorophenol	3200	2880	90	12	47	19-129
Pyrene	2140	1590	74	3	36	36-128

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

COMMENTS: CLP,EG141,,3004,L,S,C432W102,BNA,EPA,
INST:4500 RESTEK XTI-5 30M/.32UMID 40-325@12DEG/M 2UL INJ

3D
SOIL SEMIVOLATILE LCS RECOVERY

Lab Name: QES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix Spike - EPA Sample No.: SBLKCG44A101 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
Phenol	2500	0	1790	72	37-115
2-Chlorophenol	2500	0	2000	80	37-113
1,4-Dichlorobenzene	1670	0	1330	80	29-101
N-Nitroso-di-n-prop.(1)	1670	0	1160	69	26-104
1,2,4-Trichlorobenzene	1670	0	1460	87	28-112
4-Chloro-3-methylphenol	2500	0	2060	82	42-116
Acenaphthene	1670	0	1390	83	38-106
4-Nitrophenol	2500	0	2240	90	22-122
2,4-Dinitrotoluene	1670	0	1470	88	37-117
Pentachlorophenol	2500	0	2460	98	19-129
Pyrene	1670	0	1400	84	36-128

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 11 outside limits
Spike Recovery: 0 out of 11 outside limits

COMMENTS: CLP,EG141,,SBLKCG44ABB,L,S,CG44A101,BNA,BLANK,
INST:4500 RESTEK XTI-5 30M/.32UMID 40-325@12DEG/M 2UL INJ

4B
SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: OES-KNOXVILLE Contract: _____

Lab Code: ITSTU Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Lab File ID: CG44ABR Lab Sample ID: CG44A101

Date Extracted: 05/21/96 Extraction:(SepF/Cont/Sonc) ____

Date Analyzed: 06/04/96 Time Analyzed: 1813

Matrix: (soil/water) SOIL Level:(low/med) LOW

Instrument ID: 4500

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	3001	C431J102	C431JR	06/02/96
02	3002	C432F102	C432F	05/30/96
03	3003	C432M102	C432M	05/30/96
04	3004	C432W102	C432W	05/30/96
05	3005	C4334102	C4334	05/30/96
06	3009	C433C102	C433C	05/30/96
07	3010	C433N102	C433N	05/30/96
08	3011	C4341102	C4341	05/30/96
09	3012	C4348102	C4348	05/30/96
10	3013	C434E102	C434E	05/30/96
11	3014	C434G102	C434G	05/30/96
12	3015	C434J102	C434J	05/30/96
13	3016	C434L102	C434L	05/30/96
14	3017	C434N102	C434N	05/30/96
15	3018	C434P102	C434P	05/30/96
16	3019	C434R102	C434R	06/02/96
17	3020	C434T102	C434T	06/02/96
18	SLCSCG44ACB	CG44A102	CG44ACR	06/04/96
19	3004MS	C432W105	C432WS	05/30/96
20	3004MSD	C432W106	C432WD	05/30/96

COMMENTS: CLP,EG141,,SBLKCG44ABB,L,S,CG44A101,BNA,BLANK,
INST:4500 RESTEK XTI-5 30M/.32UMID 40-325@12DEG/M 2UL INJ

METALS

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___

Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.:PBG801

SOW No.: ILM02

EPA Sample No.	Lab Sample ID
3001	C431J
3002	C432F
3003	C432M
3004	C432W
3004SD	C432WSD
3004S	C432WS
3005	C4334
3009	C433C
3010	C433N
3011	C4341
3012	C4348
3013	C434E
3014	C434G
3015	C434J
3016	C434L
3017	C434N
3018	C434P
3019	C434R
3020	C434T

Were ICP interelement corrections applied ? Yes/No YES

Were ICP background corrections applied ? Yes/No YES

If yes - were raw data generated before application of background corrections ? Yes/No NO_

Comments:

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 on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Christopher Kauker Name: Christopher Kauker

Date: June 3, 1996 Title: Group Supervisor

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3001

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___
Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801
Matrix (soil/water): SOIL_ Lab Sample ID: C431J
Level (low/med): LOW__ Date Received: 05/16/96
% Solids: _77.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6570			P
7440-36-0	Antimony	7.7	U	N	P
7440-38-2	Arsenic	4.6		N	P
7440-39-3	Barium	65.7		N	P
7440-41-7	Beryllium	0.64	U		P
7440-43-9	Cadmium	0.64	U		P
7440-70-2	Calcium	6380			P
7440-47-3	Chromium	7.2			P
7440-48-4	Cobalt	12.5			P
7440-50-8	Copper	10.6			P
7439-89-6	Iron	33500		*	P
7439-92-1	Lead	12.3		N	P
7439-95-4	Magnesium	2510			P
7439-96-5	Manganese	1910		*	P
7439-97-6	Mercury	0.04	U		CV
7440-02-0	Nickel	10.5			P
7440-09-7	Potassium	644	U		P
7782-49-2	Selenium	0.64	U	N	P
7440-22-4	Silver	1.3	U	N	P
7440-23-5	Sodium	644	U		P
7440-28-0	Thallium	1.3	U	N	P
7440-62-2	Vanadium	10.8			P
7440-66-6	Zinc	67.7		N	P

Color Before: BROWN____ Clarity Before: N/A___ Texture: MEDIUM
Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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EPA SAMPLE NO.

3002

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___
Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801
Matrix (soil/water): SOIL_ Lab Sample ID: C432F
Level (low/med): LOW__ Date Received: 05/16/96
% Solids: _80.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6110			P
7440-36-0	Antimony	7.5	U	N	P
7440-38-2	Arsenic	3.7		N	P
7440-39-3	Barium	50.0		N	P
7440-41-7	Beryllium	0.62	U		P
7440-43-9	Cadmium	0.62	U		P
7440-70-2	Calcium	10700			P
7440-47-3	Chromium	7.3			P
7440-48-4	Cobalt	12.7			P
7440-50-8	Copper	7.2			P
7439-89-6	Iron	38100		*	P
7439-92-1	Lead	9.8		N	P
7439-95-4	Magnesium	4750			P
7439-96-5	Manganese	2050		*	P
7439-97-6	Mercury	0.04	U		CV
7440-02-0	Nickel	9.8			P
7440-09-7	Potassium	625	U		P
7782-49-2	Selenium	0.62	U	N	P
7440-22-4	Silver	1.2	U	N	P
7440-23-5	Sodium	625	U		P
7440-28-0	Thallium	1.2	U	N	P
7440-62-2	Vanadium	11.0			P
7440-66-6	Zinc	58.1		N	P

Color Before: BROWN____ Clarity Before: N/A___ Texture: MEDIUM
Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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EPA SAMPLE NO.

3003

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___
Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801
Matrix (soil/water): SOIL_ Lab Sample ID: C432M
Level (low/med): LOW__ Date Received: 05/16/96
% Solids: _72.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9110			P
7440-36-0	Antimony	8.3	U	N	P
7440-38-2	Arsenic	6.0		N	P
7440-39-3	Barium	99.5		N	P
7440-41-7	Beryllium	1.0			P
7440-43-9	Cadmium	0.69	U		P
7440-70-2	Calcium	5890			P
7440-47-3	Chromium	11.2			P
7440-48-4	Cobalt	13.7			P
7440-50-8	Copper	16.5			P
7439-89-6	Iron	35800		*	P
7439-92-1	Lead	16.6		N	P
7439-95-4	Magnesium	1530			P
7439-96-5	Manganese	1500		*	P
7439-97-6	Mercury	0.05			CV
7440-02-0	Nickel	22.1			P
7440-09-7	Potassium	740			P
7782-49-2	Selenium	0.74		N	P
7440-22-4	Silver	1.4	U	N	P
7440-23-5	Sodium	690	U		P
7440-28-0	Thallium	2.0		N	P
7440-62-2	Vanadium	14.8			P
7440-66-6	Zinc	114		N	P

Color Before: BROWN____ Clarity Before: N/A___ Texture: MEDIUM
Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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EPA SAMPLE NO.

3004

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___
Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801
Matrix (soil/water): SOIL_ Lab Sample ID: C432W
Level (low/med): LOW__ Date Received: 05/16/96
% Solids: _77.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7590			P
7440-36-0	Antimony	7.7	U	N	P
7440-38-2	Arsenic	8.0		N	P
7440-39-3	Barium	175		N	P
7440-41-7	Beryllium	1.3			P
7440-43-9	Cadmium	0.64	U		P
7440-70-2	Calcium	4020			P
7440-47-3	Chromium	9.6			P
7440-48-4	Cobalt	18.3			P
7440-50-8	Copper	13.5			P
7439-89-6	Iron	76300		*	P
7439-92-1	Lead	15.4		N	P
7439-95-4	Magnesium	1530			P
7439-96-5	Manganese	2790		*	P
7439-97-6	Mercury	0.05			CV
7440-02-0	Nickel	19.4			P
7440-09-7	Potassium	644	U		P
7782-49-2	Selenium	0.64	U	N	P
7440-22-4	Silver	1.3	U	N	P
7440-23-5	Sodium	644	U		P
7440-28-0	Thallium	1.5		N	P
7440-62-2	Vanadium	12.5			P
7440-66-6	Zinc	141		N	P

Color Before: BROWN____ Clarity Before: N/A___ Texture: MEDIUM
Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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EPA SAMPLE NO.

3005

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___
Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801
Matrix (soil/water): SOIL_ Lab Sample ID: C4334
Level (low/med): LOW__ Date Received: 05/16/96
% Solids: _75.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8810			P
7440-36-0	Antimony	8.0	U	N	P
7440-38-2	Arsenic	8.6		N	P
7440-39-3	Barium	33.7		N	P
7440-41-7	Beryllium	1.2			P
7440-43-9	Cadmium	0.66	U		P
7440-70-2	Calcium	3640			P
7440-47-3	Chromium	10.7			P
7440-48-4	Cobalt	16.0			P
7440-50-8	Copper	11.9			P
7439-89-6	Iron	72100		*	P
7439-92-1	Lead	19.2		N	P
7439-95-4	Magnesium	1590			P
7439-96-5	Manganese	891		*	P
7439-97-6	Mercury	0.04	U		CV
7440-02-0	Nickel	20.3			P
7440-09-7	Potassium	760			P
7782-49-2	Selenium	0.66	U	N	P
7440-22-4	Silver	1.3	U	N	P
7440-23-5	Sodium	665	U		P
7440-28-0	Thallium	1.4		N	P
7440-62-2	Vanadium	16.3			P
7440-66-6	Zinc	155		N	P

Color Before: BROWN____ Clarity Before: N/A___ Texture: MEDIUM
Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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EPA SAMPLE NO.

3009

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___

Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix (soil/water): SOIL_ Lab Sample ID: C433C

Level (low/med): LOW__ Date Received: 05/16/96

% Solids: _73.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	9100			P
7440-36-0	Antimony_	8.2	U	N	P
7440-38-2	Arsenic__	8.3		N	P
7440-39-3	Barium___	1440		N	P
7440-41-7	Beryllium	0.98			P
7440-43-9	Cadmium__	0.68	U		P
7440-70-2	Calcium__	5100			P
7440-47-3	Chromium_	12.4			P
7440-48-4	Cobalt___	44.7			P
7440-50-8	Copper___	18.8			P
7439-89-6	Iron_____	42300		*	P
7439-92-1	Lead_____	14.9		N	P
7439-95-4	Magnesium	1420			P
7439-96-5	Manganese	10000		*	P
7439-97-6	Mercury__	0.05			CV
7440-02-0	Nickel___	49.3			P
7440-09-7	Potassium	1030			P
7782-49-2	Selenium_	0.86		N	P
7440-22-4	Silver___	1.4	U	N	P
7440-23-5	Sodium___	685	U		P
7440-28-0	Thallium_	1.7		N	P
7440-62-2	Vanadium_	20.1			P
7440-66-6	Zinc_____	195		N	P

Color Before: BROWN____ Clarity Before: N/A___ Texture: MEDIUM

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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EPA SAMPLE NO.

3010

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___

Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix (soil/water): SOIL_ Lab Sample ID: C433N

Level (low/med): LOW_ Date Received: 05/16/96

% Solids: _72.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	6660			P
7440-36-0	Antimony_	8.2	U	N	P
7440-38-2	Arsenic__	12.8		N	P
7440-39-3	Barium__	1770		N	P
7440-41-7	Beryllium	1.2			P
7440-43-9	Cadmium__	1.2			P
7440-70-2	Calcium__	4680			P
7440-47-3	Chromium_	10.6			P
7440-48-4	Cobalt___	41.2			P
7440-50-8	Copper___	21.6			P
7439-89-6	Iron_____	90700		*	P
7439-92-1	Lead_____	14.7		N	P
7439-95-4	Magnesium	1300			P
7439-96-5	Manganese	21700		*	P
7439-97-6	Mercury__	0.05			CV
7440-02-0	Nickel___	110			P
7440-09-7	Potassium	715			P
7782-49-2	Selenium_	1.8		N	P
7440-22-4	Silver___	1.4	U	N	P
7440-23-5	Sodium___	686	U		P
7440-28-0	Thallium_	1.4	U	N	P
7440-62-2	Vanadium_	19.3			P
7440-66-6	Zinc_____	318		N	P

Color Before: BROWN____ Clarity Before: N/A___ Texture: MEDIUM

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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EPA SAMPLE NO.

3011

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___
Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801
Matrix (soil/water): SOIL_ Lab Sample ID: C4341
Level (low/med): LOW__ Date Received: 05/16/96
% Solids: _77.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5500			P
7440-36-0	Antimony	7.7	U	N	P
7440-38-2	Arsenic	4.7		N	P
7440-39-3	Barium	39.1		N	P
7440-41-7	Beryllium	0.65	U		P
7440-43-9	Cadmium	0.65	U		P
7440-70-2	Calcium	13500			P
7440-47-3	Chromium	7.2			P
7440-48-4	Cobalt	10.7			P
7440-50-8	Copper	10.6			P
7439-89-6	Iron	27900		*	P
7439-92-1	Lead	13.8		N	P
7439-95-4	Magnesium	5290			P
7439-96-5	Manganese	1600		*	P
7439-97-6	Mercury	0.04	U		CV
7440-02-0	Nickel	11.4			P
7440-09-7	Potassium	645	U		P
7782-49-2	Selenium	0.65	U	N	P
7440-22-4	Silver	1.3	U	N	P
7440-23-5	Sodium	645	U		P
7440-28-0	Thallium	1.3	U	N	P
7440-62-2	Vanadium	13.5			P
7440-66-6	Zinc	59.5		N	P

Color Before: BROWN____ Clarity Before: N/A___ Texture: MEDIUM
Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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EPA SAMPLE NO.

3012

Lab Name: QUANTERRA_KNOXVILLE Contract: IT_CORP

Lab Code: ITSTU Case No.: EG141 SAS No.: SDG No.: PBG801

Matrix (soil/water): SOIL Lab Sample ID: C4348

Level (low/med): LOW Date Received: 05/16/96

% Solids: 81.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6850			P
7440-36-0	Antimony	7.4	U	N	P
7440-38-2	Arsenic	5.4		N	P
7440-39-3	Barium	64.4		N	P
7440-41-7	Beryllium	0.61	U		P
7440-43-9	Cadmium	0.61	U		P
7440-70-2	Calcium	54900			P
7440-47-3	Chromium	6.1			P
7440-48-4	Cobalt	10.6			P
7440-50-8	Copper	11.3			P
7439-89-6	Iron	33800		*	P
7439-92-1	Lead	11.5		N	P
7439-95-4	Magnesium	22700			P
7439-96-5	Manganese	2290		*	P
7439-97-6	Mercury	0.04	U		CV
7440-02-0	Nickel	16.3			P
7440-09-7	Potassium	823			P
7782-49-2	Selenium	0.61	U	N	P
7440-22-4	Silver	1.2	U	N	P
7440-23-5	Sodium	613	U		P
7440-28-0	Thallium	1.2	U	N	P
7440-62-2	Vanadium	19.3			P
7440-66-6	Zinc	72.0		N	P

Color Before: BROWN Clarity Before: N/A Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

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EPA SAMPLE NO.

3013

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___
Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801
Matrix (soil/water): SOIL_ Lab Sample ID: C434E
Level (low/med): LOW__ Date Received: 05/16/96
% Solids: _77.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6850			P
7440-36-0	Antimony	7.7	U	N	P
7440-38-2	Arsenic	4.5		N	P
7440-39-3	Barium	64.7		N	P
7440-41-7	Beryllium	0.64	U		P
7440-43-9	Cadmium	0.64	U		P
7440-70-2	Calcium	3290			P
7440-47-3	Chromium	7.9			P
7440-48-4	Cobalt	10.3			P
7440-50-8	Copper	9.5			P
7439-89-6	Iron	32100		*	P
7439-92-1	Lead	13.2		N	P
7439-95-4	Magnesium	1340			P
7439-96-5	Manganese	1920		*	P
7439-97-6	Mercury	0.04	U		CV
7440-02-0	Nickel	10.4			P
7440-09-7	Potassium	642	U		P
7782-49-2	Selenium	0.64	U	N	P
7440-22-4	Silver	1.3	U	N	P
7440-23-5	Sodium	642	U		P
7440-28-0	Thallium	1.3	U	N	P
7440-62-2	Vanadium	13.0			P
7440-66-6	Zinc	61.0		N	P

Color Before: BROWN____ Clarity Before: N/A___ Texture: MEDIUM
Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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EPA SAMPLE NO.

3014

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___
Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801
Matrix (soil/water): SOIL_ Lab Sample ID: C434G
Level (low/med): LOW__ Date Received: 05/16/96
% Solids: _77.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5600			P
7440-36-0	Antimony	7.7	U	N	P
7440-38-2	Arsenic	5.2		N	P
7440-39-3	Barium	104		N	P
7440-41-7	Beryllium	0.65	U		P
7440-43-9	Cadmium	0.65	U		P
7440-70-2	Calcium	28800			P
7440-47-3	Chromium	6.5			P
7440-48-4	Cobalt	11.7			P
7440-50-8	Copper	9.6			P
7439-89-6	Iron	47000		*	P
7439-92-1	Lead	11.2		N	P
7439-95-4	Magnesium	12000			P
7439-96-5	Manganese	3320		*	P
7439-97-6	Mercury	0.04	U		CV
7440-02-0	Nickel	13.9			P
7440-09-7	Potassium	645	U		P
7782-49-2	Selenium	0.65	U	N	P
7440-22-4	Silver	1.3	U	N	P
7440-23-5	Sodium	645	U		P
7440-28-0	Thallium	1.3	U	N	P
7440-62-2	Vanadium	13.8			P
7440-66-6	Zinc	65.2		N	P

Color Before: BROWN____ Clarity Before: N/A___ Texture: MEDIUM
Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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EPA SAMPLE NO.

3015

Lab Name: QUANTERRA_KNOXVILLE Contract: IT_CORP
Lab Code: ITSTU Case No.: EG141 SAS No.: SDG No.: PBG801
Matrix (soil/water): SOIL Lab Sample ID: C434J
Level (low/med): LOW Date Received: 05/16/96
% Solids: 78.5

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6180			P
7440-36-0	Antimony	7.6	U	N	P
7440-38-2	Arsenic	3.8		N	P
7440-39-3	Barium	52.0		N	P
7440-41-7	Beryllium	0.64	U		P
7440-43-9	Cadmium	0.64	U		P
7440-70-2	Calcium	2340			P
7440-47-3	Chromium	7.3			P
7440-48-4	Cobalt	9.2			P
7440-50-8	Copper	7.3			P
7439-89-6	Iron	23000		*	P
7439-92-1	Lead	12.6		N	P
7439-95-4	Magnesium	932			P
7439-96-5	Manganese	1370		*	P
7439-97-6	Mercury	0.04	U		CV
7440-02-0	Nickel	7.9			P
7440-09-7	Potassium	637	U		P
7782-49-2	Selenium	0.64	U	N	P
7440-22-4	Silver	1.3	U	N	P
7440-23-5	Sodium	637	U		P
7440-28-0	Thallium	1.3	U	N	P
7440-62-2	Vanadium	11.8			P
7440-66-6	Zinc	121		N	P

Color Before: BROWN Clarity Before: N/A Texture: MEDIUM
Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

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EPA SAMPLE NO.

3016

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___
Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801
Matrix (soil/water): SOIL_ Lab Sample ID: C434L
Level (low/med): LOW__ Date Received: 05/16/96
% Solids: _75.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	7060			P
7440-36-0	Antimony_	7.9	U	N	P
7440-38-2	Arsenic__	7.7		N	P
7440-39-3	Barium___	255		N	P
7440-41-7	Beryllium	1.0			P
7440-43-9	Cadmium__	0.66	U		P
7440-70-2	Calcium__	12200			P
7440-47-3	Chromium_	9.1			P
7440-48-4	Cobalt___	22.5			P
7440-50-8	Copper___	8.3			P
7439-89-6	Iron_____	65800		*	P
7439-92-1	Lead_____	13.9		N	P
7439-95-4	Magnesium	5500			P
7439-96-5	Manganese	6610		*	P
7439-97-6	Mercury__	0.04	U		CV
7440-02-0	Nickel___	21.2			P
7440-09-7	Potassium	660	U		P
7782-49-2	Selenium_	0.66	U	N	P
7440-22-4	Silver___	1.3	U	N	P
7440-23-5	Sodium___	660	U		P
7440-28-0	Thallium_	1.3	U	N	P
7440-62-2	Vanadium_	18.6			P
7440-66-6	Zinc_____	72.7		N	P

Color Before: BROWN____ Clarity Before: N/A___ Texture: MEDIUM
Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3017

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___

Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix (soil/water): SOIL_ Lab Sample ID: C434N

Level (low/med): LOW__ Date Received: 05/16/96

% Solids: _71.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	8640			P
7440-36-0	Antimony_	8.4	U	N	P
7440-38-2	Arsenic__	4.5		N	P
7440-39-3	Barium___	102		N	P
7440-41-7	Beryllium	1.0			P
7440-43-9	Cadmium__	0.70	U		P
7440-70-2	Calcium__	5450			P
7440-47-3	Chromium_	10.5			P
7440-48-4	Cobalt___	16.4			P
7440-50-8	Copper___	16.6			P
7439-89-6	Iron_____	25800		*	P
7439-92-1	Lead_____	16.1		N	P
7439-95-4	Magnesium	1490			P
7439-96-5	Manganese	1170		*	P
7439-97-6	Mercury__	0.05			CV
7440-02-0	Nickel___	26.5			P
7440-09-7	Potassium	844			P
7782-49-2	Selenium_	0.70	U	N	P
7440-22-4	Silver___	1.4	U	N	P
7440-23-5	Sodium___	703	U		P
7440-28-0	Thallium_	1.4	U	N	P
7440-62-2	Vanadium_	15.4			P
7440-66-6	Zinc_____	114		N	P

Color Before: BROWN____ Clarity Before: N/A___ Texture: MEDIUM

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3018

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___

Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix (soil/water): SOIL_ Lab Sample ID: C434P

Level (low/med): LOW__ Date Received: 05/16/96

% Solids: _79.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	6670			P
7440-36-0	Antimony_	7.5	U	N	P
7440-38-2	Arsenic__	3.0		N	P
7440-39-3	Barium___	37.4		N	P
7440-41-7	Beryllium	0.64			P
7440-43-9	Cadmium__	0.63	U		P
7440-70-2	Calcium__	2910			P
7440-47-3	Chromium_	10.7			P
7440-48-4	Cobalt___	10.8			P
7440-50-8	Copper___	6.9			P
7439-89-6	Iron_____	28000		*	P
7439-92-1	Lead_____	9.3		N	P
7439-95-4	Magnesium	1360			P
7439-96-5	Manganese	367		*	P
7439-97-6	Mercury__	0.04	U		CV
7440-02-0	Nickel___	14.3			P
7440-09-7	Potassium	627	U		P
7782-49-2	Selenium_	0.63	U	N	P
7440-22-4	Silver___	1.3	U	N	P
7440-23-5	Sodium___	627	U		P
7440-28-0	Thallium_	1.3	U	N	P
7440-62-2	Vanadium_	14.5			P
7440-66-6	Zinc_____	133		N	P

Color Before: BROWN____ Clarity Before: N/A___ Texture: MEDIUM

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3019

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___

Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix (soil/water): SOIL_ Lab Sample ID: C434R

Level (low/med): LOW_ Date Received: 05/16/96

% Solids: _83.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4860			P
7440-36-0	Antimony	7.2	U	N	P
7440-38-2	Arsenic	3.8		N	P
7440-39-3	Barium	41.3		N	P
7440-41-7	Beryllium	0.60	U		P
7440-43-9	Cadmium	0.60	U		P
7440-70-2	Calcium	1720			P
7440-47-3	Chromium	6.0			P
7440-48-4	Cobalt	8.9			P
7440-50-8	Copper	8.0			P
7439-89-6	Iron	21300		*	P
7439-92-1	Lead	13.7		N	P
7439-95-4	Magnesium	699			P
7439-96-5	Manganese	1050		*	P
7439-97-6	Mercury	0.04	U		CV
7440-02-0	Nickel	8.2			P
7440-09-7	Potassium	600	U		P
7782-49-2	Selenium	0.60	U	N	P
7440-22-4	Silver	1.2	U	N	P
7440-23-5	Sodium	600	U		P
7440-28-0	Thallium	1.2	U	N	P
7440-62-2	Vanadium	10.3			P
7440-66-6	Zinc	44.2		N	P

Color Before: BROWN Clarity Before: N/A Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

3020

Lab Name: QUANTERRA_KNOXVILLE Contract: IT_CORP

Lab Code: ITSTU Case No.: EG141 SAS No.: SDG No.: PBG801

Matrix (soil/water): SOIL Lab Sample ID: C434T

Level (low/med): LOW Date Received: 05/16/96

% Solids: 79.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10800			P
7440-36-0	Antimony	7.5	U	N	P
7440-38-2	Arsenic	5.3		N	P
7440-39-3	Barium	107		N	P
7440-41-7	Beryllium	0.87			P
7440-43-9	Cadmium	0.63	U		P
7440-70-2	Calcium	1950			P
7440-47-3	Chromium	12.4			P
7440-48-4	Cobalt	13.4			P
7440-50-8	Copper	10.8			P
7439-89-6	Iron	50800		*	P
7439-92-1	Lead	10.6		N	P
7439-95-4	Magnesium	1470			P
7439-96-5	Manganese	2810		*	P
7439-97-6	Mercury	0.05			CV
7440-02-0	Nickel	19.8			P
7440-09-7	Potassium	673			P
7782-49-2	Selenium	0.63	U	N	P
7440-22-4	Silver	1.3	U	N	P
7440-23-5	Sodium	627	U		P
7440-28-0	Thallium	1.4		N	P
7440-62-2	Vanadium	18.2			P
7440-66-6	Zinc	50.2		N	P

Color Before: BROWN Clarity Before: N/A Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

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BLANKS

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___

Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Preparation Blank Matrix (soil/water): SOIL_

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	C44N9B C44NHB Prepa-ration Blank	C	M
Aluminum	200.0	U	200.0	U	200.0	U	200.0	U	20.000	U	P
Antimony	60.0	U	60.0	U	60.0	U	60.0	U	6.000	U	P
Arsenic	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	P
Barium	200.0	U	200.0	U	200.0	U	200.0	U	20.000	U	P
Beryllium	5.0	U	5.0	U	5.0	U	5.0	U	0.500	U	P
Cadmium	5.0	U	5.0	U	5.0	U	5.0	U	0.500	U	P
Calcium	5000.0	U	5000.0	U	5000.0	U	5000.0	U	500.000	U	P
Chromium	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	P
Cobalt	50.0	U	50.0	U	50.0	U	50.0	U	5.000	U	P
Copper	25.0	U	25.0	U	25.0	U	25.0	U	2.500	U	P
Iron	100.0	U	100.0	U	100.0	U	100.0	U	10.000	U	P
Lead	3.0	U	3.0	U	3.0	U	3.0	U	0.300	U	P
Magnesium	5000.0	U	5000.0	U	5000.0	U	5000.0	U	500.000	U	P
Manganese	15.0	U	15.0	U	15.0	U	15.0	U	1.500	U	P
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.033	U	CV
Nickel	40.0	U	40.0	U	40.0	U	40.0	U	4.000	U	P
Potassium	5000.0	U	5000.0	U	5000.0	U	5000.0	U	500.000	U	P
Selenium	5.0	U	5.0	U	5.0	U	5.0	U	0.500	U	P
Silver	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	P
Sodium	5000.0	U	5000.0	U	5000.0	U	5000.0	U	500.000	U	P
Thallium	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	P
Vanadium	50.0	U	50.0	U	50.0	U	50.0	U	5.000	U	P
Zinc	20.0	U	20.0	U	20.0	U	20.0	U	2.000	U	P

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BLANKS

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___

Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			200.0	U	200.0	U	200.0	U			P
Antimony			60.0	U	60.0	U	60.0	U			P
Arsenic			10.0	U	10.0	U	10.0	U			P
Barium			200.0	U	200.0	U	200.0	U			P
Beryllium			5.0	U	5.0	U	5.0	U			P
Cadmium			5.0	U	5.0	U	5.0	U			P
Calcium			5000.0	U	5000.0	U	5000.0	U			P
Chromium			10.0	U	10.0	U	10.0	U			P
Cobalt			50.0	U	50.0	U	50.0	U			P
Copper			25.0	U	25.0	U	25.0	U			P
Iron			100.0	U	100.0	U	100.0	U			P
Lead			3.0	U	3.0	U	3.0	U			P
Magnesium			5000.0	U	5000.0	U	5000.0	U			P
Manganese			15.0	U	15.0	U	15.0	U			P
Mercury			0.2	U							CV
Nickel			40.0	U	40.0	U	40.0	U			P
Potassium			5000.0	U	5000.0	U	5000.0	U			P
Selenium			5.0	U	5.0	U	5.0	U			P
Silver			10.0	U	10.0	U	10.0	U			P
Sodium			5000.0	U	5000.0	U	5000.0	U			P
Thallium			10.0	U	10.0	U	10.0	U			P
Vanadium			50.0	U	50.0	U	50.0	U			P
Zinc			20.0	U	20.0	U	20.0	U			P

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BLANKS

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___

Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead											NR
Magnesium											NR
Manganese	15.0	U	15.0	U	15.0	U	15.0	U			P
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR

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BLANKS

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___

Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											N
Lead											NR
Magnesium											NR
Manganese			15.0	U							P
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR

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5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

3004S

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___

Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix: __SOIL_____ Level (low/med): _LOW____

% Solids for Sample: _77.6

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony	80-120	27.8273		7.7320	U	64.43	43.2	N	P
Arsenic	80-120	145.8544		8.0464		257.73	53.5	N	P
Barium	80-120	441.8750		174.6598		257.73	103.7		P
Beryllium	80-120	7.0296		1.2732		6.44	89.4		P
Cadmium	80-120	5.8492		0.6443	U	6.44	90.8		P
Calcium									NR
Chromium	80-120	35.9420		9.5709		25.77	102.3		P
Cobalt	80-120	73.9897		18.2680		64.43	86.5		P
Copper	80-120	40.7758		13.4678		32.22	84.8		P
Iron									NR
Lead	80-120	51.3351		15.4059		64.43	55.8	N	P
Magnesium									NR
Manganese		2757.8621		2794.0245		64.43	-56.1		P
Mercury	80-120	0.2384		0.0468		0.21	91.2		CV
Nickel	80-120	79.6881		19.4111		64.43	93.6		P
Potassium									NR
Selenium	80-120	132.8093		0.6443	U	257.73	51.5	N	P
Silver	80-120	4.1624		1.2887	U	6.44	64.6	N	P
Sodium									NR
Thallium	80-120	139.8789		1.5335		257.73	53.7	N	P
Vanadium	80-120	79.1366		12.4897		64.43	103.4		P
Zinc	80-120	203.9510		141.4987		64.43	96.9		P

Comments:

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5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

3004SD

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___

Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801
Matrix: __SOIL_____ Level (low/med): _LOW____
% Solids for Sample: _77.6

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony	80-120	31.1997		7.7320	U	64.43	48.4	N	P
Arsenic	80-120	147.3196		8.0464		257.73	54.0	N	P
Barium	80-120	535.3608		174.6598		257.73	140.0	N	P
Beryllium	80-120	7.0000		1.2732		6.44	88.9		P
Cadmium	80-120	5.4639		0.6443	U	6.44	84.8		P
Calcium									NR
Chromium	80-120	35.5954		9.5709		25.77	101.0		P
Cobalt	80-120	75.2049		18.2680		64.43	88.4		P
Copper	80-120	40.5580		13.4678		32.22	84.1		P
Iron									NR
Lead	80-120	50.6031		15.4059		64.43	54.6	N	P
Magnesium									NR
Manganese		4429.3814		2794.0245		64.43	2538.2		P
Mercury	80-120	0.2363		0.0468		0.21	90.2		CV
Nickel	80-120	79.5348		19.4111		64.43	93.3		P
Potassium									NR
Selenium	80-120	136.7912		0.6443	U	257.73	53.1	N	P
Silver	80-120	4.4111		1.2887	U	6.44	68.5	N	P
Sodium									NR
Thallium	80-120	141.3660		1.5335		257.73	54.3	N	P
Vanadium	80-120	77.4820		12.4897		64.43	100.9		P
Zinc	80-120	189.5490		141.4987		64.43	74.6	N	P

Comments:

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6
DUPLICATES

EPA SAMPLE NO.

3004SD

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___

Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Matrix (soil/water): SOIL_ Level (low/med): _LOW__

% Solids for Sample: _77.6 % Solids for Duplicate: __77.6

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		11482.6353		10927.4485		5.0		P
Antimony	7.7	27.8273		31.1997		11.4		P
Arsenic		145.8544		147.3196		1.0		P
Barium		441.8750		535.3608		19.1		P
Beryllium		7.0296		7.0000		0.4		P
Cadmium		5.8492		5.4639		6.8		P
Calcium		10088.3711		9913.1443		1.8		P
Chromium		35.9420		35.5954		1.0		P
Cobalt		73.9897		75.2049		1.6		P
Copper		40.7758		40.5580		0.5		P
Iron		69439.8544		68.1057		199.6	*	P
Lead		51.3351		50.6031		1.4		P
Magnesium		7696.3415		7646.2629		0.7		P
Manganese		2757.8621		4429.3814		46.5	*	P
Mercury		0.2384		0.2363		0.9		CV
Nickel		79.6881		79.5348		0.2		P
Potassium		6869.0064		6848.5825		0.3		P
Selenium		132.8093		136.7912		3.0		P
Silver	1.3	4.1624		4.4111		5.8		P
Sodium		5697.4948		5681.9588		0.3		P
Thallium		139.8789		141.3660		1.1		P
Vanadium		79.1366		77.4820		2.1		P
Zinc		203.9510		189.5490		7.3		P

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LABORATORY CONTROL SAMPLE

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___

Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Solid LCS Source: ULTRA_____

Aqueous LCS Source: _____

C 44N9C

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum				200.0	186.2		160.0	240.0	93.1
Antimony				50.0	43.8		40.0	60.0	87.6
Arsenic				200.0	176.8		160.0	240.0	88.4
Barium				200.0	183.7		160.0	240.0	91.8
Beryllium				5.0	4.6		4.0	6.0	92.0
Cadmium				5.0	4.4		4.0	6.0	88.0
Calcium				5000.0	4621.6		4000.0	6000.0	92.4
Chromium				20.0	18.4		16.0	24.0	92.0
Cobalt				50.0	45.9		40.0	60.0	91.8
Copper				25.0	22.3		20.0	30.0	89.2
Iron				100.0	96.2		80.0	120.0	96.2
Lead				50.0	45.1		40.0	60.0	90.2
Magnesium				5000.0	4517.0		4000.0	6000.0	90.3
Manganese				50.0	46.5		40.0	60.0	93.
Mercury									
Nickel				50.0	46.2		40.0	60.0	92.4
Potassium				5000.0	4398.4		4000.0	6000.0	88.0
Selenium				200.0	170.8		160.0	240.0	85.4
Silver				5.0	4.5		4.0	6.0	90.0
Sodium				5000.0	4499.3		4000.0	6000.0	90.0
Thallium				200.0	176.9		160.0	240.0	88.4
Vanadium				50.0	47.3		40.0	60.0	94.6
Zinc				50.0	49.4		40.0	60.0	98.8

U.S. EPA - CLP

7

LABORATORY CONTROL SAMPLE

Lab Name: QUANTERRA_KNOXVILLE_____ Contract: IT_CORP___

Lab Code: ITSTU_ Case No.: EG141 SAS No.: _____ SDG No.: PBG801

Solid LCS Source: ULTRA_____

Aqueous LCS Source: _____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury				0.8	0.8		0.7	1.0	100.0
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									

FORM VII - IN

ILM02.1

GC/HPLC

IT Corporation - Knoxville

3001

WO # : C431J103
LAB # : H6E160141-001
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 10:55
DATE RECEIVED: 5/16/96
% MOISTURE : 22.3

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.2	SW846 8081	05/21-06/01/96	6142131
Aroclor 1016	ND	42	SW846 8081	05/21-06/01/96	6142131
Aroclor 1221	ND	42	SW846 8081	05/21-06/01/96	6142131
Aroclor 1232	ND	42	SW846 8081	05/21-06/01/96	6142131
Aroclor 1242	ND	42	SW846 8081	05/21-06/01/96	6142131
Aroclor 1248	ND	42	SW846 8081	05/21-06/01/96	6142131
Aroclor 1254	ND	42	SW846 8081	05/21-06/01/96	6142131
Aroclor 1260	ND	42	SW846 8081	05/21-06/01/96	6142131
alpha-BHC	ND	2.2	SW846 8081	05/21-06/01/96	6142131
beta-BHC	ND	2.2	SW846 8081	05/21-06/01/96	6142131
delta-BHC	ND	2.2	SW846 8081	05/21-06/01/96	6142131
gamma-BHC (Lindane)	ND	2.2	SW846 8081	05/21-06/01/96	6142131
4,4'-DDD	ND	2.2	SW846 8081	05/21-06/01/96	6142131
4,4'-DDE	ND	2.2	SW846 8081	05/21-06/01/96	6142131
4,4'-DDT	ND	2.2	SW846 8081	05/21-06/01/96	6142131
Dieldrin	ND	2.2	SW846 8081	05/21-06/01/96	6142131
Endrin	ND	2.2	SW846 8081	05/21-06/01/96	6142131
Endrin aldehyde	ND	2.2	SW846 8081	05/21-06/01/96	6142131
Endosulfan I	ND	2.2	SW846 8081	05/21-06/01/96	6142131
Endosulfan II	ND	2.2	SW846 8081	05/21-06/01/96	6142131
Endosulfan sulfate	ND	2.2	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	86	(30 - 150)
Decachlorobiphenyl	121	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3001

WO # : C431J103
LAB # : H6E160141-001
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 10:55
DATE RECEIVED: 5/16/96
% MOISTURE : 22.3

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.2	SW846 8081	05/21-06/01/96	6142131
Heptachlor epoxide	ND	2.2	SW846 8081	05/21-06/01/96	6142131
Methoxychlor	ND	4.2	SW846 8081	05/21-06/01/96	6142131
Toxaphene	ND	86	SW846 8081	05/21-06/01/96	6142131
alpha-Chlordane	ND	2.2	SW846 8081	05/21-06/01/96	6142131
gamma-Chlordane	ND	2.2	SW846 8081	05/21-06/01/96	6142131
Endrin ketone	ND	2.2	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	86	(30 - 150)
Decachlorobiphenyl	121	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3002

WO # : C432F103
LAB # : H6E160141-002
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 11:00
DATE RECEIVED: 5/16/96
% MOISTURE : 20.0

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.1	SW846 8081	05/21-05/29/96	6142131
Aroclor 1016	ND	41	SW846 8081	05/21-05/29/96	6142131
Aroclor 1221	ND	41	SW846 8081	05/21-05/29/96	6142131
Aroclor 1232	ND	41	SW846 8081	05/21-05/29/96	6142131
Aroclor 1242	ND	41	SW846 8081	05/21-05/29/96	6142131
Aroclor 1248	ND	41	SW846 8081	05/21-05/29/96	6142131
Aroclor 1254	ND	41	SW846 8081	05/21-05/29/96	6142131
Aroclor 1260	ND	41	SW846 8081	05/21-05/29/96	6142131
alpha-BHC	ND	2.1	SW846 8081	05/21-05/29/96	6142131
beta-BHC	ND	2.1	SW846 8081	05/21-05/29/96	6142131
delta-BHC	ND	2.1	SW846 8081	05/21-05/29/96	6142131
gamma-BHC (Lindane)	ND	2.1	SW846 8081	05/21-05/29/96	6142131
4,4'-DDD	ND	2.1	SW846 8081	05/21-05/29/96	6142131
4,4'-DDE	ND	2.1	SW846 8081	05/21-05/29/96	6142131
4,4'-DDT	ND	2.1	SW846 8081	05/21-05/29/96	6142131
Dieldrin	ND	2.1	SW846 8081	05/21-05/29/96	6142131
Endrin	ND	2.1	SW846 8081	05/21-05/29/96	6142131
Endrin aldehyde	ND	2.1	SW846 8081	05/21-05/29/96	6142131
Endosulfan I	ND	2.1	SW846 8081	05/21-05/29/96	6142131
Endosulfan II	ND	2.1	SW846 8081	05/21-05/29/96	6142131
Endosulfan sulfate	ND	2.1	SW846 8081	05/21-05/29/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	75	(30 - 150)
Decachlorobiphenyl	94	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3002

WO # : C432F103
LAB # : H6E160141-002
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 11:00
DATE RECEIVED: 5/16/96
% MOISTURE : 20.0

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.1	SW846 8081	05/21-05/29/96	6142131
Heptachlor epoxide	ND	2.1	SW846 8081	05/21-05/29/96	6142131
Methoxychlor	ND	4.1	SW846 8081	05/21-05/29/96	6142131
Toxaphene	ND	84	SW846 8081	05/21-05/29/96	6142131
alpha-Chlordane	ND	2.1	SW846 8081	05/21-05/29/96	6142131
gamma-Chlordane	ND	2.1	SW846 8081	05/21-05/29/96	6142131
Endrin ketone	ND	2.1	SW846 8081	05/21-05/29/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	75	(30 - 150)
Decachlorobiphenyl	94	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3003

WO # : C432M103
LAB # : H6E160141-003
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 11:10
DATE RECEIVED: 5/16/96
% MOISTURE : 27.5

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.3	SW846 8081	05/21-05/31/96	6142131
Aroclor 1016	ND	46	SW846 8081	05/21-05/31/96	6142131
Aroclor 1221	ND	46	SW846 8081	05/21-05/31/96	6142131
Aroclor 1232	ND	46	SW846 8081	05/21-05/31/96	6142131
Aroclor 1242	ND	46	SW846 8081	05/21-05/31/96	6142131
Aroclor 1248	ND	46	SW846 8081	05/21-05/31/96	6142131
Aroclor 1254	ND	46	SW846 8081	05/21-05/31/96	6142131
Aroclor 1260	ND	46	SW846 8081	05/21-05/31/96	6142131
alpha-BHC	ND	2.3	SW846 8081	05/21-05/31/96	6142131
beta-BHC	ND	2.3	SW846 8081	05/21-05/31/96	6142131
delta-BHC	ND	2.3	SW846 8081	05/21-05/31/96	6142131
gamma-BHC (Lindane)	ND	2.3	SW846 8081	05/21-05/31/96	6142131
4,4'-DDD	ND	2.3	SW846 8081	05/21-05/31/96	6142131
4,4'-DDE	ND	2.3	SW846 8081	05/21-05/31/96	6142131
4,4'-DDT	ND	2.3	SW846 8081	05/21-05/31/96	6142131
Dieldrin	ND	2.3	SW846 8081	05/21-05/31/96	6142131
Endrin	ND	2.3	SW846 8081	05/21-05/31/96	6142131
Endrin aldehyde	ND	2.3	SW846 8081	05/21-05/31/96	6142131
Endosulfan I	ND	2.3	SW846 8081	05/21-05/31/96	6142131
Endosulfan II	ND	2.3	SW846 8081	05/21-05/31/96	6142131
Endosulfan sulfate	ND	2.3	SW846 8081	05/21-05/31/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	93	(30 - 150)
Decachlorobiphenyl	149	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3003

WO # : C432M103
LAB # : H6E160141-003
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 11:10
DATE RECEIVED: 5/16/96
% MOISTURE : 27.5

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.3	SW846 8081	05/21-05/31/96	6142131
Heptachlor epoxide	ND	2.3	SW846 8081	05/21-05/31/96	6142131
Methoxychlor	ND	4.6	SW846 8081	05/21-05/31/96	6142131
Toxaphene	ND	92	SW846 8081	05/21-05/31/96	6142131
alpha-Chlordane	ND	2.3	SW846 8081	05/21-05/31/96	6142131
gamma-Chlordane	ND	2.3	SW846 8081	05/21-05/31/96	6142131
Endrin ketone	ND	2.3	SW846 8081	05/21-05/31/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	93	(30 - 150)
Decachlorobiphenyl	149	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3004

WO # : C432W107
LAB # : H6E160141-004
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 11:30
DATE RECEIVED: 5/16/96
% MOISTURE : 22.4

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.2	SW846 8081	05/21-05/29/96	6142131
Aroclor 1016	ND	43	SW846 8081	05/21-05/29/96	6142131
Aroclor 1221	ND	43	SW846 8081	05/21-05/29/96	6142131
Aroclor 1232	ND	43	SW846 8081	05/21-05/29/96	6142131
Aroclor 1242	ND	43	SW846 8081	05/21-05/29/96	6142131
Aroclor 1248	ND	43	SW846 8081	05/21-05/29/96	6142131
Aroclor 1254	ND	43	SW846 8081	05/21-05/29/96	6142131
Aroclor 1260	ND	43	SW846 8081	05/21-05/29/96	6142131
alpha-BHC	ND	2.2	SW846 8081	05/21-05/29/96	6142131
beta-BHC	ND	2.2	SW846 8081	05/21-05/29/96	6142131
delta-BHC	ND	2.2	SW846 8081	05/21-05/29/96	6142131
gamma-BHC (Lindane)	ND	2.2	SW846 8081	05/21-05/29/96	6142131
4,4'-DDD	ND	2.2	SW846 8081	05/21-05/29/96	6142131
4,4'-DDE	ND	2.2	SW846 8081	05/21-05/29/96	6142131
4,4'-DDT	ND	2.2	SW846 8081	05/21-05/29/96	6142131
Dieldrin	ND	2.2	SW846 8081	05/21-05/29/96	6142131
Endrin	ND	2.2	SW846 8081	05/21-05/29/96	6142131
Endrin aldehyde	ND	2.2	SW846 8081	05/21-05/29/96	6142131
Endosulfan I	ND	2.2	SW846 8081	05/21-05/29/96	6142131
Endosulfan II	ND	2.2	SW846 8081	05/21-05/29/96	6142131
Endosulfan sulfate	ND	2.2	SW846 8081	05/21-05/29/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	77	(30 - 150)
Decachlorobiphenyl	93	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3004

WO # : C432W107
LAB # : H6E160141-004
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 11:30
DATE RECEIVED: 5/16/96
% MOISTURE : 22.4

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.2	SW846 8081	05/21-05/29/96	6142131
Heptachlor epoxide	ND	2.2	SW846 8081	05/21-05/29/96	6142131
Methoxychlor	ND	4.3	SW846 8081	05/21-05/29/96	6142131
Toxaphene	ND	86	SW846 8081	05/21-05/29/96	6142131
alpha-Chlordane	ND	2.2	SW846 8081	05/21-05/29/96	6142131
gamma-Chlordane	ND	2.2	SW846 8081	05/21-05/29/96	6142131
Endrin ketone	ND	2.2	SW846 8081	05/21-05/29/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	77	(30 - 150)
Decachlorobiphenyl	93	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3005

WO # : C4334103
LAB # : H6E160141-005
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 11:30
DATE RECEIVED: 5/16/96
% MOISTURE : 24.8

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.3	SW846 8081	05/21-05/29/96	6142131
Aroclor 1016	ND	44	SW846 8081	05/21-05/29/96	6142131
Aroclor 1221	ND	44	SW846 8081	05/21-05/29/96	6142131
Aroclor 1232	ND	44	SW846 8081	05/21-05/29/96	6142131
Aroclor 1242	ND	44	SW846 8081	05/21-05/29/96	6142131
Aroclor 1248	ND	44	SW846 8081	05/21-05/29/96	6142131
Aroclor 1254	ND	44	SW846 8081	05/21-05/29/96	6142131
Aroclor 1260	ND	44	SW846 8081	05/21-05/29/96	6142131
alpha-BHC	ND	2.3	SW846 8081	05/21-05/29/96	6142131
beta-BHC	ND	2.3	SW846 8081	05/21-05/29/96	6142131
delta-BHC	ND	2.3	SW846 8081	05/21-05/29/96	6142131
gamma-BHC (Lindane)	ND	2.3	SW846 8081	05/21-05/29/96	6142131
4,4'-DDD	ND	2.3	SW846 8081	05/21-05/29/96	6142131
4,4'-DDE	ND	2.3	SW846 8081	05/21-05/29/96	6142131
4,4'-DDT	ND	2.3	SW846 8081	05/21-05/29/96	6142131
Dieldrin	ND	2.3	SW846 8081	05/21-05/29/96	6142131
Endrin	ND	2.3	SW846 8081	05/21-05/29/96	6142131
Endrin aldehyde	ND	2.3	SW846 8081	05/21-05/29/96	6142131
Endosulfan I	ND	2.3	SW846 8081	05/21-05/29/96	6142131
Endosulfan II	ND	2.3	SW846 8081	05/21-05/29/96	6142131
Endosulfan sulfate	ND	2.3	SW846 8081	05/21-05/29/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	78	(30 - 150)
Decachlorobiphenyl	94	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3005

WO # : C4334103
LAB # : H6E160141-005
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 11:30
DATE RECEIVED: 5/16/96
% MOISTURE : 24.8

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.3	SW846 8081	05/21-05/29/96	6142131
Heptachlor epoxide	ND	2.3	SW846 8081	05/21-05/29/96	6142131
Methoxychlor	ND	4.4	SW846 8081	05/21-05/29/96	6142131
Toxaphene	ND	89	SW846 8081	05/21-05/29/96	6142131
alpha-Chlordane	ND	2.3	SW846 8081	05/21-05/29/96	6142131
gamma-Chlordane	ND	2.3	SW846 8081	05/21-05/29/96	6142131
Endrin ketone	ND	2.3	SW846 8081	05/21-05/29/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	78	(30 - 150)
Decachlorobiphenyl	94	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3009

WO # : C433C103
LAB # : H6E160141-006
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 12:05
DATE RECEIVED: 5/16/96
% MOISTURE : 27.0

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.3	SW846 8081	05/21-06/01/96	6142131
Aroclor 1016	ND	45	SW846 8081	05/21-06/01/96	6142131
Aroclor 1221	ND	45	SW846 8081	05/21-06/01/96	6142131
Aroclor 1232	ND	45	SW846 8081	05/21-06/01/96	6142131
Aroclor 1242	ND	45	SW846 8081	05/21-06/01/96	6142131
Aroclor 1248	ND	45	SW846 8081	05/21-06/01/96	6142131
Aroclor 1254	ND	45	SW846 8081	05/21-06/01/96	6142131
Aroclor 1260	ND	45	SW846 8081	05/21-06/01/96	6142131
alpha-BHC	ND	2.3	SW846 8081	05/21-06/01/96	6142131
beta-BHC	ND	2.3	SW846 8081	05/21-06/01/96	6142131
delta-BHC	ND	2.3	SW846 8081	05/21-06/01/96	6142131
gamma-BHC (Lindane)	ND	2.3	SW846 8081	05/21-06/01/96	6142131
4,4'-DDD	ND	2.3	SW846 8081	05/21-06/01/96	6142131
4,4'-DDE	ND	2.3	SW846 8081	05/21-06/01/96	6142131
4,4'-DDT	ND	2.3	SW846 8081	05/21-06/01/96	6142131
Dieldrin	ND	2.3	SW846 8081	05/21-06/01/96	6142131
Endrin	ND	2.3	SW846 8081	05/21-06/01/96	6142131
Endrin aldehyde	ND	2.3	SW846 8081	05/21-06/01/96	6142131
Endosulfan I	ND	2.3	SW846 8081	05/21-06/01/96	6142131
Endosulfan II	ND	2.3	SW846 8081	05/21-06/01/96	6142131
Endosulfan sulfate	ND	2.3	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	83	(30 - 150)
Decachlorobiphenyl	87	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3009

WO # : C433C103
LAB # : H6E160141-006
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 12:05
DATE RECEIVED: 5/16/96
% MOISTURE : 27.0

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.3	SW846 8081	05/21-06/01/96	6142131
Heptachlor epoxide	ND	2.3	SW846 8081	05/21-06/01/96	6142131
Methoxychlor	ND	4.5	SW846 8081	05/21-06/01/96	6142131
Toxaphene	ND	92	SW846 8081	05/21-06/01/96	6142131
alpha-Chlordane	ND	2.3	SW846 8081	05/21-06/01/96	6142131
gamma-Chlordane	ND	2.3	SW846 8081	05/21-06/01/96	6142131
Endrin ketone	ND	2.3	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	83	(30 - 150)
Decachlorobiphenyl	87	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3010

WO # : C433N103
LAB # : H6E160141-007
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 12:15
DATE RECEIVED: 5/16/96
% MOISTURE : 27.1

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.3	SW846 8081	05/21-06/01/96	6142131
Aroclor 1016	ND	45	SW846 8081	05/21-06/01/96	6142131
Aroclor 1221	ND	45	SW846 8081	05/21-06/01/96	6142131
Aroclor 1232	ND	45	SW846 8081	05/21-06/01/96	6142131
Aroclor 1242	ND	45	SW846 8081	05/21-06/01/96	6142131
Aroclor 1248	ND	45	SW846 8081	05/21-06/01/96	6142131
Aroclor 1254	ND	45	SW846 8081	05/21-06/01/96	6142131
Aroclor 1260	ND	45	SW846 8081	05/21-06/01/96	6142131
alpha-BHC	ND	2.3	SW846 8081	05/21-06/01/96	6142131
beta-BHC	ND	2.3	SW846 8081	05/21-06/01/96	6142131
delta-BHC	ND	2.3	SW846 8081	05/21-06/01/96	6142131
gamma-BHC (Lindane)	ND	2.3	SW846 8081	05/21-06/01/96	6142131
4,4'-DDD	ND	2.3	SW846 8081	05/21-06/01/96	6142131
4,4'-DDE	ND	2.3	SW846 8081	05/21-06/01/96	6142131
4,4'-DDT	ND	2.3	SW846 8081	05/21-06/01/96	6142131
Dieldrin	ND	2.3	SW846 8081	05/21-06/01/96	6142131
Endrin	ND	2.3	SW846 8081	05/21-06/01/96	6142131
Endrin aldehyde	ND	2.3	SW846 8081	05/21-06/01/96	6142131
Endosulfan I	ND	2.3	SW846 8081	05/21-06/01/96	6142131
Endosulfan II	ND	2.3	SW846 8081	05/21-06/01/96	6142131
Endosulfan sulfate	ND	2.3	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	82	(30 - 150)
Decachlorobiphenyl	94	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3010

WO # : C433N103
LAB # : H6E160141-007
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 12:15
DATE RECEIVED: 5/16/96
% MOISTURE : 27.1

- - - - - - - - - - - - - - - - - - - GC Semi-Volatiles - - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.3	SW846 8081	05/21-06/01/96	6142131
Heptachlor epoxide	ND	2.3	SW846 8081	05/21-06/01/96	6142131
Methoxychlor	ND	4.5	SW846 8081	05/21-06/01/96	6142131
Toxaphene	ND	92	SW846 8081	05/21-06/01/96	6142131
alpha-Chlordane	ND	2.3	SW846 8081	05/21-06/01/96	6142131
gamma-Chlordane	ND	2.3	SW846 8081	05/21-06/01/96	6142131
Endrin ketone	ND	2.3	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	82	(30 - 150)
Decachlorobiphenyl	94	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3011

WO # : C4341103
LAB # : H6E160141-008
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 10:20
DATE RECEIVED: 5/16/96
% MOISTURE : 22.5

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.2	SW846 8081	05/21-05/30/96	6142131
Aroclor 1016	ND	43	SW846 8081	05/21-05/30/96	6142131
Aroclor 1221	ND	43	SW846 8081	05/21-05/30/96	6142131
Aroclor 1232	ND	43	SW846 8081	05/21-05/30/96	6142131
Aroclor 1242	ND	43	SW846 8081	05/21-05/30/96	6142131
Aroclor 1248	ND	43	SW846 8081	05/21-05/30/96	6142131
Aroclor 1254	ND	43	SW846 8081	05/21-05/30/96	6142131
Aroclor 1260	ND	43	SW846 8081	05/21-05/30/96	6142131
alpha-BHC	ND	2.2	SW846 8081	05/21-05/30/96	6142131
beta-BHC	ND	2.2	SW846 8081	05/21-05/30/96	6142131
delta-BHC	ND	2.2	SW846 8081	05/21-05/30/96	6142131
gamma-BHC (Lindane)	ND	2.2	SW846 8081	05/21-05/30/96	6142131
4,4'-DDD	ND	2.2	SW846 8081	05/21-05/30/96	6142131
4,4'-DDE	ND	2.2	SW846 8081	05/21-05/30/96	6142131
4,4'-DDT	ND	2.2	SW846 8081	05/21-05/30/96	6142131
Dieldrin	ND	2.2	SW846 8081	05/21-05/30/96	6142131
Endrin	ND	2.2	SW846 8081	05/21-05/30/96	6142131
Endrin aldehyde	ND	2.2	SW846 8081	05/21-05/30/96	6142131
Endosulfan I	ND	2.2	SW846 8081	05/21-05/30/96	6142131
Endosulfan II	ND	2.2	SW846 8081	05/21-05/30/96	6142131
Endosulfan sulfate	ND	2.2	SW846 8081	05/21-05/30/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	83	(30 - 150)
Decachlorobiphenyl	115	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3011

WO # : C4341103
LAB # : H6E160141-008
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 10:20
DATE RECEIVED: 5/16/96
% MOISTURE : 22.5

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.2	SW846 8081	05/21-05/30/96	6142131
Heptachlor epoxide	ND	2.2	SW846 8081	05/21-05/30/96	6142131
Methoxychlor	ND	4.3	SW846 8081	05/21-05/30/96	6142131
Toxaphene	ND	86	SW846 8081	05/21-05/30/96	6142131
alpha-Chlordane	ND	2.2	SW846 8081	05/21-05/30/96	6142131
gamma-Chlordane	ND	2.2	SW846 8081	05/21-05/30/96	6142131
Endrin ketone	ND	2.2	SW846 8081	05/21-05/30/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	83	(30 - 150)
Decachlorobiphenyl	115	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3012

WO # : C4348103
LAB # : H6E160141-009
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 10:38
DATE RECEIVED: 5/16/96
% MOISTURE : 18.4

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Aroclor 1016	ND	40	SW846 8081	05/21-06/01/96	6142131
Aroclor 1221	ND	40	SW846 8081	05/21-06/01/96	6142131
Aroclor 1232	ND	40	SW846 8081	05/21-06/01/96	6142131
Aroclor 1242	ND	40	SW846 8081	05/21-06/01/96	6142131
Aroclor 1248	ND	40	SW846 8081	05/21-06/01/96	6142131
Aroclor 1254	ND	40	SW846 8081	05/21-06/01/96	6142131
Aroclor 1260	ND	40	SW846 8081	05/21-06/01/96	6142131
alpha-BHC	ND	2.1	SW846 8081	05/21-06/01/96	6142131
beta-BHC	ND	2.1	SW846 8081	05/21-06/01/96	6142131
delta-BHC	ND	2.1	SW846 8081	05/21-06/01/96	6142131
gamma-BHC (Lindane)	ND	2.1	SW846 8081	05/21-06/01/96	6142131
4,4'-DDD	ND	2.1	SW846 8081	05/21-06/01/96	6142131
4,4'-DDE	ND	2.1	SW846 8081	05/21-06/01/96	6142131
4,4'-DDT	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Dieldrin	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Endrin	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Endrin aldehyde	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Endosulfan I	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Endosulfan II	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Endosulfan sulfate	ND	2.1	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	86	(30 - 150)
Decachlorobiphenyl	114	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3012

WO # : C4348103
LAB # : H6E160141-009
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 10:38
DATE RECEIVED: 5/16/96
% MOISTURE : 18.4

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Heptachlor epoxide	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Methoxychlor	ND	4.0	SW846 8081	05/21-06/01/96	6142131
Toxaphene	ND	82	SW846 8081	05/21-06/01/96	6142131
alpha-Chlordane	ND	2.1	SW846 8081	05/21-06/01/96	6142131
gamma-Chlordane	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Endrin ketone	ND	2.1	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	86	(30 - 150)
Decachlorobiphenyl	114	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3013

WO # : C434E103
LAB # : H6E160141-010
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 14:10
DATE RECEIVED: 5/16/96
% MOISTURE : 22.1

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.2	SW846 8081	05/21-06/01/96	6142131
Aroclor 1016	ND	42	SW846 8081	05/21-06/01/96	6142131
Aroclor 1221	ND	42	SW846 8081	05/21-06/01/96	6142131
Aroclor 1232	ND	42	SW846 8081	05/21-06/01/96	6142131
Aroclor 1242	ND	42	SW846 8081	05/21-06/01/96	6142131
Aroclor 1248	ND	42	SW846 8081	05/21-06/01/96	6142131
Aroclor 1254	ND	42	SW846 8081	05/21-06/01/96	6142131
Aroclor 1260	ND	42	SW846 8081	05/21-06/01/96	6142131
alpha-BHC	ND	2.2	SW846 8081	05/21-06/01/96	6142131
beta-BHC	ND	2.2	SW846 8081	05/21-06/01/96	6142131
delta-BHC	ND	2.2	SW846 8081	05/21-06/01/96	6142131
gamma-BHC (Lindane)	ND	2.2	SW846 8081	05/21-06/01/96	6142131
4,4'-DDD	ND	2.2	SW846 8081	05/21-06/01/96	6142131
4,4'-DDE	ND	2.2	SW846 8081	05/21-06/01/96	6142131
4,4'-DDT	ND	2.2	SW846 8081	05/21-06/01/96	6142131
Dieldrin	ND	2.2	SW846 8081	05/21-06/01/96	6142131
Endrin	ND	2.2	SW846 8081	05/21-06/01/96	6142131
Endrin aldehyde	ND	2.2	SW846 8081	05/21-06/01/96	6142131
Endosulfan I	ND	2.2	SW846 8081	05/21-06/01/96	6142131
Endosulfan II	ND	2.2	SW846 8081	05/21-06/01/96	6142131
Endosulfan sulfate	ND	2.2	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	88	(30 - 150)
Decachlorobiphenyl	92	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3013

WO # : C434E103
LAB # : H6E160141-010
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 14:10
DATE RECEIVED: 5/16/96
% MOISTURE : 22.1

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.2	SW846 8081	05/21-06/01/96	6142131
Heptachlor epoxide	ND	2.2	SW846 8081	05/21-06/01/96	6142131
Methoxychlor	ND	4.2	SW846 8081	05/21-06/01/96	6142131
Toxaphene	ND	86	SW846 8081	05/21-06/01/96	6142131
alpha-Chlordane	ND	2.2	SW846 8081	05/21-06/01/96	6142131
gamma-Chlordane	ND	2.2	SW846 8081	05/21-06/01/96	6142131
Endrin ketone	ND	2.2	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	88	(30 - 150)
Decachlorobiphenyl	92	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3014

WO # : C434G103
LAB # : H6E160141-011
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 14:20
DATE RECEIVED: 5/16/96
% MOISTURE : 22.5

GC Semi-Volatiles

1 OF 2

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.2	SW846 8081	05/21-05/29/96	6142131
Aroclor 1016	ND	43	SW846 8081	05/21-05/29/96	6142131
Aroclor 1221	ND	43	SW846 8081	05/21-05/29/96	6142131
Aroclor 1232	ND	43	SW846 8081	05/21-05/29/96	6142131
Aroclor 1242	ND	43	SW846 8081	05/21-05/29/96	6142131
Aroclor 1248	ND	43	SW846 8081	05/21-05/29/96	6142131
Aroclor 1254	ND	43	SW846 8081	05/21-05/29/96	6142131
Aroclor 1260	ND	43	SW846 8081	05/21-05/29/96	6142131
alpha-BHC	ND	2.2	SW846 8081	05/21-05/29/96	6142131
beta-BHC	ND	2.2	SW846 8081	05/21-05/29/96	6142131
delta-BHC	ND	2.2	SW846 8081	05/21-05/29/96	6142131
gamma-BHC (Lindane)	ND	2.2	SW846 8081	05/21-05/29/96	6142131
4,4'-DDD	ND	2.2	SW846 8081	05/21-05/29/96	6142131
4,4'-DDE	ND	2.2	SW846 8081	05/21-05/29/96	6142131
4,4'-DDT	ND	2.2	SW846 8081	05/21-05/29/96	6142131
Dieldrin	ND	2.2	SW846 8081	05/21-05/29/96	6142131
Endrin	ND	2.2	SW846 8081	05/21-05/29/96	6142131
Endrin aldehyde	ND	2.2	SW846 8081	05/21-05/29/96	6142131
Endosulfan I	ND	2.2	SW846 8081	05/21-05/29/96	6142131
Endosulfan II	ND	2.2	SW846 8081	05/21-05/29/96	6142131
Endosulfan sulfate	ND	2.2	SW846 8081	05/21-05/29/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	86	(30 - 150)
Decachlorobiphenyl	100	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3014

WO # : C434G103
LAB # : H6E160141-011
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 14:20
DATE RECEIVED: 5/16/96
% MOISTURE : 22.5

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.2	SW846 8081	05/21-05/29/96	6142131
Heptachlor epoxide	ND	2.2	SW846 8081	05/21-05/29/96	6142131
Methoxychlor	ND	4.3	SW846 8081	05/21-05/29/96	6142131
Toxaphene	ND	86	SW846 8081	05/21-05/29/96	6142131
alpha-Chlordane	ND	2.2	SW846 8081	05/21-05/29/96	6142131
gamma-Chlordane	ND	2.2	SW846 8081	05/21-05/29/96	6142131
Endrin ketone	ND	2.2	SW846 8081	05/21-05/29/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	86	(30 - 150)
Decachlorobiphenyl	100	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3015

WO # : C434J103
LAB # : H6E160141-012
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 14:40
DATE RECEIVED: 5/16/96
% MOISTURE : 21.5

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.2	SW846 8081	05/21-05/30/96	6142131
Aroclor 1016	ND	42	SW846 8081	05/21-05/30/96	6142131
Aroclor 1221	ND	42	SW846 8081	05/21-05/30/96	6142131
Aroclor 1232	ND	42	SW846 8081	05/21-05/30/96	6142131
Aroclor 1242	ND	42	SW846 8081	05/21-05/30/96	6142131
Aroclor 1248	ND	42	SW846 8081	05/21-05/30/96	6142131
Aroclor 1254	ND	42	SW846 8081	05/21-05/30/96	6142131
Aroclor 1260	ND	42	SW846 8081	05/21-05/30/96	6142131
alpha-BHC	ND	2.2	SW846 8081	05/21-05/30/96	6142131
beta-BHC	ND	2.2	SW846 8081	05/21-05/30/96	6142131
delta-BHC	ND	2.2	SW846 8081	05/21-05/30/96	6142131
gamma-BHC (Lindane)	ND	2.2	SW846 8081	05/21-05/30/96	6142131
4,4'-DDD	ND	2.2	SW846 8081	05/21-05/30/96	6142131
4,4'-DDE	ND	2.2	SW846 8081	05/21-05/30/96	6142131
4,4'-DDT	ND	2.2	SW846 8081	05/21-05/30/96	6142131
Dieldrin	ND	2.2	SW846 8081	05/21-05/30/96	6142131
Endrin	ND	2.2	SW846 8081	05/21-05/30/96	6142131
Endrin aldehyde	ND	2.2	SW846 8081	05/21-05/30/96	6142131
Endosulfan I	ND	2.2	SW846 8081	05/21-05/30/96	6142131
Endosulfan II	ND	2.2	SW846 8081	05/21-05/30/96	6142131
Endosulfan sulfate	ND	2.2	SW846 8081	05/21-05/30/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	88	(30 - 150)
Decachlorobiphenyl	108	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3015

WO # : C434J103
LAB # : H6E160141-012
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 14:40
DATE RECEIVED: 5/16/96
% MOISTURE : 21.5

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.2	SW846 8081	05/21-05/30/96	6142131
Heptachlor epoxide	ND	2.2	SW846 8081	05/21-05/30/96	6142131
Methoxychlor	ND	4.2	SW846 8081	05/21-05/30/96	6142131
Toxaphene	ND	85	SW846 8081	05/21-05/30/96	6142131
alpha-Chlordane	ND	2.2	SW846 8081	05/21-05/30/96	6142131
gamma-Chlordane	ND	2.2	SW846 8081	05/21-05/30/96	6142131
Endrin ketone	ND	2.2	SW846 8081	05/21-05/30/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	88	(30 - 150)
Decachlorobiphenyl	108	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3016

WO # : C434L103
LAB # : H6E160141-013
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 14:48
DATE RECEIVED: 5/16/96
% MOISTURE : 24.2

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.2	SW846 8081	05/21-06/01/96	6142131
Aroclor 1016	ND	44	SW846 8081	05/21-06/01/96	6142131
Aroclor 1221	ND	44	SW846 8081	05/21-06/01/96	6142131
Aroclor 1232	ND	44	SW846 8081	05/21-06/01/96	6142131
Aroclor 1242	ND	44	SW846 8081	05/21-06/01/96	6142131
Aroclor 1248	ND	44	SW846 8081	05/21-06/01/96	6142131
Aroclor 1254	ND	44	SW846 8081	05/21-06/01/96	6142131
Aroclor 1260	ND	44	SW846 8081	05/21-06/01/96	6142131
alpha-BHC	ND	2.2	SW846 8081	05/21-06/01/96	6142131
beta-BHC	ND	2.2	SW846 8081	05/21-06/01/96	6142131
delta-BHC	ND	2.2	SW846 8081	05/21-06/01/96	6142131
gamma-BHC (Lindane)	ND	2.2	SW846 8081	05/21-06/01/96	6142131
4,4'-DDD	ND	2.2	SW846 8081	05/21-06/01/96	6142131
4,4'-DDE	ND	2.2	SW846 8081	05/21-06/01/96	6142131
4,4'-DDT	ND	2.2	SW846 8081	05/21-06/01/96	6142131
Dieldrin	ND	2.2	SW846 8081	05/21-06/01/96	6142131
Endrin	ND	2.2	SW846 8081	05/21-06/01/96	6142131
Endrin aldehyde	ND	2.2	SW846 8081	05/21-06/01/96	6142131
Endosulfan I	ND	2.2	SW846 8081	05/21-06/01/96	6142131
Endosulfan II	ND	2.2	SW846 8081	05/21-06/01/96	6142131
Endosulfan sulfate	ND	2.2	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	89	(30 - 150)
Decachlorobiphenyl	98	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3016

WO # : C434L103
LAB # : H6E160141-013
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 14:48
DATE RECEIVED: 5/16/96
% MOISTURE : 24.2

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.2	SW846 8081	05/21-06/01/96	6142131
Heptachlor epoxide	ND	2.2	SW846 8081	05/21-06/01/96	6142131
Methoxychlor	ND	4.4	SW846 8081	05/21-06/01/96	6142131
Toxaphene	ND	88	SW846 8081	05/21-06/01/96	6142131
alpha-Chlordane	ND	2.2	SW846 8081	05/21-06/01/96	6142131
gamma-Chlordane	ND	2.2	SW846 8081	05/21-06/01/96	6142131
Endrin ketone	ND	2.2	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	89	(30 - 150)
Decachlorobiphenyl	98	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3017

WO # : C434N103
LAB # : H6E160141-014
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 15:25
DATE RECEIVED: 5/16/96
% MOISTURE : 28.9

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.4	SW846 8081	05/21-05/30/96	6142131
Aroclor 1016	ND	46	SW846 8081	05/21-05/30/96	6142131
Aroclor 1221	ND	46	SW846 8081	05/21-05/30/96	6142131
Aroclor 1232	ND	46	SW846 8081	05/21-05/30/96	6142131
Aroclor 1242	ND	46	SW846 8081	05/21-05/30/96	6142131
Aroclor 1248	ND	46	SW846 8081	05/21-05/30/96	6142131
Aroclor 1254	ND	46	SW846 8081	05/21-05/30/96	6142131
Aroclor 1260	ND	46	SW846 8081	05/21-05/30/96	6142131
alpha-BHC	ND	2.4	SW846 8081	05/21-05/30/96	6142131
beta-BHC	ND	2.4	SW846 8081	05/21-05/30/96	6142131
delta-BHC	ND	2.4	SW846 8081	05/21-05/30/96	6142131
gamma-BHC (Lindane)	ND	2.4	SW846 8081	05/21-05/30/96	6142131
4,4'-DDD	ND	2.4	SW846 8081	05/21-05/30/96	6142131
4,4'-DDE	ND	2.4	SW846 8081	05/21-05/30/96	6142131
4,4'-DDT	ND	2.4	SW846 8081	05/21-05/30/96	6142131
Dieldrin	ND	2.4	SW846 8081	05/21-05/30/96	6142131
Endrin	ND	2.4	SW846 8081	05/21-05/30/96	6142131
Endrin aldehyde	ND	2.4	SW846 8081	05/21-05/30/96	6142131
Endosulfan I	ND	2.4	SW846 8081	05/21-05/30/96	6142131
Endosulfan II	ND	2.4	SW846 8081	05/21-05/30/96	6142131
Endosulfan sulfate	ND	2.4	SW846 8081	05/21-05/30/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	86	(30 - 150)
Decachlorobiphenyl	102	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3017

WO # : C434N103
LAB # : H6E160141-014
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 15:25
DATE RECEIVED: 5/16/96
% MOISTURE : 28.9

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.4	SW846 8081	05/21-05/30/96	6142131
Heptachlor epoxide	ND	2.4	SW846 8081	05/21-05/30/96	6142131
Methoxychlor	ND	4.6	SW846 8081	05/21-05/30/96	6142131
Toxaphene	ND	94	SW846 8081	05/21-05/30/96	6142131
alpha-Chlordane	ND	2.4	SW846 8081	05/21-05/30/96	6142131
gamma-Chlordane	ND	2.4	SW846 8081	05/21-05/30/96	6142131
Endrin ketone	ND	2.4	SW846 8081	05/21-05/30/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	86	(30 - 150)
Decachlorobiphenyl	102	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3018

WO # : C434P103
LAB # : H6E160141-015
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 15:35
DATE RECEIVED: 5/16/96
% MOISTURE : 20.2

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Aroclor 1016	ND	41	SW846 8081	05/21-06/01/96	6142131
Aroclor 1221	ND	41	SW846 8081	05/21-06/01/96	6142131
Aroclor 1232	ND	41	SW846 8081	05/21-06/01/96	6142131
Aroclor 1242	ND	41	SW846 8081	05/21-06/01/96	6142131
Aroclor 1248	ND	41	SW846 8081	05/21-06/01/96	6142131
Aroclor 1254	ND	41	SW846 8081	05/21-06/01/96	6142131
Aroclor 1260	ND	41	SW846 8081	05/21-06/01/96	6142131
alpha-BHC	ND	2.1	SW846 8081	05/21-06/01/96	6142131
beta-BHC	ND	2.1	SW846 8081	05/21-06/01/96	6142131
delta-BHC	ND	2.1	SW846 8081	05/21-06/01/96	6142131
gamma-BHC (Lindane)	ND	2.1	SW846 8081	05/21-06/01/96	6142131
4,4'-DDD	ND	2.1	SW846 8081	05/21-06/01/96	6142131
4,4'-DDE	ND	2.1	SW846 8081	05/21-06/01/96	6142131
4,4'-DDT	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Dieldrin	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Endrin	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Endrin aldehyde	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Endosulfan I	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Endosulfan II	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Endosulfan sulfate	ND	2.1	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	92	(30 - 150)
Decachlorobiphenyl	102	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3018

WO # : C434P103
LAB # : H6E160141-015
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 15:35
DATE RECEIVED: 5/16/96
% MOISTURE : 20.2

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Heptachlor epoxide	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Methoxychlor	ND	4.1	SW846 8081	05/21-06/01/96	6142131
Toxaphene	ND	84	SW846 8081	05/21-06/01/96	6142131
alpha-Chlordane	ND	2.1	SW846 8081	05/21-06/01/96	6142131
gamma-Chlordane	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Endrin ketone	ND	2.1	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	92	(30 - 150)
Decachlorobiphenyl	102	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3019

WO # : C434R103
LAB # : H6E160141-016
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 16:20
DATE RECEIVED: 5/16/96
% MOISTURE : 16.7

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.0	SW846 8081	05/21-05/30/96	6142131
Aroclor 1016	ND	40	SW846 8081	05/21-05/30/96	6142131
Aroclor 1221	ND	40	SW846 8081	05/21-05/30/96	6142131
Aroclor 1232	ND	40	SW846 8081	05/21-05/30/96	6142131
Aroclor 1242	ND	40	SW846 8081	05/21-05/30/96	6142131
Aroclor 1248	ND	40	SW846 8081	05/21-05/30/96	6142131
Aroclor 1254	ND	40	SW846 8081	05/21-05/30/96	6142131
Aroclor 1260	ND	40	SW846 8081	05/21-05/30/96	6142131
alpha-BHC	ND	2.0	SW846 8081	05/21-05/30/96	6142131
beta-BHC	ND	2.0	SW846 8081	05/21-05/30/96	6142131
delta-BHC	ND	2.0	SW846 8081	05/21-05/30/96	6142131
gamma-BHC (Lindane)	ND	2.0	SW846 8081	05/21-05/30/96	6142131
4,4'-DDD	ND	2.0	SW846 8081	05/21-05/30/96	6142131
4,4'-DDE	ND	2.0	SW846 8081	05/21-05/30/96	6142131
4,4'-DDT	ND	2.0	SW846 8081	05/21-05/30/96	6142131
Dieldrin	ND	2.0	SW846 8081	05/21-05/30/96	6142131
Endrin	ND	2.0	SW846 8081	05/21-05/30/96	6142131
Endrin aldehyde	ND	2.0	SW846 8081	05/21-05/30/96	6142131
Endosulfan I	ND	2.0	SW846 8081	05/21-05/30/96	6142131
Endosulfan II	ND	2.0	SW846 8081	05/21-05/30/96	6142131
Endosulfan sulfate	ND	2.0	SW846 8081	05/21-05/30/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	94	(30 - 150)
Decachlorobiphenyl	133	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3019

WO # : C434R103
LAB # : H6E160141-016
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 16:20
DATE RECEIVED: 5/16/96
% MOISTURE : 16.7

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.0	SW846 8081	05/21-05/30/96	6142131
Heptachlor epoxide	ND	2.0	SW846 8081	05/21-05/30/96	6142131
Methoxychlor	ND	4.0	SW846 8081	05/21-05/30/96	6142131
Toxaphene	ND	80	SW846 8081	05/21-05/30/96	6142131
alpha-Chlordane	ND	2.0	SW846 8081	05/21-05/30/96	6142131
gamma-Chlordane	ND	2.0	SW846 8081	05/21-05/30/96	6142131
Endrin ketone	ND	2.0	SW846 8081	05/21-05/30/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	94	(30 - 150)
Decachlorobiphenyl	133	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3020

WO # : C434T103
LAB # : H6E160141-017
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 16:35
DATE RECEIVED: 5/16/96
% MOISTURE : 20.2

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Aldrin	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Aroclor 1016	ND	41	SW846 8081	05/21-06/01/96	6142131
Aroclor 1221	ND	41	SW846 8081	05/21-06/01/96	6142131
Aroclor 1232	ND	41	SW846 8081	05/21-06/01/96	6142131
Aroclor 1242	ND	41	SW846 8081	05/21-06/01/96	6142131
Aroclor 1248	ND	41	SW846 8081	05/21-06/01/96	6142131
Aroclor 1254	ND	41	SW846 8081	05/21-06/01/96	6142131
Aroclor 1260	ND	41	SW846 8081	05/21-06/01/96	6142131
alpha-BHC	ND	2.1	SW846 8081	05/21-06/01/96	6142131
beta-BHC	ND	2.1	SW846 8081	05/21-06/01/96	6142131
delta-BHC	ND	2.1	SW846 8081	05/21-06/01/96	6142131
gamma-BHC (Lindane)	ND	2.1	SW846 8081	05/21-06/01/96	6142131
4,4'-DDD	ND	2.1	SW846 8081	05/21-06/01/96	6142131
4,4'-DDE	ND	2.1	SW846 8081	05/21-06/01/96	6142131
4,4'-DDT	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Dieldrin	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Endrin	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Endrin aldehyde	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Endosulfan I	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Endosulfan II	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Endosulfan sulfate	ND	2.1	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	90	(30 - 150)
Decachlorobiphenyl	93	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3020

WO # : C434T103
LAB # : H6E160141-017
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 16:35
DATE RECEIVED: 5/16/96
% MOISTURE : 20.2

GC Semi-Volatiles

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
Heptachlor	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Heptachlor epoxide	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Methoxychlor	ND	4.1	SW846 8081	05/21-06/01/96	6142131
Toxaphene	ND	84	SW846 8081	05/21-06/01/96	6142131
alpha-Chlordane	ND	2.1	SW846 8081	05/21-06/01/96	6142131
gamma-Chlordane	ND	2.1	SW846 8081	05/21-06/01/96	6142131
Endrin ketone	ND	2.1	SW846 8081	05/21-06/01/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	90	(30 - 150)
Decachlorobiphenyl	93	(60 - 150)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

METHOD BLANK REPORT

LAB #: H6E210000-131 **WO #:** C44G9

- **GC Semi-Volatiles** -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	PREPARATION - ANALYSIS DATE	QC BATCH
Aldrin	ND	1.7	5/21- 5/28/96	6142131
alpha-BHC	ND	1.7	5/21- 5/28/96	6142131
beta-BHC	ND	1.7	5/21- 5/28/96	6142131
delta-BHC	ND	1.7	5/21- 5/28/96	6142131
gamma-BHC (Lindane)	ND	1.7	5/21- 5/28/96	6142131
alpha-Chlordane	ND	1.7	5/21- 5/28/96	6142131
gamma-Chlordane	ND	1.7	5/21- 5/28/96	6142131
4,4'-DDD	ND	1.7	5/21- 5/28/96	6142131
4,4'-DDE	ND	1.7	5/21- 5/28/96	6142131
4,4'-DDT	ND	1.7	5/21- 5/28/96	6142131
Dieldrin	ND	1.7	5/21- 5/28/96	6142131
Endosulfan I	ND	1.7	5/21- 5/28/96	6142131
Endosulfan II	ND	1.7	5/21- 5/28/96	6142131
Endosulfan sulfate	ND	1.7	5/21- 5/28/96	6142131
Endrin	ND	1.7	5/21- 5/28/96	6142131
Endrin aldehyde	ND	1.7	5/21- 5/28/96	6142131
Endrin ketone	ND	1.7	5/21- 5/28/96	6142131
Heptachlor	ND	1.7	5/21- 5/28/96	6142131
Heptachlor epoxide	ND	1.7	5/21- 5/28/96	6142131
Methoxychlor	ND	3.3	5/21- 5/28/96	6142131
Aroclor 1016	ND	33	5/21- 5/28/96	6142131
Aroclor 1221	ND	33	5/21- 5/28/96	6142131
Aroclor 1232	ND	33	5/21- 5/28/96	6142131
Aroclor 1242	ND	33	5/21- 5/28/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	82	(30 - 150)
Decachlorobiphenyl	93	(60 - 150)

NOTE:

ND (NONE DETECTED)

METHOD BLANK REPORT

LAB #: H6E210000-131 WO #: C44G9

- GC Semi-Volatiles -

PARAMETER	RESULT (ug/kg)	REPORTING LIMIT	PREPARATION - ANALYSIS DATE	QC BATCH
Aroclor 1248	ND	33	5/21- 5/28/96	6142131
Aroclor 1254	ND	33	5/21- 5/28/96	6142131
Aroclor 1260	ND	33	5/21- 5/28/96	6142131
Toxaphene	ND	67	5/21- 5/28/96	6142131

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	82	(30 - 150)
Decachlorobiphenyl	93	(60 - 150)

NOTE:

ND (NONE DETECTED)

MATRIX SPIKE SAMPLE REPORT

LAB #.....: H6E160141
SAMPLE NO.: 004
QC BATCH..: 6142131
MS W.O.#..: C432W108
MSD W.O.#.: C432W109
UNITS.....: ug/kg

PREPARATION DATE: 5/21/96
DATE ANALYZED...: 5/29/96

- GC Semivolatiles -

PARAMETER	TRUE SPIKE	SPIKE AMOUNT	SPIKE %REC	DUPLICATE AMOUNT	DUPLICATE %REC	RECOVERY LIMITS	RELATIVE PERCENT DIFFERENCE	RPD LIMITS
gamma-BHC (Lindane)	21	20	94	22	100	(45-127)	6.7	(0-30)
Aldrin	21	19	88	20	93	(46-122)	5.3	(0-30)
4,4'-DDT	43	37	86	40	92	(56-128)	7.0	(0-30)
Dieldrin	43	44	101	46	106	(47-126)	4.5	(0-30)
Endrin	43	41	95	45	105	(42-138)	10	(0-30)
Heptachlor	21	21	96	21	99	(48-111)	3.1	(0-30)

SURROGATE RECOVERY	SPIKE %	DUP. %	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	79	82	(30 - 150)
Decachlorobiphenyl	90	98	(60 - 150)

NOTE:

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE REPORT

LAB #.....: H6E210000
QC BATCH..: 6142131
WORK ORDER: C44G9102
UNITS.....: ug/kg

PREPARATION DATE: 5/21/96
DATE ANALYZED...: 5/28/96

- GC Semivolatiles -

PARAMETER	TRUE SPIKE	MEASURED SPIKE	PERCENT RECOVERY	RECOVERY LIMITS
gamma-BHC (Lindane)	17	17	104	(80-120)
Aldrin	17	16	95	(80-120)
4,4'-DDT	33	34	102	(80-120)
Dieldrin	33	35	105	(80-120)
Endrin	33	35	104	(80-120)
Heptachlor	17	17	99	(80-120)

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
Tetrachloro-m-xylene	91	(30 - 150)
Decachlorobiphenyl	98	(60 - 150)

NOTE:

Calculations are performed before rounding to avoid round-off errors in calculated results.

HPLC

IT Corporation - Knoxville

3001

WO # : C431J104
LAB # : H6E160141-001
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 10:55
DATE RECEIVED: 5/16/96
% MOISTURE : 22.3

- - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.32	SW846 8330	05/21-05/22/96	6141167
2,4-Dinitrotoluene	ND	0.32	SW846 8330	05/21-05/22/96	6141167
2,6-Dinitrotoluene	ND	0.32	SW846 8330	05/21-05/22/96	6141167
HMX	ND	0.64	SW846 8330	05/21-05/22/96	6141167
Nitrobenzene	ND	0.32	SW846 8330	05/21-05/22/96	6141167
2-Nitrotoluene	ND	0.32	SW846 8330	05/21-05/22/96	6141167
3-Nitrotoluene	ND	0.32	SW846 8330	05/21-05/22/96	6141167
RDX	ND	0.64	SW846 8330	05/21-05/22/96	6141167
Tetryl	ND	0.84	SW846 8330	05/21-05/22/96	6141167
1,3,5-Trinitrobenzene	ND	0.32	SW846 8330	05/21-05/22/96	61
2,4,6-Trinitrotoluene	ND	0.32	SW846 8330	05/21-05/22/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.32	SW846 8330	05/21-05/22/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	92	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3002

WO # : C432F104
LAB # : H6E160141-002
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 11:00
DATE RECEIVED: 5/16/96
% MOISTURE : 20.0

- **REQUESTED PARAMETERS** -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.31	SW846 8330	05/21-05/23/96	6141167
2,4-Dinitrotoluene	ND	0.31	SW846 8330	05/21-05/23/96	6141167
2,6-Dinitrotoluene	ND	0.31	SW846 8330	05/21-05/23/96	6141167
HMX	ND	0.62	SW846 8330	05/21-05/23/96	6141167
Nitrobenzene	ND	0.31	SW846 8330	05/21-05/23/96	6141167
2-Nitrotoluene	ND	0.31	SW846 8330	05/21-05/23/96	6141167
3-Nitrotoluene	ND	0.31	SW846 8330	05/21-05/23/96	6141167
RDX	ND	0.62	SW846 8330	05/21-05/23/96	6141167
Tetryl	ND	0.81	SW846 8330	05/21-05/23/96	6141167
1,3,5-Trinitrobenzene	ND	0.31	SW846 8330	05/21-05/23/96	6141167
2,4,6-Trinitrotoluene	ND	0.31	SW846 8330	05/21-05/23/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.31	SW846 8330	05/21-05/23/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	94	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3003

WO # : C432M104
LAB # : H6E160141-003
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 11:10
DATE RECEIVED: 5/16/96
% MOISTURE : 27.5

- **REQUESTED PARAMETERS** -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.34	SW846 8330	05/21-05/23/96	6141167
2,4-Dinitrotoluene	ND	0.34	SW846 8330	05/21-05/23/96	6141167
2,6-Dinitrotoluene	ND	0.34	SW846 8330	05/21-05/23/96	6141167
HMX	ND	0.69	SW846 8330	05/21-05/23/96	6141167
Nitrobenzene	ND	0.34	SW846 8330	05/21-05/23/96	6141167
2-Nitrotoluene	ND	0.34	SW846 8330	05/21-05/23/96	6141167
3-Nitrotoluene	ND	0.34	SW846 8330	05/21-05/23/96	6141167
RDX	ND	0.69	SW846 8330	05/21-05/23/96	6141167
Tetryl	ND	0.90	SW846 8330	05/21-05/23/96	6141167
1,3,5-Trinitrobenzene	ND	0.34	SW846 8330	05/21-05/23/96	61[illegible]
2,4,6-Trinitrotoluene	ND	0.34	SW846 8330	05/21-05/23/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.34	SW846 8330	05/21-05/23/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	93	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3004

WO # : C432W10A
LAB # : H6E160141-004
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 11:30
DATE RECEIVED: 5/16/96
% MOISTURE : 22.4

- **REQUESTED PARAMETERS** -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.32	SW846 8330	05/21-05/22/96	6141167
2,4-Dinitrotoluene	ND	0.32	SW846 8330	05/21-05/22/96	6141167
2,6-Dinitrotoluene	ND	0.32	SW846 8330	05/21-05/22/96	6141167
HMX	ND	0.64	SW846 8330	05/21-05/22/96	6141167
Nitrobenzene	ND	0.32	SW846 8330	05/21-05/22/96	6141167
2-Nitrotoluene	ND	0.32	SW846 8330	05/21-05/22/96	6141167
3-Nitrotoluene	ND	0.32	SW846 8330	05/21-05/22/96	6141167
RDX	ND	0.64	SW846 8330	05/21-05/22/96	6141167
Tetryl	ND	0.84	SW846 8330	05/21-05/22/96	6141167
1,3,5-Trinitrobenzene	ND	0.32	SW846 8330	05/21-05/22/96	6141167
2,4,6-Trinitrotoluene	ND	0.32	SW846 8330	05/21-05/22/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.32	SW846 8330	05/21-05/22/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	92	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3005

WO # : C4334104
LAB # : H6E160141-005
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 11:30
DATE RECEIVED: 5/16/96
% MOISTURE : 24.8

- **REQUESTED PARAMETERS** -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.33	SW846 8330	05/21-05/22/96	6141167
2,4-Dinitrotoluene	ND	0.33	SW846 8330	05/21-05/22/96	6141167
2,6-Dinitrotoluene	ND	0.33	SW846 8330	05/21-05/22/96	6141167
HMX	ND	0.66	SW846 8330	05/21-05/22/96	6141167
Nitrobenzene	ND	0.33	SW846 8330	05/21-05/22/96	6141167
2-Nitrotoluene	ND	0.33	SW846 8330	05/21-05/22/96	6141167
3-Nitrotoluene	ND	0.33	SW846 8330	05/21-05/22/96	6141167
RDX	ND	0.66	SW846 8330	05/21-05/22/96	6141167
Tetryl	ND	0.86	SW846 8330	05/21-05/22/96	6141167
1,3,5-Trinitrobenzene	ND	0.33	SW846 8330	05/21-05/22/96	614[illegible]7
2,4,6-Trinitrotoluene	ND	0.33	SW846 8330	05/21-05/22/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.33	SW846 8330	05/21-05/22/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	95	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3009

WO # : C433C104
LAB # : H6E160141-006
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 12:05
DATE RECEIVED: 5/16/96
% MOISTURE : 27.0

- - - - - - - - - - - - - - - - - - **REQUESTED PARAMETERS** - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.34	SW846 8330	05/21-05/22/96	6141167
2,4-Dinitrotoluene	ND	0.34	SW846 8330	05/21-05/22/96	6141167
2,6-Dinitrotoluene	ND	0.34	SW846 8330	05/21-05/22/96	6141167
HMX	ND	0.68	SW846 8330	05/21-05/22/96	6141167
Nitrobenzene	ND	0.34	SW846 8330	05/21-05/22/96	6141167
2-Nitrotoluene	ND	0.34	SW846 8330	05/21-05/22/96	6141167
3-Nitrotoluene	ND	0.34	SW846 8330	05/21-05/22/96	6141167
RDX	ND	0.68	SW846 8330	05/21-05/22/96	6141167
Tetryl	ND	0.89	SW846 8330	05/21-05/22/96	6141167
1,3,5-Trinitrobenzene	ND	0.34	SW846 8330	05/21-05/22/96	6141167
2,4,6-Trinitrotoluene	ND	0.34	SW846 8330	05/21-05/22/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.34	SW846 8330	05/21-05/22/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	92	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3010

WO # : C433N104
LAB # : H6E160141-007
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 12:15
DATE RECEIVED: 5/16/96
% MOISTURE : 27.1

- - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.34	SW846 8330	05/21-05/23/96	6141167
2,4-Dinitrotoluene	ND	0.34	SW846 8330	05/21-05/23/96	6141167
2,6-Dinitrotoluene	ND	0.34	SW846 8330	05/21-05/23/96	6141167
HMX	ND	0.69	SW846 8330	05/21-05/23/96	6141167
Nitrobenzene	ND	0.34	SW846 8330	05/21-05/23/96	6141167
2-Nitrotoluene	ND	0.34	SW846 8330	05/21-05/23/96	6141167
3-Nitrotoluene	ND	0.34	SW846 8330	05/21-05/23/96	6141167
RDX	ND	0.69	SW846 8330	05/21-05/23/96	6141167
Tetryl	ND	0.89	SW846 8330	05/21-05/23/96	6141167
1,3,5-Trinitrobenzene	ND	0.34	SW846 8330	05/21-05/23/96	61
2,4,6-Trinitrotoluene	ND	0.34	SW846 8330	05/21-05/23/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.34	SW846 8330	05/21-05/23/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	102	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3011

WO # : C4341104
LAB # : H6E160141-008
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 10:20
DATE RECEIVED: 5/16/96
% MOISTURE : 22.5

- - - - - - - - - - - - - - - - - - **REQUESTED PARAMETERS** - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.32	SW846 8330	05/21-05/23/96	6141167
2,4-Dinitrotoluene	ND	0.32	SW846 8330	05/21-05/23/96	6141167
2,6-Dinitrotoluene	ND	0.32	SW846 8330	05/21-05/23/96	6141167
HMX	ND	0.65	SW846 8330	05/21-05/23/96	6141167
Nitrobenzene	ND	0.32	SW846 8330	05/21-05/23/96	6141167
2-Nitrotoluene	ND	0.32	SW846 8330	05/21-05/23/96	6141167
3-Nitrotoluene	ND	0.32	SW846 8330	05/21-05/23/96	6141167
RDX	ND	0.65	SW846 8330	05/21-05/23/96	6141167
Tetryl	ND	0.84	SW846 8330	05/21-05/23/96	6141167
1,3,5-Trinitrobenzene	ND	0.32	SW846 8330	05/21-05/23/96	6141167
2,4,6-Trinitrotoluene	ND	0.32	SW846 8330	05/21-05/23/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.32	SW846 8330	05/21-05/23/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	100	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3012

WO # : C4348104
LAB # : H6E160141-009
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 10:38
DATE RECEIVED: 5/16/96
% MOISTURE : 18.4

- - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.31	SW846 8330	05/21-05/22/96	6141167
2,4-Dinitrotoluene	ND	0.31	SW846 8330	05/21-05/22/96	6141167
2,6-Dinitrotoluene	ND	0.31	SW846 8330	05/21-05/22/96	6141167
HMX	ND	0.61	SW846 8330	05/21-05/22/96	6141167
Nitrobenzene	ND	0.31	SW846 8330	05/21-05/22/96	6141167
2-Nitrotoluene	ND	0.31	SW846 8330	05/21-05/22/96	6141167
3-Nitrotoluene	ND	0.31	SW846 8330	05/21-05/22/96	6141167
RDX	ND	0.61	SW846 8330	05/21-05/22/96	6141167
Tetryl	ND	0.80	SW846 8330	05/21-05/22/96	6141167
1,3,5-Trinitrobenzene	ND	0.31	SW846 8330	05/21-05/22/96	61[illegible]
2,4,6-Trinitrotoluene	ND	0.31	SW846 8330	05/21-05/22/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.31	SW846 8330	05/21-05/22/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	93	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3013

WO # : C434E104
LAB # : H6E160141-010
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 14:10
DATE RECEIVED: 5/16/96
% MOISTURE : 22.1

- - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.32	SW846 8330	05/21-05/23/96	6141167
2,4-Dinitrotoluene	ND	0.32	SW846 8330	05/21-05/23/96	6141167
2,6-Dinitrotoluene	ND	0.32	SW846 8330	05/21-05/23/96	6141167
HMX	ND	0.64	SW846 8330	05/21-05/23/96	6141167
Nitrobenzene	ND	0.32	SW846 8330	05/21-05/23/96	6141167
2-Nitrotoluene	ND	0.32	SW846 8330	05/21-05/23/96	6141167
3-Nitrotoluene	ND	0.32	SW846 8330	05/21-05/23/96	6141167
RDX	ND	0.64	SW846 8330	05/21-05/23/96	6141167
Tetryl	ND	0.83	SW846 8330	05/21-05/23/96	6141167
1,3,5-Trinitrobenzene	ND	0.32	SW846 8330	05/21-05/23/96	6141167
2,4,6-Trinitrotoluene	ND	0.32	SW846 8330	05/21-05/23/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.32	SW846 8330	05/21-05/23/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	94	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3014

WO # : C434G104
LAB # : H6E160141-011
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 14:20
DATE RECEIVED: 5/16/96
% MOISTURE : 22.5

- **REQUESTED PARAMETERS** -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.32	SW846 8330	05/21-05/23/96	6141167
2,4-Dinitrotoluene	ND	0.32	SW846 8330	05/21-05/23/96	6141167
2,6-Dinitrotoluene	ND	0.32	SW846 8330	05/21-05/23/96	6141167
HMX	ND	0.65	SW846 8330	05/21-05/23/96	6141167
Nitrobenzene	ND	0.32	SW846 8330	05/21-05/23/96	6141167
2-Nitrotoluene	ND	0.32	SW846 8330	05/21-05/23/96	6141167
3-Nitrotoluene	ND	0.32	SW846 8330	05/21-05/23/96	6141167
RDX	ND	0.65	SW846 8330	05/21-05/23/96	6141167
Tetryl	ND	0.84	SW846 8330	05/21-05/23/96	6141167
1,3,5-Trinitrobenzene	ND	0.32	SW846 8330	05/21-05/23/96	61
2,4,6-Trinitrotoluene	ND	0.32	SW846 8330	05/21-05/23/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.32	SW846 8330	05/21-05/23/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	93	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3015

WO # : C434J104
LAB # : H6E160141-012
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 14:40
DATE RECEIVED: 5/16/96
% MOISTURE : 21.5

- **REQUESTED PARAMETERS** -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.32	SW846 8330	05/21-05/22/96	6141167
2,4-Dinitrotoluene	ND	0.32	SW846 8330	05/21-05/22/96	6141167
2,6-Dinitrotoluene	ND	0.32	SW846 8330	05/21-05/22/96	6141167
HMX	ND	0.64	SW846 8330	05/21-05/22/96	6141167
Nitrobenzene	ND	0.32	SW846 8330	05/21-05/22/96	6141167
2-Nitrotoluene	ND	0.32	SW846 8330	05/21-05/22/96	6141167
3-Nitrotoluene	ND	0.32	SW846 8330	05/21-05/22/96	6141167
RDX	ND	0.64	SW846 8330	05/21-05/22/96	6141167
Tetryl	ND	0.83	SW846 8330	05/21-05/22/96	6141167
1,3,5-Trinitrobenzene	ND	0.32	SW846 8330	05/21-05/22/96	6141167
2,4,6-Trinitrotoluene	ND	0.32	SW846 8330	05/21-05/22/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.32	SW846 8330	05/21-05/22/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	94	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3016

WO # : C434L104
LAB # : H6E160141-013
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 14:48
DATE RECEIVED: 5/16/96
% MOISTURE : 24.2

- **REQUESTED PARAMETERS** -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.33	SW846 8330	05/21-05/23/96	6141167
2,4-Dinitrotoluene	ND	0.33	SW846 8330	05/21-05/23/96	6141167
2,6-Dinitrotoluene	ND	0.33	SW846 8330	05/21-05/23/96	6141167
HMX	ND	0.66	SW846 8330	05/21-05/23/96	6141167
Nitrobenzene	ND	0.33	SW846 8330	05/21-05/23/96	6141167
2-Nitrotoluene	ND	0.33	SW846 8330	05/21-05/23/96	6141167
3-Nitrotoluene	ND	0.33	SW846 8330	05/21-05/23/96	6141167
RDX	ND	0.66	SW846 8330	05/21-05/23/96	6141167
Tetryl	ND	0.86	SW846 8330	05/21-05/23/96	6141167
1,3,5-Trinitrobenzene	ND	0.33	SW846 8330	05/21-05/23/96	61[illegible]
2,4,6-Trinitrotoluene	ND	0.33	SW846 8330	05/21-05/23/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.33	SW846 8330	05/21-05/23/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	88	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3017

WO # : C434N104
LAB # : H6E160141-014
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 15:25
DATE RECEIVED: 5/16/96
% MOISTURE : 28.9

- **REQUESTED PARAMETERS** -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.35	SW846 8330	05/21-05/22/96	6141167
2,4-Dinitrotoluene	ND	0.35	SW846 8330	05/21-05/22/96	6141167
2,6-Dinitrotoluene	ND	0.35	SW846 8330	05/21-05/22/96	6141167
HMX	ND	0.70	SW846 8330	05/21-05/22/96	6141167
Nitrobenzene	ND	0.35	SW846 8330	05/21-05/22/96	6141167
2-Nitrotoluene	ND	0.35	SW846 8330	05/21-05/22/96	6141167
3-Nitrotoluene	ND	0.35	SW846 8330	05/21-05/22/96	6141167
RDX	ND	0.70	SW846 8330	05/21-05/22/96	6141167
Tetryl	ND	0.91	SW846 8330	05/21-05/22/96	6141167
1,3,5-Trinitrobenzene	ND	0.35	SW846 8330	05/21-05/22/96	6141167
2,4,6-Trinitrotoluene	ND	0.35	SW846 8330	05/21-05/22/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.35	SW846 8330	05/21-05/22/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	91	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3018

WO # : C434P104
LAB # : H6E160141-015
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 15:35
DATE RECEIVED: 5/16/96
% MOISTURE : 20.2

- - - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.31	SW846 8330	05/21-05/22/96	6141167
2,4-Dinitrotoluene	ND	0.31	SW846 8330	05/21-05/22/96	6141167
2,6-Dinitrotoluene	ND	0.31	SW846 8330	05/21-05/22/96	6141167
HMX	ND	0.63	SW846 8330	05/21-05/22/96	6141167
Nitrobenzene	ND	0.31	SW846 8330	05/21-05/22/96	6141167
2-Nitrotoluene	ND	0.31	SW846 8330	05/21-05/22/96	6141167
3-Nitrotoluene	ND	0.31	SW846 8330	05/21-05/22/96	6141167
RDX	ND	0.63	SW846 8330	05/21-05/22/96	6141167
Tetryl	ND	0.81	SW846 8330	05/21-05/22/96	6141167
1,3,5-Trinitrobenzene	ND	0.31	SW846 8330	05/21-05/22/96	61[illegible]
2,4,6-Trinitrotoluene	ND	0.31	SW846 8330	05/21-05/22/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.31	SW846 8330	05/21-05/22/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	91	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3019

WO # : C434R104
LAB # : H6E160141-016
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 16:20
DATE RECEIVED: 5/16/96
% MOISTURE : 16.7

- - - - - - - - - - - - - - - - - - REQUESTED PARAMETERS - - - - - - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.30	SW846 8330	05/21-05/23/96	6141167
2,4-Dinitrotoluene	ND	0.30	SW846 8330	05/21-05/23/96	6141167
2,6-Dinitrotoluene	ND	0.30	SW846 8330	05/21-05/23/96	6141167
HMX	ND	0.60	SW846 8330	05/21-05/23/96	6141167
Nitrobenzene	ND	0.30	SW846 8330	05/21-05/23/96	6141167
2-Nitrotoluene	ND	0.30	SW846 8330	05/21-05/23/96	6141167
3-Nitrotoluene	ND	0.30	SW846 8330	05/21-05/23/96	6141167
RDX	ND	0.60	SW846 8330	05/21-05/23/96	6141167
Tetryl	ND	0.78	SW846 8330	05/21-05/23/96	6141167
1,3,5-Trinitrobenzene	ND	0.30	SW846 8330	05/21-05/23/96	6141167
2,4,6-Trinitrotoluene	ND	0.30	SW846 8330	05/21-05/23/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.30	SW846 8330	05/21-05/23/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	95	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

IT Corporation - Knoxville

3020

WO # : C434T104
LAB # : H6E160141-017
MATRIX: SOLID
DILUTION FACTOR: 1.00

DATE SAMPLED : 5/14/96
TIME SAMPLED : 16:35
DATE RECEIVED: 5/16/96
% MOISTURE : 20.2

- **REQUESTED PARAMETERS** -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	METHOD	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.31	SW846 8330	05/21-05/22/96	6141167
2,4-Dinitrotoluene	ND	0.31	SW846 8330	05/21-05/22/96	6141167
2,6-Dinitrotoluene	ND	0.31	SW846 8330	05/21-05/22/96	6141167
HMX	ND	0.63	SW846 8330	05/21-05/22/96	6141167
Nitrobenzene	ND	0.31	SW846 8330	05/21-05/22/96	6141167
2-Nitrotoluene	ND	0.31	SW846 8330	05/21-05/22/96	6141167
3-Nitrotoluene	ND	0.31	SW846 8330	05/21-05/22/96	6141167
RDX	ND	0.63	SW846 8330	05/21-05/22/96	6141167
Tetryl	ND	0.81	SW846 8330	05/21-05/22/96	6141167
1,3,5-Trinitrobenzene	ND	0.31	SW846 8330	05/21-05/22/96	614
2,4,6-Trinitrotoluene	ND	0.31	SW846 8330	05/21-05/22/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.31	SW846 8330	05/21-05/22/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	87	(53 - 140)

NOTE: DRY WEIGHT
ND NOT DETECTED AT THE STATED REPORTING LIMIT

METHOD BLANK REPORT

LAB #: H6E200000-167

- - - - - - - - - - - - - NITROAROMATICS AND NITRAMINES BY HPLC - - - - - - - - - - - - -

PARAMETER	RESULT (mg/kg)	REPORTING LIMIT	EXTRACTION-ANALYSIS DATE	QC BATCH
1,3-Dinitrobenzene	ND	0.25	5/21- 5/22/96	6141167
2,4-Dinitrotoluene	ND	0.25	5/21- 5/22/96	6141167
2,6-Dinitrotoluene	ND	0.25	5/21- 5/22/96	6141167
Nitrobenzene	ND	0.25	5/21- 5/22/96	6141167
1,3,5-Trinitrobenzene	ND	0.25	5/21- 5/22/96	6141167
2,4,6-Trinitrotoluene	ND	0.25	5/21- 5/22/96	6141167
HMX	ND	0.50	5/21- 5/22/96	6141167
RDX	ND	0.50	5/21- 5/22/96	6141167
Tetryl	ND	0.65	5/21- 5/22/96	6141167
2-Nitrotoluene	ND	0.25	5/21- 5/22/96	6141167
3-Nitrotoluene	ND	0.25	5/21- 5/22/96	6141167
4-Amino-2,6-dinitrotoluene	ND	0.25	5/21- 5/22/96	6141167

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	100	(53 - 140)

NOTE:

ND NOT DETECTED AT THE STATED REPORTING LIMIT

MATRIX SPIKE SAMPLE REPORT

LAB #.....: H6E160141
SAMPLE NO.: 004
QC BATCH..: 6141167
MS W.O.#..: C432W10C
MSD W.O.#.: C432W10D
UNITS.....: mg/kg

PREPARATION DATE: 5/21/96
DATE ANALYZED...: 5/22/96

- HPLC -

PARAMETER		TRUE SPIKE	SPIKE AMOUNT	SPIKE %REC	DUPLICATE AMOUNT	DUPLICATE %REC	RECOVERY LIMITS	RELATIVE PERCENT DIFFERENCE	RPD LIMITS
HMX	***	3.9	3.4	87	3.2	83	(25-150)	3.9	(0-30)
RDX	***	3.9	3.6	93	3.4	87	(26-154)	7.4	(0-30)
1,3,5-Trinitrobenzene	***	3.9	3.6	93	3.6	93	(26-153)	0	(0-30)
1,3-Dinitrobenzene	***	3.9	3.6	93	3.6	93	(26-150)	0	(0-30)
Tetryl	***	3.9	3.6	93	3.6	93	(22-152)	0	(0-30)
Nitrobenzene	***	4.0	3.6	90	3.7	94	(27-153)	3.5	(0-30)
2,4,6-Trinitrotoluene	***	3.9	3.4	87	3.4	87	(27-153)	0	(0-[illegible]
2,6-Dinitrotoluene	***	3.9	3.1	80	3.1	80	(27-155)	0	(0-[illegible]
2,4-Dinitrotoluene	***	3.7	3.9	103	3.7	100	(26-153)	3.4	(0-30)
2-Nitrotoluene	***	4.0	3.5	87	3.5	87	(25-156)	0	(0-30)
3-Nitrotoluene	***	3.9	3.6	93	3.6	93	(26-157)	0	(0-30)

SURROGATE RECOVERY	SPIKE %	DUP. %	ACCEPTABLE LIMITS
4-Nitrotoluene	88	86	(53 - 140)

NOTE:

Calculations are performed before rounding to avoid round-off errors in calculated results.

*** Control parameters.

LABORATORY CONTROL SAMPLE REPORT

LAB #.....: H6E160141
QC BATCH..: 6141167
WORK ORDER: C447Q102
UNITS.....: mg/kg

PREPARATION DATE: 5/21/96
DATE ANALYZED...: 5/22/96

- HPLC -

PARAMETER		TRUE SPIKE	MEASURED SPIKE	PERCENT RECOVERY	RECOVERY LIMITS
HMX	***	3.0	2.7	90	(25-150)
RDX	***	3.0	2.8	93	(26-154)
1,3,5-Trinitrobenzene	***	3.0	2.8	93	(26-153)
1,3-Dinitrobenzene	***	3.0	2.9	97	(26-150)
Tetryl	***	3.0	2.9	97	(22-152)
Nitrobenzene	***	3.1	2.9	94	(27-153)
2,4,6-Trinitrotoluene	***	3.0	2.8	93	(27-153)
2,6-Dinitrotoluene	***	3.0	2.6	87	(27-155)
2,4-Dinitrotoluene	***	2.9	2.9	100	(26-153)
2-Nitrotoluene	***	3.1	2.7	87	(25-156)
3-Nitrotoluene	***	3.0	2.8	93	(26-157)

SURROGATE RECOVERY	%	ACCEPTABLE LIMITS
4-Nitrotoluene	94	(53 - 140)

NOTE:

Calculations are performed before rounding to avoid round-off errors in calculated results.

*** Control parameters.

APPENDIX H

TECHNICAL COMMENTS AND RESPONSE

Response to U.S. Army Corps of Engineers Nashville District Comments on the Draft Report for the Site Investigation at the G-8 Burning Ground, Former Plum Brook Ordnance Works, Sandusky, Ohio

Reference: Doug Mullendore, USACE Nashville District, facsimile transmittal dated 12/19/96, to Don Burton, IT Corporation

Comment 1: Section 1.2, Page 1-2, 4th paragraph and section 1.4, Page 1-3, 2nd paragraph: the stated size of the G-8 burn area is different between these respective sections, please clarify.

Response: *On page 1-2, the report stated that the size of the G-8 burn ground was estimated by Morrison and Knudsen Corporation (MK) in 1994 (Section 4.0, page 13 of 50) to be about 2 acres. However, the MK report does not provide specific information as how the estimate was made. The report cited MK's estimation merely to provide readers with some historical data regarding the possible size and location of this suspected burn ground. When IT performed the screening geophysical survey, the clearing (as an indication of the suspected burn pit) was found to be smaller than that estimated by MK. The rest of the site was occupied by mature trees and bushes. Therefore, our sampling effort was focused on the clearing as actually observed in the field. Clarification has been added to the text. We feel that the size of the G-8 burning ground was grossly overestimated by MK.*

Comment 2: Section 3.1 and Section 3.2: Is it appropriate to blank correct the sample results? Please reference "Laboratory Data Validation - Functional Guidelines for Evaluating Organic Analyses, Page 12, Item IV-D".

Response: *Blank correction is an integral part of the data validation process as required by EPA functional guidelines (Pages 20-23, V. Blanks). The comment mentioned page 12, item IV-D in the same document. Item IV-D deals with continuing calibration of instrument and page 12 includes Item III dealing with initial calibration of the instrument. IT project personnel went over data validation procedures set forth in the project QAPP and checked them with applicable sections in the EPA document and did not find any inconsistencies. Therefore, we believe that the data validation procedures are appropriate.*

Comment 3: Page B-2, Section B2.1, 3rd: table citation has been omitted.

Response: *Table citation was inadvertently omitted from the text. Correction has been made.*

Comment 4: Page B-3, Section B3.0, 1st: table citation has been omitted.

Response: *Table citation was inadvertently omitted from the text. Correction has been made.*

Comment 5: Appendix G: Why are the asterisks being used in the inorganic data sheets?

Response: *The asterisks '*' were used as a 'Q' qualifier to flag that the duplicate analysis was outside control limits. This qualifier and others used in the lab report are explained in the project narrative portion of the analytical report in Appendix G.*

Comment 6: Page 5-3, Section 5-2: Were PAH concentrations consistent with previous investigation results at only the G-8 Burning grounds or were they consistent with results from other investigation studies?

Response: *The PAH concentrations were compared with the previous soil sampling results at the same site as reported by MK Corporation (MK, 1994). Text was revised for clarification.*

Comment 7: Page 5-4, Section 5-3, 2nd Bullet: how will the determination that further environmental investigations should be performed be made? Shouldn't this report evaluate the need for further investigation of either soil or groundwater ? The way this statement is written infers that the soil results obtained are inconclusive whether contamination exists at the site.

Response: *The second recommendation has been revised to be more explicit about what needs to be done in terms of further investigation. The analytical results of soil and sediment samples did not indicate any notable contamination by organic and inorganic constituents. However, several PAHs were detected in soil samples at low concentrations. It is not clear whether these PAHs are naturally occurring or are the results of past land use. If the PAHs were the results of past land use, there is a possibility that groundwater may have also been affected through leaching since soil cover is thin in this area. A groundwater investigation at the G-8 site should be conducted, maybe in a limited scale, to fill in the data gap on groundwater quality. As more soil data becomes available, the naturally-occurring soil PAH levels should also be evaluated.*

Comment 8: Page 5-4, Section 5-3, 2nd Bullet: I concur with the need for a bedrock monitoring well in this area, perhaps this should be a separate bulleted item.

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Response: *A separate bullet was added to Section 5-3 for the recommendation of placement of a bedrock monitoring well in the G-8 burning ground area.*

Comment 9: General comment: Perform a spell check on the following character strings "4-methy 1,2 Pentanone" and "diben(a,h)anthracene".

Response: *The nomenclature of the organic compounds used in this report has been checked against the "Dictionary of Chemical Names and Synonyms" (P.H. Howard and M. Neal, Lewis Publishers, 1992). Some compound names inconsistent (or synonymous) with those listed in the dictionary have been corrected.*

Comment 10: General comment: Since these samples were collected from points located on systematic grid, can we calculate the average, standard deviation, and skew for the results. This might be helpful when we compare the results to samples obtained from other areas.

Response: *Per the reviewer's comment, simple statistic analyses have been completed on the constituents for which concentrations exceed the method detection limits (DL) and are listed in Tables 4-1 through 4-4. If the concentration of a particular compound was below the DL at some locations, one half of the DL was used as the detected concentration for the calculation purpose. The statistic analyses were performed following guidelines set forth in EPA "Guidance for Data Quality Assessment - Practical Methods for Data Analysis" (EPA QA/G-9, July, 1996).*

Comment 11: Page 51-1: Is it possible that some of the organic constituents (BTEX and PAHs) are naturally occurring since this area overlays petroliferous shale?

Response: *In general, BTEX (benzene, toluene, ethylbenzene, and xylene) and PAHs (polynuclear aromatic hydrocarbons) can occur naturally. In northern Ohio, the Ohio shale is known to contain a high content of organic carbon. Therefore, there is a real possibility that some BTEX and PAHs detected in soils at G-8 site are the results of the local lithology. However, at the present time, available data are not sufficient to allow quantitative evaluation of the naturally-occurring concentration of the petroleum hydrocarbon in soil. Text has been revised to address this possibility.*

Comment 12: General comment: I don't know if it is appropriate to only consider this site using the industrial exposure scenario, considering that the county was interested in purchasing the property to use (as) a juvenile detention facility.

Response: *The analytical data were re-evaluated using the residential exposure criteria considering the possiblity that the site might be used as a juvenile detension*

center. The soil analytical results were also compared with the soil background data provided by Dames & Moore (D&M, 1996).

Response to U.S. Army Corps of Engineers Missouri River District Comments on the Draft Report for the Site Investigation at the G-8 Burning Ground, Former Plum Brook Ordnance Works, Sandusky, Ohio

Reference: Comments delivered by Linda Hejazi, USACE Nashville District to Don Burton, IT Corporation at PBOW project meeting on 01/22/97, in Atlanta, GA.

The following comment was made by Ms. Cathy Forget:

Comment 1: I do not agree with the implied recommendation of further evaluation at this site ! As far as I can tell, the ONLY chemicals detected above their corresponding risk-based criteria (RBC) are Arsenic and Manganese. These concentrations are very likely background, and are not indicative of a site which requires further investigation.

The background comparison should have been completed as a part of this investigation. It is recommended that a background comparison be completed in the next version of this document. It should determine if the site samples are significantly elevated above background.

Response: *The site investigation at G-8 was designed as a preliminary investigation to: 1) delineate the boundary of the burning pit and 2) provide basic soil and sediment data for USACE to make management decision regarding further study of the site Although a wide range of organic chemicals were detected in soil and sediment at concentrations below the industrial screening criteria or in several cases corresponding RBCs are not available for comparison, it is possible that the low levels of organic compounds in soil and sediment were the results of prolonged leaching. This possibility cannot be ruled out without site-specific groundwater data. So far, no groundwater flow and quality data are available in the G-8 burning ground area. IT believes that a limited scale groundwater sampling in this area is necessary and beneficial not only for the G-8 site but for a better understanding of the site-wide groundwater flow regime.*

Please note that IT has agreed to reevaluate G-8 soil and sediment data in the final report, based on residential rather than industrial RBCs. This change in the screening levels will probably result in morechemicals considered as site contaminants, especially metals.

We agree that a soil background comparison is necessary and useful. A site-wide soil background sampling was completed by Dames & Moore in 1994, consisting of 14 background soil samples. The G-8 soil analytical data have been compared

to the background data after the D&M draft report was made available to IT recently.

The following comments were made by Mr. Dunker:

Comment 2: The references from EPA Level IV" should be omitted.
(4909973-440) The latest guidance from EPA "Data Quality Objectives Process for Superfund, Interim final Guidance, EPA 540-R-93-071" dated Sep-93 specifies two data categories:
Screening data with definitive confirmation
Definitive data

"These Data Categories replace references to analytical levels, quality assurance objectives, and data use categories."

Response: *The reference made to "Level IV" in Section 3.1 refers to the type of data package required from the laboratory as a deliverable for the analytical program performed. The Level IV, CLP-like packages indicate that all CLP forms (or equivalents) are required with raw data included (chromatograms, mass spectra, etc.). The reference made does not indicate the analytical category or DQO established for the project.*

Comment 3: Analytical data should not be blank corrected.
(4909973-441)

Response: *Blank correction is an integral part of the data validation process as required by EPA functional guidelines (Pages 20-23, V. Blanks). IT project personnel went over data validation procedures set forth in the project QAPP and checked them with applicable sections in the EPA document and did not find any inconsistencies. Therefore, we believe that the data validation procedures are appropriate.*

The term blank correction is used to indicate a quantification of the data which enables the data users to more accurately determine the useability of the data provided. There were no results changed due to blank correction or any other actual data manipulation. The appropriate qualifiers were simply added to the results using the "5x/10x Rule" as defined by the Functional Guidelines for Organic and Inorganic Data Review" (February 1993 and 1994, respectively).

Comment 4: How were the analytical data validated?
(4909973-442)

Response: *Data were validated using the Functional Guidelines for Organic and Inorganic Data Review (February 1993/1994, respectively). Laboratory standard operating procedures were used where the Functional Guidelines were not applicable to the SW-846 methodology employed.*

Comment 5: Analytical data should not be blank corrected.
(4909973-443)

Response: *See response to Comment 3.*

Comment 6: Please spell check this document. Numerous chemical names are misspelled, in addition to other spelling errors.
(4909973-444)

Response: *Spelling was checked throughout the document. The nomenclature of the organic compounds used in this report has been checked against the "Dictionary of Chemical Names and Synonyms" (P.H. Howard and M. Neal, Lewis Publishers, 1992). Some compound names inconsistent (or synonymous) with those listed in the dictionary have been corrected.*

Comment 7: Comment 7 is the same as Comment 2..
(4909973-445)

Response: *See response to comment 2.*

Comment 8: Comment 8 is the same as Comment 2.
(4909973-446)

Response: *See response to Comment 2.*

Comment 9: Comment 9 is the same as Comment 3.
(4909973-447)

Response: *See response to Comment 3.*

Comment 10: Comment 10 is the same as Comment 2.
(4909973-448)

Response: *See response to Comment 2.*

Comment 11: Comment 11 is the same as Comment 2.
(4909973-449)

Response: *See response to Comment 2.*

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Comment 12: The EPA National Functional Guidelines for Organic and Inorganic Data Review give guidelines for validating CLP data. Since SW-846 methods were used in this project, how were these data validated ?
(4909973-450)

Response: *The EPA CLP Functional Guidelines were used where applicable to the SW-846 methods. For method specific criteria not addressed by the guidelines, the laboratory SOPs were used to provide specific criteria.*

Comment 13: The LCS for VOAs should contain all target analytes, per SW-846.
(4909973-462)

Response: *The procedures and acceptance criteria presented in the QAPP for the investigation were followed in the execution of the analytical methods. The calibration verification is viewed as the "full analyte spike", specifically for the 8260A and VOC analysis where there is no extraction involved. Recovery from all target compounds are measured by the standard. Compounds of interest which are representative of the chemical characteristics of the list of compounds were used and were determined to be reproductive of the remaining parameters with respect to system performance. .*

Comment 14: The LCS for SVOAs should contain all target analytes, per SW-846.
(4909973-463)

Response: *See response to comment 13.*

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Response to Ohio EPA Comments on the Draft Report for the Site Investigation at the G-8 Burning Ground, Former Plum Brook Ordnance Works, Sandusky, Ohio

Reference: *Letter dated January 22, 1997 from Mr. Ronald Nabors, Northwest District Office, OEPA to Don Burton, IT Corporation.*

Comment 1 : Ohio EPA, DERR feels that the report of findings is inadequate to conclude that the G-8 burning area has been investigated. Approximately three fourths of the suspected 2-acre G-8 burning ground was not investigated. Please indicate if you plan to conduct any further investigation of the G-8 burning area.

Response: *IT Corporation was tasked by U.S. Army Corps of Engineers to conduct a preliminary site investigation at the suspected G-8 burning ground which was believed to be located in a clearing at the corner of Campbell Street and Patrol Road. There was very little historical information as to where exactly this burning pit was located and how big it used to be. During the 1994 site inspection, MK Corporation estimated this area to be approximately 2 acres and described it as a clearing which runs east to west with a small ditch bordering the north side. MK provides no information in their report as how their estimate was made. During the 1994 record review by Dames & Moore and site reconnaissance activities in March 1994 and March 1995 by Dames & Moore and USACE personnel, the target site was found to be an open area surrounded by hardwood forest. During IT's investigation of the site in 1995, the clearing was much smaller than the 2 acres claimed by MK. It is likely that the real size of the burning ground was grossly overestimated. In fact, in addition to the screening geophysical survey in the clearing, the IT field geophysist conducted a walk-over of a much larger area surrounding the clearing and did not find any geophysical anomalies. After consulting with the USACE, the decision was made to survey and sample the full extent of the clearing area as observed in the field. The results indicated that no significant contamination was present in soil and sediment and additional investigation of this area is not warranted.*

The Sections 1.4 and 2.1 of the report have been revised to add more background information concerning the actual size of the G-8 burning ground and the likely overestimate of the site by previous investigators.

Comment 2: Part 2.0 Field Activities, Page 2-1, Section 2.1 Screening Geophysical Survey: Figure 2-1 is missing.

Response: *Figure 2-1 was inadvertently left out during reproduction. This figure is included*

in the final report.

Comment 3: Part 5.0 Conclusions and Recommendations, Page 5-2, Section 5.1.2 Subsurface soil: The last sentence in the third bullet discusses sediment samples. Please remove this sentence.

Response: *The text has been revised to replace "sediment samples" with "soil samples". The conclusion remains unchanged.*

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