U-006-302.2

344

TRANSMITTAL OF ANALYTICAL DATA

5-18-90

ASI/DOE
250
DATA

[redacted]

344

May 17, 1990

Bobby Davis
Contracting Officer's Representative
U.S. Department of Energy
P.O. Box 398705
Cincinnati, OH 45239-8705

Dear Bobby:

SUBJECT: Transmittal of analytical data

This letter transmits one copy of the HSL summary report for samples collected by Westinghouse Materials Company of Ohio from the K-65 silos and the metal oxide silo. The full CLP package will be kept in the RI/FS Project Files. The radiological results for these samples will be forwarded to you following validation. This is expected to be completed by May 25, 1990.

Please note that PCBs were identified as hazardous constituents in silos 1 and 2. I ask that you arrange a meeting to discuss the significance of this with the concerned parties.

If you have any questions, please contact John Razor at 738-3100.

Sincerely,

John D. Wood
Project Director

C Tope
Mick
ERA Project F
[redacted]

JDW:kdg

90L0458.JDW

cc w/out enclosures:
J. Craig, DOE
D. Carr, WMCO
J. Krieger, WMCO
P. Hopper, WMCO
S. Shirley, WMCO
J. Razor, IT
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Advanced Sciences, Inc.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

C/O ASI Inc.
11003 Hamilton Cleves Road
Ross, OH 45061
Attn: Cindy Capannari

Date: April 17, 1990

Job Number: ADV 35845 corrected

P.O Number: Accounts Payable

This is the Certificate of Analysis for the following:

Client Project ID:	RI/FS Fernald
Date Received by Lab:	12/08/89 - 02/16/90
Number of Samples:	Twenty-four (24)
Sample Type:	Slurry

I. INTRODUCTION

On December 08, 1989 and on February 16, 1990 twenty-four (24) slurry samples were received at ITAS-Oak Ridge Lab from Advanced Sciences Inc., Ross, Ohio. The list of analytical tests performed, as well as date of receipt and analysis can be found in the attached report.

Blanks are identified with client sample ID's starting with either "QX..B" or "QX...B.". Data are reported with the qualifier "U" if the compound was analyzed for but not detected. Lists with concentration unit code and lab and client suffix code definitions are attached.

II. ANALYTICAL RESULTS/METHODOLOGY

The analytical results for this report are presented by analytical tests. Each set of data will include sample identification information, the analytical results, and the appropriate detection limits.

Reviewed and Approved

Snell A. Mills III

Snell A. Mills III
Laboratory Manager

SAM/mmh

American Council of Independent Laboratories
International Association of Environmental Testing Laboratories
American Association for Laboratory Accreditation

II. ANALYTICAL RESULTS/METHODOLOGY (Continued)

The samples were analyzed for Target Compound List (TCL) volatile compounds using the EPA CLP 10/86 Statement of Work.

The samples were analyzed for the TCL semivolatile compounds using the EPA CLP 10/86 Statement of Work.

The samples were analyzed for TCL pesticide/PCB using the EPA CLP 10/86 Statement of Work.

The samples were analyzed for TCL metals and cyanide using the EPA CLP 7/87 Statement of Work.

The samples were prepared for EP Toxicity Metals analyses using Method 1310, digested by method 3010 and analyzed by method 6010 and 7470, US EPA, SW-846, 3rd Edition, 1986, inclusive.

III. QUALITY CONTROL

Holding times were exceeded in all organic analyses and in the case of cyanide and mercury. Holding times were not met due to the extra steps required in sample preparation and screening of the highly radioactive sample. The inability to meet holding times was discussed and accepted prior to sample submittal to the laboratory. (See memo from Jack Hall, ITAS-Knoxville to Kathy Shell, IT-Engineering, Knoxville, dated April 12, 1988 and the memo from James T. Harvey, ITAS-Oak Ridge to Larry Murphy, ASI-Fernald dated August 12, 1989.)

All samples were prepared, analyzed and reported on an as received basis. The percent moisture determination as required by the CLP methods was not performed due to the limited volumes available. The pH determination in the CLP GC method was also not performed due to the limited sample volume available. All results are reported on a wet weight basis and should be reviewed and evaluated as such.

A. Organics

1. Volatiles

The samples were prepared using the EPA CLP medium level procedure for volatile organics, due to the limited sample volumes available and the requirement of sample handling in a controlled area. The special handling was due to the sample activity.

The medium level extracts were analyzed between 03/12/90 and 03/15/90.

A. Organics (cont.)

Two (2) volatile organic blanks were analyzed during each twelve (12) hour analytical sequence. The first blank consisted of five (5) ml of organic free water spiked with appropriate levels of internal standards and surrogates to demonstrate that the purge and trap system and GC/MS was free from contamination. The second blank analyzed consisted of five (5) ml of organic free water, appropriate levels of internal standards and surrogates, and 100 ul of methanol used in the medium level preparation of the extract. This analysis demonstrated the volatile organics present in the analytical system.

The methanol blanks were used to evaluate all sample data and are referenced to the samples they were analyzed with and are identified as VBLK1, VBLK2, etc. The system blanks are identified as VBLK1A, VBLK2A, etc. and were only used to confirm that volatile organics present in the methanol blanks were contaminates of the methanol rather than the analytical system.

Sample 27 had one (1) surrogate outside the EPA CLP QC limits. The sample was reanalyzed with the same results. Both sets of data are submitted with the report. Matrix spike and matrix spike duplicate analyses were not performed due to the limited volume of sample available. There were no other problems, QC or otherwise, noted during the analysis.

2. Semivolatiles

The samples were prepared for semivolatile analysis using the EPA CLP low-level method on 02/26/90 and 02/27/90. The extracts were analyzed from 03/23/90 to 03/27/90.

Several problems were encountered during the preparation of the samples which has a direct effect on the analytical data. The samples were weighed out on balances operated in a hood while the hood was functioning. The stability of the balance was affected by vibration and air flow. The accuracy of the measurements of sample weights were less than would normally be expected, however accurate precision limits are not available. It is estimated that the sample weights are accurate to ± 5 % or less. Due to the lack of refrigeration available in the controlled prep area, surrogate standard solution, reagents and sample extracts were exposed to elevated temperatures for extended periods of time (up to eight (8) hours).

Extraction blanks were prepared on both days that samples were extracted. Blank Q1578, prepared on 02/26/90, exhibited low recoveries on one acid and one base neutral surrogate. Blank Q1579 had good recoveries of all surrogates. The samples prepared on 02/26/90 also exhibited low recoveries on some surrogates which indicates bias in the preparation. The samples affected were not re-prepared due to a lack of sample volume. It is suspected that the concentration conditions are responsible for the low recoveries, however corrective action was not possible due to the sample activity and small sample volume.

A. Organics (cont.)

Matrix spike and matrix spike duplicate analyses were not performed due to the lack of sufficient sample volume. It should be noted that the data system used to acquire the semivolatile analyses was inadvertently set to an incorrect date prior to analysis of some of the samples. The correct date has been marked on all raw data associated with this project. There were no other problems, QC or otherwise, during analysis of the samples.

3. Pesticide/PCBs

The pesticide and aroclor analyses were performed on 03/04/90 and 03/07/90. All samples and blank were prepared as low-level soils and analyzed by CLP protocol. TBA cleanup was performed on all samples and blank prior to analysis as required by CLP. Most of the soil pesticide surrogate recoveries were diluted out and not detected. All prep blanks were within QC limits.

Matrix spike and matrix spike duplicate analyses were not performed due to the lack of sufficient sample volume.

Aroclors 1248 and 1254 were confirmed in several samples by a second column and GC/MS analysis. All samples which were confirmed by GC/MS are flagged with a "C" qualifier. No other problems, QC or otherwise, were noted during the analysis.

B. Inorganics

1. Total Metals

The samples were prepared for analysis by Inductively Coupled Plasma (ICP) Spectrometry and Graphite Furnace Atomic Absorption (GFAA) Spectrometry using the EPA CLP, 7/87 Statement of Work, protocol. The samples were prepared for ICP analysis on 03/06/90 and analyzed during the period 03/23/90 and 03/27/90.

Several of the analytes analyzed in various samples gave values which exceeded our normal linear range and these samples had to be diluted and rerun. Some of the analytes for which this had to be done included Vanadium, Manganese and Iron. The preparation blank gave a value for Aluminum, which fell outside the accepted QC limits under CLP protocol, however, due to the radioactive nature of these samples and the fact that, in several instances, there was insufficient material left, the samples were not re-prepared.

The duplicate and matrix spike were not performed due to a lack of sample.

B. Inorganics (cont.)

Samples for analysis by GFAA were prepared on 03/08/90 and analyzed during the period 03/15/90 and 03/20/90. After initial analysis by GFAA technique, it was concluded that the high values of several of the analytes, as well as some of the interference effects which were being observed, warrant that these samples be analyzed by ICP. Consequently those analytes which we normally analyze by GFAA were analyzed by ICP on 03/30/90. The only exception was Thallium. All determinations for thallium were carried out by GFAA with out problems. One sample each was determined by GFAA for Selenium and Arsenic. These samples had values which fell below the permitted level for analysis by ICP, given our detection limit on the ICP.

Samples for potassium determination were prepared on 03/06/90 and analyzed on 03/28/90 by Flame Atomic Absorption. No significant problems were encountered.

Samples for Mercury analysis were prepared and determined on 03/10/90 without problems.

Samples for the determination of Cyanide were prepared on 03/02/90 and the determination was carried out on 03/06/90.

2. EP TOXICITY METALS

The samples for EP Toxicity analysis were prepared in accordance with the procedure given in method 1310 of SW-846. The extraction was performed during the period 03/10/90 - 03/11/90.

ICP analysis of the required analytes was done on 03/28/90 and 03/29/90 using SW-846 method 6010. Every sample exceeded the maximum allowable EP TOX concentration limit for one analyte or another, save for samples S1-SE-2 and S2-NE-2.

Samples for Mercury analysis were prepared and analyzed on 03/29/90. The analyses proceeded smoothly with no problems. All samples gave results below the maximum allowable concentration for this analyte.

SAMPLE SUMARY TABLE

Field #	ITAS #	Matrix	Conc.	Analysis
#21	MM3325	SLURRY	LOW	MERCURY
	MM3325	SLURRY	LOW	METALS
	MM3325	SLURRY	LOW	EP TOX METALS
	MM3325	SLURRY	LOW	CYANIDE
#22	MM3326	SLURRY	LOW	MERCURY
	MM3326	SLURRY	LOW	METALS
	MM3326	SLURRY	LOW	EP TOX METALS
	MM3326	SLURRY	LOW	CYANIDE
#23	MM3327	SLURRY	LOW	MERCURY
	MM3327	SLURRY	LOW	METALS
	MM3327	SLURRY	LOW	EP TOX METALS
	MM3327	SLURRY	LOW	CYANIDE
#24	MM3328	SLURRY	LOW	MERCURY
	MM3328	SLURRY	LOW	METALS
	MM3328	SLURRY	LOW	EP TOX METALS
	MM3328	SLURRY	LOW	CYANIDE
#25	MM3329	SLURRY	LOW	MERCURY
	MM3329	SLURRY	LOW	METALS
	MM3329	SLURRY	LOW	EP TOX METALS
	MM3329	SLURRY	LOW	CYANIDE
#26	MM3349	SLURRY	LOW	VOLATILES
	MM3349	SLURRY	LOW	SEMIVOLATILES
	MM3349	SLURRY	LOW	PEST/PCB
	MM3330	SLURRY	LOW	MERCURY
	MM3330	SLURRY	LOW	METALS
	MM3330	SLURRY	LOW	EP TOX METALS
	MM3330	SLURRY	LOW	CYANIDE
#27	MM3350	SLURRY	LOW	VOLATILES
	MM3350	SLURRY	LOW	SEMIVOLATILES
	MM3350	SLURRY	LOW	PEST/PCB
	MM3331	SLURRY	LOW	MERCURY
	MM3331	SLURRY	LOW	METALS
	MM3331	SLURRY	LOW	EP TOX METALS
	MM3331	SLURRY	LOW	CYANIDE
#28	MM3351	SLURRY	LOW	VOLATILES
	MM3351	SLURRY	LOW	SEMIVOLATILES
	MM3351	SLURRY	LOW	PEST/PCB
	MM3332	SLURRY	LOW	MERCURY
	MM3332	SLURRY	LOW	METALS
	MM3332	SLURRY	LOW	EP TOX METALS
	MM3332	SLURRY	LOW	CYANIDE

SAMPLE SUMARY TABLE (CONT)

Field #	ITAS #	Matrix	Conc.	Analysis
#29	MM3352	SLURRY	LOW	VOLATILES
	MM3352	SLURRY	LOW	SEMIVOLATILES
	MM3352	SLURRY	LOW	PEST/PCB
	MM3333	SLURRY	LOW	MERCURY
	MM3333	SLURRY	LOW	METALS
	MM3333	SLURRY	LOW	EP TOX METALS
	MM3333	SLURRY	LOW	CYANIDE
#30	MM3334	SLURRY	LOW	MERCURY
	MM3334	SLURRY	LOW	METALS
	MM3334	SLURRY	LOW	EP TOX METALS
	MM3334	SLURRY	LOW	CYANIDE
#33	MM3335	SLURRY	LOW	MERCURY
	MM3335	SLURRY	LOW	METALS
	MM3335	SLURRY	LOW	EP TOX METALS
	MM3335	SLURRY	LOW	CYANIDE
S1-NE-1-A	MM3354	SLURRY	LOW	VOLATILES
	MM3354	SLURRY	LOW	SEMIVOLATILES
	MM3354	SLURRY	LOW	PEST/PCB
	MM3337	SLURRY	LOW	MERCURY
	MM3337	SLURRY	LOW	METALS
	MM3337	SLURRY	LOW	EP TOX METALS
	MM3337	SLURRY	LOW	CYANIDE
S1-NE-1-B	MM3353	SLURRY	LOW	VOLATILES
	MM3353	SLURRY	LOW	SEMIVOLATILES
	MM3353	SLURRY	LOW	PEST/PCB
	MM3336	SLURRY	LOW	MERCURY
	MM3336	SLURRY	LOW	METALS
	MM3336	SLURRY	LOW	EP TOX METALS
	MM3336	SLURRY	LOW	CYANIDE
S1-NE-1-C	MM3356	SLURRY	LOW	VOLATILES
	MM3356	SLURRY	LOW	SEMIVOLATILES
	MM3356	SLURRY	LOW	PEST/PCB
	MM3339	SLURRY	LOW	MERCURY
	MM3339	SLURRY	LOW	METALS
	MM3339	SLURRY	LOW	EP TOX METALS
	MM3339	SLURRY	LOW	CYANIDE

SAMPLE SUMARY TABLE

Field #	ITAS #	Matrix	Conc.	Analysis
S1-NW-1	MM3360	PITCH BLEND	LOW	VOLATILES
	MM3360	PITCH BLEND	LOW	SEMIVOLATILES
	MM3360	PITCH BLEND	LOW	PEST/PCB
	MM3343	PITCH BLEND	LOW	MERCURY
	MM3343	PITCH BLEND	LOW	METALS
	MM3343	PITCH BLEND	LOW	EP TOX METALS
	MM3343	PITCH BLEND	LOW	CYANIDE
S1-SE-1	MM3359	PITCH BLEND	LOW	VOLATILES
	MM3359	PITCH BLEND	LOW	SEMIVOLATILES
	MM3359	PITCH BLEND	LOW	PEST/PCB
	MM3342	PITCH BLEND	LOW	MERCURY
	MM3342	PITCH BLEND	LOW	METALS
	MM3342	PITCH BLEND	LOW	EP TOX METALS
	MM3342	PITCH BLEND	LOW	CYANIDE
S1-SE-2	MM3355	PITCH BLEND	LOW	VOLATILES
	MM3355	PITCH BLEND	LOW	SEMIVOLATILES
	MM3355	PITCH BLEND	LOW	PEST/PCB
	MM3338	PITCH BLEND	LOW	MERCURY
	MM3338	PITCH BLEND	LOW	METALS
	MM3338	PITCH BLEND	LOW	EP TOX METALS
	MM3338	PITCH BLEND	LOW	CYANIDE
S1-SW-1	MM3358	PITCH BLEND	LOW	VOLATILES
	MM3358	PITCH BLEND	LOW	SEMIVOLATILES
	MM3358	PITCH BLEND	LOW	PEST/PCB
	MM3341	PITCH BLEND	LOW	MERCURY
	MM3341	PITCH BLEND	LOW	METALS
	MM3341	PITCH BLEND	LOW	EP TOX METALS
	MM3341	PITCH BLEND	LOW	CYANIDE
S2-NE-1	MM3364	PITCH BLEND	LOW	VOLATILES
	MM3364	PITCH BLEND	LOW	SEMIVOLATILES
	MM3364	PITCH BLEND	LOW	PEST/PCB
	MM3347	PITCH BLEND	LOW	MERCURY
	MM3347	PITCH BLEND	LOW	METALS
	MM3347	PITCH BLEND	LOW	EP TOX METALS
	MM3347	PITCH BLEND	LOW	CYANIDE

SAMPLE SUMARY TABLE

Field #	ITAS #	Matrix	Conc.	Analysis
S2-NE-2	MM3362	PITCH BLEND	LOW	VOLATILES
	MM3362	PITCH BLEND	LOW	SEMIVOLATILES
	MM3362	PITCH BLEND	LOW	PEST/PCB
	MM3345	PITCH BLEND	LOW	MERCURY
	MM3345	PITCH BLEND	LOW	METALS
	MM3345	PITCH BLEND	LOW	EP TOX METALS
	MM3345	PITCH BLEND	LOW	CYANIDE
S2-NW-1	MM3361	PITCH BLEND	LOW	VOLATILES
	MM3361	PITCH BLEND	LOW	SEMIVOLATILES
	MM3361	PITCH BLEND	LOW	PEST/PCB
	MM3344	PITCH BLEND	LOW	MERCURY
	MM3344	PITCH BLEND	LOW	METALS
	MM3344	PITCH BLEND	LOW	EP TOX METALS
	MM3344	PITCH BLEND	LOW	CYANIDE
S2-NW-2	MM3365	PITCH BLEND	LOW	VOLATILES
	MM3365	PITCH BLEND	LOW	SEMIVOLATILES
	MM3365	PITCH BLEND	LOW	PEST/PCB
	MM3348	PITCH BLEND	LOW	MERCURY
	MM3348	PITCH BLEND	LOW	METALS
	MM3348	PITCH BLEND	LOW	EP TOX METALS
	MM3348	PITCH BLEND	LOW	CYANIDE
S2-SW-1	MM3357	PITCH BLEND	LOW	VOLATILES
	MM3357	PITCH BLEND	LOW	SEMIVOLATILES
	MM3357	PITCH BLEND	LOW	PEST/PCB
	MM3340	PITCH BLEND	LOW	MERCURY
	MM3340	PITCH BLEND	LOW	METALS
	MM3340	PITCH BLEND	LOW	EP TOX METALS
	MM3340	PITCH BLEND	LOW	CYANIDE
S2-SW-2	MM3363	PITCH BLEND	LOW	VOLATILES
	MM3363	PITCH BLEND	LOW	SEMIVOLATILES
	MM3363	PITCH BLEND	LOW	PEST/PCB
	MM3346	PITCH BLEND	LOW	MERCURY
	MM3346	PITCH BLEND	LOW	METALS
	MM3346	PITCH BLEND	LOW	EP TOX METALS
	MM3346	PITCH BLEND	LOW	CYANIDE

Abbreviations: PEST = PESTICIDE
PCB = POLYCHLORINATED BIPHENYLS
EP TOX = EP TOXICITY

EP TOXICITY METALS

Concentration units : mg/L

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Analyte	PBW 03/27/90	MM3325 #21	MM3326 #22	MM3327 #23	MM3328 #24	MM3329 #25	MM3330 #26
Arsenic	<0.05	15.8	41.5	0.018	2.30	6.65	5.35
Barium	<0.002	0.020	0.045	0.135	0.074	0.081	0.033
Cadmium	<0.002	0.247	0.679	0.170	6.32	0.471	0.321
Chromium	<0.01	2.57	1.79	8.51	0.336	6.26	3.20
Lead	<0.04	0.050	0.258	<0.04	0.802	0.073	1.01
Selenium	<0.08	2.24	1.46	1.20	1.18	1.31	11.7
Silver	<0.01	<0.01	<0.01	<0.01	0.032	<0.01	<0.01

	PBW 03/29/90	#21	#22	#23	#24	#25	#26
Mercury	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.002

Analyte	PBW 03/27/90	MM3331 #27	MM3332 #28	MM3333 #28	MM3334 #30	MM3335 #33
Arsenic	<0.05	2.32	<0.05	<0.05	6.10	24.2
Barium	<0.002	0.074	0.155	0.156	0.048	0.064
Cadmium	<0.002	0.122	0.116	0.108	0.205	0.561
Chromium	<0.01	5.56	11.9	7.69	4.73	3.00
Lead	<0.04	<0.04	<0.04	<0.04	0.167	0.192
Selenium	<0.08	1.31	1.56	0.92	4.36	1.96
Silver	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

	PBW 03/29/90	#27	#28	#29	#30	#33
Mercury	<0.0002	<0.0002	<0.0002	<0.0002	0.003	<0.0002

Analyte	PBW 03/27/90	MM3336 S1-NE-1-B	MM3337 S1-NE-1A	MM3338 S1-SE-2	MM3339 S1-NE-1-C
Arsenic	<0.05	0.276	0.231	<0.05	0.444
Barium	<0.002	4.44	0.864	0.079	14.5
Cadmium	<0.002	0.009	0.020	<0.002	0.021
Chromium	<0.01	0.143	0.309	0.020	0.334
Lead	<0.04	583	410	0.159	904
Selenium	<0.08	0.399	0.362	0.217	0.708
Silver	<0.01	0.044	0.046	<0.01	0.118

	PBW 03/29/90	S1-NE-1-B	S1-NE-1A	S1-SE-2	S1-NE-1-C
Mercury	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

EP TOXICITY METALS CONT. Concentration units : mg/L 344

Analyte	PBW 03/26/90	MM3340 S2-SW-1	MM3341 S1-SW-1	MM3342 S1-SE-1	MM3343 S1-NW-1
Arsenic	<0.05	0.491	0.400	0.484	0.321
Barium	<0.002	2.62	3.83	3.34	3.48
Cadmium	<0.002	0.151	0.020	0.100	0.019
Chromium	<0.01	0.497	0.280	0.964	0.278
Lead	<0.04	714	794	730	506
Selenium	<0.08	1.08	0.577	0.997	0.488
Silver	<0.01	0.099	0.089	0.121	0.092

	PBW 03/29/90	S2-SW-1	S1-SW-1	S1-SE-1	S1-NW-1
Mercury	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Analyte	PBW 03/26/90	MM3344 S2-NW-1	MM3345 S2-NE-2	MM3346 S2-SW-2	MM3347 S2-NE-1
Arsenic	<0.05	0.592	0.326	0.433	0.326
Barium	<0.002	0.095	1.00	0.936	1.01
Cadmium	<0.002	0.278	0.017	0.097	0.041
Chromium	<0.01	1.02	<0.01	0.591	<0.01
Lead	<0.04	101	0.155	610	138
Selenium	<0.08	1.56	0.240	0.757	0.345
Silver	<0.01	0.213	<0.01	0.146	<0.01

	PBW 03/29/90	S2-NW-1	S2-NE-2	S2-SW-2	S2-NE-1
Mercury	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Analyte	PBW 03/26/90	MM3348 S2-NW-2
Arsenic	<0.05	0.163
Barium	<0.002	0.861
Cadmium	<0.002	0.028
Chromium	<0.01	0.159
Lead	<0.04	371
Selenium	<0.08	0.247
Silver	<0.01	0.051

	PBW 03/29/90	S2-NW-2
Mercury	<0.0002	<0.0002

Cross-reference Table for Sample Number ID

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Client Id in Summ. Table	Sample Location and Description
#21	S3-SE-A-1,2,3,4
#22	S3-SE-B-1,2,3,4,5
#23	S3-SE-C-1,2,3,4
#24	S3-SE-B-4
#25	S3-SE-A,B,C-1 to 13
#26	S3-NW-A-1,2,3,4
#27	S3-NW-B-1,2,3,4,5
#28	S3-NW-C-1,2,3,4
#29	S3-NW-C-3
#30	S3-NW-A-B-C-1 to 13
#33	S3-NE-A,B,C-1 to 13

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ORGANIC QUALIFIERS

U = Indicates compound was analyze for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.

J = Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.

C = This flag applies to pesticide results where the identification has been confirmed by GC/MS.

B = This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

E = This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods. If one or more compounds have a response greater than full scale, the sample or extract must be diluted and reanalyzed. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses shall be reported on separate Forms I. The Form I for the diluted sample shall have the "DL" suffix appended to the sample number.

D = This flag identifies all compounds identified in an analysis at a secondary dilution factor.

A = This flag indicates that a TIC is a suspected aldol- condensation product.

F = Estimated value due to a confirmed compound which is off-scale in both columns.

X = A flag that FORMASTER III CLP software automatically inserts to indicate that the data was entered manually.

Y = Indistinguishable isomer in tentatively identified compounds.

Z = No estimated value reported, or an elevated CRQL reported because matrix effects interference with or obscure the compound on one or both columns. In either situation, the compound does not confirm as a positive identification.

* = Values outside of contract required QC limits.

INORGANIC QUALIFIERS

Concentration Qualifiers (C)

B = Reported value was obtained from a reading that was less than the Contract Required Detection Limit (CRQL) but greater than or equal to the Instrument Detection Limit (IDL).

U = Analyte was analyzed for but not detected.

Quality Qualifiers (Q)

E = The reported value is estimated because of the presence of interference.

M = Duplicate injection precision not met.

N = Spiked sample recovery not within control limits.

S = The reported value was determined by the Method of Standard Additions.

W = Post-digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance.

G = Native analyte > 4 times spike added, therefore acceptance criteria do not apply.

X = Detection limit is higher than normal due to sample matrix interferences.

* = Duplicate analysis not within control limits.

+ = Correlation coefficient for the MSA is less than 0.955.

Method Qualifiers (M)

"P" for ICP
"A" for Flame AA
"F" for Furnace AA
"CV" for Manual Cold Vapor AA
"AV" for Automated Cold Vapor AA
"AS" for Semi-Automated Spectrophotometric
"C" for Manual Spectrophotometric
"T" for Titrimetric
"NR" if the analyte is not required to be analyzed

Advanced Sciences. Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Volatile Organics by GCMS - Current EPA CLP Protocol - MV 705 344

Client Sample ID: QXM10B003121VBA

Sample Date: N/A
IT Sample ID: XVBA0312
Prep Date:
Analysis Date: (Completed) 03/12/90
Blank Sample ID: QXM10B003121VBA
Concentration Units: UG/KG

Parameter	Result	
% Moisture	0	
Chloromethane	1300	U
Bromomethane	1300	U
Vinyl chloride	1300	U
Chloroethane	1300	U
Methylene chloride	1700	
Acetone	1200	J
Carbon disulfide	630	U
1,1-Dichloroethene	630	U
1,1-Dichloroethane	630	U
1,2-Dichloroethylene	630	U
Chloroform	720	
1,2-Dichloroethane	630	U
2-Butanone	8500	
1,1,1-Trichloroethane	630	U
Carbon Tetrachloride	630	U
Vinyl Acetate	1300	U
Bromodichloromethane	630	U
1,2-Dichloropropane	630	U
cis-1,3-Dichloropropene	630	U
Trichloroethene	630	U
Dibromochloromethane	630	U
1,1,2-Trichloroethane	630	U
Benzene	630	U
trans-1,3-Dichloropropene	630	U
Bromoform	630	U
4-Methyl-2-pentanone	1300	U
2-Hexanone	1300	U
Tetrachloroethene	630	U
1,1,2,2-Tetrachloroethane	630	U
Toluene	630	U
Chlorobenzene	630	U
Ethylbenzene	630	U
Styrene	630	U
Total xylenes	630	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Volatile Organics by GCMS - Current EPA CLP Protocol - MV 705 344

Client Sample ID: SW-SW-1

Sample Date: N/A
IT Sample ID: MM3358
Prep Date:
Analysis Date: (Completed) 03/12/90
Blank Sample ID: 0XM10B0003121VBA
Concentration Units: UG/KG

Parameter	Result	
Chloromethane	1300	U
Bromomethane	1300	U
Vinyl chloride	1300	U
Chloroethane	1300	U
Methylene chloride	3700	B
Acetone	1600	B
Carbon disulfide	630	U
1,1-Dichloroethene	630	U
1,1-Dichloroethane	630	U
1,2-Dichloroethylene	630	U
Chloroform	660	B
1,2-Dichloroethane	630	U
2-Butanone	9900	B
1,1,1-Trichloroethane	630	U
Carbon Tetrachloride	630	U
Vinyl Acetate	1300	U
Bromodichloromethane	630	U
1,2-Dichloropropane	630	U
cis-1,3-Dichloropropene	630	U
Trichloroethene	120	J
Dibromochloromethane	630	U
1,1,2-Trichloroethane	630	U
Benzene	630	U
trans-1,3-Dichloropropene	630	U
Bromoform	630	U
4-Methyl-2-pentanone	870	J
2-Hexanone	1300	U
Tetrachlorethene	630	U
1,1,2,2-Tetrachloroethane	630	U
Toluene	630	U
Chlorobenzene	630	U
Ethylbenzene	630	U
Styrene	630	U
Total xylenes	630	U
% Moisture	9	

Advanced Sciences, Inc.
Date: 25-APR-90

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IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Volatile Organics by GCMS - Current EPA CLP Protocol - MV 705

Client Sample ID: S1-SE-1

Sample Date: N/A
IT Sample ID: MM9359
Prep Date:
Analysis Date: (Completed) 03/12/90
Blank Sample ID: QXM10B003121VBA
Concentration Units: UG/KG

Parameter	Result	
Chloromethane	1300	U
Bromomethane	1300	U
Vinyl chloride	1300	U
Chloroethane	1300	U
Methylene chloride	4100	B
Acetone	1700	B
Carbon disulfide	630	U
1,1-Dichloroethene	630	U
1,1-Dichloroethane	630	U
1,2-Dichloroethylene	630	U
Chloroform	660	B
1,2-Dichloroethane	630	U
2-Butanone	9200	B
1,1,1-Trichloroethane	630	U
Carbon Tetrachloride	630	U
Vinyl Acetate	1300	U
Bromodichloromethane	630	U
1,2-Dichloropropane	630	U
cis-1,3-Dichloropropene	630	U
Trichloroethene	630	U
Dibromochloromethane	630	U
1,1,2-Trichloroethane	630	U
Benzene	630	U
trans-1,3-Dichloropropene	630	U
Bromoform	630	U
4-Methyl-2-pentanone	1400	
2-Hexanone	1300	U
Tetrachloroethene	630	U
1,1,2,2-Tetrachloroethane	630	U
Toluene	140	J
Chlorobenzene	630	U
Ethylbenzene	630	U
Styrene	630	U
Total xylenes	630	U
% Moisture	0	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Volatile Organics by GCMS - Current EPA CLP Protocol - MV 705

Client Sample ID: S1-NW-1

Sample Date: N/A
IT Sample ID: MM3380
Prep Date:
Analysis Date: (Completed) 03/12/90
Blank Sample ID: QXM10B003121VBA
Concentration Units: UG/KG

Parameter	Result	
% Moisture	0	
Chloromethane	1300	U
Bromomethane	1300	U
Vinyl chloride	1300	U
Chloroethane	1300	U
Methylene chloride	3400	B
Acetone	1200	BJ
Carbon disulfide	630	U
1,1-Dichloroethene	630	U
1,1-Dichloroethane	630	U
1,2-Dichloroethylene	630	U
Chloroform	860	B
1,2-Dichloroethane	630	U
2-Butanone	7100	B
1,1,1-Trichloroethane	630	U
Carbon Tetrachloride	630	U
Vinyl Acetate	1300	U
Bromodichloromethane	630	U
1,2-Dichloropropane	630	U
cis-1,3-Dichloropropene	630	U
Trichloroethene	630	U
Dibromochloromethane	630	U
1,1,2-Trichloroethane	630	U
Benzene	630	U
trans-1,3-Dichloropropene	630	U
Bromoform	630	U
4-Methyl-2-pentanone	950	J
2-Hexanone	1300	U
Tetrachlorethene	630	U
1,1,2,2-Tetrachloroethane	630	U
Toluene	130	J
Chlorobenzene	630	U
Ethylbenzene	630	U
Styrene	630	U
Total xylenes	630	U

Advanced Sciences, Inc.
Date: 25-APR-90

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IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: AIV35845

EPA CLP TCL Volatile Organics by GCMS - Current EPA CLP Protocol - MV-705

Client Sample ID: SS-NW-1

Sample Date: N/A
IT Sample ID: MM33P1
Prep Date:
Analysis Date: (Completed) 03/12/90
Blank Sample ID: QXM10B003121VBA
Concentration Units: UG/KG

Parameter	Result	
Chloromethane	1300	U
Bromomethane	1300	U
Vinyl chloride	1300	U
Chloroethane	1300	U
Methylene chloride	3600	B
Acetone	1600	B
Carbon disulfide	630	U
1,1-Dichloroethene	630	U
1,1-Dichloroethane	630	U
1,2-Dichloroethylene	630	U
Chloroform	670	B
1,2-Dichloroethane	630	U
2-Butanone	7800	B
1,1,1-Trichloroethane	630	U
Carbon Tetrachloride	630	U
Vinyl Acetate	1300	U
Bromodichloromethane	630	U
1,2-Dichloropropane	630	U
cis-1,3-Dichloropropene	630	U
Trichloroethene	630	U
Dibromochloromethane	630	U
1,1,2-Trichloroethane	630	U
Benzene	630	U
trans-1,3-Dichloropropene	630	U
Bromoform	630	U
4-Methyl-2-pentanone	2700	
2-Hexanone	1300	U
Tetrachloroethene	630	U
1,1,2,2-Tetrachloroethane	630	U
Toluene	130	J
Chlorobenzene	630	U
Ethylbenzene	630	U
Styrene	630	U
Total xylenes	630	U
% Moisture	0	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

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Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Volatile Organics by GCMS - Current EPA CLP Protocol - MV 795

Client Sample ID: 33-NS-2

Sample Date: N/A
IT Sample ID: [illegible]
Prep Date:
Analysis Date: (Completed) 03-15/90
Blank Sample ID: QXM10B003152VBA
Concentration Units: UG/KG

Parameter	Result	
Chloromethane	1300	U
Bromomethane	1300	U
Vinyl chloride	1300	U
Chloroethane	1300	U
Methylene chloride	1500	B
Acetone	1400	B
Carbon disulfide	630	U
1,1-Dichloroethene	630	U
1,1-Dichloroethane	630	U
1,2-Dichloroethylene	630	U
Chloroform	720	B
1,2-Dichloroethane	630	U
2-Butanone	3700	B
1,1,1-Trichloroethane	630	U
Carbon Tetrachloride	630	U
Vinyl Acetate	1300	U
Bromodichloromethane	630	U
1,2-Dichloropropane	630	U
cis-1,3-Dichloropropene	630	U
Trichloroethene	630	U
Dibromochloromethane	630	U
1,1,2-Trichloroethane	630	U
Benzene	630	U
trans-1,3-Dichloropropene	630	U
Bromoform	630	U
4-Methyl-2-pentanone	1300	U
2-Hexanone	1300	U
Tetrachloroethene	630	U
1,1,2,2-Tetrachloroethane	630	U
Toluene	250	J
Chlorobenzene	630	U
Ethylbenzene	630	U
Styrene	630	U
Total xylenes	130	BJ
% Moisture	0	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

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Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Volatile Organics by GCMS - Current EPA CLP Protocol - MV 705

Client Sample ID: S2-SW-2

Sample Date: N/A
IT Sample ID: MM3363
Prep Date:
Analysis Date: (Completed) 03/15/90
Blank Sample ID: QXM10B003152VBA
Concentration Units: UG/KG

Parameter	Result	
Chloromethane	1300	U
Bromomethane	1300	U
Vinyl chloride	1300	U
Chloroethane	1300	U
Methylene chloride	3400	B
Acetone	1200	BJ
Carbon disulfide	630	U
1,1-Dichloroethene	630	U
1,1-Dichloroethane	630	U
1,2-Dichloroethylene	630	U
Chloroform	320	B
1,2-Dichloroethane	630	U
2-Butanone	11000	B
1,1,1-Trichloroethane	630	U
Carbon Tetrachloride	630	U
Vinyl Acetate	1300	U
Bromodichloromethane	630	U
1,2-Dichloropropane	630	U
cis-1,3-Dichloropropene	630	U
Trichloroethene	630	U
Dibromochloromethane	630	U
1,1,2-Trichloroethane	630	U
Benzene	630	U
trans-1,3-Dichloropropene	630	U
Bromoform	630	U
4-Methyl-2-pentanone	1300	U
2-Hexanone	1300	U
Tetrachlorethene	630	U
1,1,2,2-Tetrachloroethane	630	U
Toluene	200	J
Chlorobenzene	630	U
Ethylbenzene	630	U
Styrene	630	U
Total xylenes	630	U
% Moisture	0	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Volatile Organics by GCMS - Current EPA CLP Protocol - MV 795

Client Sample ID: SS-NE-1

Sample Date: N/A
IT Sample ID: MM33e4
Prep Date:
Analysis Date: (Completed) 03/15/90
Blank Sample ID: GXM10B0031152VBA
Concentration Units: UG/KG

Parameter	Result	
Chloromethane	1300	U
Bromomethane	1300	U
Vinyl chloride	1300	U
Chloroethane	1300	U
Methylene chloride	3600	B
Acetone	1300	U
Carbon disulfide	630	U
1,1-Dichloroethene	630	U
1,1-Dichloroethane	630	U
1,2-Dichloroethylene	630	U
Chloroform	910	B
1,2-Dichloroethane	630	U
2-Butanone	15000	B
1,1,1-Trichloroethane	630	U
Carbon Tetrachloride	630	U
Vinyl Acetate	1300	U
Bromodichloromethane	630	U
1,2-Dichloropropane	630	U
cis-1,3-Dichloropropene	630	U
Trichloroethene	630	U
Dibromochloromethane	630	U
1,1,2-Trichloroethane	630	U
Benzene	630	U
trans-1,3-Dichloropropene	630	U
Bromoform	630	U
4-Methyl-2-pentanone	1300	U
2-Hexanone	1300	U
Tetrachloroethene	630	U
1,1,2,2-Tetrachloroethane	630	U
Toluene	200	J
Chlorobenzene	630	U
Ethylbenzene	630	U
Styrene	630	U
Total xylenes	630	U
% Moisture	0	

Advanced Sciences, Inc.
Date: 25-APR-90

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IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV55845

EPA CLP TCL Volatile Organics by GCMS - Current EPA CLP Protocol - MV 705

Client Sample ID: 32-MW-2

Sample Date: N/A
IT Sample ID: MM33#5
Prep Date:
Analysis Date: (Completed) 03/15/90
Blank Sample ID: OXM10B093152VBA
Concentration Units: UG/KG

Parameter	Result	
Chloromethane	1300	U
Bromomethane	1300	U
Vinyl chloride	1300	U
Chloroethane	1300	U
Methylene chloride	6300	B
Acetone	1300	U
Carbon disulfide	630	U
1,1-Dichloroethene	630	U
1,1-Dichloroethane	630	U
1,2-Dichloroethylene	630	U
Chloroform	1300	B
1,2-Dichloroethane	630	U
2-Butanone	15000	B
1,1,1-Trichloroethane	630	U
Carbon Tetrachloride	630	U
Vinyl Acetate	1300	U
Bromodichloromethane	630	U
1,2-Dichloropropane	630	U
cis-1,3-Dichloropropene	630	U
Trichloroethene	630	U
Dibromochloromethane	630	U
1,1,2-Trichloroethane	630	U
Benzene	630	U
trans-1,3-Dichloropropene	630	U
Bromoform	630	U
4-Methyl-2-pentanone	1300	U
2-Hexanone	1300	U
Tetrachloroethene	630	U
1,1,2,2-Tetrachloroethane	630	U
Toluene	240	J
Chlorobenzene	630	U
Ethylbenzene	630	U
Styrene	630	U
Total xylenes	630	U
% Moisture	0	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Volatile Organics by GCMS - Current EPA CLP Protocol - MV 705

Client Sample ID: QXM10B003122VBA

Sample Date: N/A
IT Sample ID: XVBA03122
Prep Date:
Analysis Date: (Completed) 03/12/90
Blank Sample ID: QXM10B003122VBA
Concentration Units: UG/KG

Parameter	Result	
Chloromethane	1300	U
Bromomethane	1300	U
Vinyl chloride	1300	U
Chloroethane	1300	U
Methylene chloride	3000	
Acetone	480	J
Carbon disulfide	630	U
1,1-Dichloroethene	630	U
1,1-Dichloroethane	630	U
1,2-Dichloroethylene	630	U
Chloroform	630	U
1,2-Dichloroethane	630	U
2-Butanone	760	J
1,1,1-Trichloroethane	630	U
Carbon Tetrachloride	630	U
Vinyl Acetate	1300	U
Bromodichloromethane	630	U
1,2-Dichloropropane	630	U
cis-1,3-Dichloropropene	630	U
Trichloroethene	630	U
Dibromochloromethane	630	U
1,1,2-Trichloroethane	630	U
Benzene	630	U
trans-1,3-Dichloropropene	630	U
Bromoform	630	U
4-Methyl-2-pentanone	1300	U
2-Hexanone	1300	U
Tetrachlorethene	630	U
1,1,2,2-Tetrachloroethane	630	U
Toluene	630	U
Chlorobenzene	630	U
Ethylbenzene	630	U
Styrene	630	U
Total xylenes	630	U
% Moisture	0	

Advanced Sciences, Inc.
Date: 25-APR-90

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IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Volatile Organics by GCMS - Current EPA CLP Protocol - MV 705

Client Sample ID: 26

Sample Date: N/A
IT Sample ID: MM3349
Prep Date:
Analysis Date: (Completed) 03/12/90
Blank Sample ID: QXM10B003122VBB
Concentration Units: UG/KG

Parameter	Result	
Chloromethane	1300	U
Bromomethane	1300	U
Vinyl chloride	1300	U
Chloroethane	1300	U
Methylene chloride	1800	B
Acetone	4800	
Carbon disulfide	630	U
1,1-Dichloroethene	630	U
1,1-Dichloroethane	630	U
1,2-Dichloroethylene	630	U
Chloroform	680	B
1,2-Dichloroethane	630	U
2-Butanone	13000	B
1,1,1-Trichloroethane	630	U
Carbon Tetrachloride	630	U
Vinyl Acetate	1300	U
Bromodichloromethane	630	U
1,2-Dichloropropane	630	U
cis-1,3-Dichloropropene	630	U
Trichloroethene	630	U
Dibromochloromethane	630	U
1,1,2-Trichloroethane	630	U
Benzene	630	U
trans-1,3-Dichloropropene	630	U
Bromoform	630	U
4-Methyl-2-pentanone	1300	U
2-Hexanone	1300	U
Tetrachlorethene	630	U
1,1,2,2-Tetrachloroethane	630	U
Toluene	210	J
Chlorobenzene	630	U
Ethylbenzene	630	U
Styrene	630	U
Total xylenes	630	U
% Moisture	0	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

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Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Volatile Organics by GCMS - Current EPA CLP Protocol - MV 705

Client Sample ID: 27

Sample Date: N/A
IT Sample ID: MM3350
Prep Date:
Analysis Date: (Completed) 03/12/90
Blank Sample ID: QXM10B003122VBB
Concentration Units: UG/KG

Parameter	Result	
Chloromethane	140	J
Bromomethane	1300	U
Vinyl chloride	1300	U
Chloroethane	1300	U
Methylene chloride	1200	B
Acetone	3900	
Carbon disulfide	630	U
1,1-Dichloroethene	630	U
1,1-Dichloroethane	630	U
1,2-Dichloroethylene	630	U
Chloroform	680	B
1,2-Dichloroethane	630	U
2-Butanone	13000	B
1,1,1-Trichloroethane	630	U
Carbon Tetrachloride	630	U
Vinyl Acetate	1300	U
Bromodichloromethane	630	U
1,2-Dichloropropane	630	U
cis-1,3-Dichloropropene	630	U
Trichloroethene	630	U
Dibromochloromethane	630	U
1,1,2-Trichloroethane	630	U
Benzene	630	U
trans-1,3-Dichloropropene	630	U
Bromoform	630	U
4-Methyl-2-pentanone	1300	U
2-Hexanone	1300	U
Tetrachlorethene	630	U
1,1,2,2-Tetrachloroethane	630	U
Toluene	6400	
Chlorobenzene	630	U
Ethylbenzene	630	U
Styrene	630	U
Total xylenes	630	U
% Moisture	0	

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Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

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Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Volatile Organics by GCMS - Current EPA CLP Protocol - MV 705

Client Sample ID: 27R

Sample Date: N/A
IT Sample ID: MM3350R
Prep Date:
Analysis Date: (Completed) 03/12/90
Blank Sample ID: QXM10B003122VBB
Concentration Units: UG/KG

Parameter	Result	
Chloromethane	1300	U
Bromomethane	1300	U
Vinyl chloride	1300	U
Chloroethane	1300	U
Methylene chloride	2800	B
Acetone	5200	
Carbon disulfide	630	U
1,1-Dichloroethene	630	U
1,1-Dichloroethane	630	U
1,2-Dichloroethylene	630	U
Chloroform	740	B
1,2-Dichloroethane	630	U
2-Butanone	15000	B
1,1,1-Trichloroethane	630	U
Carbon Tetrachloride	630	U
Vinyl Acetate	1300	U
Bromodichloromethane	630	U
1,2-Dichloropropane	630	U
cis-1,3-Dichloropropene	630	U
Trichloroethene	630	U
Dibromochloromethane	630	U
1,1,2-Trichloroethane	630	U
Benzene	630	U
trans-1,3-Dichloropropene	630	U
Bromoform	630	U
4-Methyl-2-pentanone	1300	U
2-Hexanone	1300	U
Tetrachlorethene	630	U
1,1,2,2-Tetrachloroethane	630	U
Toluene	6800	
Chlorobenzene	630	U
Ethylbenzene	630	U
Styrene	630	U
Total xylenes	630	U
% Moisture	0	

Advanced Sciences, Inc.
Date: 25-APR-90

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IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Volatile Organics by GCMS - Current EPA CLP Protocol - MV 705

Client Sample ID: QXM10B003142VBB

Sample Date: N/A
IT Sample ID: XVBB03142
Prep Date:
Analysis Date: (Completed) 03/14/90
Blank Sample ID: QXM10B003142VBB
Concentration Units: UG/KG

Parameter	Result	
Chloromethane	1300	U
Bromomethane	1300	U
Vinyl chloride	1300	U
Chloroethane	1300	U
Methylene chloride	1300	
Acetone	4800	
Carbon disulfide	630	U
1,1-Dichloroethene	630	U
1,1-Dichloroethane	630	U
1,2-Dichloroethylene	630	U
Chloroform	470	J
1,2-Dichloroethane	630	U
2-Butanone	8100	
1,1,1-Trichloroethane	630	U
Carbon Tetrachloride	630	U
Vinyl Acetate	1300	U
Bromodichloromethane	630	U
1,2-Dichloropropane	630	U
cis-1,3-Dichloropropene	630	U
Trichloroethene	630	U
Dibromochloromethane	630	U
1,1,2-Trichloroethane	630	U
Benzene	630	U
trans-1,3-Dichloropropene	630	U
Bromoform	630	U
4-Methyl-2-pentanone	1300	U
2-Hexanone	1300	U
Tetrachlorethene	630	U
1,1,2,2-Tetrachloroethane	630	U
Toluene	140	J
Chlorobenzene	630	U
Ethylbenzene	630	U
Styrene	630	U
Total xylenes	630	U
% Moisture	0	

Advanced Sciences, Inc.
Date: 25-APR-90

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IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Volatile Organics by GCMS - Current EPA CLP Protocol - MV 705

Client Sample ID: 28

Sample Date: N/A
IT Sample ID: MM3351
Prep Date:
Analysis Date: (Completed) 03/14/90
Blank Sample ID: QXM10B003142VBB
Concentration Units: UG/KG

Parameter	Result	
Chloromethane	1300	U
Bromomethane	1300	U
Vinyl chloride	1300	U
Chloroethane	1300	U
Methylene chloride	1000	B
Acetone	12000	
Carbon disulfide	630	U
1,1-Dichloroethene	630	U
1,1-Dichloroethane	630	U
1,2-Dichloroethylene	630	U
Chloroform	560	BJ
1,2-Dichloroethane	630	U
2-Butanone	16000	B
1,1,1-Trichloroethane	630	U
Carbon Tetrachloride	630	U
Vinyl Acetate	1300	U
Bromodichloromethane	630	U
1,2-Dichloropropane	630	U
cis-1,3-Dichloropropene	630	U
Trichloroethene	630	U
Dibromochloromethane	630	U
1,1,2-Trichloroethane	630	U
Benzene	630	U
trans-1,3-Dichloropropene	630	U
Bromoform	630	U
4-Methyl-2-pentanone	1300	U
2-Hexanone	1300	U
Tetrachlorethene	630	U
1,1,2,2-Tetrachloroethane	630	U
Toluene	3400	B
Chlorobenzene	630	U
Ethylbenzene	630	U
Styrene	630	U
Total xylenes	630	U
% Moisture	0	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Volatile Organics by GCMS - Current EPA CLP Protocol - MV 705

Client Sample ID: S1-NE-1A

Sample Date: N/A
IT Sample ID: MM3354
Prep Date:
Analysis Date: (Completed) 03/14/90
Blank Sample ID: QXM10B003142VBB
Concentration Units: UG/KG

Parameter	Result	
Chloromethane	1300	U
Bromomethane	1300	U
Vinyl chloride	1300	U
Chloroethane	1300	U
Methylene chloride	2100	B
Acetone	5300	
Carbon disulfide	630	U
1,1-Dichloroethene	630	U
1,1-Dichloroethane	630	U
1,2-Dichloroethylene	630	U
Chloroform	500	BJ
1,2-Dichloroethane	630	U
2-Butanone	10000	B
1,1,1-Trichloroethane	630	U
Carbon Tetrachloride	630	U
Vinyl Acetate	1300	U
Bromodichloromethane	630	U
1,2-Dichloropropane	630	U
cis-1,3-Dichloropropene	630	U
Trichloroethene	630	U
Dibromochloromethane	630	U
1,1,2-Trichloroethane	630	U
Benzene	630	U
trans-1,3-Dichloropropene	630	U
Bromoform	630	U
4-Methyl-2-pentanone	1300	U
2-Hexanone	1300	U
Tetrachlorethene	630	U
1,1,2,2-Tetrachloroethane	630	U
Toluene	630	U
Chlorobenzene	630	U
Ethylbenzene	630	U
Styrene	630	U
Total xylenes	630	U
% Moisture	0	

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Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Volatile Organics by GCMS - Current EPA CLP Protocol - MV 705

Client Sample ID: S1-SE-2

Sample Date: N/A
IT Sample ID: MM3355
Prep Date:
Analysis Date: (Completed) 03/14/90
Blank Sample ID: QXM10B003142VBB
Concentration Units: UG/KG

Parameter	Result	
Chloromethane	1300	U
Bromomethane	1300	U
Vinyl chloride	1300	U
Chloroethane	1300	U
Methylene chloride	840	B
Acetone	2600	B
Carbon disulfide	630	U
1,1-Dichloroethene	630	U
1,1-Dichloroethane	630	U
1,2-Dichloroethylene	630	U
Chloroform	480	BJ
1,2-Dichloroethane	630	U
2-Butanone	12000	B
1,1,1-Trichloroethane	630	U
Carbon Tetrachloride	630	U
Vinyl Acetate	1300	U
Bromodichloromethane	630	U
1,2-Dichloropropane	630	U
cis-1,3-Dichloropropene	630	U
Trichloroethene	630	U
Dibromochloromethane	630	U
1,1,2-Trichloroethane	630	U
Benzene	630	U
trans-1,3-Dichloropropene	630	U
Bromoform	630	U
4-Methyl-2-pentanone	1300	U
2-Hexanone	1300	U
Tetrachlorethene	630	U
1,1,2,2-Tetrachloroethane	630	U
Toluene	430	BJ
Chlorobenzene	630	U
Ethylbenzene	630	U
Styrene	630	U
Total xylenes	630	U
% Moisture	0	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Volatile Organics by GCMS - Current EPA CLP Protocol - MV 705

Client Sample ID: S1-NE-1C

Sample Date: N/A
IT Sample ID: MM3356
Prep Date:
Analysis Date: (Completed) 03/14/90
Blank Sample ID: QXM10B003142VBB
Concentration Units: UG/KG

Parameter	Result	
Chloromethane	1300	U
Bromomethane	1300	U
Vinyl chloride	1300	U
Chloroethane	1300	U
Methylene chloride	1200	B
Acetone	2200	
Carbon disulfide	630	U
1,1-Dichloroethene	630	U
1,1-Dichloroethane	630	U
1,2-Dichloroethylene	630	U
Chloroform	490	BJ
1,2-Dichloroethane	630	U
2-Butanone	10000	B
1,1,1-Trichloroethane	630	U
Carbon Tetrachloride	630	U
Vinyl Acetate	1300	U
Bromodichloromethane	630	U
1,2-Dichloropropane	630	U
cis-1,3-Dichloropropene	630	U
Trichloroethene	630	U
Dibromochloromethane	630	U
1,1,2-Trichloroethane	630	U
Benzene	630	U
trans-1,3-Dichloropropene	630	U
Bromoform	630	U
4-Methyl-2-pentanone	1300	U
2-Hexanone	1300	U
Tetrachlorethene	630	U
1,1,2,2-Tetrachloroethane	630	U
Toluene	630	U
Chlorobenzene	630	U
Ethylbenzene	630	U
Styrene	630	U
Total xylenes	630	U
% Moisture	0	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Volatile Organics by GCMS - Current EPA CLP Protocol - MV 705

Client Sample ID: QXM10B003152VBA

Sample Date: N/A
IT Sample ID: XVBA03152
Prep Date:
Analysis Date: (Completed) 03/15/90
Blank Sample ID: QXM10B003152VBA
Concentration Units: UG/KG

Parameter	Result	
Chloromethane	1300	U
Bromomethane	1300	U
Vinyl chloride	1300	U
Chloroethane	1300	U
Methylene chloride	2400	
Acetone	570	J
Carbon disulfide	630	U
1,1-Dichloroethene	630	U
1,1-Dichloroethane	630	U
1,2-Dichloroethylene	630	U
Chloroform	370	J
1,2-Dichloroethane	630	U
2-Butanone	6400	
1,1,1-Trichloroethane	630	U
Carbon Tetrachloride	630	U
Vinyl Acetate	1300	U
Bromodichloromethane	630	U
1,2-Dichloropropane	630	U
cis-1,3-Dichloropropene	630	U
Trichloroethene	630	U
Dibromochloromethane	630	U
1,1,2-Trichloroethane	630	U
Benzene	630	U
trans-1,3-Dichloropropene	630	U
Bromoform	630	U
4-Methyl-2-pentanone	1300	U
2-Hexanone	1300	U
Tetrachlorethene	630	U
1,1,2,2-Tetrachloroethane	630	U
Toluene	630	U
Chlorobenzene	630	U
Ethylbenzene	630	U
Styrene	810	
Total xylenes	720	
% Moisture	0	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Volatile Organics by GCMS - Current EPA CLP Protocol - MV 705

Client Sample ID: S1-NE-1B

Sample Date: N/A
IT Sample ID: MM3353
Prep Date:
Analysis Date: (Completed) 03/15/90
Blank Sample ID: QXM10B003152VBA
Concentration Units: UG/KG

Parameter	Result	
Chloromethane	1300	U
Bromomethane	1300	U
Vinyl chloride	1300	U
Chloroethane	1300	U
Methylene chloride	1200	B
Acetone	140	BJ
Carbon disulfide	630	U
1,1-Dichloroethene	630	U
1,1-Dichloroethane	630	U
1,2-Dichloroethylene	630	U
Chloroform	1500	B
1,2-Dichloroethane	630	U
2-Butanone	21000	B
1,1,1-Trichloroethane	630	U
Carbon Tetrachloride	630	U
Vinyl Acetate	1300	U
Bromodichloromethane	630	U
1,2-Dichloropropane	630	U
cis-1,3-Dichloropropene	630	U
Trichloroethene	630	U
Dibromochloromethane	630	U
1,1,2-Trichloroethane	630	U
Benzene	630	U
trans-1,3-Dichloropropene	630	U
Bromoform	630	U
4-Methyl-2-pentanone	1300	U
2-Hexanone	1300	U
Tetrachlorethene	630	U
1,1,2,2-Tetrachloroethane	630	U
Toluene	220	J
Chlorobenzene	630	U
Ethylbenzene	630	U
Styrene	350	BJ
Total xylenes	630	U
% Moisture	0	

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IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Volatile Organics by GCMS - Current EPA CLP Protocol - MV 705

Client Sample ID: S2-SW-1

Sample Date: N/A
IT Sample ID: MM3357
Prep Date:
Analysis Date: (Completed) 03/15/90
Blank Sample ID: QXM10B003152VBA
Concentration Units: UG/KG

Parameter	Result	
Chloromethane	1300	U
Bromomethane	1300	U
Vinyl chloride	1300	U
Chloroethane	1300	U
Methylene chloride	1100	B
Acetone	1300	U
Carbon disulfide	630	U
1,1-Dichloroethene	630	U
1,1-Dichloroethane	630	U
1,2-Dichloroethylene	630	U
Chloroform	700	B
1,2-Dichloroethane	630	U
2-Butanone	8900	B
1,1,1-Trichloroethane	630	U
Carbon Tetrachloride	630	U
Vinyl Acetate	1300	U
Bromodichloromethane	630	U
1,2-Dichloropropane	630	U
cis-1,3-Dichloropropene	630	U
Trichloroethene	630	U
Dibromochloromethane	630	U
1,1,2-Trichloroethane	630	U
Benzene	630	U
trans-1,3-Dichloropropene	630	U
Bromoform	630	U
4-Methyl-2-pentanone	1300	U
2-Hexanone	1300	U
Tetrachlorethene	630	U
1,1,2,2-Tetrachloroethane	630	U
Toluene	130	J
Chlorobenzene	630	U
Ethylbenzene	630	U
Styrene	200	BJ
Total xylenes	200	BJ
% Moisture	0	

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Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Volatile Organics by GCMS - Current EPA CLP Protocol - MV 705

Client Sample ID: QXM10B003121VBB

Sample Date: N/A
IT Sample ID: XVBB0312
Prep Date:
Analysis Date: (Completed) 03/12/90
Blank Sample ID: QXM10B003121VBB
Concentration Units: UG/KG

Parameter	Result	
Chloromethane	1300	U
Bromomethane	1300	U
Vinyl chloride	1300	U
Chloroethane	1300	U
Methylene chloride	630	U
Acetone	1300	U
Carbon disulfide	630	U
1,1-Dichloroethene	630	U
1,1-Dichloroethane	630	U
1,2-Dichloroethylene	630	U
Chloroform	630	U
1,2-Dichloroethane	630	U
2-Butanone	650	J
1,1,1-Trichloroethane	630	U
Carbon Tetrachloride	630	U
Vinyl Acetate	1300	U
Bromodichloromethane	630	U
1,2-Dichloropropane	630	U
cis-1,3-Dichloropropene	630	U
Trichloroethene	630	U
Dibromochloromethane	630	U
1,1,2-Trichloroethane	630	U
Benzene	630	U
trans-1,3-Dichloropropene	630	U
Bromoform	630	U
4-Methyl-2-pentanone	1300	U
2-Hexanone	1300	U
Tetrachlorethene	630	U
1,1,2,2-Tetrachloroethane	630	U
Toluene	630	U
Chlorobenzene	630	U
Ethylbenzene	630	U
Styrene	630	U
Total xylenes	630	U
% Moisture	0	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Volatile Organics by GCMS - Current EPA CLP Protocol - MV 705

Client Sample ID: QXM10B003122VBB

Sample Date: N/A
IT Sample ID: XVBB03122
Prep Date:
Analysis Date: (Completed) 03/12/90
Blank Sample ID: QXM10B003122VBB
Concentration Units: UG/KG

Parameter	Result	
Chloromethane	1300	U
Bromomethane	1300	U
Vinyl chloride	1300	U
Chloroethane	1300	U
Methylene chloride	1600	
Acetone	1300	U
Carbon disulfide	630	U
1,1-Dichloroethene	630	U
1,1-Dichloroethane	630	U
1,2-Dichloroethylene	630	U
Chloroform	680	
1,2-Dichloroethane	630	U
2-Butanone	11000	
1,1,1-Trichloroethane	630	U
Carbon Tetrachloride	630	U
Vinyl Acetate	1300	U
Bromodichloromethane	630	U
1,2-Dichloropropane	630	U
cis-1,3-Dichloropropene	630	U
Trichloroethene	630	U
Dibromochloromethane	630	U
1,1,2-Trichloroethane	630	U
Benzene	630	U
trans-1,3-Dichloropropene	630	U
Bromoform	630	U
4-Methyl-2-pentanone	1300	U
2-Hexanone	1300	U
Tetrachlorethene	630	U
1,1,2,2-Tetrachloroethane	630	U
Toluene	630	U
Chlorobenzene	630	U
Ethylbenzene	630	U
Styrene	630	U
Total xylenes	630	U
% Moisture	0	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Volatile Organics by GCMS - Current EPA CLP Protocol - MV 705

Client Sample ID: QXM10B003141VBB

Sample Date: N/A
IT Sample ID: XVBB0314
Prep Date:
Analysis Date: (Completed) 03/14/90
Blank Sample ID: QXM10B003141VBB
Concentration Units: UG/KG

Parameter	Result	
Chloromethane	1300	U
Bromomethane	1300	U
Vinyl chloride	1300	U
Chloroethane	1300	U
Methylene chloride	1300	
Acetone	1300	U
Carbon disulfide	630	U
1,1-Dichloroethene	630	U
1,1-Dichloroethane	630	U
1,2-Dichloroethylene	630	U
Chloroform	630	U
1,2-Dichloroethane	630	U
2-Butanone	770	J
1,1,1-Trichloroethane	630	U
Carbon Tetrachloride	630	U
Vinyl Acetate	1300	U
Bromodichloromethane	630	U
1,2-Dichloropropane	630	U
cis-1,3-Dichloropropene	630	U
Trichloroethene	630	U
Dibromochloromethane	630	U
1,1,2-Trichloroethane	630	U
Benzene	630	U
trans-1,3-Dichloropropene	630	U
Bromoform	630	U
4-Methyl-2-pentanone	1300	U
2-Hexanone	1300	U
Tetrachlorethene	630	U
1,1,2,2-Tetrachloroethane	630	U
Toluene	630	U
Chlorobenzene	630	U
Ethylbenzene	630	U
Styrene	630	U
Total xylenes	630	U
% Moisture	0	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Volatile Organics by GCMS - Current EPA CLP Protocol - MV 705

Client Sample ID: QXM10B003151VBA

Sample Date: N/A
IT Sample ID: XVBA0315
Prep Date:
Analysis Date: (Completed) 03/15/90
Blank Sample ID: QXM10B003151VBA
Concentration Units: UG/KG

Parameter	Result	
Chloromethane	1300	U
Bromomethane	1300	U
Vinyl chloride	1300	U
Chloroethane	1300	U
Methylene chloride	610	J
Acetone	500	J
Carbon disulfide	630	U
1,1-Dichloroethene	630	U
1,1-Dichloroethane	630	U
1,2-Dichloroethylene	630	U
Chloroform	630	U
1,2-Dichloroethane	630	U
2-Butanone	920	J
1,1,1-Trichloroethane	630	U
Carbon Tetrachloride	630	U
Vinyl Acetate	1300	U
Bromodichloromethane	630	U
1,2-Dichloropropane	630	U
cis-1,3-Dichloropropene	630	U
Trichloroethene	630	U
Dibromochloromethane	630	U
1,1,2-Trichloroethane	630	U
Benzene	630	U
trans-1,3-Dichloropropene	630	U
Bromoform	630	U
4-Methyl-2-pentanone	1300	U
2-Hexanone	1300	U
Tetrachlorethene	630	U
1,1,2,2-Tetrachloroethane	630	U
Toluene	630	U
Chlorobenzene	630	U
Ethylbenzene	630	U
Styrene	630	U
Total xylenes	630	U
% Moisture	0	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Volatile Organics by GCMS - Current EPA CLP Protocol - MV 705

Client Sample ID: QXM10B004021VBA

Sample Date: N/A
IT Sample ID: XVBA0402
Prep Date:
Analysis Date: (Completed) 04/02/90
Blank Sample ID: QXM10B004021VBA
Concentration Units: UG/KG

Parameter	Result	
Chloromethane	1300	U
Bromomethane	1300	U
Vinyl chloride	1300	U
Chloroethane	1300	U
Methylene chloride	700	
Acetone	580	J
Carbon disulfide	630	U
1,1-Dichloroethene	630	U
1,1-Dichloroethane	630	U
1,2-Dichloroethylene	630	U
Chloroform	630	U
1,2-Dichloroethane	630	U
2-Butanone	1000	J
1,1,1-Trichloroethane	630	U
Carbon Tetrachloride	630	U
Vinyl Acetate	1300	U
Bromodichloromethane	630	U
1,2-Dichloropropane	630	U
cis-1,3-Dichloropropene	630	U
Trichloroethene	630	U
Dibromochloromethane	630	U
1,1,2-Trichloroethane	630	U
Benzene	630	U
trans-1,3-Dichloropropene	630	U
Bromoform	630	U
4-Methyl-2-pentanone	1300	U
2-Hexanone	1300	U
Tetrachlorethene	630	U
1,1,2,2-Tetrachloroethane	630	U
Toluene	630	U
Chlorobenzene	630	U
Ethylbenzene	630	U
Styrene	630	U
Total xylenes	630	U
% Moisture	0	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL BNA Organics by GCMS - Current EPA CLP Protocol - ME 705

Client Sample ID: QXM13B002261

Sample Date: N/A
IT Sample ID: QX1578
Prep Date: 02/26/90
Analysis Date: (Completed) 03/26/90
Blank Sample ID: QXM13B002261
Concentration Units: UG/KG

Parameter	Result		Parameter	Result	
Phenol	330	U	2,4-Dinitrophenol	1600	U
bis(2-Chloroethyl)ether	330	U	4-Nitrophenol	1600	U
2-Chlorophenol	330	U	Dibenzofuran	330	U
1,3-Dichlorobenzene	330	U	2,4-Dinitrotoluene	330	U
1,4-Dichlorobenzene	330	U	Diethyl phthalate	330	U
Benzyl alcohol	330	U	4-Chlorophenylphenyl ether	330	U
1,2-Dichlorobenzene	330	U	Fluorene	330	U
2-Methylphenol	330	U	4-Nitroaniline	1600	U
bis(2-Chloroisopropyl)ether	330	U	4,6-Dinitro-2-methylphenol	1600	U
4-Methylphenol	330	U	N-Nitrosodiphenylamine	330	U
N-Nitroso-di-n-propylamine	330	U	4-Bromophenyl phenyl ether	330	U
Hexachloroethane	330	U	Hexachlorobenzene	330	U
Nitrobenzene	330	U	Pentachlorophenol	1600	U
Isophorone	330	U	Phenanthrene	330	U
2-Nitrophenol	330	U	Anthracene	330	U
2,4-Dimethylphenol	330	U	Di-n-butyl phthalate	330	U
Benzoic acid	1600	U	Fluoranthene	330	U
bis(2-Chloroethoxy)methane	330	U	Pyrene	330	U
2,4-Dichlorophenol	330	U	Butyl benzyl phthalate	330	U
1,2,4-Trichlorobenzene	330	U	3,3'-Dichlorobenzidine	660	U
Naphthalene	330	U	Benzo(a)anthracene	330	U
4-Chloroaniline	330	U	Chrysene	330	U
Hexachlorobutadiene	330	U	bis(2-Ethylhexyl) phthalate	330	U
4-Chloro-3-methylphenol	330	U	Di-n-octyl phthalate	330	U
2-Methylnaphthalene	330	U	Benzo(b)fluoranthene	330	U
Hexachlorocyclopentadiene	330	U	Benzo(k)fluoranthene	330	U
2,4,6-Trichlorophenol	330	U	Benzo(a)pyrene	330	U
2,4,5-Trichlorophenol	1600	U	Indeno(1,2,3-cd)pyrene	330	U
2-Chloronaphthalene	330	U	Dibenzo(a,h)anthracene	330	U
2-Nitroaniline	1600	U	Benzo(g,h,i)perylene	330	U
Dimethyl phthalate	330	U			
Acenaphthylene	330	U			
2,6-Dinitrotoluene	330	U			
3-Nitroaniline	1600	U			
Acenaphthene	330	U			

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL BNA Organics by GCMS - Current EPA CLP Protocol - ME 705

Client Sample ID: 26

Sample Date: N/A
IT Sample ID: MM3349
Prep Date: 02/26/90
Analysis Date: (Completed) 03/25/90
Blank Sample ID: QXM13B002261
Concentration Units: UG/KG

Parameter	Result		Parameter	Result	
Phenol	54	J	2,4-Dinitrophenol	1600	U
bis(2-Chloroethyl)ether	340	U	4-Nitrophenol	45	J
2-Chlorophenol	340	U	Dibenzofuran	340	U
1,3-Dichlorobenzene	340	U	2,4-Dinitrotoluene	340	U
1,4-Dichlorobenzene	340	U	Diethyl phthalate	340	U
Benzyl alcohol	340	U	4-Chlorophenylphenyl ether	340	U
1,2-Dichlorobenzene	340	U	Fluorene	340	U
2-Methylphenol	340	U	4-Nitroaniline	1600	U
bis(2-Chloroisopropyl)ether	340	U	4,6-Dinitro-2-methylphenol	1600	U
4-Methylphenol	340	U	N-Nitrosodiphenylamine	340	U
N-Nitroso-di-n-propylamine	340	U	4-Bromophenyl phenyl ether	340	U
Hexachloroethane	340	U	Hexachlorobenzene	340	U
Nitrobenzene	340	U	Pentachlorophenol	1600	U
Isophorone	340	U	Phenanthrene	340	U
2-Nitrophenol	340	U	Anthracene	340	U
2,4-Dimethylphenol	340	U	Di-n-butyl phthalate	340	U
Benzoic acid	1600	U	Fluoranthene	340	U
bis(2-Chloroethoxy)methane	340	U	Pyrene	340	U
2,4-Dichlorophenol	340	U	Butyl benzyl phthalate	340	U
1,2,4-Trichlorobenzene	340	U	3,3'-Dichlorobenzidine	680	U
Naphthalene	340	U	Benzo(a)anthracene	340	U
4-Chloroaniline	340	U	Chrysene	340	U
Hexachlorobutadiene	340	U	bis(2-Ethylhexyl) phthalate	40	J
4-Chloro-3-methylphenol	340	U	Di-n-octyl phthalate	340	U
2-Methylnaphthalene	340	U	Benzo(b)fluoranthene	340	U
Hexachlorocyclopentadiene	340	U	Benzo(k)fluoranthene	340	U
2,4,6-Trichlorophenol	340	U	Benzo(a)pyrene	340	U
2,4,5-Trichlorophenol	1600	U	Indeno(1,2,3-cd)pyrene	340	U
2-Chloronaphthalene	340	U	Dibenzo(a,h)anthracene	340	U
2-Nitroaniline	1600	U	Benzo(g,h,i)perylene	340	U
Dimethyl phthalate	340	U			
Acenaphthylene	340	U			
2,6-Dinitrotoluene	340	U			
3-Nitroaniline	1600	U			
Acenaphthene	340	U			

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL BNA Organics by GCMS - Current EPA CLP Protocol - ME 705

Client Sample ID: 27

Sample Date: N/A
IT Sample ID: MM3350
Prep Date: 02/26/90
Analysis Date: (Completed) 03/26/90
Blank Sample ID: QXM13B002261
Concentration Units: UG/KG

Parameter	Result		Parameter	Result	
Phenol	55	J	2,4-Dinitrophenol	1700	U
bis(2-Chloroethyl)ether	350	U	4-Nitrophenol	1700	U
2-Chlorophenol	350	U	Dibenzofuran	350	U
1,3-Dichlorobenzene	350	U	2,4-Dinitrotoluene	350	U
1,4-Dichlorobenzene	350	U	Diethyl phthalate	350	U
Benzyl alcohol	350	U	4-Chlorophenylphenyl ether	350	U
1,2-Dichlorobenzene	350	U	Fluorene	350	U
2-Methylphenol	350	U	4-Nitroaniline	1700	U
bis(2-Chloroisopropyl)ether	350	U	4,6-Dinitro-2-methylphenol	1700	U
4-Methylphenol	350	U	N-Nitrosodiphenylamine	350	U
N-Nitroso-di-n-propylamine	350	U	4-Bromophenyl phenyl ether	350	U
Hexachloroethane	350	U	Hexachlorobenzene	350	U
Nitrobenzene	350	U	Pentachlorophenol	1700	U
Isophorone	350	U	Phenanthrene	350	U
2-Nitrophenol	52	J	Anthracene	350	U
2,4-Dimethylphenol	350	U	Di-n-butyl phthalate	350	U
Benzoic acid	1700	U	Fluoranthene	350	U
bis(2-Chloroethoxy)methane	350	U	Pyrene	350	U
2,4-Dichlorophenol	350	U	Butyl benzyl phthalate	350	U
1,2,4-Trichlorobenzene	350	U	3,3'-Dichlorobenzidine	700	U
Naphthalene	350	U	Benzo(a)anthracene	350	U
4-Chloroaniline	350	U	Chrysene	350	U
Hexachlorobutadiene	350	U	bis(2-Ethylhexyl) phthalate	350	U
4-Chloro-3-methylphenol	350	U	Di-n-octyl phthalate	350	U
2-Methylnaphthalene	350	U	Benzo(b)fluoranthene	350	U
Hexachlorocyclopentadiene	350	U	Benzo(k)fluoranthene	350	U
2,4,6-Trichlorophenol	350	U	Benzo(a)pyrene	350	U
2,4,5-Trichlorophenol	1700	U	Indeno(1,2,3-cd)pyrene	350	U
2-Chloronaphthalene	350	U	Dibenzo(a,h)anthracene	350	U
2-Nitroaniline	1700	U	Benzo(g,h,i)perylene	350	U
Dimethyl phthalate	350	U			
Acenaphthylene	350	U			
2,6-Dinitrotoluene	350	U			
3-Nitroaniline	1700	U			
Acenaphthene	350	U			

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL BNA Organics by GCMS - Current EPA CLP Protocol - ME 705

Client Sample ID: 28

Sample Date: N/A
IT Sample ID: MM3351
Prep Date: 02/26/90
Analysis Date: (Completed) 03/26/90
Blank Sample ID: QXM13B002261
Concentration Units: UG/KG

Parameter	Result		Parameter	Result	
Phenol	360	U	2,4-Dinitrophenol	1700	U
bis(2-Chloroethyl)ether	360	U	4-Nitrophenol	1700	U
2-Chlorophenol	360	U	Dibenzofuran	360	U
1,3-Dichlorobenzene	360	U	2,4-Dinitrotoluene	360	U
1,4-Dichlorobenzene	360	U	Diethyl phthalate	360	U
Benzyl alcohol	360	U	4-Chlorophenylphenyl ether	360	U
1,2-Dichlorobenzene	360	U	Fluorene	360	U
2-Methylphenol	360	U	4-Nitroaniline	1700	U
bis(2-Chloroisopropyl)ether	360	U	4,6-Dinitro-2-methylphenol	1700	U
4-Methylphenol	360	U	N-Nitrosodiphenylamine	360	U
N-Nitroso-di-n-propylamine	360	U	4-Bromophenyl phenyl ether	360	U
Hexachloroethane	360	U	Hexachlorobenzene	360	U
Nitrobenzene	360	U	Pentachlorophenol	1700	U
Isophorone	360	U	Phenanthrene	360	U
2-Nitrophenol	360	U	Anthracene	360	U
2,4-Dimethylphenol	360	U	Di-n-butyl phthalate	360	U
Benzoic acid	1700	U	Fluoranthene	360	U
bis(2-Chloroethoxy)methane	360	U	Pyrene	360	U
2,4-Dichlorophenol	360	U	Butyl benzyl phthalate	360	U
1,2,4-Trichlorobenzene	360	U	3,3'-Dichlorobenzidine	710	U
Naphthalene	360	U	Benzo(a)anthracene	360	U
4-Chloroaniline	360	U	Chrysene	360	U
Hexachlorobutadiene	360	U	bis(2-Ethylhexyl) phthalate	360	U
4-Chloro-3-methylphenol	360	U	Di-n-octyl phthalate	360	U
2-Methylnaphthalene	360	U	Benzo(b)fluoranthene	360	U
Hexachlorocyclopentadiene	360	U	Benzo(k)fluoranthene	360	U
2,4,6-Trichlorophenol	360	U	Benzo(a)pyrene	360	U
2,4,5-Trichlorophenol	1700	U	Indeno(1,2,3-cd)pyrene	360	U
2-Chloronaphthalene	360	U	Dibenzo(a,h)anthracene	360	U
2-Nitroaniline	1700	U	Benzo(g,h,i)perylene	360	U
Dimethyl phthalate	360	U			
Acenaphthylene	360	U			
2,6-Dinitrotoluene	360	U			
3-Nitroaniline	1700	U			
Acenaphthene	360	U			

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL BNA Organics by GCMS - Current EPA CLP Protocol - ME 705

Client Sample ID: 29

Sample Date: N/A
IT Sample ID: MM3352
Prep Date: 02/26/90
Analysis Date: (Completed) 03/26/90
Blank Sample ID: QXM13B002261
Concentration Units: UG/KG

Parameter	Result		Parameter	Result	
Phenol	350	U	2,4-Dinitrophenol	1700	U
bis(2-Chloroethyl)ether	350	U	4-Nitrophenol	1700	U
2-Chlorophenol	350	U	Dibenzofuran	350	U
1,3-Dichlorobenzene	350	U	2,4-Dinitrotoluene	350	U
1,4-Dichlorobenzene	350	U	Diethyl phthalate	350	U
Benzyl alcohol	350	U	4-Chlorophenylphenyl ether	350	U
1,2-Dichlorobenzene	350	U	Fluorene	350	U
2-Methylphenol	350	U	4-Nitroaniline	1700	U
bis(2-Chloroisopropyl)ether	350	U	4,6-Dinitro-2-methylphenol	1700	U
4-Methylphenol	350	U	N-Nitrosodiphenylamine	350	U
N-Nitroso-di-n-propylamine	350	U	4-Bromophenyl phenyl ether	350	U
Hexachloroethane	350	U	Hexachlorobenzene	350	U
Nitrobenzene	350	U	Pentachlorophenol	1700	U
Isophorone	350	U	Phenanthrene	350	U
2-Nitrophenol	350	U	Anthracene	350	U
2,4-Dimethylphenol	350	U	Di-n-butyl phthalate	350	U
Benzoic acid	1700	U	Fluoranthene	350	U
bis(2-Chloroethoxy)methane	350	U	Pyrene	350	U
2,4-Dichlorophenol	350	U	Butyl benzyl phthalate	350	U
1,2,4-Trichlorobenzene	350	U	3,3'-Dichlorobenzidine	690	U
Naphthalene	350	U	Benzo(a)anthracene	350	U
4-Chloroaniline	350	U	Chrysene	350	U
Hexachlorobutadiene	350	U	bis(2-Ethylhexyl) phthalate	350	U
4-Chloro-3-methylphenol	350	U	Di-n-octyl phthalate	350	U
2-Methylnaphthalene	350	U	Benzo(b)fluoranthene	350	U
Hexachlorocyclopentadiene	350	U	Benzo(k)fluoranthene	350	U
2,4,6-Trichlorophenol	350	U	Benzo(a)pyrene	350	U
2,4,5-Trichlorophenol	1700	U	Indeno(1,2,3-cd)pyrene	350	U
2-Chloronaphthalene	350	U	Dibenzo(a,h)anthracene	350	U
2-Nitroaniline	1700	U	Benzo(g,h,i)perylene	350	U
Dimethyl phthalate	350	U			
Acenaphthylene	350	U			
2,6-Dinitrotoluene	350	U			
3-Nitroaniline	1700	U			
Acenaphthene	350	U			

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL BNA Organics by GCMS - Current EPA CLP Protocol - ME 705

Client Sample ID: S1-NE-1B

Sample Date: N/A
IT Sample ID: MM3353
Prep Date: 02/26/90
Analysis Date: (Completed) 03/26/90
Blank Sample ID: QXM13B002261
Concentration Units: UG/KG

Parameter	Result		Parameter	Result	
Phenol	64	J	2,4-Dinitrophenol	1800	U
bis(2-Chloroethyl)ether	370	U	4-Nitrophenol	1800	U
2-Chlorophenol	370	U	Dibenzofuran	370	U
1,3-Dichlorobenzene	370	U	2,4-Dinitrotoluene	370	U
1,4-Dichlorobenzene	370	U	Diethyl phthalate	370	U
Benzyl alcohol	370	U	4-Chlorophenylphenyl ether	370	U
1,2-Dichlorobenzene	370	U	Fluorene	370	U
2-Methylphenol	370	U	4-Nitroaniline	1800	U
bis(2-Chloroisopropyl)ether	370	U	4,6-Dinitro-2-methylphenol	1800	U
4-Methylphenol	370	U	N-Nitrosodiphenylamine	370	U
N-Nitroso-di-n-propylamine	370	U	4-Bromophenyl phenyl ether	370	U
Hexachloroethane	370	U	Hexachlorobenzene	370	U
Nitrobenzene	370	U	Pentachlorophenol	1800	U
Isophorone	370	U	Phenanthrene	370	U
2-Nitrophenol	370	U	Anthracene	370	U
2,4-Dimethylphenol	370	U	Di-n-butyl phthalate	370	U
Benzoic acid	75	J	Fluoranthene	370	U
bis(2-Chloroethoxy)methane	370	U	Pyrene	370	U
2,4-Dichlorophenol	370	U	Butyl benzyl phthalate	370	U
1,2,4-Trichlorobenzene	370	U	3,3'-Dichlorobenzidine	730	U
Naphthalene	370	U	Benzo(a)anthracene	370	U
4-Chloroaniline	370	U	Chrysene	370	U
Hexachlorobutadiene	370	U	bis(2-Ethylhexyl) phthalate	93	J
4-Chloro-3-methylphenol	370	U	Di-n-octyl phthalate	370	U
2-Methylnaphthalene	370	U	Benzo(b)fluoranthene	370	U
Hexachlorocyclopentadiene	370	U	Benzo(k)fluoranthene	370	U
2,4,6-Trichlorophenol	370	U	Benzo(a)pyrene	370	U
2,4,5-Trichlorophenol	1800	U	Indeno(1,2,3-cd)pyrene	370	U
2-Chloronaphthalene	370	U	Dibenzo(a,h)anthracene	370	U
2-Nitroaniline	1800	U	Benzo(g,h,i)perylene	370	U
Dimethyl phthalate	370	U			
Acenaphthylene	370	U			
2,6-Dinitrotoluene	370	U			
3-Nitroaniline	1800	U			
Acenaphthene	370	U			

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL BNA Organics by GCMS - Current EPA CLP Protocol - ME 705

Client Sample ID: S1-NE-1A

Sample Date: N/A
IT Sample ID: MM3354
Prep Date: 02/26/90
Analysis Date: (Completed) 03/26/90
Blank Sample ID: QXM13B002261
Concentration Units: UG/KG

Parameter	Result		Parameter	Result	
Phenol	82	J	2,4-Dinitrophenol	1800	U
bis(2-Chloroethyl)ether	380	U	4-Nitrophenol	1800	U
2-Chlorophenol	380	U	Dibenzofuran	380	U
1,3-Dichlorobenzene	380	U	2,4-Dinitrotoluene	380	U
1,4-Dichlorobenzene	380	U	Diethyl phthalate	380	U
Benzyl alcohol	380	U	4-Chlorophenylphenyl ether	380	U
1,2-Dichlorobenzene	380	U	Fluorene	380	U
2-Methylphenol	380	U	4-Nitroaniline	1800	U
bis(2-Chloroisopropyl)ether	380	U	4,6-Dinitro-2-methylphenol	1800	U
4-Methylphenol	380	U	N-Nitrosodiphenylamine	380	U
N-Nitroso-di-n-propylamine	380	U	4-Bromophenyl phenyl ether	380	U
Hexachloroethane	380	U	Hexachlorobenzene	380	U
Nitrobenzene	380	U	Pentachlorophenol	1800	U
Isophorone	380	U	Phenanthrene	380	U
2-Nitrophenol	380	U	Anthracene	380	U
2,4-Dimethylphenol	380	U	Di-n-butyl phthalate	380	U
Benzoic acid	1800	U	Fluoranthene	380	U
bis(2-Chloroethoxy)methane	380	U	Pyrene	380	U
2,4-Dichlorophenol	380	U	Butyl benzyl phthalate	380	U
1,2,4-Trichlorobenzene	380	U	3,3'-Dichlorobenzidine	750	U
Naphthalene	380	U	Benzo(a)anthracene	380	U
4-Chloroaniline	380	U	Chrysene	380	U
Hexachlorobutadiene	380	U	bis(2-Ethylhexyl) phthalate	220	J
4-Chloro-3-methylphenol	380	U	Di-n-octyl phthalate	380	U
2-Methylnaphthalene	380	U	Benzo(b)fluoranthene	380	U
Hexachlorocyclopentadiene	380	U	Benzo(k)fluoranthene	380	U
2,4,6-Trichlorophenol	380	U	Benzo(a)pyrene	380	U
2,4,5-Trichlorophenol	1800	U	Indeno(1,2,3-cd)pyrene	380	U
2-Chloronaphthalene	380	U	Dibenzo(a,h)anthracene	380	U
2-Nitroaniline	1800	U	Benzo(g,h,i)perylene	380	U
Dimethyl phthalate	380	U			
Acenaphthylene	380	U			
2,6-Dinitrotoluene	380	U			
3-Nitroaniline	1800	U			
Acenaphthene	380	U			

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL BNA Organics by GCMS - Current EPA CLP Protocol - ME 705

Client Sample ID: S1-SE-2

Sample Date: N/A
IT Sample ID: MM3355
Prep Date: 02/26/90
Analysis Date: (Completed) 03/26/90
Blank Sample ID: QXM13B002261
Concentration Units: UG/KG

Parameter	Result		Parameter	Result	
Phenol	380	U	2,4-Dinitrophenol	1800	U
bis(2-Chloroethyl)ether	380	U	4-Nitrophenol	1800	U
2-Chlorophenol	380	U	Dibenzofuran	380	U
1,3-Dichlorobenzene	380	U	2,4-Dinitrotoluene	380	U
1,4-Dichlorobenzene	380	U	Diethyl phthalate	380	U
Benzyl alcohol	380	U	4-Chlorophenylphenyl ether	380	U
1,2-Dichlorobenzene	380	U	Fluorene	380	U
2-Methylphenol	380	U	4-Nitroaniline	1800	U
bis(2-Chloroisopropyl)ether	380	U	4,6-Dinitro-2-methylphenol	1800	U
4-Methylphenol	380	U	N-Nitrosodiphenylamine	380	U
N-Nitroso-di-n-propylamine	380	U	4-Bromophenyl phenyl ether	380	U
Hexachloroethane	380	U	Hexachlorobenzene	380	U
Nitrobenzene	380	U	Pentachlorophenol	1800	U
Isophorone	380	U	Phenanthrene	380	U
2-Nitrophenol	380	U	Anthracene	380	U
2,4-Dimethylphenol	380	U	Di-n-butyl phthalate	46	J
Benzoic acid	1800	U	Fluoranthene	380	U
bis(2-Chloroethoxy)methane	380	U	Pyrene	380	U
2,4-Dichlorophenol	380	U	Butyl benzyl phthalate	380	U
1,2,4-Trichlorobenzene	380	U	3,3'-Dichlorobenzidine	750	U
Naphthalene	380	U	Benzo(a)anthracene	380	U
4-Chloroaniline	380	U	Chrysene	380	U
Hexachlorobutadiene	380	U	bis(2-Ethylhexyl) phthalate	6000	
4-Chloro-3-methylphenol	380	U	Di-n-octyl phthalate	820	
2-Methylnaphthalene	380	U	Benzo(b)fluoranthene	380	U
Hexachlorocyclopentadiene	380	U	Benzo(k)fluoranthene	380	U
2,4,6-Trichlorophenol	380	U	Benzo(a)pyrene	380	U
2,4,5-Trichlorophenol	1800	U	Indeno(1,2,3-cd)pyrene	380	U
2-Chloronaphthalene	380	U	Dibenzo(a,h)anthracene	380	U
2-Nitroaniline	1800	U	Benzo(g,h,i)perylene	380	U
Dimethyl phthalate	380	U			
Acenaphthylene	380	U			
2,6-Dinitrotoluene	380	U			
3-Nitroaniline	1800	U			
Acenaphthene	380	U			

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL BNA Organics by GCMS - Current EPA CLP Protocol - ME 705

Client Sample ID: S1-NE-1C

Sample Date: N/A
IT Sample ID: MM3356
Prep Date: 02/26/90
Analysis Date: (Completed) 03/26/90
Blank Sample ID: QXM13B002261
Concentration Units: UG/KG

Parameter	Result		Parameter	Result	
Phenol	120	J	2,4-Dinitrophenol	2100	U
bis(2-Chloroethyl)ether	430	U	4-Nitrophenol	2100	U
2-Chlorophenol	430	U	Dibenzofuran	430	U
1,3-Dichlorobenzene	430	U	2,4-Dinitrotoluene	430	U
1,4-Dichlorobenzene	430	U	Diethyl phthalate	430	U
Benzyl alcohol	430	U	4-Chlorophenylphenyl ether	430	U
1,2-Dichlorobenzene	430	U	Fluorene	430	U
2-Methylphenol	430	U	4-Nitroaniline	2100	U
bis(2-Chloroisopropyl)ether	430	U	4,6-Dinitro-2-methylphenol	2100	U
4-Methylphenol	430	U	N-Nitrosodiphenylamine	430	U
N-Nitroso-di-n-propylamine	430	U	4-Bromophenyl phenyl ether	430	U
Hexachloroethane	430	U	Hexachlorobenzene	430	U
Nitrobenzene	430	U	Pentachlorophenol	2100	U
Isophorone	430	U	Phenanthrene	430	U
2-Nitrophenol	430	U	Anthracene	430	U
2,4-Dimethylphenol	430	U	Di-n-butyl phthalate	430	U
Benzoic acid	2100	U	Fluoranthene	430	U
bis(2-Chloroethoxy)methane	430	U	Pyrene	430	U
2,4-Dichlorophenol	430	U	Butyl benzyl phthalate	430	U
1,2,4-Trichlorobenzene	430	U	3,3'-Dichlorobenzidine	850	U
Naphthalene	430	U	Benzo(a)anthracene	430	U
4-Chloroaniline	430	U	Chrysene	430	U
Hexachlorobutadiene	430	U	bis(2-Ethylhexyl) phthalate	210	J
4-Chloro-3-methylphenol	430	U	Di-n-octyl phthalate	430	U
2-Methylnaphthalene	430	U	Benzo(b)fluoranthene	430	U
Hexachlorocyclopentadiene	430	U	Benzo(k)fluoranthene	430	U
2,4,6-Trichlorophenol	430	U	Benzo(a)pyrene	430	U
2,4,5-Trichlorophenol	2100	U	Indeno(1,2,3-cd)pyrene	430	U
2-Chloronaphthalene	430	U	Dibenzo(a,h)anthracene	430	U
2-Nitroaniline	2100	U	Benzo(g,h,i)perylene	430	U
Dimethyl phthalate	430	U			
Acenaphthylene	430	U			
2,6-Dinitrotoluene	430	U			
3-Nitroaniline	2100	U			
Acenaphthene	430	U			

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL BNA Organics by GCMS - Current EPA CLP Protocol - ME 705

Client Sample ID: S2-SW-1

Sample Date: N/A
IT Sample ID: MM3357
Prep Date: 02/26/90
Analysis Date: (Completed) 03/27/90
Blank Sample ID: QXM13B002261
Concentration Units: UG/KG

Parameter	Result		Parameter	Result	
Phenol	110	J	2,4-Dinitrophenol	1700	U
bis(2-Chloroethyl)ether	360	U	4-Nitrophenol	1700	U
2-Chlorophenol	360	U	Dibenzofuran	360	U
1,3-Dichlorobenzene	360	U	2,4-Dinitrotoluene	360	U
1,4-Dichlorobenzene	360	U	Diethyl phthalate	360	U
Benzyl alcohol	360	U	4-Chlorophenylphenyl ether	360	U
1,2-Dichlorobenzene	360	U	Fluorene	360	U
2-Methylphenol	360	U	4-Nitroaniline	1700	U
bis(2-Chloroisopropyl)ether	360	U	4,6-Dinitro-2-methylphenol	1700	U
4-Methylphenol	360	U	N-Nitrosodiphenylamine	360	U
N-Nitroso-di-n-propylamine	360	U	4-Bromophenyl phenyl ether	360	U
Hexachloroethane	360	U	Hexachlorobenzene	360	U
Nitrobenzene	360	U	Pentachlorophenol	1700	U
Isophorone	360	U	Phenanthrene	360	U
2-Nitrophenol	360	U	Anthracene	360	U
2,4-Dimethylphenol	360	U	Di-n-butyl phthalate	360	U
Benzoic acid	190	J	Fluoranthene	360	U
bis(2-Chloroethoxy)methane	360	U	Pyrene	360	U
2,4-Dichlorophenol	360	U	Butyl benzyl phthalate	360	U
1,2,4-Trichlorobenzene	360	U	3,3'-Dichlorobenzidine	710	U
Naphthalene	360	U	Benzo(a)anthracene	360	U
4-Chloroaniline	360	U	Chrysene	360	U
Hexachlorobutadiene	360	U	bis(2-Ethylhexyl) phthalate	270	J
4-Chloro-3-methylphenol	360	U	Di-n-octyl phthalate	360	U
2-Methylnaphthalene	360	U	Benzo(b)fluoranthene	360	U
Hexachlorocyclopentadiene	360	U	Benzo(k)fluoranthene	360	U
2,4,6-Trichlorophenol	360	U	Benzo(a)pyrene	360	U
2,4,5-Trichlorophenol	1700	U	Indeno(1,2,3-cd)pyrene	360	U
2-Chloronaphthalene	360	U	Dibenzo(a,h)anthracene	360	U
2-Nitroaniline	1700	U	Benzo(g,h,i)perylene	360	U
Dimethyl phthalate	360	U			
Acenaphthylene	360	U			
2,6-Dinitrotoluene	360	U			
3-Nitroaniline	1700	U			
Acenaphthene	360	U			

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL BNA Organics by GCMS - Current EPA CLP Protocol - ME 705

Client Sample ID: S1-SW-1

Sample Date: N/A
IT Sample ID: MM3358
Prep Date: 02/26/90
Analysis Date: (Completed) 03/26/90
Blank Sample ID: QXM13B002261
Concentration Units: UG/KG

Parameter	Result		Parameter	Result	
Phenol	350	U	2,4-Dinitrophenol	1700	U
bis(2-Chloroethyl)ether	350	U	4-Nitrophenol	1700	U
2-Chlorophenol	350	U	Dibenzofuran	350	U
1,3-Dichlorobenzene	350	U	2,4-Dinitrotoluene	350	U
1,4-Dichlorobenzene	350	U	Diethyl phthalate	350	U
Benzyl alcohol	350	U	4-Chlorophenylphenyl ether	350	U
1,2-Dichlorobenzene	350	U	Fluorene	350	U
2-Methylphenol	350	U	4-Nitroaniline	1700	U
bis(2-Chloroisopropyl)ether	350	U	4,6-Dinitro-2-methylphenol	1700	U
4-Methylphenol	350	U	N-Nitrosodiphenylamine	350	U
N-Nitroso-di-n-propylamine	350	U	4-Bromophenyl phenyl ether	350	U
Hexachloroethane	350	U	Hexachlorobenzene	350	U
Nitrobenzene	350	U	Pentachlorophenol	1700	U
Isophorone	350	U	Phenanthrene	350	U
2-Nitrophenol	350	U	Anthracene	350	U
2,4-Dimethylphenol	350	U	Di-n-butyl phthalate	57	J
Benzoic acid	1700	U	Fluoranthene	350	U
bis(2-Chloroethoxy)methane	350	U	Pyrene	350	U
2,4-Dichlorophenol	350	U	Butyl benzyl phthalate	350	U
1,2,4-Trichlorobenzene	350	U	3,3'-Dichlorobenzidine	690	U
Naphthalene	350	U	Benzo(a)anthracene	350	U
4-Chloroaniline	350	U	Chrysene	350	U
Hexachlorobutadiene	350	U	bis(2-Ethylhexyl) phthalate	560	
4-Chloro-3-methylphenol	350	U	Di-n-octyl phthalate	45	J
2-Methylnaphthalene	350	U	Benzo(b)fluoranthene	350	U
Hexachlorocyclopentadiene	350	U	Benzo(k)fluoranthene	350	U
2,4,6-Trichlorophenol	350	U	Benzo(a)pyrene	350	U
2,4,5-Trichlorophenol	1700	U	Indeno(1,2,3-cd)pyrene	350	U
2-Chloronaphthalene	350	U	Dibenzo(a,h)anthracene	350	U
2-Nitroaniline	1700	U	Benzo(g,h,i)perylene	350	U
Dimethyl phthalate	350	U			
Acenaphthylene	350	U			
2,6-Dinitrotoluene	350	U			
3-Nitroaniline	1700	U			
Acenaphthene	350	U			

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL BNA Organics by GCMS - Current EPA CLP Protocol - ME 705

Client Sample ID: S1-SE-1

Sample Date: N/A
IT Sample ID: MM3359
Prep Date: 02/26/90
Analysis Date: (Completed) 03/26/90
Blank Sample ID: QXM13B002261
Concentration Units: UG/KG

Parameter	Result		Parameter	Result	
Phenol	350	U	2,4-Dinitrophenol	1700	U
bis(2-Chloroethyl)ether	350	U	4-Nitrophenol	1700	U
2-Chlorophenol	350	U	Dibenzofuran	350	U
1,3-Dichlorobenzene	350	U	2,4-Dinitrotoluene	350	U
1,4-Dichlorobenzene	350	U	Diethyl phthalate	350	U
Benzyl alcohol	350	U	4-Chlorophenylphenyl ether	350	U
1,2-Dichlorobenzene	350	U	Fluorene	350	U
2-Methylphenol	350	U	4-Nitroaniline	1700	U
bis(2-Chloroisopropyl)ether	350	U	4,6-Dinitro-2-methylphenol	1700	U
4-Methylphenol	350	U	N-Nitrosodiphenylamine	350	U
N-Nitroso-di-n-propylamine	350	U	4-Bromophenyl phenyl ether	350	U
Hexachloroethane	350	U	Hexachlorobenzene	350	U
Nitrobenzene	350	U	Pentachlorophenol	1700	U
Isophorone	350	U	Phenanthrene	350	U
2-Nitrophenol	350	U	Anthracene	350	U
2,4-Dimethylphenol	350	U	Di-n-butyl phthalate	350	U
Benzoic acid	1700	U	Fluoranthene	350	U
bis(2-Chloroethoxy)methane	350	U	Pyrene	350	U
2,4-Dichlorophenol	350	U	Butyl benzyl phthalate	350	U
1,2,4-Trichlorobenzene	350	U	3,3'-Dichlorobenzidine	690	U
Naphthalene	350	U	Benzo(a)anthracene	350	U
4-Chloroaniline	350	U	Chrysene	350	U
Hexachlorobutadiene	350	U	bis(2-Ethylhexyl) phthalate	800	
4-Chloro-3-methylphenol	350	U	Di-n-octyl phthalate	350	U
2-Methylnaphthalene	350	U	Benzo(b)fluoranthene	350	U
Hexachlorocyclopentadiene	350	U	Benzo(k)fluoranthene	350	U
2,4,6-Trichlorophenol	350	U	Benzo(a)pyrene	350	U
2,4,5-Trichlorophenol	1700	U	Indeno(1,2,3-cd)pyrene	350	U
2-Chloronaphthalene	350	U	Dibenzo(a,h)anthracene	350	U
2-Nitroaniline	1700	U	Benzo(g,h,i)perylene	350	U
Dimethyl phthalate	350	U			
Acenaphthylene	350	U			
2,6-Dinitrotoluene	350	U			
3-Nitroaniline	1700	U			
Acenaphthene	350	U			

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL BNA Organics by GCMS - Current EPA CLP Protocol - ME 705

Client Sample ID: QXM13B002271

Sample Date: N/A
IT Sample ID: QX1579
Prep Date: 02/27/90
Analysis Date: (Completed) 03/26/90
Blank Sample ID: QXM13B002271
Concentration Units: UG/KG

Parameter	Result		Parameter	Result	
Phenol	330	U	2,4-Dinitrophenol	1600	U
bis(2-Chloroethyl)ether	330	U	4-Nitrophenol	1600	U
2-Chlorophenol	330	U	Dibenzofuran	330	U
1,3-Dichlorobenzene	330	U	2,4-Dinitrotoluene	330	U
1,4-Dichlorobenzene	330	U	Diethyl phthalate	330	U
Benzyl alcohol	330	U	4-Chlorophenylphenyl ether	330	U
1,2-Dichlorobenzene	330	U	Fluorene	330	U
2-Methylphenol	330	U	4-Nitroaniline	1600	U
bis(2-Chloroisopropyl)ether	330	U	4,6-Dinitro-2-methylphenol	1600	U
4-Methylphenol	330	U	N-Nitrosodiphenylamine	330	U
N-Nitroso-di-n-propylamine	330	U	4-Bromophenyl phenyl ether	330	U
Hexachloroethane	330	U	Hexachlorobenzene	330	U
Nitrobenzene	330	U	Pentachlorophenol	1600	U
Isophorone	330	U	Phenanthrene	330	U
2-Nitrophenol	330	U	Anthracene	330	U
2,4-Dimethylphenol	330	U	Di-n-butyl phthalate	330	U
Benzoic acid	1600	U	Fluoranthene	330	U
bis(2-Chloroethoxy)methane	330	U	Pyrene	330	U
2,4-Dichlorophenol	330	U	Butyl benzyl phthalate	330	U
1,2,4-Trichlorobenzene	330	U	3,3'-Dichlorobenzidine	660	U
Naphthalene	330	U	Benzo(a)anthracene	330	U
4-Chloroaniline	330	U	Chrysene	330	U
Hexachlorobutadiene	330	U	bis(2-Ethylhexyl) phthalate	330	U
4-Chloro-3-methylphenol	330	U	Di-n-octyl phthalate	330	U
2-Methylnaphthalene	330	U	Benzo(b)fluoranthene	330	U
Hexachlorocyclopentadiene	330	U	Benzo(k)fluoranthene	330	U
2,4,6-Trichlorophenol	330	U	Benzo(a)pyrene	330	U
2,4,5-Trichlorophenol	1600	U	Indeno(1,2,3-cd)pyrene	330	U
2-Chloronaphthalene	330	U	Dibenzo(a,h)anthracene	330	U
2-Nitroaniline	1600	U	Benzo(g,h,i)perylene	330	U
Dimethyl phthalate	330	U			
Acenaphthylene	330	U			
2,6-Dinitrotoluene	330	U			
3-Nitroaniline	1600	U			
Acenaphthene	330	U			

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL BNA Organics by GCMS - Current EPA CLP Protocol - ME 705

Client Sample ID: S1-NW-1

Sample Date: N/A
IT Sample ID: MM3360
Prep Date: 02/27/90
Analysis Date: (Completed) 03/27/90
Blank Sample ID: QXM13B002271
Concentration Units: UG/KG

Parameter	Result		Parameter	Result	
Phenol	340	J	2,4-Dinitrophenol	1700	U
bis(2-Chloroethyl)ether	350	U	4-Nitrophenol	1700	U
2-Chlorophenol	350	U	Dibenzofuran	350	U
1,3-Dichlorobenzene	350	U	2,4-Dinitrotoluene	350	U
1,4-Dichlorobenzene	350	U	Diethyl phthalate	350	U
Benzyl alcohol	350	U	4-Chlorophenylphenyl ether	350	U
1,2-Dichlorobenzene	350	U	Fluorene	350	U
2-Methylphenol	350	U	4-Nitroaniline	1700	U
bis(2-Chloroisopropyl)ether	350	U	4,6-Dinitro-2-methylphenol	1700	U
4-Methylphenol	350	U	N-Nitrosodiphenylamine	350	U
N-Nitroso-di-n-propylamine	350	U	4-Bromophenyl phenyl ether	350	U
Hexachloroethane	350	U	Hexachlorobenzene	350	U
Nitrobenzene	350	U	Pentachlorophenol	1700	U
Isophorone	350	U	Phenanthrene	350	U
2-Nitrophenol	350	U	Anthracene	350	U
2,4-Dimethylphenol	350	U	Di-n-butyl phthalate	350	U
Benzoic acid	530	J	Fluoranthene	350	U
bis(2-Chloroethoxy)methane	350	U	Pyrene	350	U
2,4-Dichlorophenol	350	U	Butyl benzyl phthalate	350	U
1,2,4-Trichlorobenzene	350	U	3,3'-Dichlorobenzidine	700	U
Naphthalene	350	U	Benzo(a)anthracene	350	U
4-Chloroaniline	350	U	Chrysene	350	U
Hexachlorobutadiene	350	U	bis(2-Ethylhexyl) phthalate	630	
4-Chloro-3-methylphenol	350	U	Di-n-octyl phthalate	500	
2-Methylnaphthalene	350	U	Benzo(b)fluoranthene	350	U
Hexachlorocyclopentadiene	350	U	Benzo(k)fluoranthene	350	U
2,4,6-Trichlorophenol	350	U	Benzo(a)pyrene	350	U
2,4,5-Trichlorophenol	1700	U	Indeno(1,2,3-cd)pyrene	350	U
2-Chloronaphthalene	350	U	Dibenzo(a,h)anthracene	350	U
2-Nitroaniline	1700	U	Benzo(g,h,i)perylene	350	U
Dimethyl phthalate	350	U			
Acenaphthylene	350	U			
2,6-Dinitrotoluene	350	U			
3-Nitroaniline	1700	U			
Acenaphthene	350	U			

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL BNA Organics by GCMS - Current EPA CLP Protocol - ME 705

Client Sample ID: S2-NW-1

Sample Date: N/A
IT Sample ID: MM3361
Prep Date: 02/27/90
Analysis Date: (Completed) 03/27/90
Blank Sample ID: QXM13B002271
Concentration Units: UG/KG

Parameter	Result		Parameter	Result	
Phenol	350	U	2,4-Dinitrophenol	1700	U
bis(2-Chloroethyl)ether	350	U	4-Nitrophenol	1700	U
2-Chlorophenol	350	U	Dibenzofuran	350	U
1,3-Dichlorobenzene	350	U	2,4-Dinitrotoluene	350	U
1,4-Dichlorobenzene	350	U	Diethyl phthalate	350	U
Benzyl alcohol	350	U	4-Chlorophenylphenyl ether	350	U
1,2-Dichlorobenzene	350	U	Fluorene	350	U
2-Methylphenol	350	U	4-Nitroaniline	1700	U
bis(2-Chloroisopropyl)ether	350	U	4,6-Dinitro-2-methylphenol	1700	U
4-Methylphenol	350	U	N-Nitrosodiphenylamine	350	U
N-Nitroso-di-n-propylamine	350	U	4-Bromophenyl phenyl ether	350	U
Hexachloroethane	350	U	Hexachlorobenzene	350	U
Nitrobenzene	350	U	Pentachlorophenol	1700	U
Isophorone	350	U	Phenanthrene	350	U
2-Nitrophenol	350	U	Anthracene	350	U
2,4-Dimethylphenol	350	U	Di-n-butyl phthalate	350	U
Benzoic acid	1700	U	Fluoranthene	350	U
bis(2-Chloroethoxy)methane	350	U	Pyrene	350	U
2,4-Dichlorophenol	350	U	Butyl benzyl phthalate	350	U
1,2,4-Trichlorobenzene	350	U	3,3'-Dichlorobenzidine	710	U
Naphthalene	350	U	Benzo(a)anthracene	350	U
4-Chloroaniline	350	U	Chrysene	350	U
Hexachlorobutadiene	350	U	bis(2-Ethylhexyl) phthalate	560	
4-Chloro-3-methylphenol	350	U	Di-n-octyl phthalate	350	U
2-Methylnaphthalene	350	U	Benzo(b)fluoranthene	350	U
Hexachlorocyclopentadiene	350	U	Benzo(k)fluoranthene	350	U
2,4,6-Trichlorophenol	350	U	Benzo(a)pyrene	350	U
2,4,5-Trichlorophenol	1700	U	Indeno(1,2,3-cd)pyrene	350	U
2-Chloronaphthalene	350	U	Dibenzo(a,h)anthracene	350	U
2-Nitroaniline	1700	U	Benzo(g,h,i)perylene	350	U
Dimethyl phthalate	350	U			
Acenaphthylene	350	U			
2,6-Dinitrotoluene	350	U			
3-Nitroaniline	1700	U			
Acenaphthene	350	U			

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL BNA Organics by GCMS - Current EPA CLP Protocol - ME 705

Client Sample ID: S2-NE-2

Sample Date: N/A
IT Sample ID: MM3362
Prep Date: 02/27/90
Analysis Date: (Completed) 03/27/90
Blank Sample ID: QXM13B002271
Concentration Units: UG/KG

Parameter	Result		Parameter	Result	
Phenol	300	J	2,4-Dinitrophenol	1600	U
bis(2-Chloroethyl)ether	340	U	4-Nitrophenol	1600	U
2-Chlorophenol	340	U	Dibenzofuran	340	U
1,3-Dichlorobenzene	340	U	2,4-Dinitrotoluene	340	U
1,4-Dichlorobenzene	340	U	Diethyl phthalate	340	U
Benzyl alcohol	340	U	4-Chlorophenylphenyl ether	340	U
1,2-Dichlorobenzene	340	U	Fluorene	340	U
2-Methylphenol	340	U	4-Nitroaniline	1600	U
bis(2-Chloroisopropyl)ether	340	U	4,6-Dinitro-2-methylphenol	1600	U
4-Methylphenol	340	U	N-Nitrosodiphenylamine	340	U
N-Nitroso-di-n-propylamine	340	U	4-Bromophenyl phenyl ether	340	U
Hexachloroethane	340	U	Hexachlorobenzene	340	U
Nitrobenzene	340	U	Pentachlorophenol	1600	U
Isophorone	340	U	Phenanthrene	340	U
2-Nitrophenol	340	U	Anthracene	340	U
2,4-Dimethylphenol	340	U	Di-n-butyl phthalate	340	U
Benzoic acid	1600	U	Fluoranthene	340	U
bis(2-Chloroethoxy)methane	340	U	Pyrene	340	U
2,4-Dichlorophenol	340	U	Butyl benzyl phthalate	340	U
1,2,4-Trichlorobenzene	340	U	3,3'-Dichlorobenzidine	680	U
Naphthalene	340	U	Benzo(a)anthracene	340	U
4-Chloroaniline	340	U	Chrysene	340	U
Hexachlorobutadiene	340	U	bis(2-Ethylhexyl) phthalate	340	U
4-Chloro-3-methylphenol	340	U	Di-n-octyl phthalate	340	U
2-Methylnaphthalene	340	U	Benzo(b)fluoranthene	340	U
Hexachlorocyclopentadiene	340	U	Benzo(k)fluoranthene	340	U
2,4,6-Trichlorophenol	340	U	Benzo(a)pyrene	340	U
2,4,5-Trichlorophenol	1600	U	Indeno(1,2,3-cd)pyrene	340	U
2-Chloronaphthalene	340	U	Dibenzo(a,h)anthracene	340	U
2-Nitroaniline	1600	U	Benzo(g,h,i)perylene	340	U
Dimethyl phthalate	340	U			
Acenaphthylene	340	U			
2,6-Dinitrotoluene	340	U			
3-Nitroaniline	1600	U			
Acenaphthene	340	U			

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL BNA Organics by GCMS - Current EPA CLP Protocol - ME 705

Client Sample ID: S2-SW-2

Sample Date: N/A
IT Sample ID: MM3363
Prep Date: 02/27/90
Analysis Date: (Completed) 03/27/90
Blank Sample ID: QXM13B002271
Concentration Units: UG/KG

Parameter	Result		Parameter	Result	
Phenol	350	U	2,4-Dinitrophenol	1700	U
bis(2-Chloroethyl)ether	350	U	4-Nitrophenol	1700	U
2-Chlorophenol	350	U	Dibenzofuran	350	U
1,3-Dichlorobenzene	350	U	2,4-Dinitrotoluene	350	U
1,4-Dichlorobenzene	350	U	Diethyl phthalate	350	U
Benzyl alcohol	350	U	4-Chlorophenylphenyl ether	350	U
1,2-Dichlorobenzene	350	U	Fluorene	350	U
2-Methylphenol	350	U	4-Nitroaniline	1700	U
bis(2-Chloroisopropyl)ether	350	U	4,6-Dinitro-2-methylphenol	1700	U
4-Methylphenol	350	U	N-Nitrosodiphenylamine	350	U
N-Nitroso-di-n-propylamine	350	U	4-Bromophenyl phenyl ether	350	U
Hexachloroethane	350	U	Hexachlorobenzene	350	U
Nitrobenzene	350	U	Pentachlorophenol	1700	U
Isophorone	350	U	Phenanthrene	350	U
2-Nitrophenol	350	U	Anthracene	350	U
2,4-Dimethylphenol	350	U	Di-n-butyl phthalate	350	U
Benzoic acid	1700	U	Fluoranthene	350	U
bis(2-Chloroethoxy)methane	350	U	Pyrene	350	U
2,4-Dichlorophenol	350	U	Butyl benzyl phthalate	350	U
1,2,4-Trichlorobenzene	350	U	3,3'-Dichlorobenzidine	700	U
Naphthalene	350	U	Benzo(a)anthracene	350	U
4-Chloroaniline	350	U	Chrysene	350	U
Hexachlorobutadiene	350	U	bis(2-Ethylhexyl) phthalate	520	
4-Chloro-3-methylphenol	350	U	Di-n-octyl phthalate	350	U
2-Methylnaphthalene	350	U	Benzo(b)fluoranthene	350	U
Hexachlorocyclopentadiene	350	U	Benzo(k)fluoranthene	350	U
2,4,6-Trichlorophenol	350	U	Benzo(a)pyrene	350	U
2,4,5-Trichlorophenol	1700	U	Indeno(1,2,3-cd)pyrene	350	U
2-Chloronaphthalene	350	U	Dibenzo(a,h)anthracene	350	U
2-Nitroaniline	1700	U	Benzo(g,h,i)perylene	350	U
Dimethyl phthalate	350	U			
Acenaphthylene	350	U			
2,6-Dinitrotoluene	350	U			
3-Nitroaniline	1700	U			
Acenaphthene	350	U			

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL BNA Organics by GCMS - Current EPA CLP Protocol - ME 705

Client Sample ID: S2-NE-1

Sample Date: N/A
IT Sample ID: MM3364
Prep Date: 02/27/90
Analysis Date: (Completed) 03/27/90
Blank Sample ID: QXM13B002271
Concentration Units: UG/KG

Parameter	Result		Parameter	Result	
Phenol	190	J	2,4-Dinitrophenol	1600	U
bis(2-Chloroethyl)ether	330	U	4-Nitrophenol	1600	U
2-Chlorophenol	330	U	Dibenzofuran	330	U
1,3-Dichlorobenzene	330	U	2,4-Dinitrotoluene	330	U
1,4-Dichlorobenzene	330	U	Diethyl phthalate	330	U
Benzyl alcohol	330	U	4-Chlorophenylphenyl ether	330	U
1,2-Dichlorobenzene	330	U	Fluorene	330	U
2-Methylphenol	330	U	4-Nitroaniline	1600	U
bis(2-Chloroisopropyl)ether	330	U	4,6-Dinitro-2-methylphenol	1600	U
4-Methylphenol	330	U	N-Nitrosodiphenylamine	330	U
N-Nitroso-di-n-propylamine	330	U	4-Bromophenyl phenyl ether	330	U
Hexachloroethane	330	U	Hexachlorobenzene	330	U
Nitrobenzene	330	U	Pentachlorophenol	1600	U
Isophorone	330	U	Phenanthrene	330	U
2-Nitrophenol	330	U	Anthracene	330	U
2,4-Dimethylphenol	330	U	Di-n-butyl phthalate	330	U
Benzoic acid	1600	U	Fluoranthene	330	U
bis(2-Chloroethoxy)methane	330	U	Pyrene	330	U
2,4-Dichlorophenol	330	U	Butyl benzyl phthalate	330	U
1,2,4-Trichlorobenzene	330	U	3,3'-Dichlorobenzidine	670	U
Naphthalene	330	U	Benzo(a)anthracene	330	U
4-Chloroaniline	330	U	Chrysene	330	U
Hexachlorobutadiene	330	U	bis(2-Ethylhexyl) phthalate	520	
4-Chloro-3-methylphenol	330	U	Di-n-octyl phthalate	330	U
2-Methylnaphthalene	330	U	Benzo(b)fluoranthene	330	U
Hexachlorocyclopentadiene	330	U	Benzo(k)fluoranthene	330	U
2,4,6-Trichlorophenol	330	U	Benzo(a)pyrene	330	U
2,4,5-Trichlorophenol	1600	U	Indeno(1,2,3-cd)pyrene	330	U
2-Chloronaphthalene	330	U	Dibenzo(a,h)anthracene	330	U
2-Nitroaniline	1600	U	Benzo(g,h,i)perylene	330	U
Dimethyl phthalate	330	U			
Acenaphthylene	330	U			
2,6-Dinitrotoluene	330	U			
3-Nitroaniline	1600	U			
Acenaphthene	330	U			

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL BNA Organics by GCMS - Current EPA CLP Protocol - ME 705

Client Sample ID: S2-NW-2

Sample Date: N/A
IT Sample ID: MM3365
Prep Date: 02/27/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXM13B002271
Concentration Units: UG/KG

Parameter	Result		Parameter	Result	
Phenol	170	J	2,4-Dinitrophenol	1700	U
bis(2-Chloroethyl)ether	340	U	4-Nitrophenol	1700	U
2-Chlorophenol	340	U	Dibenzofuran	340	U
1,3-Dichlorobenzene	340	U	2,4-Dinitrotoluene	340	U
1,4-Dichlorobenzene	340	U	Diethyl phthalate	340	U
Benzyl alcohol	340	U	4-Chlorophenylphenyl ether	340	U
1,2-Dichlorobenzene	340	U	Fluorene	340	U
2-Methylphenol	340	U	4-Nitroaniline	1700	U
bis(2-Chloroisopropyl)ether	340	U	4,6-Dinitro-2-methylphenol	1700	U
4-Methylphenol	340	U	N-Nitrosodiphenylamine	340	U
N-Nitroso-di-n-propylamine	340	U	4-Bromophenyl phenyl ether	340	U
Hexachloroethane	340	U	Hexachlorobenzene	340	U
Nitrobenzene	340	U	Pentachlorophenol	1700	U
Isophorone	340	U	Phenanthrene	340	U
2-Nitrophenol	340	U	Anthracene	340	U
2,4-Dimethylphenol	340	U	Di-n-butyl phthalate	340	U
Benzoic acid	76	J	Fluoranthene	340	U
bis(2-Chloroethoxy)methane	340	U	Pyrene	340	U
2,4-Dichlorophenol	340	U	Butyl benzyl phthalate	340	U
1,2,4-Trichlorobenzene	340	U	3,3'-Dichlorobenzidine	690	U
Naphthalene	340	U	Benzo(a)anthracene	340	U
4-Chloroaniline	340	U	Chrysene	340	U
Hexachlorobutadiene	340	U	bis(2-Ethylhexyl) phthalate	560	
4-Chloro-3-methylphenol	340	U	Di-n-octyl phthalate	340	U
2-Methylnaphthalene	340	U	Benzo(b)fluoranthene	340	U
Hexachlorocyclopentadiene	340	U	Benzo(k)fluoranthene	340	U
2,4,6-Trichlorophenol	340	U	Benzo(a)pyrene	340	U
2,4,5-Trichlorophenol	1700	U	Indeno(1,2,3-cd)pyrene	340	U
2-Chloronaphthalene	340	U	Dibenzo(a,h)anthracene	340	U
2-Nitroaniline	1700	U	Benzo(g,h,i)perylene	340	U
Dimethyl phthalate	340	U			
Acenaphthylene	340	U			
2,6-Dinitrotoluene	340	U			
3-Nitroaniline	1700	U			
Acenaphthene	340	U			

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Pesticides & PCBs by GC - Current EPA CLP Protocol - GC 723

Client Sample ID: QXG17B002261

Sample Date: N/A
IT Sample ID: QX1578
Prep Date: 02/26/90
Analysis Date: (Completed) 03/05/90
Blank Sample ID: QXG17B002261
Concentration Units: UG/KG

Parameter	Result	
alpha-BHC	8	U
beta-BHC	8	U
delta-BHC	8	U
gamma-BHC (Lindane)	8	U
Heptachlor	8	U
Aldrin	8	U
Heptachlor epoxide	8	U
Endosulfan-I	8	U
Dieldrin	16	U
4,4'-DDE	16	U
Endrin	16	U
Endosulfan II	16	U
4,4'-DDD	16	U
Endosulfan sulfate	16	U
4,4'-DDT	16	U
Methoxychlor	80	U
Endrin ketone	16	U
alpha-Chlordane	80	U
gamma-Chlordane	80	U
Toxaphene	160	U
Aroclor-1016	80	U
Aroclor-1221	80	U
Aroclor-1232	80	U
Aroclor-1242	80	U
Aroclor-1248	80	U
Aroclor-1254	160	U
Aroclor-1260	160	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Pesticides & PCBs by GC - Current EPA CLP Protocol - GC 723

Client Sample ID: 26

Sample Date: N/A
IT Sample ID: MM3349
Prep Date: 02/26/90
Analysis Date: (Completed) 03/04/90
Blank Sample ID: QXG17B002261
Concentration Units: UG/KG

Parameter	Result	
alpha-BHC	8.2	U
beta-BHC	8.2	U
delta-BHC	8.2	U
gamma-BHC (Lindane)	8.2	U
Heptachlor	8.2	U
Aldrin	8.2	U
Heptachlor epoxide	8.2	U
Endosulfan-I	8.2	U
Dieldrin	16	U
4,4'-DDE	16	U
Endrin	16	U
Endosulfan II	16	U
4,4'-DDD	16	U
Endosulfan sulfate	16	U
4,4'-DDT	16	U
Methoxychlor	82	U
Endrin ketone	16	U
alpha-Chlordane	82	U
gamma-Chlordane	82	U
Toxaphene	160	U
Aroclor-1016	82	U
Aroclor-1221	82	U
Aroclor-1232	82	U
Aroclor-1242	82	U
Aroclor-1248	82	U
Aroclor-1254	160	U
Aroclor-1260	160	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Pesticides & PCBs by GC - Current EPA CLP Protocol - GC 723

Client Sample ID: 27

Sample Date: N/A
IT Sample ID: MM3350
Prep Date: 02/26/90
Analysis Date: (Completed) 03/04/90
Blank Sample ID: QXG17B002261
Concentration Units: UG/KG

Parameter	Result	
alpha-BHC	8.5	U
beta-BHC	8.5	U
delta-BHC	8.5	U
gamma-BHC (Lindane)	8.5	U
Heptachlor	8.5	U
Aldrin	8.5	U
Heptachlor epoxide	8.5	U
Endosulfan-I	8.5	U
Dieldrin	17	U
4,4'-DDE	17	U
Endrin	17	U
Endosulfan II	17	U
4,4'-DDD	17	U
Endosulfan sulfate	17	U
4,4'-DDT	17	U
Methoxychlor	85	U
Endrin ketone	17	U
alpha-Chlordane	85	U
gamma-Chlordane	85	U
Toxaphene	170	U
Aroclor-1016	85	U
Aroclor-1221	85	U
Aroclor-1232	85	U
Aroclor-1242	85	U
Aroclor-1248	85	U
Aroclor-1254	170	U
Aroclor-1260	170	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Pesticides & PCBs by GC - Current EPA CLP Protocol - GC 723

Client Sample ID: 28

Sample Date: N/A
IT Sample ID: MM3351
Prep Date: 02/26/90
Analysis Date: (Completed) 03/05/90
Blank Sample ID: QXG17B002261
Concentration Units: UG/KG

Parameter	Result	
alpha-BHC	8.6	U
beta-BHC	8.6	U
delta-BHC	8.6	U
gamma-BHC (Lindane)	8.6	U
Heptachlor	8.6	U
Aldrin	8.6	U
Heptachlor epoxide	8.6	U
Endosulfan-I	8.6	U
Dieldrin	17	U
4,4'-DDE	17	U
Endrin	17	U
Endosulfan II	17	U
4,4'-DDD	17	U
Endosulfan sulfate	17	U
4,4'-DDT	17	U
Methoxychlor	86	U
Endrin ketone	17	U
alpha-Chlordane	86	U
gamma-Chlordane	86	U
Toxaphene	170	U
Aroclor-1016	86	U
Aroclor-1221	86	U
Aroclor-1232	86	U
Aroclor-1242	86	U
Aroclor-1248	86	U
Aroclor-1254	170	U
Aroclor-1260	170	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Pesticides & PCBs by GC - Current EPA CLP Protocol - GC 723

Client Sample ID: 29

Sample Date: N/A
IT Sample ID: MM3352
Prep Date: 02/26/90
Analysis Date: (Completed) 03/05/90
Blank Sample ID: QXG17B002261
Concentration Units: UG/KG

Parameter	Result	
alpha-BHC	12	U
beta-BHC	12	U
delta-BHC	12	U
gamma-BHC (Lindane)	12	U
Heptachlor	12	U
Aldrin	12	U
Heptachlor epoxide	12	U
Endosulfan-I	12	U
Dieldrin	23	U
4,4'-DDE	23	U
Endrin	23	U
Endosulfan II	23	U
4,4'-DDD	23	U
Endosulfan sulfate	23	U
4,4'-DDT	23	U
Methoxychlor	120	U
Endrin ketone	23	U
alpha-Chlordane	120	U
gamma-Chlordane	120	U
Toxaphene	230	U
Aroclor-1016	120	U
Aroclor-1221	120	U
Aroclor-1232	120	U
Aroclor-1242	120	U
Aroclor-1248	120	U
Aroclor-1254	230	U
Aroclor-1260	230	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Pesticides & PCBs by GC - Current EPA CLP Protocol - GC 723

Client Sample ID: S1-NE-1B

Sample Date: N/A
IT Sample ID: MM3353-10
Prep Date: 02/26/90
Analysis Date: (Completed) 03/05/90
Blank Sample ID: QXG17B002261
Concentration Units: UG/KG

Parameter	Result	
alpha-BHC	89	U
beta-BHC	89	U
delta-BHC	89	U
gamma-BHC (Lindane)	89	U
Heptachlor	89	U
Aldrin	89	U
Heptachlor epoxide	89	U
Endosulfan-I	89	U
Dieldrin	180	U
4,4'-DDE	180	U
Endrin	180	U
Endosulfan II	180	U
4,4'-DDD	180	U
Endosulfan sulfate	180	U
4,4'-DDT	180	U
Methoxychlor	890	U
Endrin ketone	180	U
alpha-Chlordane	890	U
gamma-Chlordane	890	U
Toxaphene	1800	U
Aroclor-1016	890	U
Aroclor-1221	890	U
Aroclor-1232	890	U
Aroclor-1242	890	U
Aroclor-1248	890	U
Aroclor-1254	1100	JC
Aroclor-1260	1800	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Pesticides & PCBs by GC - Current EPA CLP Protocol - GC 723

Client Sample ID: S1-NE-1A

Sample Date: N/A
IT Sample ID: MM3354-10
Prep Date: 02/26/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXG17B002261
Concentration Units: UG/KG

Parameter	Result	
alpha-BHC	91	U
beta-BHC	91	U
delta-BHC	91	U
gamma-BHC (Lindane)	91	U
Heptachlor	91	U
Aldrin	91	U
Heptachlor epoxide	91	U
Endosulfan-I	91	U
Dieldrin	180	U
4,4'-DDE	180	U
Endrin	180	U
Endosulfan II	180	U
4,4'-DDD	180	U
Endosulfan sulfate	180	U
4,4'-DDT	180	U
Methoxychlor	910	U
Endrin ketone	180	U
alpha-Chlordane	910	U
gamma-Chlordane	910	U
Toxaphene	1800	U
Aroclor-1016	910	U
Aroclor-1221	910	U
Aroclor-1232	910	U
Aroclor-1242	910	U
Aroclor-1248	3700	FC
Aroclor-1254	8100	FC
Aroclor-1260	1800	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Pesticides & PCBs by GC - Current EPA CLP Protocol - GC 723

Client Sample ID: S1-NE-1ADL

Sample Date: N/A
IT Sample ID: MM3354-50
Prep Date: 02/26/90
Analysis Date: (Completed) 03/05/90
Blank Sample ID: QXG17B002261
Concentration Units: UG/KG

Parameter	Result	
alpha-BHC	460	U
beta-BHC	460	U
delta-BHC	460	U
gamma-BHC (Lindane)	460	U
Heptachlor	460	U
Aldrin	460	U
Heptachlor epoxide	460	U
Endosulfan-I	460	U
Dieldrin	910	U
4,4'-DDE	910	U
Endrin	910	U
Endosulfan II	910	U
4,4'-DDD	910	U
Endosulfan sulfate	910	U
4,4'-DDT	910	U
Methoxychlor	4600	U
Endrin ketone	910	U
alpha-Chlordane	4600	U
gamma-Chlordane	4600	U
Toxaphene	9100	U
Aroclor-1016	4600	U
Aroclor-1221	4600	U
Aroclor-1232	4600	U
Aroclor-1242	4600	U
Aroclor-1248	4100	DJC
Aroclor-1254	8700	DJC
Aroclor-1260	9100	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Pesticides & PCBs by GC - Current EPA CLP Protocol - GC 723

Client Sample ID: S1-SE-2

Sample Date: N/A
IT Sample ID: MM3355-10
Prep Date: 02/26/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXG17B002261
Concentration Units: UG/KG

Parameter	Result	
alpha-BHC	91	U
beta-BHC	91	U
delta-BHC	91	U
gamma-BHC (Lindane)	91	U
Heptachlor	91	U
Aldrin	91	U
Heptachlor epoxide	91	U
Endosulfan-I	91	U
Dieldrin	180	U
4,4'-DDE	180	U
Endrin	180	U
Endosulfan II	180	U
4,4'-DDD	180	U
Endosulfan sulfate	180	U
4,4'-DDT	180	U
Methoxychlor	910	U
Endrin ketone	180	U
alpha-Chlordane	910	U
gamma-Chlordane	910	U
Toxaphene	1800	U
Aroclor-1016	910	U
Aroclor-1221	910	U
Aroclor-1232	910	U
Aroclor-1242	910	U
Aroclor-1248	7300	FC
Aroclor-1254	10000	FC
Aroclor-1260	1800	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Pesticides & PCBs by GC - Current EPA CLP Protocol - GC 723

Client Sample ID: S1-SE-2DL

Sample Date: N/A
IT Sample ID: MM3355-50
Prep Date: 02/26/90
Analysis Date: (Completed) 03/05/90
Blank Sample ID: QXG17B002261
Concentration Units: UG/KG

Parameter	Result	
alpha-BHC	460	U
beta-BHC	460	U
delta-BHC	460	U
gamma-BHC (Lindane)	460	U
Heptachlor	460	U
Aldrin	460	U
Heptachlor epoxide	460	U
Endosulfan-I	460	U
Dieldrin	910	U
4,4'-DDE	910	U
Endrin	910	U
Endosulfan II	910	U
4,4'-DDD	910	U
Endosulfan sulfate	910	U
4,4'-DDT	910	U
Methoxychlor	4600	U
Endrin ketone	910	U
alpha-Chlordane	4600	U
gamma-Chlordane	4600	U
Toxaphene	9100	U
Aroclor-1016	4600	U
Aroclor-1221	4600	U
Aroclor-1232	4600	U
Aroclor-1242	4600	U
Aroclor-1248	8000	DFC
Aroclor-1254	12000	DC
Aroclor-1260	9100	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Pesticides & PCBs by GC - Current EPA CLP Protocol - GC 723

Client Sample ID: S1-SE-2DL2

Sample Date: N/A
IT Sample ID: M3355-100
Prep Date: 02/26/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXG17B002261
Concentration Units: UG/KG

Parameter	Result	
alpha-BHC	910	U
beta-BHC	910	U
delta-BHC	910	U
gamma-BHC (Lindane)	910	U
Heptachlor	910	U
Aldrin	910	U
Heptachlor epoxide	910	U
Endosulfan-I	910	U
Dieldrin	1800	U
4,4'-DDE	1800	U
Endrin	1800	U
Endosulfan II	1800	U
4,4'-DDD	1800	U
Endosulfan sulfate	1800	U
4,4'-DDT	1800	U
Methoxychlor	9100	U
Endrin ketone	1800	U
alpha-Chlordane	9100	U
gamma-Chlordane	9100	U
Toxaphene	18000	U
Aroclor-1016	9100	U
Aroclor-1221	9100	U
Aroclor-1232	9100	U
Aroclor-1242	9100	U
Aroclor-1248	10000	DC
Aroclor-1254	14000	DJC
Aroclor-1260	18000	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Pesticides & PCBs by GC - Current EPA CLP Protocol - GC 723

Client Sample ID: S1-NE-1C

Sample Date: N/A
IT Sample ID: MM3356-10
Prep Date: 02/26/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXG17B002261
Concentration Units: UG/KG

Parameter	Result	
alpha-BHC	100	U
beta-BHC	100	U
delta-BHC	100	U
gamma-BHC (Lindane)	100	U
Heptachlor	100	U
Aldrin	100	U
Heptachlor epoxide	100	U
Endosulfan-I	100	U
Dieldrin	210	U
4,4'-DDE	210	U
Endrin	210	U
Endosulfan II	210	U
4,4'-DDD	210	U
Endosulfan sulfate	210	U
4,4'-DDT	210	U
Methoxychlor	1000	U
Endrin ketone	210	U
alpha-Chlordane	1000	U
gamma-Chlordane	1000	U
Toxaphene	2100	U
Aroclor-1016	1000	U
Aroclor-1221	1000	U
Aroclor-1232	1000	U
Aroclor-1242	1000	U
Aroclor-1248	1000	U
Aroclor-1254	1300	JC
Aroclor-1260	2100	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Pesticides & PCBs by GC - Current EPA CLP Protocol - GC 723

Client Sample ID: S2-SW-1

Sample Date: N/A
IT Sample ID: MM3357-10
Prep Date: 02/26/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXG17B002261
Concentration Units: UG/KG

Parameter	Result	
alpha-BHC	86	U
beta-BHC	86	U
delta-BHC	86	U
gamma-BHC (Lindane)	86	U
Heptachlor	86	U
Aldrin	86	U
Heptachlor epoxide	86	U
Endosulfan-I	86	U
Dieldrin	170	U
4,4'-DDE	170	U
Endrin	170	U
Endosulfan II	170	U
4,4'-DDD	170	U
Endosulfan sulfate	170	U
4,4'-DDT	170	U
Methoxychlor	860	U
Endrin ketone	170	U
alpha-Chlordane	860	U
gamma-Chlordane	860	U
Toxaphene	1700	U
Aroclor-1016	860	U
Aroclor-1221	860	U
Aroclor-1232	860	U
Aroclor-1242	860	U
Aroclor-1248	860	U
Aroclor-1254	3300	FC
Aroclor-1260	1700	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Pesticides & PCBs by GC - Current EPA CLP Protocol - GC 723

Client Sample ID: S2-SW-1DL

Sample Date: N/A
IT Sample ID: MM3357-50
Prep Date: 02/26/90
Analysis Date: (Completed) 03/05/90
Blank Sample ID: QXG17B002261
Concentration Units: UG/KG

Parameter	Result	
alpha-BHC	430	U
beta-BHC	430	U
delta-BHC	430	U
gamma-BHC (Lindane)	430	U
Heptachlor	430	U
Aldrin	430	U
Heptachlor epoxide	430	U
Endosulfan-I	430	U
Dieldrin	860	U
4,4'-DDE	860	U
Endrin	860	U
Endosulfan II	860	U
4,4'-DDD	860	U
Endosulfan sulfate	860	U
4,4'-DDT	860	U
Methoxychlor	4300	U
Endrin ketone	860	U
alpha-Chlordane	4300	U
gamma-Chlordane	4300	U
Toxaphene	8600	U
Aroclor-1016	4300	U
Aroclor-1221	4300	U
Aroclor-1232	4300	U
Aroclor-1242	4300	U
Aroclor-1248	4300	U
Aroclor-1254	3700	DJC
Aroclor-1260	8600	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Pesticides & PCBs by GC - Current EPA CLP Protocol - GC 723

Client Sample ID: S1-SW-1

Sample Date: N/A
IT Sample ID: MM3358-10
Prep Date: 02/26/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXG17B002261
Concentration Units: UG/KG

Parameter	Result	
alpha-BHC	84	U
beta-BHC	84	U
delta-BHC	84	U
gamma-BHC (Lindane)	84	U
Heptachlor	84	U
Aldrin	84	U
Heptachlor epoxide	84	U
Endosulfan-I	84	U
Dieldrin	170	U
4,4'-DDE	170	U
Endrin	170	U
Endosulfan II	170	U
4,4'-DDD	170	U
Endosulfan sulfate	170	U
4,4'-DDT	170	U
Methoxychlor	840	U
Endrin ketone	170	U
alpha-Chlordane	840	U
gamma-Chlordane	840	U
Toxaphene	1700	U
Aroclor-1016	840	U
Aroclor-1221	840	U
Aroclor-1232	840	U
Aroclor-1242	840	U
Aroclor-1248	2400	FC
Aroclor-1254	5600	FC
Aroclor-1260	1700	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Pesticides & PCBs by GC - Current EPA CLP Protocol - GC 723

Client Sample ID: S1-SW-1DL

Sample Date: N/A
IT Sample ID: MM3358-50
Prep Date: 02/26/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXG17B002261
Concentration Units: UG/KG

Parameter	Result	
alpha-BHC	420	U
beta-BHC	420	U
delta-BHC	420	U
gamma-BHC (Lindane)	420	U
Heptachlor	420	U
Aldrin	420	U
Heptachlor epoxide	420	U
Endosulfan-I	420	U
Dieldrin	840	U
4,4'-DDE	840	U
Endrin	840	U
Endosulfan II	840	U
4,4'-DDD	840	U
Endosulfan sulfate	840	U
4,4'-DDT	840	U
Methoxychlor	4200	U
Endrin ketone	840	U
alpha-Chlordane	4200	U
gamma-Chlordane	4200	U
Toxaphene	8400	U
Aroclor-1016	4200	U
Aroclor-1221	4200	U
Aroclor-1232	4200	U
Aroclor-1242	4200	U
Aroclor-1248	3200	DJC
Aroclor-1254	6600	DJC
Aroclor-1260	8400	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Pesticides & PCBs by GC - Current EPA CLP Protocol - GC 723

Client Sample ID: S1-SE-1

Sample Date: N/A
IT Sample ID: MM3359-10
Prep Date: 02/26/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXG17B002261
Concentration Units: UG/KG

Parameter	Result	
alpha-BHC	84	U
beta-BHC	84	U
delta-BHC	84	U
gamma-BHC (Lindane)	84	U
Heptachlor	84	U
Aldrin	84	U
Heptachlor epoxide	84	U
Endosulfan-I	84	U
Dieldrin	170	U
4,4'-DDE	170	U
Endrin	170	U
Endosulfan II	170	U
4,4'-DDD	170	U
Endosulfan sulfate	170	U
4,4'-DDT	170	U
Methoxychlor	840	U
Endrin ketone	170	U
alpha-Chlordane	840	U
gamma-Chlordane	840	U
Toxaphene	1700	U
Aroclor-1016	840	U
Aroclor-1221	840	U
Aroclor-1232	840	U
Aroclor-1242	840	U
Aroclor-1248	2500	FC
Aroclor-1254	3500	FC
Aroclor-1260	1700	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Pesticides & PCBs by GC - Current EPA CLP Protocol - GC 723

Client Sample ID: S1-SE-1DL

Sample Date: N/A
IT Sample ID: MM3359-60
Prep Date: 02/26/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXG17B002261
Concentration Units: UG/KG

Parameter	Result	
alpha-BHC	500	U
beta-BHC	500	U
delta-BHC	500	U
gamma-BHC (Lindane)	500	U
Heptachlor	500	U
Aldrin	500	U
Heptachlor epoxide	500	U
Endosulfan-I	500	U
Dieldrin	1000	U
4,4'-DDE	1000	U
Endrin	1000	U
Endosulfan II	1000	U
4,4'-DDD	1000	U
Endosulfan sulfate	1000	U
4,4'-DDT	1000	U
Methoxychlor	5000	U
Endrin ketone	1000	U
alpha-Chlordane	5000	U
gamma-Chlordane	5000	U
Toxaphene	10000	U
Aroclor-1016	5000	U
Aroclor-1221	5000	U
Aroclor-1232	5000	U
Aroclor-1242	5000	U
Aroclor-1248	4000	DJC
Aroclor-1254	5800	DJC
Aroclor-1260	10000	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Pesticides & PCBs by GC - Current EPA CLP Protocol - GC 723

Client Sample ID: QXG17B002271

Sample Date: N/A
IT Sample ID: QX1579
Prep Date: 02/27/90
Analysis Date: (Completed) 03/04/90
Blank Sample ID: QXG17B002271
Concentration Units: UG/KG

Parameter	Result	
alpha-BHC	8	U
beta-BHC	8	U
delta-BHC	8	U
gamma-BHC (Lindane)	8	U
Heptachlor	8	U
Aldrin	8	U
Heptachlor epoxide	8	U
Endosulfan-I	8	U
Dieldrin	16	U
4,4'-DDE	16	U
Endrin	16	U
Endosulfan II	16	U
4,4'-DDD	16	U
Endosulfan sulfate	16	U
4,4'-DDT	16	U
Methoxychlor	80	U
Endrin ketone	16	U
alpha-Chlordane	80	U
gamma-Chlordane	80	U
Toxaphene	160	U
Aroclor-1016	80	U
Aroclor-1221	80	U
Aroclor-1232	80	U
Aroclor-1242	80	U
Aroclor-1248	80	U
Aroclor-1254	160	U
Aroclor-1260	160	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Pesticides & PCBs by GC - Current EPA CLP Protocol - GC 723

Client Sample ID: S1-NW-1

Sample Date: N/A
IT Sample ID: MM3360-10
Prep Date: 02/27/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXG17B002271
Concentration Units: UG/KG

Parameter	Result	
alpha-BHC	85	U
beta-BHC	85	U
delta-BHC	85	U
gamma-BHC (Lindane)	85	U
Heptachlor	85	U
Aldrin	85	U
Heptachlor epoxide	85	U
Endosulfan-I	85	U
Dieldrin	170	U
4,4'-DDE	170	U
Endrin	170	U
Endosulfan II	170	U
4,4'-DDD	170	U
Endosulfan sulfate	170	U
4,4'-DDT	170	U
Methoxychlor	850	U
Endrin ketone	170	U
alpha-Chlordane	850	U
gamma-Chlordane	850	U
Toxaphene	1700	U
Aroclor-1016	850	U
Aroclor-1221	850	U
Aroclor-1232	850	U
Aroclor-1242	850	U
Aroclor-1248	1700	FC
Aroclor-1254	3900	FC
Aroclor-1260	1700	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Pesticides & PCBs by GC - Current EPA CLP Protocol - GC 723

Client Sample ID: S1-NW-1DL

Sample Date: N/A
IT Sample ID: MM3360-50
Prep Date: 02/27/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXG17B002271
Concentration Units: UG/KG

Parameter	Result	
alpha-BHC	420	U
beta-BHC	420	U
delta-BHC	420	U
gamma-BHC (Lindane)	420	U
Heptachlor	420	U
Aldrin	420	U
Heptachlor epoxide	420	U
Endosulfan-I	420	U
Dieldrin	850	U
4,4'-DDE	850	U
Endrin	850	U
Endosulfan II	850	U
4,4'-DDD	850	U
Endosulfan sulfate	850	U
4,4'-DDT	850	U
Methoxychlor	4200	U
Endrin ketone	850	U
alpha-Chlordane	4200	U
gamma-Chlordane	4200	U
Toxaphene	8500	U
Aroclor-1016	4200	U
Aroclor-1221	4200	U
Aroclor-1232	4200	U
Aroclor-1242	4200	U
Aroclor-1248	2800	DJC
Aroclor-1254	5700	DJC
Aroclor-1260	8500	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Pesticides & PCBs by GC - Current EPA CLP Protocol - GC 723

Client Sample ID: S2-NW-1

Sample Date: N/A
IT Sample ID: MM3361-10
Prep Date: 02/27/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXG17B002271
Concentration Units: UG/KG

Parameter	Result	
alpha-BHC	86	U
beta-BHC	86	U
delta-BHC	86	U
gamma-BHC (Lindane)	86	U
Heptachlor	86	U
Aldrin	86	U
Heptachlor epoxide	86	U
Endosulfan-I	86	U
Dieldrin	170	U
4,4'-DDE	170	U
Endrin	170	U
Endosulfan II	170	U
4,4'-DDD	170	U
Endosulfan sulfate	170	U
4,4'-DDT	170	U
Methoxychlor	860	U
Endrin ketone	170	U
alpha-Chlordane	860	U
gamma-Chlordane	860	U
Toxaphene	1700	U
Aroclor-1016	860	U
Aroclor-1221	860	U
Aroclor-1232	860	U
Aroclor-1242	860	U
Aroclor-1248	860	U
Aroclor-1254	3000	FC
Aroclor-1260	1700	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Pesticides & PCBs by GC - Current EPA CLP Protocol - GC 723

Client Sample ID: S2-NW-1DL

Sample Date: N/A
IT Sample ID: MM3361-50
Prep Date: 02/27/90
Analysis Date: (Completed) 03/05/90
Blank Sample ID: QXG17B002271
Concentration Units: UG/KG

Parameter	Result	
alpha-BHC	430	U
beta-BHC	430	U
delta-BHC	430	U
gamma-BHC (Lindane)	430	U
Heptachlor	430	U
Aldrin	430	U
Heptachlor epoxide	430	U
Endosulfan-I	430	U
Dieldrin	850	U
4,4'-DDE	850	U
Endrin	850	U
Endosulfan II	850	U
4,4'-DDD	850	U
Endosulfan sulfate	850	U
4,4'-DDT	850	U
Methoxychlor	4300	U
Endrin ketone	850	U
alpha-Chlordane	4300	U
gamma-Chlordane	4300	U
Toxaphene	8500	U
Aroclor-1016	4300	U
Aroclor-1221	4300	U
Aroclor-1232	4300	U
Aroclor-1242	4300	U
Aroclor-1248	4300	U
Aroclor-1254	5400	DJC
Aroclor-1260	8500	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Pesticides & PCBs by GC - Current EPA CLP Protocol - GC 723

Client Sample ID: S2-NE-2

Sample Date: N/A
IT Sample ID: MM3362-5
Prep Date: 02/27/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXG17B002271
Concentration Units: UG/KG

Parameter	Result	
alpha-BHC	41	U
beta-BHC	41	U
delta-BHC	41	U
gamma-BHC (Lindane)	41	U
Heptachlor	41	U
Aldrin	41	U
Heptachlor epoxide	41	U
Endosulfan-I	41	U
Dieldrin	83	U
4,4'-DDE	83	U
Endrin	83	U
Endosulfan II	83	U
4,4'-DDD	83	U
Endosulfan sulfate	83	U
4,4'-DDT	83	U
Methoxychlor	410	U
Endrin ketone	83	U
alpha-Chlordane	410	U
gamma-Chlordane	410	U
Toxaphene	830	U
Aroclor-1016	410	U
Aroclor-1221	410	U
Aroclor-1232	410	U
Aroclor-1242	410	U
Aroclor-1248	410	U
Aroclor-1254	420	JC
Aroclor-1260	340	JC

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Pesticides & PCBs by GC - Current EPA CLP Protocol - GC 723

Client Sample ID: S2-SW-2

Sample Date: N/A
IT Sample ID: MM3363-10
Prep Date: 02/27/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXG17B002271
Concentration Units: UG/KG

Parameter	Result	
alpha-BHC	85	U
beta-BHC	85	U
delta-BHC	85	U
gamma-BHC (Lindane)	85	U
Heptachlor	85	U
Aldrin	85	U
Heptachlor epoxide	85	U
Endosulfan-I	85	U
Dieldrin	170	U
4,4'-DDE	170	U
Endrin	170	U
Endosulfan II	170	U
4,4'-DDD	170	U
Endosulfan sulfate	170	U
4,4'-DDT	170	U
Methoxychlor	850	U
Endrin ketone	170	U
alpha-Chlordane	850	U
gamma-Chlordane	850	U
Toxaphene	1700	U
Aroclor-1016	850	U
Aroclor-1221	850	U
Aroclor-1232	850	U
Aroclor-1242	850	U
Aroclor-1248	850	U
Aroclor-1254	3900	FC
Aroclor-1260	1700	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Pesticides & PCBs by GC - Current EPA CLP Protocol - GC 723

Client Sample ID: S2-SW-2DL

Sample Date: N/A
IT Sample ID: MM3363-50
Prep Date: 02/27/90
Analysis Date: (Completed) 03/05/90
Blank Sample ID: QXG17B002271
Concentration Units: UG/KG

Parameter	Result	
alpha-BHC	420	U
beta-BHC	420	U
delta-BHC	420	U
gamma-BHC (Lindane)	420	U
Heptachlor	420	U
Aldrin	420	U
Heptachlor epoxide	420	U
Endosulfan-I	420	U
Dieldrin	840	U
4,4'-DDE	840	U
Endrin	840	U
Endosulfan II	840	U
4,4'-DDD	840	U
Endosulfan sulfate	840	U
4,4'-DDT	840	U
Methoxychlor	4200	U
Endrin ketone	840	U
alpha-Chlordane	4200	U
gamma-Chlordane	4200	U
Toxaphene	8400	U
Aroclor-1016	4200	U
Aroclor-1221	4200	U
Aroclor-1232	4200	U
Aroclor-1242	4200	U
Aroclor-1248	4200	U
Aroclor-1254	6000	DJC
Aroclor-1260	8400	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Pesticides & PCBs by GC - Current EPA CLP Protocol - GC 723

Client Sample ID: S2-NE-1

Sample Date: N/A
IT Sample ID: MM3364-10
Prep Date: 02/27/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXG17B002271
Concentration Units: UG/KG

Parameter	Result	
alpha-BHC	81	U
beta-BHC	81	U
delta-BHC	81	U
gamma-BHC (Lindane)	81	U
Heptachlor	81	U
Aldrin	81	U
Heptachlor epoxide	81	U
Endosulfan-I	81	U
Dieldrin	160	U
4,4'-DDE	160	U
Endrin	160	U
Endosulfan II	160	U
4,4'-DDD	160	U
Endosulfan sulfate	160	U
4,4'-DDT	160	U
Methoxychlor	810	U
Endrin ketone	160	U
alpha-Chlordane	810	U
gamma-Chlordane	810	U
Toxaphene	1600	U
Aroclor-1016	810	U
Aroclor-1221	810	U
Aroclor-1232	810	U
Aroclor-1242	810	U
Aroclor-1248	810	U
Aroclor-1254	1900	FC
Aroclor-1260	1600	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Pesticides & PCBs by GC - Current EPA CLP Protocol - GC 723

Client Sample ID: S2-NE-1DL

Sample Date: N/A
IT Sample ID: MM3364-50
Prep Date: 02/27/90
Analysis Date: (Completed) 03/05/90
Blank Sample ID: QXG17B002271
Concentration Units: UG/KG

Parameter	Result	
alpha-BHC	400	U
beta-BHC	400	U
delta-BHC	400	U
gamma-BHC (Lindane)	400	U
Heptachlor	400	U
Aldrin	400	U
Heptachlor epoxide	400	U
Endosulfan-I	400	U
Dieldrin	810	U
4,4'-DDE	810	U
Endrin	810	U
Endosulfan II	810	U
4,4'-DDD	810	U
Endosulfan sulfate	810	U
4,4'-DDT	810	U
Methoxychlor	4000	U
Endrin ketone	810	U
alpha-Chlordane	4000	U
gamma-Chlordane	4000	U
Toxaphene	8100	U
Aroclor-1016	4000	U
Aroclor-1221	4000	U
Aroclor-1232	4000	U
Aroclor-1242	4000	U
Aroclor-1248	4000	U
Aroclor-1254	2000	DJC
Aroclor-1260	8100	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Pesticides & PCBs by GC - Current EPA CLP Protocol - GC 723

Client Sample ID: S2-NW-2

Sample Date: N/A
IT Sample ID: MM3365-10
Prep Date: 02/27/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXG17B002271
Concentration Units: UG/KG

Parameter	Result	
alpha-BHC	83	U
beta-BHC	83	U
delta-BHC	83	U
gamma-BHC (Lindane)	83	U
Heptachlor	83	U
Aldrin	83	U
Heptachlor epoxide	83	U
Endosulfan-I	83	U
Dieldrin	170	U
4,4'-DDE	170	U
Endrin	170	U
Endosulfan II	170	U
4,4'-DDD	170	U
Endosulfan sulfate	170	U
4,4'-DDT	170	U
Methoxychlor	830	U
Endrin ketone	170	U
alpha-Chlordane	830	U
gamma-Chlordane	830	U
Toxaphene	1700	U
Aroclor-1016	830	U
Aroclor-1221	830	U
Aroclor-1232	830	U
Aroclor-1242	830	U
Aroclor-1248	830	U
Aroclor-1254	1300	FJC
Aroclor-1260	1700	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

EPA CLP TCL Pesticides & PCBs by GC - Current EPA CLP Protocol - GC 723

Client Sample ID: S2-NW-2DL

Sample Date: N/A
IT Sample ID: MM3365-20
Prep Date: 02/27/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXG17B002271
Concentration Units: UG/KG

Parameter	Result	
alpha-BHC	170	U
beta-BHC	170	U
delta-BHC	170	U
gamma-BHC (Lindane)	170	U
Heptachlor	170	U
Aldrin	170	U
Heptachlor epoxide	170	U
Endosulfan-I	170	U
Dieldrin	330	U
4,4'-DDE	330	U
Endrin	330	U
Endosulfan II	330	U
4,4'-DDD	330	U
Endosulfan sulfate	330	U
4,4'-DDT	330	U
Methoxychlor	1700	U
Endrin ketone	330	U
alpha-Chlordane	1700	U
gamma-Chlordane	1700	U
Toxaphene	3300	U
Aroclor-1016	1700	U
Aroclor-1221	1700	U
Aroclor-1232	1700	U
Aroclor-1242	1700	U
Aroclor-1248	1700	U
Aroclor-1254	1500	DJC
Aroclor-1260	3300	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL ICP Metals - Current EPA CLP Protocol (Mod. EPA 200.7) - AP 706

Client Sample ID: QXA15B003061

Sample Date: N/A
IT Sample ID: 15B003061
Prep Date: 03/06/90
Analysis Date: (Completed) 03/30/90
Blank Sample ID: QXA15B003061
Concentration Units: UG/LITER

Parameter	Result	
Arsenic	50	U
Selenium	80	U
Aluminum	2632	
Antimony	30	U
Barium	2	U
Beryllium	1	U
Cadmium	2	U
Calcium	20	U
Chromium	10	U
Cobalt	10	U
Copper	11.9	B
Iron	10	U
Lead	40	U
Magnesium	60	U
Manganese	2	U
Nickel	20	U
Silver	10	U
Sodium	100	U
Vanadium	10	U
Zinc	4.3	B
% Solids	0	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL ICP Metals - Current EPA CLP Protocol (Mod. EPA 200.7) - AP 706

Client Sample ID: 21

Sample Date: N/A
IT Sample ID: MM3325
Prep Date: 03/06/90
Analysis Date: (Completed) 03/30/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Arsenic	1380	
Selenium	159	
Aluminum	21300	
Antimony	5.2	UN
Barium	297	
Beryllium	20.8	
Cadmium	41.7	
Calcium	39500	*
Chromium	260	
Cobalt	2580	
Copper	2020	
Iron	41700	
Lead	1700	
Magnesium	74400	
Manganese	5200	
Nickel	3280	
Silver	23.8	
Sodium	30100	
Vanadium	1180	E
Zinc	497	E
% Solids	100	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL ICP Metals - Current EPA CLP Protocol (Mod. EPA 200.7) - AP 706

Client Sample ID: 22

Sample Date: N/A
IT Sample ID: MM3326
Prep Date: 03/06/90
Analysis Date: (Completed) 03/30/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Arsenic	2450	
Selenium	108	
Aluminum	18000	
Antimony	4.7	UN
Barium	253	
Beryllium	20.6	
Cadmium	60.3	
Calcium	33100	*
Chromium	171	
Cobalt	1100	
Copper	2430	
Iron	26200	
Lead	1440	
Magnesium	62400	
Manganese	3610	
Nickel	1200	
Silver	21.5	
Sodium	43100	
Vanadium	2030	E
Zinc	361	E
% Solids	100	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL ICP Metals - Current EPA CLP Protocol (Mod. EPA 200.7) - AP 706

Client Sample ID: 23

Sample Date: N/A
IT Sample ID: MM3327
Prep Date: 03/06/90
Analysis Date: (Completed) 03/30/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Arsenic	1610	
Selenium	129	
Aluminum	18000	
Antimony	5.7	UN
Barium	332	
Beryllium	39.9	
Cadmium	40.1	
Calcium	32600	*
Chromium	421	
Cobalt	1340	
Copper	1610	
Iron	60400	
Lead	646	
Magnesium	44900	
Manganese	6500	
Nickel	1810	
Silver	9.2	
Sodium	44100	
Vanadium	1420	E
Zinc	637	E
% Solids	100	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL ICP Metals - Current EPA CLP Protocol (Mod. EPA 200.7) - AP 706

Client Sample ID: 24

Sample Date: N/A
IT Sample ID: MM3328
Prep Date: 03/06/90
Analysis Date: (Completed) 03/30/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Arsenic	6380	
Selenium	122	
Aluminum	23700	
Antimony	5.9	UN
Barium	194	
Beryllium	35.1	
Cadmium	204	
Calcium	23300	*
Chromium	139	
Cobalt	1870	
Copper	7060	
Iron	13900	
Lead	4430	
Magnesium	38200	
Manganese	2420	
Nickel	2280	
Silver	14.8	
Sodium	38100	
Vanadium	4550	E
Zinc	387	E
% Solids	100	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL ICP Metals - Current EPA CLP Protocol (Mod. EPA 200.7) - AP 706

Client Sample ID: 25

Sample Date: N/A
IT Sample ID: MM3329
Prep Date: 03/06/90
Analysis Date: (Completed) 03/30/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Arsenic	2200	
Selenium	105	
Aluminum	15800	
Antimony	4.7	UN
Barium	210	
Beryllium	26.5	
Cadmium	62.4	
Calcium	25800	*
Chromium	213	
Cobalt	1340	
Copper	2440	
Iron	31200	
Lead	1310	
Magnesium	44100	
Manganese	3980	
Nickel	1760	
Silver	14.3	
Sodium	31200	
Vanadium	2030	E
Zinc	380	E
% Solids	100	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL ICP Metals - Current EPA CLP Protocol (Mod. EPA 200.7) - AP 706

Client Sample ID: 26

Sample Date: N/A
IT Sample ID: MM3330
Prep Date: 03/06/90
Analysis Date: (Completed) 03/30/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Arsenic	532	
Selenium	349	
Aluminum	10800	
Antimony	5.7	UN
Barium	118	
Beryllium	10	
Cadmium	21.5	
Calcium	21300	*
Chromium	170	
Cobalt	1.9	U
Copper	1620	
Iron	28200	
Lead	1510	
Magnesium	44800	
Manganese	2700	
Nickel	6170	
Silver	14.9	
Sodium	22900	
Vanadium	499	E
Zinc	301	E
% Solids	100	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL ICP Metals - Current EPA CLP Protocol (Mod. EPA 200.7) - AP 706

Client Sample ID: 27

Sample Date: N/A
IT Sample ID: MM3331
Prep Date: 03/06/90
Analysis Date: (Completed) 03/30/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Arsenic	1460	
Selenium	192	
Aluminum	20800	
Antimony	5.2	UN
Barium	319	
Beryllium	25.2	
Cadmium	45.5	
Calcium	39900	*
Chromium	335	
Cobalt	2190	
Copper	2140	
Iron	67600	
Lead	1130	
Magnesium	72400	
Manganese	5790	
Nickel	3150	
Silver	20.2	
Sodium	39500	
Vanadium	1270	E
Zinc	563	E
% Solids	100	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL ICP Metals - Current EPA CLP Protocol (Mod. EPA 200.7) - AP 706

Client Sample ID: 28

Sample Date: N/A
IT Sample ID: MM3332
Prep Date: 03/06/90
Analysis Date: (Completed) 03/30/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Arsenic	1420	
Selenium	204	
Aluminum	14800	
Antimony	5.5	UN
Barium	142	
Beryllium	31.2	
Cadmium	69.8	
Calcium	26200	*
Chromium	560	
Cobalt	2800	
Copper	2760	
Iron	45000	
Lead	1800	
Magnesium	71400	
Manganese	5940	
Nickel	3040	
Silver	13.3	
Sodium	51700	
Vanadium	2540	E
Zinc	672	E
% Solids	100	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL ICP Metals - Current EPA CLP Protocol (Mod. EPA 200.7) - AP 706

Client Sample ID: 29

Sample Date: N/A
IT Sample ID: MM3333
Prep Date: 03/06/90
Analysis Date: (Completed) 03/30/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Arsenic	1010	
Selenium	186	
Aluminum	13500	
Antimony	5.8	UN
Barium	118	
Beryllium	13.9	
Cadmium	24.2	
Calcium	25600	*
Chromium	443	
Cobalt	3520	
Copper	1640	
Iron	40000	
Lead	1960	
Magnesium	80900	
Manganese	5290	
Nickel	3830	
Silver	9.5	
Sodium	27000	
Vanadium	418	E
Zinc	449	E
% Solids	100	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL ICP Metals - Current EPA CLP Protocol (Mod. EPA 200.7) - AP 706

Client Sample ID: 30

Sample Date: N/A
IT Sample ID: MM3334
Prep Date: 03/06/90
Analysis Date: (Completed) 03/30/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Arsenic	1060	
Selenium	254	
Aluminum	15300	
Antimony	5.5	UN
Barium	215	
Beryllium	16.6	
Cadmium	35.1	
Calcium	29900	*
Chromium	236	
Cobalt	2950	
Copper	2010	
Iron	37800	
Lead	1330	
Magnesium	58100	
Manganese	3970	
Nickel	4230	
Silver	17.4	
Sodium	30400	
Vanadium	1040	E
Zinc	397	E
% Solids	100	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL ICP Metals - Current EPA CLP Protocol (Mod. EPA 200.7) - AP 706

Client Sample ID: 33

Sample Date: N/A
IT Sample ID: MM3335
Prep Date: 03/06/90
Analysis Date: (Completed) 03/30/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Arsenic	1980	
Selenium	101	
Aluminum	17500	
Antimony	4	UN
Barium	185	
Beryllium	26.4	
Cadmium	52.7	
Calcium	25900	*
Chromium	221	
Cobalt	1350	
Copper	2280	
Iron	23800	
Lead	1750	
Magnesium	52800	
Manganese	2780	
Nickel	1970	
Silver	16.1	
Sodium	39000	
Vanadium	3040	E
Zinc	306	E
% Solids	100	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL ICP Metals - Current EPA CLP Protocol (Mod. EPA 200.7) - AP 706

Client Sample ID: S1-NE-1B

Sample Date: N/A
IT Sample ID: MM3336
Prep Date: 03/06/90
Analysis Date: (Completed) 03/30/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Arsenic	47.9	
Selenium	139	
Aluminum	60.4	
Antimony	4.1	UN
Barium	1970	
Beryllium	1.3	
Cadmium	2.3	
Calcium	2320	*
Chromium	25.8	
Cobalt	404	
Copper	122	
Iron	9090	
Lead	61400	
Magnesium	3270	
Manganese	36.5	
Nickel	815	
Silver	5	
Sodium	5730	
Vanadium	111	E
Zinc	14.4	E
% Solids	100	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL ICP Metals - Current EPA CLP Protocol (Mod. EPA 200.7) - AP 706

Client Sample ID: S1-NE-1A

Sample Date: N/A
IT Sample ID: MM3337
Prep Date: 03/06/90
Analysis Date: (Completed) 03/30/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Arsenic	57	
Selenium	172	
Aluminum	1260	
Antimony	5.7	UN
Barium	4340	
Beryllium	2.8	
Cadmium	4.4	
Calcium	5580	*
Chromium	43.3	
Cobalt	1260	
Copper	473	
Iron	24100	
Lead	35800	
Magnesium	2770	
Manganese	178	
Nickel	1970	
Silver	9.8	
Sodium	360	B
Vanadium	240	E
Zinc	212	E
% Solids	100	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL ICP Metals - Current EPA CLP Protocol (Mod. EPA 200.7) - AP 706

Client Sample ID: S1-SE-2

Sample Date: N/A
IT Sample ID: MM3338
Prep Date: 03/06/90
Analysis Date: (Completed) 03/30/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Arsenic	68.4	
Selenium	180	
Aluminum	1430	
Antimony	5.8	UN
Barium	2190	
Beryllium	2.4	
Cadmium	8	
Calcium	5700	*
Chromium	111	
Cobalt	814	
Copper	307	
Iron	75100	
Lead	38800	
Magnesium	6020	
Manganese	257	
Nickel	1350	
Silver	13.1	
Sodium	2610	
Vanadium	140	E
Zinc	57.3	E
% Solids	100	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL ICP Metals - Current EPA CLP Protocol (Mod. EPA 200.7) - AP 706

Client Sample ID: S1-NE-1C

Sample Date: N/A
IT Sample ID: MM3339
Prep Date: 03/06/90
Analysis Date: (Completed) 03/30/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Arsenic	45.8	
Selenium	170	
Aluminum	1380	
Antimony	5.7	UN
Barium	4140	
Beryllium	1.4	
Cadmium	2.9	
Calcium	2150	*
Chromium	22.8	
Cobalt	1210	
Copper	410	
Iron	7170	
Lead	85100	
Magnesium	3620	
Manganese	83.1	
Nickel	2580	
Silver	23.3	
Sodium	13100	
Vanadium	110	E
Zinc	26.3	E
% Solids	100	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL ICP Metals - Current EPA CLP Protocol (Mod. EPA 200.7) - AP 706

Client Sample ID: S2-SW-1

Sample Date: N/A
IT Sample ID: MM3340
Prep Date: 03/06/90
Analysis Date: (Completed) 03/30/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Arsenic	81.4	
Selenium	118	
Aluminum	464	
Antimony	7.2	BN
Barium	8370	
Beryllium	1.6	
Cadmium	3.6	
Calcium	3610	*
Chromium	24.3	
Cobalt	692	
Copper	263	
Iron	8330	
Lead	28500	
Magnesium	1520	
Manganese	74.2	
Nickel	1070	
Silver	7.4	
Sodium	3100	
Vanadium	151	E
Zinc	25.8	E
% Solids	100	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL ICP Metals - Current EPA CLP Protocol (Mod. EPA 200.7) - AP 706

Client Sample ID: S1-SW-1

Sample Date: N/A
IT Sample ID: MM3341
Prep Date: 03/06/90
Analysis Date: (Completed) 03/30/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Arsenic	61	
Selenium	168	
Aluminum	733	
Antimony	5.7	UN
Barium	7860	
Beryllium	1.3	
Cadmium	2.7	
Calcium	5410	*
Chromium	42.6	
Cobalt	657	
Copper	209	
Iron	8370	
Lead	76900	
Magnesium	2830	
Manganese	54	
Nickel	1140	
Silver	9.8	
Sodium	7010	
Vanadium	106	E
Zinc	17.8	E
% Solids	100	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL ICP Metals - Current EPA CLP Protocol (Mod. EPA 200.7) - AP 706

Client Sample ID: S1-SE-1

Sample Date: N/A
IT Sample ID: MM3342
Prep Date: 03/06/90
Analysis Date: (Completed) 03/30/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Selenium	106	
Aluminum	364	
Antimony	5.8	UN
Barium	2720	
Beryllium	.88	B
Cadmium	3	
Calcium	3500	*
Chromium	165	
Cobalt	349	
Copper	126	
Iron	22600	
Lead	38900	
Magnesium	1500	
Manganese	94.2	
Nickel	629	
Silver	6.3	
Sodium	1640	
Vanadium	72.2	E
Zinc	23.9	E
% Solids	100	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL ICP Metals - Current EPA CLP Protocol (Mod. EPA 200.7) - AP 706

Client Sample ID: S1-NW-1

Sample Date: N/A
IT Sample ID: MM3343
Prep Date: 03/06/90
Analysis Date: (Completed) 03/30/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Arsenic	54.5	
Selenium	162	
Aluminum	450	
Antimony	5.9	UN
Barium	5000	
Beryllium	1.1	
Cadmium	2.1	
Calcium	4130	*
Chromium	21	
Cobalt	681	
Copper	217	
Iron	4340	
Lead	81300	
Magnesium	1900	
Manganese	33.5	
Nickel	1180	
Silver	9.5	
Sodium	7080	
Vanadium	105	E
Zinc	24.7	E
% Solids	100	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL ICP Metals - Current EPA CLP Protocol (Mod. EPA 200.7) - AP 706

Client Sample ID: S2-NW-1

Sample Date: N/A
IT Sample ID: MM3344
Prep Date: 03/06/90
Analysis Date: (Completed) 03/30/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Arsenic	71.3	
Selenium	117	
Aluminum	1250	
Antimony	4.8	UN
Barium	1190	
Beryllium	6	
Cadmium	5.6	
Calcium	10300	*
Chromium	68.8	
Cobalt	648	
Copper	220	
Iron	37800	
Lead	15100	
Magnesium	4200	
Manganese	170	
Nickel	878	
Silver	9.1	
Sodium	912	
Vanadium	214	E
Zinc	31.6	E
% Solids	100	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL ICP Metals - Current EPA CLP Protocol (Mod. EPA 200.7) - AP 706

Client Sample ID: S2-NE-2

Sample Date: N/A
IT Sample ID: MM3345
Prep Date: 03/06/90
Analysis Date: (Completed) 03/30/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Arsenic	330	
Aluminum	1360	
Antimony	5.5	UN
Barium	89.2	
Beryllium	.66	B
Cadmium	4.1	
Calcium	301000	*
Chromium	12.9	
Cobalt	6.2	B
Copper	1.8	U
Iron	4010	
Lead	153	
Magnesium	8740	
Manganese	335	
Nickel	14.6	
Silver	1.8	U
Sodium	588	B
Vanadium	21.9	E
Zinc	11.2	E
% Solids	100	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL ICP Metals - Current EPA CLP Protocol (Mod. EPA 200.7) - AP 706

Client Sample ID: S2-SW-2

Sample Date: N/A
IT Sample ID: MM3346
Prep Date: 03/06/90
Analysis Date: (Completed) 03/30/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Arsenic	64.5	
Selenium	105	
Aluminum	551	
Antimony	6.4	BN
Barium	8000	
Beryllium	2.1	
Cadmium	3.4	
Calcium	8570	*
Chromium	34.1	
Cobalt	602	
Copper	249	
Iron	11400	
Lead	29800	
Magnesium	2060	
Manganese	83.2	
Nickel	897	
Silver	10.1	
Sodium	857	
Vanadium	193	E
Zinc	25.7	E
% Solids	100	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL ICP Metals - Current EPA CLP Protocol (Mod. EPA 200.7) - AP 706

Client Sample ID: S2-NE-1

Sample Date: N/A
IT Sample ID: MM3347
Prep Date: 03/06/90
Analysis Date: (Completed) 03/30/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Arsenic	1960	
Selenium	91.1	
Aluminum	2570	
Antimony	5.5	UN
Barium	2460	
Beryllium	2	
Cadmium	19.1	
Calcium	41900	*
Chromium	42.2	
Cobalt	2430	
Copper	1790	
Iron	13500	
Lead	21600	
Magnesium	7390	
Manganese	403	
Nickel	2200	
Silver	22.8	
Sodium	4070	
Vanadium	142	E
Zinc	154	E
% Solids	100	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL ICP Metals - Current EPA CLP Protocol (Mod. EPA 200.7) - AP 706

Client Sample ID: S2-NW-2

Sample Date: N/A
IT Sample ID: MM3348
Prep Date: 03/06/90
Analysis Date: (Completed) 03/30/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Arsenic	57.5	
Selenium	95.9	
Aluminum	1180	
Antimony	4.1	UN
Barium	3090	
Beryllium	2.7	
Cadmium	5	
Calcium	2430	*
Chromium	47.2	
Cobalt	543	
Copper	221	
Iron	26900	
Lead	17600	
Magnesium	4220	
Manganese	160	
Nickel	787	
Silver	12	
Sodium	226	B
Vanadium	211	E
Zinc	70.8	E
% Solids	100	

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL Metals by Furnace AA - Current EPA CLP Protocol - AG 704

Client Sample ID: QXA13B003081

Sample Date: N/A
IT Sample ID: 13B003081
Prep Date: 03/08/90
Analysis Date: (Completed) 03/20/90
Blank Sample ID: QXA13B003081
Concentration Units: UG/LITER

Parameter	Result	
Thallium	-1.4	B

Client Sample ID: 21

Sample Date: N/A
IT Sample ID: MM3325
Prep Date: 03/08/90
Analysis Date: (Completed) 03/20/90
Blank Sample ID: QXA13B003081
Concentration Units: MG/KG

Parameter	Result
Thallium	10

Client Sample ID: 22

Sample Date: N/A
IT Sample ID: MM3326
Prep Date: 03/08/90
Analysis Date: (Completed) 03/20/90
Blank Sample ID: QXA13B003081
Concentration Units: MG/KG

Parameter	Result
Thallium	37.6

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL Metals by Furnace AA - Current EPA CLP Protocol - AG 704

Client Sample ID: 23

Sample Date: N/A
IT Sample ID: MM3327
Prep Date: 03/08/90
Analysis Date: (Completed) 03/20/90
Blank Sample ID: QXA13B003081
Concentration Units: MG/KG

Parameter	Result
Thallium	6.5

Client Sample ID: 24

Sample Date: N/A
IT Sample ID: MM3328
Prep Date: 03/08/90
Analysis Date: (Completed) 03/20/90
Blank Sample ID: QXA13B003081
Concentration Units: MG/KG

Parameter	Result
Thallium	73.9

Client Sample ID: 25

Sample Date: N/A
IT Sample ID: MM3329
Prep Date: 03/08/90
Analysis Date: (Completed) 03/20/90
Blank Sample ID: QXA13B003081
Concentration Units: MG/KG

Parameter	Result
Thallium	35.8

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL Metals by Furnace AA - Current EPA CLP Protocol - AG 704

Client Sample ID: 26

Sample Date: N/A
IT Sample ID: MM3330
Prep Date: 03/08/90
Analysis Date: (Completed) 03/20/90
Blank Sample ID: QXA13B003081
Concentration Units: MG/KG

Parameter	Result
Thallium	7.2

Client Sample ID: 27

Sample Date: N/A
IT Sample ID: MM3331
Prep Date: 03/08/90
Analysis Date: (Completed) 03/20/90
Blank Sample ID: QXA13B003081
Concentration Units: MG/KG

Parameter	Result
Thallium	11.9

Client Sample ID: 28

Sample Date: N/A
IT Sample ID: MM3332
Prep Date: 03/08/90
Analysis Date: (Completed) 03/20/90
Blank Sample ID: QXA13B003081
Concentration Units: MG/KG

Parameter	Result
Thallium	5.5

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL Metals by Furnace AA - Current EPA CLP Protocol - AG 704

Client Sample ID: 29

Sample Date: N/A
IT Sample ID: MM3333
Prep Date: 03/08/90
Analysis Date: (Completed) 03/20/90
Blank Sample ID: QXA13B003081
Concentration Units: MG/KG

Parameter	Result
Thallium	4

Client Sample ID: 30

Sample Date: N/A
IT Sample ID: MM3334
Prep Date: 03/08/90
Analysis Date: (Completed) 03/20/90
Blank Sample ID: QXA13B003081
Concentration Units: MG/KG

Parameter	Result
Thallium	13.7

Client Sample ID: 33

Sample Date: N/A
IT Sample ID: MM3335
Prep Date: 03/08/90
Analysis Date: (Completed) 03/20/90
Blank Sample ID: QXA13B003081
Concentration Units: MG/KG

Parameter	Result
Thallium	3.1 E

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Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL Metals by Furnace AA - Current EPA CLP Protocol - AG 704

Client Sample ID: S1-NE-1B

Sample Date: N/A
IT Sample ID: MM3336
Prep Date: 03/08/90
Analysis Date: (Completed) 03/20/90
Blank Sample ID: QXA13B003081
Concentration Units: MG/KG

Parameter	Result
Thallium	.38 B

Client Sample ID: S1-NE-1A

Sample Date: N/A
IT Sample ID: MM3337
Prep Date: 03/08/90
Analysis Date: (Completed) 03/20/90
Blank Sample ID: QXA13B003081
Concentration Units: MG/KG

Parameter	Result
Thallium	.09 B

Client Sample ID: S1-SE-2

Sample Date: N/A
IT Sample ID: MM3338
Prep Date: 03/08/90
Analysis Date: (Completed) 03/20/90
Blank Sample ID: QXA13B003081
Concentration Units: MG/KG

Parameter	Result
Thallium	.29 U

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Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL Metals by Furnace AA - Current EPA CLP Protocol - AG 704

Client Sample ID: S1-NE-1C

Sample Date: N/A
IT Sample ID: MM3339
Prep Date: 03/08/90
Analysis Date: (Completed) 03/20/90
Blank Sample ID: QXA13B003081
Concentration Units: MG/KG

Parameter	Result
Thallium	.31 U

Client Sample ID: S2-SW-1

Sample Date: N/A
IT Sample ID: MM3340
Prep Date: 03/08/90
Analysis Date: (Completed) 03/20/90
Blank Sample ID: QXA13B003081
Concentration Units: MG/KG

Parameter	Result
Thallium	1.4 B

Client Sample ID: S1-SW-1

Sample Date: N/A
IT Sample ID: MM3341
Prep Date: 03/08/90
Analysis Date: (Completed) 03/20/90
Blank Sample ID: QXA13B003081
Concentration Units: MG/KG

Parameter	Result
Thallium	.52 B

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Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL Metals by Furnace AA - Current EPA CLP Protocol - AG 704

Client Sample ID: S1-SE-1

Sample Date: N/A
IT Sample ID: MM3342
Prep Date: 03/08/90
Analysis Date: (Completed) 03/20/90
Blank Sample ID: QXA13B003081
Concentration Units: MG/KG

Parameter	Result
Arsenic	14.7
Thallium	.24 B

Client Sample ID: S1-NW-1

Sample Date: N/A
IT Sample ID: MM3343
Prep Date: 03/08/90
Analysis Date: (Completed) 03/20/90
Blank Sample ID: QXA13B003081
Concentration Units: MG/KG

Parameter	Result
Thallium	.49 B

Client Sample ID: S2-NW-1

Sample Date: N/A
IT Sample ID: MM3344
Prep Date: 03/08/90
Analysis Date: (Completed) 03/20/90
Blank Sample ID: QXA13B003081
Concentration Units: MG/KG

Parameter	Result
Thallium	.33 B

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL Metals by Furnace AA - Current EPA CLP Protocol - AG 704

Client Sample ID: S2-NE-2

Sample Date: N/A
IT Sample ID: MM3345
Prep Date: 03/08/90
Analysis Date: (Completed) 03/20/90
Blank Sample ID: QXA13B003081
Concentration Units: MG/KG

Parameter	Result	
Selenium	.32	UEN
Thallium	.32	U

Client Sample ID: S2-SW-2

Sample Date: N/A
IT Sample ID: MM3346
Prep Date: 03/08/90
Analysis Date: (Completed) 03/20/90
Blank Sample ID: QXA13B003081
Concentration Units: MG/KG

Parameter	Result	
Thallium	.82	B

Client Sample ID: S2-NE-1

Sample Date: N/A
IT Sample ID: MM3347
Prep Date: 03/08/90
Analysis Date: (Completed) 03/20/90
Blank Sample ID: QXA13B003081
Concentration Units: MG/KG

Parameter	Result	
Thallium	.61	B

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

TAL Metals by Furnace AA - Current EPA CLP Protocol - AG 704

Client Sample ID: S2-NW-2

Sample Date: N/A
IT Sample ID: MM3348
Prep Date: 03/08/90
Analysis Date: (Completed) 03/20/90
Blank Sample ID: QXA13B003081
Concentration Units: MG/KG

Parameter	Result
Thallium	.39 B

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Mercury by Cold Vapor AA - Current EPA CLP Protocol (Mod. EPA 245.5) - AV 006

Client Sample ID: QXA04B003101

Sample Date: N/A
IT Sample ID: 04B003101
Prep Date: 03/10/90
Analysis Date: (Completed) 03/10/90
Blank Sample ID: QXA04B003101
Concentration Units: UG/LITER

Parameter	Result	
Mercury	.2	U

Client Sample ID: 21

Sample Date: N/A
IT Sample ID: MM3325
Prep Date: 03/10/90
Analysis Date: (Completed) 03/10/90
Blank Sample ID: QXA04B003101
Concentration Units: MG/KG

Parameter	Result	
Mercury	.1	U

Client Sample ID: 22

Sample Date: N/A
IT Sample ID: MM3326
Prep Date: 03/10/90
Analysis Date: (Completed) 03/10/90
Blank Sample ID: QXA04B003101
Concentration Units: MG/KG

Parameter	Result	
Mercury	.1	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Mercury by Cold Vapor AA - Current EPA CLP Protocol (Mod. EPA 245.5) - AV 006

Client Sample ID: 23

Sample Date: N/A
IT Sample ID: MM3327
Prep Date: 03/10/90
Analysis Date: (Completed) 03/10/90
Blank Sample ID: QXA04B003101
Concentration Units: MG/KG

Parameter	Result
Mercury	.1 U

Client Sample ID: 24

Sample Date: N/A
IT Sample ID: MM3328
Prep Date: 03/10/90
Analysis Date: (Completed) 03/10/90
Blank Sample ID: QXA04B003101
Concentration Units: MG/KG

Parameter	Result
Mercury	.3

Client Sample ID: 25

Sample Date: N/A
IT Sample ID: MM3329
Prep Date: 03/10/90
Analysis Date: (Completed) 03/10/90
Blank Sample ID: QXA04B003101
Concentration Units: MG/KG

Parameter	Result
Mercury	.1 U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Mercury by Cold Vapor AA - Current EPA CLP Protocol (Mod. EPA 245.5) - AV 006

Client Sample ID: 26

Sample Date: N/A
IT Sample ID: MM3330
Prep Date: 03/10/90
Analysis Date: (Completed) 03/10/90
Blank Sample ID: QXA04B003101
Concentration Units: MG/KG

Parameter	Result
Mercury	.69

Client Sample ID: 27

Sample Date: N/A
IT Sample ID: MM3331
Prep Date: 03/10/90
Analysis Date: (Completed) 03/10/90
Blank Sample ID: QXA04B003101
Concentration Units: MG/KG

Parameter	Result
Mercury	.1 U

Client Sample ID: 28

Sample Date: N/A
IT Sample ID: MM3332
Prep Date: 03/10/90
Analysis Date: (Completed) 03/10/90
Blank Sample ID: QXA04B003101
Concentration Units: MG/KG

Parameter	Result
Mercury	.08 U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Mercury by Cold Vapor AA - Current EPA CLP Protocol (Mod. EPA 245.5) - AV 006

Client Sample ID: 29

Sample Date: N/A
IT Sample ID: MM3333
Prep Date: 03/10/90
Analysis Date: (Completed) 03/10/90
Blank Sample ID: QXA04B003101
Concentration Units: MG/KG

Parameter	Result
Mercury	.1 U

Client Sample ID: 30

Sample Date: N/A
IT Sample ID: MM3334
Prep Date: 03/10/90
Analysis Date: (Completed) 03/10/90
Blank Sample ID: QXA04B003101
Concentration Units: MG/KG

Parameter	Result
Mercury	.3

Client Sample ID: 33

Sample Date: N/A
IT Sample ID: MM3335
Prep Date: 03/10/90
Analysis Date: (Completed) 03/10/90
Blank Sample ID: QXA04B003101
Concentration Units: MG/KG

Parameter	Result
Mercury	.08 U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Mercury by Cold Vapor AA - Current EPA CLP Protocol (Mod. EPA 245.5) - AV 006

Client Sample ID: S1-NE-1B

Sample Date: N/A
IT Sample ID: MM3336
Prep Date: 03/10/90
Analysis Date: (Completed) 03/10/90
Blank Sample ID: QXA04B003101
Concentration Units: MG/KG

Parameter	Result
Mercury	.47

Client Sample ID: S1-NE-1A

Sample Date: N/A
IT Sample ID: MM3337
Prep Date: 03/10/90
Analysis Date: (Completed) 03/10/90
Blank Sample ID: QXA04B003101
Concentration Units: MG/KG

Parameter	Result
Mercury	2.8

Client Sample ID: S1-SE-2

Sample Date: N/A
IT Sample ID: MM3338
Prep Date: 03/10/90
Analysis Date: (Completed) 03/10/90
Blank Sample ID: QXA04B003101
Concentration Units: MG/KG

Parameter	Result
Mercury	.6

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Mercury by Cold Vapor AA - Current EPA CLP Protocol (Mod. EPA 245.5) - AV 006

Client Sample ID: S1-NE-1C

Sample Date: N/A
IT Sample ID: MM3339
Prep Date: 03/10/90
Analysis Date: (Completed) 03/10/90
Blank Sample ID: QXA04B003101
Concentration Units: MG/KG

Parameter	Result
Mercury	.72

Client Sample ID: S2-SW-1

Sample Date: N/A
IT Sample ID: MM3340
Prep Date: 03/10/90
Analysis Date: (Completed) 03/10/90
Blank Sample ID: QXA04B003101
Concentration Units: MG/KG

Parameter	Result
Mercury	.09 U

Client Sample ID: S1-SW-1

Sample Date: N/A
IT Sample ID: MM3341
Prep Date: 03/10/90
Analysis Date: (Completed) 03/10/90
Blank Sample ID: QXA04B003101
Concentration Units: MG/KG

Parameter	Result
Mercury	.56

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Mercury by Cold Vapor AA - Current EPA CLP Protocol (Mod. EPA 245.5) - AV 006

Client Sample ID: S1-SE-1

Sample Date: N/A
IT Sample ID: MM3342
Prep Date: 03/10/90
Analysis Date: (Completed) 03/10/90
Blank Sample ID: QXA04B003101
Concentration Units: MG/KG

Parameter	Result
Mercury	.23

Client Sample ID: S1-NW-1

Sample Date: N/A
IT Sample ID: MM3343
Prep Date: 03/10/90
Analysis Date: (Completed) 03/10/90
Blank Sample ID: QXA04B003101
Concentration Units: MG/KG

Parameter	Result
Mercury	.43

Client Sample ID: S2-NW-1

Sample Date: N/A
IT Sample ID: MM3344
Prep Date: 03/10/90
Analysis Date: (Completed) 03/10/90
Blank Sample ID: QXA04B003101
Concentration Units: MG/KG

Parameter	Result
Mercury	1.7

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Mercury by Cold Vapor AA - Current EPA CLP Protocol (Mod. EPA 245.5) - AV 006

Client Sample ID: S2-NE-2

Sample Date: N/A
IT Sample ID: MM3345
Prep Date: 03/10/90
Analysis Date: (Completed) 03/10/90
Blank Sample ID: QXA04B003101
Concentration Units: MG/KG

Parameter	Result
Mercury	2.3

Client Sample ID: S2-SW-2

Sample Date: N/A
IT Sample ID: MM3346
Prep Date: 03/10/90
Analysis Date: (Completed) 03/10/90
Blank Sample ID: QXA04B003101
Concentration Units: MG/KG

Parameter	Result
Mercury	.34

Client Sample ID: S2-NE-1

Sample Date: N/A
IT Sample ID: MM3347
Prep Date: 03/10/90
Analysis Date: (Completed) 03/10/90
Blank Sample ID: QXA04B003101
Concentration Units: MG/KG

Parameter	Result
Mercury	1

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Mercury by Cold Vapor AA - Current EPA CLP Protocol (Mod. EPA 245.5) - AV 006

Client Sample ID: S2-NW-2

Sample Date: N/A
IT Sample ID: MM3348
Prep Date: 03/10/90
Analysis Date: (Completed) 03/10/90
Blank Sample ID: QXA04B003101
Concentration Units: MG/KG

Parameter	Result
Mercury	.37

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Potassium by Flame AA - Current EPA CLP Protocol - AA 068

Client Sample ID: QXA15B003061

Sample Date: N/A
IT Sample ID: 15B003061
Prep Date: 03/06/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA15B003061
Concentration Units: UG/LITER

Parameter	Result	
Potassium	7	B

Client Sample ID: 21

Sample Date: N/A
IT Sample ID: MM3325
Prep Date: 03/06/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result
Potassium	5310

Client Sample ID: 22

Sample Date: N/A
IT Sample ID: MM3326
Prep Date: 03/06/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result
Potassium	3880

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Potassium by Flame AA - Current EPA CLP Protocol - AA 068

Client Sample ID: 23

Sample Date: N/A
IT Sample ID: MM3327
Prep Date: 03/06/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result
Potassium	22800

Client Sample ID: 24

Sample Date: N/A
IT Sample ID: MM3328
Prep Date: 03/06/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result
Potassium	4520

Client Sample ID: 25

Sample Date: N/A
IT Sample ID: MM3329
Prep Date: 03/06/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result
Potassium	7360

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Potassium by Flame AA - Current EPA CLP Protocol - AA 068

Client Sample ID: 26

Sample Date: N/A
IT Sample ID: MM3330
Prep Date: 03/06/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result
Potassium	3300

Client Sample ID: 27

Sample Date: N/A
IT Sample ID: MM3331
Prep Date: 03/06/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result
Potassium	13600

Client Sample ID: 28

Sample Date: N/A
IT Sample ID: MM3332
Prep Date: 03/06/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result
Potassium	3740

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Potassium by Flame AA - Current EPA CLP Protocol - AA 068

Client Sample ID: 29

Sample Date: N/A
IT Sample ID: MM3333
Prep Date: 03/06/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result
Potassium	1300

Client Sample ID: 30

Sample Date: N/A
IT Sample ID: MM3334
Prep Date: 03/06/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result
Potassium	6690

Client Sample ID: 33

Sample Date: N/A
IT Sample ID: MM3335
Prep Date: 03/06/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result
Potassium	7340

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Potassium by Flame AA - Current EPA CLP Protocol - AA 068

Client Sample ID: S1-NE-1B

Sample Date: N/A
IT Sample ID: MM3336
Prep Date: 03/06/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Potassium	347	B

Client Sample ID: S1-NE-1A

Sample Date: N/A
IT Sample ID: MM3337
Prep Date: 03/06/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Potassium	158	B

Client Sample ID: S1-SE-2

Sample Date: N/A
IT Sample ID: MM3338
Prep Date: 03/06/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Potassium	293	B

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Potassium by Flame AA - Current EPA CLP Protocol - AA 068

Client Sample ID: S1-NE-1C

Sample Date: N/A
IT Sample ID: MM3339
Prep Date: 03/06/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Potassium	424	B

Client Sample ID: S2-SW-1

Sample Date: N/A
IT Sample ID: MM3340
Prep Date: 03/06/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Potassium	118	B

Client Sample ID: S1-SW-1

Sample Date: N/A
IT Sample ID: MM3341
Prep Date: 03/06/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Potassium	492	B

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Potassium by Flame AA - Current EPA CLP Protocol - AA 068

Client Sample ID: S1-SE-1

Sample Date: N/A
IT Sample ID: MM3342
Prep Date: 03/06/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Potassium	173	B

Client Sample ID: S1-NW-1

Sample Date: N/A
IT Sample ID: MM3343
Prep Date: 03/06/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Potassium	350	B

Client Sample ID: S2-NW-1

Sample Date: N/A
IT Sample ID: MM3344
Prep Date: 03/06/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Potassium	271	B

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Potassium by Flame AA - Current EPA CLP Protocol - AA 068

Client Sample ID: S2-NE-2

Sample Date: N/A
IT Sample ID: MM3345
Prep Date: 03/06/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Potassium	37.8	B

Client Sample ID: S2-SW-2

Sample Date: N/A
IT Sample ID: MM3346
Prep Date: 03/06/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Potassium	289	B

Client Sample ID: S2-NE-1

Sample Date: N/A
IT Sample ID: MM3347
Prep Date: 03/06/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Potassium	207	B

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Potassium by Flame AA - Current EPA CLP Protocol - AA 068

Client Sample ID: S2-NW-2

Sample Date: N/A
IT Sample ID: MM3348
Prep Date: 03/06/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA15B003061
Concentration Units: MG/KG

Parameter	Result	
Potassium	192	B

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Total Cyanide - Current EPA CLP Protocol - WW 037

Client Sample ID: QXW37B003021

Sample Date: N/A
IT Sample ID: 37B003021
Prep Date: 03/02/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXW37B003021
Concentration Units: UG/LITER

Parameter	Result	
Cyanide	10	U

Client Sample ID: 21

Sample Date: N/A
IT Sample ID: MM3325
Prep Date: 03/02/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXW37B003021
Concentration Units: MG/KG

Parameter	Result	
Cyanide	.55	U

Client Sample ID: 22

Sample Date: N/A
IT Sample ID: MM3326
Prep Date: 03/02/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXW37B003021
Concentration Units: MG/KG

Parameter	Result	
Cyanide	.52	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Total Cyanide - Current EPA CLP Protocol - WW 037

Client Sample ID: 23

Sample Date: N/A
IT Sample ID: MM3327
Prep Date: 03/02/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXW37B003021
Concentration Units: MG/KG

Parameter	Result
Cyanide	.55 U

Client Sample ID: 24

Sample Date: N/A
IT Sample ID: MM3328
Prep Date: 03/02/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXW37B003021
Concentration Units: MG/KG

Parameter	Result
Cyanide	.53 U

Client Sample ID: 25

Sample Date: N/A
IT Sample ID: MM3329
Prep Date: 03/02/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXW37B003021
Concentration Units: MG/KG

Parameter	Result
Cyanide	.53 U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Total Cyanide - Current EPA CLP Protocol - WW 037

Client Sample ID: 26

Sample Date: N/A
IT Sample ID: MM3330
Prep Date: 03/02/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXW37B003021
Concentration Units: MG/KG

Parameter	Result
Cyanide	.49 U

Client Sample ID: 27

Sample Date: N/A
IT Sample ID: MM3331
Prep Date: 03/02/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXW37B003021
Concentration Units: MG/KG

Parameter	Result
Cyanide	.54 U

Client Sample ID: 28

Sample Date: N/A
IT Sample ID: MM3332
Prep Date: 03/02/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXW37B003021
Concentration Units: MG/KG

Parameter	Result
Cyanide	.5 U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Total Cyanide - Current EPA CLP Protocol - WW 037

Client Sample ID: 29

Sample Date: N/A
IT Sample ID: MM3333
Prep Date: 03/02/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXW37B003021
Concentration Units: MG/KG

Parameter	Result
Cyanide	.52 U

Client Sample ID: 30

Sample Date: N/A
IT Sample ID: MM3334
Prep Date: 03/02/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXW37B003021
Concentration Units: MG/KG

Parameter	Result
Cyanide	.51 U

Client Sample ID: 33

Sample Date: N/A
IT Sample ID: MM3335
Prep Date: 03/02/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXW37B003021
Concentration Units: MG/KG

Parameter	Result
Cyanide	.46 U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Total Cyanide - Current EPA CLP Protocol - WW 037

Client Sample ID: S1-NE-1B

Sample Date: N/A
IT Sample ID: MM3336
Prep Date: 03/02/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXW37B003021
Concentration Units: MG/KG

Parameter	Result
Cyanide	1.4

Client Sample ID: S1-NE-1A

Sample Date: N/A
IT Sample ID: MM3337
Prep Date: 03/02/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXW37B003021
Concentration Units: MG/KG

Parameter	Result
Cyanide	.52

Client Sample ID: S1-SE-2

Sample Date: N/A
IT Sample ID: MM3338
Prep Date: 03/02/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXW37B003021
Concentration Units: MG/KG

Parameter	Result
Cyanide	1.6

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Total Cyanide - Current EPA CLP Protocol - WW 037

Client Sample ID: S1-NE-1C

Sample Date: N/A
IT Sample ID: MM3339
Prep Date: 03/02/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXW37B003021
Concentration Units: MG/KG

Parameter	Result
Cyanide	1.4

Client Sample ID: S2-SW-1

Sample Date: N/A
IT Sample ID: MM3340
Prep Date: 03/02/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXW37B003021
Concentration Units: MG/KG

Parameter	Result
Cyanide	2.5

Client Sample ID: S1-SW-1

Sample Date: N/A
IT Sample ID: MM3341
Prep Date: 03/02/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXW37B003021
Concentration Units: MG/KG

Parameter	Result
Cyanide	4.4

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Total Cyanide - Current EPA CLP Protocol - WW 037

Client Sample ID: S1-SE-1

Sample Date: N/A
IT Sample ID: MM3342
Prep Date: 03/02/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXW37B003021
Concentration Units: MG/KG

Parameter	Result
Cyanide	.99

Client Sample ID: S1-NW-1

Sample Date: N/A
IT Sample ID: MM3343
Prep Date: 03/02/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXW37B003021
Concentration Units: MG/KG

Parameter	Result
Cyanide	2.9

Client Sample ID: S2-NW-1

Sample Date: N/A
IT Sample ID: MM3344
Prep Date: 03/02/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXW37B003021
Concentration Units: MG/KG

Parameter	Result
Cyanide	4.5

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Total Cyanide - Current EPA CLP Protocol - WW 037

Client Sample ID: S2-NE-2

Sample Date: N/A
IT Sample ID: MM3345
Prep Date: 03/02/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXW37B003021
Concentration Units: MG/KG

Parameter	Result
Cyanide	.55 U

Client Sample ID: S2-SW-2

Sample Date: N/A
IT Sample ID: MM3346
Prep Date: 03/02/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXW37B003021
Concentration Units: MG/KG

Parameter	Result
Cyanide	1.6

Client Sample ID: S2-NE-1

Sample Date: N/A
IT Sample ID: MM3347
Prep Date: 03/02/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXW37B003021
Concentration Units: MG/KG

Parameter	Result
Cyanide	1.1

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Total Cyanide - Current EPA CLP Protocol - WW 037

Client Sample ID: S2-NW-2

Sample Date: N/A
IT Sample ID: MM3348
Prep Date: 03/02/90
Analysis Date: (Completed) 03/06/90
Blank Sample ID: QXW37B003021
Concentration Units: MG/KG

Parameter	Result
Cyanide	.9

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

RCRA Metals by ICP - Current RCRA Protocol - AP 711

Client Sample ID: QXA10B003261

Sample Date: N/A
IT Sample ID: 10B003261
Prep Date: 03/26/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA10B003261
Concentration Units: MG/LITER

Parameter	Result
Lead	.04 U
Selenium	.08 U
Arsenic	.05 U
Barium	.002 U
Cadmium	.002 U
Chromium	.01 U
Silver	.01 U

Client Sample ID: QXA10B003271

Sample Date: N/A
IT Sample ID: 10B003271
Prep Date: 03/27/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA10B003271
Concentration Units: MG/LITER

Parameter	Result
Lead	.04 U
Selenium	.08 U
Arsenic	.05 U
Barium	.002 U
Cadmium	.002 U
Chromium	.01 U
Silver	.01 U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

RCRA Metals by ICP - Current RCRA Protocol - AP 711

Client Sample ID: 21

Sample Date: N/A
IT Sample ID: MM3325
Prep Date: 03/27/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA10B003271
Concentration Units: MG/LITER

Parameter	Result
Lead	.05
Selenium	2.24
Arsenic	15.8
Barium	.02
Cadmium	.247
Chromium	2.57
Silver	.01 U

Client Sample ID: 22

Sample Date: N/A
IT Sample ID: MM3326
Prep Date: 03/27/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA10B003271
Concentration Units: MG/LITER

Parameter	Result
Lead	.258
Selenium	1.46
Arsenic	41.5
Barium	.045
Cadmium	.679
Chromium	1.79
Silver	.01 U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

RCRA Metals by ICP - Current RCRA Protocol - AP 711

Client Sample ID: 23

Sample Date: N/A
IT Sample ID: MM3327
Prep Date: 03/27/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA10B003271
Concentration Units: MG/LITER

Parameter	Result
Lead	.04 U
Selenium	1.2
Arsenic	.018
Barium	.135
Cadmium	.17
Chromium	8.51
Silver	.01 U

Client Sample ID: 24

Sample Date: N/A
IT Sample ID: MM3328
Prep Date: 03/27/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA10B003271
Concentration Units: MG/LITER

Parameter	Result
Lead	.802
Selenium	1.18
Arsenic	2.3
Barium	.074
Cadmium	6.32
Chromium	.336
Silver	.032

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

RCRA Metals by ICP - Current RCRA Protocol - AP 711

Client Sample ID: 25

Sample Date: N/A
IT Sample ID: MM3329
Prep Date: 03/27/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA10B003271
Concentration Units: MG/LITER

Parameter	Result
Lead	.073
Selenium	1.31
Arsenic	6.65
Barium	.081
Cadmium	.471
Chromium	6.26
Silver	.01 U

Client Sample ID: 26

Sample Date: N/A
IT Sample ID: MM3330
Prep Date: 03/27/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA10B003271
Concentration Units: MG/LITER

Parameter	Result
Lead	1.01
Selenium	11.7
Arsenic	5.35
Barium	.033
Cadmium	.321
Chromium	3.2
Silver	.01 U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

RCRA Metals by ICP - Current RCRA Protocol - AP 711

Client Sample ID: 27

Sample Date: N/A
IT Sample ID: MM3331
Prep Date: 03/27/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA10B003271
Concentration Units: MG/LITER

Parameter	Result	
Lead	.04	U
Selenium	1.31	
Arsenic	2.32	
Barium	.074	
Cadmium	.122	
Chromium	5.56	
Silver	.01	U

Client Sample ID: 28

Sample Date: N/A
IT Sample ID: MM3332
Prep Date: 03/27/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA10B003271
Concentration Units: MG/LITER

Parameter	Result	
Lead	.04	U
Selenium	1.56	
Arsenic	.05	U
Barium	.155	
Cadmium	.116	
Chromium	11.9	
Silver	.01	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

RCRA Metals by ICP - Current RCRA Protocol - AP 711

Client Sample ID: 29

Sample Date: N/A
IT Sample ID: MM3333
Prep Date: 03/27/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA10B003271
Concentration Units: MG/LITER

Parameter	Result	
Lead	.04	U
Selenium	.92	
Arsenic	.05	U
Barium	.156	
Cadmium	.108	
Chromium	7.69	
Silver	.01	U

Client Sample ID: 30

Sample Date: N/A
IT Sample ID: MM3334
Prep Date: 03/27/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA10B003271
Concentration Units: MG/LITER

Parameter	Result	
Lead	.167	
Selenium	4.36	
Arsenic	6.1	
Barium	.048	
Cadmium	.205	
Chromium	4.73	
Silver	.01	U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

RCRA Metals by ICP - Current RCRA Protocol - AP 711

Client Sample ID: 33

Sample Date: N/A
IT Sample ID: MM3335
Prep Date: 03/27/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA10B003271
Concentration Units: MG/LITER

Parameter	Result
Lead	.192
Selenium	1.96
Arsenic	24.2
Barium	.064
Cadmium	.561
Chromium	3
Silver	.01 U

Client Sample ID: S1-NE-1B

Sample Date: N/A
IT Sample ID: MM3336
Prep Date: 03/27/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA10B003271
Concentration Units: MG/LITER

Parameter	Result
Lead	583
Selenium	.399
Arsenic	.276
Barium	4.44
Cadmium	.009
Chromium	.143
Silver	.044

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

RCRA Metals by ICP - Current RCRA Protocol - AP 711

Client Sample ID: S1-NE-1A

Sample Date: N/A
IT Sample ID: MM3337
Prep Date: 03/27/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA10B003271
Concentration Units: MG/LITER

Parameter	Result
Lead	410
Selenium	.362
Arsenic	.231
Barium	.864
Cadmium	.02
Chromium	.309
Silver	.046

Client Sample ID: S1-SE-2

Sample Date: N/A
IT Sample ID: MM3338
Prep Date: 03/27/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA10B003271
Concentration Units: MG/LITER

Parameter	Result
Lead	.159
Selenium	.217
Arsenic	.05 U
Barium	.079
Cadmium	.002 U
Chromium	.02
Silver	.01 U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

RCRA Metals by ICP - Current RCRA Protocol - AP 711

Client Sample ID: S1-NE-1C

Sample Date: N/A
IT Sample ID: MM3339
Prep Date: 03/27/90
Analysis Date: (Completed) 03/28/90
Blank Sample ID: QXA10B003271
Concentration Units: MG/LITER

Parameter	Result
Lead	904
Selenium	.708
Arsenic	.444
Barium	14.5
Cadmium	.021
Chromium	.334
Silver	.118

Client Sample ID: S2-SW-1

Sample Date: N/A
IT Sample ID: MM3340
Prep Date: 03/26/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA10B003261
Concentration Units: MG/LITER

Parameter	Result
Lead	714
Selenium	1.08
Arsenic	.491
Barium	2.62
Cadmium	.151
Chromium	.497
Silver	.099

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

RCRA Metals by ICP - Current RCRA Protocol - AP 711

Client Sample ID: S1-SW-1

Sample Date: N/A
IT Sample ID: MM3341
Prep Date: 03/26/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA10B003261
Concentration Units: MG/LITER

Parameter	Result
Lead	794
Selenium	.577
Arsenic	.4
Barium	3.83
Cadmium	.02
Chromium	.28
Silver	.089

Client Sample ID: S1-SE-1

Sample Date: N/A
IT Sample ID: MM3342
Prep Date: 03/26/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA10B003261
Concentration Units: MG/LITER

Parameter	Result
Lead	730
Selenium	.997
Arsenic	.484
Barium	3.34
Cadmium	.1
Chromium	.964
Silver	.121

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

RCRA Metals by ICP - Current RCRA Protocol - AP 711

Client Sample ID: S1-NW-1

Sample Date: N/A
IT Sample ID: MM3343
Prep Date: 03/26/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA10B003261
Concentration Units: MG/LITER

Parameter	Result
Lead	506
Selenium	.488
Arsenic	.321
Barium	3.48
Cadmium	.019
Chromium	.278
Silver	.092

Client Sample ID: S2-NW-1

Sample Date: N/A
IT Sample ID: MM3344
Prep Date: 03/26/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA10B003261
Concentration Units: MG/LITER

Parameter	Result
Lead	101
Selenium	1.56
Arsenic	.592
Barium	.095
Cadmium	.278
Chromium	1.02
Silver	.213

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

RCRA Metals by ICP - Current RCRA Protocol - AP 711

Client Sample ID: S2-NE-2

Sample Date: N/A
IT Sample ID: MM3345
Prep Date: 03/26/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA10B003261
Concentration Units: MG/LITER

Parameter	Result
Lead	.155
Selenium	.24
Arsenic	.326
Barium	1
Cadmium	.017
Chromium	.01 U
Silver	.01 U

Client Sample ID: S2-SW-2

Sample Date: N/A
IT Sample ID: MM3346
Prep Date: 03/26/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA10B003261
Concentration Units: MG/LITER

Parameter	Result
Lead	610
Selenium	.757
Arsenic	.433
Barium	.936
Cadmium	.097
Chromium	.591
Silver	.146

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

RCRA Metals by ICP - Current RCRA Protocol - AP 711

Client Sample ID: S2-NE-1

Sample Date: N/A
IT Sample ID: MM3347
Prep Date: 03/26/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA10B003261
Concentration Units: MG/LITER

Parameter	Result
Lead	138
Selenium	.345
Arsenic	.326
Barium	1.01
Cadmium	.041
Chromium	.01 U
Silver	.01 U

Client Sample ID: S2-NW-2

Sample Date: N/A
IT Sample ID: MM3348
Prep Date: 03/26/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA10B003261
Concentration Units: MG/LITER

Parameter	Result
Lead	371
Selenium	.247
Arsenic	.163
Barium	.861
Cadmium	.028
Chromium	.159
Silver	.051

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Mercury by Cold Vapor AA - EPA 245.1/SW846 7470 - AV 001

Client Sample ID: QXA16B003291

Sample Date: N/A
IT Sample ID: 16B003291
Prep Date: 03/29/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA16B003291
Concentration Units: MG/LITER

Parameter	Result
Mercury	.0002U

Client Sample ID: 21

Sample Date: N/A
IT Sample ID: MM3325
Prep Date: 03/29/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA16B003291
Concentration Units: MG/LITER

Parameter	Result
Mercury	.0002U

Client Sample ID: 22

Sample Date: N/A
IT Sample ID: MM3326
Prep Date: 03/29/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA16B003291
Concentration Units: MG/LITER

Parameter	Result
Mercury	.0002U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Mercury by Cold Vapor AA - EPA 245.1/SW846 7470 - AV 001

Client Sample ID: 23

Sample Date: N/A
IT Sample ID: MM3327
Prep Date: 03/29/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA16B003291
Concentration Units: MG/LITER

Parameter	Result
Mercury	.0002U

Client Sample ID: 24

Sample Date: N/A
IT Sample ID: MM3328
Prep Date: 03/29/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA16B003291
Concentration Units: MG/LITER

Parameter	Result
Mercury	.0002U

Client Sample ID: 25

Sample Date: N/A
IT Sample ID: MM3329
Prep Date: 03/29/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA16B003291
Concentration Units: MG/LITER

Parameter	Result
Mercury	.0002U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Mercury by Cold Vapor AA - EPA 245.1/SW846 7470 - AV 001

Client Sample ID: 26

Sample Date: N/A
IT Sample ID: MM3330
Prep Date: 03/29/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA16B003291
Concentration Units: MG/LITER

Parameter	Result
Mercury	.002

Client Sample ID: 27

Sample Date: N/A
IT Sample ID: MM3331
Prep Date: 03/29/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA16B003291
Concentration Units: MG/LITER

Parameter	Result
Mercury	.0002U

Client Sample ID: 28

Sample Date: N/A
IT Sample ID: MM3332
Prep Date: 03/29/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA16B003291
Concentration Units: MG/LITER

Parameter	Result
Mercury	.0002U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Mercury by Cold Vapor AA - EPA 245.1/SW846 7470 - AV 001

Client Sample ID: 29

Sample Date: N/A
IT Sample ID: MM3333
Prep Date: 03/29/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA16B003291
Concentration Units: MG/LITER

Parameter	Result
Mercury	.0002U

Client Sample ID: 30

Sample Date: N/A
IT Sample ID: MM3334
Prep Date: 03/29/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA16B003291
Concentration Units: MG/LITER

Parameter	Result
Mercury	.003

Client Sample ID: 33

Sample Date: N/A
IT Sample ID: MM3335
Prep Date: 03/29/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA16B003291
Concentration Units: MG/LITER

Parameter	Result
Mercury	.0002U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Mercury by Cold Vapor AA - EPA 245.1/SW846 7470 - AV 001

Client Sample ID: S1-NE-1B

Sample Date: N/A
IT Sample ID: MM3336
Prep Date: 03/29/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA16B003291
Concentration Units: MG/LITER

Parameter	Result
Mercury	.0002U

Client Sample ID: S1-NE-1A

Sample Date: N/A
IT Sample ID: MM3337
Prep Date: 03/29/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA16B003291
Concentration Units: MG/LITER

Parameter	Result
Mercury	.0002U

Client Sample ID: S1-SE-2

Sample Date: N/A
IT Sample ID: MM3338
Prep Date: 03/29/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA16B003291
Concentration Units: MG/LITER

Parameter	Result
Mercury	.0002U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Mercury by Cold Vapor AA - EPA 245.1/SW846 7470 - AV 001

Client Sample ID: S1-NE-1C

Sample Date: N/A
IT Sample ID: MM3339
Prep Date: 03/29/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA16B003291
Concentration Units: MG/LITER

Parameter	Result
Mercury	.0002U

Client Sample ID: S2-SW-1

Sample Date: N/A
IT Sample ID: MM3340
Prep Date: 03/29/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA16B003291
Concentration Units: MG/LITER

Parameter	Result
Mercury	.0002U

Client Sample ID: S1-SW-1

Sample Date: N/A
IT Sample ID: MM3341
Prep Date: 03/29/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA16B003291
Concentration Units: MG/LITER

Parameter	Result
Mercury	.0002U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Mercury by Cold Vapor AA - EPA 245.1/SW846 7470 - AV 001

Client Sample ID: S1-SE-1

Sample Date: N/A
IT Sample ID: MM3342
Prep Date: 03/29/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA16B003291
Concentration Units: MG/LITER

Parameter	Result
Mercury	.0002U

Client Sample ID: S1-NW-1

Sample Date: N/A
IT Sample ID: MM3343
Prep Date: 03/29/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA16B003291
Concentration Units: MG/LITER

Parameter	Result
Mercury	.0002U

Client Sample ID: S2-NW-1

Sample Date: N/A
IT Sample ID: MM3344
Prep Date: 03/29/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA16B003291
Concentration Units: MG/LITER

Parameter	Result
Mercury	.0002U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Mercury by Cold Vapor AA - EPA 245.1/SW846 7470 - AV 001

Client Sample ID: S2-NE-2

Sample Date: N/A
IT Sample ID: MM3345
Prep Date: 03/29/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA16B003291
Concentration Units: MG/LITER

Parameter	Result
Mercury	.0002U

Client Sample ID: S2-SW-2

Sample Date: N/A
IT Sample ID: MM3346
Prep Date: 03/29/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA16B003291
Concentration Units: MG/LITER

Parameter	Result
Mercury	.0002U

Client Sample ID: S2-NE-1

Sample Date: N/A
IT Sample ID: MM3347
Prep Date: 03/29/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA16B003291
Concentration Units: MG/LITER

Parameter	Result
Mercury	.0002U

Advanced Sciences, Inc.
Date: 25-APR-90

IT CORPORATION
KNOXVILLE, TN

Client Project ID: Fernald RI/FS

Job Number: ADV35845

Mercury by Cold Vapor AA - EPA 245.1/SW846 7470 - AV 001

Client Sample ID: S2-NW-2

Sample Date: N/A
IT Sample ID: MM3348
Prep Date: 03/29/90
Analysis Date: (Completed) 03/29/90
Blank Sample ID: QXA16B003291
Concentration Units: MG/LITER

Parameter	Result
Mercury	.0002U