Final Report
Phase I RCRA Facility Investigation for Appendix I Sites

VOLUME V-B

AOC, Fuel Truck Maintenance Area

Department of the Air Force
Oklahoma City Air Logistics Center
Tinker Air Force Base, Oklahoma

September 1994

INDEX TO VOLUMES
RFI REPORT

Volume I	SWMU-8, Fire Training Area 2
Volume II-A/B	SWMU-14, Sludge Drying Beds
Volume III-A/B/C/D/E/F	SWMU-24/32, Industrial Wastewater Treatment Plant/Sanitary Wastewater Treatment Plant
Volume IV	SWMU-26, Ordnance Disposal Area
	SWMU-40, AFFF Fire Control Pond
Volume V-A/B	AOC, Fuel Truck Maintenance Area
Volume VI	AOC, Spill Pond (Drainage Spillway Behind Building 1030)
	AOC, Old Pesticide Storage Area
Volume VII	SWMU-1, Landfill No. 6
	SWMU-2, Landfill No. 5
	SWMU-3, Landfill No. 1
	SWMU-4, Landfill No. 2
	SWMU-5, Landfill No. 3
	SWMU-6, Landfill No. 4
Volume VIII	SWMU-7, Fire Training Area 1
	SWMU-11, Supernatant Pond
	SWMU-12, Industrial Waste Pit No. 1
	SWMU-13, Industrial Waste Pit No. 2
	SWMU-23, Industrial Waste Treatment Plant, Abandoned Waste Tanks
	SWMU-54, Stained Drainage Ditch and Drums (near Building 17)
Volume IX	SWMU-19, Radioactive Waste Disposal Site 1030W
	SWMU-20, Radioactive Waste Disposal Site 201S
	SWMU-21, Radioactive Waste Disposal Site 62598
	SWMU-22, Radioactive Waste Disposal Site 1022E

Table of Contents

List of Tables iii
List of Figures iv
List of Acronyms v
Executive Summary ES-1
1.0 Introduction 1-1
1.1 Purpose 1-4
1.2 Scope of Investigation 1-4
2.0 Background 2-1
2.1 Tinker AFB Facility Description and History 2-1
2.2 Site Description and History 2-1
2.3 Regulatory History and Status 2-2
2.4 Summary of Previous Investigations 2-4
3.0 Environmental Setting 3-1
3.1 Topography and Drainage 3-1
3.1.1 Topography 3-1
3.1.2 Surface Drainage 3-1
3.2 Geology 3-3
3.2.1 Regional/Tinker AFB Geology 3-3
3.2.2 Site Geology 3-11
3.3 Hydrology 3-12
3.3.1 Regional/Tinker AFB Hydrology 3-12
3.3.2 Site Hydrology 3-20
3.4 Soils 3-20
4.0 Description of Investigative Methods 4-1
4.1 Soil Borings 4-1
4.2 Monitoring Well Installation 4-5
4.3 Surface Completion 4-9
4.4 Well Development 4-9
4.5 Groundwater Sampling 4-9
4.6 Soil Gas Survey 4-10
4.7 Elevation and Location Survey 4-10

Table of Contents *(Continued)*

5.0 Investigation Results 5-1
5.1 Hydrology of the FTMA 5-1
5.2 Data Quality Evaluation 5-5
5.2.1 Field Quality Control 5-5
5.2.2 Laboratory Quality Control 5-7
5.2.3 Evaluation of Precision and Accuracy 5-7
5.2.4 Data Verification 5-8
5.2.5 Data Useability 5-9
5.3 Source Characterization Results 5-9
5.4 Contaminant Characterization Results 5-10
5.4.1 Establishment of Surficial Soil Background Concentrations 5-10
5.4.2 Soil Characterization 5-11
5.4.3 Groundwater Characterization 5-28
6.0 Potential Receptors 6-1
6.1 Human Receptors 6-1
6.2 Ecological Receptors 6-2
7.0 Action Levels 7-1
8.0 Summary and Conclusions 8-1
8.1 Summary 8-1
8.2 Conclusions 8-5
9.0 Recommendations 9-1
10.0 References 10-1
Appendix A - Boring Logs/Well Construction Diagrams
Appendix B - Geophysical Logs
Appendix C - Soil Gas Report
Appendix D - Data Tables, Certificates of Analysis, Chain-of-Custody
Appendix E - Site Survey Report
Appendix F - Geotechnical, Certificates of Analysis, Chain of Custody

List of Tables

Table	Title	Page
3-1	Major Geological Units in the Vicinity of Tinker AFB (Modified from Wood and Burton, 1968)	3-5
3-2	Tinker AFB Soil Associations (Source: USDA, 1969)	3-22
4-1	Summary of RFI Field Activities	4-2
4-2	RFI Soil Borings Summary, AOC, FTMA, Tinker AFB	4-4
4-3	Monitoring Well Construction Details, AOC, FTMA, Tinker AFB	4-6
5-1	Analytical Results for Fuel Truck Maintenance Area for Soil	5-12
5-2	Soil Metals Background Comparison, AOC, FTMA, Tinker AFB	5-27
5-3	Analytical Results for Fuel Truck Maintenance Area for Groundwater	5-29
7-1	Action Levels, AOC, FTMA, Tinker AFB	7-2

List of Figures

Figure	Title	Page
1-1	Tinker Air Force Base Oklahoma State Index Map	1-2
1-2	Fuel Truck Maintenance Area Site Location Map	1-3
3-1	Topographic Map of Fuel Truck Maintenance Area with Locations of Soil Borings, Monitoring Wells, and Soil Vapor Survey Points	3-2
3-2	Tinker AFB Geologic Cross Section Location Map	3-8
3-3	Tinker AFB Geologic Cross Section A-A'	3-9
3-4	Tinker AFB Geologic Cross Section B-B'	3-10
3-5	Conceptual Model Potentiometric Surface of Upper Saturated Zone	3-15
3-6	Conceptual Model Potentiometric Surface of Lower Saturated Zone	3-16
4-1	Fuel Truck Maintenance Area Site Map with Locations of Soil Borings, Monitoring Wells, and Soil Vapor Survey Points	4-3
5-1	Location Map for Cross-Section C-C' for Fuel Truck Maintenance Area with Locations of Soil Borings, Monitoring Wells, and Soil Vapor Survey Points	5-2
5-2	Cross-Section C-C', Fuel Truck Maintenance Area	5-3
5-3	Cross-Section D-D', Fuel Truck Maintenance Area	5-4
5-4	Potentiometric Surface Map of the Upper Saturated Zone in the Vicinity of the Fuel Truck Maintenance Area	5-6
5-5	Isopleth Map of Tetrachloroethene Concentration at the Fuel Truck Maintenance Area	5-32
5-6	Isopleth Map of Trichloroethene Concentration at the Fuel Truck Maintenance Area	5-33

List of Acronyms

AFB	Air Force Base
AOC	areas of concern
°C	degrees centigrade
CAL	Corrective Action Levels
CDM	CDM Federal Programs Corporation
CEC	cation exchange capacity
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
cm/s	centimeters per second
COD	chemical oxygen demand
CMS	Corrective Measures Study
DCQAP	Data Collection Quality Assurance Plan
DERP	Defense Environmental Response Program
DOD	U.S. Department of Defense
DQO	Data Quality Objective
DWS	drinking water standards
EC	electric conductivity
ECD	ethylene chloride
EID	Engineering Installation Division
EPA	U.S. Environmental Protection Agency
ES	Engineering Science
FID	flame ionization detectors
ft/ft	foot per foot
FTMA	Fuel Truck Maintenance Area
GC/MS	gas chromatograph/mass spectrometry
HCl	hydrochloric acid
HRS	Hazardous Ranking System
HSWA	Hazardous and Solid Waste Amendments
I.D.	inside diameter
IRP	Installation Restoration Program
IWP-1	Industrial Waste Pit No. 1
IWTP	industrial wastewater treatment plant
JP-4	jet propulsion fuel grade 4
LSZ	lower saturated zone

µg/kg	micrograms per kilogram
µg/L	micrograms per liter
MCL	maximum contaminant level
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MS	matrix spike
MSD	matrix spike duplicate
msl	mean sea level
NAAQS	National Ambient Air Quality Standards
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPL	National Priorities List
O.D.	outside diameter
PA/SI	preliminary assessment/site investigation
PCE	tetrachloroethene
PID	photoionization detectors
PVC	polyvinyl chloride
QC	quality control
RCRA	Resource Conservation and Recovery Act
RFI	RCRA Facility Investigation
RI/FS	remedial investigation/feasibility study
ROD	Record of Decision
RPD	relative percent difference
SARA	Superfund Amendments and Reauthorization Act
SP	self potential
SVOC	semivolatile organic compound
SWMU	solid waste management unit
TCA	trichloroethane
TCE	trichloroethene
TPH	total petroleum hydrocarbons
TSD	treatment, storage, and disposal (facility)
TOC	total organic carbon
TPH	total petroleum hydrocarbons
USACE	U.S. Army Corps of Engineers
USC	U.S. Code

List of Acronyms *(Continued)*

USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
USZ	upper saturated zone
VOA	volatile organic analysis
VOC	volatile organic compounds
WQS	Water Quality Standards

APPENDIX D
(CONTINUED)
DATA TABLES, CERTIFICATES OF ANALYSIS, CHAIN-OF CUSTODY

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

Routed to CF, TL, KH 12/20/93

CERTIFICATE OF ANALYSIS

IT CORPORATION
1250 CAPITAL OF TX HWY
BLDG. 3, SUITE 200
AUSTIN, TX 78746-6443
TIM JENNINGS

Date: 12/17/93

Work Order: B3-11-190

This is the Certificate of Analysis for the following samples:

Client Work ID: D.O.5001 409832-003-01
Date Received: 11/16/93
Number of Samples: 18
Sample Type: SOIL

I. Introduction

Samples were labeled as follows:

SAMPLE IDENTIFICATION	LABORATORY #
A1102	B3-11-190-01
A1103	B3-11-190-02
A1104	B3-11-190-03
A1105	B3-11-190-04
A1106	B3-11-190-05
A1107	B3-11-190-06
A1108	B3-11-190-07
A1108-MS	B3-11-190-08
A1108-MSD	B3-11-190-09
A1109	B3-11-190-10
A1110	B3-11-190-11
A1111	B3-11-190-12
A1112	B3-11-190-13

Reviewed and Approved:

Jon Bartell
Laboratory Director

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

Samples, continued from above:

SAMPLE IDENTIFICATION	LABORATORY #
LAB BLANK #1	B3-11-190-14
LAB BLANK #2	B3-11-190-15
LAB BLANK #3	B3-11-190-16
LAB BLANK #4	B3-11-190-17
LAB BLANK #1	B3-11-190-18

II. QA/QC

The results presented in this report meet the statement of work requirements in accordance with Quality Control and Quality Assurance protocol except as noted in Section IV or in an optional sample narrative at the end of Section III.

In the presented analytical data, 'ND' or '<' indicates that the compound is not detected at the specified limit.

III. Analytical Data

The following page(s) supply results for requested analyses performed on the samples listed above.

The test results relate to tested items only. ITAS-Austin reserves the right to control report production except in whole.

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1102**
SAMPLE DATE: **10/21/93**
SAMPLE MATRIX: **WATER**
ANALYSIS DATE: 11/22/93
DILUTION FACTOR: 1.0
UNITS: **UG/L**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	2.4	J	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	100	U	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1 1-Dichloroethane	5	U	5	Bromoform	5	U	5
ns-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	96	88 - 110
BROMOFLUOROBENZENE	94	86 - 115
1,2-DICHLOROETHANE-D4	102	76 - 114

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

SAMPLE ID: **A1103**
SAMPLE DATE: **11/15/93 10:05:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		15	10	MG/KG	12/06/93	EPA9071
Chromium VI		0.10U	0.10	MG/KG	11/19/93	EPA7196

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1103**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **11/29/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	1.7	JB	10	1,1,2-Trichloroethane	5	U	5
Acetone	4.4	KB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	3.6	J	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	107	81 - 117
BROMOFLUOROBENZENE	101	74 - 121
1,2-DICHLOROETHANE-D4	108	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-190

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1103**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **11/21/93**
ANALYSIS DATE: **12/04/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
' 's(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
.ethylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1103**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	51	23 - 120
2-Fluorobiphenyl	83	30 - 115
Terphenyl-D14	63	18 - 137
Phenol-D5	57	24 - 113
2-Fluorophenol	47	25 - 121
2,4,6-Tribromophenol	47	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Referenced notes for these results:

Internal standard area low due to matrix interference. Confirmed by reanalysis.

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-190

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1103**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **111.111**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	1.1	U	1.1	7060	12/06/93
Aluminum	8200	N	22	6010	12/05/93
Barium	480	N	22	6010	12/05/93
Beryllium	0.72		0.56	6010	12/05/93
Cadmium	0.55	U	0.55	6010	12/05/93
Chromium	12		1.1	6010	12/05/93
Copper	5.9		2.8	6010	12/05/93
Iron	9100	*N	11	6010	12/05/93
Nickel	9.3	*	4.4	6010	12/05/93
Lead	11	N	1.3	7421	12/06/93
Mercury	0.025	U	0.025	7471	12/03/93
Silver	1.1	U	1.1	6010	12/05/93
Zinc	15	*	2.2	6010	12/05/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

SAMPLE ID: **A1104**
SAMPLE DATE: **11/15/93 10:10:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/06/93	EPA9071
Chromium VI		0.099U	0.099	MG/KG	11/19/93	EPA7196

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1104**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **11/29/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	5.5	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	103	81 - 117
BROMOFLUOROBENZENE	101	74 - 121
1,2-DICHLOROETHANE-D4	111	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1104**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **11/22/93**
ANALYSIS DATE: **12/07/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
[illegible](2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
[illegible]ethylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1104**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	71	23 - 120
2-Fluorobiphenyl	78	30 - 115
Terphenyl-D14	67	18 - 137
Phenol-D5	55	24 - 113
2-Fluorophenol	47	25 - 121
2,4,6-Tribromophenol	60	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1104**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **114.942**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	2.9		1.1	7060	12/06/93
Aluminum	8900	N	23	6010	12/05/93
Barium	34	N	23	6010	12/05/93
Beryllium	1.4		0.57	6010	12/05/93
Cadmium	1.0		0.57	6010	12/05/93
Chromium	18		1.1	6010	12/05/93
Copper	10		2.9	6010	12/05/93
Iron	19000	*N	11	6010	12/05/93
Nickel	22	*	4.6	6010	12/05/93
Lead	6.5	N	0.32	7421	12/06/93
Mercury	0.024	U	0.024	7471	12/03/93
Silver	1.1	U	1.1	6010	12/05/93
Zinc	27	*	2.3	6010	12/05/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

SAMPLE ID: **A1105**
SAMPLE DATE: **11/15/93 10:20:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/06/93	EPA9071
Chromium VI		0.49U	0.49	MG/KG	11/19/93	EPA7196

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1105**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **11/24/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	5.9	JB	10	1,1,2-Trichloroethane	5	U	5
Acetone	9.7	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
' 1-Dichloroethane	5	U	5	Bromoform	5	U	5
ans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	103	81 - 117
BROMOFLUOROBENZENE	99	74 - 121
1,2-DICHLOROETHANE-D4	109	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample
'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1105**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **11/24/93**
ANALYSIS DATE: **12/07/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
ethylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1105**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	60	23 - 120
2-Fluorobiphenyl	73	30 - 115
Terphenyl-D14	53	18 - 137
Phenol-D5	51	24 - 113
2-Fluorophenol	46	25 - 121
2,4,6-Tribromophenol	52	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1105**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **102.040**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	2.2		1.1	7060	12/06/93
Aluminum	11000	N	20	6010	12/05/93
Barium	30	N	20	6010	12/05/93
Beryllium	1.3		0.51	6010	12/05/93
Cadmium	0.57		0.51	6010	12/05/93
Chromium	14		1.0	6010	12/05/93
Copper	12		2.6	6010	12/05/93
Iron	14000	*N	10	6010	12/05/93
Nickel	23	*	4.1	6010	12/05/93
Lead	7.9	N	0.34	7421	12/06/93
Mercury	0.020	U	0.020	7471	12/03/93
Silver	1.0	U	1.0	6010	12/05/93
Zinc	24	*	2.0	6010	12/05/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

SAMPLE ID: **A1106**
SAMPLE DATE: **11/15/93 10:40:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/06/93	EPA9071
Chromium VI		0.098U	0.098	MG/KG	11/19/93	EPA7196

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1106**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **11/24/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	5.5	JB	10	1,1,2-Trichloroethane	5	U	5
Acetone	9.6	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
[illegible]-1-Dichloroethane	5	U	5	Bromoform	5	U	5
[illegible]ns-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	3.4	JB	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	102	81 - 117
BROMOFLUOROBENZENE	97	74 - 121
1,2-DICHLOROETHANE-D4	106	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1106**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **11/24/93**
ANALYSIS DATE: **12/07/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
' 's(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
ſethylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-190

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1106**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	59	23 - 120
2-Fluorobiphenyl	74	30 - 115
Terphenyl-D14	53	18 - 137
Phenol-D5	51	24 - 113
2-Fluorophenol	46	25 - 121
2,4,6-Tribromophenol	50	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-11-190

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1106**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **113.636**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	2.1		1.2	7060	12/06/93
Aluminum	6800	N	23	6010	12/05/93
Barium	340	N	23	6010	12/05/93
Beryllium	0.83		0.57	6010	12/05/93
Cadmium	0.57	U	0.57	6010	12/05/93
Chromium	9.3		1.1	6010	12/05/93
Copper	8.4		2.8	6010	12/05/93
Iron	9000	*N	11	6010	12/05/93
Nickel	16	*	4.5	6010	12/05/93
Lead	5.4	N	0.35	7421	12/06/93
Mercury	0.024	U	0.024	7471	12/03/93
Silver	1.1	U	1.1	6010	12/05/93
Zinc	21	*	2.3	6010	12/05/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

SAMPLE ID: **A1107**
SAMPLE DATE: **11/15/93 10:45:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/06/93	EPA9071
Chromium VI		0.51U	0.51	MG/KG	11/19/93	EPA7196

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-190

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1107**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **11/29/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	1.4	JB	10	1,1,2-Trichloroethane	5	U	5
Acetone	7.8	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
-Dichloroethane	5	U	5	Bromoform	5	U	5
ns-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	2.4	J	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	105	81 - 117
BROMOFLUOROBENZENE	102	74 - 121
1,2-DICHLOROETHANE-D4	108	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-11-190

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1107**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **11/24/93**
ANALYSIS DATE: **12/04/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
·ı(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
ıethylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-11-190

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1107**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	58	23 - 120
2-Fluorobiphenyl	90	30 - 115
Terphenyl-D14	88	18 - 137
Phenol-D5	64	24 - 113
2-Fluorophenol	53	25 - 121
2,4,6-Tribromophenol	55	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Referenced notes for these results:

Internal standard area low due to matrix interference. Confirmed by reanalysis.

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1107**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **862.068**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	10	U	10	7060	12/10/93
Aluminum	8000	N	170	6010	12/05/93
Barium	780	N	170	6010	12/05/93
Beryllium	4.3	U	4.3	6010	12/05/93
Cadmium	4.3	U	4.3	6010	12/05/93
Chromium	11		8.6	6010	12/05/93
Copper	11		22	6010	12/05/93
Iron	9600	*N	86	6010	12/05/93
Nickel	34	U*	34	6010	12/05/93
Lead	1.9	N	0.31	7421	12/06/93
Mercury	0.021	U	0.021	7471	12/03/93
Silver	8.6	U	8.6	6010	12/05/93
Zinc	27	*	17	6010	12/05/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-11-190

SAMPLE ID: **A1108**
SAMPLE DATE: **11/15/93 11:00:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/06/93	EPA9071
Chromium VI		0.097U	0.097	MG/KG	11/19/93	EPA7196

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1108**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **11/29/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	2.1	JB	10	1,1,2-Trichloroethane	5	U	5
Acetone	100	U	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1-Dichloroethane	5	U	5	Bromoform	5	U	5
ns-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	2.7	J	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	103	81 - 117
BROMOFLUOROBENZENE	101	74 - 121
1,2-DICHLOROETHANE-D4	109	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1108**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **11/24/93**
ANALYSIS DATE: **12/04/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit
Phenol	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330
2-Chlorophenol	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330
1,4-Dichlorobenzene	0.330	U	0.330
Benzyl alcohol	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330
' (2-Chloroisopropyl)ether	0.330	U	0.330
ethylphenol	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330
Hexachloroethane	0.330	U	0.330
Nitrobenzene	0.330	U	0.330
Isophorone	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330
Benzoic Acid	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330
Naphthalene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825
2-Chloronaphthalene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825
Dimethylphthalate	0.330	U	0.330
Acenaphthylene	0.330	U	0.330

	Result	Qual	Reporting Limit
2,6-Dinitrotoluene	0.330	U	0.330
3-Nitroaniline	0.825	U	0.825
Acenaphthene	0.330	U	0.330
2,4-Dinitrophenol	0.825	U	0.825
4-Nitrophenol	0.825	U	0.825
Dibenzofuran	0.330	U	0.330
2,4-Dinitrotoluene	0.330	U	0.330
Diethylphthalate	0.330	U	0.330
4-Chlorophenyl-phenylether	0.330	U	0.330
Fluorene	0.330	U	0.330
4-Nitroaniline	0.825	U	0.825
4,6-Dinitro-2-methylphenol	0.825	U	0.825
N-Nitrosodiphenylamine (1)	0.330	U	0.330
4-Bromophenyl-phenylether	0.330	U	0.330
Hexachlorobenzene	0.330	U	0.330
Pentachlorophenol	0.825	U	0.825
Phenanthrene	0.330	U	0.330
Anthracene	0.330	U	0.330
Di-n-butylphthalate	0.330	U	0.330
Fluoranthene	0.330	U	0.330
Pyrene	0.330	U	0.330
Butylbenzylphthalate	0.330	U	0.330
3,3'-Dichlorobenzidine	0.330	U	0.330
Benzo(a)anthracene	0.330	U	0.330
Chrysene	0.330	U	0.330
bis(2-Ethylhexyl)phthalate	0.330	U	0.330
Di-n-octylphthalate	0.330	U	0.330
Benzo(b)fluoranthene	0.330	U	0.330
Benzo(k)fluoranthene	0.330	U	0.330
Benzo(a)pyrene	0.330	U	0.330
Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Dibenzo(a,h)anthracene	0.330	U	0.330
Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1108**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	66	23 - 120
2-Fluorobiphenyl	98	30 - 115
Terphenyl-D14	76	18 - 137
Phenol-D5	67	24 - 113
2-Fluorophenol	57	25 - 121
2,4,6-Tribromophenol	56	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Referenced notes for these results:

Internal standard area low due to matrix interference. Confirmed by reanalysis.

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1108**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **117.647**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	1.1	U	1.1	7060	12/06/93
Aluminum	11000	N	24	6010	12/05/93
Barium	61	N	24	6010	12/05/93
Beryllium	1.2		0.59	6010	12/05/93
Cadmium	0.59	U	0.59	6010	12/05/93
Chromium	17		1.2	6010	12/05/93
Copper	18		2.9	6010	12/05/93
Iron	13000	*N	12	6010	12/05/93
Nickel	23	*	4.7	6010	12/05/93
Lead	3.6	N	0.33	7421	12/06/93
Mercury	0.025	U	0.025	7471	12/03/93
Silver	1.2	U	1.2	6010	12/05/93
Zinc	26	*	2.4	6010	12/05/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Referenced notes for these results:

Duplicate analysis outside control limits due to matrix interference on iron, nickel and zinc analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

SAMPLE ID: **A1108-MS**
SAMPLE DATE: **11/15/93 11:00:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		92		% REC	12/06/93	EPA9071
Chromium VI		107		% REC	11/19/93	EPA7196

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1108-MS**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: 11/25/93
DILUTION FACTOR: 1.0
UNITS: **% REC**

	Result		Result
1,1-Dichloroethene	95	Trichloroethene	98
		Benzene	109
		Toluene	112
		Chlorobenzene	110

Surrogates	% Recovery	Limits
TOLUENE-D8	106	81 - 117
BROMOFLUOROBENZENE	92	74 - 121
1,2-DICHLOROETHANE-D4	108	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-11-190

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1108-MS**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/07/93**
ANALYSIS DATE: **12/10/93**
DILUTION FACTOR: **0.033**
UNITS: **% REC**

	Result		Result
Phenol	56	Acenaphthene	69
2-Chlorophenol	66	4-Nitrophenol	48
1,4-Dichlorobenzene	56	2,4-Dinitrotoluene	58
N-Nitroso-di-n-propylamine	65	Pentachlorophenol	68
1,2,4-Trichlorobenzene	55	Pyrene	76
4-Chloro-3-methylphenol	66		

Surrogates	% Recovery	Limits
Nitrobenzene-D5	62	23 - 120
2-Fluorobiphenyl	62	30 - 115
Terphenyl-D14	80	18 - 137
Phenol-D5	59	24 - 113
2-Fluorophenol	56	25 - 121
2,4,6-Tribromophenol	69	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Referenced notes for these results:

The matrix spike was re-extracted 12/7/93 and reanalyzed 12/10/93 due to low surrogate recoveries in the matrix spike duplicate. The reprep results are reported. The matrix spike was originally extracted 11/24/93 and analyzed 12/4/93.

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-190

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1108-MS**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **113.636**
UNITS: **% REC**

	Result	Method Reference	Analysis Date
Arsenic	118	7060	12/06/93
Aluminum	763	6010	12/05/93
Barium	183	6010	12/05/93
Beryllium	88	6010	12/05/93
Cadmium	82	6010	12/05/93
Chromium	88	6010	12/05/93
Copper	89	6010	12/05/93
Iron	319	6010	12/05/93
Nickel	82	6010	12/05/93
Lead	106	7421	12/06/93
Mercury	120	7471	12/03/93
Silver	82	6010	12/05/93
Zinc	86	6010	12/05/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Referenced notes for these results:

Matrix spike outside control limits due to matrix interference on aluminum, barium and iron analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.

% RPD for matrix spikes outside control limits due to matrix interference on barium and iron analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-190

SAMPLE ID: **A1108-MSD**
SAMPLE DATE: **11/15/93 11:00:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		96		% REC	12/06/93	EPA9071
Chromium VI		98		% REC	11/19/93	EPA7196

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-190

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1108-MSD**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **11/25/93**
DILUTION FACTOR: **1.0**
UNITS: **% REC**

	Result		Result
1,1-Dichloroethene	99	Trichloroethene	99
		Benzene	114
		Toluene	113
		Chlorobenzene	119

Surrogates	% Recovery	Limits
TOLUENE-D8	103	81 - 117
BROMOFLUOROBENZENE	100	74 - 121
1,2-DICHLOROETHANE-D4	106	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample
'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-190

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1108-MSD**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/07/93**
ANALYSIS DATE: **12/10/93**
DILUTION FACTOR: **0.033**
UNITS: **% REC**

	Result		Result
Phenol	50	Acenaphthene	42
2-Chlorophenol	52	4-Nitrophenol	65
1,4-Dichlorobenzene	32	2,4-Dinitrotoluene	49
N-Nitroso-di-n-propylamine	51	Pentachlorophenol	56
1,2,4-Trichlorobenzene	31	Pyrene	65
4-Chloro-3-methylphenol	55		

Surrogates	% Recovery	Limits
Nitrobenzene-D5	43	23 - 120
2-Fluorobiphenyl	36	30 - 115
Terphenyl-D14	66	18 - 137
Phenol-D5	53	24 - 113
2-Fluorophenol	49	25 - 121
2,4,6-Tribromophenol	54	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Referenced notes for these results:

The matrix spike duplicate was re-extracted 12/7/93 and reanalyzed 12/10/93 due to low surrogate recoveries. The reprep results are reported. The matrix spike duplicate was originally extracted 11/24/93 and analyzed 12/4/93.

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-190

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1108-MSD**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **99.0099**
UNITS: **% REC**

	Result	Method Reference	Analysis Date
Arsenic	190	7060	12/06/93
Aluminum	749	6010	12/05/93
Barium	61	6010	12/05/93
Beryllium	89	6010	12/05/93
Cadmium	84	6010	12/05/93
Chromium	86	6010	12/05/93
Copper	89	6010	12/05/93
Iron	113	6010	12/05/93
Nickel	84	6010	12/05/93
Lead	186	7421	12/06/93
Mercury	100	7471	12/03/93
Silver	83	6010	12/05/93
Zinc	87	6010	12/05/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Referenced notes for these results:

Matrix spike duplicate outside control limits due to matrix interference on aluminum, barium and iron analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.

% RPD for matrix spikes outside control limits due to matrix interference on barium and iron analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-190

SAMPLE ID: **A1109**
SAMPLE DATE: **11/15/93 11:30:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/06/93	EPA9071
Chromium VI		0.50U	0.50	MG/KG	11/19/93	EPA7196

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-190

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1109**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **11/29/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	1.2	JB	10	1,1,2-Trichloroethane	5	U	5
Acetone	10	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
[illegible]-Dichloroethane	5	U	5	Bromoform	5	U	5
[illegible]ns-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	103	81 - 117
BROMOFLUOROBENZENE	103	74 - 121
1,2-DICHLOROETHANE-D4	106	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-190

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1109**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **11/24/93**
ANALYSIS DATE: **12/04/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
ethylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-190

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1109**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	57	23 - 120
2-Fluorobiphenyl	73	30 - 115
Terphenyl-D14	77	18 - 137
Phenol-D5	49	24 - 113
2-Fluorophenol	43	25 - 121
2,4,6-Tribromophenol	44	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:
U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Referenced notes for these results:

Internal standard area low due to matrix interference. Confirmed by reanalysis.

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-190

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1109**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **113.636**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	1.5		1.1	7060	12/06/93
Aluminum	5600	N	23	6010	12/05/93
Barium	31	N	23	6010	12/05/93
Beryllium	0.94		0.57	6010	12/05/93
Cadmium	0.57	U	0.57	6010	12/05/93
Chromium	12		1.1	6010	12/05/93
Copper	10		2.8	6010	12/05/93
Iron	10000	*N	11	6010	12/05/93
Nickel	14	*	4.5	6010	12/05/93
Lead	12	N	1.3	7421	12/06/93
Mercury	0.024	U	0.024	7471	12/03/93
Silver	1.1	U	1.1	6010	12/05/93
Zinc	13	*	2.3	6010	12/05/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-11-190

SAMPLE ID: A1110
SAMPLE DATE: 11/15/93 14:45:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/06/93	EPA9071
Chromium VI		0.49U	0.49	MG/KG	11/19/93	EPA7196

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-11-190

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1110**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: 11/25/93
DILUTION FACTOR: 1.0
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	20	B	10	1,1,2-Trichloroethane	5	U	5
Acetone	9.4	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
l-Dichloroethane	5	U	5	Bromoform	5	U	5
ans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	4.3	JB	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	104	81 - 117
BROMOFLUOROBENZENE	100	74 - 121
1,2-DICHLOROETHANE-D4	105	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Referenced notes for these results:

Rerun analysis outside holding time showed no Methylene Chloride.

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1110**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/13/93**
ANALYSIS DATE: **12/14/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
' `(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
ethylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1110**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	42	23 - 120
2-Fluorobiphenyl	45	30 - 115
Terphenyl-D14	102	18 - 137
Phenol-D5	45	24 - 113
2-Fluorophenol	43	25 - 121
2,4,6-Tribromophenol	105	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Referenced notes for these results:

Internal standard area low due to matrix interference. Confirmed by reanalysis.

Sample originally extracted 12/04/93 had trace hits of matrix spike compounds. Sample was re-extracted 12/13/93 and reanalyzed 12/14/93. The results from the re-extraction are reported.

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1110**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **101.010**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	0.98	U	0.98	7060	12/06/93
Aluminum	920	N	20	6010	12/05/93
Barium	20	UN	20	6010	12/05/93
Beryllium	0.51	U	0.51	6010	12/05/93
Cadmium	0.51	U	0.51	6010	12/05/93
Chromium	5.6		1.0	6010	12/05/93
Copper	2.5	U	2.5	6010	12/05/93
Iron	3300	*N	10	6010	12/05/93
Nickel	4.0	U*	4.0	6010	12/05/93
Lead	0.86	N	0.29	7421	12/06/93
Mercury	0.021	U	0.021	7471	12/03/93
Silver	1.0	U	1.0	6010	12/05/93
Zinc	3.6	*	2.0	6010	12/05/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

SAMPLE ID: **A1111**
SAMPLE DATE: **11/15/93 15:45:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/06/93	EPA9071
Chromium VI		0.13	0.099	MG/KG	11/19/93	EPA7196

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1111**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **11/25/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	18	B	10	1,1,2-Trichloroethane	5	U	5
Acetone	18	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1-Dichloroethane	5	U	5	Bromoform	5	U	5
ins-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	8.1	JB	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	103	81 - 117
BROMOFLUOROBENZENE	101	74 - 121
1,2-DICHLOROETHANE-D4	105	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample
'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Referenced notes for these results:

Rerun analysis outside holding time showed no Methylene Chloride.

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1111**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **11/24/93**
ANALYSIS DATE: **12/07/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit
Phenol	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330
2-Chlorophenol	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330
1,4-Dichlorobenzene	0.330	U	0.330
Benzyl alcohol	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330
`(2-Chloroisopropyl)ether	0.330	U	0.330
ethylphenol	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330
Hexachloroethane	0.330	U	0.330
Nitrobenzene	0.330	U	0.330
Isophorone	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330
Benzoic Acid	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330
Naphthalene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825
2-Chloronaphthalene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825
Dimethylphthalate	0.330	U	0.330
Acenaphthylene	0.330	U	0.330

	Result	Qual	Reporting Limit
2,6-Dinitrotoluene	0.330	U	0.330
3-Nitroaniline	0.825	U	0.825
Acenaphthene	0.330	U	0.330
2,4-Dinitrophenol	0.825	U	0.825
4-Nitrophenol	0.825	U	0.825
Dibenzofuran	0.330	U	0.330
2,4-Dinitrotoluene	0.330	U	0.330
Diethylphthalate	0.330	U	0.330
4-Chlorophenyl-phenylether	0.330	U	0.330
Fluorene	0.330	U	0.330
4-Nitroaniline	0.825	U	0.825
4,6-Dinitro-2-methylphenol	0.825	U	0.825
N-Nitrosodiphenylamine (1)	0.330	U	0.330
4-Bromophenyl-phenylether	0.330	U	0.330
Hexachlorobenzene	0.330	U	0.330
Pentachlorophenol	0.825	U	0.825
Phenanthrene	0.330	U	0.330
Anthracene	0.330	U	0.330
Di-n-butylphthalate	0.330	U	0.330
Fluoranthene	0.330	U	0.330
Pyrene	0.330	U	0.330
Butylbenzylphthalate	0.330	U	0.330
3,3'-Dichlorobenzidine	0.330	U	0.330
Benzo(a)anthracene	0.330	U	0.330
Chrysene	0.330	U	0.330
bis(2-Ethylhexyl)phthalate	0.09	U	0.330
Di-n-octylphthalate	0.330	U	0.330
Benzo(b)fluoranthene	0.330	U	0.330
Benzo(k)fluoranthene	0.330	U	0.330
Benzo(a)pyrene	0.330	U	0.330
Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Dibenzo(a,h)anthracene	0.330	U	0.330
Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1111**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	64	23 - 120
2-Fluorobiphenyl	79	30 - 115
Terphenyl-D14	60	18 - 137
Phenol-D5	54	24 - 113
2-Fluorophenol	46	25 - 121
2,4,6-Tribromophenol	49	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1111**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **87.7192**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	10.0		3.6	7060	12/06/93
Aluminum	1700	N	18	6010	12/05/93
Barium	76	N	18	6010	12/05/93
Beryllium	0.72		0.44	6010	12/05/93
Cadmium	0.82		0.44	6010	12/05/93
Chromium	32		0.88	6010	12/05/93
Copper	6.0		2.2	6010	12/05/93
Iron	13000	*N	8.8	6010	12/05/93
Nickel	8.4	*	3.5	6010	12/05/93
Lead	3.8	N	0.27	7421	12/06/93
Mercury	0.024	U	0.024	7471	12/03/93
Silver	0.88	U	0.88	6010	12/05/93
Zinc	7.8	*	1.8	6010	12/05/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

SAMPLE ID: **A1112**
SAMPLE DATE: **11/15/93 16:35:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/06/93	EPA9071
Chromium VI		0.099U	0.099	MG/KG	11/19/93	EPA7196

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1112**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **11/25/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	19	B	10	1,1,2-Trichloroethane	5	U	5
Acetone	14	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
l-Dichloroethane	5	U	5	Bromoform	5	U	5
ıns-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	20	JB	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	103	81 - 117
BROMOFLUOROBENZENE	99	74 - 121
1,2-DICHLOROETHANE-D4	111	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Referenced notes for these results:

Rerun analysis outside holding time showed no Methylene Chloride.

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1112**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **11/24/93**
ANALYSIS DATE: **12/07/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit
Phenol	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330
2-Chlorophenol	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330
1,4-Dichlorobenzene	0.330	U	0.330
Benzyl alcohol	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330
(2-Chloroisopropyl)ether	0.330	U	0.330
ethylphenol	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330
Hexachloroethane	0.330	U	0.330
Nitrobenzene	0.330	U	0.330
Isophorone	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330
Benzoic Acid	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330
Naphthalene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825
2-Chloronaphthalene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825
Dimethylphthalate	0.330	U	0.330
Acenaphthylene	0.330	U	0.330

	Result	Qual	Reportin Limit
2,6-Dinitrotoluene	0.330	U	0.330
3-Nitroaniline	0.825	U	0.825
Acenaphthene	0.330	U	0.330
2,4-Dinitrophenol	0.825	U	0.825
4-Nitrophenol	0.825	U	0.825
Dibenzofuran	0.330	U	0.330
2,4-Dinitrotoluene	0.330	U	0.330
Diethylphthalate	0.330	U	0.330
4-Chlorophenyl-phenylether	0.330	U	0.330
Fluorene	0.330	U	0.330
4-Nitroaniline	0.825	U	0.825
4,6-Dinitro-2-methylphenol	0.825	U	0.825
N-Nitrosodiphenylamine (1)	0.330	U	0.330
4-Bromophenyl-phenylether	0.330	U	0.330
Hexachlorobenzene	0.330	U	0.330
Pentachlorophenol	0.825	U	0.825
Phenanthrene	0.330	U	0.330
Anthracene	0.330	U	0.330
Di-n-butylphthalate	0.330	U	0.330
Fluoranthene	0.330	U	0.330
Pyrene	0.330	U	0.330
Butylbenzylphthalate	0.330	U	0.330
3,3'-Dichlorobenzidine	0.330	U	0.330
Benzo(a)anthracene	0.330	U	0.330
Chrysene	0.330	U	0.330
bis(2-Ethylhexyl)phthalate	0.330	U	0.330
Di-n-octylphthalate	0.330	U	0.330
Benzo(b)fluoranthene	0.330	U	0.330
Benzo(k)fluoranthene	0.330	U	0.330
Benzo(a)pyrene	0.330	U	0.330
Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Dibenzo(a,h)anthracene	0.330	U	0.330
Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-190

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1112**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	62	23 - 120
2-Fluorobiphenyl	78	30 - 115
Terphenyl-D14	60	18 - 137
Phenol-D5	51	24 - 113
2-Fluorophenol	46	25 - 121
2,4,6-Tribromophenol	59	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-11-190

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1112**
SAMPLE DATE: **11/15/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **98.0392**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	10		4.0	7060	12/06/93
Aluminum	5500	N	20	6010	12/05/93
Barium	20	UN	20	6010	12/05/93
Beryllium	1.3		0.49	6010	12/05/93
Cadmium	0.74		0.49	6010	12/05/93
Chromium	32		0.98	6010	12/05/93
Copper	10		2.5	6010	12/05/93
Iron	15000	*N	9.8	6010	12/05/93
Nickel	18	*	3.9	6010	12/05/93
Lead	3.2	N	0.30	7421	12/06/93
Mercury	0.021	U	0.021	7471	12/03/93
Silver	0.98	U	0.98	6010	12/05/93
Zinc	16	*	2.0	6010	12/05/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-190

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE:
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/06/93	EPA9071
Chromium VI		0.010U	0.010	MG/KG	11/19/93	EPA7196

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-190

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: 11/23/93
DILUTION FACTOR: 1.0
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	5.1	J	10	1,1,2-Trichloroethane	5	U	5
Acetone	1.6	J	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
-Dichloroethane	5	U	5	Bromoform	5	U	5
ns-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	3.2	J	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	101	81 - 117
BROMOFLUOROBENZENE	97	74 - 121
1,2-DICHLOROETHANE-D4	102	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-11-190

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **11/25/93**
ANALYSIS DATE: **12/07/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit
Phenol	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330
2-Chlorophenol	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330
1,4-Dichlorobenzene	0.330	U	0.330
Benzyl alcohol	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330
(2-Chloroisopropyl)ether	0.330	U	0.330
Methylphenol	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330
Hexachloroethane	0.330	U	0.330
Nitrobenzene	0.330	U	0.330
Isophorone	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330
Benzoic Acid	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330
Naphthalene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825
2-Chloronaphthalene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825
Dimethylphthalate	0.330	U	0.330
Acenaphthylene	0.330	U	0.330

	Result	Qual	Reporting Limit
2,6-Dinitrotoluene	0.330	U	0.330
3-Nitroaniline	0.825	U	0.825
Acenaphthene	0.330	U	0.330
2,4-Dinitrophenol	0.825	U	0.825
4-Nitrophenol	0.825	U	0.825
Dibenzofuran	0.330	U	0.330
2,4-Dinitrotoluene	0.330	U	0.330
Diethylphthalate	0.330	U	0.330
4-Chlorophenyl-phenylether	0.330	U	0.330
Fluorene	0.330	U	0.330
4-Nitroaniline	0.825	U	0.825
4,6-Dinitro-2-methylphenol	0.825	U	0.825
N-Nitrosodiphenylamine (1)	0.330	U	0.330
4-Bromophenyl-phenylether	0.330	U	0.330
Hexachlorobenzene	0.330	U	0.330
Pentachlorophenol	0.825	U	0.825
Phenanthrene	0.330	U	0.330
Anthracene	0.330	U	0.330
Di-n-butylphthalate	0.330	U	0.330
Fluoranthene	0.330	U	0.330
Pyrene	0.330	U	0.330
Butylbenzylphthalate	0.330	U	0.330
3,3'-Dichlorobenzidine	0.330	U	0.330
Benzo(a)anthracene	0.330	U	0.330
Chrysene	0.330	U	0.330
bis(2-Ethylhexyl)phthalate	0.330	U	0.330
Di-n-octylphthalate	0.330	U	0.330
Benzo(b)fluoranthene	0.330	U	0.330
Benzo(k)fluoranthene	0.330	U	0.330
Benzo(a)pyrene	0.330	U	0.330
Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Dibenzo(a,h)anthracene	0.330	U	0.330
Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-11-190

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	68	23 - 120
2-Fluorobiphenyl	79	30 - 115
Terphenyl-D14	62	18 - 137
Phenol-D5	53	24 - 113
2-Fluorophenol	47	25 - 121
2,4,6-Tribromophenol	51	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-190

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): 1.0
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	0.010	U	0.010	7060	12/06/93
Aluminum	0.20	U	0.20	6010	12/05/93
Barium	0.20	U	0.20	6010	12/05/93
Beryllium	0.0050	U	0.0050	6010	12/05/93
Cadmium	0.0050	U	0.0050	6010	12/05/93
Chromium	0.010	U	0.010	6010	12/05/93
Copper	0.025	U	0.025	6010	12/05/93
Iron	0.10	U	0.10	6010	12/05/93
Nickel	0.040	U	0.040	6010	12/05/93
Lead	0.0030	U	0.0030	7421	12/06/93
Mercury	0.00020	U	0.00020	7471	12/03/93
Silver	0.010	U	0.010	6010	12/05/93
Zinc	0.020	U	0.020	6010	12/05/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-190

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **LAB BLANK #2**
SAMPLE DATE:
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: 11/24/93
DILUTION FACTOR: 1.0
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	8.1	J	10	1,1,2-Trichloroethane	5	U	5
Acetone	4.2	J	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	2.6	J	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	100	81 - 117
BROMOFLUOROBENZENE	101	74 - 121
1,2-DICHLOROETHANE-D4	107	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-190

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **LAB BLANK #3**
SAMPLE DATE:
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: 11/29/93
DILUTION FACTOR: 1.0
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	3.5	J	10	1,1,2-Trichloroethane	5	U	5
Acetone	5.3	J	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
[illegible]-Dichloroethane	5	U	5	Bromoform	5	U	5
[illegible]ns-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	3.0	J	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	102	81 - 117
BROMOFLUOROBENZENE	100	74 - 121
1,2-DICHLOROETHANE-D4	105	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-190

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **LAB BLANK #4**
SAMPLE DATE:
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: 11/30/93
DILUTION FACTOR: 1.0
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	3.2	J	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
[illegible]-Dichloroethane	5	U	5	Bromoform	5	U	5
[illegible]ns-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	101	81 - 117
BROMOFLUOROBENZENE	99	74 - 121
1,2-DICHLOROETHANE-D4	98	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-11-190

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE:
SAMPLE MATRIX: **WATER**
ANALYSIS DATE: 11/22/93
DILUTION FACTOR: 1.0
UNITS: **UG/L**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	100	U	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
[illegible]-1-Dichloroethane	5	U	5	Bromoform	5	U	5
[illegible]ns-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	96	88 - 110
BROMOFLUOROBENZENE	103	86 - 115
1,2-DICHLOROETHANE-D4	100	76 - 114

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample
'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME **ICP Metals** TEST CODE **6010**

Metals by ICP	Inductively coupled emission spectroscopy according to Method 6010, "Test Methods for Evaluating Solid Waste Physical/Chemical Methods", SW-846, Third Edition.

TEST NAME **Hazardous Substance Vols.** TEST CODE **8240TK**

Hazardous Substance List Volatiles	Method 8240, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. GC/MS Purge and Trap analysis.

TEST NAME **ABN HSL GC/MS Extractables** TEST CODE **8270TK**

Hazardous Substance List Extractables	Method 8270, SW-846, Test Methods for Evaluating Solid Waste, Third Edition. Acid/Base-Neutral extraction followed by GC/MS analysis.

TEST NAME **9071/418.1 for TPH** TEST CODE **9071IR**

9071 Prep and IR Analysis	Method 9071, SW846, Test Methods for Evaluating Solid Waste, Third Edition. Soxhlet extraction from Method 9071 using freon and infrared analysis of the extract using Method 418.1.

TEST NAME **Arsenic - Graphite Furnace** TEST CODE **AS_GF**

Arsenic Graphite Furnace	Method 7060, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. EPA 206.2-Technical Additions to Methods for Chemical Analysis of Water and Wastes, EPA-600/4-82-055, December 1982.

TEST NAME **Chromium VI** TEST CODE **CR_VI**

Chromium VI	Method 7196, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Colorimetric analysis. Equivalent to Standard Methods 3500-Cr D.

Company: IT CORPORATION
Date: 12/17/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-190

TEST NAME **Mercury** TEST CODE **HG_AA**

Mercury	Method 7471, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Cold vapor atomic absorption. Method 7470 is used for water. Method 245.5-"Technical Additions to Methods for Chemical Analysis of Water and Wastes," EPA-600/4-82-055, December 1982.

TEST NAME **Metals** TEST CODE **ICPTK2**

Method not available.

TEST NAME **Lead - Graphite Furnace** TEST CODE **PB_GF**

Lead Graphite Furnace	EPA 7421, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. EPA 239.2-Technical Additions to Methods for Chemical Analysis of Water and Wastes," EPA-600/4-82-055, December 1982.

TEST NAME **GFAA Digestion - Soil** TEST CODE **Z3050F**

Soil Digestion	Method 3050, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Acid digestion technique for Graphite Furnace/Flame AA analysis.

TEST NAME **ICPES Digestion - Soil** TEST CODE **Z3050P**

Soil Digestion	Method 3050, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Acid digestion technique for ICPES analysis. Equivalent to Method 3050A, SW-846 Update I, July 1992.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 314077
Page 1 of 2

Project Name/No. [1] 409832.03.01 Tinke AFB
Sample Team Members [2] Kyle Kirschenmann, Andrew Gordon
Profit Center No. [3] 3527
Project Manager [4] Jimmy Taylor
Purchase Order No. [6] 409832.03 - 5001
Required Report Date [11] 15 days

Samples Shipment Date [7] 11-15-93
Lab Destination [8] ITAS-Austin
Lab Contact [9] Karmen Deane
Project Contact/Phone [12] Dan McGregor 405-736-2260
Carrier/Waybill No. [13] F.E. 8460755531

Bill to: [5] 409832.03.01 D.O. 5001
Report to: [10] Tim Jennings IT-Austin-ES

ONE CONTAINER PER LINE

Sample Number [14]	Sample Description/Type [15]	Date/Time Collected [16]	Container Type [17]	Sample Volume [18]	Pre-servative [19]	Requested Testing Program [20]	Condition on Receipt [21]	Disposal Record No. [22]
A1102	Trip Blank	10-21-93 1700	clear glass	40ml	HCl Cool	8240	Good 1°C X&C 11-16-93	B3244100A X&C
A1103	Soil	11-15-93 1005		125ml	COOL	8240		
A1103		↓		500ml		8270, 418.1, 6010		
A1104		11-15-93 1010		125ml		8240		
A1104		↓		500ml		8270, 418.1, 6010		
A1105		11-15-93 1020		125ml		8240		
A1105		↓		500ml	↓	8270, 418.1, 6010	↓	

Special Instructions: [23]

Possible Hazard Identification: [24]
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☒

Sample Disposal: [25]
Return to Client ☐ Disposal by Lab ☒ Archive (mos.)

Turnaround Time Required: [26]
Normal ☒ Rush ☐

QC Level: [27]
I. ☒ II. ☐ III. ☐ Project Specific (specify):

1. Relinquished by [28] (Signature/Affiliation) [signature] IT	Date: 11-15-93 Time: 1900	1. Received by [28] (Signature/Affiliation) Lori Church FT	Date: 11-16-93 Time: 0923
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: [29]

White: To accompany samples
Yellow: Field copy
*See back of form for special instructions.

MCA 3/15/91

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] 314079

Page 2 of 2

Project Name Tinker AFB-5001

Project No. 409832.03.01

Samples Shipment Date 11-15-93

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	Condition on[21] Receipt	Disposal[22] Record No.
A1106	Soil	11-15-93 1040	Clear glass	125 ml	COOL	8240	Good 1°C [illegible] 11-16-93	
A1106		↓		500 ml		8270, 418.1, 6010		
A1107		11-15-93 1045		125 ml		8240		
A1107		↓		500 ml		8270, 418.1, 6010		
A1108		11-15-93 1100		125 ml		8240		
A1108		↓		500 ml		8270, 418.1, 6010	[illegible] 2x500	
A1109		11-15-93 1130		125 ml		8240		
A1109		↓		500 ml		8270, 418.1, 6010		
A1110		11-15-93 1445		125 ml		8240		
A1110		↓		500 ml		8270, 418.1, 6010		
A1111		11-15-93 1545		125 ml		8240		
A1111		↓		500 ml		8270, 418.1, 6010		
A1112		11-15-93 1635		125 ml		8240		
A1112		↓		500 ml		8270, 418.1, 6010		

White: To accompany samples

Yellow: Field copy

*See back of form for special instructions.

MCA 3 15 91

Auxiliary Data Summary 12/16/93

Work order : B311190 Sample ID : A1103

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
02B						
	9071IR	B311190-14B	1204TPHIR1	12/04/93	12/06/93	1.0
	Arsenic	B311190-14B	12023050F1	12/02/93	12/06/93	105
	Chromium VI	B311190-14B	1119CR_VI2	11/19/93	11/19/93	10.2
	Mercury	B311190-14B	1203HGAA4	12/03/93	12/03/93	123
	Lead	B311190-14B	12023050F1	12/02/93	12/06/93	421

Auxiliary Data Summary 12/16/93

Work order : B311190 Sample ID : A1104

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
03B						
	9071IR	B311190-14B	1204TPHIR1	12/04/93	12/06/93	1.0
	Arsenic	B311190-14B	12023050F1	12/02/93	12/06/93	106
	Chromium VI	B311190-14B	1119CR_VI2	11/19/93	11/19/93	9.9
	Mercury	B311190-14B	1203HGAA4	12/03/93	12/03/93	120
	Lead	B311190-14B	12023050F1	12/02/93	12/06/93	106

Auxiliary Data Summary 12/16/93

Work order : B311190 Sample ID : A1105

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
04B						
	9071IR	B311190-14B	1204TPHIR1	12/04/93	12/06/93	1.0
	Arsenic	B311190-14B	12023050F1	12/02/93	12/06/93	114
	Chromium VI	B311190-14B	1119CR_VI2	11/19/93	11/19/93	48.5
	Mercury	B311190-14B	1203HGAA4	12/03/93	12/03/93	101
	Lead	B311190-14B	12023050F1	12/02/93	12/06/93	114

Auxiliary Data Summary 12/16/93

Work order : B311190 Sample ID : A1106

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
05B						
	9071IR	B311190-14B	1204TPHIR1	12/04/93	12/06/93	1.0
	Arsenic	B311190-14B	12023050F1	12/02/93	12/06/93	116
	Chromium VI	B311190-14B	1119CR_VI2	11/19/93	11/19/93	9.8
	Mercury	B311190-14B	1203HGAA4	12/03/93	12/03/93	120
	Lead	B311190-14B	12023050F1	12/02/93	12/06/93	116

Auxiliary Data Summary 12/16/93

Work order : B311190 Sample ID : A1107

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
06B						
	9071IR	B311190-14B	1204TPHIR1	12/04/93	12/06/93	1.0
	Arsenic	B311190-14B	12023050F1	12/02/93	12/06/93	1042
	Chromium VI	B311190-14B	1119CR_VI2	11/19/93	11/19/93	50.5
	Mercury	B311190-14B	1203HGAA4	12/03/93	12/03/93	106
	Lead	B311190-14B	12023050F1	12/02/93	12/06/93	104

Auxiliary Data Summary 12/16/93

Work order : B311190 Sample ID : A1108

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
07B						
	9071IR	B311190-14B	1204TPHIR1	12/04/93	12/06/93	1.0
	Arsenic	B311190-14B	12023050F1	12/02/93	12/06/93	111
	Chromium VI	B311190-14B	1119CR_VI2	11/19/93	11/19/93	9.7
	Mercury	B311190-14B	1203HGAA4	12/03/93	12/03/93	125
	Lead	B311190-14B	12023050F1	12/02/93	12/06/93	111

Auxiliary Data Summary 12/16/93

Work order : B311190 Sample ID : A1108-MS

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
08B						
	9071IR	B311190-14B	1204TPHIR1	12/04/93	12/06/93	1.0
	Arsenic	B311190-14B	12023050F1	12/02/93	12/06/93	118
	Chromium VI	B311190-14B	1119CR_VI2	11/19/93	11/19/93	51.0
	Mercury	B311190-14B	1203HGAA4	12/03/93	12/03/93	115
	Lead	B311190-14B	12023050F1	12/02/93	12/06/93	118

Auxiliary Data Summary 12/16/93

Work order : B311190 Sample ID : A1108-MSD

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
09B						
	9071IR	B311190-14B	1204TPHIR1	12/04/93	12/06/93	1.0
	Arsenic	B311190-14B	12023050F1	12/02/93	12/06/93	101
	Chromium VI	B311190-14B	1119CR_VI2	11/19/93	11/19/93	49.5
	Mercury	B311190-14B	1203HGAA4	12/03/93	12/03/93	116
	Lead	B311190-14B	12023050F1	12/02/93	12/06/93	101

Auxiliary Data Summary 12/16/93

Work order : B311190 Sample ID : A1109

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
10B						
	9071IR	B311190-14B	1204TPHIR1	12/04/93	12/06/93	1.0
	Arsenic	B311190-14B	12023050F1		12/06/93	109
	Chromium VI	B311190-14B	1119CR_VI2	11/19/93	11/19/93	49.5
	Mercury	B311190-14B	1203HGAA4		12/03/93	120
	Lead	B311190-14B	12023050F1		12/06/93	435

Auxiliary Data Summary 12/16/93

Work order : B311190 Sample ID : A1110

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
11B						
	9071IR	B311190-14B	1204TPHIR1	12/04/93	12/06/93	1.0
	Arsenic	B311190-14B	12023050F1	12/02/93	12/06/93	98
	Chromium VI	B311190-14B	1119CR_VI2	11/19/93	11/19/93	49.0
	Mercury	B311190-14B	1203HGAA4	12/03/93	12/03/93	103
	Lead	B311190-14B	12023050F1	12/02/93	12/06/93	98

Auxiliary Data Summary 12/16/93

Work order : B311190 Sample ID : A1111

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
12B						
	9071IR	B311190-14B	1204TPHIR1	12/04/93	12/06/93	1.0
	Arsenic	B311190-14B	12023050F2	12/02/93	12/06/93	357
	Chromium VI	B311190-14B	1119CR_VI2	11/19/93	11/19/93	9.9
	Mercury	B311190-14B	1203HGAA4	12/03/93	12/03/93	122
	Lead	B311190-14B	12023050F1	12/02/93	12/06/93	89.3

Auxiliary Data Summary 12/16/93

Work order : B311190 Sample ID : A1112

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
13B						
	9071IR	B311190-14B	1204TPHIR1	12/04/93	12/06/93	1.0
	Arsenic	B311190-14B	12023050F1	12/02/93	12/06/93	400
	Chromium VI	B311190-14B	1119CR_VI2	11/19/93	11/19/93	9.9
	Mercury	B311190-14B	1203HGAA4	12/03/93	12/03/93	105
	Lead	B311190-14B	12023050F1	12/02/93	12/06/93	100

Auxiliary Data Summary 12/16/93

Work order : B311190 Sample ID : LAB BLANK #1

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
14B						
	9071IR	B311190-14B	1204TPHIR1	12/04/93	12/06/93	1.0
	Arsenic	B311190-14B	12023050F1	12/02/93	12/06/93	1.0
	Chromium VI	B311190-14B	1119CR_VI2	11/19/93	11/19/93	1.0
	Mercury	B311190-14B	1203HGAA4	12/03/93	12/03/93	1.0
	Lead	B311190-14B	12023050F1	12/02/93	12/06/93	1.0

TPJ

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

RECEIVED DEC 10 1992

Routed to KH, CF, TL 12/10/93

CERTIFICATE OF ANALYSIS

IT CORPORATION
1250 CAPITAL OF TX HWY
BLDG. 3, SUITE 200
AUSTIN, TX 78746-6443
TIM JENNINGS

Date: 12/08/93

Work Order: B3-11-236

This is the Certificate of Analysis for the following samples:

Client Work ID: D.O.5001 409832-003-01
Date Received: 11/19/93
Number of Samples: 3
Sample Type: SOIL

I. Introduction

Samples were labeled as follows:

SAMPLE IDENTIFICATION	LABORATORY #
A1096	B3-11-236-01
A1101	B3-11-236-02
LAB BLANK	B3-11-236-03

Reviewed and Approved:

Jon Bartell
Laboratory Director

Company: IT CORPORATION
Date: 12/08/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-236

II. QA/QC

The results presented in this report meet the statement of work requirements in accordance with Quality Control and Quality Assurance protocol except as noted in Section IV or in an optional sample narrative at the end of Section III.

In the presented analytical data, 'ND' or '<' indicates that the compound is not detected at the specified limit.

III. Analytical Data

The following page(s) supply results for requested analyses performed on the samples listed above.

The test results relate to tested items only. ITAS-Austin reserves the right to control report production except in whole.

Company: IT CORPORATION
Date: 12/08/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-236

SAMPLE ID: A1096
SAMPLE DATE: 11/12/93 10:00:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	11/22/93	EPA9071

Company: IT CORPORATION
Date: 12/08/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-236

SAMPLE ID: A1101
SAMPLE DATE: 11/12/93 14:05:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	11/22/93	EPA9071

Company: IT CORPORATION
Date: 12/08/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-236

SAMPLE ID: LAB BLANK
SAMPLE DATE:
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	11/22/93	EPA9071

Company: IT CORPORATION
Date: 12/08/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-236

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME **9071/418.1 for TPH** TEST CODE **9071IR**

9071 Prep and IR Analysis	Method 9071, SW846, Test Methods for Evaluating Solid Waste, Third Edition. Soxhlet extraction from Method 9071 using freon and infrared analysis of the extract using Method 418.1.

B311236

ERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS RE JEST AND CHAIN OF CUSTODY RECORD*

Reference Document I
Page 1 of 2

416564

Project Name/No. 1 TAFB 5001/409832.03.01
Sample Team Members 2 Andrew Gordon
Profit Center No. 3 3527
Project Manager 4 Jimmy Taylor
Purchase Order No. 6 409832.03
Required Report Date 11 Normal TAT

Samples Shipment Date 7 11/12/93
Lab Destination 8 ITAS - Austin
Lab Contact 9 Karmen Deare
Project Contact/Phone 12 Dan McGregor/(405)736-2260
Carrier/Waybill No. 13 Fed Ex. 8460756161

Bill to: 5 409832.03.01
D.O. 5001
Report to: 10 Tim Jennings
I.T. Austin

ONE CONTAINER PER LINE

Sample Number 14	Sample Description/Type 15	Date/Time Collected 16	Container Type 17	Sample Volume 18	Pre-servative 19	Requested Testing Program 20	Condition on Receipt 21	Disposal Record No. 22
A1091	Trip Blank / Water	10/21/93 1700	VOA vial ~~40ml~~	~~Cool~~ 40ml ~~Hcl~~	COOL + HCL	8240	Good 11°C see RURS XXC 11-15-93	B 3244100A XXC
A1092	SB-Ø25 / Soil	11/12/93 0825	Clear glass jar	125ml.	Cool	8240		
A1092		0825		500ml.		8270, 6010/7000, 418.1		
A1093		0840		125ml.		8240		
↓		↓		500ml.		8270, 6010/7000, 418.1		
A1094		0900		125ml.		8240		
↓		↓		500ml.		8270, 6010/7000, 418.1		
A1095		0930		125ml.		8240		

Special Instructions: 23

Possible Hazard Identification: 24
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☑

Sample Disposal: 25
Return to Client ☐ Disposal by Lab ☑ Archive (mos.)

Turnaround Time Required: 26
Normal ☑ Rush ☐

QC Level: 27
I. ☑ II. ☐ III. ☐ Project Specific (specify):

1. Relinquished by 28 (Signature/Affiliation) [signature]	Date: 11/12/93 Time: 1900	1. Received by 28 (Signature/Affiliation) Lori Clund IT	Date: 11-15-93 Time: 0908
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: 29

White: To accompany samples
Yellow: Field copy
*See back of form for special instructions.

B311236

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No. 416564

Page 2 of 2

Project Name Tinker 5001

Project No. 409832.03.01

Samples Shipment Date 11/12/93

ONE CONTAINER PER LINE

Sample 14 Number	Sample 15 Description/Type	Date/Time 16 Collected	Container 17 Type	Sample 18 Volume	Pre-19 servative	Requested Testing 20 Program	Condition on 21 Receipt	Disposal 22 Record No.
A1095	SB-Ø25/ Soil	11/12/93 0930	clear glass jar	~~125~~ 500ml	Cool	8270, 6010/7000, 418.1	Good 11°C see RVKS & C 11.15.93	
A1096	↓	11/12/93 1000	↓	125ml.	↓	8240	↓	
A1096	↓	↓	↓	500ml.	↓	8270, 6010/7000, 418.1	↓	
A1097	SB-Ø24/	1255	↓	125ml.	↓	8240	↓	
↓	↓	↓	↓	500ml.	↓	8270, 6010/7000, 418.1	↓	
A1098	↓	1305	↓	125ml.	↓	8240, ~~6010/7000, 418.1~~	↓	
↓	↓	↓	↓	500ml.	↓	8270, 6010/7000, 418.1	↓	
A1099	↓	1320	↓	125ml.	↓	8240, ~~6010/7000, 418.1~~	↓	
↓	↓	↓	↓	500ml.	↓	8270, 6010/7000, 418.1	↓	
A1100	↓	1340	↓	125ml	↓	8240, ~~6010/7000, 418.1~~	↓	
↓	↓	↓	↓	500ml	↓	8270, 6010/7000, 418.1	↓	
A1101	↓	1405	↓	125ml.	↓	8240, ~~6010/7000, 418.1~~	↓	
↓	↓	↓	↓	500ml.	↓	8270, 6010/7000, 418.1	↓	

White: To accompany samples
Yellow: Field copy
*See back of form for special instructions

Auxiliary Data Summary 12/09/93

Work order : B311236 Sample ID : A1096

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
01A	9071IR	B311236-03A	1122TPHIR1	11/22/93	11/22/93	1.0

Auxiliary Data Summary 12/09/93

Work order : B311236 Sample ID : A1101

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
02A	9071IR	B311236-03A	1122TPHIR1	11/22/93	11/22/93	1.0

Auxiliary Data Summary 12/09/93

Work order : B311236 Sample ID : LAB BLANK

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
03A	9071IR	B311236-03A	1122TPHIR1	11/22/93	11/22/93	1.0

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

Routed to KK, TL, CF 12/28/93

CERTIFICATE OF ANALYSIS

IT CORPORATION
1250 CAPITAL OF TX HWY
BLDG. 3, SUITE 200
AUSTIN, TX 78746-6443
TIM JENNINGS

Date: 12/23/93

Work Order: B3-11-282

This is the Certificate of Analysis for the following samples:

Client Work ID: D.O.5001 409832-003
Date Received: 11/23/93
Number of Samples: 19
Sample Type: SOIL

I. Introduction

Samples were labeled as follows:

SAMPLE IDENTIFICATION	LABORATORY #
A1561	B3-11-282-01
A1561-MS	B3-11-282-02
A1561-MSD	B3-11-282-03
A1562	B3-11-282-04
J5432	B3-11-282-05
A1563	B3-11-282-06
A1564	B3-11-282-07
A1565	B3-11-282-08
A1566	B3-11-282-09
A1567	B3-11-282-10
A1568	B3-11-282-11
A1569	B3-11-282-12
A1570	B3-11-282-13

Reviewed and Approved:

Karmen Diane for
Jon Bartell
Laboratory Director

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

409832-003

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-11-282

Samples, continued from above:

SAMPLE IDENTIFICATION	LABORATORY #
A1571	B3-11-282-14
A1572	B3-11-282-15
A1573	B3-11-282-16
LAB BLANK #1	B3-11-282-17
LAB BLANK #1	B3-11-282-18
LAB BLANK #2	B3-11-282-19

II. QA/QC

The results presented in this report meet the statement of work requirements in accordance with Quality Control and Quality Assurance protocol except as noted in Section IV or in an optional sample narrative at the end of Section III.

In the presented analytical data, 'ND' or '<' indicates that the compound is not detected at the specified limit.

III. Analytical Data

The following page(s) supply results for requested analyses performed on the samples listed above.

The test results relate to tested items only. ITAS-Austin reserves the right to control report production except in whole.

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

409832-003

IT ANALYTICAL SERVICES
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Work Order: B3-11-282

SAMPLE ID: **A1561**
SAMPLE DATE: **11/22/93 07:55:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Chromium VI		0.50U	0.50	MG/KG	12/03/93	EPA7196

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003

Work Order: B3-11-282

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1561**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/02/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	2.9	J	10	1,1,2-Trichloroethane	5	U	5
Acetone	100	U	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	3.1	J	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	101	81 - 117
BROMOFLUOROBENZENE	100	74 - 121
1,2-DICHLOROETHANE-D4	97	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003

Work Order: B3-11-282

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1561**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **11/30/93**
ANALYSIS DATE: **12/09/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

409832-003

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-11-282

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1561**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	63	23 - 120
2-Fluorobiphenyl	65	30 - 115
Terphenyl-D14	76	18 - 137
Phenol-D5	63	24 - 113
2-Fluorophenol	52	25 - 121
2,4,6-Tribromophenol	60	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003

Work Order: B3-11-282

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1561**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **105.263**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	1.0		0.86	7060	12/10/93
Aluminum	11000	*N	21	6010	12/15/93
Barium	630	*N	21	6010	12/15/93
Beryllium	0.94		0.53	6010	12/15/93
Cadmium	0.69		0.53	6010	12/15/93
Chromium	13	*	1.1	6010	12/15/93
Copper	9.8	*	2.6	6010	12/15/93
Iron	11000	*N	11	6010	12/15/93
Nickel	17	*	4.2	6010	12/15/93
Lead	5.0	N	0.26	7421	12/10/93
Mercury	0.025	U	0.025	7471	12/08/93
Silver	0.41		1.1	6010	12/15/93
Zinc	22	*	2.1	6010	12/15/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Referenced notes for these results:

Duplicate analysis outside control limits due to matrix interference on aluminum, barium, chromium, copper, iron, nickel and zinc analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

409832-003

IT ANALYTICAL SERVICES
AUSTIN, TX
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Work Order: B3-11-282

SAMPLE ID: **A1561-MS**
SAMPLE DATE: **11/22/93 07:55:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Chromium VI		116		% REC	12/03/93	EPA7196

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

409832-003

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-11-282

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1561-MS**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: 12/02/93
DILUTION FACTOR: 1.0
UNITS: **% REC**

	Result		Result
1,1-Dichloroethene	101	Trichloroethene	79
		Benzene	93
		Toluene	94
		Chlorobenzene	94

Surrogates	% Recovery	Limits
TOLUENE-D8	102	81 - 117
BROMOFLUOROBENZENE	97	74 - 121
1,2-DICHLOROETHANE-D4	99	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

409832-003

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-11-282

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1561-MS**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **11/30/93**
ANALYSIS DATE: **12/11/93**
DILUTION FACTOR: **0.033**
UNITS: **% REC**

	Result		Result
Phenol	63	Acenaphthene	63
2-Chlorophenol	68	4-Nitrophenol	57
1,4-Dichlorobenzene	47	2,4-Dinitrotoluene	62
N-Nitroso-di-n-propylamine	61	Pentachlorophenol	34
1,2,4-Trichlorobenzene	52	Pyrene	86
4-Chloro-3-methylphenol	64		

Surrogates	% Recovery	Limits
Nitrobenzene-D5	51	23 - 120
2-Fluorobiphenyl	61	30 - 115
Terphenyl-D14	67	18 - 137
Phenol-D5	64	24 - 113
2-Fluorophenol	54	25 - 121
2,4,6-Tribromophenol	58	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

409832-003

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-11-282

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1561-MS**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **83.3333**
UNITS: **% REC**

	Result	Method Reference	Analysis Date
Arsenic	100	7060	12/10/93
Aluminum	475	6010	12/15/93
Barium	0	6010	12/15/93
Beryllium	89	6010	12/15/93
Cadmium	85	6010	12/15/93
Chromium	89	6010	12/15/93
Copper	88	6010	12/15/93
Iron	0	6010	12/15/93
Nickel	82	6010	12/15/93
Lead	210	7421	12/10/93
Mercury	115	7471	12/08/93
Silver	85	6010	12/15/93
Zinc	82	6010	12/15/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Referenced notes for these results:

Matrix spike outside control limits due to matrix interference on aluminum, barium and iron analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.

% RPD for matrix spikes outside control limits due to matrix interference on barium and iron analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

409832-003

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-11-282

SAMPLE ID: **A1561-MSD**
SAMPLE DATE: **11/22/93 07:55:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Chromium VI		101		% REC	12/03/93	EPA7196

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

409832-003

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-11-282

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1561-MSD**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/02/93**
DILUTION FACTOR: **1.0**
UNITS: **% REC**

	Result		Result
1,1-Dichloroethene	101	Trichloroethene	79
		Benzene	92
		Toluene	94
		Chlorobenzene	93

Surrogates	% Recovery	Limits
TOLUENE-D8	101	81 - 117
BROMOFLUOROBENZENE	97	74 - 121
1,2-DICHLOROETHANE-D4	101	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003

Work Order: B3-11-282

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1561-MSD**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **11/30/93**
ANALYSIS DATE: **12/11/93**
DILUTION FACTOR: **0.033**
UNITS: **% REC**

	Result		Result
Phenol	63	Acenaphthene	69
2-Chlorophenol	68	4-Nitrophenol	49
1,4-Dichlorobenzene	68	2,4-Dinitrotoluene	52
N-Nitroso-di-n-propylamine	60	Pentachlorophenol	34
1,2,4-Trichlorobenzene	68	Pyrene	67
4-Chloro-3-methylphenol	57		

Surrogates	% Recovery	Limits
Nitrobenzene-D5	59	23 - 120
2-Fluorobiphenyl	71	30 - 115
Terphenyl-D14	60	18 - 137
Phenol-D5	61	24 - 113
2-Fluorophenol	57	25 - 121
2,4,6-Tribromophenol	47	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003

Work Order: B3-11-282

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1561-MSD**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **106.382**
UNITS: **% REC**

	Result	Method Reference	Analysis Date
Arsenic	110	7060	12/10/93
Aluminum	472	6010	12/15/93
Barium	0	6010	12/15/93
Beryllium	88	6010	12/15/93
Cadmium	85	6010	12/15/93
Chromium	90	6010	12/15/93
Copper	88	6010	12/15/93
Iron	154	6010	12/15/93
Nickel	84	6010	12/15/93
Lead	130	7421	12/10/93
Mercury	115	7471	12/08/93
Silver	84	6010	12/15/93
Zinc	83	6010	12/15/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Referenced notes for these results:

Matrix spike duplicate outside control limits due to matrix interference on aluminum, barium and iron analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.

% RPD for matrix spikes outside control limits due to matrix interference on barium and iron analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

409832-003

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-11-282

SAMPLE ID: **A1562**
SAMPLE DATE: **11/22/93 08:04:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Chromium VI		0.50U	0.50	MG/KG	12/03/93	EPA7196

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

409832-003

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-11-282

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1562**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/02/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	1.9	J	10	1,1,2-Trichloroethane	5	U	5
Acetone	6.8	J	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	6.7		5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	100	81 - 117
BROMOFLUOROBENZENE	98	74 - 121
1,2-DICHLOROETHANE-D4	100	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003

Work Order: B3-11-282

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1562**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **11/30/93**
ANALYSIS DATE: **12/09/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

409832-003

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-11-282

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1562**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	58	23 - 120
2-Fluorobiphenyl	67	30 - 115
Terphenyl-D14	76	18 - 137
Phenol-D5	57	24 - 113
2-Fluorophenol	49	25 - 121
2,4,6-Tribromophenol	56	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003

Work Order: B3-11-282

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1562**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **95.2380**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	3.4		0.95	7060	12/10/93
Aluminum	15000	*N	19	6010	12/15/93
Barium	32	*N	19	6010	12/15/93
Beryllium	1.3		0.48	6010	12/15/93
Cadmium	0.48	U	0.48	6010	12/15/93
Chromium	14	*	0.95	6010	12/15/93
Copper	22	*	2.4	6010	12/15/93
Iron	11000	*N	9.5	6010	12/15/93
Nickel	25	*	3.8	6010	12/15/93
Lead	5.0	N	0.29	7421	12/10/93
Mercury	0.022	U	0.022	7471	12/08/93
Silver	0.95	U	0.95	6010	12/15/93
Zinc	29	*	1.9	6010	12/15/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

409832-003

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-11-282

SAMPLE ID: **A1563**
SAMPLE DATE: **11/22/93 08:25:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Chromium VI		0.50U	0.50	MG/KG	12/03/93	EPA7196

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003

Work Order: B3-11-282

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1563**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/02/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	2.1	J	10	1,1,2-Trichloroethane	5	U	5
Acetone	100	U	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5.6		5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	101	81 - 117
BROMOFLUOROBENZENE	99	74 - 121
1,2-DICHLOROETHANE-D4	97	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003

Work Order: B3-11-282

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1563**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **11/30/93**
ANALYSIS DATE: **12/09/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

409832-003

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-11-282

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1563**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	72	23 - 120
2-Fluorobiphenyl	77	30 - 115
Terphenyl-D14	79	18 - 137
Phenol-D5	66	24 - 113
2-Fluorophenol	54	25 - 121
2,4,6-Tribromophenol	61	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003

Work Order: B3-11-282

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1563**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **109.890**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	5.4		1.1	7060	12/10/93
Aluminum	10000	*N	22	6010	12/15/93
Barium	22	U*N	22	6010	12/15/93
Beryllium	1.2		0.55	6010	12/15/93
Cadmium	0.55	U	0.55	6010	12/15/93
Chromium	14	*	1.1	6010	12/15/93
Copper	21	*	2.7	6010	12/15/93
Iron	14000	*N	11	6010	12/15/93
Nickel	21	*	4.4	6010	12/15/93
Lead	7.1	N	0.32	7421	12/10/93
Mercury	0.024	U	0.024	7471	12/08/93
Silver	1.1	U	1.1	6010	12/15/93
Zinc	22	*	2.2	6010	12/15/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

409832-003

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-11-282

SAMPLE ID: **A1564**
SAMPLE DATE: **11/22/93 08:38:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Chromium VI		0.50U	0.50	MG/KG	12/03/93	EPA7196

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003 Work Order: B3-11-282

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1564**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/02/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	2.0	J	10	1,1,2-Trichloroethane	5	U	5
Acetone	6.8	J	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5.2		5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	100	81 - 117
BROMOFLUOROBENZENE	97	74 - 121
1,2-DICHLOROETHANE-D4	99	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003 Work Order: B3-11-282

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1564**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **11/30/93**
ANALYSIS DATE: **12/09/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

409832-003

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-11-282

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1564**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	50	23 - 120
2-Fluorobiphenyl	53	30 - 115
Terphenyl-D14	61	18 - 137
Phenol-D5	56	24 - 113
2-Fluorophenol	47	25 - 121
2,4,6-Tribromophenol	49	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003

Work Order: B3-11-282

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1564**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **105.263**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	1.2		1.1	7060	12/10/93
Aluminum	1700	*N	21	6010	12/15/93
Barium	21	U*N	21	6010	12/15/93
Beryllium	0.53	U	0.53	6010	12/15/93
Cadmium	0.57		0.53	6010	12/15/93
Chromium	7.6	*	1.1	6010	12/15/93
Copper	1.7	*	2.6	6010	12/15/93
Iron	7300	*N	11	6010	12/15/93
Nickel	7.3	*	4.2	6010	12/15/93
Lead	3.2	N	0.32	7421	12/10/93
Mercury	0.023	U	0.023	7471	12/08/93
Silver	1.1	U	1.1	6010	12/15/93
Zinc	7.1	*	2.1	6010	12/15/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003

Work Order: B3-11-282

SAMPLE ID: **A1565**
SAMPLE DATE: **11/22/93 08:38:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Chromium VI		0.50U	0.50	MG/KG	12/03/93	EPA7196

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003

Work Order: B3-11-282

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1565**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/02/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	2.1	J	10	1,1,2-Trichloroethane	5	U	5
Acetone	5.8	J	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5.4		5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	100	81 - 117
BROMOFLUOROBENZENE	100	74 - 121
1,2-DICHLOROETHANE-D4	100	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003 Work Order: B3-11-282

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1565**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **11/30/93**
ANALYSIS DATE: **12/09/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporti Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

409832-003

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-11-282

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1565**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	52	23 - 120
2-Fluorobiphenyl	59	30 - 115
Terphenyl-D14	59	18 - 137
Phenol-D5	60	24 - 113
2-Fluorophenol	49	25 - 121
2,4,6-Tribromophenol	51	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003

Work Order: B3-11-282

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1565**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **107.526**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	1.1	U	1.1	7060	12/10/93
Aluminum	750	*N	22	6010	12/15/93
Barium	60	*N	22	6010	12/15/93
Beryllium	0.54	U	0.54	6010	12/15/93
Cadmium	0.54	U	0.54	6010	12/15/93
Chromium	3.0	*	1.1	6010	12/15/93
Copper	1.1	*	2.7	6010	12/15/93
Iron	2400	*N	11	6010	12/15/93
Nickel	4.3	U*	4.3	6010	12/15/93
Lead	1.5	N	0.32	7421	12/10/93
Mercury	0.023	U	0.023	7471	12/08/93
Silver	1.1	U	1.1	6010	12/15/93
Zinc	3.1	*	2.2	6010	12/15/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003 Work Order: B3-11-282

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1566**
SAMPLE DATE: **11/16/93**
SAMPLE MATRIX: **WATER**
ANALYSIS DATE: **11/30/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/L**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	100	U	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	98	88 - 110
BROMOFLUOROBENZENE	99	86 - 115
1,2-DICHLOROETHANE-D4	107	76 - 114

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003

Work Order: B3-11-282

SAMPLE ID: **A1567**
SAMPLE DATE: **11/22/93 16:00:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/07/93	EPA9071
Chromium VI		0.50U	0.50	MG/KG	12/03/93	EPA7196

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003 Work Order: B3-11-282

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1567**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/02/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	2.1	J	10	1,1,2-Trichloroethane	5	U	5
Acetone	8.3	J	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5.4		5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	103	81 - 117
BROMOFLUOROBENZENE	95	74 - 121
1,2-DICHLOROETHANE-D4	102	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003 Work Order: B3-11-282

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1567**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **11/30/93**
ANALYSIS DATE: **12/10/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

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Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001 409832-003 Work Order: B3-11-282

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1567**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	51	23 - 120
2-Fluorobiphenyl	55	30 - 115
Terphenyl-D14	53	18 - 137
Phenol-D5	60	24 - 113
2-Fluorophenol	48	25 - 121
2,4,6-Tribromophenol	45	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

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409832-003

Work Order: B3-11-282

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1567**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **108.695**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	1.4		1.2	7060	12/10/93
Aluminum	11000	*N	22	6010	12/15/93
Barium	410	*N	22	6010	12/15/93
Beryllium	1.1		0.54	6010	12/15/93
Cadmium	0.78		0.54	6010	12/15/93
Chromium	15	*	1.1	6010	12/15/93
Copper	7.2	*	2.7	6010	12/15/93
Iron	14000	*N	11	6010	12/15/93
Nickel	15	*	4.3	6010	12/15/93
Lead	6.0	N	0.35	7421	12/10/93
Mercury	0.023	U	0.023	7471	12/08/93
Silver	1.1	U	1.1	6010	12/15/93
Zinc	18	*	2.2	6010	12/15/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

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409832-003

Work Order: B3-11-282

SAMPLE ID: **A1568**
SAMPLE DATE: **11/22/93 16:23:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/07/93	EPA9071
Chromium VI		0.50U	0.50	MG/KG	12/03/93	EPA7196

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

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409832-003

Work Order: B3-11-282

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1568**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/02/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	2.1	J	10	1,1,2-Trichloroethane	5	U	5
Acetone	7.0	J	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	2.7	J	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	101	81 - 117
BROMOFLUOROBENZENE	98	74 - 121
1,2-DICHLOROETHANE-D4	100	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample
'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

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409832-003 Work Order: B3-11-282

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1568**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **11/30/93**
ANALYSIS DATE: **12/10/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporti Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

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409832-003

Work Order: B3-11-282

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1568**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	45	23 - 120
2-Fluorobiphenyl	52	30 - 115
Terphenyl-D14	47	18 - 137
Phenol-D5	47	24 - 113
2-Fluorophenol	40	25 - 121
2,4,6-Tribromophenol	40	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

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Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001 409832-003 Work Order: B3-11-282

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1568**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **102.040**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	4.7		1.1	7060	12/10/93
Aluminum	12000	*N	20	6010	12/15/93
Barium	190	*N	20	6010	12/15/93
Beryllium	1.2		0.51	6010	12/15/93
Cadmium	0.88		0.51	6010	12/15/93
Chromium	17	*	1.0	6010	12/15/93
Copper	11	*	2.6	6010	12/15/93
Iron	15000	*N	10	6010	12/15/93
Nickel	26	*	4.1	6010	12/15/93
Lead	6.2	N	0.33	7421	12/10/93
Mercury	0.023	U	0.023	7471	12/08/93
Silver	0.56	U	1.0	6010	12/15/93
Zinc	27	*	2.0	6010	12/15/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

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409832-003 Work Order: B3-11-282

SAMPLE ID: **A1569**
SAMPLE DATE: **11/22/93 16:23:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/07/93	EPA9071
Chromium VI		0.50U	0.50	MG/KG	12/03/93	EPA7196

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

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409832-003

Work Order: B3-11-282

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1569**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/02/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	2.1	J	10	1,1,2-Trichloroethane	5	U	5
Acetone	9.4	J	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5.8		5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	99	81 - 117
BROMOFLUOROBENZENE	95	74 - 121
1,2-DICHLOROETHANE-D4	101	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

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409832-003 Work Order: B3-11-282

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1569**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **11/30/93**
ANALYSIS DATE: **12/10/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporti Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

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409832-003

Work Order: B3-11-282

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1569**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	45	23 - 120
2-Fluorobiphenyl	53	30 - 115
Terphenyl-D14	48	18 - 137
Phenol-D5	50	24 - 113
2-Fluorophenol	41	25 - 121
2,4,6-Tribromophenol	41	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

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409832-003

Work Order: B3-11-282

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1569**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **108.695**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	3.7		0.98	7060	12/10/93
Aluminum	10000	*N	22	6010	12/15/93
Barium	22	U*N	22	6010	12/15/93
Beryllium	1.0		0.54	6010	12/15/93
Cadmium	0.59		0.54	6010	12/15/93
Chromium	13	*	1.1	6010	12/15/93
Copper	11	*	2.7	6010	12/15/93
Iron	12000	*N	11	6010	12/15/93
Nickel	23	*	4.3	6010	12/15/93
Lead	5.8	N	0.29	7421	12/10/93
Mercury	0.024	U	0.024	7471	12/08/93
Silver	0.45		1.1	6010	12/15/93
Zinc	24	*	2.2	6010	12/15/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

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409832-003

Work Order: B3-11-282

SAMPLE ID: **A1570**
SAMPLE DATE: **11/22/93 16:30:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/09/93	EPA9071
Chromium VI		0.50U	0.50	MG/KG	12/03/93	EPA7196

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003

Work Order: B3-11-282

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1570**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/02/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	2.1	J	10	1,1,2-Trichloroethane	5	U	5
Acetone	7.3	J	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5.1		5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	100	81 - 117
BROMOFLUOROBENZENE	98	74 - 121
1,2-DICHLOROETHANE-D4	100	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003 Work Order: B3-11-282

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1570**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **11/30/93**
ANALYSIS DATE: **12/10/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporti Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

409832-003

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-11-282

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1570**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	47	23 - 120
2-Fluorobiphenyl	52	30 - 115
Terphenyl-D14	47	18 - 137
Phenol-D5	68	24 - 113
2-Fluorophenol	50	25 - 121
2,4,6-Tribromophenol	55	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003

Work Order: B3-11-282

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1570**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **85.4700**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	2.8		0.97	7060	12/10/93
Aluminum	10000	*N	17	6010	12/15/93
Barium	17	U*N	17	6010	12/15/93
Beryllium	1.2		0.43	6010	12/15/93
Cadmium	1.0		0.43	6010	12/15/93
Chromium	21	*	0.85	6010	12/15/93
Copper	10	*	2.1	6010	12/15/93
Iron	20000	*N	8.5	6010	12/15/93
Nickel	24	*	3.4	6010	12/15/93
Lead	3.8	N	0.29	7421	12/10/93
Mercury	0.022	U	0.022	7471	12/13/93
Silver	0.85	U	0.85	6010	12/15/93
Zinc	30	*	1.7	6010	12/15/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003

Work Order: B3-11-282

SAMPLE ID: **A1571**
SAMPLE DATE: **11/22/93 16:48:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/07/93	EPA9071
Chromium VI		0.50U	0.50	MG/KG	12/03/93	EPA7196

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003

Work Order: B3-11-282

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1571**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/02/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	2.2	J	10	1,1,2-Trichloroethane	5	U	5
Acetone	6.2	J	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5.2		5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	100	81 - 117
BROMOFLUOROBENZENE	100	74 - 121
1,2-DICHLOROETHANE-D4	100	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003 Work Order: B3-11-282

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1571**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **11/30/93**
ANALYSIS DATE: **12/11/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporti Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003

Work Order: B3-11-282

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1571**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	52	23 - 120
2-Fluorobiphenyl	66	30 - 115
Terphenyl-D14	66	18 - 137
Phenol-D5	59	24 - 113
2-Fluorophenol	52	25 - 121
2,4,6-Tribromophenol	55	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample
'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003

Work Order: B3-11-282

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1571**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **102.040**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	5.5		0.89	7060	12/10/93
Aluminum	15000	*N	20	6010	12/15/93
Barium	18	*N	20	6010	12/15/93
Beryllium	1.5		0.51	6010	12/15/93
Cadmium	0.95		0.51	6010	12/15/93
Chromium	17	*	1.0	6010	12/15/93
Copper	16	*	2.6	6010	12/15/93
Iron	13000	*N	10	6010	12/15/93
Nickel	28	*	4.1	6010	12/15/93
Lead	9.9	N	1.1	7421	12/10/93
Mercury	0.026	U	0.026	7471	12/08/93
Silver	1.0	U	1.0	6010	12/15/93
Zinc	32	*	2.0	6010	12/15/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003

Work Order: B3-11-282

SAMPLE ID: **A1572**
SAMPLE DATE: **11/22/93 16:58:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/07/93	EPA9071
Chromium VI		0.50U	0.50	MG/KG	12/03/93	EPA7196

IT ANALYTICAL SERVICES
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Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001 409832-003 Work Order: B3-11-282

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1572**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/02/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	2.1	J	10	1,1,2-Trichloroethane	5	U	5
Acetone	6.1	J	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5.3		5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	100	81 - 117
BROMOFLUOROBENZENE	98	74 - 121
1,2-DICHLOROETHANE-D4	102	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003 Work Order: B3-11-282

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1572**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **11/30/93**
ANALYSIS DATE: **12/10/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporti Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

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Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001 409832-003 Work Order: B3-11-282

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1572**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	41	23 - 120
2-Fluorobiphenyl	47	30 - 115
Terphenyl-D14	58	18 - 137
Phenol-D5	68	24 - 113
2-Fluorophenol	47	25 - 121
2,4,6-Tribromcphenol	55	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003

Work Order: B3-11-282

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1572**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **102.040**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	2.6		1.1	7060	12/10/93
Aluminum	9700	*N	20	6010	12/15/93
Barium	25	*N	20	6010	12/15/93
Beryllium	1.2		0.51	6010	12/15/93
Cadmium	0.51	U	0.51	6010	12/15/93
Chromium	14	*	1.0	6010	12/15/93
Copper	16	*	2.6	6010	12/15/93
Iron	14000	*N	10	6010	12/15/93
Nickel	21	*	4.1	6010	12/15/93
Lead	5.0	N	0.33	7421	12/10/93
Mercury	0.023	U	0.023	7471	12/08/93
Silver	1.0	U	1.0	6010	12/15/93
Zinc	22	*	2.0	6010	12/15/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003

Work Order: B3-11-282

SAMPLE ID: **A1573**
SAMPLE DATE: **11/22/93 17:15:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/07/93	EPA9071
Chromium VI		0.50U	0.50	MG/KG	12/03/93	EPA7196

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

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409832-003 Work Order: B3-11-282

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1573**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/02/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	2.0	J	10	1,1,2-Trichloroethane	5	U	5
Acetone	5.7	J	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5.6		5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	98	81 - 117
BROMOFLUOROBENZENE	99	74 - 121
1,2-DICHLOROETHANE-D4	100	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003 Work Order: B3-11-282

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1573**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **11/30/93**
ANALYSIS DATE: **12/10/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporti Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

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409832-003 Work Order: B3-11-282

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1573**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	41	23 - 120
2-Fluorobiphenyl	46	30 - 115
Terphenyl-D14	68	18 - 137
Phenol-D5	54	24 - 113
2-Fluorophenol	43	25 - 121
2,4,6-Tribromcphenol	58	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

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Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001 409832-003 Work Order: B3-11-282

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1573**
SAMPLE DATE: **11/22/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **85.4700**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	1.1	U	1.1	7060	12/10/93
Aluminum	1500	*N	17	6010	12/15/93
Barium	17	U*N	17	6010	12/15/93
Beryllium	0.43	U	0.43	6010	12/15/93
Cadmium	0.58		0.43	6010	12/15/93
Chromium	7.3	*	0.85	6010	12/15/93
Copper	2.1	U*	2.1	6010	12/15/93
Iron	6100	*N	8.5	6010	12/15/93
Nickel	5.1	*	3.4	6010	12/15/93
Lead	1.9	N	0.32	7421	12/10/93
Mercury	0.024	U	0.024	7471	12/08/93
Silver	0.85	U	0.85	6010	12/15/93
Zinc	5.9	*	1.7	6010	12/15/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

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409832-003

Work Order: B3-11-282

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE:
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/07/93	EPA9071
Chromium VI		0.010U	0.010	MG/KG	12/03/93	EPA7196

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

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409832-003 Work Order: B3-11-282

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/02/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	100	U	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	102	81 - 117
BROMOFLUOROBENZENE	101	74 - 121
1,2-DICHLOROETHANE-D4	98	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

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409832-003 Work Order: B3-11-282

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **11/30/93**
ANALYSIS DATE: **12/09/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporti Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003

Work Order: B3-11-282

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	37	23 - 120
2-Fluorobiphenyl	40	30 - 115
Terphenyl-D14	71	18 - 137
Phenol-D5	42	24 - 113
2-Fluorophenol	34	25 - 121
2,4,6-Tribromophenol	53	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

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409832-003

Work Order: B3-11-282

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **1.0**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	0.010	U	0.010	7060	12/10/93
Aluminum	0.20	U	0.20	6010	12/15/93
Barium	0.20	U	0.20	6010	12/15/93
Beryllium	0.0050	U	0.0050	6010	12/15/93
Cadmium	0.0050	U	0.0050	6010	12/15/93
Chromium	0.010	U	0.010	6010	12/15/93
Copper	0.0250	U	0.0250	6010	12/15/93
Iron	0.10	U	0.10	6010	12/15/93
Nickel	0.040	U	0.040	6010	12/15/93
Lead	0.0030	U	0.0030	7421	12/10/93
Mercury	0.00020	U	0.00020	7471	12/08/93
Silver	0.010	U	0.010	6010	12/15/93
Zinc	0.020	U	0.020	6010	12/15/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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(512) 892-6684

409832-003 Work Order: B3-11-282

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE:
SAMPLE MATRIX: **WATER**
ANALYSIS DATE: 11/30/93
DILUTION FACTOR: 1.0
UNITS: UG/L

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	100	U	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	99	88 - 110
BROMOFLUOROBENZENE	101	86 - 115
1,2-DICHLOROETHANE-D4	101	76 - 114

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

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409832-003

Work Order: B3-11-282

SAMPLE ID: **LAB BLANK #2**
SAMPLE DATE:
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Mercury		0.00020U	0.00020	MG/KG	12/13/93	EPA7471

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

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409832-003

Work Order: B3-11-282

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME **ICP Metals** TEST CODE **6010**

Metals by ICP	Inductively coupled emission spectroscopy according to Method 6010, "Test Methods for Evaluating Solid Waste Physical/Chemical Methods", SW-846, Third Edition.

TEST NAME **Hazardous Substance Vols.** TEST CODE **8240TK**

Hazardous Substance List Volatiles	Method 8240, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. GC/MS Purge and Trap analysis.

TEST NAME **ABN HSL GC/MS Extractables** TEST CODE **8270TK**

Hazardous Substance List Extractables	Method 8270, SW-846, Test Methods for Evaluating Solid Waste, Third Edition. Acid/Base-Neutral extraction followed by GC/MS analysis.

TEST NAME **9071/418.1 for TPH** TEST CODE **9071IR**

9071 Prep and IR Analysis	Method 9071, SW846, Test Methods for Evaluating Solid Waste, Third Edition. Soxhlet extraction from Method 9071 using freon and infrared analysis of the extract using Method 418.1.

TEST NAME **Arsenic - Graphite Furnace** TEST CODE **AS_GF**

Arsenic Graphite Furnace	Method 7060, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. EPA 206.2-Technical Additions to Methods for Chemical Analysis of Water and Wastes, EPA-600/4-82-055, December 1982.

TEST NAME **Cation Exchange Capacity** TEST CODE **CEC_A**

Cation exchange Capacity	Part 2: Chemical and microbiological properties method 57-3. American Society of Agronomy, Methods of soil Analysis 2nd Edition.

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

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409832-003

Work Order: B3-11-282

TEST NAME **Chromium VI** TEST CODE **CR_VI**

Chromium VI — Method 7196, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Colorimetric analysis. Equivalent to Standard Methods 3500-Cr D.

TEST NAME **Grain Size Distriubtion** TEST CODE **GRAIN**

Method not available.

TEST NAME **Mercury** TEST CODE **HG_AA**

Mercury — Method 7471, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Cold vapor atomic absorption. Method 7470 is used for water.

Method 245.5-"Technical Additions to Methods for Chemical Analysis of Water and Wastes," EPA-600/4-82-055, December 1982.

TEST NAME **Metals** TEST CODE **ICPTK2**

Method not available.

TEST NAME **Moisture Content** TEST CODE **MOIS_G**

Method not available.

TEST NAME **Lead - Graphite Furnace** TEST CODE **PB_GF**

Lead Graphite Furnace — EPA 7421, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition.
EPA 239.2-Technical Additions to Methods for Chemical Analysis of Water and Wastes," EPA-600/4-82-055,

Company: IT CORPORATION
Date: 12/23/93
Client Work ID: D.O.5001

409832-003

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-11-282

TEST NAME **Lead - Graphite Furnace** TEST CODE **PB_GF**

December 1982.

TEST NAME **Vertical Permeability** TEST CODE **V_PERM**

Method not available.

TEST NAME **GFAA Digestion - Soil** TEST CODE **Z3050F**

Soil Digestion — Method 3050, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Acid digestion technique for Graphite Furnace/Flame AA analysis.

TEST NAME **ICPES Digestion - Soil** TEST CODE **Z3050P**

Soil Digestion — Method 3050, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Acid digestion technique for ICPES analysis. Equivalent to Method 3050A, SW-846 Update I, July 1992.

631282

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 314097
Page 1 of 2

Project Name/No. [1] TAFB 409832
Sample Team Members [2] K. Herrington, M. Wilson
Profit Center No. [3] 3527
Project Manager [4] Jimmy Taylor
Purchase Order No. [6] 409832 003
Required Report Date [11] 15 working Days

Samples Shipment Date [7] 11/22/93
Lab Destination [8] ITAS Austin
Lab Contact [9] Karmen Dennis 405-736-2260
Project Contact/Phone [12] Dan McGregor
Carrier/Waybi 8460756183 - FedEx

Bill to: [5] 409832.03 DO 5001
Report to: [10] Tim Jennings I. T. Austin

ONE CONTAINER PER LINE

Sample Number [14]	Sample Description/Type [15]	Date/Time Collected [16]	Container Type [17]	Sample Volume [18]	Pre-servative [19]	Requested Testing Program [20]	Condition on Receipt [21]	Disposal Record No. [22]
A1561	2-6213, Soil	11-22-93 0755	glass	(2) 500ml	cool	8270 6010/7000	Good cond 11-23-93 RVA	
A1561		KH ~~0804~~ 0755		125ml		8240		
A1562		0804		500ml		8270 6010/7000		
~~J5428~~ KH A1562		0804		125ml		8240		
J5428		0815	Stainless Steel	(3) 1.5x6"		geotechnical - Vert K, moisture, CEC, grain size		
A1563		0825	glass	600ml		8270 6010/7000		
A1563		0825		125ml		8240		
A1564		0830		500ml		8270 6010/7000		

Special Instructions: [23] A1561 MS/MSD ; A1566 - Trip Blank ; A1569 Duplicate of A1568

Possible Hazard Identification: [24]
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☑

Sample Disposal: [25]
Return to Client ☐ Disposal by Lab ☑ Archive (mos.)

Turnaround Time Required: [26]
Normal ☑ Rush ☐

QC Level: [27]
I. ☑ II. ☐ III. ☐ Project Specific (specify):

1. Relinquished by [28] (Signature/Affiliation) Karen Herrington, IT Date: 11/22/93 Time: 1800	1. Received by [28] (Signature/Affiliation) IT Date: 11-23-93 Time: 0856
2. Relinquished by (Signature/Affiliation) Date: Time:	2. Received by (Signature/Affiliation) Date: Time:
3. Relinquished by (Signature/Affiliation) Date: Time:	3. Received by (Signature/Affiliation) Date: Time:

Comments: [29]

White: To accompany samples
Yellow: Field copy
*See back of form for special instructions.

B311282

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] 314097
Page 2 of 2

Project Name Tinker 5001

Project No. 409832.03

Samples Shipment Date 11/22/93

ONE CONTAINER PER LINE

Sample Number [14]	Sample Description/Type [15]	Date/Time Collected [16]	Container Type [17]	Sample Volume [18]	Pre-servative [19]	Requested Testing Program [20]	Condition on Receipt [21]	Disposal Record No. [22]
A1564	2-62B, soil	11/22/93 0838	glass ~~125 ml~~ KH	KH ~~X~~125ml	cool	8240	Good, yde 11-28-93 RYR	
A1565				500ml		8270 6010/7000		
A1565				125ml		8240		
A1566	Trip Blank KH KH	11/22/93 0838		40 ml	HCl	8240		11-16-93 1700 TK B3244100C
A1567	2-61; soil	11/22/93 1600		500 ml	cool	8270 418.1 6010/7000		
A1567				125 ml		8240		
A1568		1623		500 ml		8270 418.1 6010/7000		
A1568				125 ml		8240		
A1569		1623		500 ml		8270 418.1 6010/7000		
A1569				125 ml		8240		
A1570		1630		500 ml		8270 418.1 6010/7000		
A1570				125 ml		8240		
A1571		1648		500 ml		8270 418.1 6010/7000		
A1571				125 ml		8240		
A1572		1658		500 ml		8270 418.1 6010/7000		
A1572				125 ml		8240		
A1573		1715		500 ml		8270 418.1 6010/7000		
A1573				125 ml		8240		

White: To accompany samples Yellow: Field copy

*See back of form for special instructions

Auxiliary Data Summary 12/21/93

Work order : B311282 Sample ID : A1561

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
01B						
	Arsenic	B311282-17B	12053050F1	12/05/93	12/10/93	86.2
	Chromium VI	B311282-17B	1203CR_VI1	12/02/93	12/03/93	50.0
	Mercury	B311282-17B	1208HGAA1	12/08/93	12/08/93	125
	Lead	B311282-17B	12053050F1	12/05/93	12/10/93	86.2

Auxiliary Data Summary 12/21/93

Work order : B311282 Sample ID : A1561-MS

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
02B						
	Arsenic	B311282-17B	12053050F1	12/05/93	12/10/93	104
	Chromium VI	B311282-17B	1203CR_VI1	12/02/93	12/03/93	50.0
	Mercury	B311282-17B	1208HGAA1	12/08/93	12/08/93	120
	Lead	B311282-17B	12053050F1	12/05/93	12/10/93	417

Auxiliary Data Summary 12/21/93

Work order : B311282 Sample ID : A1561-MSD

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
03B						
	Arsenic	B311282-17B	12053050F1	12/05/93	12/10/93	103
	Chromium VI	B311282-17B	1203CR_VI1	12/02/93	12/03/93	50.0
	Mercury	B311282-17B	1208HGAA1	12/08/93	12/08/93	123
	Lead	B311282-17B	12053050F1	12/05/93	12/10/93	103

Auxiliary Data Summary 12/21/93

Work order : B311282 Sample ID : A1562

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
04B						
	Arsenic	B311282-17B	12053050F1	12/05/93	12/10/93	95.2
	Chromium VI	B311282-17B	1203CR_VI1	12/02/93	12/03/93	50.0
	Mercury	B311282-17B	1208HGAA2	12/08/93	12/08/93	112
	Lead	B311282-17B	12053050F1	12/05/93	12/10/93	95.2

Auxiliary Data Summary 12/21/93

Work order : B311282 Sample ID : A1563

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
06B						
	Arsenic	B311282-17B	12053050F1	12/05/93	12/10/93	105
	Chromium VI	B311282-17B	1203CR_VI1	12/02/93	12/03/93	50.0
	Mercury	B311282-17B	1208HGAA1	12/08/93	12/08/93	118
	Lead	B311282-17B	12053050F1	12/05/93	12/10/93	105

Auxiliary Data Summary 12/21/93

Work order : B311282 Sample ID : A1564

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
07B						
	Arsenic	B311282-17B	12053050F1	12/05/93	12/10/93	108
	Chromium VI	B311282-17B	1203CR_VI1	12/02/93	12/03/93	50.0
	Mercury	B311282-17B	1208HGAA1	12/08/93	12/08/93	116
	Lead	B311282-17B	12053050F1	12/05/93	12/10/93	108

Auxiliary Data Summary 12/21/93

Work order : B311282 Sample ID : A1565

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
08B						
	Arsenic	B311282-17B	12053050F1	12/05/93	12/10/93	108
	Chromium VI	B311282-17B	1203CR_VI1	12/02/93	12/03/93	50.0
	Mercury	B311282-17B	1208HGAA1	12/08/93	12/08/93	116
	Lead	B311282-17B	12053050F1	12/05/93	12/10/93	108

Auxiliary Data Summary 12/21/93

Work order : B311282 Sample ID : A1567

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
10B						
	9071IR	B311282-17B	1206TPHIR1	12/06/93	12/07/93	1.0
	Arsenic	B311282-17B	12053050F1	12/05/93	12/10/93	115
	Chromium VI	B311282-17B	1203CR_VI1	12/02/93	12/03/93	50.0
	Mercury	B311282-17B	1208HGAA1	12/08/93	12/08/93	114
	Lead	B311282-17B	12053050F1	12/05/93	12/10/93	115

Auxiliary Data Summary 12/21/93

Work order : B311282 Sample ID : A1568

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
11B						
	9071IR	B311282-17B	1206TPHIR1	12/06/93	12/07/93	1.0
	Arsenic	B311282-17B	12053050F1	12/05/93	12/10/93	110
	Chromium VI	B311282-17B	1203CR_VI1	12/02/93	12/03/93	50.0
	Mercury	B311282-17B	1208HGAA1	12/08/93	12/08/93	116
	Lead	B311282-17B	12053050F1	12/05/93	12/10/93	110

Auxiliary Data Summary 12/21/93

Work order : B311282 Sample ID : A1569

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
12B						
	9071IR	B311282-17B	1206TPHIR1	12/06/93	12/07/93	1.0
	Arsenic	B311282-17B	12053050F1	12/05/93	12/10/93	98
	Chromium VI	B311282-17B	1203CR_VI1	12/02/93	12/03/93	50.0
	Mercury	B311282-17B	1208HGAA1	12/08/93	12/08/93	122
	Lead	B311282-17B	12053050F1	12/05/93	12/10/93	98

Auxiliary Data Summary 12/21/93

Work order : B311282 Sample ID : A1570

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
13B						
	9071IR	B311282-17B	1206TPHIR1	12/06/93	12/09/93	1.0
	Arsenic	B311282-17B	12053050F1	12/05/93	12/10/93	97.1
	Chromium VI	B311282-17B	1203CR_VI1	12/02/93	12/03/93	50.0
	Mercury	B311282-17B	1212HGAA1	12/13/93	12/13/93	108
	Lead	B311282-17B	12053050F1	12/05/93	12/10/93	97.1

Auxiliary Data Summary 12/21/93

Work order : B311282 Sample ID : A1571

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
14B						
	9071IR	B311282-17B	1206TPHIR1	12/06/93	12/07/93	1.0
	Arsenic	B311282-17B	12053050F1	12/05/93	12/10/93	89.3
	Chromium VI	B311282-17B	1203CR_VI1	12/02/93	12/03/93	50.0
	Mercury	B311282-17B	1208HGAA1	12/08/93	12/08/93	129
	Lead	B311282-17B	12053050F1	12/05/93	12/10/93	357

Auxiliary Data Summary 12/21/93

Work order : B311282 Sample ID : A1572

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
15B						
	9071IR	B311282-17B	1206TPHIR1	12/06/93	12/07/93	1.0
	Arsenic	B311282-17B	12053050F1	12/05/93	12/10/93	111
	Chromium VI	B311282-17B	1203CR_VI1	12/02/93	12/03/93	50.0
	Mercury	B311282-17B	1208HGAA1	12/08/93	12/08/93	115
	Lead	B311282-17B	12053050F1	12/05/93	12/10/93	111

Auxiliary Data Summary 12/21/93

Work order : B311282 Sample ID : A1573

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
16B						
	9071IR	B311282-17B	1206TPHIR1	12/06/93	12/07/93	1.0
	Arsenic	B311282-17B	12053050F1	12/05/93	12/10/93	106
	Chromium VI	B311282-17B	1203CR_VI1	12/02/93	12/03/93	50.0
	Mercury	B311282-17B	1208HGAA1	12/08/93	12/08/93	118
	Lead	B311282-17B	12053050F1	12/05/93	12/10/93	106

Auxiliary Data Summary 12/21/93

Work order : B311282 Sample ID : LAB BLANK #1

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
17B						
	9071IR	B311282-17B	1206TPHIR1	12/06/93	12/07/93	1.0
	Arsenic	B311282-17B	12053050F1	12/05/93	12/10/93	1.0
	Chromium VI	B311282-17B	1203CR_VI1	12/03/93	12/03/93	1.0
	Mercury	B311282-17B	1208HGAA1	12/08/93	12/08/93	1.0
	Lead	B311282-17B	12053050F1	12/05/93	12/10/93	1.0

Auxiliary Data Summary 12/21/93

Work order : B311282 Sample ID : LAB BLANK #2

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
19A	Mercury	B311282-19A	1213HGAA1	12/13/93	12/13/93	1.0

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

Routed to KK, CF, TL
12/28/93

CERTIFICATE OF ANALYSIS

IT CORPORATION
1250 CAPITAL OF TX HWY
BLDG. 3, SUITE 200
AUSTIN, TX 78746-6443
TIM JENNINGS

Date: 12/22/93

Work Order: B3-11-332

This is the Certificate of Analysis for the following samples:

Client Work ID: D.O.5001 409832-003-01
Date Received: 11/30/93
Number of Samples: 7
Sample Type: SOIL

I. Introduction

Samples were labeled as follows:

SAMPLE IDENTIFICATION	LABORATORY #
A1584	B3-11-332-01
A1585	B3-11-332-02
A1586	B3-11-332-03
LAB BLANK #1	B3-11-332-04
LAB BLANK #1	B3-11-332-05
A1585-MS	B3-11-332-06
A1585-MSD	B3-11-332-07

Reviewed and Approved:

Karmen Deane for
Jon Bartell
Laboratory Director

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-332

II. QA/QC

The results presented in this report meet the statement of work requirements in accordance with Quality Control and Quality Assurance protocol except as noted in Section IV or in an optional sample narrative at the end of Section III.

In the presented analytical data, 'ND' or '<' indicates that the compound is not detected at the specified limit.

III. Analytical Data

The following page(s) supply results for requested analyses performed on the samples listed above.

The test results relate to tested items only. ITAS-Austin reserves the right to control report production except in whole.

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-332

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1584**
SAMPLE DATE: **11/16/93**
SAMPLE MATRIX: **WATER**
ANALYSIS DATE: 12/02/93
DILUTION FACTOR: 1.0
UNITS: **UG/L**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	100	U	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	96	88 - 110
BROMOFLUOROBENZENE	100	86 - 115
1,2-DICHLOROETHANE-D4	106	76 - 114

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample
'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-332

SAMPLE ID: A1585
SAMPLE DATE: 11/29/93 17:20:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/09/93	EPA9071
Chromium VI		0.10U	0.10	MG/KG	12/10/93	EPA7196

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-332

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1585**
SAMPLE DATE: **11/29/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/07/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	5.2	J	10	1,1,2-Trichloroethane	5	U	5
Acetone	9.3	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	102	81 - 117
BROMOFLUOROBENZENE	97	74 - 121
1,2-DICHLOROETHANE-D4	102	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-332

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1585**
SAMPLE DATE: **11/29/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/02/93**
ANALYSIS DATE: **12/11/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit
Phenol	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330
2-Chlorophenol	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330
1,4-Dichlorobenzene	0.330	U	0.330
Benzyl alcohol	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330
-Methylphenol	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330
Hexachloroethane	0.330	U	0.330
Nitrobenzene	0.330	U	0.330
Isophorone	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330
Benzoic Acid	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330
Naphthalene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825
2-Chloronaphthalene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825
Dimethylphthalate	0.330	U	0.330
Acenaphthylene	0.330	U	0.330

	Result	Qual	Reportin Limit
2,6-Dinitrotoluene	0.330	U	0.330
3-Nitroaniline	0.825	U	0.825
Acenaphthene	0.330	U	0.330
2,4-Dinitrophenol	0.825	U	0.825
4-Nitrophenol	0.825	U	0.825
Dibenzofuran	0.330	U	0.330
2,4-Dinitrotoluene	0.330	U	0.330
Diethylphthalate	0.330	U	0.330
4-Chlorophenyl-phenylether	0.330	U	0.330
Fluorene	0.330	U	0.330
4-Nitroaniline	0.825	U	0.825
4,6-Dinitro-2-methylphenol	0.825	U	0.825
N-Nitrosodiphenylamine (1)	0.330	U	0.330
4-Bromophenyl-phenylether	0.330	U	0.330
Hexachlorobenzene	0.330	U	0.330
Pentachlorophenol	0.825	U	0.825
Phenanthrene	0.330	U	0.330
Anthracene	0.330	U	0.330
Di-n-butylphthalate	0.330	U	0.330
Fluoranthene	0.330	U	0.330
Pyrene	0.330	U	0.330
Butylbenzylphthalate	0.330	U	0.330
3,3'-Dichlorobenzidine	0.330	U	0.330
Benzo(a)anthracene	0.330	U	0.330
Chrysene	0.330	U	0.330
bis(2-Ethylhexyl)phthalate	0.04	J	0.330
Di-n-octylphthalate	0.330	U	0.330
Benzo(b)fluoranthene	0.330	U	0.330
Benzo(k)fluoranthene	0.330	U	0.330
Benzo(a)pyrene	0.330	U	0.330
Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Dibenzo(a,h)anthracene	0.330	U	0.330
Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-332

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1585**
SAMPLE DATE: **11/29/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	68	23 - 120
2-Fluorobiphenyl	69	30 - 115
Terphenyl-D14	88	18 - 137
Phenol-D5	70	24 - 113
2-Fluorophenol	61	25 - 121
2,4,6-Tribromophenol	69	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-332

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1585**
SAMPLE DATE: **11/29/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **114.943**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	1.1	UN	1.1	7060	12/09/93
Aluminum	830	*N	23	6010	12/09/93
Barium	23	U*N	23	6010	12/09/93
Beryllium	0.57	U	0.57	6010	12/09/93
Cadmium	0.57	U	0.57	6010	12/09/93
Chromium	5.7	*	1.1	6010	12/09/93
Copper	2.9	U*	2.9	6010	12/09/93
Iron	3000	*N	11	6010	12/09/93
Nickel	4.6	U*	4.6	6010	12/09/93
Lead	1.4	N	0.33	7421	12/09/93
Mercury	0.021	U	0.021	7471	12/07/93
Silver	1.1	U	1.1	6010	12/09/93
Zinc	4.1	*	2.3	6010	12/09/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-332

SAMPLE ID: **A1586**
SAMPLE DATE: **11/29/93 17:35:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/09/93	EPA9071
Chromium VI		0.10U	0.10	MG/KG	12/10/93	EPA7196

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-332

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1586**
SAMPLE DATE: **11/29/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/07/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	6.8	J	10	1,1,2-Trichloroethane	5	U	5
Acetone	7.2	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	104	81 - 117
BROMOFLUOROBENZENE	100	74 - 121
1,2-DICHLOROETHANE-D4	99	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-332

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1586**
SAMPLE DATE: **11/29/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/02/93**
ANALYSIS DATE: **12/11/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit
Phenol	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330
2-Chlorophenol	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330
1,4-Dichlorobenzene	0.330	U	0.330
Benzyl alcohol	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330
Hexachloroethane	0.330	U	0.330
Nitrobenzene	0.330	U	0.330
Isophorone	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330
Benzoic Acid	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330
Naphthalene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825
2-Chloronaphthalene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825
Dimethylphthalate	0.330	U	0.330
Acenaphthylene	0.330	U	0.330

	Result	Qual	Reporti Limit
2,6-Dinitrotoluene	0.330	U	0.330
3-Nitroaniline	0.825	U	0.825
Acenaphthene	0.330	U	0.330
2,4-Dinitrophenol	0.825	U	0.825
4-Nitrophenol	0.825	U	0.825
Dibenzofuran	0.330	U	0.330
2,4-Dinitrotoluene	0.330	U	0.330
Diethylphthalate	0.330	U	0.330
4-Chlorophenyl-phenylether	0.330	U	0.330
Fluorene	0.330	U	0.330
4-Nitroaniline	0.825	U	0.825
4,6-Dinitro-2-methylphenol	0.825	U	0.825
N-Nitrosodiphenylamine (1)	0.330	U	0.330
4-Bromophenyl-phenylether	0.330	U	0.330
Hexachlorobenzene	0.330	U	0.330
Pentachlorophenol	0.825	U	0.825
Phenanthrene	0.330	U	0.330
Anthracene	0.330	U	0.330
Di-n-butylphthalate	0.330	U	0.330
Fluoranthene	0.330	U	0.330
Pyrene	0.330	U	0.330
Butylbenzylphthalate	0.330	U	0.330
3,3'-Dichlorobenzidine	0.330	U	0.330
Benzo(a)anthracene	0.330	U	0.330
Chrysene	0.330	U	0.330
bis(2-Ethylhexyl)phthalate	0.330	U	0.330
Di-n-octylphthalate	0.330	U	0.330
Benzo(b)fluoranthene	0.330	U	0.330
Benzo(k)fluoranthene	0.330	U	0.330
Benzo(a)pyrene	0.330	U	0.330
Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Dibenzo(a,h)anthracene	0.330	U	0.330
Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-332

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1586**
SAMPLE DATE: **11/29/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	64	23 - 120
2-Fluorobiphenyl	67	30 - 115
Terphenyl-D14	89	18 - 137
Phenol-D5	70	24 - 113
2-Fluorophenol	65	25 - 121
2,4,6-Tribromophenol	80	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-332

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1586**
SAMPLE DATE: **11/29/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **91.7431**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	1.0	UN	1.0	7060	12/09/93
Aluminum	1300	*N	18	6010	12/09/93
Barium	41	*N	18	6010	12/09/93
Beryllium	0.46	U	0.46	6010	12/09/93
Cadmium	0.46	U	0.46	6010	12/09/93
Chromium	6.1	*	0.92	6010	12/09/93
Copper	2.3	U*	2.3	6010	12/09/93
Iron	2800	*N	9.2	6010	12/09/93
Nickel	5.5	*	3.7	6010	12/09/93
Lead	0.67	N	0.31	7421	12/09/93
Mercury	0.022	U	0.022	7471	12/07/93
Silver	0.92	U	0.92	6010	12/09/93
Zinc	5.9	*	1.8	6010	12/09/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-332

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE:
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/09/93	EPA9071
Chromium VI		0.010U	0.010	MG/KG	12/10/93	EPA7196

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-332

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/07/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	3.1	J	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	104	81 - 117
BROMOFLUOROBENZENE	100	74 - 121
1,2-DICHLOROETHANE-D4	101	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-332

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/02/93**
ANALYSIS DATE: **12/15/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit
Phenol	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330
2-Chlorophenol	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330
1,4-Dichlorobenzene	0.330	U	0.330
Benzyl alcohol	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330
-Methylphenol	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330
Hexachloroethane	0.330	U	0.330
Nitrobenzene	0.330	U	0.330
Isophorone	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330
Benzoic Acid	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330
Naphthalene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825
2-Chloronaphthalene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825
Dimethylphthalate	0.330	U	0.330
Acenaphthylene	0.330	U	0.330

	Result	Qual	Reportin Limit
2,6-Dinitrotoluene	0.330	U	0.330
3-Nitroaniline	0.825	U	0.825
Acenaphthene	0.330	U	0.330
2,4-Dinitrophenol	0.825	U	0.825
4-Nitrophenol	0.825	U	0.825
Dibenzofuran	0.330	U	0.330
2,4-Dinitrotoluene	0.330	U	0.330
Diethylphthalate	0.330	U	0.330
4-Chlorophenyl-phenylether	0.330	U	0.330
Fluorene	0.330	U	0.330
4-Nitroaniline	0.825	U	0.825
4,6-Dinitro-2-methylphenol	0.825	U	0.825
N-Nitrosodiphenylamine (1)	0.330	U	0.330
4-Bromophenyl-phenylether	0.330	U	0.330
Hexachlorobenzene	0.330	U	0.330
Pentachlorophenol	0.825	U	0.825
Phenanthrene	0.330	U	0.330
Anthracene	0.330	U	0.330
Di-n-butylphthalate	0.330	U	0.330
Fluoranthene	0.330	U	0.330
Pyrene	0.330	U	0.330
Butylbenzylphthalate	0.330	U	0.330
3,3'-Dichlorobenzidine	0.330	U	0.330
Benzo(a)anthracene	0.330	U	0.330
Chrysene	0.330	U	0.330
bis(2-Ethylhexyl)phthalate	0.330	U	0.330
Di-n-octylphthalate	0.330	U	0.330
Benzo(b)fluoranthene	0.330	U	0.330
Benzo(k)fluoranthene	0.330	U	0.330
Benzo(a)pyrene	0.330	U	0.330
Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Dibenzo(a,h)anthracene	0.330	U	0.330
Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-332

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	35	23 - 120
2-Fluorobiphenyl	34	30 - 115
Terphenyl-D14	52	18 - 137
Phenol-D5	51	24 - 113
2-Fluorophenol	43	25 - 121
2,4,6-Tribromophenol	53	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-332

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **1.0**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	0.010	U	0.010	7060	12/09/93
Aluminum	0.20	U	0.20	6010	12/09/93
Barium	0.20	U	0.20	6010	12/09/93
Beryllium	0.0050	U	0.0050	6010	12/09/93
Cadmium	0.0050	U	0.0050	6010	12/09/93
Chromium	0.010	U	0.010	6010	12/09/93
Copper	0.025	U	0.025	6010	12/09/93
Iron	0.10	U	0.10	6010	12/09/93
Nickel	0.040	U	0.040	6010	12/09/93
Lead	0.0030	U	0.0030	7421	12/09/93
Mercury	0.00020	U	0.00020	7471	12/07/93
Silver	0.010	U	0.010	6010	12/09/93
Zinc	0.020	U	0.020	6010	12/09/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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(512) 892-6684

409832-003-01 Work Order: B3-11-332

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE:
SAMPLE MATRIX: **WATER**
ANALYSIS DATE: 12/02/93
DILUTION FACTOR: 1.0
UNITS: **UG/L**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	100	U	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	96	88 - 110
BROMOFLUOROBENZENE	98	86 - 115
1,2-DICHLOROETHANE-D4	102	76 - 114

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-11-332

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1585-MS**
SAMPLE DATE: **11/29/93**
SAMPLE MATRIX: **WATER**
ANALYSIS DATE: **12/07/93**
DILUTION FACTOR: **1.0**
UNITS: **% REC**

	Result		Result
1,1-Dichloroethene	95	Trichloroethene	81
		Benzene	95
		Toluene	95
		Chlorobenzene	95

Surrogates	% Recovery	Limits
TOLUENE-D8	103	81 - 117
BROMOFLUOROBENZENE	100	74 - 121
1,2-DICHLOROETHANE-D4	103	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-11-332

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1585-MSD**
SAMPLE DATE: **11/29/93**
SAMPLE MATRIX: **WATER**
ANALYSIS DATE: **12/07/93**
DILUTION FACTOR: **1.0**
UNITS: **% REC**

	Result		Result
1,1-Dichloroethene	106	Trichloroethene	88
		Benzene	101
		Toluene	109
		Chlorobenzene	106

Surrogates	% Recovery	Limits
TOLUENE-D8	105	81 - 117
BROMOFLUOROBENZENE	99	74 - 121
1,2-DICHLOROETHANE-D4	100	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-332

Referenced notes for this work order:

B311332

Batch duplicate analysis outside control limits due to matrix interference on arsenic analysis by graphite furnace. LCS / LCSD results and method Quality Control were acceptable.
Batch matrix spike duplicate and % RPD for matrix spikes outside control limits due to matrix interference on arsenic analysis by graphite furnace. LCS / LCSD results and method Quality Control were acceptable.
Batch matrix spikes and % RPD for matrix spikes outside control limits due to matrix interference on lead analysis by graphite furnace. LCS / LCSD results and method Quality Control were acceptable.
Batch duplicate analysis outside control limits due to matrix interference on aluminum, barium, chromium, copper, iron, nickel and zinc analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.
Batch matrix spike analysis outside control limits due to matrix interference on aluminum, barium and iron analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.
Batch matrix spike duplicate analysis outside control limits due to matrix interference on aluminum, barium and iron analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.
% RPD for matrix spikes outside control limits due to matrix interference on aluminum and iron analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
409832-003-01 Work Order: B3-11-332

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME **ICP Metals** TEST CODE **6010**

Metals by ICP	Inductively coupled emission spectroscopy according to Method 6010, "Test Methods for Evaluating Solid Waste Physical/Chemical Methods", SW-846, Third Edition.

TEST NAME **Hazardous Substance Vols.** TEST CODE **8240TK**

Hazardous Substance List Volatiles	Method 8240, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. GC/MS Purge and Trap analysis.

TEST NAME **ABN HSL GC/MS Extractables** TEST CODE **8270TK**

Hazardous Substance List Extractables	Method 8270, SW-846, Test Methods for Evaluating Solid Waste, Third Edition. Acid/Base-Neutral extraction followed by GC/MS analysis.

TEST NAME **9071/418.1 for TPH** TEST CODE **9071IR**

9071 Prep and IR Analysis	Method 9071, SW846, Test Methods for Evaluating Solid Waste, Third Edition. Soxhlet extraction from Method 9071 using freon and infrared analysis of the extract using Method 418.1.

TEST NAME **Arsenic - Graphite Furnace** TEST CODE **AS_GF**

Arsenic Graphite Furnace	Method 7060, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. EPA 206.2-Technical Additions to Methods for Chemical Analysis of Water and Wastes, EPA-600/4-82-055, December 1982.

TEST NAME **Chromium VI** TEST CODE **CR_VI**

Chromium VI	Method 7196, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Colorimetric analysis. Equivalent to Standard Methods 3500-Cr D.

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-332

TEST NAME **Mercury** TEST CODE **HG_AA**

Mercury	Method 7471, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Cold vapor atomic absorption. Method 7470 is used for water. Method 245.5-"Technical Additions to Methods for Chemical Analysis of Water and Wastes," EPA-600/4-82-055, December 1982.

TEST NAME **Metals** TEST CODE **ICPTK2**

Method not available.

TEST NAME **Lead - Graphite Furnace** TEST CODE **PB_GF**

Lead Graphite Furnace	EPA 7421, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. EPA 239.2-Technical Additions to Methods for Chemical Analysis of Water and Wastes," EPA-600/4-82-055, December 1982.

TEST NAME **GFAA Digestion - Soil** TEST CODE **Z3050F**

Soil Digestion	Method 3050, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Acid digestion technique for Graphite Furnace/Flame AA analysis.

TEST NAME **ICPES Digestion - Soil** TEST CODE **Z3050P**

Soil Digestion	Method 3050, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Acid digestion technique for ICPES analysis. Equivalent to Method 3050A, SW-846 Update I, July 1992.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 314099
Page 1 of 1

Project Name/No. [1] Tinker 5001/409832
Sample Team Members [2] M. Wilson
Profit Center No. [3] 3527
Project Manager [4] Jimmy Taylor
Purchase Order No. [6] 409832.03
Required Report Date [11] NTAT

Samples Shipment Date [7] 11/29/93
Lab Destination [8] ITAS Austin
Lab Contact [9] Karmen Deane (405) 736-2260
Project Contact/Phone [12] Dan McGregor
Carrier/Waybill No. [13] Fed ex 8460755612

Bill to: [5] 409832.03.01 D.O. 5001
Report to: [10] Tim Jennings IT Austin

ONE CONTAINER PER LINE

Sample Number [14]	Sample Description/Type [15]	Date/Time Collected [16]	Container Type [17]	Sample Volume [18]	Pre-servative [19]	Requested Testing Program [20]	Condition on Receipt [21]	Disposal Record No. [22]
A1584	TRIP Blank	11/16/93 1700	clear glass	40ml	HCl	8240 VOC	Good 4°C 11-30-93	B3244100C
A1585	Soil 2-60	11/29/93 1720	"	125ml	Cool	8240 VOC		
A1585	Soil 2-60	11/29/93 1720		500ml	Cool	8270 SVOC 6010/7000 metals 418.1 TPH		
A1586	Soil 2-60	11/29/93 1735		125ml		8240 VOC		
A1586	Soil 2-60	11/29/93 1735		500ml		8270 SVOC 6010/7000 metals 418.1 TPH		

Special Instructions: [23]

Possible Hazard Identification: [24]
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☑

Sample Disposal: [25]
Return to Client ☐ Disposal by Lab ☑ Archive (mos.)

Turnaround Time Required: [26]
Normal ☑ Rush ☐

QC Level: [27]
I. ☑ II. ☐ III. ☐ Project Specific (specify):

1. Relinquished by [28] (Signature/Affiliation) Matthew G. Wilson ITES Austin	Date: 11/29/93 Time: 1824	1. Received by [28] (Signature/Affiliation) [signature] IT	Date: 11-30-93 Time: 0920
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: [29]

White: To accompany samples Yellow: Field copy *See back of form for special instructions.

MCA 3/15/91

Auxiliary Data Summary 12/21/93

Work order : B311332 Sample ID : A1585

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
02B						
	9071IR	B311332-04B	1207TPHIR1	12/07/93	12/09/93	1.0
	Arsenic	B311332-04B	12043050F1	12/04/93	12/09/93	109
	Chromium VI	B311332-04B	1210CR_VI1	12/10/93	12/10/93	10.0
	Mercury	B311332-04B	1207HGAA1	12/07/93	12/07/93	106
	Lead	B311332-04B	12043050F1	12/04/93	12/09/93	109

Auxiliary Data Summary 12/21/93

Work order : B311332

Sample ID : A1586

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
03B						
	9071IR	B311332-04B	1207TPHIR1	12/07/93	12/09/93	1.0
	Arsenic	B311332-04B	12043050F1	12/04/93	12/09/93	103
	Chromium VI	B311332-04B	1210CR_VI1	12/10/93	12/10/93	10.0
	Mercury	B311332-04B	1207HGAA1	12/07/93	12/07/93	109
	Lead	B311332-04B	12043050F1	12/04/93	12/09/93	103

Auxiliary Data Summary 12/21/93

Work order : B311332 Sample ID : LAB BLANK #1

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
04B						
	9071IR	B311332-04B	1207TPHIR1	12/07/93	12/09/93	1.0
	Arsenic	B311332-04B	12043050F1	12/04/93	12/09/93	1.0
	Chromium VI	B311332-04B	1210CR_VI1	12/10/93	12/10/93	1.0
	Mercury	B311332-04B	1207HGAA1	12/07/93	12/07/93	1.0
	Lead	B311332-04B	12043050F1	12/04/93	12/09/93	1.0

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

Routed to CF, TL, KH 1/10/94

CERTIFICATE OF ANALYSIS

IT CORPORATION
1250 CAPITAL OF TX HWY
BLDG. 3, SUITE 200
AUSTIN, TX 78746-6443
TIM JENNINGS

Date: 12/29/93

Work Order: B3-12-026

This is the Certificate of Analysis for the following samples:

Client Work ID: D.O.5001 409832-003-03
Date Received: 12/02/93
Number of Samples: 19
Sample Type: SOIL

I. Introduction

Samples were labeled as follows:

SAMPLE IDENTIFICATION	LABORATORY #
A1148	B3-12-026-01
A1149	B3-12-026-02
A1150	B3-12-026-03
A1151	B3-12-026-04
A1152	B3-12-026-05
A1153	B3-12-026-06
A1153-MS	B3-12-026-07
A1153-MSD	B3-12-026-08
A1154	B3-12-026-09
A1155	B3-12-026-10
A1156	B3-12-026-11
A1157	B3-12-026-12
A1158	B3-12-026-13

Reviewed and Approved:

Jon Bartell
Laboratory Director

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

409832-003-03 Work Order: B3-12-026

Samples, continued from above:

SAMPLE IDENTIFICATION	LABORATORY #
A1159	B3-12-026-14
LAB BLANK #1	B3-12-026-15
LAB BLANK #1	B3-12-026-16
LAB BLANK #2	B3-12-026-17
LAB BLANK #2	B3-12-026-18
LAB BLANK #3	B3-12-026-19

II. QA/QC

The results presented in this report meet the statement of work requirements in accordance with Quality Control and Quality Assurance protocol except as noted in Section IV or in an optional sample narrative at the end of Section III.

In the presented analytical data, 'ND' or '<' indicates that the compound is not detected at the specified limit.

III. Analytical Data

The following page(s) supply results for requested analyses performed on the samples listed above.

The test results relate to tested items only. ITAS-Austin reserves the right to control report production except in whole.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-03 Work Order: B3-12-026

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1148**
SAMPLE DATE: **11/16/93**
SAMPLE MATRIX: **WATER**
ANALYSIS DATE: 12/03/93
DILUTION FACTOR: 1.0
UNITS: **UG/L**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	8.9	J	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	3.2	JB	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	95	88 - 110
BROMOFLUOROBENZENE	102	86 - 115
1,2-DICHLOROETHANE-D4	104	76 - 114

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-03 Work Order: B3-12-026

SAMPLE ID: **A1149**
SAMPLE DATE: **12/01/93 09:00:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		1500	100	MG/KG	12/10/93	EPA9071
Chromium VI		0.10U	0.10	MG/KG	12/11/93	EPA7196

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-03 Work Order: B3-12-026

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1149**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/10/93**
DILUTION FACTOR: **5.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	50	U	50	1,2-Dichloropropane	25	U	25
Bromomethane	50	U	50	trans-1,3-Dichloropropene	25	U	25
Vinyl chloride	50	U	50	Trichloroethene	25	U	25
Chloroethane	50	U	50	Chlorodibromomethane	25	U	25
Methylene chloride	8.5	J	50	1,1,2-Trichloroethane	25	U	25
Acetone	140	JB	500	Benzene	25	U	25
Carbon disulfide	25	U	25	cis-1,3-Dichloropropene	25	U	25
1,1-Dichloroethene	25	U	25	2-Chloroethylvinyl ether	50	U	50
1,1-Dichloroethane	25	U	25	Bromoform	25	U	25
trans-1,2-Dichloroethene	25	U	25	2-Hexanone	250	U	250
cis-1,2-Dichloroethene	25	U	25	4-Methyl-2-pentanone	250	U	250
Chloroform	25	U	25	Tetrachloroethene	25	U	25
1,2-Dichloroethane	25	U	25	1,1,2,2-Tetrachloroethane	25	U	25
2-Butanone	500	U	500	Toluene	25	U	25
1,1,1-Trichloroethane	25	U	25	Chlorobenzene	25	U	25
Carbon tetrachloride	25	U	25	Ethylbenzene	120		25
Vinyl acetate	50	U	50	Styrene	25	U	25
Dichlorobromomethane	25	U	25	Xylenes, total	420		25

Surrogates	% Recovery	Limits
TOLUENE-D8	103	81 - 117
BROMOFLUOROBENZENE	93	74 - 121
1,2-DICHLOROETHANE-D4	104	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-03 Work Order: B3-12-026

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1149**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/04/93**
ANALYSIS DATE: **12/15/93**
DILUTION FACTOR: **0.17**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Phenol	1.70	U	1.70	2,6-Dinitrotoluene	1.70	U	1.70
bis(2-Chloroethyl)ether	1.70	U	1.70	3-Nitroaniline	4.25	U	4.25
2-Chlorophenol	1.70	U	1.70	Acenaphthene	1.70	U	1.70
1,3-Dichlorobenzene	1.70	U	1.70	2,4-Dinitrophenol	4.25	U	4.25
1,4-Dichlorobenzene	1.70	U	1.70	4-Nitrophenol	4.25	U	4.25
Benzyl alcohol	1.70	U	1.70	Dibenzofuran	1.70	U	1.70
1,2-Dichlorobenzene	1.70	U	1.70	2,4-Dinitrotoluene	1.70	U	1.70
2-Methylphenol	1.70	U	1.70	Diethylphthalate	1.70	U	1.70
bis(2-Chloroisopropyl)ether	1.70	U	1.70	4-Chlorophenyl-phenylether	1.70	U	1.70
4-Methylphenol	1.70	U	1.70	Fluorene	1.70	U	1.70
N-Nitroso-di-n-propylamine	1.70	U	1.70	4-Nitroaniline	4.25	U	4.25
Hexachloroethane	1.70	U	1.70	4,6-Dinitro-2-methylphenol	4.25	U	4.25
Nitrobenzene	1.70	U	1.70	N-Nitrosodiphenylamine (1)	1.70	U	1.70
Isophorone	1.70	U	1.70	4-Bromophenyl-phenylether	1.70	U	1.70
2-Nitrophenol	1.70	U	1.70	Hexachlorobenzene	1.70	U	1.70
2,4-Dimethylphenol	1.70	U	1.70	Pentachlorophenol	4.25	U	4.25
Benzoic Acid	1.70	U	1.70	Phenanthrene	1.70	U	1.70
bis(2-Chloroethoxy)methane	1.70	U	1.70	Anthracene	1.70	U	1.70
2,4-Dichlorophenol	1.70	U	1.70	Di-n-butylphthalate	1.70	U	1.70
1,2,4-Trichlorobenzene	1.70	U	1.70	Fluoranthene	1.70	U	1.70
Naphthalene	2.5		1.70	Pyrene	1.70	U	1.70
4-Chloroaniline	1.70	U	1.70	Butylbenzylphthalate	1.70	U	1.70
Hexachlorobutadiene	1.70	U	1.70	3,3'-Dichlorobenzidine	1.70	U	1.70
4-Chloro-3-methylphenol	1.70	U	1.70	Benzo(a)anthracene	1.70	U	1.70
2-Methylnaphthalene	5.1		1.70	Chrysene	1.70	U	1.70
Hexachlorocyclopentadiene	1.70	U	1.70	bis(2-Ethylhexyl)phthalate	0.21	J	1.70
2,4,6-Trichlorophenol	1.70	U	1.70	Di-n-octylphthalate	1.70	U	1.70
2,4,5-Trichlorophenol	4.25	U	4.25	Benzo(b)fluoranthene	1.70	U	1.70
2-Chloronaphthalene	1.70	U	1.70	Benzo(k)fluoranthene	1.70	U	1.70
2-Nitroaniline	4.25	U	4.25	Benzo(a)pyrene	1.70	U	1.70
Dimethylphthalate	1.70	U	1.70	Indeno(1,2,3-cd)pyrene	1.70	U	1.70
Acenaphthylene	1.70	U	1.70	Dibenzo(a,h)anthracene	1.70	U	1.70
				Benzo(g,h,i)perylene	1.70	U	1.70

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-03 Work Order: B3-12-026

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1149**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	63	23 - 120
2-Fluorobiphenyl	63	30 - 115
Terphenyl-D14	61	18 - 137
Phenol-D5	55	24 - 113
2-Fluorophenol	56	25 - 121
2,4,6-Tribromophenol	53	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

409832-003-03 Work Order: B3-12-026

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1149**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **537.634**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	8.9	UN	8.9	7060	12/21/93
Aluminum	1100	N	110	6010	12/21/93
Barium	110	U*N	110	6010	12/21/93
Beryllium	2.7	U	2.7	6010	12/21/93
Cadmium	2.7	U	2.7	6010	12/21/93
Chromium	5.4	U	5.4	6010	12/21/93
Copper	13	U	13	6010	12/21/93
Iron	2100	*N	54	6010	12/21/93
Nickel	22	U	22	6010	12/21/93
Lead	30	N	1.1	7421	12/20/93
Mercury	0.022	U	0.022	7471	12/17/93
Silver	5.4	U	5.4	6010	12/21/93
Zinc	11	U	11	6010	12/21/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-03 Work Order: B3-12-026

SAMPLE ID: **A1150**
SAMPLE DATE: **12/01/93 09:00:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		1500	100	MG/KG	12/10/93	EPA9071
Chromium VI		0.10U	0.10	MG/KG	12/11/93	EPA7196

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-03 Work Order: B3-12-026

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1150**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/10/93**
DILUTION FACTOR: **5.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	50	U	50	1,2-Dichloropropane	25	U	25
Bromomethane	50	U	50	trans-1,3-Dichloropropene	25	U	25
Vinyl chloride	50	U	50	Trichloroethene	25	U	25
Chloroethane	50	U	50	Chlorodibromomethane	25	U	25
Methylene chloride	50	U	50	1,1,2-Trichloroethane	25	U	25
Acetone	120	B	500	Benzene	53		25
Carbon disulfide	25	U	25	cis-1,3-Dichloropropene	25	U	25
1,1-Dichloroethene	25	U	25	2-Chloroethylvinyl ether	50	U	50
1,1-Dichloroethane	25	U	25	Bromoform	25	U	25
trans-1,2-Dichloroethene	25	U	25	2-Hexanone	250	U	250
cis-1,2-Dichloroethene	25	U	25	4-Methyl-2-pentanone	250	U	250
Chloroform	25	U	25	Tetrachloroethene	25	U	25
1,2-Dichloroethane	25	U	25	1,1,2,2-Tetrachloroethane	25	U	25
2-Butanone	500	U	500	Toluene	25	U	25
1,1,1-Trichloroethane	25	U	25	Chlorobenzene	25	U	25
Carbon tetrachloride	25	U	25	Ethylbenzene	160		25
Vinyl acetate	50	U	50	Styrene	25	U	25
Dichlorobromomethane	25	U	25	Xylenes, total	6600	D	25

Surrogates	% Recovery	Limits
TOLUENE-D8	111	81 - 117
BROMOFLUOROBENZENE	88	74 - 121
1,2-DICHLOROETHANE-D4	106	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-03 Work Order: B3-12-026

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1150**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/04/93**
ANALYSIS DATE: **12/15/93**
DILUTION FACTOR: **0.17**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Phenol	1.70	U	1.70	2,6-Dinitrotoluene	1.70	U	1.70
bis(2-Chloroethyl)ether	1.70	U	1.70	3-Nitroaniline	4.25	U	4.25
2-Chlorophenol	1.70	U	1.70	Acenaphthene	1.70	U	1.70
1,3-Dichlorobenzene	1.70	U	1.70	2,4-Dinitrophenol	4.25	U	4.25
1,4-Dichlorobenzene	1.70	U	1.70	4-Nitrophenol	4.25	U	4.25
Benzyl alcohol	1.70	U	1.70	Dibenzofuran	1.70	U	1.70
1,2-Dichlorobenzene	1.70	U	1.70	2,4-Dinitrotoluene	1.70	U	1.70
2-Methylphenol	1.70	U	1.70	Diethylphthalate	1.70	U	1.70
bis(2-Chloroisopropyl)ether	1.70	U	1.70	4-Chlorophenyl-phenylether	1.70	U	1.70
4-Methylphenol	1.70	U	1.70	Fluorene	0.20	J	1.70
N-Nitroso-di-n-propylamine	1.70	U	1.70	4-Nitroaniline	4.25	U	4.25
Hexachloroethane	1.70	U	1.70	4,6-Dinitro-2-methylphenol	4.25	U	4.25
Nitrobenzene	1.70	U	1.70	N-Nitrosodiphenylamine (1)	1.70	U	1.70
Isophorone	1.70	U	1.70	4-Bromophenyl-phenylether	1.70	U	1.70
2-Nitrophenol	1.70	U	1.70	Hexachlorobenzene	1.70	U	1.70
2,4-Dimethylphenol	1.70	U	1.70	Pentachlorophenol	4.25	U	4.25
Benzoic Acid	1.70	U	1.70	Phenanthrene	1.70	U	1.70
bis(2-Chloroethoxy)methane	1.70	U	1.70	Anthracene	1.70	U	1.70
2,4-Dichlorophenol	1.70	U	1.70	Di-n-butylphthalate	1.70	U	1.70
1,2,4-Trichlorobenzene	1.70	U	1.70	Fluoranthene	1.70	U	1.70
Naphthalene	4.4	U	1.70	Pyrene	1.70	U	1.70
4-Chloroaniline	1.70		1.70	Butylbenzylphthalate	1.70	U	1.70
Hexachlorobutadiene	1.70	U	1.70	3,3'-Dichlorobenzidine	1.70	U	1.70
4-Chloro-3-methylphenol	1.70	U	1.70	Benzo(a)anthracene	1.70	U	1.70
2-Methylnaphthalene	8.8		1.70	Chrysene	1.70	U	1.70
Hexachlorocyclopentadiene	1.70	U	1.70	bis(2-Ethylhexyl)phthalate	0.36	J	1.70
2,4,6-Trichlorophenol	1.70	U	1.70	Di-n-octylphthalate	1.70	U	1.70
2,4,5-Trichlorophenol	4.25	U	4.25	Benzo(b)fluoranthene	1.70	U	1.70
2-Chloronaphthalene	1.70	U	1.70	Benzo(k)fluoranthene	1.70	U	1.70
2-Nitroaniline	4.25	U	4.25	Benzo(a)pyrene	1.70	U	1.70
Dimethylphthalate	1.70	U	1.70	Indeno(1,2,3-cd)pyrene	1.70	U	1.70
Acenaphthylene	1.70	U	1.70	Dibenzo(a,h)anthracene	1.70	U	1.70
				Benzo(g,h,i)perylene	1.70	U	1.70

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-03 Work Order: B3-12-026

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1150**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	70	23 - 120
2-Fluorobiphenyl	66	30 - 115
Terphenyl-D14	64	18 - 137
Phenol-D5	60	24 - 113
2-Fluorophenol	56	25 - 121
2,4,6-Tribromophenol	56	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-03 Work Order: B3-12-026

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1150**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **84.0336**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	1.0	N	0.85	7060	12/21/93
Aluminum	6800	N	17	6010	12/21/93
Barium	170	*N	17	6010	12/21/93
Beryllium	0.89		0.42	6010	12/21/93
Cadmium	0.42	U	0.42	6010	12/21/93
Chromium	12		0.84	6010	12/21/93
Copper	5.8		2.1	6010	12/21/93
Iron	6800	*N	8.4	6010	12/21/93
Nickel	8.5		3.4	6010	12/21/93
Lead	16	N	1.0	7421	12/20/93
Mercury	0.13		0.022	7471	12/17/93
Silver	1.2		0.84	6010	12/21/93
Zinc	15		1.7	6010	12/21/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-03 Work Order: B3-12-026

SAMPLE ID: A1151
SAMPLE DATE: 12/01/93 09:25:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/10/93	EPA9071
Chromium VI		0.10U	0.50	MG/KG	12/11/93	EPA7196

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-03 Work Order: B3-12-026

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1151**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/09/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	1.5	J	10	1,1,2-Trichloroethane	5	U	5
Acetone	17	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	101	81 - 117
BROMOFLUOROBENZENE	100	74 - 121
1,2-DICHLOROETHANE-D4	103	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-03 Work Order: B3-12-026

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1151**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/04/93**
ANALYSIS DATE: **12/15/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-03 Work Order: B3-12-026

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1151**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	53	23 - 120
2-Fluorobiphenyl	57	30 - 115
Terphenyl-D14	92	18 - 137
Phenol-D5	50	24 - 113
2-Fluorophenol	47	25 - 121
2,4,6-Tribromophenol	81	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-03 Work Order: B3-12-026

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1151**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **117.647**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	1.2	N	1.1	7060	12/20/93
Aluminum	6700	N	24	6010	12/21/93
Barium	51	*N	24	6010	12/21/93
Beryllium	1.1		0.59	6010	12/21/93
Cadmium	0.59	U	0.59	6010	12/21/93
Chromium	10		1.2	6010	12/21/93
Copper	6.1		2.9	6010	12/21/93
Iron	10000	*N	12	6010	12/21/93
Nickel	14		4.7	6010	12/21/93
Lead	4.7	N	0.34	7421	12/20/93
Mercury	0.023	U	0.023	7471	12/17/93
Silver	1.2	U	1.2	6010	12/21/93
Zinc	19		2.4	6010	12/21/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-03 Work Order: B3-12-026

SAMPLE ID: **A1152**
SAMPLE DATE: **12/01/93 09:50:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/10/93	EPA9071
Chromium VI		0.10U	0.10	MG/KG	12/11/93	EPA7196

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-03 Work Order: B3-12-026

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1152**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/09/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	1.9	J	10	1,1,2-Trichloroethane	5	U	5
Acetone	7.3	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	103	81 - 117
BROMOFLUOROBENZENE	101	74 - 121
1,2-DICHLOROETHANE-D4	107	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-03 Work Order: B3-12-026

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1152**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/04/93**
ANALYSIS DATE: **12/16/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-03 Work Order: B3-12-026

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1152**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	58	23 - 120
2-Fluorobiphenyl	62	30 - 115
Terphenyl-D14	90	18 - 137
Phenol-D5	59	24 - 113
2-Fluorophenol	58	25 - 121
2,4,6-Tribromophenol	70	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-03 Work Order: B3-12-026

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1152**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **98.0392**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	3.2	N	1.0	7060	12/21/93
Aluminum	9300	N	20	6010	12/21/93
Barium	20	U*N	20	6010	12/21/93
Beryllium	1.8		0.49	6010	12/21/93
Cadmium	0.82		0.49	6010	12/21/93
Chromium	15		0.98	6010	12/21/93
Copper	10		2.5	6010	12/21/93
Iron	14000	*N	9.8	6010	12/21/93
Nickel	21		3.9	6010	12/21/93
Lead	7.9	N	0.31	7421	12/20/93
Mercury	0.021	U	0.021	7471	12/17/93
Silver	0.98	U	0.98	6010	12/21/93
Zinc	23		2.0	6010	12/21/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-03 Work Order: B3-12-026

SAMPLE ID: **A1153**
SAMPLE DATE: **12/01/93 10:10:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/10/93	EPA9071
Chromium VI		0.10U	0.10	MG/KG	12/11/93	EPA7196

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-03 Work Order: B3-12-026

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1153**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/09/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	5.7	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	102	81 - 117
BROMOFLUOROBENZENE	101	74 - 121
1,2-DICHLOROETHANE-D4	105	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-03 Work Order: B3-12-026

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1153**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/04/93**
ANALYSIS DATE: **12/15/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.06	J	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.11	J	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

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Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

409832-003-03 Work Order: B3-12-026

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1153**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	64	23 - 120
2-Fluorobiphenyl	64	30 - 115
Terphenyl-D14	81	18 - 137
Phenol-D5	56	24 - 113
2-Fluorophenol	55	25 - 121
2,4,6-Tribromophenol	72	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-03 Work Order: B3-12-026

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1153**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **102.040**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	1.9	N	1.1	7060	12/20/93
Aluminum	11000	N	20	6010	12/21/93
Barium	120	*N	20	6010	12/21/93
Beryllium	1.6		0.51	6010	12/21/93
Cadmium	0.72		0.51	6010	12/21/93
Chromium	17		1.0	6010	12/21/93
Copper	11		2.6	6010	12/21/93
Iron	14000	*N	10	6010	12/21/93
Nickel	25		4.1	6010	12/21/93
Lead	2.8	N	0.33	7421	12/20/93
Mercury	0.021	U	0.021	7471	12/17/93
Silver	1.0	U	1.0	6010	12/21/93
Zinc	30		2.0	6010	12/21/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Referenced notes for these results:

Duplicate analysis outside control limits due to matrix interference on barium and iron analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-03 Work Order: B3-12-026

SAMPLE ID: **A1153-MS**
SAMPLE DATE: **12/01/93 10:10:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		99		% REC	12/10/93	EPA9071
Chromium VI		104		% REC	12/11/93	EPA7196

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-03 Work Order: B3-12-026

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1153-MS**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/09/93**
DILUTION FACTOR: **1.0**
UNITS: **% REC**

	Result		Result
1,1-Dichloroethene	88	Trichloroethene	79
		Benzene	88
		Toluene	93
		Chlorobenzene	96

Surrogates	% Recovery	Limits
TOLUENE-D8	103	81 - 117
BROMOFLUOROBENZENE	102	74 - 121
1,2-DICHLOROETHANE-D4	105	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

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Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

409832-003-03 Work Order: B3-12-026

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1153-MS**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: 12/04/93
ANALYSIS DATE: 12/15/93
DILUTION FACTOR: 0.033
UNITS: **% REC**

	Result		Result
Phenol	53	Acenaphthene	64
2-Chlorophenol	58	4-Nitrophenol	57
1,4-Dichlorobenzene	63	2,4-Dinitrotoluene	51
N-Nitroso-di-n-propylamine	59	Pentachlorophenol	50
1,2,4-Trichlorobenzene	67	Pyrene	65
4-Chloro-3-methylphenol	62		

Surrogates	% Recovery	Limits
Nitrobenzene-D5	64	23 - 120
2-Fluorobiphenyl	64	30 - 115
Terphenyl-D14	75	18 - 137
Phenol-D5	55	24 - 113
2-Fluorophenol	57	25 - 121
2,4,6-Tribromophenol	66	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-03 Work Order: B3-12-026

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1153-MS**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **105.263**
UNITS: **% REC**

	Result	Method Reference	Analysis Date
Arsenic	65	7060	12/20/93
Aluminum	800	6010	12/21/93
Barium	8	6010	12/21/93
Beryllium	86	6010	12/21/93
Cadmium	86	6010	12/21/93
Chromium	94	6010	12/21/93
Copper	91	6010	12/21/93
Iron	525	6010	12/21/93
Nickel	87	6010	12/21/93
Lead	95	7421	12/20/93
Mercury	116	7471	12/17/93
Silver	85	6010	12/21/93
Zinc	87	6010	12/21/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Referenced notes for these results:

Matrix spike outside control limits due to matrix interference on aluminum analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.

Matrix spike and % RPD for matrix spikes outside control limits due to matrix interference on barium and iron analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.

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Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-03 Work Order: B3-12-026

SAMPLE ID: **A1153-MSD**
SAMPLE DATE: **12/01/93 10:10:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		99		% REC	12/10/93	EPA9071
Chromium VI		98		% REC	12/11/93	EPA7196

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-03 Work Order: B3-12-026

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1153-MSD**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: 12/09/93
DILUTION FACTOR: 1.0
UNITS: % REC

	Result		Result
1,1-Dichloroethene	92	Trichloroethene	83
		Benzene	95
		Toluene	93
		Chlorobenzene	96

Surrogates	% Recovery	Limits
TOLUENE-D8	103	81 - 117
BROMOFLUOROBENZENE	101	74 - 121
1,2-DICHLOROETHANE-D4	108	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

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Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

409832-003-03 Work Order: B3-12-026

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1153-MSD**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/04/93**
ANALYSIS DATE: **12/15/93**
DILUTION FACTOR: **0.033**
UNITS: **% REC**

	Result		Result
Phenol	34	Acenaphthene	42
2-Chlorophenol	37	4-Nitrophenol	31
1,4-Dichlorobenzene	41	2,4-Dinitrotoluene	31
N-Nitroso-di-n-propylamine	38#	Pentachlorophenol	29
1,2,4-Trichlorobenzene	44	Pyrene	42
4-Chloro-3-methylphenol	29		

Surrogates	% Recovery	Limits
Nitrobenzene-D5	42	23 - 120
2-Fluorobiphenyl	42	30 - 115
Terphenyl-D14	53	18 - 137
Phenol-D5	36	24 - 113
2-Fluorophenol	37	25 - 121
2,4,6-Tribromophenol	39	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:
U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Referenced notes for these results:

#Percent recovery outside QC limits due to sample matrix.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-03 Work Order: B3-12-026

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1153-MSD**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): 93.4579
UNITS: **% REC**

	Result	Method Reference	Analysis Date
Arsenic	64	7060	12/20/93
Aluminum	678	6010	12/21/93
Barium	0	6010	12/21/93
Beryllium	85	6010	12/21/93
Cadmium	84	6010	12/21/93
Chromium	88	6010	12/21/93
Copper	88	6010	12/21/93
Iron	339	6010	12/21/93
Nickel	82	6010	12/21/93
Lead	127	7421	12/20/93
Mercury	115	7471	12/17/93
Silver	85	6010	12/21/93
Zinc	83	6010	12/21/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Referenced notes for these results:

Matrix spike duplicate outside control limits due to matrix interference on aluminum analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.

Matrix spike duplicate and % RPD for matrix spikes outside control limits due to matrix interference on barium and iron analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.

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Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

409832-003-03 Work Order: B3-12-026

SAMPLE ID: **A1154**
SAMPLE DATE: **12/01/93 10:25:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/10/93	EPA9071
Chromium VI		0.10U	0.10	MG/KG	12/11/93	EPA7196

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-03 Work Order: B3-12-026

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1154**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: 12/10/93
DILUTION FACTOR: 1.0
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	6.9	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	100	81 - 117
BROMOFLUOROBENZENE	97	74 - 121
1,2-DICHLOROETHANE-D4	101	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-03 Work Order: B3-12-026

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1154**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/04/93**
ANALYSIS DATE: **12/16/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-03 Work Order: B3-12-026

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1154**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	66	23 - 120
2-Fluorobiphenyl	69	30 - 115
Terphenyl-D14	79	18 - 137
Phenol-D5	68	24 - 113
2-Fluorophenol	65	25 - 121
2,4,6-Tribromophenol	68	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

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Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

409832-003-03 Work Order: B3-12-026

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1154**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **116.279**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	2.6	N	1.8	7060	12/21/93
Aluminum	16000	N	23	6010	12/21/93
Barium	23	U*N	23	6010	12/21/93
Beryllium	2.0		0.58	6010	12/21/93
Cadmium	0.58	U	0.58	6010	12/21/93
Chromium	16		1.2	6010	12/21/93
Copper	19		2.9	6010	12/21/93
Iron	11000	*N	12	6010	12/21/93
Nickel	27		4.7	6010	12/21/93
Lead	4.9	N	0.26	7421	12/20/93
Mercury	0.024	U	0.024	7471	12/17/93
Silver	1.2		1.2	6010	12/21/93
Zinc	33		2.3	6010	12/21/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-03 Work Order: B3-12-026

SAMPLE ID: **A1155**
SAMPLE DATE: **12/01/93 13:15:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/10/93	EPA9071
Chromium VI		0.50U	0.50	MG/KG	12/11/93	EPA7196

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-03 Work Order: B3-12-026

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1155**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: 12/10/93
DILUTION FACTOR: 1.0
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	110	B	100	Benzene	1.2	J	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	19	J	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	4.8	J	5
Carbon tetrachloride	5	U	5	Ethylbenzene	2.2	J	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	4.2	J	5

Surrogates	% Recovery	Limits
TOLUENE-D8	104	81 - 117
BROMOFLUOROBENZENE	91	74 - 121
1,2-DICHLOROETHANE-D4	99	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-03 Work Order: B3-12-026

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1155**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/04/93**
ANALYSIS DATE: **12/16/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-03 Work Order: B3-12-026

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1155**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	55	23 - 120
2-Fluorobiphenyl	66	30 - 115
Terphenyl-D14	71	18 - 137
Phenol-D5	59	24 - 113
2-Fluorophenol	58	25 - 121
2,4,6-Tribromophenol	71	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-03 Work Order: B3-12-026

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1155**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **108.695**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	3.0	N	1.1	7060	12/20/93
Aluminum	9100	N	22	6010	12/21/93
Barium	230	*N	22	6010	12/21/93
Beryllium	1.4		0.54	6010	12/21/93
Cadmium	0.69		0.54	6010	12/21/93
Chromium	12		1.1	6010	12/21/93
Copper	6.5		2.7	6010	12/21/93
Iron	9500	*N	11	6010	12/21/93
Nickel	8.1		4.3	6010	12/21/93
Lead	11	N	1.3	7421	12/20/93
Mercury	0.023	U	0.023	7471	12/17/93
Silver	1.1	U	1.1	6010	12/21/93
Zinc	16		2.2	6010	12/21/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-03 Work Order: B3-12-026

SAMPLE ID: **A1156**
SAMPLE DATE: **12/01/93 13:35:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		100	10	MG/KG	12/10/93	EPA9071
Chromium VI		0.50U	0.50	MG/KG	12/11/93	EPA7196

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Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

409832-003-03 Work Order: B3-12-026

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1156**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/10/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	16	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	32		5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	14		5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	130		5
Carbon tetrachloride	5	U	5	Ethylbenzene	91		5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	200		5

Surrogates	% Recovery	Limits
TOLUENE-D8	103	81 - 117
BROMOFLUOROBENZENE	87	74 - 121
1,2-DICHLOROETHANE-D4	104	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-03 Work Order: B3-12-026

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1156**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/04/93**
ANALYSIS DATE: **12/16/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.11	J	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.17	J	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-03 Work Order: B3-12-026

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1156**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	54	23 - 120
2-Fluorobiphenyl	60	30 - 115
Terphenyl-D14	82	18 - 137
Phenol-D5	57	24 - 113
2-Fluorophenol	54	25 - 121
2,4,6-Tribromophenol	79	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-03 Work Order: B3-12-026

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1156**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **91.7431**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	0.95	UN	0.95	7060	12/20/93
Aluminum	8200	N	18	6010	12/21/93
Barium	110	*N	18	6010	12/21/93
Beryllium	1.7		0.46	6010	12/21/93
Cadmium	0.46	U	0.46	6010	12/21/93
Chromium	12		0.92	6010	12/21/93
Copper	7.7		2.3	6010	12/21/93
Iron	13000		9.2	6010	12/21/93
Nickel	18		3.7	6010	12/21/93
Lead	2.4	N	0.29	7421	12/20/93
Mercury	0.020	U	0.020	7471	12/17/93
Silver	0.92	U	0.92	6010	12/21/93
Zinc	21		1.8	6010	12/21/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-03 Work Order: B3-12-026

SAMPLE ID: **A1157**
SAMPLE DATE: **12/01/93 14:05:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		42	10	MG/KG	12/10/93	EPA9071
Chromium VI		0.10U	0.10	MG/KG	12/11/93	EPA7196

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-03 Work Order: B3-12-026

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1157**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/10/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	8.4	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	4.9	J	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	66		5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	6.0		5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	6.2		5

Surrogates	% Recovery	Limits
TOLUENE-D8	99	81 - 117
BROMOFLUOROBENZENE	95	74 - 121
1,2-DICHLOROETHANE-D4	105	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-03 Work Order: B3-12-026

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1157**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/04/93**
ANALYSIS DATE: **12/16/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

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Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

409832-003-03 Work Order: B3-12-026

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1157**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	58	23 - 120
2-Fluorobiphenyl	60	30 - 115
Terphenyl-D14	75	18 - 137
Phenol-D5	62	24 - 113
2-Fluorophenol	60	25 - 121
2,4,6-Tribromophenol	69	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-03 Work Order: B3-12-026

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1157**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **111.111**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	2.0	N	1.1	7060	12/20/93
Aluminum	6300	N	22	6010	12/21/93
Barium	15	*N	22	6010	12/21/93
Beryllium	1.5		0.56	6010	12/21/93
Cadmium	0.56	U	0.56	6010	12/21/93
Chromium	15		1.1	6010	12/21/93
Copper	8.5		2.8	6010	12/21/93
Iron	11000	*N	11	6010	12/21/93
Nickel	16		4.4	6010	12/21/93
Lead	6.9	N	0.32	7421	12/20/93
Mercury	0.022	U	0.022	7471	12/17/93
Silver	1.1	U	1.1	6010	12/21/93
Zinc	17		2.2	6010	12/21/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-03 Work Order: B3-12-026

SAMPLE ID: **A1158**
SAMPLE DATE: **12/01/93 14:25:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/10/93	EPA9071
Chromium VI		0.50U	0.50	MG/KG	12/11/93	EPA7196

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-03 Work Order: B3-12-026

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1158**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/10/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	7.3	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	100	81 - 117
BROMOFLUOROBENZENE	95	74 - 121
1,2-DICHLOROETHANE-D4	102	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-03 Work Order: B3-12-026

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1158**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/04/93**
ANALYSIS DATE: **12/16/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

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Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

409832-003-03 Work Order: B3-12-026

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1158**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	42	23 - 120
2-Fluorobiphenyl	45	30 - 115
Terphenyl-D14	71	18 - 137
Phenol-D5	48	24 - 113
2-Fluorophenol	45	25 - 121
2,4,6-Tribromophenol	59	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

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Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

409832-003-03 Work Order: B3-12-026

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1158**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **100.000**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	2.9	N	1.1	7060	12/20/93
Aluminum	11000	N	20	6010	12/21/93
Barium	33	*N	20	6010	12/21/93
Beryllium	2.0		0.50	6010	12/21/93
Cadmium	0.50	U	0.50	6010	12/21/93
Chromium	15		1.0	6010	12/21/93
Copper	11		2.5	6010	12/21/93
Iron	13000	*N	10	6010	12/21/93
Nickel	26		4.0	6010	12/21/93
Lead	4.4	N	0.32	7421	12/20/93
Mercury	0.024	U	0.024	7471	12/17/93
Silver	1.0	U	1.0	6010	12/21/93
Zinc	31		2.0	6010	12/21/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-03 Work Order: B3-12-026

SAMPLE ID: **A1159**
SAMPLE DATE: **12/01/93 14:50:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/10/93	EPA9071
Chromium VI		0.50U	0.50	MG/KG	12/11/93	EPA7196

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-03 Work Order: B3-12-026

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1159**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/10/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	6.4	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	100	81 - 117
BROMOFLUOROBENZENE	93	74 - 121
1,2-DICHLOROETHANE-D4	98	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-03 Work Order: B3-12-026

TEST NAME: **ABN BSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1159**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/04/93**
ANALYSIS DATE: **12/16/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-03 Work Order: B3-12-026

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1159**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	79	23 - 120
2-Fluorobiphenyl	80	30 - 115
Terphenyl-D14	99	18 - 137
Phenol-D5	83	24 - 113
2-Fluorophenol	79	25 - 121
2,4,6-Tribromophenol	80	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

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Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

409832-003-03 Work Order: B3-12-026

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1159**
SAMPLE DATE: **12/01/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **103.092**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	1.6	N	0.85	7060	12/21/93
Aluminum	19000	N	21	6010	12/21/93
Barium	29	*N	21	6010	12/21/93
Beryllium	2.8		0.52	6010	12/21/93
Cadmium	0.52	U	0.52	6010	12/21/93
Chromium	21		1.0	6010	12/21/93
Copper	22		2.6	6010	12/21/93
Iron	18000	*N	10	6010	12/21/93
Nickel	28		4.1	6010	12/21/93
Lead	3.4	N	0.25	7421	12/20/93
Mercury	0.023	U	0.023	7471	12/17/93
Silver	1.0	U	1.0	6010	12/21/93
Zinc	37		2.1	6010	12/21/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-03 Work Order: B3-12-026

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE:
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/10/93	EPA9071
Chromium VI		0.010U	0.010	MG/KG	12/11/93	EPA7196

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-03 Work Order: B3-12-026

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: 12/09/93
DILUTION FACTOR: 1.0
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	3.4	J	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	98	81 - 117
BROMOFLUOROBENZENE	98	74 - 121
1,2-DICHLOROETHANE-D4	100	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-03 Work Order: B3-12-026

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/04/93**
ANALYSIS DATE: **12/15/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

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Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

409832-003-03 Work Order: B3-12-026

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	80	23 - 120
2-Fluorobiphenyl	84	30 - 115
Terphenyl-D14	116	18 - 137
Phenol-D5	74	24 - 113
2-Fluorophenol	74	25 - 121
2,4,6-Tribromophenol	95	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-03 Work Order: B3-12-026

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **1.0**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	0.010	U	0.010	7060	12/20/93
Aluminum	0.20	U	0.20	6010	12/21/93
Barium	0.20	U	0.20	6010	12/21/93
Beryllium	0.0050	U	0.0050	6010	12/21/93
Cadmium	0.0050	U	0.0050	6010	12/21/93
Chromium	0.010	U	0.010	6010	12/21/93
Copper	0.0250	U	0.0250	6010	12/21/93
Iron	0.10	U	0.10	6010	12/21/93
Nickel	0.040	U	0.040	6010	12/21/93
Lead	0.0030	U	0.0030	7421	12/20/93
Mercury	0.00020	U	0.00020	7471	12/17/93
Silver	0.010	U	0.010	6010	12/21/93
Zinc	0.020	U	0.020	6010	12/21/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-03 Work Order: B3-12-026

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE:
SAMPLE MATRIX: **WATER**
ANALYSIS DATE: 12/03/93
DILUTION FACTOR: 1.0
UNITS: **UG/L**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	100	U	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	3.2	J	5
1,1,1-Trichloroethane	3.4	J	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	95	88 - 110
BROMOFLUOROBENZENE	98	86 - 115
1,2-DICHLOROETHANE-D4	103	76 - 114

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-03 Work Order: B3-12-026

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **LAB BLANK #2**
SAMPLE DATE:
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: 12/10/93
DILUTION FACTOR: 1.0
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	2.8	J	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	103	81 - 117
BROMOFLUOROBENZENE	99	74 - 121
1,2-DICHLOROETHANE-D4	98	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-03 Work Order: B3-12-026

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **LAB BLANK #2**
SAMPLE DATE:
SAMPLE MATRIX: **WATER**
ANALYSIS DATE: 12/14/93
DILUTION FACTOR: 1.0
UNITS: **UG/L**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	100	U	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	101	88 - 110
BROMOFLUOROBENZENE	98	86 - 115
1,2-DICHLOROETHANE-D4	106	76 - 114

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-03 Work Order: B3-12-026

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **LAB BLANK #3**
SAMPLE DATE:
SAMPLE MATRIX: **WATER**
ANALYSIS DATE: 12/14/93
DILUTION FACTOR: 50
UNITS: UG/L

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	500	U	500	1,2-Dichloropropane	250	U	250
Bromomethane	500	U	500	trans-1,3-Dichloropropene	250	U	250
Vinyl chloride	500	U	500	Trichloroethene	250	U	250
Chloroethane	500	U	500	Chlorodibromomethane	250	U	250
Methylene chloride	500	U	500	1,1,2-Trichloroethane	250	U	250
Acetone	5000	U	5000	Benzene	250	U	250
Carbon disulfide	250	U	250	cis-1,3-Dichloropropene	250	U	250
1,1-Dichloroethene	250	U	250	2-Chloroethylvinyl ether	500	U	500
1,1-Dichloroethane	250	U	250	Bromoform	250	U	250
trans-1,2-Dichloroethene	250	U	250	2-Hexanone	2500	U	2500
cis-1,2-Dichloroethene	250	U	250	4-Methyl-2-pentanone	2500	U	2500
Chloroform	250	U	250	Tetrachloroethene	250	U	250
1,2-Dichloroethane	250	U	250	1,1,2,2-Tetrachloroethane	250	U	250
2-Butanone	5000	U	5000	Toluene	250	U	250
1,1,1-Trichloroethane	250	U	250	Chlorobenzene	250	U	250
Carbon tetrachloride	250	U	250	Ethylbenzene	250	U	250
Vinyl acetate	500	U	500	Styrene	250	U	250
Dichlorobromomethane	250	U	250	Xylenes, total	250	U	250

Surrogates	% Recovery	Limits
TOLUENE-D8	101	88 - 110
BROMOFLUOROBENZENE	96	86 - 115
1,2-DICHLOROETHANE-D4	105	76 - 114

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

IT ANALYTICAL SERVICES
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(512) 892-6684

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

409832-003-03 Work Order: B3-12-026

Referenced notes for this work order:

B312026

The %RPD's for the matrix spike and matrix spike duplicate (all compounds except 2-Chlorophenol) were outside CLP advisory limits. The data is accepted based upon the LCS recovery.

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

409832-003-03 Work Order: B3-12-026

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME **ICP Metals** TEST CODE **6010**

Metals by ICP	Inductively coupled emission spectroscopy according to Method 6010, "Test Methods for Evaluating Solid Waste Physical/Chemical Methods", SW-846, Third Edition.

TEST NAME **Hazardous Substance Vols.** TEST CODE **8240TK**

Hazardous Substance List Volatiles	Method 8240, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. GC/MS Purge and Trap analysis.

TEST NAME **ABN HSL GC/MS Extractables** TEST CODE **8270TK**

Hazardous Substance List Extractables	Method 8270, SW-846, Test Methods for Evaluating Solid Waste, Third Edition. Acid/Base-Neutral extraction followed by GC/MS analysis.

TEST NAME **9071/418.1 for TPH** TEST CODE **9071IR**

9071 Prep and IR Analysis	Method 9071, SW846, Test Methods for Evaluating Solid Waste, Third Edition. Soxhlet extraction from Method 9071 using freon and infrared analysis of the extract using Method 418.1.

TEST NAME **Arsenic - Graphite Furnace** TEST CODE **AS_GF**

Arsenic Graphite Furnace	Method 7060, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. EPA 206.2-Technical Additions to Methods for Chemical Analysis of Water and Wastes, EPA-600/4-82-055, December 1982.

TEST NAME **Chromium VI** TEST CODE **CR_VI**

Chromium VI	Method 7196, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Colorimetric analysis. Equivalent to Standard Methods 3500-Cr D.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-03 Work Order: B3-12-026

TEST NAME **Mercury** TEST CODE **HG_AA**

Mercury	Method 7471, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Cold vapor atomic absorption. Method 7470 is used for water. Method 245.5-"Technical Additions to Methods for Chemical Analysis of Water and Wastes," EPA-600/4-82-055, December 1982.

TEST NAME **Metals** TEST CODE **ICPTK2**

Method not available.

TEST NAME **Lead - Graphite Furnace** TEST CODE **PB_GF**

Lead Graphite Furnace	EPA 7421, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. EPA 239.2-Technical Additions to Methods for Chemical Analysis of Water and Wastes," EPA-600/4-82-055, December 1982.

TEST NAME **GFAA Digestion - Soil** TEST CODE **Z3050F**

Soil Digestion	Method 3050, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Acid digestion technique for Graphite Furnace/Flame AA analysis.

TEST NAME **ICPES Digestion - Soil** TEST CODE **Z3050P**

Soil Digestion	Method 3050, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Acid digestion technique for ICPES analysis. Equivalent to Method 3050A, SW-846 Update I, July 1992.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 420740
Page 1 of 2

Project Name/No. [1] Tinker AFB-5001 409832.03.03
Sample Team Members [2] Andrew Gordon, Kyle Kirschenmann
Profit Center No. [3] 3527
Project Manager [4] Jimmy Taylor
Purchase Order No. [6] 409832.03
Required Report Date [11] 15 Days

Samples Shipment Date [7] 12-1-93
Lab Destination [8] ITAS- AUSTIN
Lab Contact [9] Karmen Deane
Project Contact/Phone [12] Dan McGregor 405-736-2260
Carrier/Waybill No. [13] FedEX 8460755660

Bill to: [5] 409832.03.03
D.O. 5001
Report to: [10] Tim Jennings
IT- Austin-ES

ONE CONTAINER PER LINE

Sample Number [14]	Sample Description/Type [15]	Date/Time Collected [16]	Container Type [17]	Sample Volume [18]	Pre-servative [19]	Requested Testing Program [20]	Condition on Receipt [21]	Disposal Record No. [22]
A1148	Trip Blank	11-16-93 1700	Clear glass	40ml	HCl COOL	8240	Good 4°C 12-2-93 RUA	B3244100C
A1149	Soil	12-1-93 0900		125ml	COOL	8240		
A1149				500ml		8270, 418.1, 6010		
A1150		12-1-93 0900		125ml		8240		
A1150				500ml		8270, 418.1, 6010		
A1151		12-1-93 0925		125ml		8240		
A1151				500ml		8270, 418.1, 6010		

Special Instructions: [23]

Possible Hazard Identification: [24]
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☒

Sample Disposal: [25]
Return to Client ☐ Disposal by Lab ☒ Archive (mos.)

Turnaround Time Required: [26]
Normal ☒ Rush ☐

QC Level: [27]
I. ☒ II. ☐ III. ☐ Project Specific (specify):

1. Relinquished by [28] (Signature/Affiliation) [signature] (IT)	Date: 12-1-93 Time: 1900	1. Received by [28] (Signature/Affiliation) [signature] IT Corp	Date: 12-2-93 Time: 0854
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: [29]

White: To accompany samples
Yellow: Field copy
*See back of form for special instructions.

MCA 3/15/91

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] 420740

Page 2 of 2

Project Name Tinker AFB-5001

Project No. 409832.03.03

Samples Shipment Date 12-1-93

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	Condition on[21] Receipt	Disposal[22] Record No.
A1152	Soil	12-1-93 0950	clear glass	125ml	COOL	8240	Good 12-2-93 a	
A1152		↓		500ml		8270, 418.1, 6010		
A1153 ms/msD		12-1-93 1010		125 ml		8240		
A1153 ms/msD		↓		1000ml		8270, 418.1, 6010		
A1154		12-1-93 1025		125 ml		8240		
A1154		↓		500 ml		8270, 418.1, 6010		
A1155		12-1-93 1315		125 ml		8240		
A1155		↓		500 ml		8270, 418.1, 6010		
A1156		12-1-93 1335		125 ml		8240		
A1156		↓		500 ml		8270, 418.1, 6010		
A1157		12-1-93 1405		125 ml		8240		
A1157		↓		500 ml		8270, 418.1, 6010		
A1158		12-1-93 1425		125 ml		8240		
A1158		↓		500 ml		8270, 418.1, 6010		
A1159		12-1-93 1450		125 ml		8240		
A1159	↓	↓	↓	500 ml	↓	8270, 418.1, 6010	↓	

White: To accompany samples

Yellow: Field copy

*See back of form for special instructions.

MCA 3/15/91

Auxiliary Data Summary 12/30/93

Work order : B312026 Sample ID : A1149

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
02B						
	9071IR	B312026-15B	1209TPHIR1	12/09/93	12/10/93	10.0
	Arsenic	B312026-15B	12133050F2	12/13/93	12/21/93	893
	Chromium VI	B312026-15B	1211CR_VI1	12/11/93	12/11/93	10.0
	Mercury	B312026-15B	1217HGAA2	12/17/93	12/17/93	108
	Lead	B312026-15B	12133050F2	12/13/93	12/20/93	357

Auxiliary Data Summary 12/30/93

Work order : B312026 Sample ID : A1150

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
03B						
	9071IR	B312026-15B	1209TPHIR1	12/09/93	12/10/93	10.0
	Arsenic	B312026-15B	12133050F2	12/13/93	12/21/93	87.7
	Chromium VI	B312026-15B	1211CR_VI1	12/11/93	12/11/93	10.0
	Mercury	B312026-15B	1217HGAA2	12/17/93	12/17/93	109
	Lead	B312026-15B	12133050F2	12/13/93	12/20/93	339

Auxiliary Data Summary 12/30/93

Work order : B312026 Sample ID : A1151

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
04B						
	9071IR	B312026-15B	1209TPHIR1	12/09/93	12/10/93	1.0
	Arsenic	B312026-15B	12133050F2	12/13/93	12/21/93	112
	Chromium VI	B312026-15B	1211CR_VI1	12/11/93	12/11/93	10.0
	Mercury	B312026-15B	1217HGAA2	12/17/93	12/17/93	114
	Lead	B312026-15B	12133050F2	12/13/93	12/20/93	112

Auxiliary Data Summary 12/30/93

Work order : B312026 Sample ID : A1152

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
05B						
	9071IR	B312026-15B	1209TPHIR1	12/09/93	12/10/93	1.0
	Arsenic	B312026-15B	12133050F2	12/13/93	12/21/93	103
	Chromium VI	B312026-15B	1211CR_VI1	12/11/93	12/11/93	10.0
	Mercury	B312026-15B	1217HGAA2	12/17/93	12/17/93	105
	Lead	B312026-15B	12133050F2	12/13/93	12/20/93	103

Auxiliary Data Summary 12/30/93

Work order : B312026 Sample ID : A1153

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
06B						
	9071IR	B312026-15B	1209TPHIR1	12/09/93	12/10/93	1.0
	Arsenic	B312026-15B	12133050F2	12/13/93	12/21/93	109
	Chromium VI	B312026-15B	1211CR_VI1	12/11/93	12/11/93	10.0
	Mercury	B312026-15B	1217HGAA2	12/17/93	12/17/93	104
	Lead	B312026-15B	12133050F2	12/13/93	12/20/93	109

Auxiliary Data Summary 12/30/93

Work order : B312026 Sample ID : A1153-MS

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
07B						
	9071IR	B312026-15B	1209TPHIR1	12/09/93	12/10/93	1.0
	Arsenic	B312026-15B	12133050F2	12/13/93	12/21/93	89.3
	Chromium VI	B312026-15B	1211CR_VI1	12/11/93	12/11/93	10.0
	Mercury	B312026-15B	1217HGAA2	12/17/93	12/17/93	118
	Lead	B312026-15B	12133050F2	12/13/93	12/20/93	89.3

Auxiliary Data Summary 12/30/93

Work order : B312026 Sample ID : A1153-MSD

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
08B						
	9071IR	B312026-15B	1209TPHIR1	12/09/93	12/10/93	1.0
	Arsenic	B312026-15B	12133050F2	12/13/93	12/21/93	90.1
	Chromium VI	B312026-15B	1211CR_VI1	12/11/93	12/11/93	10.0
	Mercury	B312026-15B	1217HGAA2	12/09/93	12/17/93	111
	Lead	B312026-15B	12133050F2	12/13/93	12/20/93	90.1

Auxiliary Data Summary 12/30/93

Work order : B312026 Sample ID : A1154

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
09B						
	9071IR	B312026-15B	1209TPHIR1	12/09/93	12/10/93	1.0
	Arsenic	B312026-15B	12133050F2	12/13/93	12/21/93	175
	Chromium VI	B312026-15B	1211CR_VI1	12/11/93	12/11/93	10.0
	Mercury	B312026-15B	1217HGAA2	12/17/93	12/17/93	122
	Lead	B312026-15B	12133050F2	12/15/93	12/20/93	88

Auxiliary Data Summary 12/30/93

Work order : B312026 Sample ID : A1155

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
10B						
	9071IR	B312026-15B	1209TPHIR1	12/09/93	12/10/93	1.0
	Arsenic	B312026-15B	12133050F2	12/13/93	12/21/93	110
	Chromium VI	B312026-15B	1211CR_VI1	12/11/93	12/11/93	50.0
	Mercury	B312026-15B	1217HGAA2	12/17/93	12/17/93	115
	Lead	B312026-15B	12133050F2	12/13/93	12/20/93	440

Auxiliary Data Summary 12/30/93

Work order : B312026 Sample ID : A1156

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
11B						
	9071IR	B312026-15B	1209TPHIR1	12/09/93	12/10/93	1.0
	Arsenic	B312026-15B	12133050F2	12/13/93	12/21/93	95.2
	Chromium VI	B312026-15B	1211CR_VI1	12/11/93	12/11/93	50.0
	Mercury	B312026-15B	1217HGAA2	12/17/93	12/17/93	102
	Lead	B312026-15B	12133050F2	12/13/93	12/20/93	95.2

Auxiliary Data Summary 12/30/93

Work order : B312026 Sample ID : A1157

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
12B						
	9071IR	B312026-15B	1209TPHIR1	12/09/93	12/10/93	1.0
	Arsenic	B312026-15B	12133050F2	12/13/93	12/21/93	108
	Chromium VI	B312026-15B	1211CR_VI1	12/11/93	12/11/93	10.0
	Mercury	B312026-15B	1217HGAA2	12/17/93	12/17/93	111
	Lead	B312026-15B	12133050F2	12/13/93	12/20/93	108

Auxiliary Data Summary 12/30/93

Work order : B312026 Sample ID : A1158

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
13B						
	9071IR	B312026-15B	1209TPHIR1	12/09/93	12/10/93	1.0
	Arsenic	B312026-15B	12133050F2	12/13/93	12/21/93	108
	Chromium VI	B312026-15B	1211CR_VI1	12/11/93	12/11/93	50.0
	Mercury	B312026-15B	1217HGAA2	12/17/93	12/17/93	122
	Lead	B312026-15B	12133050F2	12/13/93	12/20/93	108

Auxiliary Data Summary 12/30/93

Work order : B312026 Sample ID : A1159

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
14B						
	9071IR	B312026-15B	1209TPHIR1	12/09/93	12/10/93	1.0
	Arsenic	B312026-15B	12133050F2	12/13/93	12/21/93	84.7
	Chromium VI	B312026-15B	1211CR_VI1	12/11/93	12/11/93	50.0
	Mercury	B312026-15B	1217HGAA2	12/17/93	12/17/93	116
	Lead	B312026-15B	12133050F2	12/13/93	12/20/93	84.7

Auxiliary Data Summary 12/30/93

Work order : B312026 Sample ID : LAB BLANK #1

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
15B						
	9071IR	B312026-15B	1209TPHIR1	12/09/93	12/10/93	1.0
	Arsenic	B312026-15B	12133050F2	12/13/93	12/21/93	1.0
	Chromium VI	B312026-15B	1211CR_VI1	12/11/93	12/11/93	1.0
	Mercury	B312026-15B	1217HGAA2	12/17/93	12/17/93	1.0
	Lead	B312026-15B	12133050F2	12/13/93	12/20/93	1.0

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

Routed to C.F. FL.KA
1/6/94

CERTIFICATE OF ANALYSIS

IT CORPORATION
1250 CAPITAL OF TX HWY
BLDG. 3, SUITE 200
AUSTIN, TX 78746-6443
TIM JENNINGS

Date: 12/29/93

Work Order: B3-12-043

This is the Certificate of Analysis for the following samples:

Client Work ID: D.O.5001 409832-003-01
Date Received: 12/03/93
Number of Samples: 15
Sample Type: SOIL

I. Introduction

Samples were labeled as follows:

SAMPLE IDENTIFICATION	LABORATORY #
A1164	B3-12-043-01
A1165	B3-12-043-02
A1166	B3-12-043-03
A1167	B3-12-043-04
A1168	B3-12-043-05
A1168-MS	B3-12-043-06
A1168-MSD	B3-12-043-07
A1169	B3-12-043-08
A1170	B3-12-043-09
A1171	B3-12-043-10
A1172	B3-12-043-11
A1173	B3-12-043-12
A1174	B3-12-043-13

Reviewed and Approved:

Carl Hughes for

Jon Bartell
Laboratory Director

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

409832-003-01 Work Order: B3-12-043

Samples, continued from above:

SAMPLE IDENTIFICATION	LABORATORY #
LAB BLANK #1	B3-12-043-14
LAB BLANK #1	B3-12-043-15

II. QA/QC

The results presented in this report meet the statement of work requirements in accordance with Quality Control and Quality Assurance protocol except as noted in Section IV or in an optional sample narrative at the end of Section III.

In the presented analytical data, 'ND' or '<' indicates that the compound is not detected at the specified limit.

III. Analytical Data

The following page(s) supply results for requested analyses performed on the samples listed above.

The test results relate to tested items only. ITAS-Austin reserves the right to control report production except in whole.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-043

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1164**
SAMPLE DATE: **11/16/93**
SAMPLE MATRIX: **WATER**
ANALYSIS DATE: **12/07/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/L**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	100	U	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	102	88 - 110
BROMOFLUOROBENZENE	101	86 - 115
1,2-DICHLOROETHANE-D4	101	76 - 114

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-043

SAMPLE ID: **A1165**
SAMPLE DATE: **12/02/93 09:00:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/10/93	EPA9071
Chromium VI		0.10U	0.10	MG/KG	12/09/93	EPA7196

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-043

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1165**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: 12/13/93
DILUTION FACTOR: 1.0
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	150	B	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	22	J	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	16		5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	107	81 - 117
BROMOFLUOROBENZENE	92	74 - 121
1,2-DICHLOROETHANE-D4	100	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-043

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1165**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/08/93**
ANALYSIS DATE: **12/16/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-043

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1165**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	58	23 - 120
2-Fluorobiphenyl	52	30 - 115
Terphenyl-D14	58	18 - 137
Phenol-D5	59	24 - 113
2-Fluorophenol	46	25 - 121
2,4,6-Tribromophenol	54	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-043

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1165**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **94.3396**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	2.7	N	1.2	7060	12/23/93
Aluminum	10000	N	19	6010	12/21/93
Barium	210	*N	19	6010	12/21/93
Beryllium	1.7		0.47	6010	12/21/93
Cadmium	0.47	U	0.47	6010	12/21/93
Chromium	13		0.94	6010	12/21/93
Copper	6.9		2.4	6010	12/21/93
Iron	12000	*N	9.4	6010	12/21/93
Nickel	11		3.8	6010	12/21/93
Lead	7.5	N	0.35	7421	12/23/93
Mercury	0.022	U	0.022	7471	12/27/93
Silver	0.94	U	0.94	6010	12/21/93
Zinc	15		1.9	6010	12/21/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-043

SAMPLE ID: **A1166**
SAMPLE DATE: **12/02/93 09:15:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/10/93	EPA9071
Chromium VI		0.50U	0.50	MG/KG	12/09/93	EPA7196

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-043

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1166**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/13/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	6.1	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	106	81 - 117
BROMOFLUOROBENZENE	99	74 - 121
1,2-DICHLOROETHANE-D4	103	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-043

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1166**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/08/93**
ANALYSIS DATE: **12/16/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-043

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1166**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	59	23 - 120
2-Fluorobiphenyl	55	30 - 115
Terphenyl-D14	68	18 - 137
Phenol-D5	58	24 - 113
2-Fluorophenol	43	25 - 121
2,4,6-Tribromophenol	30	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-043

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1166**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **116.279**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	4.7	N	1.0	7060	12/23/93
Aluminum	12000	N	23	6010	12/21/93
Barium	110	*N	23	6010	12/21/93
Beryllium	2.5		0.58	6010	12/21/93
Cadmium	0.62		0.58	6010	12/21/93
Chromium	21		1.2	6010	12/21/93
Copper	13		2.9	6010	12/21/93
Iron	24000	*N	12	6010	12/21/93
Nickel	24		4.7	6010	12/21/93
Lead	6.0	N	0.31	7421	12/23/93
Mercury	0.024	U	0.024	7471	12/27/93
Silver	1.2	U	1.2	6010	12/21/93
Zinc	31		2.3	6010	12/21/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-043

SAMPLE ID: **A1167**
SAMPLE DATE: **12/02/93 09:40:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/10/93	EPA9071
Chromium VI		0.10U	0.10	MG/KG	12/09/93	EPA7196

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-043

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1167**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: 12/13/93
DILUTION FACTOR: 1.0
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	100	U	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	105	81 - 117
BROMOFLUOROBENZENE	100	74 - 121
1,2-DICHLOROETHANE-D4	107	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-043

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1167**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: 12/08/93
ANALYSIS DATE: 12/16/93
DILUTION FACTOR: 0.033
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-043

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1167**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	73	23 - 120
2-Fluorobiphenyl	69	30 - 115
Terphenyl-D14	86	18 - 137
Phenol-D5	74	24 - 113
2-Fluorophenol	60	25 - 121
2,4,6-Tribromophenol	48	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-043

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1167**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **107.526**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	2.2	N	1.0	7060	12/23/93
Aluminum	6800	N	22	6010	12/21/93
Barium	10	*N	22	6010	12/21/93
Beryllium	1.4		0.54	6010	12/21/93
Cadmium	0.54	U	0.54	6010	12/21/93
Chromium	12		1.1	6010	12/21/93
Copper	8.1		2.7	6010	12/21/93
Iron	11000	*N	11	6010	12/21/93
Nickel	15		4.3	6010	12/21/93
Lead	5.5	N	0.31	7421	12/23/93
Mercury	0.024	U	0.024	7471	12/27/93
Silver	1.1	U	1.1	6010	12/21/93
Zinc	18		2.2	6010	12/21/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-043

SAMPLE ID: **A1168**
SAMPLE DATE: **12/02/93 10:05:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/10/93	EPA9071
Chromium VI		0.10U	0.10	MG/KG	12/09/93	EPA7196

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-043

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1168**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: 12/13/93
DILUTION FACTOR: 1.0
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	11	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	103	81 - 117
BROMOFLUOROBENZENE	98	74 - 121
1,2-DICHLOROETHANE-D4	106	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-12-043

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1168**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/08/93**
ANALYSIS DATE: **12/16/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-043

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1168**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	73	23 - 120
2-Fluorobiphenyl	67	30 - 115
Terphenyl-D14	97	18 - 137
Phenol-D5	59	24 - 113
2-Fluorophenol	31	25 - 121
2,4,6-Tribromophenol	19	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

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Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

409832-003-01 Work Order: B3-12-043

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1168**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **114.942**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	3.5	N	0.89	7060	12/23/93
Aluminum	10000	N	23	6010	12/21/93
Barium	110	*N	23	6010	12/21/93
Beryllium	2.2		0.57	6010	12/21/93
Cadmium	0.57	U	0.57	6010	12/21/93
Chromium	19		1.1	6010	12/21/93
Copper	11		2.9	6010	12/21/93
Iron	21000	*N	11	6010	12/21/93
Nickel	25		4.6	6010	12/21/93
Lead	6.1	N	0.27	7421	12/23/93
Mercury	0.022	U	0.022	7471	12/27/93
Silver	1.1	U	1.1	6010	12/21/93
Zinc	31		2.3	6010	12/21/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Referenced notes for these results:

Duplicate analysis outside control limits due to matrix interference on barium and iron analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-043

SAMPLE ID: **A1168-MS**
SAMPLE DATE: **12/02/93 10:05:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		96		% REC	12/10/93	EPA9071
Chromium VI		102		% REC	12/09/93	EPA7196

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Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

409832-003-01 Work Order: B3-12-043

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1168-MS**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: 12/13/93
DILUTION FACTOR: 1.0
UNITS: **% REC**

	Result		Result
1,1-Dichloroethene	91	Trichloroethene	86
		Benzene	98
		Toluene	104
		Chlorobenzene	103

Surrogates	% Recovery	Limits
TOLUENE-D8	106	81 - 117
BROMOFLUOROBENZENE	99	74 - 121
1,2-DICHLOROETHANE-D4	105	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

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Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

409832-003-01 Work Order: B3-12-043

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1168-MS**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: 12/08/93
ANALYSIS DATE: 12/18/93
DILUTION FACTOR: 0.033
UNITS: **% REC**

	Result		Result
Phenol	44	Acenaphthene	59
2-Chlorophenol	41	4-Nitrophenol	51
1,4-Dichlorobenzene	58	2,4-Dinitrotoluene	50
N-Nitroso-di-n-propylamine	52	Pentachlorophenol	45
1,2,4-Trichlorobenzene	58	Pyrene	60
4-Chloro-3-methylphenol	33@		

Surrogates	% Recovery	Limits
Nitrobenzene-D5	54	23 - 120
2-Fluorobiphenyl	54	30 - 115
Terphenyl-D14	60	18 - 137
Phenol-D5	45	24 - 113
2-Fluorophenol	32	25 - 121
2,4,6-Tribromophenol	19	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-043

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1168-MS**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **84.0336**
UNITS: **% REC**

	Result	Method Reference	Analysis Date
Arsenic	55	7060	12/23/93
Aluminum	885	6010	12/21/93
Barium	87	6010	12/21/93
Beryllium	86	6010	12/21/93
Cadmium	84	6010	12/21/93
Chromium	89	6010	12/21/93
Copper	90	6010	12/21/93
Iron	0	6010	12/21/93
Nickel	83	6010	12/21/93
Lead	0	7421	12/23/93
Mercury	116	7471	12/27/93
Silver	82	6010	12/21/93
Zinc	85	6010	12/21/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Referenced notes for these results:

Matrix spike outside control limits due to matrix interference on aluminum and iron analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.

% RPD for matrix spikes outside control limits due to matrix interference on barium analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-043

SAMPLE ID: **A1168-MSD**
SAMPLE DATE: **12/02/93 10:05:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		99		% REC	12/10/93	EPA9071
Chromium VI		104		% REC	12/09/93	EPA7196

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-043

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1168-MSD**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: 12/13/93
DILUTION FACTOR: 1.0
UNITS: **% REC**

	Result		Result
1,1-Dichloroethene	90	Trichloroethene	88
		Benzene	99
		Toluene	105
		Chlorobenzene	110

Surrogates	% Recovery	Limits
TOLUENE-D8	104	81 - 117
BROMOFLUOROBENZENE	98	74 - 121
1,2-DICHLOROETHANE-D4	106	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-043

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1168-MSD**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/08/93**
ANALYSIS DATE: **12/16/93**
DILUTION FACTOR: **0.033**
UNITS: **% REC**

	Result		Result
Phenol	58	Acenaphthene	60
2-Chlorophenol	60	4-Nitrophenol	46
1,4-Dichlorobenzene	53	2,4-Dinitrotoluene	46
N-Nitroso-di-n-propylamine	57	Pentachlorophenol	34
1,2,4-Trichlorobenzene	52	Pyrene	60
4-Chloro-3-methylphenol	56		

Surrogates	% Recovery	Limits
Nitrobenzene-D5	55	23 - 120
2-Fluorobiphenyl	51	30 - 115
Terphenyl-D14	59	18 - 137
Phenol-D5	58	24 - 113
2-Fluorophenol	54	25 - 121
2,4,6-Tribromophenol	50	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-043

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1168-MSD**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **106.382**
UNITS: **% REC**

	Result	Method Reference	Analysis Date
Arsenic	55	7060	12/23/93
Aluminum	860	6010	12/21/93
Barium	204	6010	12/21/93
Beryllium	86	6010	12/21/93
Cadmium	86	6010	12/21/93
Chromium	88	6010	12/21/93
Copper	90	6010	12/21/93
Iron	0	6010	12/21/93
Nickel	82	6010	12/21/93
Lead	23	7421	12/23/93
Mercury	115	7471	12/27/93
Silver	83	6010	12/21/93
Zinc	87	6010	12/21/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Referenced notes for these results:

Matrix spike duplicate outside control limits due to matrix interference on aluminum, barium and iron analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.

%RPD for matrix spikes outside control limits due to matrix interference on barium analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.

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Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-043

SAMPLE ID: A1169
SAMPLE DATE: 12/02/93 10:20:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/10/93	EPA9071
Chromium VI		0.10U	0.10	MG/KG	12/09/93	EPA7196

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-043

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1169**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: 12/13/93
DILUTION FACTOR: 1.0
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	10	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	103	81 - 117
BROMOFLUOROBENZENE	92	74 - 121
1,2-DICHLOROETHANE-D4	102	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-12-043

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1169**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/08/93**
ANALYSIS DATE: **12/16/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

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Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

409832-003-01 Work Order: B3-12-043

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1169**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	51	23 - 120
2-Fluorobiphenyl	51	30 - 115
Terphenyl-D14	102	18 - 137
Phenol-D5	58	24 - 113
2-Fluorophenol	41	25 - 121
2,4,6-Tribromophenol	63	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-043

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1169**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **108.695**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	0.96	UN	0.96	7060	12/23/93
Aluminum	18000	N	22	6010	12/21/93
Barium	19	*N	22	6010	12/21/93
Beryllium	2.4		0.54	6010	12/21/93
Cadmium	0.54	U	0.54	6010	12/21/93
Chromium	21		1.1	6010	12/21/93
Copper	20		2.7	6010	12/21/93
Iron	18000	*N	11	6010	12/21/93
Nickel	29		4.3	6010	12/21/93
Lead	2.9	N	0.29	7421	12/23/93
Mercury	0.023	U	0.023	7471	12/27/93
Silver	1.1	U	1.1	6010	12/21/93
Zinc	37		2.2	6010	12/21/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-12-043

SAMPLE ID: **A1170**
SAMPLE DATE: **12/02/93 13:50:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/10/93	EPA9071
Chromium VI		0.50U	0.50	MG/KG	12/09/93	EPA7196

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-12-043

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1170**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/13/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	160	B	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	25	J	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	1.7	J	5

Surrogates	% Recovery	Limits
TOLUENE-D8	110	81 - 117
BROMOFLUOROBENZENE	93	74 - 121
1,2-DICHLOROETHANE-D4	106	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-12-043

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1170**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/08/93**
ANALYSIS DATE: **12/16/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

IT ANALYTICAL SERVICES
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Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

409832-003-01 Work Order: B3-12-043

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1170**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	71	23 - 120
2-Fluorobiphenyl	68	30 - 115
Terphenyl-D14	93	18 - 137
Phenol-D5	76	24 - 113
2-Fluorophenol	65	25 - 121
2,4,6-Tribromophenol	83	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-12-043

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1170**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): 87.7192
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	3.1	N	1.1	7060	12/23/93
Aluminum	8700	N	18	6010	12/21/93
Barium	200	*N	18	6010	12/21/93
Beryllium	1.3		0.44	6010	12/21/93
Cadmium	0.44	U	0.44	6010	12/21/93
Chromium	11		0.88	6010	12/21/93
Copper	6.7		2.2	6010	12/21/93
Iron	11000	*N	8.8	6010	12/21/93
Nickel	7.5		3.5	6010	12/21/93
Lead	7.2	N	0.33	7421	12/23/93
Mercury	0.025	U	0.025	7471	12/27/93
Silver	0.88	U	0.88	6010	12/21/93
Zinc	15		1.8	6010	12/21/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-12-043

SAMPLE ID: **A1171**
SAMPLE DATE: **12/02/93 14:05:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		20	10	MG/KG	12/10/93	EPA9071
Chromium VI		0.50U	0.50	MG/KG	12/09/93	EPA7196

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-12-043

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1171**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: 12/13/93
DILUTION FACTOR: 1.0
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	38	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	106	81 - 117
BROMOFLUOROBENZENE	102	74 - 121
1,2-DICHLOROETHANE-D4	104	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-12-043

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1171**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/08/93**
ANALYSIS DATE: **12/16/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportir Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-12-043

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1171**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	69	23 - 120
2-Fluorobiphenyl	59	30 - 115
Terphenyl-D14	55	18 - 137
Phenol-D5	73	24 - 113
2-Fluorophenol	64	25 - 121
2,4,6-Tribromophenol	63	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-12-043

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1171**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **104.166**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	3.7	N	0.99	7060	12/23/93
Aluminum	13000	N	21	6010	12/21/93
Barium	25	*N	21	6010	12/21/93
Beryllium	2.7		0.52	6010	12/21/93
Cadmium	0.79		0.52	6010	12/21/93
Chromium	24		1.0	6010	12/21/93
Copper	12		2.6	6010	12/21/93
Iron	25000	*N	10	6010	12/21/93
Nickel	26		4.2	6010	12/21/93
Lead	5.7	N	0.30	7421	12/23/93
Mercury	0.023	U	0.023	7471	12/27/93
Silver	1.0	U	1.0	6010	12/21/93
Zinc	34		2.1	6010	12/21/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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(512) 892-6684

409832-003-01 Work Order: B3-12-043

SAMPLE ID: **A1172**
SAMPLE DATE: **12/02/93 14:30:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		38	10	MG/KG	12/10/93	EPA9071
Chromium VI		0.50U	0.50	MG/KG	12/09/93	EPA7196

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-12-043

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1172**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: 12/13/93
DILUTION FACTOR: 1.0
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	14	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	1.3	J	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	98	81 - 117
BROMOFLUOROBENZENE	95	74 - 121
1,2-DICHLOROETHANE-D4	102	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-043

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1172**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/08/93**
ANALYSIS DATE: **12/17/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-043

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1172**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	63	23 - 120
2-Fluorobiphenyl	58	30 - 115
Terphenyl-D14	70	18 - 137
Phenol-D5	78	24 - 113
2-Fluorophenol	65	25 - 121
2,4,6-Tribromophenol	62	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-12-043

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1172**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **103.092**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	1.7	N	0.94	7060	12/23/93
Aluminum	6600	N	21	6010	12/21/93
Barium	37	*N	21	6010	12/21/93
Beryllium	1.4		0.52	6010	12/21/93
Cadmium	0.52	U	0.52	6010	12/21/93
Chromium	13		1.0	6010	12/21/93
Copper	6.7		2.6	6010	12/21/93
Iron	13000	*N	10	6010	12/21/93
Nickel	15		4.1	6010	12/21/93
Lead	3.4	N	0.28	7421	12/23/93
Mercury	0.022	U	0.022	7471	12/27/93
Silver	1.0	U	1.0	6010	12/21/93
Zinc	20		2.1	6010	12/21/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

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Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

409832-003-01 Work Order: B3-12-043

SAMPLE ID: **A1173**
SAMPLE DATE: **12/02/93 14:50:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/10/93	EPA9071
Chromium VI		0.50U	0.50	MG/KG	12/09/93	EPA7196

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-043

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1173**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: 12/13/93
DILUTION FACTOR: 1.0
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	9.1	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	102	81 - 117
BROMOFLUOROBENZENE	95	74 - 121
1,2-DICHLOROETHANE-D4	102	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-12-043

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1173**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/08/93**
ANALYSIS DATE: **12/17/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-043

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1173**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	47	23 - 120
2-Fluorobiphenyl	45	30 - 115
Terphenyl-D14	43	18 - 137
Phenol-D5	64	24 - 113
2-Fluorophenol	53	25 - 121
2,4,6-Tribromophenol	40	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-12-043

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1173**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **101.010**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	2.7	N	1.1	7060	12/23/93
Aluminum	10000	N	20	6010	12/21/93
Barium	54	*N	20	6010	12/21/93
Beryllium	2.1		0.51	6010	12/21/93
Cadmium	0.71		0.51	6010	12/21/93
Chromium	19		1.0	6010	12/21/93
Copper	11		2.5	6010	12/21/93
Iron	19000	*N	10	6010	12/21/93
Nickel	25		4.0	6010	12/21/93
Lead	3.5	N	0.33	7421	12/23/93
Mercury	0.024	U	0.024	7471	12/27/93
Silver	1.0	U	1.0	6010	12/21/93
Zinc	31		2.0	6010	12/21/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-043

SAMPLE ID: **A1174**
SAMPLE DATE: **12/02/93 15:05:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/10/93	EPA9071
Chromium VI		0.10U	0.10	MG/KG	12/09/93	EPA7196

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-043

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1174**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: 12/13/93
DILUTION FACTOR: 1.0
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	9.8	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	104	81 - 117
BROMOFLUOROBENZENE	101	74 - 121
1,2-DICHLOROETHANE-D4	103	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-12-043

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1174**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/08/93**
ANALYSIS DATE: **12/18/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporti Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-043

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1174**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	59	23 - 120
2-Fluorobiphenyl	56	30 - 115
Terphenyl-D14	64	18 - 137
Phenol-D5	52	24 - 113
2-Fluorophenol	39	25 - 121
2,4,6-Tribromophenol	22	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-12-043

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1174**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **94.3396**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	2.5	N	2.2	7060	12/23/93
Aluminum	17000	N	19	6010	12/21/93
Barium	17	*N	19	6010	12/21/93
Beryllium	2.4		0.47	6010	12/21/93
Cadmium	0.69		0.47	6010	12/21/93
Chromium	21		0.94	6010	12/21/93
Copper	21		2.4	6010	12/21/93
Iron	17000	*N	9.4	6010	12/21/93
Nickel	29		3.8	6010	12/21/93
Lead	3.5	N	0.32	7421	12/23/93
Mercury	0.023	U	0.023	7471	12/27/93
Silver	0.94	U	0.94	6010	12/21/93
Zinc	35		1.9	6010	12/21/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-12-043

SAMPLE ID: LAB BLANK #1
SAMPLE DATE:
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/10/93	EPA9071
Chromium VI		0.010U	0.010	MG/KG	12/09/93	EPA7196

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-12-043

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: 12/13/93
DILUTION FACTOR: 1.0
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	2.5	J	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	102	81 - 117
BROMOFLUOROBENZENE	96	74 - 121
1,2-DICHLOROETHANE-D4	100	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-12-043

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: 12/08/93
ANALYSIS DATE: 12/16/93
DILUTION FACTOR: 0.033
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-12-043

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	56	23 - 120
2-Fluorobiphenyl	50	30 - 115
Terphenyl-D14	31	18 - 137
Phenol-D5	76	24 - 113
2-Fluorophenol	65	25 - 121
2,4,6-Tribromophenol	45	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

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Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

409832-003-01 Work Order: B3-12-043

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **1.0**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	0.010	U	0.010	7060	12/23/93
Aluminum	0.20	U	0.20	6010	12/21/93
Barium	0.20	U	0.20	6010	12/21/93
Beryllium	0.0050	U	0.0050	6010	12/21/93
Cadmium	0.0050	U	0.0050	6010	12/21/93
Chromium	0.010	U	0.010	6010	12/21/93
Copper	0.0250	U	0.0250	6010	12/21/93
Iron	0.10	U	0.10	6010	12/21/93
Nickel	0.040	U	0.040	6010	12/21/93
Lead	0.0030	U	0.0030	7421	12/23/93
Mercury	0.00020	U	0.00020	7471	12/27/93
Silver	0.010	U	0.010	6010	12/21/93
Zinc	0.020	U	0.020	6010	12/21/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-12-043

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE:
SAMPLE MATRIX: **WATER**
ANALYSIS DATE: 12/07/93
DILUTION FACTOR: 1.0
UNITS: UG/L

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	100	U	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	100	88 - 110
BROMOFLUOROBENZENE	101	86 - 115
1,2-DICHLOROETHANE-D4	108	76 - 114

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

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AUSTIN, TX
(512) 892-6684

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

409832-003-01 Work Order: B3-12-043

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME **ICP Metals** TEST CODE **6010**

Metals by ICP	Inductively coupled emission spectroscopy according to Method 6010, "Test Methods for Evaluating Solid Waste Physical/Chemical Methods", SW-846, Third Edition.

TEST NAME **Hazardous Substance Vols.** TEST CODE **8240TK**

Hazardous Substance List Volatiles	Method 8240, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. GC/MS Purge and Trap analysis.

TEST NAME **ABN HSL GC/MS Extractables** TEST CODE **8270TK**

Hazardous Substance List Extractables	Method 8270, SW-846, Test Methods for Evaluating Solid Waste, Third Edition. Acid/Base-Neutral extraction followed by GC/MS analysis.

TEST NAME **9071/418.1 for TPH** TEST CODE **9071IR**

9071 Prep and IR Analysis	Method 9071, SW846, Test Methods for Evaluating Solid Waste, Third Edition. Soxhlet extraction from Method 9071 using freon and infrared analysis of the extract using Method 418.1.

TEST NAME **Arsenic - Graphite Furnace** TEST CODE **AS_GF**

Arsenic Graphite Furnace	Method 7060, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. EPA 206.2-Technical Additions to Methods for Chemical Analysis of Water and Wastes, EPA-600/4-82-055, December 1982.

TEST NAME **Chromium VI** TEST CODE **CR_VI**

Chromium VI	Method 7196, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Colorimetric analysis. Equivalent to Standard Methods 3500-Cr D.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-043

TEST NAME **Mercury** TEST CODE **HG_AA**

Mercury	Method 7471, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Cold vapor atomic absorption. Method 7470 is used for water. Method 245.5-"Technical Additions to Methods for Chemical Analysis of Water and Wastes," EPA-600/4-82-055, December 1982.

TEST NAME **Metals** TEST CODE **ICPTK2**

Method not available.

TEST NAME **Lead - Graphite Furnace** TEST CODE **PB_GF**

Lead Graphite Furnace	EPA 7421, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. EPA 239.2-Technical Additions to Methods for Chemical Analysis of Water and Wastes," EPA-600/4-82-055, December 1982.

TEST NAME **GFAA Digestion - Soil** TEST CODE **Z3050F**

Soil Digestion	Method 3050, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Acid digestion technique for Graphite Furnace/Flame AA analysis.

TEST NAME **ICPES Digestion - Soil** TEST CODE **Z3050P**

Soil Digestion	Method 3050, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Acid digestion technique for ICPES analysis. Equivalent to Method 3050A, SW-846 Update I, July 1992.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 416563
Page 1 of 2

Project Name/No. [1] Tinker AFB-5001 409832-03.01
Sample Team Members [2] A. Gordon K. Kirschenmann
Profit Center No. [3] 3527
Project Manager [4] Jimmy Taylor
Purchase Order No. [6] 409832-03-5001
Required Report Date [11] 15 Days

Samples Shipment Date [7] 12-2-93
Lab Destination [8] ITAS-Austin
Lab Contact [9] Karmen Deane
Project Contact/Phone [12] Dan McGregor 405-736-2260
Carrier/Waybill No. [13] F.E. 8460755683

Bill to: [5] 409832-03.01 D.O. 5001
Report to: [10] Tim Jennings IT-AUSTIN-ES

ONE CONTAINER PER LINE

Sample Number [14]	Sample Description/Type [15]	Date/Time Collected [16]	Container Type [17]	Sample Volume [18]	Pre-servative [19]	Requested Testing Program [20]	Condition on Receipt [21]	Disposal Record No. [22]
A1164	Trip Blank	11-16-93 1700	clear glass	40ml	HCl COOL	8240	Good 1°C KKC 12-3-93	83244100 C TK
A1165	Soil	12-2-93 0900	↓	125ml	COOL	8240	↓	
A1165	↓	↓	↓	500ml	↓	8270, 418.1, 6010	↓	
A1166	↓	12-2-93 0915	↓	125ml	↓	8240	↓	
A1166	↓	↓	↓	500ml	↓	8270, 418.1, 6010	↓	
A1167	↓	12-2-93 0940	↓	125ml	↓	8240	↓	
A1167	↓	↓	↓	500ml	↓	8270, 418.1, 6010	↓	

Special Instructions: [23]

Possible Hazard Identification: [24]
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☒

Sample Disposal: [25]
Return to Client ☐ Disposal by Lab ☒ Archive (mos.)

Turnaround Time Required: [26]
Normal ☒ Rush ☐

QC Level: [27]
I. ☒ II. ☐ III. ☐ Project Specific (specify):

1. Relinquished by [28] (Signature/Affiliation) (IT) Date: 12-2-93 Time: 1900	1. Received by [28] (Signature/Affiliation) Lori Church IT Date: 12-3-93 Time: 0905
2. Relinquished by (Signature/Affiliation) Date: Time:	2. Received by (Signature/Affiliation) Date: Time:
3. Relinquished by (Signature/Affiliation) Date: Time:	3. Received by (Signature/Affiliation) Date: Time:

Comments: [29]

White: To accompany samples
Yellow: Field copy
*See back of form for special instructions.

MCA 3/15/91

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] 416563
Page 2 of 2

Project Name Tinker AFB-5001 Project No. 409832-03-01 Samples Shipment Date 12-2-93

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	Condition on[21] Receipt	Disposal[22] Record No.
A1168	Soil	12-2-93 1005	clear glass	125ml	COOL	8240	Good 1°C KKC 12-3-93	
A1168		↓		500ml		8270, 418.1, 6010		See RVR
A1169		12-2-93 1020		125ml		8240		
A1169		↓		500 ml		8270, 418.1, 6010		
A1170		12-2-93 1350		125ml		8240		
A1170		↓		500 ml		8270, 418.1, 6010		
A1171		12-2-93 1405		125ml		8240		
A1171		↓		500 ml		8270, 418.1, 6010		
A1172		12-2-93 1430		125ml		8240		
A1172		↓		500 ml		8270, 418.1, 6010		
A1173		12-2-93 1450		125ml		8240		
A1173		↓		500 ml		8270, 418.1, 6010		
A1174		12-2-93 1505		125ml		8240		
A1174		↓		500 ml		8270, 418.1, 6010		

White: To accompany samples
Yellow: Field copy
*See back of form for special instructions.

MCA 3/15/91

Auxiliary Data Summary 12/30/93

Work order : B312043 Sample ID : A1165

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
02B	3550MS				12/09/93	
	9071IR	B312043-14B	1209TPHIR2	12/09/93	12/10/93	1.0
	Arsenic	B312043-14B	12143050F2	12/14/93	12/23/93	118
	Chromium VI	B312043-14B	1209CR_VI3	12/09/93	12/09/93	10.0
	Mercury	B312043-14B	1227HGAA2	12/27/93	12/27/93	110
	Lead	B312043-14B	12143050f2	12/14/93	12/23/93	118

Auxiliary Data Summary 12/30/93

Work order : B312043 Sample ID : A1166

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
03B	3550MS				12/09/93	
	9071IR	B312043-14B	1209TPHIR2	12/09/93	12/10/93	1.0
	Arsenic	B312043-14B	12143050F2	12/14/93	12/23/93	102
	Chromium VI	B312043-14B	1209CR_VI3	12/09/93	12/09/93	10.0
	Mercury	B312043-14B	1227HGAA2	12/27/93	12/27/93	120
	Lead	B312043-14B	12143050F2	12/14/93	12/23/93	102

Auxiliary Data Summary 12/30/93

Work order : B312043 Sample ID : A1167

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
04B	3550MS				12/09/93	
	9071IR	B312042-14B	1209TPHIR2	12/09/93	12/10/93	1.0
	Arsenic	B312043-14B	12143050F2	12/14/93	12/23/93	102
	Chromium VI	B312043-14B	1209CR_VI3	12/09/93	12/09/93	10.0
	Mercury	B312043-14B	1227HGAA2	12/27/93	12/27/93	120
	Lead	B312043-14B	12143050F2	12/14/93	12/23/93	102

Auxiliary Data Summary 12/30/93

Work order : B312043 Sample ID : A1168

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
05B						
	9071IR	B312043-14B	1209TPHIR2	12/09/93	12/10/93	1.0
	Arsenic	B312043-14B	12143050F2	12/14/93	12/23/93	89.3
	Chromium VI	B312043-14B	1209CR_VI3	12/09/93	12/09/93	10.0
	Mercury	B312043-14B	1227HGAA2	12/27/93	12/27/93	110
	Lead	B312043-14B	12143050F2	12/14/93	12/23/93	89.3

Auxiliary Data Summary 12/30/93

Work order : B312043 Sample ID : A1168-MS

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
06B						
	9071IR	B312043-14B	1209TPHIR2	12/09/93	12/10/93	1.0
	Arsenic	B312043-14B	12143050F2	12/14/93	12/23/93	105
	Chromium VI	B312043-14B	1209CR_VI3	12/09/93	12/09/93	10.0
	Mercury	B312043-14B	1227HGAA2	12/27/93	12/27/93	112
	Lead	B312043-14B	12143050F2	12/14/93	12/23/93	105

Auxiliary Data Summary 12/30/93

Work order : B312043 Sample ID : A1168-MSD

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
07B						
	9071IR	B312043-14B	1209TPHIR2	12/09/93	12/10/93	1.0
	Arsenic	B312043-14B	12143050F2	12/14/93	12/23/93	87.7
	Chromium VI	B312043-14B	1209CR_VI3	12/09/93	12/09/93	10.0
	Mercury	B312043-14B	1227HGAA2	12/27/93	12/27/93	110
	Lead	B312043-14B	12143050F2	12/14/93	12/23/93	87.7

Auxiliary Data Summary 12/30/93

Work order : B312043 Sample ID : A1169

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
08B						
	9071IR	B312043-14B	1209TPHIR2	12/09/93	12/10/93	1.0
	Arsenic	B312043-14B	12143050F2	12/14/93	12/23/93	96.2
	Chromium VI	B312043-14B	1209CR_VI3	12/09/93	12/09/93	10.0
	Mercury	B312043-14B	1227HGAA2	12/27/93	12/27/93	116
	Lead	B312043-14B	12143050F2	12/14/93	12/23/93	96.2

Auxiliary Data Summary 12/30/93

Work order : B312043 Sample ID : A1170

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
09B						
	9071IR	B312043-14B	1209TPHIR2	12/09/93	12/10/93	1.0
	Arsenic	B312043-14B	12143050F2	12/14/93	12/23/93	109
	Chromium VI	B312043-14B	1209CR_VI3	12/09/93	12/09/93	50.0
	Mercury	B312043-14B	1227HGAA2	12/27/93	12/27/93	123
	Lead	B312043-14B	12143050F2	12/14/93	12/23/93	109

Auxiliary Data Summary 12/30/93

Work order : B312043 Sample ID : A1171

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
10B						
	9071IR	B312043-14B	1209TPHIR2	12/09/93	12/10/93	1.0
	Arsenic	B312043-14B	12143050F2	12/14/93	12/23/93	99
	Chromium VI	B312043-14B	1209CR_VI3	12/09/93	12/09/93	50.0
	Mercury	B312043-14B	1227HGAA2	12/27/93	12/27/93	114
	Lead	B312043-14B	12143050F2	12/14/93	12/23/93	99

Auxiliary Data Summary 12/30/93

Work order : B312043 Sample ID : A1172

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
11B						
	9071IR	B312043-14B	1209TPHIR2	12/09/93	12/10/93	1.0
	Arsenic	B312043-14B	12143050F2	12/14/93	12/23/93	94.3
	Chromium VI	B312043-14B	1209CR_VI3	12/09/93	12/09/93	50.0
	Mercury	B312043-14B	1227HGAA2	12/27/93	12/27/93	110
	Lead	B312043-14B	12143050F2	12/14/93	12/23/93	94.3

Auxiliary Data Summary 12/30/93

Work order : B312043 Sample ID : A1173

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
12B						
	9071IR	B312043-14B	1209TPHIR2	12/09/93	12/10/93	1.0
	Arsenic	B312043-14B	12143050F2	12/14/93	12/23/93	109
	Chromium VI	B312043-14B	1209CR_VI3	12/09/93	12/09/93	50.0
	Mercury	B312043-14B	1227HGAA2	12/27/93	12/27/93	119
	Lead	B312043-14B	12143050F2	12/14/93	12/23/93	109

Auxiliary Data Summary 12/30/93

Work order : B312043 Sample ID : A1174

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
13B						
	9071IR	B312043-14B	1209TPHIR2	12/09/93	12/10/93	1.0
	Arsenic	B312043-14B	12143050F2	12/14/93	12/23/93	215
	Chromium VI	B312043-14B	1209CR_VI3	12/09/93	12/09/93	10.0
	Mercury	B312043-14B	1227HGAA2	12/27/93	12/27/93	115
	Lead	B312043-14B	12143050F2	12/14/93	12/23/93	108

Auxiliary Data Summary 12/30/93

Work order : B312043 Sample ID : LAB BLANK #1

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
14B						
	9071IR	B312043-14B	1209TPHIR2	12/09/93	12/10/93	1.0
	Arsenic	B312043-14B	12143050F2	12/14/93	12/23/93	1.0
	Chromium VI	B312043-14B	1209CR_VI3	12/09/93	12/09/93	1.0
	Mercury	B312043-14B	1227HGAA2	12/27/93	12/27/93	1.0
	Lead	B312043-14B	12143050F2	12/14/93	12/23/93	1.0

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

Posted to CF TL. K-
1/6/94

CERTIFICATE OF ANALYSIS

IT CORPORATION
1250 CAPITAL OF TX HWY
BLDG. 3, SUITE 200
AUSTIN, TX 78746-6443
TIM JENNINGS

Date: 12/29/93

Work Order: B3-12-050

This is the Certificate of Analysis for the following samples:

Client Work ID: D.O.5001 409832-003-01
Date Received: 12/03/93
Number of Samples: 6
Sample Type: SOIL

I. Introduction

Samples were labeled as follows:

SAMPLE IDENTIFICATION	LABORATORY #
A1587	B3-12-050-01
A1588	B3-12-050-02
A1589	B3-12-050-03
A1590	B3-12-050-04
LAB BLANK #1	B3-12-050-05
LAB BLANK #1	B3-12-050-06

Reviewed and Approved:

Jon Bartell
Laboratory Director

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-050

II. QA/QC

The results presented in this report meet the statement of work requirements in accordance with Quality Control and Quality Assurance protocol except as noted in Section IV or in an optional sample narrative at the end of Section III.

In the presented analytical data, 'ND' or '<' indicates that the compound is not detected at the specified limit.

III. Analytical Data

The following page(s) supply results for requested analyses performed on the samples listed above.

The test results relate to tested items only. ITAS-Austin reserves the right to control report production except in whole.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-050

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1587**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **WATERS**
ANALYSIS DATE: **12/07/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/L**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	100	U	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	99	88 - 110
BROMOFLUOROBENZENE	98	86 - 115
1,2-DICHLOROETHANE-D4	102	76 - 114

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-050

SAMPLE ID: **A1588**
SAMPLE DATE: **12/02/93 12:15:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/16/93	EPA9071
Chromium VI		0.10U	0.10	MG/KG	12/14/93	EPA7196

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-12-050

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1588**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/08/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	1.2	J	10	1,1,2-Trichloroethane	5	U	5
Acetone	12	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	104	81 - 117
BROMOFLUOROBENZENE	100	74 - 121
1,2-DICHLOROETHANE-D4	104	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-050

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1588**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/08/93**
ANALYSIS DATE: **12/17/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-12-050

TEST NAME: **ABN BSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1588**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	62	23 - 120
2-Fluorobiphenyl	62	30 - 115
Terphenyl-D14	107	18 - 137
Phenol-D5	80	24 - 113
2-Fluorophenol	67	25 - 121
2,4,6-Tribromophenol	86	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

IT ANALYTICAL SERVICES
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Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

409832-003-01 Work Order: B3-12-050

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1588**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **111.111**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsénic	1.1		0.88	7060	12/23/93
Aluminum	1800	N	22	6010	12/21/93
Barium	22	U*N	22	6010	12/21/93
Beryllium	0.77		0.56	6010	12/21/93
Cadmium	0.56	U	0.56	6010	12/21/93
Chromium	12		1.1	6010	12/21/93
Copper	2.8	U	2.8	6010	12/21/93
Iron	8700	N	11	6010	12/21/93
Nickel	6.8		4.4	6010	12/21/93
Lead	1.1		0.26	7421	12/23/93
Mercury	0.022	U	0.022	7471	12/17/93
Silver	1.1	U	1.1	6010	12/21/93
Zinc	7.7		2.2	6010	12/21/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-050

SAMPLE ID: A1589
SAMPLE DATE: 12/02/93 12:25:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/16/93	EPA9071
Chromium VI		0.10U	0.10	MG/KG	12/14/93	EPA7196

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-12-050

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1589**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/08/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	1.3	J	10	1,1,2-Trichloroethane	5	U	5
Acetone	11	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	105	81 - 117
BROMOFLUOROBENZENE	101	74 - 121
1,2-DICHLOROETHANE-D4	110	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-050

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1589**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/08/93**
ANALYSIS DATE: **12/17/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-050

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1589**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	44	23 - 120
2-Fluorobiphenyl	49	30 - 115
Terphenyl-D14	53	18 - 137
Phenol-D5	60	24 - 113
2-Fluorophenol	50	25 - 121
2,4,6-Tribromophenol	47	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-12-050

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1589**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **100.000**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Aluminum	1700	N	20	6010	12/21/93
Barium	80	*N	20	6010	12/21/93
Beryllium	0.50	U	0.50	6010	12/21/93
Cadmium	0.50	U	0.50	6010	12/21/93
Chromium	8.7		1.0	6010	12/21/93
Copper	2.5	U	2.5	6010	12/21/93
Iron	4600	N	10	6010	12/21/93
Nickel	6.2		4.0	6010	12/21/93
Lead	0.67		0.35	7421	12/23/93
Mercury	0.020	U	0.020	7471	12/17/93
Silver	1.0	U	1.0	6010	12/21/93
Zinc	6.3		2.0	6010	12/21/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-050

SAMPLE ID: **A1590**
SAMPLE DATE: **12/02/93 12:45:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/16/93	EPA9071
Chromium VI		0.10U	0.10	MG/KG	12/14/93	EPA7196

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-12-050

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1590**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/08/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	1.1	J	10	1,1,2-Trichloroethane	5	U	5
Acetone	7.3	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	104	81 - 117
BROMOFLUOROBENZENE	100	74 - 121
1,2-DICHLOROETHANE-D4	106	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-12-050

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1590**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/08/93**
ANALYSIS DATE: **12/17/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-050

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1590**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	39	23 - 120
2-Fluorobiphenyl	42	30 - 115
Terphenyl-D14	28	18 - 137
Phenol-D5	60	24 - 113
2-Fluorophenol	51	25 - 121
2,4,6-Tribromophenol	43	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-050

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1590**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **107.526**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Aluminum	2500	N	22	6010	12/21/93
Barium	22	U*N	22	6010	12/21/93
Beryllium	0.69		0.54	6010	12/21/93
Cadmium	0.54	U	0.54	6010	12/21/93
Chromium	9.5		1.1	6010	12/21/93
Copper	2.9		2.7	6010	12/21/93
Iron	6000	N	11	6010	12/21/93
Nickel	7.2		4.3	6010	12/21/93
Lead	1.6		0.30	7421	12/23/93
Mercury	0.023	U	0.023	7471	12/17/93
Silver	1.1	U	1.1	6010	12/21/93
Zinc	7.9		2.2	6010	12/21/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-050

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE:
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/16/93	EPA9071
Chromium VI		0.010U	0.010	MG/KG	12/14/93	EPA7196

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-050

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/08/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	3.5	J	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	102	81 - 117
BROMOFLUOROBENZENE	101	74 - 121
1,2-DICHLOROETHANE-D4	105	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-050

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/08/93**
ANALYSIS DATE: **12/16/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-050

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	57	23 - 120
2-Fluorobiphenyl	50	30 - 115
Terphenyl-D14	31	18 - 137
Phenol-D5	76	24 - 113
2-Fluorophenol	65	25 - 121
2,4,6-Tribromophenol	45	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-050

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): 1.0
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	0.010	U	0.010	7060	12/23/93
Aluminum	0.20	U	0.20	6010	12/21/93
Barium	0.20	U	0.20	6010	12/21/93
Beryllium	0.0050	U	0.0050	6010	12/21/93
Cadmium	0.0050	U	0.0050	6010	12/21/93
Chromium	0.010	U	0.010	6010	12/21/93
Copper	0.0250	U	0.0250	6010	12/21/93
Iron	0.10	U	0.10	6010	12/21/93
Nickel	0.040	U	0.040	6010	12/21/93
Lead	0.0030	U	0.0030	7421	12/23/93
Mercury	0.00020	U	0.00020	7471	12/17/93
Silver	0.010	U	0.010	6010	12/21/93
Zinc	0.020	U	0.020	6010	12/21/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-050

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE:
SAMPLE MATRIX: **WATER**
ANALYSIS DATE: 12/07/93
DILUTION FACTOR: 1.0
UNITS: UG/L

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	100	U	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	100	88 - 110
BROMOFLUOROBENZENE	101	86 - 115
1,2-DICHLOROETHANE-D4	108	76 - 114

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-050

Referenced notes for this work order:

B312050

Batch duplicate analysis outside control limits due to matrix interference on barium analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.
Batch matrix spike outside control limits due matrix interference on aluminum, barium, iron, and nickle analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.
Batch matrix spike duplicate outside control limits for aluminum, barium, and iron analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.
Batch matrix spike and matrix spike duplicate %RPD outside control limits due to matrix interference on barium and iron analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.
Batch matrix spike and matrix spike duplicate outside control limits for lead analysis by Graphite. LCS / LCSD results and Method Quality Control were acceptable.
Batch duplicate analysis outside control limits for arsenic analysis by Graphite. LCS / LCSD results and Method Quality Control were acceptable.
Batch matrix spike and matrix spike duplicate % RPD outside control limits for arsenic analysis by Graphite. LCS / LCSD results and Method Quality Control were acceptable.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-050

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME **ICP Metals** TEST CODE **6010**

Metals by ICP	Inductively coupled emission spectroscopy according to Method 6010, "Test Methods for Evaluating Solid Waste Physical/Chemical Methods", SW-846, Third Edition.

TEST NAME **Hazardous Substance Vols.** TEST CODE **8240TK**

Hazardous Substance List Volatiles	Method 8240, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. GC/MS Purge and Trap analysis.

TEST NAME **ABN HSL GC/MS Extractables** TEST CODE **8270TK**

Hazardous Substance List Extractables	Method 8270, SW-846, Test Methods for Evaluating Solid Waste, Third Edition. Acid/Base-Neutral extraction followed by GC/MS analysis.

TEST NAME **9071/418.1 for TPH** TEST CODE **9071IR**

9071 Prep and IR Analysis	Method 9071, SW846, Test Methods for Evaluating Solid Waste, Third Edition. Soxhlet extraction from Method 9071 using freon and infrared analysis of the extract using Method 418.1.

TEST NAME **Arsenic - Graphite Furnace** TEST CODE **AS_GF**

Arsenic Graphite Furnace	Method 7060, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. EPA 206.2-Technical Additions to Methods for Chemical Analysis of Water and Wastes, EPA-600/4-82-055, December 1982.

TEST NAME **Chromium VI** TEST CODE **CR_VI**

Chromium VI	Method 7196, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Colorimetric analysis. Equivalent to Standard Methods 3500-Cr D.

Company: IT CORPORATION
Date: 12/29/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-050

TEST NAME **Mercury** TEST CODE **HG_AA**

Mercury	Method 7471, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Cold vapor atomic absorption. Method 7470 is used for water. Method 245.5-"Technical Additions to Methods for Chemical Analysis of Water and Wastes," EPA-600/4-82-055, December 1982.

TEST NAME **Metals** TEST CODE **ICPTK2**

Method not available.

TEST NAME **Lead - Graphite Furnace** TEST CODE **PB_GF**

Lead Graphite Furnace	EPA 7421, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. EPA 239.2-Technical Additions to Methods for Chemical Analysis of Water and Wastes," EPA-600/4-82-055, December 1982.

TEST NAME **GFAA Digestion - Soil** TEST CODE **Z3050F**

Soil Digestion	Method 3050, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Acid digestion technique for Graphite Furnace/Flame AA analysis.

TEST NAME **ICPES Digestion - Soil** TEST CODE **Z3050P**

Soil Digestion	Method 3050, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Acid digestion technique for ICPES analysis. Equivalent to Method 3050A, SW-846 Update I, July 1992.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 514018
Page 1 of 1

Project Name/No. [1] Tinher 5001 / 409832.03.01
Samples Shipment Date [7] 12-02-93
Bill to: [5] 409832.03.01 P.O. 5001
Sample Team Members [2] M. Wilson / C. Elliot
Lab Destination [8] ITAS - Austin
Profit Center No. [3] 3527
Lab Contact [9] Karmen Deane (405) 736-2260
Project Manager [4] Jimmy Taylor
Project Contact/Phone [12] Don McGregor
Report to: [10] Tim Jennings IT Austin
Purchase Order No. [6] 409832.003
Carrier/Waybill No. [13] ~~8444166080~~ 8460755704
Required Report Date [11] Normal

ONE CONTAINER PER LINE

Sample Number [14]	Sample Description/Type [15]	Date/Time Collected [16]	Container Type [17]	Sample Volume [18]	Pre-servative [19]	Requested Testing Program [20]	Condition on Receipt [21]	Disposal Record No. [22]
A1587	TRIP Blank	11/30/93 1700	Clear Glass	40ml	HCL	8240 VOC	Good 1°C LLC 12-3-93	B 3291020A K/DC
A 1588	Soil 2-61	12/02/93 1215		125ml	Cool	8240 VOC		
A 1588	Soil 2-61	12/02/93 1215 ~~1225~~		500ml		6010/7000 Metals 8270 SVOC 418.1 TPH		
A 1589	Soil 2-61	12/02/93 1225		125ml		~~6010/7000 METALS 8270 SVOC 418.1 TPH~~ 8240 VOC		
A 1589	Soil 2-61	12/02/93 1225		500ml		6010/7000 METALS 8270 SVOC 418.1 TPH		
A 1590	Soil 2-61	12/02/93 1245		125ml		~~6010/7000 METALS 8270 SVOC 418.1 TPH~~ 8240 VOC		
A 1590	Soil 2-61	12/02/93 1245		500ml		6010/7000 METALS 8270 SVOC 418.1 TPH		

Special Instructions: [23]

Possible Hazard Identification: [24]
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☑

Sample Disposal: [25]
Return to Client ☐ Disposal by Lab ☑ Archive (mos.)

Turnaround Time Required: [26]
Normal ☑ Rush ☐

QC Level: [27]
I. ☑ II. ☐ III. ☐ Project Specific (specify):

1. Relinquished by [28] (Signature/Affiliation) J C Elliott I.T corp.	Date: 2 DEC 93 Time: 1410	1. Received by [28] (Signature/Affiliation) Lori Church IT	Date: 12-3-93 Time: 0905
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: [29]

White: To accompany samples Yellow: Field copy See back of form for special instructions.

MCA 3/15/91

Auxiliary Data Summary 12/30/93

Work order : B312050 Sample ID : A1588

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
02B						
	9071IR	B312050-05B	1216TPHIR1	12/16/93	12/16/93	1.0
	Arsenic	B312050-05B	12143050F1	12/14/93	12/23/93	87.7
	Chromium VI	B312050-05B	1214CR_VI1	12/14/93	12/14/93	10.0
	Mercury	B312050-05B	1217HGAA1	12/17/93	12/17/93	110
	Lead	B312050-05B	12143050F1	12/14/93	12/23/93	87.7

Auxiliary Data Summary 12/30/93

Work order : B312050 Sample ID : A1589

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
03B						
	9071IR	B312050-05B	1216TPHIR1	12/16/93	12/16/93	1.0
	Arsenic	B312050-05B	12143050F1	12/14/93	12/23/93	115
	Chromium VI	B312050-05B	1214CR_VI1	12/14/93	12/14/93	10.0
	Mercury	B312050-05B	1217HGAA1	12/17/93	12/17/93	162
	Lead	B312050-05B	12143050F1	12/14/93	12/23/93	115

Auxiliary Data Summary 12/30/93

Work order : B312050 Sample ID : A1590

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
04B						
	9071IR	B312050-05B	1216TPHIR1	12/16/93	12/16/93	1.0
	Arsenic	B312050-05B	12143050F1	12/14/93	12/23/93	101
	Chromium VI	B312050-05B	1214CR_VI1	12/14/93	12/14/93	10.0
	Mercury	B312050-05B	1217HGAA1	12/17/93	12/17/93	116
	Lead	B312050-05B	12143050F1	12/14/93	12/23/93	101

Auxiliary Data Summary 12/30/93

Work order : B312050 Sample ID : LAB BLANK #1

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
05B						
	9071IR	B312050-05B	1216TPHIR1	12/16/93	12/16/93	1.0
	Arsenic	B312050-05B	12143050F1	12/14/93	12/23/93	1.0
	Chromium VI	B312050-05B	1214CR_VI1	12/14/93	12/14/93	1.0
	Mercury	B312050-05B	1217HGAA1	12/17/93	12/17/93	1.0
	Lead	B312050-05B	12143050F1	12/14/93	12/23/93	1.0

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

Routed to KK, SF, TL
12/28/93

CERTIFICATE OF ANALYSIS

IT CORPORATION
1250 CAPITAL OF TX HWY
BLDG. 3, SUITE 200
AUSTIN, TX 78746-6443
TIM JENNINGS

Date: 12/22/93

Work Order: B3-11-304

This is the Certificate of Analysis for the following samples:

Client Work ID: D.O.5001 409832-003-01
Date Received: 11/24/93
Number of Samples: 15
Sample Type: SOIL

I. Introduction

Samples were labeled as follows:

SAMPLE IDENTIFICATION	LABORATORY #
A1574	B3-11-304-01
A1574-MS	B3-11-304-02
A1574-MSD	B3-11-304-03
A1575	B3-11-304-05
A1576	B3-11-304-06
A1577	B3-11-304-07
A1578	B3-11-304-09
A1579	B3-11-304-10
A1580	B3-11-304-11
A1581	B3-11-304-12
A1582	B3-11-304-13
A1583	B3-11-304-14
LAB BLANK #1	B3-11-304-15

Reviewed and Approved:

Karmen Deane for
Jon Bartell
Laboratory Director

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

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Samples, continued from above:

SAMPLE IDENTIFICATION	LABORATORY #
LAB BLANK #1	B3-11-304-16
LAB BLANK #2	B3-11-304-17

II. QA/QC

The results presented in this report meet the statement of work requirements in accordance with Quality Control and Quality Assurance protocol except as noted in Section IV or in an optional sample narrative at the end of Section III.

In the presented analytical data, 'ND' or '<' indicates that the compound is not detected at the specified limit.

III. Analytical Data

The following page(s) supply results for requested analyses performed on the samples listed above.

The test results relate to tested items only. ITAS-Austin reserves the right to control report production except in whole.

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-11-304

SAMPLE ID: **A1574**
SAMPLE DATE: **11/23/93 17:20:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/07/93	EPA9071
Chromium VI		0.50U	0.50	MG/KG	12/10/93	EPA7196

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-11-304

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1574**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/03/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	120	B	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	23	JB	100	Toluene	5	U	5
1,1,1-Trichloroethane	2.2	J	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	106	81 - 117
BROMOFLUOROBENZENE	98	74 - 121
1,2-DICHLOROETHANE-D4	101	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-11-304

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1574**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/02/93**
ANALYSIS DATE: **12/11/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit
Phenol	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330
2-Chlorophenol	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330
1,4-Dichlorobenzene	0.330	U	0.330
Benzyl alcohol	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330
Hexachloroethane	0.330	U	0.330
Nitrobenzene	0.330	U	0.330
Isophorone	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330
Benzoic Acid	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330
Naphthalene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825
2-Chloronaphthalene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825
Dimethylphthalate	0.330	U	0.330
Acenaphthylene	0.330	U	0.330
2,6-Dinitrotoluene	0.330	U	0.330
3-Nitroaniline	0.825	U	0.825
Acenaphthene	0.330	U	0.330
2,4-Dinitrophenol	0.825	U	0.825
4-Nitrophenol	0.825	U	0.825
Dibenzofuran	0.330	U	0.330
2,4-Dinitrotoluene	0.330	U	0.330
Diethylphthalate	0.330	U	0.330
4-Chlorophenyl-phenylether	0.330	U	0.330
Fluorene	0.330	U	0.330
4-Nitroaniline	0.825	U	0.825
4,6-Dinitro-2-methylphenol	0.825	U	0.825
N-Nitrosodiphenylamine (1)	0.330	U	0.330
4-Bromophenyl-phenylether	0.330	U	0.330
Hexachlorobenzene	0.330	U	0.330
Pentachlorophenol	0.825	U	0.825
Phenanthrene	0.330	U	0.330
Anthracene	0.330	U	0.330
Di-n-butylphthalate	0.330	U	0.330
Fluoranthene	0.330	U	0.330
Pyrene	0.330	U	0.330
Butylbenzylphthalate	0.330	U	0.330
3,3'-Dichlorobenzidine	0.330	U	0.330
Benzo(a)anthracene	0.330	U	0.330
Chrysene	0.330	U	0.330
bis(2-Ethylhexyl)phthalate	0.09	J	0.330
Di-n-octylphthalate	0.330	U	0.330
Benzo(b)fluoranthene	0.330	U	0.330
Benzo(k)fluoranthene	0.330	U	0.330
Benzo(a)pyrene	0.330	U	0.330
Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Dibenzo(a,h)anthracene	0.330	U	0.330
Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/22/93
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409832-003-01 Work Order: B3-11-304

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1574**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	37	23 - 120
2-Fluorobiphenyl	40	30 - 115
Terphenyl-D14	54	18 - 137
Phenol-D5	47	24 - 113
2-Fluorophenol	41	25 - 121
2,4,6-Tribromophenol	49	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-11-304

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1574**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **107.526**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	3.8	N	1.0	7060	12/10/93
Aluminum	9100	N	22	6010	12/15/93
Barium	170		22	6010	12/15/93
Beryllium	0.83		0.54	6010	12/15/93
Cadmium	0.78	*	0.54	6010	12/15/93
Chromium	12		1.1	6010	12/15/93
Copper	6.7		2.7	6010	12/15/93
Iron	10000	N	11	6010	12/15/93
Nickel	7.6		4.3	6010	12/15/93
Lead	7.4	N	0.31	7421	12/10/93
Mercury	0.026	U	0.026	7471	12/09/93
Silver	1.1	U	1.1	6010	12/15/93
Zinc	15		2.2	6010	12/15/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Referenced notes for these results:

Duplicate analysis outside control limits due to matrix interference on cadmium analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-11-304

SAMPLE ID: **A1574-MS**
SAMPLE DATE: **11/23/93 17:20:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		99		% REC	12/07/93	EPA9071
Chromium VI		90		% REC	12/10/93	EPA7196

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-11-304

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1574-MS**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: 12/03/93
DILUTION FACTOR: 1.0
UNITS: % REC

	Result		Result
1,1-Dichloroethene	114	Trichloroethene	99
		Benzene	111
		Toluene	112
		Chlorobenzene	113

Surrogates	% Recovery	Limits
TOLUENE-D8	107	81 - 117
BROMOFLUOROBENZENE	94	74 - 121
1,2-DICHLOROETHANE-D4	104	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample
'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-11-304

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1574-MS**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: 12/02/93
ANALYSIS DATE: 12/11/93
DILUTION FACTOR: 0.033
UNITS: **% REC**

	Result		Result
Phenol	49	Acenaphthene	47
2-Chlorophenol	51	4-Nitrophenol	42
1,4-Dichlorobenzene	47	2,4-Dinitrotoluene	36
N-Nitroso-di-n-propylamine	50	Pentachlorophenol	35
1,2,4-Trichlorobenzene	48	Pyrene	50
4-Chloro-3-methylphenol	48		

Surrogates	% Recovery	Limits
Nitrobenzene-D5	50	23 - 120
2-Fluorobiphenyl	46	30 - 115
Terphenyl-D14	51	18 - 137
Phenol-D5	52	24 - 113
2-Fluorophenol	52	25 - 121
2,4,6-Tribromophenol	49	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample
'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-11-304

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1574-MS**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **93.4579**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	54			7060	12/10/93
Aluminum	1268		19	6010	12/15/93
Barium	101		19	6010	12/15/93
Beryllium	89		0.47	6010	12/15/93
Cadmium	87		0.47	6010	12/15/93
Chromium	95		0.93	6010	12/15/93
Copper	88		2.3	6010	12/15/93
Iron	439		9.3	6010	12/15/93
Nickel	88		3.7	6010	12/15/93
Lead	56			7421	12/10/93
Mercury	100			7471	12/09/93
Silver	83		0.93	6010	12/15/93
Zinc	89		1.9	6010	12/15/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Referenced notes for these results:

Matrix spike outside control limits due to matrix interference on aluminum and iron analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.

% RPD for matrix spikes outside control limits due to matrix interference on aluminum and iron analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-11-304

SAMPLE ID: **A1574-MSD**
SAMPLE DATE: **11/23/93 17:20:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		92		% REC	12/07/93	EPA9071
Chromium VI		94		% REC	12/10/93	EPA7196

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-304

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1574-MSD**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/03/93**
DILUTION FACTOR: **1.0**
UNITS: **% REC**

	Result		Result
1,1-Dichloroethene	106	Trichloroethene	90
		Benzene	99
		Toluene	100
		Chlorobenzene	103

Surrogates	% Recovery	Limits
TOLUENE-D8	105	81 - 117
BROMOFLUOROBENZENE	95	74 - 121
1,2-DICHLOROETHANE-D4	103	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-304

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1574-MSD**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: 12/02/93
ANALYSIS DATE: 12/11/93
DILUTION FACTOR: 0.033
UNITS: % REC

	Result		Result
Phenol	23#	Acenaphthene	25#
2-Chlorophenol	21#	4-Nitrophenol	37
1,4-Dichlorobenzene	19#	2,4-Dinitrotoluene	29
N-Nitroso-di-n-propylamine	22#	Pentachlorophenol	35
1,2,4-Trichlorobenzene	19#	Pyrene	42
4-Chloro-3-methylphenol	35		

Surrogates	% Recovery	Limits
Nitrobenzene-D5	21*	23 - 120
2-Fluorobiphenyl	20*	30 - 115
Terphenyl-D14	44	18 - 137
Phenol-D5	25	24 - 113
2-Fluorophenol	22*	25 - 121
2,4,6-Tribromophenol	41	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:
U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Referenced notes for these results:

MSD recoveries for some compounds were outside the suggested CLP limits due to matrix interference. LCS was within the acceptable limits.

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-304

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1574-MSD**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **98.0392**
UNITS: **% REC**

	Result	Method Reference	Analysis Date
Arsenic	65	7060	12/10/93
Aluminum	970	6010	12/15/93
Barium	97	6010	12/15/93
Beryllium	87	6010	12/15/93
Cadmium	85	6010	12/15/93
Chromium	91	6010	12/15/93
Copper	87	6010	12/15/93
Iron	319	6010	12/15/93
Nickel	87	6010	12/15/93
Lead	160	7421	12/10/93
Mercury	100	7471	12/09/93
Silver	82	6010	12/15/93
Zinc	85	6010	12/15/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Referenced notes for these results:

Matrix spike duplicate outside control limits due to matrix interference on aluminum and iron analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.

% RPD for matrix spikes outside control limits due to matrix interference on aluminum and iron analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-304

SAMPLE ID: A1575
SAMPLE DATE: 11/23/93 17:28:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/07/93	EPA9071
Chromium VI		0.50U	0.50	MG/KG	12/10/93	EPA7196

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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(512) 892-6684

409832-003-01 Work Order: B3-11-304

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1575**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/02/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	1.8	J	10	1,1,2-Trichloroethane	5	U	5
Acetone	26	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	4.9	J	100	Toluene	5	U	5
1,1,1-Trichloroethane	3.1	J	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	101	81 - 117
BROMOFLUOROBENZENE	102	74 - 121
1,2-DICHLOROETHANE-D4	102	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-304

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1575**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/02/93**
ANALYSIS DATE: **12/11/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit
Phenol	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330
2-Chlorophenol	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330
1,4-Dichlorobenzene	0.330	U	0.330
Benzyl alcohol	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330
is(2-Chloroisopropyl)ether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330
Hexachloroethane	0.330	U	0.330
Nitrobenzene	0.330	U	0.330
Isophorone	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330
Benzoic Acid	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330
Naphthalene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825
2-Chloronaphthalene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825
Dimethylphthalate	0.330	U	0.330
Acenaphthylene	0.330	U	0.330
2,6-Dinitrotoluene	0.330	U	0.330
3-Nitroaniline	0.825	U	0.825
Acenaphthene	0.330	U	0.330
2,4-Dinitrophenol	0.825	U	0.825
4-Nitrophenol	0.825	U	0.825
Dibenzofuran	0.330	U	0.330
2,4-Dinitrotoluene	0.330	U	0.330
Diethylphthalate	0.330	U	0.330
4-Chlorophenyl-phenylether	0.330	U	0.330
Fluorene	0.330	U	0.330
4-Nitroaniline	0.825	U	0.825
4,6-Dinitro-2-methylphenol	0.825	U	0.825
N-Nitrosodiphenylamine (1)	0.330	U	0.330
4-Bromophenyl-phenylether	0.330	U	0.330
Hexachlorobenzene	0.330	U	0.330
Pentachlorophenol	0.825	U	0.825
Phenanthrene	0.330	U	0.330
Anthracene	0.330	U	0.330
Di-n-butylphthalate	0.330	U	0.330
Fluoranthene	0.330	U	0.330
Pyrene	0.330	U	0.330
Butylbenzylphthalate	0.330	U	0.330
3,3'-Dichlorobenzidine	0.330	U	0.330
Benzo(a)anthracene	0.330	U	0.330
Chrysene	0.330	U	0.330
bis(2-Ethylhexyl)phthalate	0.330	U	0.330
Di-n-octylphthalate	0.330	U	0.330
Benzo(b)fluoranthene	0.330	U	0.330
Benzo(k)fluoranthene	0.330	U	0.330
Benzo(a)pyrene	0.330	U	0.330
Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Dibenzo(a,h)anthracene	0.330	U	0.330
Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-304

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1575**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	54	23 - 120
2-Fluorobiphenyl	51	30 - 115
Terphenyl-D14	67	18 - 137
Phenol-D5	57	24 - 113
2-Fluorophenol	54	25 - 121
2,4,6-Tribromophenol	60	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-304

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1575**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **99.0099**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	5.0	N	0.94	7060	12/10/93
Aluminum	11000	N	20	6010	12/15/93
Barium	62		20	6010	12/15/93
Beryllium	1.3		0.50	6010	12/15/93
Cadmium	0.72	*	0.50	6010	12/15/93
Chromium	17		0.99	6010	12/15/93
Copper	12		2.5	6010	12/15/93
Iron	16000	N	9.9	6010	12/15/93
Nickel	26		4.0	6010	12/15/93
Lead	4.8	N	0.28	7421	12/10/93
Mercury	0.032	U	0.032	7471	12/09/93
Silver	0.99	U	0.99	6010	12/15/93
Zinc	28		2.0	6010	12/15/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-304

SAMPLE ID: **A1576**
SAMPLE DATE: **11/23/93 17:50:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/07/93	EPA9071
Chromium VI		0.10U	0.10	MG/KG	12/10/93	EPA7196

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-304

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1576**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: 12/02/93
DILUTION FACTOR: 1.0
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	1.7	J	10	1,1,2-Trichloroethane	5	U	5
Acetone	18	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	100	81 - 117
BROMOFLUOROBENZENE	98	74 - 121
1,2-DICHLOROETHANE-D4	102	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-304

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1576**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/02/93**
ANALYSIS DATE: **12/13/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit
Phenol	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330
2-Chlorophenol	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330
1,4-Dichlorobenzene	0.330	U	0.330
Benzyl alcohol	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330
Hexachloroethane	0.330	U	0.330
Nitrobenzene	0.330	U	0.330
Isophorone	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330
Benzoic Acid	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330
Naphthalene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825
2-Chloronaphthalene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825
Dimethylphthalate	0.330	U	0.330
Acenaphthylene	0.330	U	0.330

	Result	Qual	Reporting Limit
2,6-Dinitrotoluene	0.330	U	0.330
3-Nitroaniline	0.825	U	0.825
Acenaphthene	0.330	U	0.330
2,4-Dinitrophenol	0.825	U	0.825
4-Nitrophenol	0.825	U	0.825
Dibenzofuran	0.330	U	0.330
2,4-Dinitrotoluene	0.330	U	0.330
Diethylphthalate	0.330	U	0.330
4-Chlorophenyl-phenylether	0.330	U	0.330
Fluorene	0.330	U	0.330
4-Nitroaniline	0.825	U	0.825
4,6-Dinitro-2-methylphenol	0.825	U	0.825
N-Nitrosodiphenylamine (1)	0.330	U	0.330
4-Bromophenyl-phenylether	0.330	U	0.330
Hexachlorobenzene	0.330	U	0.330
Pentachlorophenol	0.825	U	0.825
Phenanthrene	0.330	U	0.330
Anthracene	0.330	U	0.330
Di-n-butylphthalate	0.330	U	0.330
Fluoranthene	0.330	U	0.330
Pyrene	0.330	U	0.330
Butylbenzylphthalate	0.330	U	0.330
3,3'-Dichlorobenzidine	0.330	U	0.330
Benzo(a)anthracene	0.330	U	0.330
Chrysene	0.330	U	0.330
bis(2-Ethylhexyl)phthalate	0.330	U	0.330
Di-n-octylphthalate	0.330	U	0.330
Benzo(b)fluoranthene	0.330	U	0.330
Benzo(k)fluoranthene	0.330	U	0.330
Benzo(a)pyrene	0.330	U	0.330
Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Dibenzo(a,h)anthracene	0.330	U	0.330
Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-304

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1576**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	60	23 - 120
2-Fluorobiphenyl	60	30 - 115
Terphenyl-D14	90	18 - 137
Phenol-D5	73	24 - 113
2-Fluorophenol	67	25 - 121
2,4,6-Tribromophenol	83	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-11-304

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1576**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **116.279**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	1.6	N	1.0	7060	12/10/93
Aluminum	7500	N	23	6010	12/15/93
Barium	23	U	23	6010	12/15/93
Beryllium	0.84		0.58	6010	12/15/93
Cadmium	0.58	U*	0.58	6010	12/15/93
Chromium	11		1.2	6010	12/15/93
Copper	8.7		2.9	6010	12/15/93
Iron	9000	N	12	6010	12/15/93
Nickel	18		4.7	6010	12/15/93
Lead	5.3	N	0.31	7421	12/10/93
Mercury	0.030	U	0.030	7471	12/09/93
Silver	1.2	U	1.2	6010	12/15/93
Zinc	18		2.3	6010	12/15/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-304

SAMPLE ID: A1577
SAMPLE DATE: 11/23/93 17:55:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/07/93	EPA9071
Chromium VI		0.50U	0.50	MG/KG	12/10/93	EPA7196

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-11-304

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1577**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/02/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	1.4	J	10	1,1,2-Trichloroethane	5	U	5
Acetone	13	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	2.9	J	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	101	81 - 117
BROMOFLUOROBENZENE	97	74 - 121
1,2-DICHLOROETHANE-D4	104	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-304

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1577**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/02/93**
ANALYSIS DATE: **12/11/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
is(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-304

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1577**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	66	23 - 120
2-Fluorobiphenyl	65	30 - 115
Terphenyl-D14	77	18 - 137
Phenol-D5	68	24 - 113
2-Fluorophenol	64	25 - 121
2,4,6-Tribromophenol	70	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-304

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1577**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **86.2068**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	1.1	UN	1.1	7060	12/10/93
Aluminum	6500	N	17	6010	12/15/93
Barium	240		17	6010	12/15/93
Beryllium	0.86		0.43	6010	12/15/93
Cadmium	0.66	*	0.43	6010	12/15/93
Chromium	13		0.86	6010	12/15/93
Copper	7.3		2.2	6010	12/15/93
Iron	13000	N	8.6	6010	12/15/93
Nickel	17		3.4	6010	12/15/93
Lead	4.1	N	0.34	7421	12/10/93
Mercury	0.030	U	0.030	7471	12/09/93
Silver	0.86	U	0.86	6010	12/15/93
Zinc	19		1.7	6010	12/15/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-304

SAMPLE ID: **A1578**
SAMPLE DATE: **11/23/93 18:11:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/07/93	EPA9071
Chromium VI		0.10U	0.10	MG/KG	12/10/93	EPA7196

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-304

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1578**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/03/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	1.4	J	10	1,1,2-Trichloroethane	5	U	5
Acetone	20	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	101	81 - 117
BROMOFLUOROBENZENE	98	74 - 121
1,2-DICHLOROETHANE-D4	100	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-11-304

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1578**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: 12/02/93
ANALYSIS DATE: 12/11/93
DILUTION FACTOR: 0.033
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-11-304

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1578**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	60	23 - 120
2-Fluorobiphenyl	60	30 - 115
Terphenyl-D14	77	18 - 137
Phenol-D5	64	24 - 113
2-Fluorophenol	58	25 - 121
2,4,6-Tribromophenol	68	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-11-304

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1578**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **112.359**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	2.4	N	1.2	7060	12/10/93
Aluminum	7900	N	22	6010	12/15/93
Barium	22	U	22	6010	12/15/93
Beryllium	0.90		0.56	6010	12/15/93
Cadmium	0.62	*	0.56	6010	12/15/93
Chromium	12		1.1	6010	12/15/93
Copper	7.4		2.8	6010	12/15/93
Iron	11000	N	11	6010	12/15/93
Nickel	19		4.5	6010	12/15/93
Lead	6.1	N	0.35	7421	12/10/93
Mercury	0.031	U	0.031	7471	12/09/93
Silver	1.1	U	1.1	6010	12/15/93
Zinc	22		2.2	6010	12/15/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-11-304

SAMPLE ID: **A1579**
SAMPLE DATE: **11/23/93 18:19:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/09/93	EPA9071
Chromium VI		0.50U	0.50	MG/KG	12/10/93	EPA7196

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-11-304

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1579**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/03/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	1.1	J	10	1,1,2-Trichloroethane	5	U	5
Acetone	30	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	3.0	J	100	Toluene	5	U	5
1,1,1-Trichloroethane	3.4	J	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	102	81 - 117
BROMOFLUOROBENZENE	101	74 - 121
1,2-DICHLOROETHANE-D4	104	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-11-304

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1579**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/02/93**
ANALYSIS DATE: **12/11/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-304

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1579**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	43	23 - 120
2-Fluorobiphenyl	43	30 - 115
Terphenyl-D14	49	18 - 137
Phenol-D5	50	24 - 113
2-Fluorophenol	46	25 - 121
2,4,6-Tribromophenol	44	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample
'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-304

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1579**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **111.111**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	1.1	UN	1.1	7060	12/10/93
Aluminum	9100	N	22	6010	12/15/93
Barium	36		22	6010	12/15/93
Beryllium	1.1		0.56	6010	12/15/93
Cadmium	0.89	*	0.56	6010	12/15/93
Chromium	11		1.1	6010	12/15/93
Copper	14		2.8	6010	12/15/93
Iron	11000	N	11	6010	12/15/93
Nickel	20		4.4	6010	12/15/93
Lead	4.7	N	0.32	7421	12/10/93
Mercury	0.031	U	0.031	7471	12/09/93
Silver	1.1	U	1.1	6010	12/15/93
Zinc	20		2.2	6010	12/15/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-304

SAMPLE ID: **A1580**
SAMPLE DATE: **11/23/93 18:35:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/09/93	EPA9071
Chromium VI		0.50U	0.50	MG/KG	12/10/93	EPA7196

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-11-304

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1580**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: 12/03/93
DILUTION FACTOR: 1.0
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	2.0	J	10	1,1,2-Trichloroethane	5	U	5
Acetone	12	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	3.5	J	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	100	81 - 117
BROMOFLUOROBENZENE	99	74 - 121
1,2-DICHLOROETHANE-D4	102	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-304

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1580**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/02/93**
ANALYSIS DATE: **12/11/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
is(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-304

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1580**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	48	23 - 120
2-Fluorobiphenyl	48	30 - 115
Terphenyl-D14	49	18 - 137
Phenol-D5	56	24 - 113
2-Fluorophenol	51	25 - 121
2,4,6-Tribromophenol	45	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-11-304

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1580**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **108.695**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	4.8	N	1.0	7060	12/10/93
Aluminum	9400	N	22	6010	12/15/93
Barium	22	U	22	6010	12/15/93
Beryllium	0.97		0.54	6010	12/15/93
Cadmium	1.2	*	0.54	6010	12/15/93
Chromium	31		1.1	6010	12/15/93
Copper	11		2.7	6010	12/15/93
Iron	14000	N	11	6010	12/15/93
Nickel	25		4.3	6010	12/15/93
Lead	4.5	N	0.30	7421	12/10/93
Mercury	0.031	U	0.031	7471	12/09/93
Silver	1.1	U	1.1	6010	12/15/93
Zinc	26		2.2	6010	12/15/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-11-304

SAMPLE ID: **A1581**
SAMPLE DATE: **11/23/93 18:50:00**
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/09/93	EPA9071
Chromium VI		0.50U	0.50	MG/KG	12/10/93	EPA7196

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-11-304

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1581**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/03/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	19	JB	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	2.8	J	100	Toluene	5	U	5
1,1,1-Trichloroethane	2.9	J	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	103	81 - 117
BROMOFLUOROBENZENE	100	74 - 121
1,2-DICHLOROETHANE-D4	104	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-304

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1581**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/02/93**
ANALYSIS DATE: **12/11/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Phenol	0.330	U	0.330	2,6-Dinitrotoluene	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330	3-Nitroaniline	0.825	U	0.825
2-Chlorophenol	0.330	U	0.330	Acenaphthene	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrophenol	0.825	U	0.825
1,4-Dichlorobenzene	0.330	U	0.330	4-Nitrophenol	0.825	U	0.825
Benzyl alcohol	0.330	U	0.330	Dibenzofuran	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330	2,4-Dinitrotoluene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330	Diethylphthalate	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330	4-Chlorophenyl-phenylether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330	Fluorene	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330	4-Nitroaniline	0.825	U	0.825
Hexachloroethane	0.330	U	0.330	4,6-Dinitro-2-methylphenol	0.825	U	0.825
Nitrobenzene	0.330	U	0.330	N-Nitrosodiphenylamine (1)	0.330	U	0.330
Isophorone	0.330	U	0.330	4-Bromophenyl-phenylether	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330	Hexachlorobenzene	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330	Pentachlorophenol	0.825	U	0.825
Benzoic Acid	0.330	U	0.330	Phenanthrene	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330	Anthracene	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330	Di-n-butylphthalate	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330	Fluoranthene	0.330	U	0.330
Naphthalene	0.330	U	0.330	Pyrene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330	Butylbenzylphthalate	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330	3,3'-Dichlorobenzidine	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330	Benzo(a)anthracene	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330	Chrysene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330	bis(2-Ethylhexyl)phthalate	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330	Di-n-octylphthalate	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825	Benzo(b)fluoranthene	0.330	U	0.330
2-Chloronaphthalene	0.330	U	0.330	Benzo(k)fluoranthene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825	Benzo(a)pyrene	0.330	U	0.330
Dimethylphthalate	0.330	U	0.330	Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Acenaphthylene	0.330	U	0.330	Dibenzo(a,h)anthracene	0.330	U	0.330
				Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-304

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1581**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	57	23 - 120
2-Fluorobiphenyl	59	30 - 115
Terphenyl-D14	93	18 - 137
Phenol-D5	60	24 - 113
2-Fluorophenol	55	25 - 121
2,4,6-Tribromophenol	73	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample
'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-304

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1581**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): **113.636**
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	1.1	UN	1.1	7060	12/10/93
Aluminum	1300	N	23	6010	12/15/93
Barium	23	U	23	6010	12/15/93
Beryllium	0.57	U	0.57	6010	12/15/93
Cadmium	0.57	U*	0.57	6010	12/15/93
Chromium	6.5		1.1	6010	12/15/93
Copper	2.8	U	2.8	6010	12/15/93
Iron	3500	N	11	6010	12/15/93
Nickel	4.9		4.5	6010	12/15/93
Lead	0.80	N	0.33	7421	12/10/93
Mercury	0.029	U	0.029	7471	12/09/93
Silver	1.1	U	1.1	6010	12/15/93
Zinc	5.7		2.3	6010	12/15/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-304

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1582**
SAMPLE DATE: **11/16/93**
SAMPLE MATRIX: **WATER**
ANALYSIS DATE: 11/29/93
DILUTION FACTOR: 1.0
UNITS: UG/L

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	100	U	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	100	88 - 110
BROMOFLUOROBENZENE	99	86 - 115
1,2-DICHLOROETHANE-D4	97	76 - 114

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-304

SAMPLE ID: **A1583**
SAMPLE DATE: **11/23/93 19:00:00**
SAMPLE MATRIX: **WATER**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
TPH - IR		1.0U	1.0	MG/L	12/01/93	EPA418_1
Chromium VI		0.010U	0.010	MG/L	11/24/93	EPA7196

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-11-304

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1583**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **WATER**
ANALYSIS DATE: 11/29/93
DILUTION FACTOR: 1.0
UNITS: **UG/L**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	100	U	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	99	88 - 110
BROMOFLUOROBENZENE	95	86 - 115
1,2-DICHLOROETHANE-D4	96	76 - 114

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-304

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1583**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **WATER**
EXTRACTION DATE: **11/30/93**
ANALYSIS DATE: **12/11/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/L**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Phenol	10	U	10	2,6-Dinitrotoluene	10	U	10
bis(2-Chloroethyl)ether	10	U	10	3-Nitroaniline	25	U	25
2-Chlorophenol	10	U	10	Acenaphthene	10	U	10
1,3-Dichlorobenzene	10	U	10	2,4-Dinitrophenol	25	U	25
1,4-Dichlorobenzene	10	U	10	4-Nitrophenol	25	U	25
Benzyl alcohol	10	U	10	Dibenzofuran	10	U	10
1,2-Dichlorobenzene	10	U	10	2,4-Dinitrotoluene	10	U	10
2-Methylphenol	10	U	10	Diethylphthalate	10	U	10
bis(2-Chloroisopropyl)ether	10	U	10	4-Chlorophenyl-phenylether	10	U	10
4-Methylphenol	10	U	10	Fluorene	10	U	10
N-Nitroso-di-n-propylamine	10	U	10	4-Nitroaniline	10	U	10
Hexachloroethane	10	U	10	4,6-Dinitro-2-methylphenol	25	U	25
Nitrobenzene	10	U	10	N-Nitrosodiphenylamine (1)	10	U	10
Isophorone	10	U	10	4-Bromophenyl-phenylether	10	U	10
2-Nitrophenol	10	U	10	Hexachlorobenzene	10	U	10
2,4-Dimethylphenol	10	U	10	Pentachlorophenol	25	U	25
Benzoic Acid	10	U	10	Phenanthrene	10	U	10
bis(2-Chloroethoxy)methane	10	U	10	Anthracene	10	U	10
2,4-Dichlorophenol	10	U	10	Di-n-butylphthalate	10	U	10
1,2,4-Trichlorobenzene	10	U	10	Fluoranthene	10	U	10
Naphthalene	10	U	10	Pyrene	10	U	10
4-Chloroaniline	10	U	10	Butylbenzylphthalate	10	U	10
Hexachlorobutadiene	10	U	10	3,3'-Dichlorobenzidine	10	U	10
4-Chloro-3-methylphenol	10	U	10	Benzo(a)anthracene	10	U	10
2-Methylnaphthalene	10	U	10	Chrysene	10	U	10
Hexachlorocyclopentadiene	10	U	10	bis(2-Ethylhexyl)phthalate	10	U	10
2,4,6-Trichlorophenol	10	U	10	Di-n-octylphthalate	10	U	10
2,4,5-Trichlorophenol	10	U	10	Benzo(b)fluoranthene	10	U	10
2-Chloronaphthalene	10	U	10	Benzo(k)fluoranthene	10	U	10
2-Nitroaniline	25	U	25	Benzo(a)pyrene	10	U	10
Dimethylphthalate	10	U	10	Indeno(1,2,3-cd)pyrene	10	U	10
Acenaphthylene	10	U	10	Dibenzo(a,h)anthracene	10	U	10
				Benzo(g,h,i)perylene	10	U	10

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Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

409832-003-01 Work Order: B3-11-304

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1583**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **WATER**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	83	35 - 114
2-Fluorobiphenyl	77	43 - 116
Terphenyl-D14	99	33 - 141
Phenol-D5	81	10 - 94
2-Fluorophenol	81	21 - 100
2,4,6-Tribromophenol	93	10 - 123

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-11-304

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1583**
SAMPLE DATE: **11/23/93**
SAMPLE MATRIX: **WATER**
DILUTION FACTOR (6010): **1.00**
UNITS: **MG/L**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	0.010	U	0.010	7060	12/02/93
Aluminum	0.20	U	0.20	6010	12/17/93
Barium	0.20	U	0.20	6010	12/17/93
Beryllium	0.0050	U	0.0050	6010	12/17/93
Cadmium	0.0050	U	0.0050	6010	12/17/93
Chromium	0.010	U	0.010	6010	12/17/93
Copper	0.025	U	0.0250	6010	12/17/93
Iron	0.10	U	0.10	6010	12/17/93
Nickel	0.040	U	0.040	6010	12/17/93
Lead	0.0030	U	0.0030	7421	12/02/93
Mercury	0.00020	U	0.00020	7471	12/01/93
Silver	0.010	U	0.010	6010	12/17/93
Zinc	0.020	U	0.020	6010	12/17/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-11-304

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE:
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/07/93	EPA9071
Chromium VI		0.010U	0.010	MG/KG	12/10/93	EPA7196

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-11-304

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: 12/02/93
DILUTION FACTOR: 1.0
UNITS: **UG/KG**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	4.8	J	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	101	81 - 117
BROMOFLUOROBENZENE	100	74 - 121
1,2-DICHLOROETHANE-D4	100	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-11-304

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **SOIL**
EXTRACTION DATE: **12/02/93**
ANALYSIS DATE: **12/15/93**
DILUTION FACTOR: **0.033**
UNITS: **MG/KG**

	Result	Qual	Reporting Limit
Phenol	0.330	U	0.330
bis(2-Chloroethyl)ether	0.330	U	0.330
2-Chlorophenol	0.330	U	0.330
1,3-Dichlorobenzene	0.330	U	0.330
1,4-Dichlorobenzene	0.330	U	0.330
Benzyl alcohol	0.330	U	0.330
1,2-Dichlorobenzene	0.330	U	0.330
2-Methylphenol	0.330	U	0.330
bis(2-Chloroisopropyl)ether	0.330	U	0.330
4-Methylphenol	0.330	U	0.330
N-Nitroso-di-n-propylamine	0.330	U	0.330
Hexachloroethane	0.330	U	0.330
Nitrobenzene	0.330	U	0.330
Isophorone	0.330	U	0.330
2-Nitrophenol	0.330	U	0.330
2,4-Dimethylphenol	0.330	U	0.330
Benzoic Acid	0.330	U	0.330
bis(2-Chloroethoxy)methane	0.330	U	0.330
2,4-Dichlorophenol	0.330	U	0.330
1,2,4-Trichlorobenzene	0.330	U	0.330
Naphthalene	0.330	U	0.330
4-Chloroaniline	0.330	U	0.330
Hexachlorobutadiene	0.330	U	0.330
4-Chloro-3-methylphenol	0.330	U	0.330
2-Methylnaphthalene	0.330	U	0.330
Hexachlorocyclopentadiene	0.330	U	0.330
2,4,6-Trichlorophenol	0.330	U	0.330
2,4,5-Trichlorophenol	0.825	U	0.825
2-Chloronaphthalene	0.330	U	0.330
2-Nitroaniline	0.825	U	0.825
Dimethylphthalate	0.330	U	0.330
Acenaphthylene	0.330	U	0.330
2,6-Dinitrotoluene	0.330	U	0.330
3-Nitroaniline	0.825	U	0.825
Acenaphthene	0.330	U	0.330
2,4-Dinitrophenol	0.825	U	0.825
4-Nitrophenol	0.825	U	0.825
Dibenzofuran	0.330	U	0.330
2,4-Dinitrotoluene	0.330	U	0.330
Diethylphthalate	0.330	U	0.330
4-Chlorophenyl-phenylether	0.330	U	0.330
Fluorene	0.330	U	0.330
4-Nitroaniline	0.825	U	0.825
4,6-Dinitro-2-methylphenol	0.825	U	0.825
N-Nitrosodiphenylamine (1)	0.330	U	0.330
4-Bromophenyl-phenylether	0.330	U	0.330
Hexachlorobenzene	0.330	U	0.330
Pentachlorophenol	0.825	U	0.825
Phenanthrene	0.330	U	0.330
Anthracene	0.330	U	0.330
Di-n-butylphthalate	0.330	U	0.330
Fluoranthene	0.330	U	0.330
Pyrene	0.330	U	0.330
Butylbenzylphthalate	0.330	U	0.330
3,3'-Dichlorobenzidine	0.330	U	0.330
Benzo(a)anthracene	0.330	U	0.330
Chrysene	0.330	U	0.330
bis(2-Ethylhexyl)phthalate	0.330	U	0.330
Di-n-octylphthalate	0.330	U	0.330
Benzo(b)fluoranthene	0.330	U	0.330
Benzo(k)fluoranthene	0.330	U	0.330
Benzo(a)pyrene	0.330	U	0.330
Indeno(1,2,3-cd)pyrene	0.330	U	0.330
Dibenzo(a,h)anthracene	0.330	U	0.330
Benzo(g,h,i)perylene	0.330	U	0.330

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-11-304

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **SOIL**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	35	23 - 120
2-Fluorobiphenyl	34	30 - 115
Terphenyl-D14	52	18 - 137
Phenol-D5	51	24 - 113
2-Fluorophenol	43	25 - 121
2,4,6-Tribromophenol	53	19 - 122

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-11-304

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **SOIL**
DILUTION FACTOR (6010): 1.0
UNITS: **MG/KG**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	0.010	U	0.010	7060	12/10/93
Aluminum	0.20	U	0.20	6010	12/15/93
Barium	0.20	U	0.20	6010	12/15/93
Beryllium	0.0050	U	0.0050	6010	12/15/93
Cadmium	0.0050	U	0.0050	6010	12/15/93
Chromium	0.010	U	0.010	6010	12/15/93
Copper	0.0250	U	0.0250	6010	12/15/93
Iron	0.10	U	0.10	6010	12/15/93
Nickel	0.040	U	0.040	6010	12/15/93
Lead	0.0030	U	0.0030	7421	12/10/93
Mercury	0.00020	U	0.00020	7471	12/09/93
Silver	0.010	U	0.010	6010	12/15/93
Zinc	0.020	U	0.020	6010	12/15/93

Data qualifier key:

E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-304

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE:
SAMPLE MATRIX: **WATER**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
TPH - IR		1.0U	1.0	MG/L	12/01/93	EPA418_1
Chromium VI		0.010U	0.010	MG/L	11/24/93	EPA7196

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-11-304

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **WATER**
ANALYSIS DATE: **11/29/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/L**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	100	U	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	44	J	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	17	J	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	101	88 - 110
BROMOFLUOROBENZENE	102	86 - 115
1,2-DICHLOROETHANE-D4	97	76 - 114

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-304

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **WATER**
EXTRACTION DATE: **11/29/93**
ANALYSIS DATE: **12/11/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/L**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Phenol	10	U	10	2,6-Dinitrotoluene	10	U	10
bis(2-Chloroethyl)ether	10	U	10	3-Nitroaniline	25	U	25
2-Chlorophenol	10	U	10	Acenaphthene	10	U	10
1,3-Dichlorobenzene	10	U	10	2,4-Dinitrophenol	25	U	25
1,4-Dichlorobenzene	10	U	10	4-Nitrophenol	25	U	25
Benzyl alcohol	10	U	10	Dibenzofuran	10	U	10
1,2-Dichlorobenzene	10	U	10	2,4-Dinitrotoluene	10	U	10
2-Methylphenol	10	U	10	Diethylphthalate	10	U	10
bis(2-Chloroisopropyl)ether	10	U	10	4-Chlorophenyl-phenylether	10	U	10
4-Methylphenol	10	U	10	Fluorene	10	U	10
N-Nitroso-di-n-propylamine	10	U	10	4-Nitroaniline	10	U	10
Hexachloroethane	10	U	10	4,6-Dinitro-2-methylphenol	25	U	25
Nitrobenzene	10	U	10	N-Nitrosodiphenylamine (1)	10	U	10
Isophorone	10	U	10	4-Bromophenyl-phenylether	10	U	10
2-Nitrophenol	10	U	10	Hexachlorobenzene	10	U	10
2,4-Dimethylphenol	10	U	10	Pentachlorophenol	25	U	25
Benzoic Acid	10	U	10	Phenanthrene	10	U	10
bis(2-Chloroethoxy)methane	10	U	10	Anthracene	10	U	10
2,4-Dichlorophenol	10	U	10	Di-n-butylphthalate	10	U	10
1,2,4-Trichlorobenzene	10	U	10	Fluoranthene	10	U	10
Naphthalene	10	U	10	Pyrene	10	U	10
4-Chloroaniline	10	U	10	Butylbenzylphthalate	10	U	10
Hexachlorobutadiene	10	U	10	3,3'-Dichlorobenzidine	10	U	10
4-Chloro-3-methylphenol	10	U	10	Benzo(a)anthracene	10	U	10
2-Methylnaphthalene	10	U	10	Chrysene	10	U	10
Hexachlorocyclopentadiene	10	U	10	bis(2-Ethylhexyl)phthalate	10	U	10
2,4,6-Trichlorophenol	10	U	10	Di-n-octylphthalate	10	U	10
2,4,5-Trichlorophenol	10	U	10	Benzo(b)fluoranthene	10	U	10
2-Chloronaphthalene	10	U	10	Benzo(k)fluoranthene	10	U	10
2-Nitroaniline	25	U	25	Benzo(a)pyrene	10	U	10
Dimethylphthalate	10	U	10	Indeno(1,2,3-cd)pyrene	10	U	10
Acenaphthylene	10	U	10	Dibenzo(a,h)anthracene	10	U	10
				Benzo(g,h,i)perylene	10	U	10

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-11-304

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **WATER**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	82	35 - 114
2-Fluorobiphenyl	76	43 - 116
Terphenyl-D14	96	33 - 141
Phenol-D5	77	10 - 94
2-Fluorophenol	72	21 - 100
2,4,6-Tribromophenol	91	10 - 123

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-11-304

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **WATER**
DILUTION FACTOR (6010): **1.00**
UNITS: **MG/L**

	Result	Result Qual	Reporting Limit	Method Reference	Analysis Date
Arsenic	0.010	U	0.010	7060	12/02/93
Aluminum	0.20	U	0.20	6010	12/17/93
Barium	0.20	U	0.20	6010	12/17/93
Beryllium	0.0050	U	0.0050	6010	12/17/93
Cadmium	0.0050	U	0.0050	6010	12/17/93
Chromium	0.010	U	0.010	6010	12/17/93
Copper	0.0250	U	0.0250	6010	12/17/93
Iron	0.10	U	0.10	6010	12/17/93
Nickel	0.040	U	0.040	6010	12/17/93
Lead	0.0030	U	0.0030	7421	12/02/93
Mercury	0.00020	U	0.00020	7471	12/01/93
Silver	0.010	U	0.010	6010	12/17/93
Zinc	0.046		0.020	6010	12/17/93

Data qualifier key:
E - estimated value
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

NOTE: Dilution Factor applies to Method 6010 only.

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-11-304

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **LAB BLANK #2**
SAMPLE DATE:
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: 12/03/93
DILUTION FACTOR: 1.0
UNITS: UG/KG

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	100	U	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	2.8	J	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	102	81 - 117
BROMOFLUOROBENZENE	97	74 - 121
1,2-DICHLOROETHANE-D4	99	70 - 120

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-304

Referenced notes for this work order:

B311304

Prep blank for ICP analysis had zinc level greater than 20ppb PQL. All samples with concentration levels greater than 20ppb were repreped and reanalyzed, except for sample #14B which was non-detect. No blank correction was performed.

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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(512) 892-6684
409832-003-01 Work Order: B3-11-304

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME **TPH - IR** TEST CODE **418_1**

418_1	Method 418.1: Total Recoverable Petroleum Hydorcarbons, infrared spectrophotmetric method. Methods for the chemical analysis of water and wastes. USEPA.

TEST NAME **ICP Metals** TEST CODE **6010**

Metals by ICP	Inductively coupled emission spectroscopy according to Method 6010, "Test Methods for Evaluating Solid Waste Physical/Chemical Methods", SW-846, Third Edition.

TEST NAME **Hazardous Substance Vols.** TEST CODE **8240TK**

Hazardous Substance List Volatiles	Method 8240, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. GC/MS Purge and Trap analysis.

TEST NAME **ABN HSL GC/MS Extractables** TEST CODE **8270TK**

Hazardous Substance List Extractables	Method 8270, SW-846, Test Methods for Evaluating Solid Waste, Third Edition. Acid/Base-Neutral extraction followed by GC/MS analysis.

TEST NAME **9071/418.1 for TPH** TEST CODE **9071IR**

9071 Prep and IR Analysis	Method 9071, SW846, Test Methods for Evaluating Solid Waste, Third Edition. Soxhlet extraction from Method 9071 using freon and infrared analysis of the extract using Method 418.1.

TEST NAME **Arsenic - Graphite Furnace** TEST CODE **AS_GF**

Arsenic Graphite Furnace	Method 7060, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. EPA 206.2-Technical Additions to Methods for Chemical Analysis of Water and Wastes, EPA-600/4-82-055, December 1982.

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-11-304

TEST NAME **Chromium VI** TEST CODE **CR_VI**

Chromium VI	Method 7196, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Colorimetric analysis. Equivalent to Standard Methods 3500-Cr D.

TEST NAME **Mercury** TEST CODE **HG_AA**

Mercury	Method 7471, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Cold vapor atomic absorption. Method 7470 is used for water. Method 245.5-"Technical Additions to Methods for Chemical Analysis of Water and Wastes," EPA-600/4-82-055, December 1982.

TEST NAME **Metals** TEST CODE **ICPTK2**

ethod not available.

TEST NAME **Lead - Graphite Furnace** TEST CODE **PB_GF**

Lead Graphite Furnace	EPA 7421, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. EPA 239.2-Technical Additions to Methods for Chemical Analysis of Water and Wastes," EPA-600/4-82-055, December 1982.

TEST NAME **ICPES Digestion - Water** TEST CODE **Z3005**

Water Digestion	Method 3005A, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Digestion procedure for the preparation of surface and ground water samples for analysis by flame atomic absorption spectroscopy and inductively coupled plasma spectroscopy. The procedure determines total recoverable or dissolved metals.

Company: IT CORPORATION
Date: 12/22/93
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-11-304

TEST NAME **GFAA Digestion - Water** TEST CODE **Z3020**

Water Digestion — Method 3020, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Acid digestion technique for Graphite Furnace.

TEST NAME **GFAA Digestion - Soil** TEST CODE **Z3050F**

Soil Digestion — Method 3050, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Acid digestion technique for Graphite Furnace/Flame AA analysis.

TEST NAME **ICPES Digestion - Soil** TEST CODE **Z3050P**

Soil Digestion — Method 3050, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Acid digestion technique for ICPES analysis. Equivalent to Method 3050A, SW-846 Update I, July 1992.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

B311304

Reference Document No. 416569
Page 1 of 2

Project Name/No. [1] TAFB 409832
Sample Team Members [2] K. Herrington, M. Wilson
Profit Center No. [3] 3527
Project Manager [4] Jimmy Taylor
Purchase Order No. [6] 409832 003
Required Report Date [11] 15 Working Days

Samples Shipment Date [7] 11/23/93
Lab Destination [8] ITAS Austin
Lab Contact [9] Karmen Deanne 405-736-2260
Project Contact/Phone [12] Dan McGreggor
Carrier/Waybill No. [13] Fed Exp 8460755586

Bill to: [5] 409832.03.01 DO 5001
Report to: [10] Tim Jennings I.T. Austin

ONE CONTAINER PER LINE

Sample Number [14]	Sample Description/Type [15]	Date/Time Collected [16]	Container Type [17]	Sample Volume [18]	Pre-servative [19]	Requested Testing Program [20]	Condition on Receipt [21]	Disposal Record No. [22]
A1574	2-60; soil	11/23/93 1720	glass	(2) 500ml	Cool	SVOC-8270 TPH 418.1 metals 6010/7000	Good RVR 11-24-93 DC 4°C	
A1574	↓	↓	↓	125ml	↓	VOC-8240	↓	
J5429	↓	1726	Stainless Steel	(3) 1.5"x6"	↓	geophysical - vert k, moisture, grain size, CEC	See RVR	
A1575	↓	1728	glass	500ml	↓	8270 6010/7000 418.1	Good. 4°C 11-24-93 DC	
A1575	↓	↓	↓	125ml	↓	8240	↓	
A1576	↓	1750	↓	500ml	↓	8270 6010/7000 418.1	↓	
A1576	↓	↓	↓	125ml	↓	8240	↓	
A1577	↓	↓ KH ~~1755~~ 1755	↓	500ml	↓	8270 6010/7000 418.1	↓	

Special Instructions: [23] A1574 - MS/MSD

Possible Hazard Identification: [24]
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☑

Sample Disposal: [25]
Return to Client ☐ Disposal by Lab ☑ Archive (mos.)

Turnaround Time Required: [26]
Normal ☑ Rush ☐

QC Level: [27]
I. ☑ II. ☐ III. ☐ Project Specific (specify):

1. Relinquished by [28] (Signature/Affiliation) Karen Herrington, IT	Date: 11/23/93 Time: 1900	1. Received by [28] (Signature/Affiliation) [signature] IT	Date: 11-24-93 Time: 0921
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: [29]

White: To accompany samples
Yellow: Field copy
*See back of form for special instructions.

B311304

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] 416569

Project Name TAFB 5001

Project No. 409832.03.01

Samples Shipment Date 11/23/93

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	Condition on[21] Receipt	Disposal[22] Record No.
A1577	8-60 ; Soil	11/23/93 1755	glass	125ml	cool	8240	Good 4°C 11-24-93 RVA	
J5430		1800	stainless steel	1.5"x6"	cool	geotechnical: vert k grain size, moisture, etc	See RVA	
A1578		1811	glass	500ml		8270 6010/7000 418.1	Good 4°C 11-24-93	
A1578				125ml		8240		
A1579		1819		500ml		8270 6010/7000 418.1		
A1579				125ml		8240		
A1580		1835		500ml		8270 6010/7000 418.1		
A1580				125ml		8240		
A1581		1850		500ml		8270 6010/7000 418.1		
A1581				125ml		8240		
A1582	Trip Blank water			40ml	HCl	8240		11-16-93 1700 TK B3244100C
A1583	Equipment Rinse	1900		40ml	HCl	8240		B3244100A
				2.5 L	cool	8270		
				1 L	H_2SO_4	418.1		
			Plastic	500ml	HNO_3	6010/7000		
			plastic	250ml	cool	GRG		

White: To accompany samples

Yellow: Field copy

*See back of form for special instructions.

Auxiliary Data Summary 12/21/93

Work order : B311304 Sample ID : A1574

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
01B						
	9071IR	B311304-15B	1206TPHIR2	12/06/93	12/07/93	1.0
	Arsenic	B311304-15B	120853050F	12/05/93	12/10/93	102
	Chromium VI	B311304-15B	1210CR_VI1	12/10/93	12/10/93	50.0
	Mercury	B311304-15B	1209HGAA	12/09/93	12/09/93	132
	Lead	B311304-15B	12053050F2	12/05/93	12/10/93	102

Auxiliary Data Summary 12/21/93

Work order : B311304 Sample ID : A1574-MS

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
02B						
	9071IR	B311304-15B	1206TPHIR2	12/06/93	12/07/93	1.0
	Arsenic	B311304-15B	12053050F2		12/10/93	111
	Chromium VI	B311304-15B	1210CR_VI1	12/10/93	12/10/93	50.0
	Mercury	B311304-15B	1209HGAA1		12/09/93	161
	Lead	B311304-15B	12053050F2		12/10/93	111

Auxiliary Data Summary 12/21/93

Work order : B311304 Sample ID : A1574-MSD

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
03B						
	9071IR	B311304-15B	1206TPHIR1	12/06/93	12/07/93	1.0
	Arsenic	B311304-15B	12053050F2	12/05/93	12/10/93	112
	Chromium VI	B311304-15B	1210CR_VI1	12/10/93	12/10/93	50.0
	Mercury	B311304-15B	1209HGAA1	12/09/93	12/09/93	152
	Lead	B311304-15B	12053050F2	12/05/93	12/10/93	449

Auxiliary Data Summary 12/21/93

Work order : B311304 Sample ID : A1575

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
05B						
	9071IR	B311304-15B	1206TPHIR1	12/06/93	12/07/93	1.0
	Arsenic	B311304-15B	12053050F2	12/05/93	12/10/93	94.3
	Chromium VI	B311304-15B	1210CR_VI1	12/10/93	12/10/93	50.0
	Mercury	B311304-15B	1209HGAA1	12/09/93	12/09/93	159
	Lead	B311304-15B	12053050F2	12/05/93	12/10/93	94.3

Auxiliary Data Summary 12/21/93

Work order : B311304 Sample ID : A1576

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
06B						
	9071IR	B311304-15B	1205TPHIR1	12/06/63	12/07/93	1.0
	Arsenic	B311304-15B	12053050F2	12/05/93	12/10/93	102
	Chromium VI	B311304-15B	1210CR_VI1	12/10/93	12/10/93	10.0
	Mercury	B311304-15B	1209HGAA1	12/09/93	12/09/93	152
	Lead	B311304-15B	12053050F2	12/05/93	12/10/93	102

Auxiliary Data Summary 12/21/93

Work order : B311304 Sample ID : A1577

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
07B						
	9071IR	B311304-15B	1206TPHIR1	12/06/93	12/07/93	1.0
	Arsenic	B311304-15B	12053050F2	12/05/93	12/10/93	114
	Chromium VI	B311304-15B	1210CR_VI1	12/10/93	12/10/93	50.0
	Mercury	B311304-15B	1209HGAA1	12/09/93	12/09/93	152
	Lead	B311304-15B	12053050F2	12/05/93	12/10/93	114

Auxiliary Data Summary 12/21/93

Work order : B311304 Sample ID : A1578

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
09B						
	9071IR	B311304-15B	1206TPHIR1	12/06/93	12/07/93	1.0
	Arsenic	B311304-15B	12053050F2	12/05/93	12/10/93	115
	Chromium VI	B311304-15B	1210CR_VI1	12/10/93	12/10/93	10.0
	Mercury	B311304-15B	1209HGAA1	12/09/93	12/09/93	156
	Lead	B311304-15B	12053050F2	12/05/93	12/10/93	115

Auxiliary Data Summary 12/21/93

Work order : B311304 Sample ID : A1579

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
10B						
	9071IR	B311304-15B	1207TPHIR1	12/07/93	12/09/93	1.0
	Arsenic	B311304-15B	12053050F2	12/05/93	12/10/93	105
	Chromium VI	B311304-15B	1210CR_VI1	12/10/93	12/10/93	50.0
	Mercury	B311304-15B	1209HGAA1	12/09/93	12/09/93	154
	Lead	B311304-15B	12053050F2	12/05/93	12/10/93	105

Auxiliary Data Summary 12/21/93

Work order : B311304 Sample ID : A1580

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
11B						
	9071IR	B311304-15B	1207TPHIR1	12/07/93	12/09/93	1.0
	Arsenic	B311304-15B	12053050F2	12/05/93	12/10/93	101
	Chromium VI	B311304-15B	1210CR_VI1	12/10/93	12/10/93	50.0
	Mercury	B311304-15B	1209HGAA1	12/09/93	12/09/93	154
	Lead	B311304-15B	12053050F2	12/05/93	12/10/93	101

Auxiliary Data Summary 12/21/93

Work order : B311304 Sample ID : A1581

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
12B						
	9071IR	B311304-15B	1207TPHIR1	12/07/93	12/09/93	1.0
	Arsenic	B311304-15B	12053050F2	12/05/93	12/10/93	109
	Chromium VI	B311304-15B	1210CR_VI1	12/10/93	12/10/93	50.0
	Mercury	B311304-15B	1209HGAA1	12/09/93	12/09/93	147
	Lead	B311304-15B	12053050F2	12/05/93	12/10/93	109

Auxiliary Data Summary 12/21/93

Work order : B311304 Sample ID : A1583

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
14B						
	418_1	B311304-16B	1130TPHIR1	11/30/93	12/01/93	1.0
	Arsenic	B311304-16B	113030201	11/30/93	12/02/93	1.0
	Chromium VI	B311304-16B	1124CR_VI1	11/24/93	11/24/93	1.0
	Mercury	B311304-16B	1201HGAA1	12/01/93	12/01/93	1.0
	Lead	B311304-16B	113030201	11/30/93	12/02/93	1.0

Auxiliary Data Summary 12/21/93

Work order : B311304 Sample ID : LAB BLANK #1

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
15B						
	9071IR	B311304-15B	1206TPHIR2	12/06/93	12/07/93	1.0
	Arsenic	B311304-15B	12053050F2	12/05/93	12/10/93	1.0
	Chromium VI	B311304-15B	1210CR_VI1	12/10/93	12/10/93	1.0
	Mercury	B311304-15B	1209HGAA1	12/09/93	12/09/93	1.0
	Lead	B311304-15B	12053050F2	12/05/93	12/10/93	1.0

Auxiliary Data Summary 12/21/93

Work order : B311304 Sample ID : LAB BLANK #1

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
16B						
	418_1	B311304-16B	1130TPHIR1	11/30/93	12/01/93	1.0
	Arsenic	B311304-16B	1130302012	11/30/93	12/02/93	1.0
	Chromium VI	B311304-16B	1124CR_VI1	11/24/93	11/24/93	1.0
	Mercury	B311304-16B	1201HGAA1	12/01/93	12/01/93	1.0
	Lead	B311304-16B	1130302012	11/30/93	12/02/93	1.0

Work Order No. B311304

# of water samples _____

# of soil samples _____

8240 ✓

8270 ✓

IR ✓

As ✓

CRIV ✓

Hg ✓

ICP ✓ 12/15

Pb ✓

QC BATCH ID FOR WET CHEM - Test Code: CR_VI
PREPREP METHOD:
PREP METHOD:
ANALYSIS METHOD: CR_VI
BATCH DATE: 11/24/93
INSTRUMENT ID: A
SET (BATCH) #: 1

B311304
TINKER.S001

Work Orders/Fractions Associated With Batch

Lab Sample ID's	
1	B311304-14B
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

Batch QC ID's	
LCS ID	LCS112493-1
LCSD ID:	N/A
MB ID:	MB112493-1
MS ID:	~~MB~~ SAT N/A
MSD ID:	N/A
REP ID:	N/A

Batch QC Results

MDL: _____ PQL: 0.01

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	0.0		SAT	11/29 1600
LCS % Rec	102	% Rec		
LCSD % Rec	N/A	% Rec		
LCS/LCSD RPD	N/A	% RPD		
MS % Rec	N/A	% Rec		
MSD % Rec	N/A	% Rec		
MS/MSD RPD	N/A	% RPD		
REP RPD	N/A	% RPD		

Comments: RINSATE SAMPLE – NO QC

QC BATCH ID FOR WET CHEM - Test Code: CR_VI
PREPREP METHOD:
PREP METHOD:
ANALYSIS METHOD: CR_VI
BATCH DATE: 12/10/93
INSTRUMENT ID: A
SET (BATCH) #: 1

Work Orders/Fractions Associated With Batch

B311304
TINKER.5001

Lab Sample ID's	
1	B311304-01B
2	-05B
3	-06B
4	-07B
5	-09B
6	-10B
7	-11B
8	-12B
9	
10	
11	
12	
13	
14	SAT
15	12/10
16	
17	
18	
19	
20	

Batch QC ID's	
LCS ID:	LCS121093-1
LCSD ID:	LCSD121093-1
MB ID:	MB121093-1
MS ID:	B311304-02B
MSD ID:	B311304-03B
REP ID:	B311304-07B

Batch QC Results

MDL: _____ PQL: 0.010

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	0	SAT mg/kg	SAT	12/10/0:00
LCS % Rec	98	% Rec		
LCSD % Rec	101	% Rec		
LCS/LCSD RPD	5.94	% RPD		
MS % Rec	90.4	% Rec		
MSD % Rec	94.0	% Rec		
MS/MSD RPD	3.9	% RPD		
REP RPD	0	% RPD		

Comments:

QC Batch ID

ITAS - AUSTIN EXTRACTABLES QA LOT SUMMARY:

Prep Code/Date: 9071EX1 12/6/
Test Code/Date: TPHER1
Set #: _____ Inst. ID: FTER

Type	Lab Sample ID	Result	Percent Recovery	QC limits
Blank	B311304-15B	< (B311282-BLK)		< Reporting limit
Blank spike	B311282-BS	5.6	99	70 to 130%
MS	B311304-02B	280	99	70 to 130%
MSD	-03B	260	92	70 to 130%
	-01B	<		

This QA Spike Lot applies to the following Samples:

#	Client	Sam # + Fraction	Date of Prep
1		B311304-01B	12/6/93
2		~~-02B~~	~~[illegible]~~
3		-05B	
4		-06B	
5		-07B	
6		-09B	
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Comments: ~~1207TPHER~~ 1206TPHER1

ITAS - AUSTIN EXTRACTABLES QA LOT SUMMARY:

QC Batch ID

Prep Code/Date: ~~90713A~~ 418.1 11/30/

Test Code/Date: TPHER / 12/1/9

Set #: _____ Inst. ID: FTIR

Type	Lab Sample ID	Result	Percent Recovery	QC limits
Blank	B311304-16B	<1	(B311281-BL)	< Reporting limit
Blank spike	B311281-BS	5.6	99	70 to 130%
MS	-BS	5.6	99	70 to 130%
MSD	-BSD	5.8	100	70 to 130%

This QA Spike Lot applies to the following Samples:

#	Client	Sam # + Fraction	Date of Prep
1		B311304-14B	11/30/93
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Comments: 1130 TPHER1 H_2O

QC Batch ID

ITAS - AUSTIN EXTRACTABLES QA LOT SUMMARY:

Prep Code/Date: 9071ER / 12/7/93
Test Code/Date: TPHIR / _____
Set #: _____ Inst. ID: FTIR

Type	Lab Sample ID	Result	Percent Recovery	QC limits
Blank	B311304-17A	<		< Reporting limit
Blank spike	B311334-BS	5.5	97	70 to 130%
MS	B311304-12B	280	99	70 to 130%
MSD	-03B	260	92	70 to 130%
	-01B	<		

This QA Spike Lot applies to the following Samples:

#	Client	Sam # + Fraction	Date of Prep
1		B311304-10B	12/7/93
2		-11B	
3		-12B	
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Comments: 1207 TPHIR 1

APPENDIX A

DEFINITIONS

ND(U) - Analyte was analyzed for, but not detected. The value given after the ND or "U" is the detection limit for that compound.

A - The compound denoted with an "A" indicates a suspected aldol condensation product.

B - Indicates the compound was also detected in the blank, but at levels less than 5X the detection limit. Values for this compound may be suspect.

J - Indicates the compound was detected in the sample, but at levels less than the detection limit, but above the MDL. Results should be requarded as estimated.

D - Indicates that the compound was identified in an analysis at a secondary dilution factor.

N - Indicates presumptive evidence of a compound. This flag is used for tentatively identified compounds.

MS - Matrix Spike

MSD - Matrix Spike Duplicate

RPD - Relative Percent Difference

DL - Detection limit

UG/L - Micrograms/Liter

UG/KG - Micrograms/Kilogram

MG/KG - Milligrams/Kilogram

MG/L - Milligrams/Liter

%REC - Percent Recovery

QC Acceptance Limits

Method 8240	Water	Soil
Surrogate % Recoveries		
BFB	86-115	74-121
Dichloroethane	76-114	70-120
Toluene-d8	88-110	81-117
Matrix Spike Limits(%)		
1,1-Dichloroethene	61-145	59-172
Trichloroethene	71-120	62-137
Benzne	76-127	66-142
Toluene	76-125	59-139
Chlorobenzene	75-130	60-133

Method 8270	Water	Soil
Surrogate % Recoveries		
Nitrobenzene-d5	35 - 114	23 - 120
2-Fluorobiphenyl	43 - 116	30 - 115
Terphenyl-d14	33 - 141	18 - 137
Phenol-d5	10 - 94	24 - 113
2-Fluorophenol	21 - 100	25 - 121
2,4,6-Tribromophenol	10 - 123	19 - 122
Matrix Spike Limits(%)		
Phenol	14 - 99	15 - 101
Chlorophenol	19 - 107	20 - 113
1,4-Dichlorobenzene	18 - 101	17 - 102
N-Nitroso-di-propylamine	32 - 108	30 - 113
1,2,4-Trichlorobenzene	24 - 109	21 - 117
4-Chloro-3-methylphenol	31 - 111	34 - 108
Acenaphthene	33 - 110	30 - 110
4-Nitrophenol	1 - 141	d - 138
2,4-Dinitrotoluene	35 - 106	31 - 110
Pentachlorophenol	1 - 147	2 - 145
Pyrene	42 - 119	36 - 126

ITAS_Austin Volatiles QA Spike Lot Summary LOT#: _____

Date/Time: 12-3-93 Intrument: E1

Operator: GMB Test/Matrix: 8240 / Soil

GC Column: Rtx 502.2 Operator: _____

Type	Lab Sample ID	Lab File ID	Performed (Y or N)
Sample	B-311304 -1	EB041	Y
MS	-1	EB042	
MSD	-1	EC043	
LCS		EB203	

This QA Spike Lot applies to the following Samples:

#	Client * Sample ID	Lab Sample ID	Lab File ID
01		B-311304 -1	
02		-5	
03		-6	
04		-7	
05		-9	
06		-10	
07		-11	
08		-12	
09		-15	
10		B-311339 -1	
11		-2	
12		-3	
13		-4	
14			
15			
16			
17			
18			
19			
20			

Comments: _____

* - Field used only if necessary.

QC Batch ID

Prep Code/Date: _____/_____

Test Code/Date: _____/_____

Set #: _____ Inst. ID: _____

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY AND BLANK SPIKE RECOVERY

Lab Name: ITAS - Austin Date Ran: 12/03/93 QC BATCH ID
Sample Names: >EB042 >EC043 >EB203 Prep Code/Date: |
CLIENT ID: Test Code/Date: 8240 | 12/03/93
Matrix Spike - SAM Sample No. B311304 Matrix: SOIL Set #: 0 Inst.ID: E1
(5.000 GM TO 5 ML) 1.0 X DIL

COMPOUND NAME	SPIKE ADDED (ug/Kg)	SAMPLE CONC (ug/Kg)	MS CONC (ug/Kg)	MS % REC #	QC LIMITS REC.	BLANK CONC (ug/Kg)	BS CONC (ug/Kg)	BS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.00	.00	57.00	114	59 - 172	0	54.07	108	59 - 172
Trichloroethene	50.00	.00	49.49	99	62 - 137	0	45.42	91	62 - 137
Benzene	50.00	.00	55.61	111	66 - 142	0	49.47	99	66 - 142
Toluene	50.00	.00	56.10	112	59 - 139	0	48.01	96	59 - 139
Chlorobenzene	50.00	.00	56.30	113	60 - 133	0	50.35	101	60 - 133

COMPOUND NAME	SPIKE ADDED (ug/Kg)	MSD CONC. (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.00	52.77	106	8	22	59 - 172
Trichloroethene	50.00	44.82	90	10	24	62 - 137
Benzene	50.00	49.43	99	12	21	66 - 142
Toluene	50.00	49.75	100	12	21	59 - 139
Chlorobenzene	50.00	51.51	103	9	21	60 - 133

LAB BLANK >ELB03
12-3-93 10:21
2-Butanone 2.[illegible] ug/kg

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

* Values outside of QC limits.

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

SURROGATE RECOVERIES	DATE / Time	12-3-93 >EB042 14:06	12-3-93 >EC043 15:44	12-3-93 >EB203 10:56	LIMITS	BLK
Toluene - d8		107	105	102	81 - 117	102
Bromofluorobenzene		94	95	98	74 - 121	97
1,2-Dichloroethane - d4		104	103	106	70 - 120	99

FORM III VOA-2

ITAS_Austin Volatiles QA Spike Lot Summary LOT#: _____

Date/Time: 11/22/93 Intrument: GC/MS A1

Operator: MBP Test/Matrix: 8240 / Water

GC Column: RTX 502.2 Operator: MBP

Type	Lab Sample ID	Lab File ID	Performed (Y or N)
Sample	B311156-07	>A1567	Y
MS	-07MS	>AS567	
MSD	-07MSD	>AD567	
LCS	-BS	>AB122	

This QA Spike Lot applies to the following Samples:

#	Client * Sample ID	Lab Sample ID	Lab File ID	
01	5001	B311156-07		11/22/93
02		-01		
03		B311190-01		
04		B311191-10		
05		B311217-16		11/23/93
06		B311113-07		
07		-08		
08		-09		
09		-10		11/29/93
10		B311256-01		
11	5001	B311304-13		
12	5001	-14		11/30/93
13		B311255-09		
14		B311254-08		
15		-09		
16				
17				
18				
19				
20				

Comments: _____

* - Field used only if necessary.

QC Batch ID

Prep Code/Date: ____/____

Test Code/Date: 8240/11/24/93

Set #: 1 Inst. ID: A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY AND BLANK SPIKE RECOVERY

Lab Name: ITAS - Austin Date Ran: 11/22/93 QC BATCH ID
Sample Names:)AS567)AD567)AB122 Prep Code/Date: |
CLIENT ID: Test Code/Date: 8240 | 11/22/93
Matrix Spike - SAM Sample No. B311156/07 Matrix: WATER Set #: Inst.ID: A1
(5.000 ML TO 5 ML) 1.0 X DIL

COMPOUND NAME	SPIKE ADDED (ug/L)	SAMPLE CONC (ug/L)	MS CONC (ug/L)	MS % REC #	QC LIMITS REC.	BLANK CONC (ug/L)	BS CONC (ug/L)	BS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.00	.00	44.48	89	61 - 145	0	42.94	86	61 - 145
Trichloroethene	50.00	.00	45.67	91	71 - 120	0	46.64	93	71 - 120
Benzene	50.00	.00	49.72	99	76 - 127	0	49.86	100	76 - 127
Toluene	50.00	.00	48.29	97	76 - 125	0	48.05	96	76 - 125
Chlorobenzene	50.00	.00	50.55	101	75 - 130	0	50.64	101	75 - 130

COMPOUND NAME	SPIKE ADDED (ug/L)	MSD CONC. (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.00	44.44	89	0	14	61 - 145
Trichloroethene	50.00	47.42	95	4	14	71 - 120
Benzene	50.00	49.89	100	0	11	76 - 127
Toluene	50.00	49.16	98	2	13	76 - 125
Chlorobenzene	50.00	50.70	101	0	13	75 - 130

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

* Values outside of QC limits.

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

SURROGATE RECOVERIES	13:23)AS567	13:51)AD567	12:25)AB122	LIMITS	08:59 >ALB022
Toluene - d8	97	98	96	88 - 110	96
Bromofluorobenzene	101	96	94	86 - 115	103
1,2-Dichloroethane - d4	99	102	101	76 - 114	100

⇒ all neg

FORM III VOA-2

ITAS - AUSTIN EXTRACTABLES QA LOT SUMMARY

Prep Code/Date: 3520 / 11/24
Test Code/Date: 8270 /
Set #: _____ Inst. ID: _____

Type	Lab Sample ID	Lab File ID	Performed (Y or N)
Blank	B311304-16BB	LK B311304-BS	11-29
Sample			
MS	B311251-2B	MS	
MSD	-2B	MSD	
LCS	-BS		

This QA Spike Lot applies to the following Samples:

WATER

#	Client Sample ID	Lab Sample ID	Lab File ID
1		B31125 1-1B	
2		-2B	
3		-3B	
4		-4B	
5		B311254-9B	
6		B311222-3B	
7		-4B	
8		-5B	
9		B311304-14B	11-29
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Comments: _____

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY AND BLANK SPIKE RECOVERY

Lab Name: ITAS - Austin CLIENT ID: QC BATCH ID

Sample Names: F25105 F25106 F25108 F25107 Prep Code/Date: 3520 | 11/24/93

Date Ran: 12/03/93 12/03/93 12/03/93 12/03/93 Test Code/Date: 8270 | 11/24/93

Time Ran: 15.39 16.12 14.32 13.58 Set #: 1 Inst.ID: F

Matrix Spike - SAM Sample No. 031125102 Matrix: WATER

(1000 ML TO 1 ML) 1.0 X DIL

COMPOUND NAME	SPIKE ADDED (ug/L)	SAMPLE CONC (ug/L)	MS CONC (ug/L)	MS % REC #	QC LIMITS REC.	BLANK CONC (ug/L)	BS CONC (ug/L)	BS % REC #	QC LIMITS REC.
PHENOL	100.00	.00	74.97	75	14 - 99	0	76.50	77	14 -
2-CHLOROPHENOL	100.00	.00	67.17	67	19 - 107	0	69.80	70	19 - 1
1,4-DICHLOROBENZENE	50.00	.00	23.34	47	18 - 101	0	28.50	57	18 - 1
N-NITROSODI-N-PROPYLAMINE	50.00	.00	30.00	60	32 - 108	0	31.50	63	32 - 1
1,2,4-TRICHLOROBENZENE	50.00	.00	29.40	59	24 - 109	0	32.95	66	24 - 1
4-CHLORO-3-METHYLPHENOL	100.00	.00	73.42	73	31 - 111	0	80.79	81	31 - 1
ACENAPHTHENE	50.00	.00	45.09	90	33 - 110	0	49.19	98	33 - 1
4-NITROPHENOL	100.00	.00	56.05	56	1 - 141	0	63.37	63	1 - 1
2,4-DINITROTOLUENE	50.00	.00	29.91	60	35 - 106	0	36.28	73	35 - 1
PENTACHLOROPHENOL	100.00	.00	56.65	57	1 - 147	0	63.89	64	1 - 1
PYRENE	50.00	.00	27.46	55	42 - 119	0	32.91	66	42 - 1

COMPOUND NAME	SPIKE ADDED (ug/L)	MSD CONC. (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.	CLP LIMITS SPIKE	CLP LIMITS %RPD
PHENOL	100.00	68.63	69	9	41	14 - 99	12 - 110	42
2-CHLOROPHENOL	100.00	64.91	65	3	45	19 - 107	27 - 123	40
1,4-DICHLOROBENZENE	50.00	24.82	50	6	46	18 - 101	36 - 97	28
N-NITROSODI-N-PROPYLAMINE	50.00	29.67	59	1	46	32 - 108	41 - 116	38
1,2,4-TRICHLOROBENZENE	50.00	32.25	65	9	55	24 - 109	39 - 98	28
4-CHLORO-3-METHYLPHENOL	100.00	76.89	77	5	37	31 - 111	23 - 97	42
ACENAPHTHENE	50.00	50.47	101	11	45	33 - 110	46 - 118	31
4-NITROPHENOL	100.00	61.47	61	9	71	1 - 141	10 - 80	50
2,4-DINITROTOLUENE	50.00	36.09	72	19	43	35 - 106	24 - 96	38
PENTACHLOROPHENOL	100.00	64.17	64	12	143	1 - 147	9 - 103	50
PYRENE	50.00	31.19	62	13	18	42 - 119	26 - 127	51

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

* Values outside of QC limits.

RPD: 0 out of 11 outside limits.

Spike Recovery: 0 out of 22 outside limits.

SURROGATE RECOVERIES	F25105	F25106	F25108	F25107	LIMITS
D5-NITROBENZENE	64	64	67	67	35 - 114
2-FLUOROBIPHENYL	78	79	82	82	43 - 116
D14-P-TERPHENYL	46	50	55	51	33 - 141
D5-PHENOL	60	62	67	63	10 - 94
2-FLUOROPHENOL	53	49	56	51	21 - 100
2,4,6-TRIBROMOPHENOL	55	61	64	55	10 - 123

SOIL SEMIVOLATILE BLANK SPIKE RECOVERY

Lab Name: ITAS - Austin CLIENT ID: QC BATCH ID

Sample Names: F304BS1 F30416 Prep Code/Date: 3550 L| 12/02/93

Date Ran: 12/11/93 12/11/93 Test Code/Date: 8270 | 12/02/93

Time Ran: 3.08 2.32 Set #: 1 Inst.ID: F

Matrix Spike - SAM Sample No. B311304-BS Matrix: SOIL

(30.00 GM TO 1.00 ML) 1.0 X OIL

COMPOUND NAME	SPIKE ADDED (mg/Kg)	BLANK CONC (mg/Kg)	BS CONC (mg/Kg)	BS % REC #	QC LIMITS REC.	CLP LIMIT SPIKE	%RPD
PHENOL	3.33	.00	2.31	69	15.21 - 101.37	26 - 90	35
2-CHLOROPHENOL	3.33	.00	2.77	83	19.58 - 113.30	25 - 102	50
1,4-DICHLOROBENZENE	1.67	.00	1.30	78	16.90 - 102.22	28 - 104	27
N-NITROSODI-N-PROPYLAMIN	1.67	.00	1.34	81	29.51 - 113.03	41 - 126	38
1,2,4-TRICHLOROBENZENE	1.67	.00	1.23	74	20.79 - 116.61	38 - 107	23
4-CHLORO-3-METHYLPHENOL	3.33	.00	2.62	79	34.09 - 108.43	26 - 103	33
ACENAPHTHENE	1.67	.00	1.48	89	30.35 - 110.03	31 - 137	19
4-NITROPHENOL	3.33	.00	2.91	87	1.00 - 138.18	11 - 114	50
2,4-DINITROTOLUENE	1.67	.00	1.26	75	30.00 - 110.40	28 - 89	47
PENTACHLOROPHENOL	3.33	.00	2.81	84	1.51 - 144.91	17 - 109	47
PYRENE	1.67	.00	1.58	95	35.96 - 126.08	35 - 142	36

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

* Values outside of QC limits.

Spike Recovery: 0 out of 11 outside limits.

SURROGATE RECOVERIES	F304BS1	F30416	LIMITS
D5-NITROBENZENE	82.60	82.00	23.00 - 120.00
2-FLUOROBIPHENYL	77.11	76.34	30.00 - 115.00
D14-P-TERPHENYL	100.01	96.29	18.00 - 137.00
D5-PHENOL	72.76	76.70	24.00 - 113.00
2-FLUOROPHENOL	77.90	71.93	25.00 - 121.00
2,4,6-TRIBROMOPHENOL	85.77	90.52	19.00 - 122.00

TIAS - AUSTIN

Prep Code/Date: 5550 / 12/02
Test Code/Date: 8270 / 4.
Set #: _____ Inst. ID: _____

Type	Lab Sample ID	Lab File ID	Performed (Y or N)
Blank	B311304-15B		
Sample			
MS	B311304-02B		
MSD	-03B		
LCS	BS		

Soil

This QA Spike Lot applies to the following Samples:

#	Client Sample ID	Lab Sample ID	Lab File ID
1		B311304-01B	
2		-02B MS	
3		-03B MSD	
4		-05B	
5		-06B	
6		-07B	
7		-09B	
8		-10B	
9		-11B	
10		-12B	
11		-15B	
12		B311332-02B	
13		-03B	
14			
15			
16			
17			
18			
19			
20			

Comments: _____

SOIL SEMIVOLATILE BLANK SPIKE RECOVERY

Lab Name: ITAS - Austin CLIENT ID: QC BATCH ID

Sample Names: F304BS2 FB30415 Prep Code/Date: 3550 L| 12/02/93

Date Ran: 12/11/93 12/15/93 Test Code/Date: 8270 | 12/02/93

Time Ran: 7.56 12.45 Set #: 1 Inst.ID: F

Matrix Spike - SAM Sample No. B311304-BS Matrix: SOIL

(30.00 GM TO 1.00 ML) 1.0 X DIL

COMPOUND NAME	SPIKE ADDED (mg/Kg)	BLANK CONC (mg/Kg)	BS CONC (mg/Kg)	BS % REC #	QC LIMITS REC.
PHENOL	3.33	.00	1.83	55	15.21 - 101.37
2-CHLOROPHENOL	3.33	.00	1.84	55	19.58 - 113.30
1,4-DICHLOROBENZENE	1.67	.00	.87	52	16.90 - 102.22
N-NITROSODI-N-PROPYLAMIN	1.67	.00	.88	53	29.51 - 113.03
1,2,4-TRICHLOROBENZENE	1.67	.00	.89	53	20.79 - 116.61
4-CHLORO-3-METHYLPHENOL	3.33	.00	1.91	57	34.09 - 108.43
ACENAPHTHENE	1.67	.00	.92	55	30.35 - 110.03
4-NITROPHENOL	3.33	.00	1.66	50	1.00 - 138.18
2,4-DINITROTOLUENE	1.67	.00	.81	48	30.80 - 110.48
PENTACHLOROPHENOL	3.33	.00	.81	24	1.51 - 144.91
PYRENE	1.67	.00	1.00	60	35.96 - 126.08

CLP LIMIT SPIKE	%RPD
26 - 90	35
25 - 102	50
28 - 104	27
41 - 126	38
38 - 107	23
26 - 103	33
31 - 137	19
11 - 114	50
28 - 89	47
17 - 109	47
35 - 142	36

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

* Values outside of QC limits.

Spike Recovery: 0 out of 11 outside limits.

SURROGATE RECOVERIES	F304BS2	FB30415	LIMITS
D5-NITROBENZENE	57.13	35.30	23.00 - 120.00
2-FLUOROBIPHENYL	53.50	33.65	30.00 - 115.00
D14-P-TERPHENYL	66.17	51.64	18.00 - 137.00
D5-PHENOL	57.31	51.24	24.00 - 113.00
2-FLUOROPHENOL	54.78	43.09	25.00 - 121.00
2,4,6-TRIBROMOPHENOL	55.32	53.05	19.00 - 122.00

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY AND BLANK SPIKE RECOVERY

Lab Name: ITAS - Austin QC BATCH ID
Sample Names: F30402 F30403 Prep Code/Date: 3550 |12/02/93
Date Ran: 12/11/93 12/11/93 Test Code/Date: 8270 |12/02/93
Time Ran: 9.09 9.44 Set #: 1 Inst.ID: F
Matrix Spike - SAM Sample No. 8311304 Matrix: SOIL
(30 GM TO 1 ML) 1.0 X OIL

COMPOUND NAME	SPIKE ADDED (mg/Kg)	SAMPLE CONC (mg/Kg)	MS CONC (mg/Kg)	MS % REC #	QC LIMITS REC.
PHENOL	3.33	.00	1.64	49	26 - 90
2-CHLOROPHENOL	3.33	.00	1.70	51	25 - 102
1,4-DICHLOROBENZENE	1.67	.00	.78	47	28 - 104
N-NITROSODI-N-PROPYLAMINE	1.67	.00	.84	50	41 - 126
1,2,4-TRICHLOROBENZENE	1.67	.00	.80	48	38 - 107
4-CHLORO-3-METHYLPHENOL	3.33	.00	1.59	48	26 - 103
ACENAPHTHENE	1.67	.00	.78	47	31 - 137
4-NITROPHENOL	3.33	.00	1.41	42	11 - 114
2,4-DINITROTOLUENE	1.67	.00	.60	36	28 - 89
PENTACHLOROPHENOL	3.33	.00	1.15	35	17 - 109
PYRENE	1.67	.00	.83	50	35 - 142

COMPOUND NAME	SPIKE ADDED (mg/Kg)	MSD CONC. (mg/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
PHENOL	3.33	.76	23 *	73 *	35	26 - 90
2-CHLOROPHENOL	3.33	.71	21 *	82 *	50	25 - 102
1,4-DICHLOROBENZENE	1.67	.31	19 *	85 *	27	28 - 104
N-NITROSODI-N-PROPYLAMINE	1.67	.37	22 *	77 *	38	41 - 126
1,2,4-TRICHLOROBENZENE	1.67	.32	19 *	87 *	23	38 - 107
4-CHLORO-3-METHYLPHENOL	3.33	1.17	35	30	33	26 - 103
ACENAPHTHENE	1.67	.42	25 *	61 *	19	31 - 137
4-NITROPHENOL	3.33	1.23	37	13	50	11 - 114
2,4-DINITROTOLUENE	1.67	.48	29	23	47	28 - 89
PENTACHLOROPHENOL	3.33	1.17	35	1	47	17 - 109
PYRENE	1.67	.70	42	16	36	35 - 142

Column to be used to flag recovery and RPD values with an asterisk.
* Values outside of QC limits.
RPD: 6 out of 11 outside limits.
Spike Recovery: 6 out of 22 outside limits.

SURROGATE RECOVERIES	F30402	F30403	LIMITS
D5-NITROBENZENE	50	21 *	23 - 120
2-FLUOROBIPHENYL	46	21 *	30 - 115
d14-P-TERPHENYL	51	44	18 - 137
D5-PHENOL	52	25	24 - 113
2-FLUOROPHENOL	52	22 *	25 - 121
2,4,6-TRIBROMOPHENOL	49	41	19 - 122

METALS CONTROL LIMITS

ICP: ± 20% for MS/MSD & Duplicate

GF: Control Charts for MS/MSD; ± 20% for Dup

ICV/CCV

GF ICV ± 20%
GF CCV ± 20%
ICP ICV/CCV ± 10%
HG AA ± 20%

CONTROL LIMITS
GRAPHITE FURNACE/MERCURY

ANALYTE	MATRIX	LIMITS	COMMENTS
Hg	water	21 - 170	Control Charts (B inst.)
Hg	soil	44 - 150	Control Charts (B)
As	water	59 - 150	D
As	soil	75 - 125	D
As	water	52 - 140	C
As	soil	35 - 142	C
Pb	water	48 - 153	D
Pb	soil	75 - 125	D
Pb	water	33 - 163	C
Pb	soil	75 - 125	C
Se	water	37 - 136	D
Se	soil	27 - 118	D
Se	water	20 - 147	C
Se	soil	2.6 - 139	C

QC BATCH ID FOR ICPES	
PREPREP METHOD:	NA
PREP METHOD:	Z3005
ANALYSIS METHOD:	~~Z3005~~ 12-13 6010
BATCH DATE:	12-11-93
INSTRUMENT ID:	B
SET (BATCH) #:	1

Tinker
S001, 500

Work Orders/Fractions Associated With Batch

Lab Sample ID's	
1)	~~B311208-01D~~
✓ 2)	B311254-09C
✓ 3)	B311304-14B
✓ 4)	B311333-02B
5)	B312009-01A
6)	02A
7)	03A
✓ 8)	B311256-01A
✓ 9)	B312064-03B
✓ 10)	~~B312071-02B~~ ☆
11)	~~-03B~~
12)	~~-04B~~
13)	~~B312078-01F~~ ☆
✓ 14)	~~B312137-03A~~
15)	
16)	
17)	
18)	
19)	
20)	

Due 12/20
IT MARTINEZ

Reprepped 12/18/93 for Zn in PB

Batch QC Samples	
LCS ID:	LCS121193-1
LCSD ID:	LCSD121193-1
MB ID:	PB121193-1
MS ID:	B312009-01A
MSD ID:	B312009-01A
REP ID:	B312009-01A

P.L. Cr = 0.01 mg/L
Pb = 0.20 mg/L
for 12009

ANALYTES REQUIRED FOR BATCH:

Ag	Al	As	B	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na
X	X	—	—	X	X	X	X	—	X	X	X	X	—	X	—	—

Ni	Pb	Sb	Se	Si	Sn	Ti	Tl	V	Zn

ITAS Austin QC Batch Summary for ICP

QC Batch ID	
eprep Method:	
Prep Method:	3005
Analysis Method:	6010
Batch Date:	12/11/93
Instrument ID:	B
Batch (Set) #:	1

Batch QC Information		
Matrix: WATER	Data Reported to PQL	
Units: MG/L		
		Corr. Fact.
Method Blk ID:	PB05121193-1	1
LCS ID:	LCS05121193-1	1
LCSD ID:	LCSD05121193-1	1
MS Sample ID:	B312009-01A MS	1
MSD Sample ID:	B312009-01A MSD	1
Rep Sample ID:	B312009-01A DUP	1

	Replicate Sample Data				Blank / LCS Batch QC									
Analyte	Original Result for Replicate	Replicate Result	% RPD	Q	Method Blank Result	LCS true Value (mg/L	LCS Conc. Found	LCS % Rec.	Q	LCSD Conc. Found	LCSD % Rec.	Q	% RPD for LCS/LCSD Recoveries	Q
Ag	ND	ND	N/A		< 0.010	1	1.038	104		1.02	102		1.85	
Al	ND	ND	N/A		< 0.20	10	10.83	108		10.70	107		1.21	
As					< 0.10	1	1.06	106		1.04	104		2.19	
B					< 0.20	1	1.047	105		1.04	104		0.67	
Ba	0.4458	0.4385	1.65		< 0.20	1	1.025	102		1.01	101		1.47	
Be	ND	ND	N/A		< 0.0050	1	1.026	103		1.01	101		1.37	
Ca					< 5.0	20	21.72	109		21.51	108		0.97	
Cd	ND	ND	N/A		< 0.0050	1	1.055	106		1.04	104		1.53	
Co					< 0.050	1	1.041	104		1.02	102		1.94	
Cr	ND	ND	N/A		< 0.010	1	1.037	104		1.02	102		1.36	
Cu	ND	ND	N/A		< 0.025	1	1.041	104		1.02	102		1.94	
Fe	ND	ND	N/A		< 0.10	10	11	110		10.87	109		1.19	
K					< 5.0	20	20.81	104		19.69	98		5.53	
Mg					< 5.0	20	21.62	108		21.34	107		1.30	
Mn					< 0.015	1	1.038	104		1.02	102		1.55	
Mo					< 0.10	1	1.04	104		1.02	102		1.94	
Na					< 5.0	20	21.57	108		21.23	106		1.59	
Ni	ND	ND	N/A		< 0.040	1	1.026	103		1.00	100		2.57	
Pb	ND	ND	N/A		< 0.050	1	1.062	106		1.04	104		2.48	
Sb					< 0.060	1	0.9705	97		1.00	100		2.71	
Se					< 0.10	1	1.094	109		1.13	113		3.33	
Si					< 1.0	10	11.13	111		11.12	111		0.09	
Sn					< 0.10	1	0.9599	96		0.98	98		2.19	
Ti					< 0.10	1	1.033	103		1.02	102		1.07	
Tl					< 0.20	1	1.226	123	N	1.24	124	N	0.97	
V					< 0.050	1	1.054	105		1.02	102		3.08	
Zn	0.1178	0.1829	43.30	*	0.046	1	1.006	101		1.02	102		0.99	

QC Data Reviewed By: LG Date/Time: 12/19/93 16:00

Comments: Zn in original sample < 10X MDL (0.012

Qualifiers:
N - LCS % Recovery was outside method limits of 80-120 %.
R - % RPD for LCS/LCSD was outside control limit of 20 %.
* Replicate RPD was outside method control limit of 20 %

ITAS Austin QC Batch Summary for ICP

QC Batch ID	
Preprep Method:	
Prep Method:	3005
Analysis Method:	6010
Batch Date:	12/11/93
Instrument ID:	B
Batch (Set) #:	1

Batch QC Information

Matrix:	WATER	Data Reported to PQL
Units:	MG/L	

		Corr. Factor
Method Blk ID:	PB05121193-1	1
LCS ID:	LCS05121193-1	1
LCSD ID:	LCSD05121193-1	1
MS Sample ID:	B312009-01A MS	1
MSD Sample ID:	B312009-01A MSD	1
Rep Sample ID:	B312009-01A DUP	1

Spike Sample Data

Analyte	Original Result for MS/MSD	MS Result	MS Spike Added	MS % Rec.	Q	MSD Result	MSD Spike Added	MSD % Rec.	Q	% RPD for MS/MSD Recoveries	Q	% RPD for MS/MSD Result As Replicates	Q
Ag	ND	0.9649	1.00	96		0.9746	1.00	97		1.00			
Al	ND	10.29	10.00	103		10.39	10.00	104		0.97			
As													
B													
Ba	0.4458	1.358	1.00	91		1.398	1.00	95		4.29			
Be	ND	0.9522	1.00	95		0.9646	1.00	96		1.29			
Ca													
Cd	ND	0.9586	1.00	96		0.9695	1.00	97		1.13			
Co													
Cr	ND	0.9049	1.00	90		0.9156	1.00	92		1.18			
Cu	ND	0.9922	1.00	99		0.9945	1.00	99		0.23			
Fe	ND	9.732	10.00	97		9.829	10.00	98		0.99			
K													
Mg													
Mn													
Mo													
Na													
Ni	ND	0.8923	1.00	89		0.9061	1.00	91		1.53			
Pb	ND	0.9568	1.00	96		0.9876	1.00	99		3.17			
Sb													
Se													
Si													
Sn													
Ti													
Tl													
V													
Zn	0.1178	1.123	1.00	101		1.161	1.00	104		3.71			

Comments:

Qualifiers (Q):

H - Sample concentration was greater than five times the spike level.
N - Spike recovery was outside method control limits of 80-120 %.
R - Percent RPD for MS/MSD recoveries was outside method control limit of 20 %.
D - Sample concentration was greater than five times the spike level.
The RPD was calculated between the MS and MSD results as replicates.

TINKER 500
ICPTK2
Due 12/12/93

QC BATCH ID FOR ICPES	
PREPREP METHOD:	NA
PREP METHOD:	3050P
ANALYSIS METHOD:	6010
BATCH DATE:	12/5/93
INSTRUMENT ID:	B
SET (BATCH) #:	2

Work Orders/Fractions Associated With Batch

Lab Sample ID's	
1)	B311304-01B
2)	02B
3)	03B
4)	05B
5)	06B
6)	07B
7)	09B
8)	10B
9)	11B
10)	12B
11)	
12)	
13)	
14)	
15)	
16)	
17)	
18)	
19)	
20)	

Batch QC Samples	
LCS ID:	LCS50 120593-1
LCSD ID:	LCSD50 120593-1
MB ID:	PBS0 120593-1
MS ID:	B311304-02B MS
MSD ID:	B311304-03B MSD
REP ID:	B311304-01B DUP

ANALYTES REQUIRED FOR BATCH:

Ag	Al	As	B	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na
X	X	—	—	X	X	—	X	—	X	X	X	—	—	—	—	—

Ni	Pb	Sb	Se	Si	Sn	Ti	Tl	V	Zn
✓									✓

ITAS Austin QC Batch Summary for ICP

Batch ID	
Preprep Method:	
Prep Method:	3050
Analysis Method:	6010
Batch Date:	12/05/93
Instrument ID:	B
Batch (Set) #:	12

KmB
12/20/93

Batch QC Information		
Matrix: SOIL	Data Reported to PQL	
Units: MG/KG		
		Corr. Fact.
Method Blk ID:	PB50120593-1	1
LCS ID:	LCS50120593-1	1
LCSD ID:	LCS50120593-1	1
MS Sample ID:	B311304-02B MS	93.4579
MSD Sample ID:	B311304-03B MSD	98.0392
Rep Sample ID:	B311304-01B DUP	113.636

	Replicate Sample Data				Blank / LCS Batch QC									
Analyte	Original Result for Replicate	Replicate Result	% RPD	Q	Method Blank Result	LCS true Value (mg/L	LCS Conc. Found	LCS % Rec.	Q	LCSD Conc. Found	LCSD % Rec.	Q	% RPD for LCS/LCSD Recoveries	Q
Ag	ND	ND	N/A		< 0.010	1	0.8855	89		0.87	87		2.27	
Al	9117	7883	14.52		< 0.20	10	9.376	94		9.90	99		5.39	
As					< 0.10	1	0.8671	87		0.99	99		12.73	
B					< 0.20	1	0.9514	95		0.97	97		1.72	
Ba	171.5	163.7	4.65		< 0.20	1	0.9335	93		1.00	100		6.40	
Be	0.8265	0.8882	7.20		< 0.0050	1	0.8909	89		0.93	93		4.82	
Ca					< 5.0	20	18.43	92		19.44	97		5.33	
Cd	0.781	0.5027	43.36	*	< 0.0050	1	0.8961	90		0.88	88		1.27	
Co					< 0.050	1	0.9181	92		0.91	91		0.94	
Cr	11.75	11.67	0.68		< 0.010	1	0.9066	91		0.95	95		5.05	
Cu	6.69	6.786	1.42		< 0.025	1	0.9305	93		0.93	93		0.45	
Fe	10370	10610	2.29		< 0.10	10	9.658	97		10.20	102		5.46	
K					< 5.0	20	17.85	89		19.02	95		6.35	
Mg					< 5.0	20	18.52	93		19.50	98		5.16	
Mn					< 0.015	1	0.9209	92		0.92	92		0.51	
Mo					< 0.10	1	0.9339	93		0.92	92		1.52	
Na					< 5.0	20	18.87	94		19.94	100		5.51	
Ni	7.615	7.68	0.85		< 0.040	1	0.9047	90		0.91	91		0.95	
Pb					< 0.050	1	0.9073	91		0.89	89		2.44	
Sb					< 0.060	1	0.8264	83		0.91	91		9.33	
Se					< 0.10	1	0.9517	95		0.97	97		1.45	
Si					< 1.0	10	2.565	26	N	7.14	71	N	94.24	R
Sn					< 0.10	1	0.8804	88		0.97	97		10.13	
Ti					< 0.10	1	0.9254	93		0.98	98		5.78	
Tl					< 0.20	1	1.029	103		0.99	99		4.04	
V					< 0.050	1	0.9261	93		0.91	91		1.23	
Zn	15.05	13.43	11.38		< 0.020	1	0.8339	83		0.87	87		4.42	

QC Data Reviewed By: KmB Date/Time: 12/20/93 1600

Comments: % RPD for Cd in Dup outside control limits due to inconsistent sample matrix, % Rec for Si in LCS / LCSD outside control limits but not target analyte

Qualifiers:
N - LCS % Recovery was outside method limits of 80-120 %.
R - % RPD for LCS/LCSD was outside control limit of 20 %.
* Replicate RPD was outside method control limit of 20 %

tin QC Batch Summary for ICP

Batch ID	
eprep Method:	
Prep Method:	3050
Analysis Method:	6010
Batch Date:	12/05/93
Instrument ID:	B
Batch (Set) #:	1

Batch QC Information		
Matrix: SOIL	Data Reported to PQL	
Units: MG/KG		
		Corr. Factor
Method Blk ID:	PB50120593-1	1
LCS ID:	LCS50120593-1	1
LCSD ID:	LCS50120593-1	1
MS Sample ID:	B311304-02B MS	93.4579
MSD Sample ID:	B311304-03B MSD	98.0392
Rep Sample ID:	B311304-01B DUP	113.636

Spike Sample Data

Analyte	Original Result for MS/MSD	MS Result	MS Spike Added	MS % Rec.	Q	MSD Result	MSD Spike Added	MSD % Rec.	Q	% RPD for MS/MSD Recoveries	Q	% RPD for MS/MSD Result As Replicates	Q
Ag	ND	77.81	93.46	83		80.71	98.04	82		1.13			
Al	9117	20970	934.58	1268	H	18630	980.39	970	H	26.62	R	11.82	D
As													
B													
Ba	171.5	265.9	93.46	101		266.9	98.04	97		3.73			
Be	0.8265	84.28	93.46	89		86.17	98.04	87		2.55			
Ca													
Cd	0.781	81.84	93.46	87		83.85	98.04	85		2.34			
Co													
Cr	11.75	100.4	93.46	95		101.3	98.04	91		3.78			
Cu	6.69	88.92	93.46	88		91.79	98.04	87		1.35			
Fe	10370	14470	934.58	439	H	13500	980.39	319	H	31.52	R	6.94	D
K													
Mg													
Mn													
Mo													
Na													
Ni	7.615	89.87	93.46	88		93.39	98.04	87		0.60			
Pb													
Sb													
Se													
Si													
Sn													
Ti													
Tl													
V													
Zn	15.05	97.86	93.46	89		98.74	98.04	85		3.73			

Comments: % Rec for Al and Fe in MS/MSD were outside control limits however sample concentration was greater than 5x spike level.

Qualifiers (Q):

H - Sample concentration was greater than five times the spike level.
N - Spike recovery was outside method control limits of 80-120 %.
R - Percent RPD for MS/MSD recoveries was outside method control limit of 20 %.
D - Sample concentration was greater than five times the spike level.
The RPD was calculated between the MS and MSD results as replicates.

QC BATCH ID FOR GFAA/CVAA - Test Code: AS-GF	
PREPREP METHOD:	
PREP METHOD:	Z 3050F
ANALYSIS METHOD:	7060
BATCH DATE:	12/5/93
INSTRUMENT ID:	D
SET (BATCH) #:	2

Work Orders/Fractions Associated With Batch

Lab Sample ID's	
1	B311304-01B
2	02B
3	03B
4	05B
5	06B
6	07B
7	09B
8	10B
9	11B
10	12B
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

RMK 12/6

Batch QC ID's	
LCS ID:	LCSSO 120593-1
LCSD ID:	LCSDSO 120593-1
MB ID:	PBSO 120593-1
MS ID:	B311304-02B MS
MSD ID:	B311304-03B MSD
REP ID:	B311304-01B DUP

Batch QC Results MDL: 0.77ug PQL: 10ug

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	<0.010	mg/L	KMB	12/10 10:29
LCS % Rec	89	% Rec		
LCSD % Rec	90	% Rec		
LCS/LCSD RPD	1.12	% RPD		
MS % Rec	54.3	% Rec		
MSD % Rec	64.7	% Rec		
MS/MSD RPD	17.5	% RPD		
REP RPD	23.3	% RPD		

Comments: Analytical Spike Run @ 98.5% Rec

QC BATCH ID FOR GFAA/CVAA - Test Code: As-6F	
PREPREP METHOD:	
PREP METHOD:	23020
ANALYSIS METHOD:	7060
BATCH DATE:	11-30-93
INSTRUMENT ID:	D
SET (BATCH) #:	1

B311304

Work Orders/Fractions Associated With Batch

Lab Sample ID's

1 B311140-02B
2 B311260-07C
3 B311254-09C
4 B311256-01A
5 B311304-01AB 9/11-30
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20

Batch QC ID's

LCS ID: LCS20-113093-1
LCSD ID: LCSD20-113093-1 9/11-30
MB ID: PB20113093-1
MS ID: B311256-01AMS
MSD ID: -01AMSD
REP ID: -01A Dup

Batch QC Results

MDL: .065ug/L PQL: 10ug/l

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	<0.010	mg/L	LLH	12/2 08:21
LCS % Rec	96	% Rec		
LCSD % Rec	103	% Rec		
LCS/LCSD RPD	7.04	% RPD		
MS % Rec	97.3	% Rec		
MSD % Rec	93.8	% Rec		
MS/MSD RPD	3.66	% RPD		
REP RPD	0	% RPD		

11-30-93

Comments:

QC BATCH ID FOR GFAA/CVAA - Test Code: Pb-GF	
PREPREP METHOD:	
PREP METHOD:	23020
ANALYSIS METHOD:	7421
BATCH DATE:	11-30-93
INSTRUMENT ID:	C
SET (BATCH) #:	1

~~B3113~~
B311304

Work Orders/Fractions Associated With Batch

Lab Sample ID's	
1	B311140-03B
2	B311960-01C
3	B311254-09C
4	B311256-01A
5	B311304-01A
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

Batch QC ID's	
LCS ID:	LCS20-113093-1
LCSD ID:	LCSD20-113093-1
MB ID:	PB20-113093-1
MS ID:	B311256-01A MS
MSD ID:	-01A MSD
REP ID:	01A DUP

Batch QC Results

MDL: 2.96ug/L PQL: 3ug

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	<0.003	mg/L	LCH	12/2 8:23
LCS % Rec	105	% Rec		
LCSD % Rec	109	% Rec		
LCS/LCSD RPD	3.74	% RPD		
MS % Rec	106	% Rec		
MSD % Rec	107	% Rec		
MS/MSD RPD	0.939	% RPD		
REP RPD	0	% RPD		

Comments:

PB_GF
12/10/93
KmB

QC BATCH ID FOR GFAA/CVAA - Test Code: Pb-6F	
PREPREP METHOD:	
PREP METHOD:	Z 3050F
ANALYSIS METHOD:	7421
BATCH DATE:	12/5/93
INSTRUMENT ID:	C
SET (BATCH) #:	2

Work Orders/Fractions Associated With Batch

Lab Sample ID's

1	B311304-01B
2	02B
3	03B
4	05B
5	06B
6	07B
7	09B
8	10B
9	11B
10	12B
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

PMK 12/7

Batch QC ID's

LCS ID: LCSSO 120593-1
LCSD ID: LCSDSO 120593-1
MB ID: PBSO 120593-1
MS ID: B311304-02B MS
MSD ID: B311304-03B MSD
REP ID: B311304-01B DUP

Batch QC Results

MDL: 0.0030 PQL: 0.003 MG/L

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	<0.0030	MG/L	KmB	12/10/93
LCS % Rec	102	% Rec		
LCSD % Rec	104	% Rec		
LCS/LCSD RPD	1.94	% RPD		
MS % Rec	55.9	% Rec		
MSD % Rec	156	% Rec		
MS/MSD RPD	94.5	% RPD		
REP RPD	5.77	% RPD		

Comments:

HG_AA
12/9/93
KmB

QC BATCH ID FOR GFAA/CVAA - Test Code: _____	
PREPREP METHOD:	
PREP METHOD:	
ANALYSIS METHOD:	7471
BATCH DATE:	12/9/93
INSTRUMENT ID:	A
SET (BATCH) #:	1

Work Orders/Fractions Associated With Batch

Lab Sample ID's

1	B311304-01B
2	-02B
3	-03B
4	-05B
5	06B
6	-07B
7	-09B
8	-10B
9	-11B
10	-12B
11	
12	
13	
14	
15	KmB 12/10/93
16	
17	
18	
19	
20	

Batch QC ID's

LCS ID:	ICV120993-1
LCSD ID:	CCV120993-1
MB ID:	ICB 1209933-1
MS ID:	B311304-02B MS } spk of -01B
MSD ID:	B311304-03B MSD } spk of -01B
REP ID:	B311304-01B DUP

Batch QC Results

MDL: 0.00020 PQL: 0.0002 MG/L

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	<0.00020	MG/L	KmB	12/9/93 14:00
LCS % Rec	102	% Rec		
LCSD % Rec	102	% Rec		
LCS/LCSD RPD	0.0	% RPD		
MS % Rec	101	% Rec		
MSD % Rec	103	% Rec		
MS/MSD RPD	1.96	% RPD		
REP RPD	0.0	% RPD		

Comments: B311286 to be re-run as no MS/MSD run. (3 samples)

KmB
12/10/93

Hg-AA 12/1/93
MLA

QC BATCH ID FOR GFAA/CVAA - Test Code:	
PREPREP METHOD:	
PREP METHOD:	
ANALYSIS METHOD:	7470
BATCH DATE:	12/1/93
INSTRUMENT ID:	A
SET (BATCH) #:	4

Work Orders/Fractions Associated With Batch

Lab Sample ID's

1 B311254-09C
2 B311256-01A
3 B311304-14B
4 B311251-01D
5 02D
6 03D
7 04D
8 08A
9 09A
10 B311333-02C
11
12
13
14 MLA
15
16
17
18
19
20

Batch QC ID's

LCS ID: ICV 120193-2
LCSD ID: CCV-1
MB ID: ICB
MS ID: B311251 -08A MS
MSD ID: 09A MSD
REP ID: 02D DUP

Batch QC Results

MDL: 0.020 PQL: 0.02

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	0.0	mg/L	MLA	12/1/93
LCS % Rec	102	% Rec		
LCSD % Rec	104	% Rec		
LCS/LCSD RPD	1.94	% RPD		
MS % Rec	81.3	% Rec		
MSD % Rec	~~86.82.7~~	% Rec		
MS/MSD RPD	~~56.1.71~~	% RPD		
REP RPD	0	% RPD		

Comments:

TPJ

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

1/11/94
Faxed to CF, TL, RF

CERTIFICATE OF ANALYSIS

IT CORPORATION
1250 CAPITAL OF TX HWY
BLDG. 3, SUITE 200
AUSTIN, TX 78746-6443
TIM JENNINGS

Date: 01/11/94

Work Order: B3-12-176

This is the Certificate of Analysis for the following samples:

Client Work ID: D.O. 5001 409832-003-01
Date Received: 12/15/93
Number of Samples: 6
Sample Type: WATER

I. Introduction

Samples were labeled as follows:

SAMPLE IDENTIFICATION	LABORATORY #
A1612	B3-12-176-01
A1610	B3-12-176-02
A1611	B3-12-176-03
A1611-MS	B3-12-176-04
A1611-MSD	B3-12-176-05
LAB BLANK	B3-12-176-06

Reviewed and Approved:

Jon Bartell
Laboratory Director

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O. 5001 409832-003-01 Work Order: B3-12-176

II. QA/QC

The results presented in this report meet the statement of work requirements in accordance with Quality Control and Quality Assurance protocol except as noted in Section IV or in an optional sample narrative at the end of Section III.

In the presented analytical data, 'ND' or '<' indicates that the compound is not detected at the specified limit.

III. Analytical Data

The following page(s) supply results for requested analyses performed on the samples listed above.

The test results relate to tested items only. ITAS-Austin reserves the right to control report production except in whole.

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O. 5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-176

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1612**
SAMPLE DATE: **12/09/93**
SAMPLE MATRIX: **WATER**
ANALYSIS DATE: **12/27/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/L**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	100	U	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	101	88 - 110
BROMOFLUOROBENZENE	100	86 - 115
1,2-DICHLOROETHANE-D4	94	76 - 114

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O. 5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-176

SAMPLE ID: **A1610**
SAMPLE DATE: **12/14/93 11:00:00**
SAMPLE MATRIX: **WATER**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Alkalinity, Titrimetric		300	10	MG/L as CaCO3	12/17/93	EPA310_1
TPH - IR		0.96U	0.96	MG/L	12/28/93	EPA418_1
Phenolics		0.010U	0.010	MG/L	01/06/94	EPA9066
Chloride by Ion Chrom.		110	10	MG/L	01/05/94	EPA300_0
Chemical Oxygen Demand		25U	25	MG/L	12/28/93	EPA410_4
Chromium VI		0.010U	0.010	MG/L	12/15/93	EPA7196
Nitrate and Nitrite		10	0.50	MG/L	01/05/94	EPA353_2
Silica		8.5	2.0	MG/L	12/29/93	370_1
Sulfate by Ion Chrom.		63N	10	MG/L	01/05/94	EPA300_0
Total Dissolved Solids		630	10	MG/L	12/16/93	EPA160_1
Total Kjeldahl Nitrogen		0.35N	0.25	MG/L	01/10/94	EPA351_3
Total Organic Carbon		1.0U	1.0	MG/L	12/21/93	EPA415_1
Total Suspended Solids		62	20	MG/L	12/20/93	EPA160_2
Total Phosphorus		0.10U	0.10	MG/L	01/10/94	EPA365_3

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O. 5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-12-176

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1610**
SAMPLE DATE: **12/14/93**
SAMPLE MATRIX: **WATER**
ANALYSIS DATE: **12/27/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/L**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	100	U	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	1.9	J	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	99	88 - 110
BROMOFLUOROBENZENE	99	86 - 115
1,2-DICHLOROETHANE-D4	94	76 - 114

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O. 5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-176

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1610**
SAMPLE DATE: **12/14/93**
SAMPLE MATRIX: **WATER**
EXTRACTION DATE: **12/16/93**
ANALYSIS DATE: **12/29/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/L**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Phenol	10	U	10	2,6-Dinitrotoluene	10	U	10
bis(2-Chloroethyl)ether	10	U	10	3-Nitroaniline	25	U	25
2-Chlorophenol	10	U	10	Acenaphthene	10	U	10
1,3-Dichlorobenzene	10	U	10	2,4-Dinitrophenol	25	U	25
1,4-Dichlorobenzene	10	U	10	4-Nitrophenol	25	U	25
Benzyl alcohol	10	U	10	Dibenzofuran	10	U	10
1,2-Dichlorobenzene	10	U	10	2,4-Dinitrotoluene	10	U	10
2-Methylphenol	10	U	10	Diethylphthalate	10	U	10
bis(2-Chloroisopropyl)ether	10	U	10	4-Chlorophenyl-phenylether	10	U	10
4-Methylphenol	10	U	10	Fluorene	10	U	10
N-Nitroso-di-n-propylamine	10	U	10	4-Nitroaniline	10	U	10
Hexachloroethane	10	U	10	4,6-Dinitro-2-methylphenol	25	U	25
Nitrobenzene	10	U	10	N-Nitrosodiphenylamine (1)	10	U	10
Isophorone	10	U	10	4-Bromophenyl-phenylether	10	U	10
2-Nitrophenol	10	U	10	Hexachlorobenzene	10	U	10
2,4-Dimethylphenol	10	U	10	Pentachlorophenol	25	U	25
Benzoic Acid	10	U	10	Phenanthrene	10	U	10
bis(2-Chloroethoxy)methane	10	U	10	Anthracene	10	U	10
2,4-Dichlorophenol	10	U	10	Di-n-butylphthalate	10	U	10
1,2,4-Trichlorobenzene	10	U	10	Fluoranthene	10	U	10
Naphthalene	10	U	10	Pyrene	10	U	10
4-Chloroaniline	10	U	10	Butylbenzylphthalate	10	U	10
Hexachlorobutadiene	10	U	10	3,3'-Dichlorobenzidine	10	U	10
4-Chloro-3-methylphenol	10	U	10	Benzo(a)anthracene	10	U	10
2-Methylnaphthalene	10	U	10	Chrysene	10	U	10
Hexachlorocyclopentadiene	10	U	10	bis(2-Ethylhexyl)phthalate	2.2	J	10
2,4,6-Trichlorophenol	10	U	10	Di-n-octylphthalate	10	U	10
2,4,5-Trichlorophenol	10	U	10	Benzo(b)fluoranthene	10	U	10
2-Chloronaphthalene	10	U	10	Benzo(k)fluoranthene	10	U	10
2-Nitroaniline	25	U	25	Benzo(a)pyrene	10	U	10
Dimethylphthalate	10	U	10	Indeno(1,2,3-cd)pyrene	10	U	10
Acenaphthylene	10	U	10	Dibenzo(a,h)anthracene	10	U	10
				Benzo(g,h,i)perylene	10	U	10

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O. 5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-12-176

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1610**
SAMPLE DATE: **12/14/93**
SAMPLE MATRIX: **WATER**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	77	35 - 114
2-Fluorobiphenyl	73	43 - 116
Terphenyl-D14	103	33 - 141
Phenol-D5	66	10 - 94
2-Fluorophenol	67	21 - 100
2,4,6-Tribromophenol	106	10 - 123

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O. 5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-176

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1610**
SAMPLE DATE: **12/14/93**
SAMPLE MATRIX: **WATER**
PREP DATE: 12/16/93
ANALYSIS DATE: **01/05/94**
DILUTION FACTOR: 1.00000
UNITS: **MG/L**

	Result	Qual	Reporting Limit
Aluminum	1.6	N	0.20
Barium	0.20	UN	0.20
Cadmium	0.0050	UN	0.0050
Calcium	48	N	5.0
Chromium	0.019	N	0.010
Copper	0.025	UN	0.025
Iron	1.9	N	0.10
Magnesium	42	N	5.0
Manganese	0.056	N	0.015
Nickel	0.040	UN	0.040
Potassium	5.0	U	5.0
Selenium	0.10	UN	0.10
Silver	0.010	UN	0.010
Sodium	89	N	5.0
Zinc	0.020	UN	0.020

Data qualifier key:

E - estimated value (see cover page)
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O. 5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-176

SAMPLE ID: **A1611**
SAMPLE DATE: **12/14/93 11:25:00**
SAMPLE MATRIX: **WATER**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Alkalinity, Titrimetric		360	10	MG/L as CaCO3	12/17/93	EPA310_1
TPH - IR		0.96U	0.96	MG/L	12/28/93	EPA418_1
Phenolics		0.010U	0.010	MG/L	01/06/94	EPA9066
Chloride by Ion Chrom.		410	100	MG/L	01/06/94	EPA300_0
Chemical Oxygen Demand		25U	25	MG/L	12/28/93	EPA410_4
Chromium VI		0.010U	0.010	MG/L	12/15/93	EPA7196
Nitrate and Nitrite		17	0.50	MG/L	01/05/94	EPA353_2
Silica		4.2	2.0	MG/L	12/29/93	370_1
Sulfate by Ion Chrom.		220N	10	MG/L	01/10/94	EPA300_0
Total Dissolved Solids		1500	10	MG/L	12/16/93	EPA160_1
Total Kjeldahl Nitrogen		1.1N	0.25	MG/L	01/10/94	EPA351_3
Total Organic Carbon		1.9	1.0	MG/L	12/21/93	EPA415_1
Total Suspended Solids		570	20	MG/L	12/20/93	EPA160_2
Total Phosphorus		0.40	0.10	MG/L	01/10/94	EPA365_3

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O. 5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-176

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1611**
SAMPLE DATE: **12/14/93**
SAMPLE MATRIX: **WATER**
ANALYSIS DATE: **12/27/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/L**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	2.1	J	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	100	U	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	9.0		5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	102	88 - 110
BROMOFLUOROBENZENE	99	86 - 115
1,2-DICHLOROETHANE-D4	95	76 - 114

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O. 5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-176

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1611**
SAMPLE DATE: **12/14/93**
SAMPLE MATRIX: **WATER**
EXTRACTION DATE: **12/16/93**
ANALYSIS DATE: **12/28/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/L**

	Result	Qual	Reporting Limit		Result	Qual	Reportin Limit
Phenol	10	U	10	2,6-Dinitrotoluene	10	U	10
bis(2-Chloroethyl)ether	10	U	10	3-Nitroaniline	25	U	25
2-Chlorophenol	10	U	10	Acenaphthene	10	U	10
1,3-Dichlorobenzene	10	U	10	2,4-Dinitrophenol	25	U	25
1,4-Dichlorobenzene	10	U	10	4-Nitrophenol	25	U	25
Benzyl alcohol	10	U	10	Dibenzofuran	10	U	10
1,2-Dichlorobenzene	10	U	10	2,4-Dinitrotoluene	10	U	10
2-Methylphenol	10	U	10	Diethylphthalate	10	U	10
bis(2-Chloroisopropyl)ether	10	U	10	4-Chlorophenyl-phenylether	10	U	10
4-Methylphenol	10	U	10	Fluorene	10	U	10
N-Nitroso-di-n-propylamine	10	U	10	4-Nitroaniline	10	U	10
Hexachloroethane	10	U	10	4,6-Dinitro-2-methylphenol	25	U	25
Nitrobenzene	10	U	10	N-Nitrosodiphenylamine (1)	10	U	10
Isophorone	10	U	10	4-Bromophenyl-phenylether	10	U	10
2-Nitrophenol	10	U	10	Hexachlorobenzene	10	U	10
2,4-Dimethylphenol	10	U	10	Pentachlorophenol	25	U	25
Benzoic Acid	10	U	10	Phenanthrene	10	U	10
bis(2-Chloroethoxy)methane	10	U	10	Anthracene	10	U	10
2,4-Dichlorophenol	10	U	10	Di-n-butylphthalate	10	U	10
1,2,4-Trichlorobenzene	10	U	10	Fluoranthene	10	U	10
Naphthalene	10	U	10	Pyrene	10	U	10
4-Chloroaniline	10	U	10	Butylbenzylphthalate	10	U	10
Hexachlorobutadiene	10	U	10	3,3'-Dichlorobenzidine	10	U	10
4-Chloro-3-methylphenol	10	U	10	Benzo(a)anthracene	10	U	10
2-Methylnaphthalene	10	U	10	Chrysene	10	U	10
Hexachlorocyclopentadiene	10	U	10	bis(2-Ethylhexyl)phthalate	10	U	10
2,4,6-Trichlorophenol	10	U	10	Di-n-octylphthalate	10	U	10
2,4,5-Trichlorophenol	10	U	10	Benzo(b)fluoranthene	10	U	10
2-Chloronaphthalene	10	U	10	Benzo(k)fluoranthene	10	U	10
2-Nitroaniline	25	U	25	Benzo(a)pyrene	10	U	10
Dimethylphthalate	10	U	10	Indeno(1,2,3-cd)pyrene	10	U	10
Acenaphthylene	10	U	10	Dibenzo(a,h)anthracene	10	U	10
				Benzo(g,h,i)perylene	10	U	10

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O. 5001

IT ANALYTICAL SERVICES
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(512) 892-6684

409832-003-01 Work Order: B3-12-176

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1611**
SAMPLE DATE: **12/14/93**
SAMPLE MATRIX: **WATER**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	75	35 - 114
2-Fluorobiphenyl	71	43 - 116
Terphenyl-D14	86	33 - 141
Phenol-D5	55	10 - 94
2-Fluorophenol	59	21 - 100
2,4,6-Tribromophenol	94	10 - 123

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O. 5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-12-176

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1611**
SAMPLE DATE: **12/14/93**
SAMPLE MATRIX: **WATER**
PREP DATE: 12/16/93
ANALYSIS DATE: **01/05/94**
DILUTION FACTOR: 1.00000
UNITS: **MG/L**

	Result	Qual	Reporting Limit
Aluminum	18	N	0.20
Barium	0.87	N	0.20
Cadmium	0.0050	UN	0.0050
Calcium	130	N	5.0
Chromium	0.17	N	0.010
Copper	0.036	N	0.025
Iron	28	N	0.10
Magnesium	110	N	5.0
Manganese	0.51	N	0.015
Nickel	0.086	N	0.040
Potassium	10.0		5.0
Selenium	0.10	UN	0.10
Silver	0.010	UN	0.010
Sodium	130	N	5.0
Zinc	0.080	N	0.020

Data qualifier key:

E - estimated value (see cover page)
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O. 5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-12-176

SAMPLE ID: **A1611-MS**
SAMPLE DATE: **12/14/93 11:25:00**
SAMPLE MATRIX: **WATER**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Alkalinity, Titrimetric	1	370	10	MG/L AS CACO3	12/17/93	EPA310_1
TPH - IR		88		% REC	12/28/93	EPA418_1
Phenolics		93		% REC	01/06/94	EPA9066
Chloride by Ion Chrom.		98		% REC	01/06/94	EPA300_0
Chemical Oxygen Demand		124		% REC	12/28/93	EPA410_4
Chromium VI		110		% REC	12/15/93	EPA7196
Nitrate and Nitrite		84		% REC	01/05/94	EPA353_2
Silica		92		% REC	12/29/93	370_1
Sulfate by Ion Chrom.	2	105		% REC	01/10/94	EPA300_0
Total Dissolved Solids	3	1500	10	MG/L	12/16/93	EPA160_1
Total Kjeldahl Nitrogen	4	53		% REC	01/10/94	EPA351_3
Total Organic Carbon		93		% REC	12/21/93	EPA415_1
Total Suspended Solids	5	550	20	MG/L	12/20/93	EPA160_2
Total Phosphorus		100		% REC	01/10/94	EPA365_3

Referenced notes for these results:

1 Duplicate analysis performed in lieu of a matrix spike.

2 % RPD between matrix spikes outside control limits due to matrix interference of SO4 by IC. LCS / LCSD results and all method Quality Control within acceptance limits.

3 Duplicate analysis performed in lieu of a matrix spike.

4 Matrix spike outside control limits due to matrix interference. LCS and method Quality Control were acceptable.

5 Duplicate analysis performed in lieu of a matrix spike.

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O. 5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-12-176

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1611-MS**
SAMPLE DATE: **12/14/93**
SAMPLE MATRIX: **WATER**
ANALYSIS DATE: 12/27/93
DILUTION FACTOR: 1.0
UNITS: **% REC**

	Result		Result
1,1-Dichloroethene	106	Trichloroethene	97
		Benzene	103
		Toluene	99
		Chlorobenzene	101

Surrogates	% Recovery	Limits
TOLUENE-D8	101	88 - 110
BROMOFLUOROBENZENE	98	86 - 115
1,2-DICHLOROETHANE-D4	92	76 - 114

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O. 5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-12-176

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1611-MS**
SAMPLE DATE: **12/14/93**
SAMPLE MATRIX: **WATER**
EXTRACTION DATE: 12/16/93
ANALYSIS DATE: 12/28/93
DILUTION FACTOR: 1.0
UNITS: **% REC**

	Result		Result
Phenol	63	Acenaphthene	75
2-Chlorophenol	80	4-Nitrophenol	93
1,4-Dichlorobenzene	65	2,4-Dinitrotoluene	82
N-Nitroso-di-n-propylamine	63	Pentachlorophenol	121
1,2,4-Trichlorobenzene	81	Pyrene	86
4-Chloro-3-methylphenol	76		

Surrogates	% Recovery	Limits
Nitrobenzene-D5	82	35 - 114
2-Fluorobiphenyl	79	43 - 116
Terphenyl-D14	87	33 - 141
Phenol-D5	72	10 - 94
2-Fluorophenol	72	21 - 100
2,4,6-Tribromophenol	106	10 - 123

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:
U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Referenced notes for these results:

Percent recovery outside QC limits for Pentachlorophenol in the matrix spike. %RPD outside limits for Acenaphthene and Pyrene. Batch was accepted based on LCS recoveries.

Company: IT CORPORATION
Date: 01/10/94
Client Work ID: D.O. 5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-12-176

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1611-MS**
SAMPLE DATE: **12/14/93**
SAMPLE MATRIX: **WATER**
PREP DATE: 12/16/93
ANALYSIS DATE: **01/05/94**
DILUTION FACTOR: 1.00000
UNITS: **% REC**

	Result
Aluminum	229
Barium	77
Cadmium	77
Calcium	103
Chromium	79
Copper	76
Iron	115
Magnesium	99
Manganese	76
Nickel	75
Potassium	100
Selenium	64
Silver	77
Sodium	93
Zinc	77

Data qualifier key:
E - estimated value (see cover page)
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

Referenced notes for these results:

Matrix spike is outside control limits due to matrix interference of analysis for aluminum, cadmium, copper, nickle, selenium, silver, barium, chromium, manganese, and zinc by ICPES. LCS / LCSD results and all other method Quality Control within acceptance limits.

% RPD for matrix spikes outside control limits due to matrix interference of analysis for calcium, magnesium, sodium, and iron by ICPES. LCS / LCSD results and all other method Quality Control within acceptance limits.

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O. 5001

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409832-003-01 Work Order: B3-12-176

SAMPLE ID: **A1611-MSD**
SAMPLE DATE: **12/14/93 11:25:00**
SAMPLE MATRIX: **WATER**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Alkalinity, Titrimetric	1	370	10	MG/L AS CACO3	12/17/93	EPA310_1
TPH - IR		97		% REC	12/28/93	EPA418_1
Phenolics		86		% REC	01/06/94	EPA9066
Chloride by Ion Chrom.		119		% REC	01/06/94	EPA300_0
Chemical Oxygen Demand		116		% REC	12/28/93	EPA410_4
Chromium VI		106		% REC	12/15/93	EPA7196
Nitrate and Nitrite		84		% REC	01/05/94	EPA353_2
Silica		104		% REC	12/29/93	370_1
Sulfate by Ion Chrom.	2	80		% REC	01/10/94	EPA300_0
Total Dissolved Solids	3	1500	10	MG/L	12/16/93	EPA160_1
Total Kjeldahl Nitrogen	4	59		% REC	01/10/94	EPA351_3
Total Organic Carbon		100		% REC	12/21/93	EPA415_1
Total Suspended Solids	5	490	20	MG/L	12/20/93	EPA160_2
Total Phosphorus		89		% REC	01/10/94	EPA365_3

Referenced notes for these results:

1 Duplicate analysis performed in lieu of a matrix spike.

2 % RPD between matrix spikes outside control limits due to matrix interference of SO4 by IC. LCS / LCSD results and all method Quality Control within acceptance limits.

3 Duplicate analysis performed in lieu of a matrix spike.

4 Matrix spike duplicate outside control limits due to matrix interference. LCS and method Quality Control were acceptable.

5 Duplicate analysis performed in lieu of a matrix spike.

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O. 5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-12-176

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1611-MSD**
SAMPLE DATE: **12/14/93**
SAMPLE MATRIX: **WATER**
ANALYSIS DATE: 12/27/93
DILUTION FACTOR: 1.0
UNITS: % REC

	Result		Result
1,1-Dichloroethene	104	Trichloroethene	95
		Benzene	101
		Toluene	100
		Chlorobenzene	102

Surrogates	% Recovery	Limits
TOLUENE-D8	104	88 - 110
BROMOFLUOROBENZENE	101	86 - 115
1,2-DICHLOROETHANE-D4	91	76 - 114

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O. 5001

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409832-003-01 Work Order: B3-12-176

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1611-MSD**
SAMPLE DATE: **12/14/93**
SAMPLE MATRIX: **WATER**
EXTRACTION DATE: **12/16/93**
ANALYSIS DATE: **12/28/93**
DILUTION FACTOR: **1.0**
UNITS: **% REC**

	Result		Result
Phenol	56	Acenaphthene	5
2-Chlorophenol	84	4-Nitrophenol	103
1,4-Dichlorobenzene	68	2,4-Dinitrotoluene	90
N-Nitroso-di-n-propylamine	61	Pentachlorophenol	117
1,2,4-Trichlorobenzene	81	Pyrene	21
4-Chloro-3-methylphenol	56		

Surrogates	% Recovery	Limits
Nitrobenzene-D5	85	35 - 114
2-Fluorobiphenyl	86	43 - 116
Terphenyl-D14	103	33 - 141
Phenol-D5	56	10 - 94
2-Fluorophenol	65	21 - 100
2,4,6-Tribromophenol	94	10 - 123

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:
U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Referenced notes for these results:

Percent recovery outside QC limits for Acenaphthene, 2,4-Dinitrotoluene, Pentachlorophenol, and Pyrene in the matrix spike duplicate. %RPD outside limits for Acenaphthene and Pyrene. Batch was accepted based on LCS recoveries.

Company: IT CORPORATION
Date: 01/10/94
Client Work ID: D.O. 5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-12-176

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1611-MSD**
SAMPLE DATE: **12/14/93**
SAMPLE MATRIX: **WATER**
PREP DATE: 12/16/93
ANALYSIS DATE: **01/05/94**
DILUTION FACTOR: 1.00000

UNITS: % REC	Result
Aluminum	277
Barium	83
Cadmium	79
Calcium	147
Chromium	82
Copper	79
Iron	145
Magnesium	141
Manganese	82
Nickel	76
Potassium	117
Selenium	71
Silver	80
Sodium	144
Zinc	80

Data qualifier key:

E - estimated value (see cover page)
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

Referenced notes for these results:

Matrix spike duplicate is outside control limits due to matrix interference of analysis for aluminum, cadmium, copper, nickle, and selenium by ICPES. LCS / LCSD results and all other method Quality Control within acceptance limits.

Matrix spike duplicate % RPD for matrix spikes outside control limits due to matrix interference of analysis for calcium, magnesium, sodium, and iron by ICPES. LCS / LCSD results and all other method Quality Control within acceptance limits.

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O. 5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-12-176

SAMPLE ID: **LAB BLANK**
SAMPLE DATE:
SAMPLE MATRIX: **WATER**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Alkalinity, Titrimetric		10U	10	MG/L as CaCO3	12/17/93	EPA310_1
TPH - IR		1.0U	1.0	MG/L	12/28/93	EPA418_1
Phenolics		0.010U	0.010	MG/L	01/06/94	EPA9066
Chloride by Ion Chrom.		1.0U	1.0	MG/L	01/05/94	EPA300_0
Chemical Oxygen Demand		25U	25	MG/L	12/28/93	EPA410_4
Chromium VI		0.010U	0.010	MG/L	12/15/93	EPA7196
Nitrate and Nitrite		0.050U	0.050	MG/L	01/05/94	EPA353_2
Silica		0.20U	0.20	MG/L	12/29/93	370_1
Sulfate by Ion Chrom.		1.0U	1.0	MG/L	01/05/94	EPA300_0
Total Dissolved Solids		10U	10	MG/L	12/16/93	EPA160_1
Total Kjeldahl Nitrogen		0.25U	0.25	MG/L	01/10/94	EPA351_3
Total Organic Carbon		1.0U	1.0	MG/L	12/21/93	EPA415_1
Total Suspended Solids		N/A		MG/L	12/27/93	EPA160_2
Total Phosphorus		0.10U	0.10	MG/L	01/10/94	EPA365_3

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O. 5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-12-176

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **LAB BLANK**
SAMPLE DATE:
SAMPLE MATRIX: **WATER**
ANALYSIS DATE: 12/27/93
DILUTION FACTOR: 1.0
UNITS: **UG/L**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	100	U	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	100	88 - 110
BROMOFLUOROBENZENE	102	86 - 115
1,2-DICHLOROETHANE-D4	96	76 - 114

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O. 5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-12-176

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **LAB BLANK**
SAMPLE DATE:
SAMPLE MATRIX: **WATER**
EXTRACTION DATE: 12/16/93
ANALYSIS DATE: 12/28/93
DILUTION FACTOR: 1.0
UNITS: UG/L

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Phenol	10	U	10	2,6-Dinitrotoluene	10	U	10
bis(2-Chloroethyl)ether	10	U	10	3-Nitroaniline	25	U	25
2-Chlorophenol	10	U	10	Acenaphthene	10	U	10
1,3-Dichlorobenzene	10	U	10	2,4-Dinitrophenol	25	U	25
1,4-Dichlorobenzene	10	U	10	4-Nitrophenol	25	U	25
Benzyl alcohol	10	U	10	Dibenzofuran	10	U	10
1,2-Dichlorobenzene	10	U	10	2,4-Dinitrotoluene	10	U	10
2-Methylphenol	10	U	10	Diethylphthalate	10	U	10
bis(2-Chloroisopropyl)ether	10	U	10	4-Chlorophenyl-phenylether	10	U	10
4-Methylphenol	10	U	10	Fluorene	10	U	10
N-Nitroso-di-n-propylamine	10	U	10	4-Nitroaniline	10	U	10
Hexachloroethane	10	U	10	4,6-Dinitro-2-methylphenol	25	U	25
Nitrobenzene	10	U	10	N-Nitrosodiphenylamine (1)	10	U	10
Isophorone	10	U	10	4-Bromophenyl-phenylether	10	U	10
2-Nitrophenol	10	U	10	Hexachlorobenzene	10	U	10
2,4-Dimethylphenol	10	U	10	Pentachlorophenol	25	U	25
Benzoic Acid	10	U	10	Phenanthrene	10	U	10
bis(2-Chloroethoxy)methane	10	U	10	Anthracene	10	U	10
2,4-Dichlorophenol	10	U	10	Di-n-butylphthalate	10	U	10
1,2,4-Trichlorobenzene	10	U	10	Fluoranthene	10	U	10
Naphthalene	10	U	10	Pyrene	10	U	10
4-Chloroaniline	10	U	10	Butylbenzylphthalate	10	U	10
Hexachlorobutadiene	10	U	10	3,3'-Dichlorobenzidine	10	U	10
4-Chloro-3-methylphenol	10	U	10	Benzo(a)anthracene	10	U	10
2-Methylnaphthalene	10	U	10	Chrysene	10	U	10
Hexachlorocyclopentadiene	10	U	10	bis(2-Ethylhexyl)phthalate	1.2	J	10
2,4,6-Trichlorophenol	10	U	10	Di-n-octylphthalate	10	U	10
2,4,5-Trichlorophenol	10	U	10	Benzo(b)fluoranthene	10	U	10
2-Chloronaphthalene	10	U	10	Benzo(k)fluoranthene	10	U	10
2-Nitroaniline	25	U	25	Benzo(a)pyrene	10	U	10
Dimethylphthalate	10	U	10	Indeno(1,2,3-cd)pyrene	10	U	10
Acenaphthylene	10	U	10	Dibenzo(a,h)anthracene	10	U	10
				Benzo(g,h,i)perylene	10	U	10

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O. 5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-176

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **LAB BLANK**
SAMPLE DATE:
SAMPLE MATRIX: **WATER**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	82	35 - 114
2-Fluorobiphenyl	83	43 - 116
Terphenyl-D14	102	33 - 141
Phenol-D5	71	10 - 94
2-Fluorophenol	72	21 - 100
2,4,6-Tribromophenol	106	10 - 123

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O. 5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-176

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **LAB BLANK**
SAMPLE DATE:
SAMPLE MATRIX: **WATER**
PREP DATE: 12/16/93
ANALYSIS DATE: **01/05/94**
DILUTION FACTOR: 1.0
UNITS: **MG/L**

	Result	Qual	Reporting Limit
Aluminum	0.20	U	0.20
Barium	0.20	U	0.20
Cadmium	0.0050	U	0.0050
Calcium	5.0	U	5.0
Chromium	0.010	U	0.010
Copper	0.025	U	0.025
Iron	0.10	U	0.10
Magnesium	5.0	U	5.0
Manganese	0.015	U	0.015
Nickel	0.040	U	0.040
Potassium	5.0	U	5.0
Selenium	0.010	U	0.010
Silver	0.010	U	0.010
Sodium	5.0	U	5.0
Zinc	0.020	U	0.020

Data qualifier key:

E - estimated value (see cover page)
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O. 5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
409832-003-01 Work Order: B3-12-176

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME **Alkalinity, Titrimetric** TEST CODE **310_1**

Alkalinity	EPA 310.1 - Chemical Analysis of Water and Wastewater. Titrimetric with sulfuric acid.

TEST NAME **TPH - IR** TEST CODE **418_1**

418_1	Method 418.1: Total Recoverable Petroleum Hydorcarbons, infrared spectrophotmetric method. Methods for the chemical analysis of water and wastes. USEPA.

TEST NAME **ICP Metals** TEST CODE **6010**

Metals by ICP	Inductively coupled emission spectroscopy according to Method 6010, "Test Methods for Evaluating Solid Waste Physical/Chemical Methods", SW-846, Third Edition.

TEST NAME **Hazardous Substance Vols.** TEST CODE **8240TK**

Hazardous Substance List Volatiles	Method 8240, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. GC/MS Purge and Trap analysis.

TEST NAME **ABN HSL GC/MS Extractables** TEST CODE **8270TK**

Hazardous Substance List Extractables	Method 8270, SW-846, Test Methods for Evaluating Solid Waste, Third Edition. Acid/Base-Neutral extraction followed by GC/MS analysis.

TEST NAME **Phenolics** TEST CODE **9066**

Phenolics	SW-846 Method 9066. Total Recoverable Phenolics. Colorimetric, Automated 4-AAP with Distillation. Equivalent to EPA Method 420.2.

TEST NAME **Arsenic - Graphite Furnace** TEST CODE **AS_GF**

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O. 5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-176

TEST NAME **Arsenic - Graphite Furnace** TEST CODE **AS_GF**

Arsenic Graphite Furnace	Method 7060, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. EPA 206.2-Technical Additions to Methods for Chemical Analysis of Water and Wastes, EPA-600/4-82-055, December 1982.

TEST NAME **Chloride by Ion Chrom.** TEST CODE **CL_IC**

Chloride	USEPA 300.0 - The determination of inorganic anions in water by ion chromatography.

TEST NAME **Chemical Oxygen Demand** TEST CODE **COD**

COD	EPA 410.4 - Chemical Analysis of Water and Wastewater. Colorimetric analysis for Chemical Oxygen Demand.

TEST NAME **Chromium VI** TEST CODE **CR_VI**

Chromium VI	Method 7196, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Colorimetric analysis. Equivalent to Standard Methods 3500-Cr D.

TEST NAME **Mercury** TEST CODE **HG_AA**

Mercury	Method 7471, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Cold vapor atomic absorption. Method 7470 is used for water. Method 245.5-"Technical Additions to Methods for Chemical Analysis of Water and Wastes," EPA-600/4-82-055, December 1982.

TEST NAME **Metals** TEST CODE **ICPTK4**

Method not available.

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O. 5001

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(512) 892-6684
409832-003-01 Work Order: B3-12-176

TEST NAME **Nitrate and Nitrite** TEST CODE **NO3NO2**

Nitrate + Nitrite	Method 353.2-Chemical Analysis of Water and Wastewater. Colorimetric Automated Cadmium Reduction method using Lachat autoanalyzer for NO3 and NO2 as N.

TEST NAME **Lead - Graphite Furnace** TEST CODE **PB_GF**

Lead Graphite Furnace	EPA 7421, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. EPA 239.2-Technical Additions to Methods for Chemical Analysis of Water and Wastes," EPA-600/4-82-055, December 1982.

TEST NAME **Silica** TEST CODE **SIO2**

Silica	Method 370.1-Chemical Analysis of Water and Wastewater. Colorimetric Analysis. This is equal to ASTM D859B.

TEST NAME **Sulfate by Ion Chrom.** TEST CODE **SO4_IC**

Sulfate	USEPA Method 300.0 - The Determination of Inorganic Anions in Water by Ion Chromatography.

TEST NAME **Total Dissolved Solids** TEST CODE **TDS**

Total Dissolved Solids	Method 160.1-Chemical Analysis of Water and Wastewater. Gravimetric analysis.

TEST NAME **Total Kjeldahl Nitrogen** TEST CODE **TKN_N**

Kjeldahl Nitrogen	Method 351.3-Chemical Analysis of Water and Wastewater. Digestion and colorimetric analysis.

TEST NAME **Total Organic Carbon** TEST CODE **TOC**

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O. 5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
409832-003-01 Work Order: B3-12-176

TEST NAME **Total Organic Carbon** TEST CODE **TOC**

Total Organic Carbon	Method 415.1-Chemical Analysis of Water and Wastewater. Chemical oxidation and nondispersive infrared analysis. Equivalent to SW-846 Method 9060. Sample prep is instrument manufacturer specific.

TEST NAME **Total Suspended Solids** TEST CODE **TSS**

Total Suspended Solids	Method 160.2-Chemical Analysis of Water and Wastewater. Filtration and gravimetric analysis of non-filterable residue.

TEST NAME **Total Phosphorus** TEST CODE **T_P**

Total Phosphorus	Method 365.3-Chemical Analysis of Water and Wastewater. Digestion and colorimetric analysis.

TEST NAME **ICPES Digestion - Water** TEST CODE **Z3005**

Water Digestion	Method 3005A, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Digestion procedure for the preparation of surface and ground water samples for analysis by flame atomic absorption spectroscopy and inductively coupled plasma spectroscopy. The procedure determines total recoverable or dissolved metals.

TEST NAME **GFAA Digestion - Water** TEST CODE **Z3020**

Water Digestion	Method 3020, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Acid digestion technique for Graphite Furnace.

B312176

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 417459
Page 1 of 2

Project Name/No. [1] Tinker 5001/409832
Sample Team Members [2] MW/JS/KK
Profit Center No. [3] 3527
Project Manager [4] Jimmy Taylor
Purchase Order No. [6] 409832.03.01
Required Report Date [11] Normal

Samples Shipment Date [7] 12-14-93
Lab Destination [8] ITAS-Austin
Lab Contact [9] Karmen Deane
Project Contact/Phone [12] (405) 736-2260 Dan McGregor
Carrier/Waybill No. [13] 8460755844 FedEx

Bill to: [5] 409832.03.01 D.O. 5001
Report to: [10] Tim Jennings ITES Austin

ONE CONTAINER PER LINE

Sample Number [14]	Sample Description/Type [15]	Date/Time Collected [16]	Container Type [17]	Sample Volume [18]	Pre-servative [19]	Requested Testing Program [20]	Condition on Receipt [21]	Disposal Record No. [22]
A1612	TRIP BLANK	12-9-93 1700	Clear Glass	40ml	HCl	8240 VOC	Good Y°C 12-15-93 2 2RVA	B32910203
A1610	Well Water / Fuel Truck Maintenance	12-14-93 1100	Clear Glass	(2) 40m	HCl	8240 VOC		B32910203 10/2 2nd not ITAS Vol
			Amber Glass	2.5L	ice	8270 SVOC		3237062
			"	1L	H_2SO_4	418.1 TPH		
				500ml		9066 Phenols		
				250ml		410.4 COD 415.1 TOC		
						351.3 TKN 353.2 Nitrate/Nitrite		
			Plastic	500ml	HNO_3	6010/7000 metals		

Special Instructions: [23]

Possible Hazard Identification: [24]
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☑

Sample Disposal: [25]
Return to Client ☐ Disposal by Lab ☑ Archive (mos.)

Turnaround Time Required: [26]
Normal ☑ Rush ☐

QC Level: [27]
I. ☑ II. ☐ III. ☐ Project Specific (specify):

1. Relinquished by [28] (Signature/Affiliation) ITES Austin Matthew J. Wilson	Date: 12-14-93 Time: 1400	1. Received by [28] (Signature/Affiliation) [signature] IT	Date: 12-15-93 Time: 0915
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: [29]

White: To accompany samples
Yellow: Field copy
*See back of form for special instructions.

MCA 3/15/91

B312176

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] 417459
Page 2 of 2

Project Name Tinker 5001

Project No. 409832.03.01

Samples Shipment Date 12-14-93

ONE CONTAINER PER LINE

Sample Number [14]	Sample Description/Type [15]	Date/Time Collected [16]	Container Type [17]	Sample Volume [18]	Pre-servative [19]	Requested Testing Program [20]	Condition on Receipt [21]	Disposal Record No. [22]
A1610	Well water / Fuel Truck Maintenance	12-14-93 1100	Plastic	1 L	ice	aw Parameters as per work plan	Good 40 12-15-93 [illegible]	
↓	↓	↓	↓	125 ml	↓	7196 Cr^{6+}	↓	
A1611 (MS/MSD)	Well water / Fuel Truck Maintenance	12-14-93 1125	Clear Glass	(4) 40 ml	HCl	8240 VOC		2014 Not ITA [illegible] 33291010 20/4
↓	↓	↓	Amber Glass	(2) 2.5 L	ice	8270 SVOC		(2) 3237062
			↓	(2) 1 L	H_2SO_4	418.1 TPH		
				(2) 500 ml	↓	9066 Phenols		
				(2) 250 ml		410.4 COD 415.1 TOC		
				↓		351.3 TKN 353.2 Nitrate/Nitrite		
			Plastic	(2) 500 ml	HNO_3	6010/7000 metals		
			↓	(2) 1 L	ice	aw parameters as per work plan		
				(2) 125 ml	↓	7196 Cr^{6+}		

White: To accompany samples

Yellow: Field copy

*See back of form for special instructions.

MCA 3/15/91

Auxiliary Data Summary 01/11/94

Work order : B312176 Sample ID : A1610

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
02B						
	418_1	B312176-06A	1221TPHIR1	12/21/93	12/28/93	1.0
02C	310_1	B312176-06A	1217310_11	12/17/93	12/17/93	1.0
	9066	B312176-06A	122790662	12/27/93	01/06/94	1.0
	CL_IC	B312176-06A	0105CL_IC1	01/05/94	01/05/94	10.0
	COD	B312176-06A	1228COD2C	12/28/93	12/28/93	1.0
	CR_VI	B312176-06A	1215CR_VI2	12/15/93	12/15/93	1.0
	NO3NO2	B312176-06A	0105NO3NO2	01/05/94	01/05/94	10.0
	SIO2	B312176-06A	1229SIO22	12/29/93	12/29/93	10.0
	SO4_IC	B312176-06A	105SO4_IC1	01/05/94	01/05/94	10.0
	TDS	B312176-06A	1216TDS1	12/16/93	12/16/93	1.0
	TKN_N	B312176-06A	0107TKN_N3	01/07/94	01/10/94	1.0
	TOC	B312176-06A	1221TOC2	12/21/93	12/21/93	1.0
	TSS	B312176-06A	1220TSS1	12/20/93	12/20/93	2.0
	T_P	B312176-06A	0107T_P3	01/07/94	01/10/94	1.0
02D						
	AS_GF	B312176-06A	121830201	12/18/93	12/29/93	1.0
	HG_AA	B312176-06A	1229HGAA1	12/29/93	12/29/93	1.0
	PB_GF	B312176-06A	121830201	12/18/93	12/29/93	1.0

Auxiliary Data Summary 01/11/94

Work order : B312176 Sample ID : A1611

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
03B						
	418_1	B312176-06A	1221TPHIR1	12/21/93	12/28/93	1.0
03C	310_1	B312176-06A	1217310_11	12/17/93	12/17/93	1.0
	9066	B312176-06A	122790662	12/27/93	01/06/94	1.0
	CL_IC	B312176-06A	0105CL_IC1	01/05/94	01/06/94	100.0
	COD	B312176-06A	1228COD2C	12/28/93	12/28/93	1.0
	CR_VI	B312176-06A	1215CR_VI2	12/15/93	12/15/93	1.0
	NO3NO2	B312176-06A	0105NO3NO2	01/05/94	01/05/94	10.0
	SIO2	B312176-06A	1229SIO22	12/29/93	12/29/93	10.0
	SO4_IC	B312176-06A	105SO4_IC1	01/10/94	01/10/94	10.0
	TDS	B312176-06A	1216TDS1	12/16/93	12/16/93	1.0
	TKN_N	B312176-06A	0107TKN_N3	01/07/94	01/10/94	1.0
	TOC	B312176-06A	1221TOC2	12/21/93	12/21/93	1.0
	TSS	B312176-06A	1220TSS1	12/20/93	12/20/93	2.0
	T_P	B312176-06A	0107T_P3	01/07/94	01/10/94	1.0
03D						
	AS_GF	B312176-06A	121830201	12/18/93	12/29/93	1.0
	HG_AA	B312176-06A	1229HGAA1	12/29/93	12/29/93	1.0
	PB_GF	B312176-06A	121830201	12/18/93	12/29/93	1.0

Auxiliary Data Summary 01/11/94

Work order : B312176 Sample ID : A1611-MS

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
04B						
	418_1	B312176-06A	1221TPHIR1	12/21/93	12/28/93	1.0
04C	310_1	B312176-06A	1217310_11	12/17/93	12/17/93	1.0
	9066	B312176-06A	122790662	12/27/93	01/06/94	1.0
	CL_IC	B312176-06A	0105CL_IC1	01/05/94	01/06/94	100.0
	COD	B312176-06A	1228COD2C	12/28/93	12/28/93	1.0
	CR_VI	B312176-06A	1215CR_VI2	12/15/93	12/15/93	1.0
	NO3NO2	B312176-06A	0105NO3NO2	01/05/94	01/05/94	50.0
	SIO2	B312176-06A	1229SIO22	12/29/93	12/29/93	10.0
	SO4_IC	B312176-06A	105SO4_IC1	01/10/94	01/10/94	10.0
	TDS	B312176-06A	1216TDS1	12/16/93	12/16/93	1.0
	TKN_N	B312176-06A	0107TKN_N3	01/07/94	01/10/94	1.0
	TOC	B312176-06A	1221TOC2	12/21/93	12/21/93	1.0
	TSS	B312176-06A	1220TSS1	12/20/93	12/20/93	2.0
	T_P	B312176-06A	0107T_P3	01/07/94	01/10/94	1.0
04D						
	AS_GF	B312176-06A	121830201	12/18/93	12/29/93	1.0
	HG_AA	B312176-06A	1229HGAA1	12/29/93	12/29/93	1.0
	PB_GF	B312176-06A	121830201	12/18/93	12/29/93	1.0

Auxiliary Data Summary 01/11/94

Work order : B312176 Sample ID : A1611-MSD

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
05B						
	418_1	B312176-06A	1221TPHIR1	12/21/93	12/28/93	1.0
05C	310_1	B312176-06A	1217310_11	12/17/93	12/17/93	1.0
	9066	B312176-06A	122790662	12/27/93	01/06/94	1.0
	CL_IC	B312176-06A	0105CL_IC1	01/05/94	01/06/94	100.0
	COD	B312176-06A	1228COD2C	12/28/93	12/28/93	1.0
	CR_VI	B312176-06A	1215CR_VI2	12/15/93	12/15/93	1.0
	NO3NO2	B312176-06A	0105NO3NO2	01/05/94	01/05/94	50.0
	SIO2	B312176-06A	1229SIO22	12/29/93	12/29/93	10.0
	SO4_IC	B312176-06A	105SO4_IC1	01/10/94	01/10/94	10.0
	TDS	B312176-06A	1216TDS1	12/16/93	12/16/93	1.0
	TKN_N	B312176-06A	0107TKN_N3	01/07/94	01/10/94	1.0
	TOC	B312176-06A	1221TOC2	12/21/93	12/21/93	1.0
	TSS	B312176-06A	1220TSS1	12/20/93	12/20/93	2.0
	T_P	B312176-06A	0107T_P3	01/07/94	01/10/94	1.0
05D						
	AS_GF	B312176-06A	121830201	12/18/93	12/29/93	1.0
	HG_AA	B312176-06A	1229HGAA1	12/29/93	12/29/93	1.0
	PB_GF	B312176-06A	121830201	12/18/93	12/29/93	1.0

Auxiliary Data Summary 01/11/94

Work order : B312176 Sample ID : LAB BLANK

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
06A	310_1	B312176-06A	1217310_11	12/17/93	12/17/93	1.0
	418_1	B312176-06A	1221TPHIR1	12/21/93	12/28/93	1.0
	9066	B312176-06A	122790662	12/27/93	01/06/94	1.0
	AS_GF	B312176-06A	121830201	12/18/93	12/29/93	1.0
	CL_IC	B312176-06A	0105CL_IC1	01/05/94	01/05/94	1.0
	COD	B312176-06A	1228COD2C	12/28/93	12/28/93	1.0
	CR_VI	B312176-06A	1215CR_VI2	12/15/93	12/15/93	1.0
	HG_AA	B312176-06A	1229HGAA1	12/29/93	12/29/93	1.0
	NO3NO2	B312176-06A	0105NO3NO2	01/05/94	01/05/94	1.0
	PB_GF	B312176-06A	121830201	12/18/93	12/29/93	1.0
	SIO2	B312176-06A	1229SIO22	12/29/93	12/29/93	1.0
	SO4_IC	B312176-06A	105SO4_IC1	01/05/94	01/05/94	1.0
	TDS	B312176-06A	1216TDS1	12/16/93	12/16/93	1.0
	TKN_N	B312176-06A	0107TKN_N3	01/07/94	01/10/94	1.0
	TOC	B312176-06A	1221TOC2	12/21/93	12/21/93	1.0
	TSS	B312176-06A	1220TSS1	12/20/93	12/20/93	1.0
	T_P	B312176-06A	0107T_P3	01/07/94	01/10/94	1.0

TINKER_5001

WORK ORDER # 63121776

OF WATER SAMPLES 6

OF SOIL SAMPLES

8240	✓	✓		SIO2	✓ ✓
8270	✓	✓		TDS	✓ ✓
IR	✓	✓		[redacted]	✓ ✓
AS	✓	✓		TOC	✓ ✓
CRIV	✓	✓		TSS	✓ ✓
HG	✓	✓		[redacted]	✓ ✓
ICP	✓	✓			
PB	✓	✓			
SO4_IC	✓	✓			
310_1	✓	✓			
9066	✓	✓			
CL_IC	✓	✓			
COD	✓	✓			
NO3NO2	✓	✓			

2+3

APPENDIX A

DEFINITIONS

ND(U) - Analyte was analyzed for, but not detected. The value given after the ND or "U" is the detection limit for that compound.

A - The compound denoted with an "A" indicates a suspected aldol condensation product.

B - Indicates the compound was also detected in the blank, but at levels less than 5X the detection limit. Values for this compound may be suspect.

J - Indicates the compound was detected in the sample, but at levels less than the detection limit, but above the MDL. Results should be requarded as estimated.

D - Indicates that the compound was identified in an analysis at a secondary dilution factor.

N - Indicates presumptive evidence of a compound. This flag is used for tentatively identified compounds.

MS - Matrix Spike

MSD - Matrix Spike Duplicate

RPD - Relative Percent Difference

DL - Detection limit

UG/L - Micrograms/Liter

UG/KG - Micrograms/Kilogram

MG/KG - Milligrams/Kilogram

MG/L - Milligrams/Liter

%REC - Percent Recovery

QC Acceptance Limits

Method 8240	Water	Soil
Surrogate % Recoveries		
BFB	86-115	74-121
Dichloroethane	76-114	70-120
Toluene-d8	88-110	81-117
Matrix Spike Limits(%)		
1,1-Dichloroethene	61-145	59-172
Trichloroethene	71-120	62-137
Benzne	76-127	66-142
Toluene	76-125	59-139
Chlorobenzene	75-130	60-133

Method 8270	Water	Soil
Surrogate % Recoveries		
Nitrobenzene-d5	35 - 114	23 - 120
2-Fluorobiphenyl	43 - 116	30 - 115
Terphenyl-d14	33 - 141	18 - 137
Phenol-d5	10 - 94	24 - 113
2-Fluorophenol	21 - 100	25 - 121
2,4,6-Tribromophenol	10 - 123	19 - 122
Matrix Spike Limits(%)		
Phenol	14 - 99	15 - 101
Chlorophenol	19 - 107	20 - 113
1,4-Dichlorobenzene	18 - 101	17 - 102
N-Nitroso-di-propylamine	32 - 108	30 - 113
1,2,4-Trichlorobenzene	24 - 109	21 - 117
4-Chloro-3-methylphenol	31 - 111	34 - 108
Acenaphthene	33 - 110	30 - 110
4-Nitrophenol	1 - 141	d - 138
2,4-Dinitrotoluene	35 - 106	31 - 110
Pentachlorophenol	1 - 147	2 - 145
Pyrene	42 - 119	36 - 126

METALS CONTROL LIMITS

ICP: ± 20% for MS/MSD & Duplicate

GF: Control Charts for MS/MSD; ± 20% for Dup

ICV/CCV

GF ICV ± 20%
GF CCV ± 20%
ICP ICV/CCV ± 10%
HG AA ± 20%

CONTROL LIMITS
GRAPHITE FURNACE/MERCURY

ANALYTE	MATRIX	LIMITS	COMMENTS
Hg	water	21 - 170	Control Charts (B inst.)
Hg	soil	44 - 150	Control Charts (B)
As	water	59 - 150	D
As	soil	75 - 125	D
As	water	52 - 140	C
As	soil	35 - 142	C
Pb	water	48 - 153	D
Pb	soil	75 - 125	D
Pb	water	33 - 163	C
Pb	soil	75 - 125	C
Se	water	37 - 136	D
Se	soil	27 - 118	D
Se	water	20 - 147	C
Se	soil	2.6 - 139	C

ITAS_Austin Volatiles QA Spike Lot Summary LOT#: 2

Date/Time: 12/27/93 Intrument: C1

Operator: SJB Test/Matrix: WATER 8240

GC Column: CAP Operator:

Type	Lab Sample ID	Lab File ID	Performed (Y or N)
Sample	B312176/03		
MS	/04		
MSD	/05		
LCS			

This QA Spike Lot applies to the following Samples:

#	Client * Sample ID	Lab Sample ID	Lab File ID
01		B312176/01	
02		/02	
03		/03	
04			
05			
06			
07			
08			
09			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Comments: TINK 5001

* - Field used only if necessary.

QC Batch ID

Prep Code/Date: ____/____

Test Code/Date: ____/____

Set #: ____ Inst. ID: ____

SOILS VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY AND BLANK SPIKE RECOVERY

Lab Name: ITAS - Austin Date Ran: 12/27/93 QC BATCH ID

Sample Names: >C1764 >C1765 >CBS27 Prep Code/Date:

CLIENT ID: 2038 2106 1209 Test Code/Date: 8240 12/27/93

Matrix Spike - SAM Sample No. B312176/03 Matrix: SOILS Set #: 0 Inst.ID: C1

(5.000 GM TO 5 ML) 1.0 X DIL

COMPOUND NAME	SPIKE ADDED (ug/Kg)	SAMPLE CONC (ug/Kg)	MS CONC (ug/Kg)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.00	.00	53.14	106	59 - 172
Trichloroethene	50.00	2.1 ~~.00~~	50.63	97 ~~101~~	62 - 137
Benzene	50.00	.00	51.51	103	66 - 142
Toluene	50.00	.00	49.66	99	59 - 139
Chlorobenzene	50.00	.00	50.41	101	60 - 133

BLANK CONC (ug/Kg)	BS CONC (ug/Kg)	BS % REC #	QC LIMITS REC.
0	53.34	107	59 - 172
0	48.99	98	62 - 137
0	51.09	102	66 - 142
0	49.80	100	59 - 139
0	51.70	103	60 - 133

COMPOUND NAME	SPIKE ADDED (ug/Kg)	MSD CONC. (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	REC.
1,1-Dichloroethene	50.00	52.08	104	2	22	59 - 172
Trichloroethene	50.00	49.75	95 ~~100~~	2	24	62 - 137
Benzene	50.00	50.34	101	2	21	66 - 142
Toluene	50.00	49.79	100	0	21	59 - 139
Chlorobenzene	50.00	50.95	102	1	21	60 - 133

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

* Values outside of QC limits.

RPD: 0 out of 5 outside limits.

Spike Recovery: 0 out of 10 outside limits.

SURROGATE RECOVERIES	>C1764	>C1765	>CBS27	LIMITS
Toluene - d8	101	104	102	81 - 117
Bromofluorobenzene	98	96	104	74 - 121
1,2-Dichloroethane - d4	92	91	98	70 - 120

>CBS27
LAB BLANK
97
100
94

ALL ND

FORM III VOA-2

Test Code/Date: 5270 12-16-93
Set #: _____ Inst. ID: _____

Type	Lab Sample ID	Lab File ID	Performed (Y or N)
Blank	B312176-BLK	B312176-LCS	12/16
Sample			
MS	B312176-4B	3MS	
MSD	-5B	3MSD	
LCS	-LCS		

This QA Spike Lot applies to the following Samples:

#	Client Sample ID	Lab Sample ID	Lab File ID
1		B312176-2B	12/16 Set 2
2		-3B	↓ ↓
3		B312202-1E	12/17 Set 1
4		-2E	↓
5		B312203-1E	↓ ↓
6		-2E	↓ ↓
7		B312170-7C	↓ ↓
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Comments: _____

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY AND BLANK SPIKE RECOVERY

Lab Name: ITAS - Austin QC BATCH ID
Sample Names: F17604 F17605 Prep Code/Date: 3520 |12/16/93
Date Ran: 12/28/93 12/28/93 Test Code/Date: 8270 |12/16/93
Time Ran: 23.04 23.39 Set #: 1 Inst.ID: F
Matrix Spike - SAM Sample No. B31217603 Matrix: WATER
(1000 ML TO 1 ML) 1.0 X DIL

COMPOUND NAME	SPIKE ADDED (ug/L)	SAMPLE CONC (ug/L)	MS CONC (ug/L)	MS % REC #	QC LIMITS REC.
PHENOL	100.00	.00	62.87	63	26 - 90
2-CHLOROPHENOL	100.00	.00	79.61	80	25 - 102
1,4-DICHLOROBENZENE	50.00	.00	32.53	65	28 - 104
N-NITROSODI-N-PROPYLAMINE	50.00	.00	31.45	63	41 - 126
1,2,4-TRICHLOROBENZENE	50.00	.00	40.70	81	38 - 107
4-CHLORO-3-METHYLPHENOL	100.00	.00	75.67	76	26 - 103
ACENAPHTHENE	50.00	.00	37.68	75	31 - 137
4-NITROPHENOL	100.00	.00	93.44	93	11 - 114
2,4-DINITROTOLUENE	50.00	.00	41.03	82	28 - 89
PENTACHLOROPHENOL	100.00	.00	120.63	121 *	17 - 109
PYRENE	50.00	.00	43.15	86	35 - 142

COMPOUND NAME	SPIKE ADDED (ug/L)	MSD CONC. (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
PHENOL	100.00	55.51	56	12	35	26 - 90
2-CHLOROPHENOL	100.00	84.39	84	6	50	25 - 102
1,4-DICHLOROBENZENE	50.00	33.86	68	4	27	28 - 104
N-NITROSODI-N-PROPYLAMINE	50.00	30.50	61	3	38	41 - 126
1,2,4-TRICHLOROBENZENE	50.00	40.64	81	0	23	38 - 107
4-CHLORO-3-METHYLPHENOL	100.00	56.29	56	29	33	26 - 103
ACENAPHTHENE	50.00	2.52	5 *	175 *	19	31 - 137
4-NITROPHENOL	100.00	103.13	103	10	50	11 - 114
2,4-DINITROTOLUENE	50.00	45.15	90 *	10	47	28 - 89
PENTACHLOROPHENOL	100.00	116.61	117 *	3	47	17 - 109
PYRENE	50.00	10.65	21 *	121 *	36	35 - 142

Column to be used to flag recovery and RPD values with an asterisk.
* Values outside of QC limits.
RPD: 2 out of 11 outside limits.
Spike Recovery: 5 out of 22 outside limits.

SURROGATE RECOVERIES	F17604	F17605	LIMITS
D5-NITROBENZENE	82	85	35 - 114
2-FLUOROBIPHENYL	79	86	43 - 116
D14-P-TERPHENYL	87	103	33 - 141
D5-PHENOL	72	56	10 - 94
2-FLUOROPHENOL	72	65	21 - 100
2,4,6-TRIBROMOPHENOL	106	94	10 - 123

WATER SEMIVOLATILE BLANK SPIKE RECOVERY

Lab Name: ITAS - Austin CLIENT ID: QC BATCH ID

Sample Names: F176BS F176BLK Prep Code/Date: 3520 | 12/16/93

Date Ran: 12/28/93 12/28/93 Test Code/Date: 8270 | 12/16/93

Time Ran: 21.53 21.17 Set #:1 Inst.ID: F

Matrix Spike - SAM Sample No. B312176LCS Matrix: WATER

(1000.00 ML TO 1.00 ML) 1.0 X DIL

COMPOUND NAME	SPIKE ADDED (ug/L)	BLANK CONC (ug/L)	BS CONC (ug/L)	BS % REC #	QC LIMITS REC.	CLP LIMIT SPIKE	%RPD
PHENOL	100.00	.00	67.37	67	14 - 99	12 - 110	42
2-CHLOROPHENOL	100.00	.00	81.55	82	19 - 107	27 - 123	40
1,4-DICHLOROBENZENE	50.00	.00	32.01	64	18 - 101	36 - 97	28
N-NITROSODI-N-PROPYLAMIN	50.00	.00	27.83	56	32 - 108	41 - 116	38
1,2,4-TRICHLOROBENZENE	50.00	.00	39.64	79	24 - 109	39 - 98	28
4-CHLORO-3-METHYLPHENOL	100.00	.00	86.96	87	31 - 111	23 - 97	42
ACENAPHTHENE	50.00	.00	41.28	83	33 - 110	46 - 118	31
4-NITROPHENOL	100.00	.00	76.92	77	1 - 141	10 - 80	50
2,4-DINITROTOLUENE	50.00	.00	38.61	77	35 - 106	24 - 96	38
PENTACHLOROPHENOL	100.00	.00	67.16	67	1 - 147	9 - 103	50
PYRENE	50.00	.00	44.71	89	42 - 119	26 - 127	51

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

* Values outside of QC limits.

Spike Recovery: 0 out of 11 outside limits.

SURROGATE RECOVERIES	F176BS	F176BLK	LIMITS
D5-NITROBENZENE	81	82	35 - 114
2-FLUOROBIPHENYL	80	83	43 - 116
D14-P-TERPHENYL	98	102	33 - 141
D5-PHENOL	74	71	10 - 94
2-FLUOROPHENOL	72	72	21 - 100
2,4,6-TRIBROMOPHENOL	104	106	10 - 123

QC BATCH ID FOR ICPES	
PREPREP METHOD:	NA
PREP METHOD:	Z3005
ANALYSIS METHOD:	6010
BATCH DATE:	12-16-93
INSTRUMENT ID:	B.
SET (BATCH) #:	4

Work Orders/Fractions Associated With Batch

Lab Sample ID's	
1)	B312176-020
2)	↓ -030
3)	
4)	
5)	
6)	
7)	
8)	
9)	
10)	
11)	
12)	
13)	
14)	
15)	
16)	
17)	
18)	
19)	
20)	

Batch QC Samples	
LCS ID:	LCS05 121693-1
LCSD ID:	LCSD05121693-1
MB ID:	PBN05121693-1
MS ID:	B312176-040 MS
MSD ID:	B312176-050 MSD
REP ID:	

ANALYTES REQUIRED FOR BATCH:

Ag	Al	As	B	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na
X	X	—	—	X	X	X	X	—	X	X	X	X	X	X	—	X

Ni	Pb	Sb	Se	Si	Sn	Ti	Tl	V	Zn
X	—	—	X	—	—	—	—	—	X

ITAS Austin QC Batch Summary for ICP

QC Batch ID	
Preprep Method:	
Prep Method:	3005
Analysis Method:	6010
Batch Date:	12/16/93
Instrument ID:	B
Batch (Set) #:	4

Batch QC Information		
Matrix: WATER	Data Reported to PQL	
Units: MG/L		
		Corr. Fact.
Method Blk ID:	PB05121693-1	1
LCS ID:	LCS05121693-1	1
LCSD ID:	LCSD05121693-1	1
MS Sample ID:	B312176-04D	1
MSD Sample ID:	B312176-05D	1
Rep Sample ID:		0

	Replicate Sample Data				Blank / LCS Batch QC									
Analyte	Original Result for Replicate	Replicate Result	% RPD	Q	Method Blank Result	LCS true Value (mg/L	LCS Conc. Found	LCS % Rec.	Q	LCSD Conc. Found	LCSD % Rec.	Q	% RPD for LCS/LCSD Recoveries	Q
Ag					< 0.010	1	0.9617	96		0.97	97		0.95	
Al					< 0.20	10	10.2	102		10.22	102		0.20	
As					< 0.10	1	1.046	105		1.06	106		1.61	
B					< 0.20	1	0.9738	97		0.99	99		1.77	
Ba					< 0.20	1	0.9872	99		0.99	99		0.14	
Be					< 0.0050	1	0.9767	98		0.99	99		0.89	
Ca					< 5.0	20	20.79	104		21.00	105		1.01	
Cd					< 0.0050	1	0.9664	97		0.98	98		1.13	
Co					< 0.050	1	0.9388	94		0.95	95		1.25	
Cr					< 0.010	1	0.9905	99		1.00	100		0.52	
Cu					< 0.025	1	0.9395	94		0.94	94		0.37	
Fe					< 0.10	10	10.62	106		10.51	105		1.04	
K					< 5.0	20	19.47	97		20.03	100		2.84	
Mg					< 5.0	20	20.23	101		20.32	102		0.44	
Mn					< 0.015	1	0.9468	95		0.95	95		0.60	
Mo					< 0.10	1	0.9549	95		0.97	97		1.20	
Na					< 5.0	20	20.14	101		20.15	101		0.05	
Ni					< 0.040	1	0.946	95		0.95	95		0.87	
Pb					< 0.050	1	0.9492	95		0.96	96		0.90	
Sb					< 0.060	1	1.015	101		1.00	100		1.39	
Se					< 0.10	1	1.001	100		1.03	103		2.86	
Si					< 1.0	10	11.26	113		11.12	111		1.25	
Sn					< 0.10	1	0.9343	93		1.00	100		7.09	
Ti					< 0.10	1	0.9903	99		0.99	99		0.33	
Tl					< 0.20	1	1.055	106		1.03	103		2.20	
V					< 0.050	1	0.9608	96		0.97	97		0.76	
Zn					< 0.020	1	0.9605	96		0.96	96		0.12	

QC Data Reviewed By: lg Date/Time: 1/3/94 16:00

Comments:

alifiers:
N - LCS % Recovery was outside method limits of 80-120 %.
R - % RPD for LCS/LCSD was outside control limit of 20 %.
* Replicate RPD was outside method control limit of 20 %

ITAS Austin QC Batch Summary for ICP

QC Batch ID	
ɔprep Method:	
Prep Method:	3005
Analysis Method:	6010
Batch Date:	12/16/93
Instrument ID:	B
Batch (Set) #:	4

Batch QC Information		
Matrix: WATER		Data Reported to PQL
Units: MG/L		
		Corr. Factor
Method Blk ID:	PB05121693-1	1
LCS ID:	LCS05121693-1	1
LCSD ID:	LCSD05121693-1	1
MS Sample ID:	B312176-04D	1
MSD Sample ID:	B312176-05D	1
Rep Sample ID:		

Spike Sample Data

Analyte	Original Result for MS/MSD	MS Result	MS Spike Added	MS % Rec.	Q	MSD Result	MSD Spike Added	MSD % Rec.	Q	% RPD for MS/MSD Recoveries	Q	% RPD for MS/MSD Result As Replicates	Q
Ag	ND	0.7716	1.00	77	N	0.8012	1.00	80		3.76			
Al	17.95	40.83	10.00	229	N	45.62	10.00	277	N	18.95			
As													
B													
Ba	0.8671	1.636	1.00	77	N	1.695	1.00	83		7.39			
Be	ND	0.7937	1.00	79	N	0.8208	1.00	82		3.36			
Ca	131.7	152.3	20.00	103	H	161	20.00	147	H	34.87	R	5.55	D
Cd	ND	0.768	1.00	77	N	0.794	1.00	79	N	3.33			
Co													
Cr	0.1709	0.9597	1.00	79	N	0.9927	1.00	82		4.10			
Cu	0.0364	0.7958	1.00	76	N	0.8303	1.00	79	N	4.44			
Fe	27.75	39.2	10.00	115		42.28	10.00	145	N	23.71	R		
K	9.98	30.05	20.00	100		33.3	20.00	117		14.98			
Mg	108.3	128	20.00	99	H	136.5	20.00	141	H	35.49	R	6.43	D
Mn	0.5137	1.271	1.00	76	N	1.33	1.00	82		7.50			
Mo													
Na	128	146.7	20.00	93	H	156.8	20.00	144	H	42.53	R	6.66	D
Ni	0.0864	0.8328	1.00	75	N	0.8479	1.00	76	N	2.00			
Pb													
Sb													
Se	ND	0.6404	1.00	64	N	0.7125	1.00	71	N	10.66			
Si													
Sn													
Ti													
Tl													
V													
Zn	0.0796	0.8448	1.00	77	N	0.8775	1.00	80		4.18			

Comments: NCM ALL N FLAGS.

Qualifiers (Q):
H - Sample concentration was greater than five times the spike level.
N - Spike recovery was outside method control limits of 80-120 %.
R - Percent RPD for MS/MSD recoveries was outside method control limit of 20 %.
D - Sample concentration was greater than five times the spike level.
The RPD was calculated between the MS and MSD results as replicates.

QC BATCH ID FOR WET CHEM - Test Code: ~~TDS~~ SAT TSS

PREPREP METHOD:

PREP METHOD: SAT

ANALYSIS METHOD: ~~TDS~~ TSS

BATCH DATE: 12/20/93

INSTRUMENT ID: A

SET (BATCH) #: 1

Work Orders/Fractions Associated With Batch

Lab Sample ID's	
1	B312176-03C
2	03C
3 dups of	04C
4 3C	05C
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	12/21
16	
17	
18	
19	
20	

Batch QC ID's

LCS ID: LCS122093-1

LCSD ID: LCSD122093-1

MB ID: NA

MS ID: |

MSD ID: |

REP ID: B312176-04C -05C

Batch QC Results

MDL: _____ PQL: 10 mg/L

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	NA	mg/L	SAT	12/20 9:00
LCS % Rec	105	% Rec		
LCSD % Rec	95.5	% Rec		
LCS/LCSD RPD	9.4%	% RPD		
MS % Rec	NA	% Rec		
MSD % Rec	|	% Rec		
MS/MSD RPD	|	% RPD		
REP RPD	4.27	% RPD	✓	✓
	15.0			

Comments:

44-8-55

Hg-

MLA

QC BATCH ID FOR GFAA/CVAA - Test Code: _____	
PREPREP METHOD:	
PREP METHOD:	
ANALYSIS METHOD:	7470
BATCH DATE:	12/29/93
INSTRUMENT ID:	A
SET (BATCH) #:	1 (1)

Work Orders/Fractions Associated With Batch

Lab Sample ID's

1	B312176 -02D
2	03D
3	04D
4	05D
5	B312245 -08B
6	B312270 -01H
7	B312266 -12B
8	B312269 -01H
9	02H
10	B312250 -05E
11	06E
12	B312308 -01A
13	B312292 -01A
14	02A
15	03A
16	04A
17	B312294 -01B
18	02B
19	03B
20	04B

Batch QC ID's

LCS ID:	ICV 122993-1	
LCSD ID:	CCV-1	
MB ID:	ICB	
MS ID:	B312176 -04D	MS
MSD ID:	05D	MSD
REP ID:	03D	DUP

Batch QC Results

MDL: 0.020 PQL: 0.020

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	0.0	mg/L	MLA	12/09/93 22:00
LCS % Rec	113	% Rec		
LCSD % Rec	120	% Rec		
LCS/LCSD RPD	6.01	% RPD		
MS % Rec 78.7	~~123~~	% Rec		
MSD % Rec 83.3	~~124~~	% Rec		
MS/MSD RPD 0.81	~~0.81~~	% RPD		
REP RPD	0.0	% RPD		

Comments:

QC BATCH ID FOR GFAA/CVAA - Test Code: ~~As GF~~ Pb-GF
PREPREP METHOD:
PREP METHOD: 3020
ANALYSIS METHOD: ~~30~~ ~~3040~~ 7421
BATCH DATE: 12-18-93
INSTRUMENT ID: ~~B~~ C
SET (BATCH) #: 2

Work Orders/Fractions Associated With Batch

Lab Sample ID's	
1	B312176-02D
2	↓ -03D
3	B312221-01A
4	-02A
5	-03A
6	-04A
7	-05A
8	-06A
9	-07A
10	-08A
11	B312202-01H
12	↓ -02H
13	B312203-01H
14	↓ -02H
15	
16	
17	
18	
19	
20	

Batch QC ID's		
LCS ID:	LCS20 121893-1	
LCSD ID:	LCSD20 121893-1	
MB ID:	PB 20 121893-1	
MS ID:	B312176-04D	MS of 03 D
MSD ID:	-05D	MSD of 03D
REP ID:		

Batch QC Results MDL: 2.96 PQL: 0.0030

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	<0.0030		36	12-29-93 12:03
LCS % Rec	111	% Rec	↓	↓
LCSD % Rec	120	% Rec		
LCS/LCSD RPD	7.8	% RPD		
MS % Rec	140	% Rec		
MSD % Rec	124	% Rec		
MS/MSD RPD	12.1	% RPD		
REP RPD	—	% RPD		

Comments: B312221-03A to 08A inadvertantly left off of run. These samples will be rerun ASAP.

NO DUP. SAMPLE WAS PREPPED

MS/MSD within Control Chart limit

QC BATCH ID FOR GFAA/CVAA - Test Code: As GF	
PREPREP METHOD:	
PREP METHOD:	3020
ANALYSIS METHOD:	~~30~~ 7060
BATCH DATE:	12-18-93
INSTRUMENT ID:	D
SET (BATCH) #:	2

Work Orders/Fractions Associated With Batch

Lab Sample ID's

1	B312176-02D
2	↓ -03D
3	B312221-01A
4	-02A
5	-03A
6	-04A
7	-05A
8	-06A
9	-07A
10	-08A
11	B312202-01H
12	↓ -02H
13	B312203-01H
14	↓ -02H
15	
16	
17	
18	
19	
20	

Batch QC ID's

LCS ID:	LCS20 121893-1	
LCSD ID:	LCSD20 121893-1	
MB ID:	PB 20 121893-1	
MS ID:	B312176-04D	MS of 03 D
MSD ID:	-05D	MSD of 03D
REP ID:	NA	

Batch QC Results

MDL: 0.65 PQL: 0.012

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	<0.010		BG	12-29-93 10:57
LCS % Rec	101	% Rec	↓	↓
LCSD % Rec	105	% Rec		
LCS/LCSD RPD	3.88	% RPD		
MS % Rec	97.8	% Rec		
MSD % Rec	84.5	% Rec		
MS/MSD RPD	14.6	% RPD		
REP RPD	—	% RPD		

Comments: No Dup prepped

(2/28

B312176
QC Batch ID

ITAS - AUSTIN EXTRACTABLES QA LOT SUMMARY:

Prep Code/Date: MHR / 12/21/93
Test Code/Date: 418.1 / ↓
Set #: _____ Inst. ID: _____

Type	Lab Sample ID	Result	Percent Recovery
Blank	B312176-BLK	<	ND
Blank spike	BS	5.3	94
MS	04MS	10	88
MSD	05MSD	11	97

QC limits
< Reporting limit
70 to 130%
70 to 130%
70 to 130%
> RPD = 9

This QA Spike Lot applies to the following Samples:

#	Client	Sam # + Fraction	Date of Prep
1	Tinker	B312176-02B	12/21/93
2		03B	↓
3		B312243-02B	
4		03B	
5		04B	
6		05B	
7		06B	
8		07B	
9		08B	
10		09B	
11		10B	
12		11B	
13		12B	
14		13B	
15			
16			
17			
18			
19			
20			

Comments: _____

QC BATCH ID FOR WET CHEM - Test Code: CR_VI

PREPREP METHOD:	
PREP METHOD:	
ANALYSIS METHOD:	CR_VI
BATCH DATE:	12/15/93 12:00
INSTRUMENT ID:	A
SET (BATCH) #:	2

Work Orders/Fractions Associated With Batch

Lab Sample ID's	
1	B312176-02C
2	-05C
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	12/15
17	
18	
19	
20	

Batch QC ID's	
LCS ID:	LCS 121593-2
LCSD ID:	LCSD 121593-2
MB ID:	MB 121593-2
MS ID:	B312176-04C
MSD ID:	B312176-05C
REP ID:	LCSD 121593-2

Batch QC Results MDL: _____ PQL: 0.010 mg

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	0	mg/L	SAF	12/15 12:00
LCS % Rec	110	% Rec		
LCSD % Rec	100	% Rec		
LCS/LCSD RPD	9.52	% RPD		
MS % Rec	110	% Rec		
MSD % Rec	106	% Rec		
MS/MSD RPD	3.70	% RPD		
REP RPD	9.52	% RPD		

Comments:

QC BATCH ID FOR WET CHEM - Test Code: NO3NO2 / NO3-PR	
PREPREP METHOD:	
PREP METHOD:	
ANALYSIS METHOD:	353.2
BATCH DATE:	1-5-94
INSTRUMENT ID:	A
SET (BATCH) #:	2

Work Orders/Fractions Associated With Batch

Lab Sample ID's	
1	B312176-02C
2	03C
3	~~B312169-02C~~
4	~~B312198-01C~~
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

PMM 1/8

Batch QC ID's	
LCS ID:	LCS 010594-1
LCSD ID:	LCSD 010594-1
MB ID:	MB 010594-1
MS ID:	B312176-04C
MSD ID:	B312176-05C
REP ID:	

Batch QC Results

MDL: _____ PQL: 0.050

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	ND	mg/L	DSB	1/5/94 10:39
LCS % Rec	100	% Rec		
LCSD % Rec	98	% Rec		
LCS/LCSD RPD	2.0	% RPD		
MS % Rec	~~110~~ 84	% Rec		
MSD % Rec	~~99~~ 84	% Rec		
MS/MSD RPD	0 ~~11.8~~	% RPD		
REP RPD		% RPD		

Comments:

QC BATCH ID FOR WET CHEM - Test Code: SO4-IC
PREPREP METHOD:
PREP METHOD:
ANALYSIS METHOD: SO4-IC
BATCH DATE: 1/5/94
INSTRUMENT ID: A
SET (BATCH) #: ~~A~~ IC

Work Orders/Fractions Associated With Batch

Lab Sample ID's

1 B312176-02C
2 -03C
3 B312263-01A
4 -02A
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20

Batch QC ID's

LCS ID: 010594-1
LCSD ID: 010594-2
MB ID: 010594-1
MS ID: B312176-05C
MSD ID: B312176-06C
REP ID: B312169-04C

Batch QC Results

MDL: _____ PQL: 1.0 mg/L

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	0.0	mg/L	RBS	1/5/94 7:39
LCS % Rec	107	% Rec		
LCSD % Rec	104	% Rec		
LCS/LCSD RPD	2.84	% RPD		
MS % Rec	*	% Rec		
MSD % Rec	*	% Rec		
MS/MSD RPD	*	% RPD		
REP RPD	12.1	% RPD		

Comments: Sample to Be rerun due to inst. failure

QC BATCH ID FOR WET CHEM - Test Code: Cl-1C	
PREPREP METHOD:	
PREP METHOD:	
ANALYSIS METHOD:	Cl-1C
BATCH DATE:	1/6/94
INSTRUMENT ID:	A
SET (BATCH) #:	1C

Work Orders/Fractions Associated With Batch

Lab Sample ID's

1	B312176-02C
2	-03C
3	B312263-01A
4	-02A
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

Batch QC ID's

LCS ID:	010594-1
LCSD ID:	010594-2
MB ID:	010594-1
MS ID:	B312176-~~03~~04C mS.17
MSD ID:	B312176-05C
REP ID:	B312169-04C

Batch QC Results

MDL:_____ PQL: 1.0 mg/L

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	0.0	mg/L	BBS	1/6/94 8:21
LCS % Rec	109	% Rec		
LCSD % Rec	104	% Rec		
LCS/LCSD RPD	4.69	% RPD		
MS % Rec	98.0	% Rec		
MSD % Rec	119	% Rec		
MS/MSD RPD	19.4	% RPD		
REP RPD	5.64	% RPD		

Comments:

QC BATCH ID FOR WET CHEM - Test Code: 9066	
PREPREP METHOD:	
PREP METHOD:	
ANALYSIS METHOD:	9066
BATCH DATE:	12-27-94
INSTRUMENT ID:	A
SET (BATCH) #:	2

Work Orders/Fractions Associated With Batch

Lab Sample ID's

1	B312176-02C
2	03C
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

Batch QC ID's

LCS ID:	LCS 122793-1
LCSD ID:	LCSD 122793-2
MB ID:	MB 122793-2
MS ID:	B312176-04C
MSD ID:	B312176-05C
REP ID:	

Batch QC Results

MDL: _____ PQL: 0.010

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	ND	mg/L	RDM	1-6-94 17:02
LCS % Rec	100	% Rec		
LCSD % Rec	86	% Rec		
LCS/LCSD RPD	15	% RPD		
MS % Rec	93	% Rec		
MSD % Rec	86	% Rec		
MS/MSD RPD	7.8	% RPD		
REP RPD		% RPD		

Comments:

QC BATCH ID FOR WET CHEM - Test Code: T-P	
PREPREP METHOD:	—
PREP METHOD:	—
ANALYSIS METHOD:	365.4
BATCH DATE:	1-7-94
INSTRUMENT ID:	A
SET (BATCH) #:	3

Work Orders/Fractions Associated With Batch

Lab Sample ID's	
1	B312176-02
2	-03
3	~~-04~~ 03 1/10/94
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

Batch QC ID's	
LCS ID:	LCS 010794-1
LCSD ID:	—
MB ID:	PBW 010794-1
MS ID:	B312176-04
MSD ID:	↓ -05
REP ID:	—

Batch QC Results

MDL: — PQL: 0.10

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	<0.10	mg/L	DSB	1/10/94 10:40
LCS % Rec	104	% Rec		
LCSD % Rec	—	% Rec		
LCS/LCSD RPD	—	% RPD		
MS % Rec	100	% Rec		
MSD % Rec	89.4	% Rec		
MS/MSD RPD	11.2	% RPD		
REP RPD	—	% RPD		

Comments:

QC BATCH ID FOR WET CHEM - Test Code: TKN-N	
PREPREP METHOD:	
PREP METHOD:	
ANALYSIS METHOD:	351.2
BATCH DATE:	01-07-94
INSTRUMENT ID:	A
SET (BATCH) #:	3

Work Orders/Fractions Associated With Batch

Lab Sample ID's	
1	B312176-02C
2	03C
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

Batch QC ID's	
LCS ID:	ICV 010794-1
LCSD ID:	LCC 010794-1
MB ID:	MB 010794-1
MS ID:	B312176-04C
MSD ID:	B312176-05C
REP ID:	

Batch QC Results MDL: _____ PQL: 0.25

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	ND	mg/L	DSB	1/10/94 08:44
LCS % Rec	85.0	% Rec		
LCSD % Rec	93.2	% Rec		
LCS/LCSD RPD	—	% RPD		
MS % Rec	53.2	% Rec		
MSD % Rec	59.0	% Rec		
MS/MSD RPD	10.3	% RPD		
REP RPD	–	% RPD		

Comments: NC for MS/MSD

QC BATCH ID FOR WET CHEM - Test Code: 310-1

PREPREP METHOD:
PREP METHOD:
ANALYSIS METHOD: 310-1
BATCH DATE: 12/17/93
INSTRUMENT ID: NA
SET (BATCH) #: 1

Work Orders/Fractions Associated With Batch

Lab Sample ID's	
1	B312151-02C
2	B312176-02C
3	-03C
4	DUP 04C
5	DUP 05C
6	06C
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

12/28

Batch QC ID's

LCS ID: LCS 121793-1
LCSD ID: LCSD 121793-1
MB ID: NA
MS ID: |
MSD ID: |
REP ID: B312176-04C -05C
B312151-08C

Batch QC Results

MDL: _____ PQL: 10 mg/L

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	NA	mg/L	JAM	12/17 8:00
LCS % Rec	104	% Rec		
LCSD % Rec	106	% Rec		
LCS/LCSD RPD	1.90	% RPD		
MS % Rec	NA	% Rec		
MSD % Rec	|	% Rec		
MS/MSD RPD	|	% RPD		
REP RPD	1.21	% RPD		
	2.73			
	2.73			

Comments:

44-8-85

QC BATCH ID FOR WET CHEM - Test Code: SiO2
PREPREP METHOD:
PREP METHOD:
ANALYSIS METHOD: SI D2
BATCH DATE: 12/29/93
INSTRUMENT ID: D
SET (BATCH) #: 2

Work Orders/Fractions Associated With Batch

Lab Sample ID's

1 B312176-02C
2 -03C
3 ~~-04C~~ SAT
4 B312246-02C
5 03C
6 04C
7 05C
8
9
10
11
12
13
14
15
16 12/29
17
18
19
20

Batch QC ID's

LCS ID: LCS 122993-2
LCSD ID: LCSD 122993-2
MB ID: MB 122993-2
MS ID: B312176-04C
MSD ID: B312176-05C
REP ID: LCSD 122993

Batch QC Results

MDL:_____ PQL: 0.20 mg/L

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	0	mg/L	~~SAT~~	12/29
LCS % Rec	90.0	% Rec		
LCSD % Rec	96.0	% Rec		
LCS/LCSD RPD	6.45	% RPD		
MS % Rec	90.0	% Rec		
MSD % Rec	104	% Rec		
MS/MSD RPD	12.2	% RPD		
REP RPD	6.45	% RPD		

Comments:

QC BATCH ID FOR WET CHEM - Test Code: TOC

PREPREP METHOD:

PREP METHOD:

ANALYSIS METHOD: TOC

BATCH DATE: 12/21/93

INSTRUMENT ID: A

SET (BATCH) #: 2

Work Orders/Fractions Associated With Batch

Lab Sample ID's	
1	B312176-02C
2	03C
3	
4	B311263-01F
5	-02F
6	-03F
7	-04F
8	
9	
10	
11	
12	
13	SAT
14	
15	12/21
16	
17	
18	
19	
20	

Batch QC ID's

LCS ID: LCS 122193-2 SAT

LCSD ID: LCSD 122193-2

MB ID: MB 122193-2

MS ID: B312176-04C

MSD ID: B312176-05C

REP ID: B311263-04F

Batch QC Results

MDL: _____ PQL: 10 ml/L

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	0	ml/L	SAT	12/21/93
LCS % Rec	111	% Rec		
LCSD % Rec	108	% Rec		
LCS/LCSD RPD	2.74	% RPD		
MS % Rec	93.3	% Rec		
MSD % Rec	99.8	% Rec		
MS/MSD RPD	6.73	% RPD		
REP RPD	8.40	% RPD		

Comments:

44-8-85

QC BATCH ID FOR WET CHEM - Test Code: TDS

PREPREP METHOD:
PREP METHOD:
ANALYSIS METHOD: TDS
BATCH DATE: 12/16/93
INSTRUMENT ID: A
SET (BATCH) #: 1

Work Orders/Fractions Associated With Batch

Lab Sample ID's	
1	B312176-03C
2	-05C
3	Dup of 03 & 04C
4	(DUP OF 04C) -05C
5	
6	
7	
8	
9	
10	
11	
12	SAT
13	12/16
14	
15	
16	
17	
18	
19	
20	

Batch QC ID's

LCS ID: LCS 121693-1
LCSD ID: LCSD 121693-1
MB ID: ~~MB 121693-1~~ NA
MS ID: NA
MSD ID: NA
REP ID: B312176-05C
" -04C

Batch QC Results

MDL: _____ PQL: 10 mg/L

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	NA	mg/L	SAT	12/16 13:40
LCS % Rec	92.6	% Rec		
LCSD % Rec	85.6	% Rec		
LCS/LCSD RPD	7.86	% RPD		
MS % Rec	NA	% Rec		
MSD % Rec		% Rec		
MS/MSD RPD		% RPD		
REP RPD	2.45 ~~1.95~~	% RPD		

Dup for 04C = 0.66 % RPD

Comments:

44-8-85

QC BATCH ID FOR WET CHEM - Test Code: COD
PREPREP METHOD:
PREP METHOD:
ANALYSIS METHOD: COD
BATCH DATE: 12/28/93
INSTRUMENT ID: A
SET (BATCH) #: 2C

Work Orders/Fractions Associated With Batch

Lab Sample ID's

1	B312176-02C
2	03C
3	
4	
5	
6	
7	
8	
9	
10	SAP
11	
12	12/28
13	
14	
15	
16	
17	
18	
19	
20	

Batch QC ID's

LCS ID: LCS 122893-2
LCSD ID: LCSD 122893-2
MB ID: MB 122893-2
MS ID: B312176-04C
MSD ID: B312176-05C
REP ID: B312176-02C

Batch QC Results

MDL: _____ PQL: 25 mg/L

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	0	mg/L	SAP	12/28/6:00
LCS % Rec	96.4	% Rec		
LCSD % Rec	106	% Rec		
LCS/LCSD RPD	9.49	% RPD		
MS % Rec	124	% Rec		
MSD % Rec	116	% Rec		
MS/MSD RPD	6.67	% RPD		
REP RPD	0	% RPD		

Comments:

QC BATCH ID FOR WET CHEM - Test Code: Cl-1C	
PREPREP METHOD:	
PREP METHOD:	
ANALYSIS METHOD:	Cl-1C
BATCH DATE:	1/6/94
INSTRUMENT ID:	A
SET (BATCH) #:	1C

Work Orders/Fractions Associated With Batch

Lab Sample ID's

1	B312176-02C
2	-03C
3	B312263-01A
4	-02A
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

Batch QC ID's

LCS ID:	010594-1
LCSD ID:	010594-2
MB ID:	010594-1
MS ID:	B312176~~03~~04C mS.17
MSD ID:	B312176-05C
REP ID:	B312169-04C

Batch QC Results MDL:_____ PQL: 1.0 mg/L

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	0.0	mg/L	RBS	1/6/94 8:21
LCS % Rec	109	% Rec		
LCSD % Rec	104	% Rec		
LCS/LCSD RPD	4.69	% RPD		
MS % Rec	98.0	% Rec		
MSD % Rec	119	% Rec		
MS/MSD RPD	19.4	% RPD		
REP RPD	5.64	% RPD		

Comments:

TRJ

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYTICAL SERVICES

1/11/94

Routed to JF, TL, K

CERTIFICATE OF ANALYSIS

IT CORPORATION
1250 CAPITAL OF TX HWY
BLDG. 3, SUITE 200
AUSTIN, TX 78746-6443
TIM JENNINGS

Date: 01/11/94

Work Order: B3-12-246

This is the Certificate of Analysis for the following samples:

Client Work ID: D.O.5001 409832-003-01
Date Received: 12/18/93
Number of Samples: 8
Sample Type: WATER

I. Introduction

Samples were labeled as follows:

SAMPLE IDENTIFICATION	LABORATORY #
A1646	B3-12-246-01
A1647	B3-12-246-02
A1648	B3-12-246-03
A1648-MS	B3-12-246-04
A1648-MSD	B3-12-246-05
A1649	B3-12-246-06
LAB BLANK #1	B3-12-246-07
LAB BLANK #1	B3-12-246-08

Reviewed and Approved:

Jon Bartell
Laboratory Director

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
409832-003-01 Work Order: B3-12-246

II. QA/QC

The results presented in this report meet the statement of work requirements in accordance with Quality Control and Quality Assurance protocol except as noted in Section IV or in an optional sample narrative at the end of Section III.

In the presented analytical data, 'ND' or '<' indicates that the compound is not detected at the specified limit.

III. Analytical Data

The following page(s) supply results for requested analyses performed on the samples listed above.

The test results relate to tested items only. ITAS-Austin reserves the right to control report production except in whole.

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-246

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1646**
SAMPLE DATE: **12/02/93**
SAMPLE MATRIX: **WATER**
ANALYSIS DATE: **12/29/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/L**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	1.6	J	5
Methylene chloride	1.6	JB	10	1,1,2-Trichloroethane	5	U	5
Acetone	100	U	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	98	88 - 110
BROMOFLUOROBENZENE	96	86 - 115
1,2-DICHLOROETHANE-D4	106	76 - 114

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-246

SAMPLE ID: **A1647**
SAMPLE DATE: **12/17/93 10:15:00**
SAMPLE MATRIX: **WATER**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Alkalinity, Titrimetric		260	10	MG/L	12/27/93	EPA310_1
TPH - IR		1.0U	1.0	MG/L	12/28/93	EPA418_1
Phenolics		0.010U	0.010	MG/L	01/06/94	EPA9066
Chloride by Ion Chrom.		280	25	MG/L	01/10/94	EPA300_0
Chemical Oxygen Demand		25U	25	MG/L	12/28/93	EPA410_4
Chromium VI		0.010U	0.010	MG/L	12/18/93	EPA7196
Nitrate and Nitrite		10	0.50	MG/L	01/05/94	EPA353_2
Silica		8.0	2.0	MG/L	12/29/93	370_1
Sulfate by Ion Chrom.		150	25	MG/L	01/10/94	EPA300_0
Total Dissolved Solids		1000	10	MG/L	12/22/93	EPA160_1
Total Kjeldahl Nitrogen		0.25U	0.25	MG/L	01/10/94	EPA351_3
Total Organic Carbon		1.7	1.0	MG/L	12/29/93	EPA415_1
Total Suspended Solids		56	20	MG/L	12/22/93	EPA160_2
Total Phosphorus		0.10U	0.10	MG/L	01/10/94	EPA365_3

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-12-246

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1647**
SAMPLE DATE: **12/17/93**
SAMPLE MATRIX: **WATER**
ANALYSIS DATE: **12/29/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/L**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	50		5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	100	U	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	1.0	J	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	46		5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	99	88 - 110
BROMOFLUOROBENZENE	95	86 - 115
1,2-DICHLOROETHANE-D4	108	76 - 114

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-12-246

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1647**
SAMPLE DATE: **12/17/93**
SAMPLE MATRIX: **WATER**
EXTRACTION DATE: **01/05/94**
ANALYSIS DATE: **01/06/94**
DILUTION FACTOR: **1.0**
UNITS: **UG/L**

	Result	Qual	Reporting Limit
Phenol	10	U	10
bis(2-Chloroethyl)ether	10	U	10
2-Chlorophenol	10	U	10
1,3-Dichlorobenzene	10	U	10
1,4-Dichlorobenzene	10	U	10
Benzyl alcohol	10	U	10
1,2-Dichlorobenzene	10	U	10
2-Methylphenol	10	U	10
bis(2-Chloroisopropyl)ether	10	U	10
4-Methylphenol	10	U	10
N-Nitroso-di-n-propylamine	10	U	10
Hexachloroethane	10	U	10
Nitrobenzene	10	U	10
Isophorone	10	U	10
2-Nitrophenol	10	U	10
2,4-Dimethylphenol	10	U	10
Benzoic Acid	10	U	10
bis(2-Chloroethoxy)methane	10	U	10
2,4-Dichlorophenol	10	U	10
1,2,4-Trichlorobenzene	10	U	10
Naphthalene	10	U	10
4-Chloroaniline	10	U	10
Hexachlorobutadiene	10	U	10
4-Chloro-3-methylphenol	10	U	10
2-Methylnaphthalene	10	U	10
Hexachlorocyclopentadiene	10	U	10
2,4,6-Trichlorophenol	10	U	10
2,4,5-Trichlorophenol	10	U	10
2-Chloronaphthalene	10	U	10
2-Nitroaniline	25	U	25
Dimethylphthalate	10	U	10
Acenaphthylene	10	U	10

	Result	Qual	Reporting Limit
2,6-Dinitrotoluene	10	U	10
3-Nitroaniline	25	U	25
Acenaphthene	10	U	10
2,4-Dinitrophenol	25	U	25
4-Nitrophenol	25	U	25
Dibenzofuran	10	U	10
2,4-Dinitrotoluene	10	U	10
Diethylphthalate	10	U	10
4-Chlorophenyl-phenylether	10	U	10
Fluorene	10	U	10
4-Nitroaniline	10	U	10
4,6-Dinitro-2-methylphenol	25	U	25
N-Nitrosodiphenylamine (1)	10	U	10
4-Bromophenyl-phenylether	10	U	10
Hexachlorobenzene	10	U	10
Pentachlorophenol	25	U	25
Phenanthrene	10	U	10
Anthracene	10	U	10
Di-n-butylphthalate	10	U	10
Fluoranthene	10	U	10
Pyrene	10	U	10
Butylbenzylphthalate	10	U	10
3,3'-Dichlorobenzidine	10	U	10
Benzo(a)anthracene	10	U	10
Chrysene	10	U	10
bis(2-Ethylhexyl)phthalate	1.1	J	10
Di-n-octylphthalate	10	U	10
Benzo(b)fluoranthene	10	U	10
Benzo(k)fluoranthene	10	U	10
Benzo(a)pyrene	10	U	10
Indeno(1,2,3-cd)pyrene	10	U	10
Dibenzo(a,h)anthracene	10	U	10
Benzo(g,h,i)perylene	10	U	10

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-246

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1647**
SAMPLE DATE: **12/17/93**
SAMPLE MATRIX: **WATER**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	90	35 - 114
2-Fluorobiphenyl	83	43 - 116
Terphenyl-D14	105	33 - 141
Phenol-D5	34	10 - 94
2-Fluorophenol	53	21 - 100
2,4,6-Tribromophenol	86	10 - 123

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Referenced notes for these results:

Sample was originally extracted 12/22/93 and analyzed 12/31/93. The Blank Spike and the Matrix Spike Duplicate were outside acceptance limits. Sample was re-extracted 1/5/94 and reanalyzed 1/6/94. Results are reported from the reanalysis.

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-12-246

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1647**
SAMPLE DATE: **12/17/93**
SAMPLE MATRIX: **WATER**
PREP DATE: 12/28/93
ANALYSIS DATE: **12/29/93**
DILUTION FACTOR: 1.00000
UNITS: **MG/L**

	Result	Qual	Reporting Limit
Aluminum	2.2		0.20
Barium	0.20	U	0.20
Cadmium	0.0050	U	0.0050
Calcium	95		5.0
Chromium	0.052		0.010
Copper	0.025	U	0.025
Iron	1.9		0.10
Magnesium	78		5.0
Manganese	0.040		0.015
Nickel	0.040	U	0.040
Potassium	5.0	U	5.0
Selenium	0.010	U	0.010
Silver	0.010	U	0.010
Sodium	160		5.0
Zinc	0.020	U	0.020

Data qualifier key:
E - estimated value (see cover page)
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-12-246

SAMPLE ID: **A1648**
SAMPLE DATE: **12/17/93 10:30:00**
SAMPLE MATRIX: **WATER**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Alkalinity, Titrimetric		390	10	MG/L	12/27/93	EPA310_1
TPH - IR		0.96U	0.96	MG/L	12/28/93	EPA418_1
Phenolics		0.010U	0.010	MG/L	01/06/94	EPA9066
Chloride by Ion Chrom.		9.9	5.0	MG/L	01/10/94	EPA300_0
Chemical Oxygen Demand		25U	25	MG/L	12/28/93	EPA410_4
Chromium VI		0.010U	0.010	MG/L	12/18/93	EPA7196
Nitrate and Nitrite		5.3	0.50	MG/L	01/05/94	EPA353_2
Silica		11	5.0	MG/L	12/29/93	370_1
Sulfate by Ion Chrom.		17	5.0	MG/L	01/10/94	EPA300_0
Total Dissolved Solids		450	10	MG/L	12/22/93	EPA160_1
Total Kjeldahl Nitrogen		0.25U	0.25	MG/L	01/10/94	EPA351_3
Total Organic Carbon		1.0U	1.0	MG/L	12/29/93	EPA415_1
Total Suspended Solids		45	10	MG/L	12/22/93	EPA160_2
Total Phosphorus		0.10U	0.10	MG/L	01/10/94	EPA365_3

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-246

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1648**
SAMPLE DATE: **12/17/93**
SAMPLE MATRIX: **WATER**
ANALYSIS DATE: **12/29/93**
DILUTION FACTOR: **1.0**
UNITS: **UG/L**

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	1.5	J	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	10	U	10	1,1,2-Trichloroethane	5	U	5
Acetone	100	U	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	99	88 - 110
BROMOFLUOROBENZENE	94	86 - 115
1,2-DICHLOROETHANE-D4	105	76 - 114

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-12-246

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1648**
SAMPLE DATE: **12/17/93**
SAMPLE MATRIX: **WATER**
EXTRACTION DATE: **01/05/94**
ANALYSIS DATE: **01/06/94**
DILUTION FACTOR: **1.0**
UNITS: **UG/L**

	Result	Qual	Reporting Limit
Phenol	10	U	10
bis(2-Chloroethyl)ether	10	U	10
2-Chlorophenol	10	U	10
1,3-Dichlorobenzene	10	U	10
1,4-Dichlorobenzene	10	U	10
Benzyl alcohol	10	U	10
1,2-Dichlorobenzene	10	U	10
2-Methylphenol	10	U	10
bis(2-Chloroisopropyl)ether	10	U	10
4-Methylphenol	10	U	10
N-Nitroso-di-n-propylamine	10	U	10
Hexachloroethane	10	U	10
Nitrobenzene	10	U	10
Isophorone	10	U	10
2-Nitrophenol	10	U	10
2,4-Dimethylphenol	10	U	10
Benzoic Acid	10	U	10
bis(2-Chloroethoxy)methane	10	U	10
2,4-Dichlorophenol	10	U	10
1,2,4-Trichlorobenzene	10	U	10
Naphthalene	10	U	10
4-Chloroaniline	10	U	10
Hexachlorobutadiene	10	U	10
4-Chloro-3-methylphenol	10	U	10
2-Methylnaphthalene	10	U	10
Hexachlorocyclopentadiene	10	U	10
2,4,6-Trichlorophenol	10	U	10
2,4,5-Trichlorophenol	10	U	10
2-Chloronaphthalene	10	U	10
2-Nitroaniline	25	U	25
Dimethylphthalate	10	U	10
Acenaphthylene	10	U	10

	Result	Qual	Reporting Limit
2,6-Dinitrotoluene	10	U	10
3-Nitroaniline	25	U	25
Acenaphthene	10	U	10
2,4-Dinitrophenol	25	U	25
4-Nitrophenol	25	U	25
Dibenzofuran	10	U	10
2,4-Dinitrotoluene	10	U	10
Diethylphthalate	10	U	10
4-Chlorophenyl-phenylether	10	U	10
Fluorene	10	U	10
4-Nitroaniline	10	U	10
4,6-Dinitro-2-methylphenol	25	U	25
N-Nitrosodiphenylamine (1)	10	U	10
4-Bromophenyl-phenylether	10	U	10
Hexachlorobenzene	10	U	10
Pentachlorophenol	25	U	25
Phenanthrene	10	U	10
Anthracene	10	U	10
Di-n-butylphthalate	10	U	10
Fluoranthene	10	U	10
Pyrene	10	U	10
Butylbenzylphthalate	10	U	10
3,3'-Dichlorobenzidine	10	U	10
Benzo(a)anthracene	10	U	10
Chrysene	10	U	10
bis(2-Ethylhexyl)phthalate	1.2	J	10
Di-n-octylphthalate	10	U	10
Benzo(b)fluoranthene	10	U	10
Benzo(k)fluoranthene	10	U	10
Benzo(a)pyrene	10	U	10
Indeno(1,2,3-cd)pyrene	10	U	10
Dibenzo(a,h)anthracene	10	U	10
Benzo(g,h,i)perylene	10	U	10

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-246

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1648**
SAMPLE DATE: **12/17/93**
SAMPLE MATRIX: **WATER**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	69	35 - 114
2-Fluorobiphenyl	66	43 - 116
Terphenyl-D14	78	33 - 141
Phenol-D5	26	10 - 94
2-Fluorophenol	44	21 - 100
2,4,6-Tribromophenol	66	10 - 123

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Referenced notes for these results:

Sample was originally extracted 12/22/93 and analyzed 12/31/93. The Blank Spike and the Matrix Spike Duplicate were outside acceptance limits. Sample was re-extracted 1/5/94 and reanalyzed 1/6/94. Results are reported from the reanalysis.

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-12-246

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1648**
SAMPLE DATE: **12/17/93**
SAMPLE MATRIX: **WATER**
PREP DATE: 12/28/93
ANALYSIS DATE: **12/29/93**
DILUTION FACTOR: 1.00000
UNITS: **MG/L**

	Result	Qual	Reporting Limit
Aluminum	1.5		0.20
Barium	0.56		0.20
Cadmium	0.0050	U	0.0050
Calcium	68		5.0
Chromium	0.021		0.010
Copper	0.025	U	0.025
Iron	1.1		0.10
Magnesium	42		5.0
Manganese	0.016		0.015
Nickel	0.040	U	0.040
Potassium	5.0	U	5.0
Selenium	0.010	U	0.010
Silver	0.010	U	0.010
Sodium	45		5.0
Zinc	0.020	U	0.020

Data qualifier key:
E - estimated value (see cover page)
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
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409832-003-01 Work Order: B3-12-246

SAMPLE ID: **A1648-MS**
SAMPLE DATE: **12/17/93 10:30:00**
SAMPLE MATRIX: **WATER**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Alkalinity, Titrimetric	1	390	10	MG/L	12/27/93	EPA310_1
TPH - IR		87		% REC	12/28/93	EPA418_1
Phenolics		95		% REC	01/06/94	EPA9066
Chloride by Ion Chrom.		93		% REC	01/10/94	EPA300_0
Chemical Oxygen Demand		101		% REC	12/28/93	EPA410_4
Chromium VI		102		% REC	12/18/93	EPA7196
Nitrate and Nitrite		90		% REC	01/05/94	EPA353_2
Silica		126	5.0	% REC	12/29/93	370_1
Sulfate by Ion Chrom.		84		% REC	01/10/94	EPA300_0
Total Dissolved Solids	2	440	10	MG/L	12/22/93	EPA160_1
Total Kjeldahl Nitrogen		100		% REC	01/10/94	EPA351_3
Total Organic Carbon		102		% REC	12/29/93	EPA415_1
Total Suspended Solids	3	47	10	MG/L	12/22/93	EPA160_2
Total Phosphorus		105		% REC	01/10/94	EPA365_3

Referenced notes for these results:

1 Duplicate analysis performed in lieu of a matrix spike.

2 Duplicate analysis performed in lieu of a matrix spike.

3 Duplicate analysis performed in lieu of a matrix spike.

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-12-246

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1648-MS**
SAMPLE DATE: **12/17/93**
SAMPLE MATRIX: **WATER**
ANALYSIS DATE: **12/29/93**
DILUTION FACTOR: **1.0**
UNITS: **% REC**

	Result		Result
1,1-Dichloroethene	88	Trichloroethene	88
		Benzene	91
		Toluene	100
		Chlorobenzene	100

Surrogates	% Recovery	Limits
TOLUENE-D8	100	88 - 110
BROMOFLUOROBENZENE	97	86 - 115
1,2-DICHLOROETHANE-D4	104	76 - 114

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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409832-003-01 Work Order: B3-12-246

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1648-MS**
SAMPLE DATE: **12/17/93**
SAMPLE MATRIX: **WATER**
EXTRACTION DATE: **01/05/94**
ANALYSIS DATE: **01/06/94**
DILUTION FACTOR: **2.2**
UNITS: **% REC**

	Result		Result
Phenol	38	Acenaphthene	102
2-Chlorophenol	92	4-Nitrophenol	36
1,4-Dichlorobenzene	85	2,4-Dinitrotoluene	94
N-Nitroso-di-n-propylamine	103	Pentachlorophenol	90
1,2,4-Trichlorobenzene	80	Pyrene	123
4-Chloro-3-methylphenol	94		

Surrogates	% Recovery	Limits
Nitrobenzene-D5	97	35 - 114
2-Fluorobiphenyl	82	43 - 116
Terphenyl-D14	113	33 - 141
Phenol-D5	40	10 - 94
2-Fluorophenol	58	21 - 100
2,4,6-Tribromophenol	90	10 - 123

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Referenced notes for these results:

Sample was originally extracted 12/22/93 and analyzed 12/31/93. The Blank Spike and the Matrix Spike Duplicate were outside acceptance limits. Sample was re-extracted 1/5/94 and reanalyzed 1/6/94. Results are reported from the reanalysis.

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-246

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1648-MS**
SAMPLE DATE: **12/17/93**
SAMPLE MATRIX: **WATER**
PREP DATE: 12/28/93
ANALYSIS DATE: **12/29/93**
DILUTION FACTOR: 1.00000
UNITS: **% REC**

	Result
Aluminum	101
Barium	97
Cadmium	97
Calcium	109
Chromium	97
Copper	96
Iron	99
Magnesium	104
Manganese	94
Nickel	94
Potassium	111
Selenium	99
Silver	95
Sodium	65
Zinc	96

Data qualifier key:

E - estimated value (see cover page)
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

Referenced notes for these results:

Matrix spike outside control limits due to matrix interference on sodium and calcium analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-246

SAMPLE ID: **A1648-MSD**
SAMPLE DATE: **12/17/93 10:30:00**
SAMPLE MATRIX: **WATER**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Alkalinity, Titrimetric	1	390	10	MG/L	12/27/93	EPA310_1
TPH - IR		88		% REC	12/28/93	EPA418_1
Phenolics		87		% REC	01/06/94	EPA9066
Chloride by Ion Chrom.		89		% REC	01/10/94	EPA300_0
Chemical Oxygen Demand		104		% REC	12/28/93	EPA410_4
Chromium VI		98		% REC	12/18/93	EPA7196
Nitrate and Nitrite		91		% REC	01/05/94	EPA353_2
Silica		126	5.0	% REC	12/29/93	370_1
Sulfate by Ion Chrom.		81		% REC	01/10/94	EPA300_0
Total Dissolved Solids	2	440	10	MG/L	12/22/93	EPA160_1
Total Kjeldahl Nitrogen		102		% REC	01/10/94	EPA351_3
Total Organic Carbon		99		% REC	12/29/93	EPA415_1
Total Suspended Solids	3	48	10	MG/L	12/22/93	EPA160_2
Total Phosphorus		104		% REC	01/10/94	EPA365_3

Referenced notes for these results:

1 Duplicate analysis performed in lieu of a matrix spike.

2 Duplicate analysis performed in lieu of a matrix spike.

3 Duplicate analysis performed in lieu of a matrix spike.

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-246

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **A1648-MSD**
SAMPLE DATE: **12/17/93**
SAMPLE MATRIX: **WATER**
ANALYSIS DATE: 12/29/93
DILUTION FACTOR: 1.0
UNITS: **% REC**

	Result		Result
1,1-Dichloroethene	84	Trichloroethene	84
		Benzene	88
		Toluene	96
		Chlorobenzene	97

Surrogates	% Recovery	Limits
TOLUENE-D8	98	88 - 110
BROMOFLUOROBENZENE	93	86 - 115
1,2-DICHLOROETHANE-D4	107	76 - 114

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-246

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **A1648-MSD**
SAMPLE DATE: **12/17/93**
SAMPLE MATRIX: **WATER**
EXTRACTION DATE: **01/05/94**
ANALYSIS DATE: **01/06/94**
DILUTION FACTOR: **2.2**
UNITS: **% REC**

	Result		Result
Phenol	39	Acenaphthene	102
2-Chlorophenol	90	4-Nitrophenol	37
1,4-Dichlorobenzene	91	2,4-Dinitrotoluene	94
N-Nitroso-di-n-propylamine	101	Pentachlorophenol	92
1,2,4-Trichlorobenzene	84	Pyrene	124
4-Chloro-3-methylphenol	97		

Surrogates	% Recovery	Limits
Nitrobenzene-D5	97	35 - 114
2-Fluorobiphenyl	84	43 - 116
Terphenyl-D14	114	33 - 141
Phenol-D5	40	10 - 94
2-Fluorophenol	61	21 - 100
2,4,6-Tribromophenol	92	10 - 123

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Referenced notes for these results:

Sample was originally extracted 12/22/93 and analyzed 12/31/93. The Blank Spike and the Matrix Spike Duplicate were outside acceptance limits. Sample was re-extracted 1/5/94 and reanalyzed 1/6/94. Results are reported from the reanalysis.

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-246

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **A1648-MSD**
SAMPLE DATE: **12/17/93**
SAMPLE MATRIX: **WATER**
PREP DATE: 12/28/93
ANALYSIS DATE: **12/29/93**
DILUTION FACTOR: 1.00000
UNITS: **% REC**

	Result
Aluminum	101
Barium	100
Cadmium	98
Calcium	130
Chromium	97
Copper	96
Iron	100
Magnesium	117
Manganese	94
Nickel	95
Potassium	113
Selenium	99
Silver	95
Sodium	77
Zinc	96

Data qualifier key:

E - estimated value (see cover page)
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

Referenced notes for these results:

Matrix spike duplicate outside control limits due to matrix interference on sodium and calcium analysis by ICPES. LCS / LCSD results and method Quality Control were acceptable.

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-246

SAMPLE ID: A1649
SAMPLE DATE: 12/17/93 12:00:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		1700	250	MG/KG	12/30/93	EPA9071

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-246

TEST NAME: **BTEX - Purge and Trap**
METHOD REFERENCE: **EPA8020**

SAMPLE ID: **A1649**
SAMPLE DATE: **12/17/93**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: **12/23/93**
DILUTION FACTOR: **50**
UNITS: **UG/KG**

	Result	Reporting Limit
Benzene	ND	50
Ethylbenzene	ND	50
Toluene	ND	50
Xylenes (total)	ND	50

Total BTEX concentration: Not Detected

Surrogates	% Recovery
4-Bromofluorobenzene	98

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-246

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE:
SAMPLE MATRIX: **WATER**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
Alkalinity, Titrimetric		10U	10	MG/L	12/27/93	EPA310_1
TPH - IR		1.0U	1.0	MG/L	12/28/93	EPA418_1
Phenolics		0.010U	0.010	MG/L	01/06/94	EPA9066
Chloride by Ion Chrom.		1.0U	1.0	MG/L	01/10/94	EPA300_0
Chemical Oxygen Demand		25U	25	MG/L	12/28/93	EPA410_4
Chromium VI		0.010U	0.010	MG/L	12/18/93	EPA7196
Nitrate and Nitrite		0.050U	0.050	MG/L	01/05/94	EPA353_2
Silica		0.20U	0.20	MG/L	12/29/93	370_1
Sulfate by Ion Chrom.		1.0U	1.0	MG/L	01/10/94	EPA300_0
Total Dissolved Solids		10U	10	MG/L	12/22/93	EPA160_1
Total Kjeldahl Nitrogen		0.25U	0.25	MG/L	01/10/94	EPA351_3
Total Organic Carbon		1.0U	1.0	MG/L	12/29/93	EPA415_1
Total Suspended Solids		10U	10	MG/L	12/22/93	EPA160_2
Total Phosphorus		0.10U	0.10	MG/L	01/10/94	EPA365_3

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-246

TEST NAME: **Hazardous Substance Vols.**
METHOD REFERENCE: **EPA8240**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **WATER**
ANALYSIS DATE: 12/29/93
DILUTION FACTOR: 1.0
UNITS: UG/L

	Result	Qual	Reporting Limit		Result	Qual	Reporting Limit
Chloromethane	10	U	10	1,2-Dichloropropane	5	U	5
Bromomethane	10	U	10	trans-1,3-Dichloropropene	5	U	5
Vinyl chloride	10	U	10	Trichloroethene	5	U	5
Chloroethane	10	U	10	Chlorodibromomethane	5	U	5
Methylene chloride	1.0	J	10	1,1,2-Trichloroethane	5	U	5
Acetone	100	U	100	Benzene	5	U	5
Carbon disulfide	5	U	5	cis-1,3-Dichloropropene	5	U	5
1,1-Dichloroethene	5	U	5	2-Chloroethylvinyl ether	10	U	10
1,1-Dichloroethane	5	U	5	Bromoform	5	U	5
trans-1,2-Dichloroethene	5	U	5	2-Hexanone	50	U	50
cis-1,2-Dichloroethene	5	U	5	4-Methyl-2-pentanone	50	U	50
Chloroform	5	U	5	Tetrachloroethene	5	U	5
1,2-Dichloroethane	5	U	5	1,1,2,2-Tetrachloroethane	5	U	5
2-Butanone	100	U	100	Toluene	5	U	5
1,1,1-Trichloroethane	5	U	5	Chlorobenzene	5	U	5
Carbon tetrachloride	5	U	5	Ethylbenzene	5	U	5
Vinyl acetate	10	U	10	Styrene	5	U	5
Dichlorobromomethane	5	U	5	Xylenes, total	5	U	5

Surrogates	% Recovery	Limits
TOLUENE-D8	101	88 - 110
BROMOFLUOROBENZENE	99	86 - 115
1,2-DICHLOROETHANE-D4	100	76 - 114

Data Qualifier Key:

U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-246

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **WATER**
EXTRACTION DATE: **01/05/94**
ANALYSIS DATE: **01/06/94**
DILUTION FACTOR: **1.0**
UNITS: **UG/L**

	Result	Qual	Reporting Limit
Phenol	10	U	10
bis(2-Chloroethyl)ether	10	U	10
2-Chlorophenol	10	U	10
1,3-Dichlorobenzene	10	U	10
1,4-Dichlorobenzene	10	U	10
Benzyl alcohol	10	U	10
1,2-Dichlorobenzene	10	U	10
2-Methylphenol	10	U	10
bis(2-Chloroisopropyl)ether	10	U	10
4-Methylphenol	10	U	10
N-Nitroso-di-n-propylamine	10	U	10
Hexachloroethane	10	U	10
Nitrobenzene	10	U	10
Isophorone	10	U	10
2-Nitrophenol	10	U	10
2,4-Dimethylphenol	10	U	10
Benzoic Acid	10	U	10
bis(2-Chloroethoxy)methane	10	U	10
2,4-Dichlorophenol	10	U	10
1,2,4-Trichlorobenzene	10	U	10
Naphthalene	10	U	10
4-Chloroaniline	10	U	10
Hexachlorobutadiene	10	U	10
4-Chloro-3-methylphenol	10	U	10
2-Methylnaphthalene	10	U	10
Hexachlorocyclopentadiene	10	U	10
2,4,6-Trichlorophenol	10	U	10
2,4,5-Trichlorophenol	10	U	10
2-Chloronaphthalene	10	U	10
2-Nitroaniline	25	U	25
Dimethylphthalate	10	U	10
Acenaphthylene	10	U	10

	Result	Qual	Reporting Limit
2,6-Dinitrotoluene	10	U	10
3-Nitroaniline	25	U	25
Acenaphthene	10	U	10
2,4-Dinitrophenol	25	U	25
4-Nitrophenol	25	U	25
Dibenzofuran	10	U	10
2,4-Dinitrotoluene	10	U	10
Diethylphthalate	10	U	10
4-Chlorophenyl-phenylether	10	U	10
Fluorene	10	U	10
4-Nitroaniline	10	U	10
4,6-Dinitro-2-methylphenol	25	U	25
N-Nitrosodiphenylamine (1)	10	U	10
4-Bromophenyl-phenylether	10	U	10
Hexachlorobenzene	10	U	10
Pentachlorophenol	25	U	25
Phenanthrene	10	U	10
Anthracene	10	U	10
Di-n-butylphthalate	10	U	10
Fluoranthene	10	U	10
Pyrene	10	U	10
Butylbenzylphthalate	10	U	10
3,3'-Dichlorobenzidine	10	U	10
Benzo(a)anthracene	10	U	10
Chrysene	10	U	10
bis(2-Ethylhexyl)phthalate	10	U	10
Di-n-octylphthalate	10	U	10
Benzo(b)fluoranthene	10	U	10
Benzo(k)fluoranthene	10	U	10
Benzo(a)pyrene	10	U	10
Indeno(1,2,3-cd)pyrene	10	U	10
Dibenzo(a,h)anthracene	10	U	10
Benzo(g,h,i)perylene	10	U	10

Company: IT CORPORATION
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409832-003-01 Work Order: B3-12-246

TEST NAME: **ABN HSL GC/MS Extractables**
METHOD REFERENCE: **EPA8270**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **WATER**

Surrogates	% Recovery	Limits
Nitrobenzene-D5	80	35 - 114
2-Fluorobiphenyl	75	43 - 116
Terphenyl-D14	103	33 - 141
Phenol-D5	32	10 - 94
2-Fluorophenol	58	21 - 100
2,4,6-Tribromophenol	82	10 - 123

(1) N-Nitrosodiphenylamine cannot be separated from diphenylamine.

Data Qualifier Key:
U - none detected
J - estimated value (less than the sample quantitation limit)
B - analyte is found in the associated blank as well as in the sample 'blank' - positive result
* - Surrogate recovery is outside QC limit
D - compound identified at a secondary dilution factor
E - concentration exceeds calibration range

Referenced notes for these results:

Sample was originally extracted 12/22/93 and analyzed 12/31/93. The Blank Spike and the Matrix Spike Duplicate were outside acceptance limits. Sample was re-extracted 1/5/94 and reanalyzed 1/6/94. Results are reported from the reanalysis.

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-246

TEST NAME: **Metals**
METHOD REFERENCE: **EPA6010**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **WATER**
PREP DATE: 12/28/93
ANALYSIS DATE: **12/29/93**
DILUTION FACTOR: 1.0
UNITS: **MG/L**

	Result	Qual	Reporting Limit
Aluminum	0.20	U	0.20
Barium	0.20	U	0.20
Cadmium	0.0050	U	0.0050
Calcium	5.0	U	5.0
Chromium	0.010	U	0.010
Copper	0.0250	U	0.0250
Iron	0.10	U	0.10
Magnesium	5.0	U	5.0
Manganese	0.0150	U	0.0150
Nickel	0.040	U	0.040
Potassium	5.0	U	5.0
Selenium	0.010	U	0.010
Silver	0.010	U	0.010
Sodium	5.0	U	5.0
Zinc	0.020	U	0.020

Data qualifier key:
E - estimated value (see cover page)
M - duplicate injection precision not met
N - spike recovery not within control limits
S - determined by MSA
W - post-digestion spike for Furnace AA is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance
* - duplicate analysis outside control limits
+ - Correlation coefficient for the MSA <0.995
B - < CRDL but >= IDL
U - none detected
'blank' - positive result

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-246

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE:
SAMPLE MATRIX: **SOIL**

Test Name	Note Ref	Result	Reporting Limit	Units	Date Analyzed	Method Reference
9071/418.1 for TPH		10U	10	MG/KG	12/30/93	EPA9071

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-246

TEST NAME: **BTEX - Purge and Trap**
METHOD REFERENCE: **EPA8020**

SAMPLE ID: **LAB BLANK #1**
SAMPLE DATE: **not spec**
SAMPLE MATRIX: **SOIL**
ANALYSIS DATE: 12/22/93
DILUTION FACTOR: 1.0
UNITS: **UG/KG**

	Result	Reporting Limit
Benzene	ND	1
Ethylbenzene	ND	1
Toluene	ND	1
Xylenes (total)	ND	1

Total BTEX concentration: Not Detected

Surrogates	% Recovery
4-Bromofluorobenzene	88

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

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409832-003-01 Work Order: B3-12-246

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME **Alkalinity, Titrimetric** TEST CODE **310_1**

Alkalinity	EPA 310.1 - Chemical Analysis of Water and Wastewater. Titrimetric with sulfuric acid.

TEST NAME **TPH - IR** TEST CODE **418_1**

418_1	Method 418.1: Total Recoverable Petroleum Hydorcarbons, infrared spectrophotmetric method. Methods for the chemical analysis of water and wastes. USEPA.

TEST NAME **ICP Metals** TEST CODE **6010**

Metals by ICP	Inductively coupled emission spectroscopy according to Method 6010, "Test Methods for Evaluating Solid Waste Physical/Chemical Methods", SW-846, Third Edition.

TEST NAME **Hazardous Substance Vols.** TEST CODE **8240TK**

Hazardous Substance List Volatiles	Method 8240, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. GC/MS Purge and Trap analysis.

TEST NAME **ABN HSL GC/MS Extractables** TEST CODE **8270TK**

Hazardous Substance List Extractables	Method 8270, SW-846, Test Methods for Evaluating Solid Waste, Third Edition. Acid/Base-Neutral extraction followed by GC/MS analysis.

TEST NAME **Phenolics** TEST CODE **9066**

Phenolics	SW-846 Method 9066. Total Recoverable Phenolics. Colorimetric, Automated 4-AAP with Distillation. Equivalent to EPA Method 420.2.

TEST NAME **9071/418.1 for TPH** TEST CODE **9071IR**

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

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(512) 892-6684
409832-003-01 Work Order: B3-12-246

TEST NAME **9071/418.1 for TPH** TEST CODE **9071IR**

9071 Prep and IR Analysis	Method 9071, SW846, Test Methods for Evaluating Solid Waste, Third Edition. Soxhlet extraction from Method 9071 using freon and infrared analysis of the extract using Method 418.1.

TEST NAME **Arsenic - Graphite Furnace** TEST CODE **AS_GF**

Arsenic Graphite Furnace	Method 7060, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. EPA 206.2-Technical Additions to Methods for Chemical Analysis of Water and Wastes, EPA-600/4-82-055, December 1982.

TEST NAME **BTEX - Purge and Trap** TEST CODE **BTEX**

BTEX	Method 8020, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. This technique uses a purge and trap with gas chromatography (GC) and photo ionization detection (PID) with a five point curve. This method exceeds the requirement of Method 602. Prep method is 5030.

TEST NAME **Chloride by Ion Chrom.** TEST CODE **CL_IC**

Chloride	USEPA 300.0 - The determination of inorganic anions in water by ion chromatography.

TEST NAME **Chemical Oxygen Demand** TEST CODE **COD**

COD	EPA 410.4 - Chemical Analysis of Water and Wastewater. Colorimetric analysis for Chemical Oxygen Demand.

TEST NAME **Chromium VI** TEST CODE **CR_VI**

Chromium VI	Method 7196, SW-846, Test Methods for Evaluating Solid

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
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(512) 892-6684
409832-003-01 Work Order: B3-12-246

TEST NAME **Chromium VI** TEST CODE **CR_VI**

Wastes, Third Edition. Colorimetric analysis. Equivalent to Standard Methods 3500-Cr D.

TEST NAME **Mercury** TEST CODE **HG_AA**

Mercury — Method 7471, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Cold vapor atomic absorption. Method 7470 is used for water.

Method 245.5-"Technical Additions to Methods for Chemical Analysis of Water and Wastes," EPA-600/4-82-055, December 1982.

TEST NAME **Metals** TEST CODE **ICPTK4**

Method not available.

TEST NAME **Nitrate and Nitrite** TEST CODE **NO3NO2**

Nitrate + Nitrite — Method 353.2-Chemical Analysis of Water and Wastewater. Colorimetric Automated Cadmium Reduction method using Lachat autoanalyzer for NO3 and NO2 as N.

TEST NAME **Lead - Graphite Furnace** TEST CODE **PB_GF**

Lead Graphite Furnace — EPA 7421, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition.
EPA 239.2-Technical Additions to Methods for Chemical Analysis of Water and Wastes," EPA-600/4-82-055, December 1982.

TEST NAME **Silica** TEST CODE **SIO2**

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
409832-003-01 Work Order: B3-12-246

TEST NAME **Silica** TEST CODE **SIO2**

Silica	Method 370.1-Chemical Analysis of Water and Wastewater. Colorimetric Analysis. This is equal to ASTM D859B.

TEST NAME **Sulfate by Ion Chrom.** TEST CODE **SO4_IC**

Sulfate	USEPA Method 300.0 - The Determination of Inorganic Anions in Water by Ion Chromatography.

TEST NAME **Total Dissolved Solids** TEST CODE **TDS**

Total Dissolved Solids	Method 160.1-Chemical Analysis of Water and Wastewater. Gravimetric analysis.

TEST NAME **Total Kjeldahl Nitrogen** TEST CODE **TKN_N**

Kjeldahl Nitrogen	Method 351.3-Chemical Analysis of Water and Wastewater. Digestion and colorimetric analysis.

TEST NAME **Total Organic Carbon** TEST CODE **TOC**

Total Organic Carbon	Method 415.1-Chemical Analysis of Water and Wastewater. Chemical oxidation and nondispersive infrared analysis. Equivalent to SW-846 Method 9060. Sample prep is instrument manufacturer specific.

TEST NAME **Total Suspended Solids** TEST CODE **TSS**

Total Suspended Solids	Method 160.2-Chemical Analysis of Water and Wastewater. Filtration and gravimetric analysis of non-filterable residue.

TEST NAME **Total Phosphorus** TEST CODE **T_P**

Total Phosphorus	Method 365.3-Chemical Analysis of Water and Wastewater.

Company: IT CORPORATION
Date: 01/11/94
Client Work ID: D.O.5001

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684

409832-003-01 Work Order: B3-12-246

TEST NAME **Total Phosphorus** TEST CODE **T_P**

Digestion and colorimetric analysis.

TEST NAME **ICPES Digestion - Water** TEST CODE **Z3005**

Water Digestion — Method 3005A, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Digestion procedure for the preparation of surface and ground water samples for analysis by flame atomic absorption spectroscopy and inductively coupled plasma spectroscopy. The procedure determines total recoverable or dissolved metals.

TEST NAME **GFAA Digestion - Water** TEST CODE **Z3020**

Water Digestion — Method 3020, SW-846, Test Methods for Evaluating Solid Wastes, Third Edition. Acid digestion technique for Graphite Furnace.

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

6312276

Reference Document No. 423305

Page 1 of 2

Project Name/No. [1] Tinker-5001 409832-03-01

Sample Team Members [2] K. KIRSCHENMANN M. WILSON

Profit Center No. [3] 3527

Project Manager [4] Jimmy Taylor

Purchase Order No. [6] 409832-03

Required Report Date [11] Normal

Samples Shipment Date [7] 12-17-93

Lab Destination [8] ITAS AUSTIN

Lab Contact [9] KARMEN DEANE

Project Contact/Phone [12] D. McGregor 405-736-2260

Carrier/Waybill No. [13] FedEx 8460755892

Bill to: [5] 409832-03-01 D.O. 5001

Report to: [10] Tim Jennings IT-AUSTIN

White: To accompany samples

Yellow: Field copy

ONE CONTAINER PER LINE

Sample Number [14]	Sample Description/Type [15]	Date/Time Collected [16]	Container Type [17]	Sample Volume [18]	Preservative [19]	Requested Testing Program [20]	Condition on Receipt [21]	Disposal Record No. [22]
A1646	Trip Blank	12-2-93 1700	Clear glass	40ml	HCl	8240	Good IC SEE RMKS DJC 12-18-93	B3291020A DC
A1647	Water	12-17-93 1015	Amber glass	2	COOL	8270		
				1l	H_2SO_4	TRPH - 418.1		
				500ml	H_2SO_4	9066 - phenols		
				250 ml	H_2SO_4	410.4, 415.1		
				250 ml	H_2SO_4	351.3, 353.2		
			Poly	1l	COOL	Standard Ground Water		
				500ml	HNO_3	Metals		

Special Instructions: [23]

Possible Hazard Identification: [24]
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☒

Sample Disposal: [25]
Return to Client ☐ Disposal by Lab ☒ Archive (mos.)

Turnaround Time Required: [26]
Normal ☒ Rush ☐

QC Level: [27]
I. ☒ II. ☐ III. ☐ Project Specific (specify):

1. Relinquished by [28] (Signature/Affiliation)	Date: 12-17-93 Time: 1800	1. Received by [28] (Signature/Affiliation) IT	Date: 12/18/93 Time: 0930
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: [29]

*See back of form for special instructions.

MCA 3/15/91

B312246

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] 423305
Page 2 of 2

Project Name TINKER-5001

Project No. 409832-03-01

Samples Shipment Date 12-17-93

ONE CONTAINER PER LINE

Sample Number [14]	Sample Description/Type [15]	Date/Time Collected [16]	Container Type [17]	Sample Volume [18]	Pre-servative [19]	Requested Testing Program [20]	Condition on Receipt [21]	Disposal Record No. [22]
A1647	Water	12-17-93 1015	Poly	125ml	COOL	Cr^{6+}	Good 1°C see RVR's 12-18-93	
↓	↓	↓	clear glass	40ml	HCl	8240	↓	B3291020B B3244100A
A1648		12-17-93 1020	clear glass	40ml	HCl	8240		" recd 4 vials
			Amber glass		COOL	8270		
			↓	1l	H_2SO_4	418.1		
				500ml	H_2SO_4	9066		
				250ml	H_2SO_4	410.4, 415.1		
				250ml	H_2SO_4	357.3, 353.2		
			Poly	1l	COOL	SGW		
			↓	500ml	HNO_3	metals		
	↓	↓	↓	125ml	COOL	Cr^{6+}		
A1649	Soil	12-17-93 1200	clear glass	125ml	COOL	8240-BTEX		
↓	↓	↓	↓	↓	↓	418.1-TRPH	↓	

White: To accompany samples

Yellow: Field copy

*See back of form for special instructions.

MCA 3 15 91

Auxiliary Data Summary 01/11/94

Work order : B312246 Sample ID : A1647

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
02B						
	418_1	B312246-07B	1222TPHIR1	12/22/93	12/28/93	1.0
02C	310_1	B312246-07C	1227310_11	12/27/93	12/27/93	1.0
	9066	B312246-07C	122790663	12/27/93	01/06/94	1.0
	CL_IC	B312246-07C	0110CL_IC1	01/10/94	01/10/94	25.0
	COD	B312246-07C	1228COD2D	12/28/93	12/28/93	1.0
	CR_VI	B312246-07C	1218CR_VI1	12/18/93	12/18/93	1.0
	NO3NO2	B312246-07C	0105NO3NO2	01/05/94	01/05/94	10.0
	SIO2	B312246-07C	1229SIO22	12/29/93	12/29/93	10.0
	SO4_IC	B312246-07C	110SO4_IC	01/10/94	01/10/94	25.0
	TDS	B312246-07C	1222TDS1	12/22/93	12/22/93	1.0
	TKN_N	B312246-07C	0108TKN_N1	01/08/94	01/10/94	1.0
	TOC	B312246-07C	1229TOC1	12/29/93	12/29/93	1.0
	TSS	B312246-07C	1222TSS1	12/29/93	12/22/93	2.0
	T_P	B312246-07C	0108T_P1	01/08/94	01/10/94	1.0
02D						
	AS_GF	B312246-07D	122830202	12/28/93	01/07/94	1.0
	HG_AA	B312246-07D	1229HG_AA2	12/29/93	12/29/93	1.0
	PB_GF	B312246-07D	122830202	12/28/93	12/31/93	1.0

Auxiliary Data Summary 01/11/94

Work order : B312246 Sample ID : A1648

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
03B						
	418_1	B312246-07B	1222TPHIR1	12/22/93	12/28/93	1.0
03C	310_1	B312246-07C	1227310_11	12/27/93	12/27/93	1.0
	9066	B312246-07C	122790663	12/27/93	01/06/94	1.0
	CL_IC	B312246-07C	0110CL_IC1	01/10/94	01/10/94	5.0
	COD	B312246-07C	1228COD2D	12/28/93	12/28/93	1.0
	CR_VI	B312246-07C	1218CR_VI1	12/18/93	12/18/93	1.0
	NO3NO2	B312246-07C	0105NO3NO2	01/05/94	01/05/94	10.0
	SIO2	B312246-07C	1229SIO22	12/29/93	12/29/93	25.0
	SO4_IC	B312246-07C	0110SO4_IC	01/10/94	01/10/94	5.0
	TDS	B312246-07C	1222TDS1	12/22/93	12/22/93	1.0
	TKN_N	B312246-07C	0108TKN_N1	01/08/94	01/10/94	1.0
	TOC	B312246-07C	1229TOC1	12/29/93	12/29/93	1.0
	TSS	B312246-07C	1222TSS1	12/29/93	12/22/93	1.0
	T_P	B312246-07C	0108T_P1	01/08/94	01/10/94	1.0
03D						
	AS_GF	B312246-07D	122830202	12/28/93	01/07/94	1.0
	HG_AA	B312246-07D	1229HG_AA2	12/29/93	12/29/93	1.0
	PB_GF	B312246-07D	122830202	12/28/93	12/31/93	1.0

Auxiliary Data Summary 01/11/94

Work order : B312246 Sample ID : A1648-MS

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
04B						
	418_1	B312246-07B	1222TPHIR1	12/22/93	12/28/93	1.0
04C	310_1	B312246-07C	1227310_11	12/27/93	12/27/93	1.0
	9066	B312246-07C	122790663	12/27/93	01/06/94	1.0
	CL_IC	B312246-07C	0110CL_IC1	01/10/94	01/10/94	5.0
	COD	B312246-07C	1228COD2D	12/28/93	12/28/93	1.0
	CR_VI	B312246-07C	1218CR_VI1	12/18/93	12/18/93	1.0
	NO3NO2	B312246-07C	0105NO3NO2	01/05/94	01/05/94	10.0
	SIO2	B312246-07C	1229SIO22	12/29/93	12/29/93	25.0
	SO4_IC	B312246-07C	0110SO4_IC	01/10/94	01/10/94	5.0
	TDS	B312246-07C	1222TDS1	12/22/93	12/22/93	1.0
	TKN_N	B312246-07C	0108TKN_N1	01/08/94	01/10/94	1.0
	TOC	B312246-07C	1229TOC1	12/29/93	12/29/93	1.0
	TSS	B312246-07C	1222TSS1	12/29/93	12/22/93	1.0
	T_P	B312246-07C	0108T_P1	01/08/94	01/10/94	1.0
04D						
	AS_GF	B312246-07D	122830202	12/28/93	01/07/94	1.0
	HG_AA	B312246-07D	1229HG_AA2	12/29/93	12/29/93	1.0
	PB_GF	B312246-07D	122830202	12/28/93	12/31/93	1.0

Auxiliary Data Summary 01/11/94

Work order : B312246 Sample ID : A1648-MSD

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
05B						
	418_1	B312246-07B	1222TPHIR1	12/22/93	12/28/93	1.0
05C	310_1	B312246-07C	1227310_11	12/27/93	12/27/93	1.0
	9066	B312246-07C	122790663	12/27/93	01/06/94	1.0
	CL_IC	B312246-07C	0110CL_IC1	01/10/94	01/10/94	5.0
	COD	B312246-07C	1228COD2D	12/28/93	12/28/93	1.0
	CR_VI	B312246-07C	1218CR_VI1	12/18/93	12/18/93	1.0
	NO3NO2	B312246-07C	0105NO3NO2	01/05/94	01/05/94	10.0
	SIO2	B312246-07C	1229SIO22	12/29/93	12/29/93	25.0
	SO4_IC	B312246-07C	0110SO4_IC	01/10/94	01/10/94	5.0
	TDS	B312246-07C	1222TDS1	12/22/93	12/22/93	1.0
	TKN_N	B312246-07C	0108TKN_N1	01/08/94	01/10/94	1.0
	TOC	B312246-07C	1229TOC1	12/29/93	12/29/93	1.0
	TSS	B312246-07C	1222TSS1	12/29/93	12/22/93	1.0
	T_P	B312246-07C	0108T_P1	01/08/94	01/10/94	1.0
05D						
	AS_GF	B312246-07D	122830202	12/28/93	01/07/94	1.0
	HG_AA	B312246-07D	1229HG_AA2	12/29/93	12/29/93	1.0
	PB_GF	B312246-07D	122830202	12/28/93	12/31/93	1.0

Auxiliary Data Summary 01/11/94

Work order : B312246 Sample ID : LAB BLANK #1

FRAC	Tests	Blank Reference	Batch ID	Prep Date	Analysis Date	Dil. Factor
07B						
	418_1	B312246-07B	1222TPHIR1	12/22/93	12/28/93	1.0
07C	310_1	B312246-07C	1227310_11	12/27/93	12/27/93	1.0
	9066	B312246-07C	122790663	12/27/93	01/06/94	1.0
	CL_IC	B312246-07C	0110CL_IC1	01/10/94	01/10/94	1.0
	COD	B312246-07C	1228COD2D	12/28/93	12/28/93	1.0
	CR_VI	B312246-07C	1218CR_VI1	12/18/93	12/18/93	1.0
	NO3NO2	B312246-07C	0105NO3NO2	01/05/94	01/05/94	1.0
	SIO2	B312246-07C	1229SIO22	12/29/93	12/29/93	1.0
	SO4_IC	B312246-07C	0110SO4_IC	01/10/94	01/10/94	1.0
	TDS	B312246-07C	1222TDS1	12/22/93	12/22/93	1.0
	TKN_N	B312246-07C	0108TKN_N1	01/08/94	01/10/94	1.0
	TOC	B312246-07C	1229TOC1	12/29/93	12/29/93	1.0
	TSS	B312246-07C	1222TSS1	12/29/93	12/22/93	1.0
	T_P	B312246-07C	0108T_P1	01/08/94	01/10/94	1.0
07D						
	AS_GF	B312246-07D	122830202	12/28/93	01/07/94	1.0
	HG_AA	B312246-07D	1229HG_AA2	12/29/93	12/29/93	1.0
	PB_GF	B312246-07D	122830202	12/28/93	12/31/93	1.0

TINKER_5001

WORK ORDER # B3122246

OF WATER SAMPLES 8

OF SOIL SAMPLES

8240	✓✓	SIO2	✓✓
8270	✓✓ 2B 3B	TDS	✓✓
IR	✓✓	[redacted]	✓✓
AS	✓✓	TOC	✓✓
CRIV	✓✓	TSS	✓✓
HG	✓✓	T_P	✓✓
ICP	✓✓	BTEX	✓✓
PB	✓✓		
SO4_IC	✓✓		
310_1	✓✓		
9066	✓✓		
CL_IC	✓✓		
COD	✓✓		
NO3NO2	✓✓		

APPENDIX A

DEFINITIONS

ND(U) - Analyte was analyzed for, but not detected. The value given after the ND or "U" is the detection limit for that compound.

A - The compound denoted with an "A" indicates a suspected aldol condensation product.

B - Indicates the compound was also detected in the blank, but at levels less than 5X the detection limit. Values for this compound may be suspect.

J - Indicates the compound was detected in the sample, but at levels less than the detection limit, but above the MDL. Results should be requarded as estimated.

D - Indicates that the compound was identified in an analysis at a secondary dilution factor.

N - Indicates presumptive evidence of a compound. This flag is used for tentatively identified compounds.

MS - Matrix Spike

MSD - Matrix Spike Duplicate

RPD - Relative Percent Difference

DL - Detection limit

UG/L - Micrograms/Liter

UG/KG - Micrograms/Kilogram

MG/KG - Milligrams/Kilogram

MG/L - Milligrams/Liter

%REC - Percent Recovery

QC Acceptance Limits

Method 8240	Water	Soil
Surrogate % Recoveries		
BFB	86-115	74-121
Dichloroethane	76-114	70-120
Toluene-d8	88-110	81-117
Matrix Spike Limits(%)		
1,1-Dichloroethene	61-145	59-172
Trichloroethene	71-120	62-137
Benzne	76-127	66-142
Toluene	76-125	59-139
Chlorobenzene	75-130	60-133

Method 8270	Water	Soil
Surrogate % Recoveries		
Nitrobenzene-d5	35 - 114	23 - 12
2-Fluorobiphenyl	43 - 116	30 - 11
Terphenyl-d14	33 - 141	18 - 13
Phenol-d5	10 - 94	24 - 11
2-Fluorophenol	21 - 100	25 - 12
2,4,6-Tribromophenol	10 - 123	19 - 12
Matrix Spike Limits(%)		
Phenol	14 - 99	15 - 10
Chlorophenol	19 - 107	20 - 11
1,4-Dichlorobenzene	18 - 101	17 - 10
N-Nitroso-di-propylamine	32 - 108	30 - 11
1,2,4-Trichlorobenzene	24 - 109	21 - 11
4-Chloro-3-methylphenol	31 - 111	34 - 10
Acenaphthene	33 - 110	30 - 11
4-Nitrophenol	1 - 141	d - 13
2,4-Dinitrotoluene	35 - 106	31 - 11
Pentachlorophenol	1 - 147	2 - 14
Pyrene	42 - 119	36 - 12

METALS CONTROL LIMITS

ICP: ± 20% for MS/MSD & Duplicate

GF: Control Charts for MS/MSD; ± 20% for Dup

ICV/CCV

GF ICV ± 20%
GF CCV ± 20%
ICP ICV/CCV ± 10%
HG AA ± 20%

CONTROL LIMITS
GRAPHITE FURNACE/MERCURY

ANALYTE	MATRIX	LIMITS	COMMENTS
Hg	water	21 - 170	Control Charts (B inst.)
Hg	soil	44 - 150	Control Charts (B)
As	water	59 - 150	D
As	soil	75 - 125	D
As	water	52 - 140	C
As	soil	35 - 142	C
Pb	water	48 - 153	D
Pb	soil	75 - 125	D
Pb	water	33 - 163	C
Pb	soil	75 - 125	C
Se	water	37 - 136	D
Se	soil	27 - 118	D
Se	water	20 - 147	C
Se	soil	2.6 - 139	C

QC BATCH ID FOR WET CHEM - Test Code: TDS

PREPREP METHOD:
PREP METHOD:
ANALYSIS METHOD: TDS
BATCH DATE: 12/22/93
INSTRUMENT ID: A
SET (BATCH) #: 1

Work Orders/Fractions Associated With Batch

Lab Sample ID's	
1	B312246-02C
2	03C
3	Dup of 04C
4	03C 05C
5	B312247-01D
6	B312263-01A
7	02A
8	B312276-03D
9	-05D
10	
11	
12	
13	
14	
15	SAT
16	
17	12/27
18	
19	
20	

Batch QC ID's	
LCS ID:	LCS 122293-1
LCSD ID:	NA
MB ID:	
MS ID:	
MSD ID:	
REP ID:	B312246-04C B312246-05C

Batch QC Results

MDL: _____ PQL: 10 mg/L

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	NA	mg/L	SAT	12/22 10:00
LCS % Rec	95.4	% Rec		
LCSD % Rec	NA	% Rec		
LCS/LCSD RPD		% RPD		
MS % Rec		% Rec		
MSD % Rec		% Rec		
MS/MSD RPD		% RPD		
REP RPD	1.58/2.27	% RPD		

Comments:

44-8-85

QC BATCH ID FOR WET CHEM - Test Code: ~~TDS~~ SAT TSS

PREPREP METHOD:

PREP METHOD:

ANALYSIS METHOD: TSS

BATCH DATE: 12/22/93

INSTRUMENT ID: A

SET (BATCH) #: 1

Work Orders/Fractions Associated With Batch

Lab Sample ID's	
1	B312246-02C
2	03C
3	dup of 04C
4	3C 05C
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	12/27
17	
18	
19	
20	

Batch QC ID's	
LCS ID:	LCS/22293-1
LCSD ID:	NA
MB ID:	NA
MS ID:	NA
MSD ID:	NA
REP ID:	B312246-04C B312246-05C

Batch QC Results

MDL: _____ PQL: 10 mg/L

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	NA	mg/L	SAT	12/22 10:00
LCS % Rec	95.5	% Rec		
LCSD % Rec	NA	% Rec		
LCS/LCSD RPD		% RPD		
MS % Rec		% Rec		
MSD % Rec		% Rec		
MS/MSD RPD		% RPD		
REP RPD	4.35/6.45	% RPD	✓	✓

Comments:

44-8-85

Hg-18 12/29/93
MLA

QC BATCH ID FOR GFAA/CVAA - Test Code: _____	
PREPREP METHOD:	
PREP METHOD:	
ANALYSIS METHOD:	7470
BATCH DATE:	12/29/93
INSTRUMENT ID:	A
SET (BATCH) #:	1 (2)

Work Orders/Fractions Associated With Batch

Lab Sample ID's

1	B312214-01B
2	02B
3	03B
4	04B
5	05B
6	06B
7	07B
8	08B
9	10B
10	11B
11	12B
12	13B
13	14B
14	B312246-02D
15	03D
16	04D
17	05D
18	
19	MLA 12/29
20	

Batch QC ID's

LCS ID:	ICV 122993-1	
LCSD ID:	CCV-1	
MB ID:	ICB	
MS ID:	B312246-04D	MS
MSD ID:	05D	MSD
REP ID:	03D	DUP

Batch QC Results

MDL: 0.020 PQL: 0.020

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	0.0	mg/L	MLA	12/29/93 22:00
LCS % Rec	113	% Rec		
LCSD % Rec	120	% Rec		
LCS/LCSD RPD	6.01	% RPD		
MS % Rec 123	MLA ~~78.7~~	% Rec		
MSD % Rec 124	~~83.3~~	% Rec		
MS/MSD RPD a 81	~~5.68~~	% RPD		
REP RPD	0	% RPD		

Comments:

QC BATCH ID FOR GFAA/CVAA - Test Code: Pb-GF
PREPREP METHOD:
PREP METHOD: Z3020
ANALYSIS METHOD: 7421
BATCH DATE: 12-28-93
INSTRUMENT ID: C
SET (BATCH) #: 2

Work Orders/Fractions Associated With Batch

Lab Sample ID's	
1	B312245-08B
2	B312246-02D
3	↓ -03D
4	B312266-12B
5	
6	
7	
8	
9	
10	
11	
12	DN
13	12-28-93
14	
15	
16	
17	
18	
19	
20	

Batch QC ID's	
LCS ID:	LCS201228-2
LCSD ID:	LCSD201228-2
MB ID:	PB201228-2
MS ID:	B312246-04D MS
MSD ID:	↓ -05DMS
REP ID:	↓ -03D DUP

Batch QC Results MDL: 2.96 PQL: 0.0030

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	<0.0030		BL	12-31-93 12:28
LCS % Rec	107	% Rec	↓	↓
LCSD % Rec	111	% Rec	↓	↓
LCS/LCSD RPD	3.67	% RPD	↓	↓
MS % Rec	96.0	% Rec	↓	↓
MSD % Rec	96.5	% Rec	↓	↓
MS/MSD RPD	0.52	% RPD	↓	↓
REP RPD	0	% RPD	↓	↓

Comments:

QC BATCH ID FOR WET CHEM - Test Code: TOC
PREPREP METHOD:
PREP METHOD:
ANALYSIS METHOD: TOC
BATCH DATE: 12/29 12:00
INSTRUMENT ID: A
SET (BATCH) #: 1

Work Orders/Fractions Associated With Batch

Lab Sample ID's	
1	B312245-08B
2	B312246-02C
3	03C
4	B312247-01B
5	B312248-01C
6	B312202-01D
7	-02D
8	B312203-01D
9	02D
10	B312266-12B
11	
12	
13	
14	
15	
16	SAT
17	12/29
18	
19	
20	

Batch QC ID's	
LCS ID:	LCS 122993-1
LCSD ID:	LCSD 122993-1
MB ID:	MB 122993-1
MS ID:	B312246-04C
MSD ID:	B312246-05C
REP ID:	LCSD 122993-1

Batch QC Results MDL:_____ PQL: 1.0 mg/L

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	0	mg/L	SAT	12/29 12:00
LCS % Rec	SAT ~~108~~ 101	% Rec		
LCSD % Rec	SAT ~~111~~ 100	% Rec		
LCS/LCSD RPD	0.995 ~~2.74~~ SAT	% RPD		
MS % Rec	102	% Rec		
MSD % Rec	99.0	% Rec		
MS/MSD RPD	2.99	% RPD		
REP RPD	2.74	% RPD		

Comments: * B312202-02D WAS RERUN 1/3/94
Result: ND
LCS 1/3/94: ~~108 % Rec~~ SAT 102 % Rec
LCSD 1/3/94: ~~111 % Rec~~ SAT 103 % Rec
~~2.74 % RPD~~ SAT 0.976 RPD

12/29/93

122993C

QC BATCH ID FOR ICPES	
PREPREP METHOD:	N/A
PREP METHOD:	3005
ANALYSIS METHOD:	6010
BATCH DATE:	12-28-93
INSTRUMENT ID:	B
SET (BATCH) #:	1

Work Orders/Fractions Associated With Batch

Lab Sample ID's

1) B312274-01A
2) 02A
3) 03A
4) 04A
5) B312245-08A
6) B312246-02D
7) 03D
8) 03D Dup
9) 04D ms
10) 05D msD
11) B312247-01C
12) B312266-12B
13) B312269-01H
14) 02H
15) B312270-01H
16) B312276-03C
17) 05C
18) B312071-02B
19) 03B
20) 04B

Batch QC Samples

LCS ID: LCS05122893-1
LCSD ID: LCSD05122893-1
MB ID: PB05122893-1
MS ID: B312246-04D
MSD ID: B312246-05D
REP ID: B312246-03D
PBD05122893-1

ANALYTES REQUIRED FOR BATCH:

Ag	Al	As	B	Ba	Be	Ca	Cd	Co	Cr	Cu	Fe	K	Mg	Mn	Mo	Na
X	X	—	—	X	X	X	X	—	X	X	X	X	X	X	—	X

Ni	Pb	Sb	Se	Si	Sn	Ti	Tl	V	Zn
X	X	X	X	—	—	—	—	—	X

ITAS Austin QC Batch Summary for ICP

QC Batch ID	
sprep Method:	
Prep Method:	3005
Analysis Method:	6010
Batch Date:	12/28/93
Instrument ID:	B
Batch (Set) #:	1

Batch QC Information		
Matrix: WATER	Data Reported to PQL	
Units: MG/L		
		Corr. Fact.
Method Blk ID:	PB05122893-1	1
LCS ID:	LCS05122893-1	1
LCSD ID:	LCSD05122893-1	1
MS Sample ID:	B312246-04D MS	1
MSD Sample ID:	B312246-05D MSD	1
Rep Sample ID:	B312246-03D DUP	1

	Replicate Sample Data				Blank / LCS Batch QC									
Analyte	Original Result for Replicate	Replicate Result	% RPD	Q	Method Blank Result	LCS true Value (mg/L	LCS Conc. Found	LCS % Rec.	Q	LCSD Conc. Found	LCSD % Rec.	Q	% RPD for LCS/LCSD Recoveries	Q
Ag	ND	ND	N/A		< 0.010	1	0.9358	94		0.94	94		0.30	
Al	1.469	1.391	5.45		< 0.20	10	10.15	102		10.17	102		0.20	
As					< 0.10	1	1.04	104		1.06	106		1.53	
B					< 0.20	1	0.9016	90		0.92	92		2.02	
Ba	0.5558	0.5674	2.07		< 0.20	1	0.993	99		0.99	99		0.72	
Be	ND	ND	N/A		< 0.0050	1	0.9713	97		0.98	98		0.71	
Ca	67.74	69.09	1.97		< 5.0	20	20.3	102		20.41	102		0.54	
Cd	ND	ND	N/A		< 0.0050	1	0.9619	96		0.97	97		0.73	
Co					< 0.050	1	0.9393	94		0.94	94		0.49	
Cr	0.0213	0.019	11.41		< 0.010	1	0.9762	98		0.98	98		0.49	
Cu	ND	ND	N/A		< 0.025	1	0.9408	94		0.94	94		0.12	
Fe	1.085	1.075	0.93		< 0.10	10	10.34	103		10.37	104		0.29	
K	ND	ND	N/A		< 5.0	20	19.64	98		19.50	98		0.72	
Mg	41.56	42.51	2.26		< 5.0	20	20.18	101		20.20	101		0.10	
Mn	0.0156	0.0156	0.00		< 0.015	1	0.9361	94		0.94	94		0.50	
Mo					< 0.10	1	0.9318	93		0.94	94		0.83	
Na	45.23	46.03	1.75		< 5.0	20	20.4	102		20.40	102		0.00	
Ni	ND	ND	N/A		< 0.040	1	0.9269	93		0.94	94		1.20	
Pb	ND	ND	N/A		< 0.050	1	0.9286	93		0.96	96		3.02	
Sb	ND	ND	N/A		< 0.060	1	0.9896	99		1.00	100		0.99	
Se	ND	ND	N/A		< 0.10	1	0.9278	93		0.97	97		4.27	
Si					< 1.0	10	10.04	100		10.23	102		1.87	
Sn					< 0.10	1	0.9643	96		0.93	93		3.75	
Ti					< 0.10	1	0.9902	99		0.99	99		0.29	
Tl					< 0.20	1	0.982	98		1.00	100		1.69	
V					< 0.050	1	0.9406	94		0.94	94		0.38	
Zn	ND	ND	N/A		< 0.020	1	0.9484	95		0.96	96		0.81	

QC Data Reviewed By: KmB Date/Time: 12/29/93 2300

Comments: All QC within control limits

alifiers:
N - LCS % Recovery was outside method limits of 80-120 %.
R - % RPD for LCS/LCSD was outside control limit of 20 %.
* Replicate RPD was outside method control limit of 20 %

ITAS Austin QC Batch Summary for ICP

QC Batch ID	
Preprep Method:	
Prep Method:	3005
Analysis Method:	6010
Batch Date:	12/28/93
Instrument ID:	B
Batch (Set) #:	1

Batch QC Information		
Matrix: WATER		Data Reported to PQL
Units: MG/L		
		Corr. Factor
Method Blk ID:	PB05122893-1	1
LCS ID:	LCS05122893-1	1
LCSD ID:	LCSD05122893-1	1
MS Sample ID:	B312246-04D MS	1
MSD Sample ID:	B312246-05D MSD	1
Rep Sample ID:	B312246-03D DUP	1

Spike Sample Data

Analyte	Original Result for MS/MSD	MS Result	MS Spike Added	MS % Rec.	Q	MSD Result	MSD Spike Added	MSD % Rec.	Q	% RPD for MS/MSD Recoveries	Q	% RPD for MS/MSD Result As Replicates	Q
Ag	ND	0.9506	1.00	95		0.9509	1.00	95		0.03			
Al	1.469	11.52	10.00	101		11.59	10.00	101		0.69			
As													
B													
Ba	0.5558	1.525	1.00	97		1.556	1.00	100		3.15			
Be	ND	1.004	1.00	100		1.005	1.00	100		0.10			
Ca	67.74	89.59	20.00	109		93.65	20.00	130	N	17.00			
Cd	ND	0.972	1.00	97		0.9758	1.00	98		0.39			
Co													
Cr	0.0213	0.9908	1.00	97		0.9911	1.00	97		0.03			
Cu	ND	0.9565	1.00	96		0.9612	1.00	96		0.49			
Fe	1.085	11.03	10.00	99		11.05	10.00	100		0.20			
K	ND	22.27	20.00	111		22.57	20.00	113		1.34			
Mg	41.56	62.33	20.00	104		64.94	20.00	117		11.82			
Mn	0.0156	0.9508	1.00	94		0.9518	1.00	94		0.11			
Mo													
Na	45.23	58.19	20.00	65	N	60.59	20.00	77	N	16.95			
Ni	ND	0.9421	1.00	94		0.9464	1.00	95		0.46			
Pb	ND	0.9767	1.00	98		0.9653	1.00	97		1.17			
Sb	ND	1.014	1.00	101		1.015	1.00	101		0.10			
Se	ND	0.9859	1.00	99		0.9937	1.00	99		0.79			
Si													
Sn													
Ti													
Tl													
V													
Zn	ND	0.9608	1.00	96		0.9583	1.00	96		0.26			

Comments: % Rec for Na in MS/MSD outside control limits due to matrix interference / inconsistent sample matrix. % Rec for Ca in MSD outside control limit for same reason. All other QC within control limits.

Qualifiers (Q):

H - Sample concentration was greater than five times the spike level.
N - Spike recovery was outside method control limits of 80-120 %.
R - Percent RPD for MS/MSD recoveries was outside method control limit of 20 %.
D - Sample concentration was greater than five times the spike level.
The RPD was calculated between the MS and MSD results as replicates.

Method BTEX Batch QC summary

Analyst	jl	**SAM Number**		**Matrix: Water/Soil**	water
Instrument ID	GCF1	**Client**		**Units**	ug/L
Batch Date	12/22/93	**Method**	BTEX	**Set (Batch)**	#1
Reviewed		**Sample Spiked**	BLK SPIKE	**Comments**	ok

Analyte	**Lab Blank**	**Matrix result**	**Spike amnt MS/MSD**	**Spike amnt BLK SPIKE**	**Blank Spike Result**	**MS result**	**MSD result**	**Blank Spike % Rec**	**MS % Rec**	**MSD % Rec**	**% rpd**	**Accept Limits**
Surr (BFB)	98.28	0.00	100.00	100.00	106.00	103.00	105.00	106%	103%	105%	2%	70-130
Benzene	0.00	0.00	20.80	20.80	19.89	20.55	21.61	96%	99%	104%	5%	70-130
Toluene	0.04	0.04	61.10	61.10	61.81	63.56	67.07	101%	104%	110%	5%	70-130
Ethyl benzene	0.00	0.00	20.70	20.70	20.83	21.57	22.03	101%	104%	106%	2%	70-130
M+P Xylene	0.10	0.10	83.10	83.10	89.00	89.77	95.40	107%	108%	115%	6%	70-130
O-xylene	0.00	0.00	41.40	41.40	43.03	43.63	46.45	104%	105%	112%	6%	70-130
1,2 CL2Benzene	0.00	0.00			0.00	0.00	0.00	#VALUE!	#VALUE!	#VALUE!	#DIV/0!	70-130
1,4 CL2Benzene	0.00	0.00			0.00	0.00	0.00	#VALUE!	#VALUE!	#VALUE!	#DIV/0!	70-130
1,3 CL2 Benzene	0.00	0.00			0.00	0.00	0.00	#VALUE!	#VALUE!	#VALUE!	#DIV/0!	70-130
												70-130

Comment: Insufficient sample was available for matrix and matrix spike evaluation. A blank spike and blank spike duplicate were prepared instead.

THIS QC APPLIES TO THE FOLLOWING SAMPLES:

B312251/05,06
B312267
B312247
B312246
B312278

ACCEPTANCE LIMITS:

LCS:	85-115%
MS/MSD:	70-130%
RPD:	<30%
SURROGATES:	75-125%

ITAS_Austin Volatiles QA Spike Lot Summary LOT#: _____

Date/Time: 12/29/93 Intrument: E1

Operator: SAB Test/Matrix: 8240/water

GC Column: 502.2 (Rtx) Operator: SAB

Type	Lab Sample ID	Lab File ID	Performed (Y or N)
Sample	B312246-03	>E2463	Y
MS	-04	>E2464	
MSD	-05	>E2465	
LCS	-BS	>EBS29	

This QA Spike Lot applies to the following Samples:

#	Client * Sample ID	Lab Sample ID	Lab File ID
01		B312246-01	
02		-02	
03		-03	
04		-04	
05		-05	
06		-07	
07			
08			
09			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Comments: _____

* - Field used only if necessary.

QC Batch ID

Prep Code/Date: ____/____

Test Code/Date: 8240 / 12/29/93

Set #: 1 Inst. ID: E

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY AND BLANK SPIKE RECOVERY

Lab Name: ITAS - Austin Date Ran: 12/29/93 QC BATCH ID
Sample Names: >E2464 >E2465 >EBS29 Prep Code/Date: |
CLIENT ID: Test Code/Date: 8240 | 12/29/93
Matrix Spike - SAM Sample No. B312246 Matrix: WATER Set #: 0 Inst.ID: E1
(5.000 ML TO 5 ML) 1.0 X DIL

COMPOUND NAME	SPIKE ADDED (ug/L)	SAMPLE CONC (ug/L)	MS CONC (ug/L)	MS % REC #	QC LIMITS REC.	BLANK CONC (ug/L)	BS CONC (ug/L)	BS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.00	.00	44.24	88	61 - 145	0	43.40	87	61 - 145
Trichloroethene	50.00	1.52	44.13	85	71 - 120	0	40.95	82	71 - 120
Benzene	50.00	.00	45.25	91	76 - 127	0	44.35	89	76 - 127
Toluene	50.00	.00	50.02	100	76 - 125	0	48.19	96	76 - 125
Chlorobenzene	50.00	.00	50.02	100	75 - 130	0	47.40	95	75 - 130

COMPOUND NAME	SPIKE ADDED (ug/L)	MSD CONC. (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.00	41.84	84	6	14	61 - 145
Trichloroethene	50.00	43.48	84	2	14	71 - 120
Benzene	50.00	43.87	88	3	11	76 - 127
Toluene	50.00	47.88	96	4	13	76 - 125
Chlorobenzene	50.00	48.30	97	3	13	75 - 130

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

* Values outside of QC limits.

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

SURROGATE RECOVERIES	>E2464	>E2465	>EBS29	LIMITS
Toluene - d8	100	98	101	88 - 110
Bromofluorobenzene	97	93	100	86 - 115
1,2-Dichloroethane - d4	104	107	101	76 - 114

12/27

B312246

QC Batch ID

ITAS - AUSTIN EXTRACTABLES QA LOT SUMMARY:

Prep Code/Date: 418.1 / 12/22/93
Test Code/Date: TPH-IR / 12/22/93
Set #: _____ Inst. ID: FTIR

Type	Lab Sample ID	Result	Percent Recovery	QC limits
Blank	B312246-BLK	<	ND	< Reporting limit
Blank spike	BS	4.8	85	70 to 130%
MS	08ms	9.8	87	70 to 130%
MSD	08msD	10	88	70 to 130%

RPD = 1.1%

This QA Spike Lot applies to the following Samples:

#	Client	Sam # + Fraction	Date of Prep
1	Tinker	B312246-02B	12/22/93
2		03B	↓
3	↓	B312245-08B	12/22/93
4	It stopped	B312250-05D	↓
5	↓	06D	
6	Tinker	B312246-12B	
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Comments: _____

B512246

1435

ITAS - AUSTIN EXTRACTABLES QA LOT SUMMARY:

QC Batch ID

Prep Code/Date: IS-IR / 12/30/93
Test Code/Date: _____ / _____
Set #: _____ Inst. ID: _____

Type	Lab Sample ID	Result	Percent Recovery	QC limits
Blank	B312306 - BLK	<	ND	< Reporting limit
Blank spike	BS	5.4	96	70 to 130%
MS	08A	310	94	70 to 130%
MSD	08A	310	94	70 to 130%

This QA Spike Lot applies to the following Samples:

#	Client	Sam # + Fraction	Date of Prep
1	IT - Hou	B312306 - 01A	12-30-93
2		02A	
3		03A	
4		04A	
5		05A	
6		06A	
7		07A	
8		08A	
9		09A	
10		10A	
11	IT - Slep.	B312297 01A	
12		02A	
13		03A	
14		04A	
15		05A	
16		06A	
17		07A	
18	Tinker	B312246 - 06B	
19			
20			

Comments: _____

QC BATCH ID FOR WET CHEM - Test Code: NO_3NO_2 / NO_3-PR	
PREPREP METHOD:	
PREP METHOD:	
ANALYSIS METHOD:	353.2
BATCH DATE:	1-5-94
INSTRUMENT ID:	A
SET (BATCH) #:	3

Work Orders/Fractions Associated With Batch

Lab Sample ID's	
1	B312246-02C
2	03C
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

Batch QC ID's	
LCS ID:	LCS 010594-1
LCSD ID:	LCSD 010594-1
MB ID:	MB 010594-1
MS ID:	B312246-04C
MSD ID:	B312246-05C
REP ID:	

Batch QC Results MDL:_____ PQL: 0.050

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	ND	mg/L	DSB	1-5-94 10:35
LCS % Rec	100	% Rec		
LCSD % Rec	98	% Rec		
LCS/LCSD RPD	2.0	% RPD		
MS % Rec	90 ~~110~~	% Rec		
MSD % Rec	91 ~~99~~	% Rec		
MS/MSD RPD	1.1	% RPD		
REP RPD		% RPD		

Comments:

QC BATCH ID FOR WET CHEM - Test Code: 9066	
PREPREP METHOD:	
PREP METHOD:	
ANALYSIS METHOD:	9066
BATCH DATE:	12-27-93
INSTRUMENT ID:	A
SET (BATCH) #:	3

Work Orders/Fractions Associated With Batch

Lab Sample ID's

1	B312246-02C
2	03C
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

Batch QC ID's

LCS ID:	LCS 122793-1
LCSD ID:	LCSD 122793-2
MB ID:	MB 122793-2
MS ID:	B312246-04C
MSD ID:	B312246-05C
REP ID:	B312246-02C

Batch QC Results

MDL: _____ PQL: ~~0.040~~ 0.010 mg/L

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	ND	mg/L	[illegible]	1-6-94 17:02
LCS % Rec		% Rec		
LCSD % Rec		% Rec		
LCS/LCSD RPD		% RPD		
MS % Rec		% Rec		
MSD % Rec		% Rec		
MS/MSD RPD		% RPD		
REP RPD		% RPD		

Comments:

QC BATCH ID FOR WET CHEM - Test Code: SO4-IC	
PREPREP METHOD:	—
PREP METHOD:	—
ANALYSIS METHOD:	300.0
BATCH DATE:	1-10-94
INSTRUMENT ID:	A
SET (BATCH) #:	

Work Orders/Fractions Associated With Batch

Lab Sample ID's

1 B312246-02C'
2 -03C'
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20

Batch QC ID's

LCS ID: LCS011094-1
LCSD ID: LCSD11094-1
MB ID: ICB 11094-1
MS ID: B312246-04C' MS
MSD ID: -05C' MSD
REP ID: LCS/LCSD.

Batch QC Results

MDL: — PQL: 1.0

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	<1.0	mg/L	BSG	1/11/94 10:00
LCS % Rec	98.8	% Rec		
LCSD % Rec	97.8	% Rec		
LCS/LCSD RPD	1.02	% RPD		
MS % Rec	84.0	% Rec		
MSD % Rec	81.0	% Rec		
MS/MSD RPD	3.64	% RPD		
REP RPD	1.02	% RPD		

Comments:

QC BATCH ID FOR WET CHEM - Test Code: Cl-IC	
PREPREP METHOD:	—
PREP METHOD:	—
ANALYSIS METHOD:	300.0
BATCH DATE:	1-10-94
INSTRUMENT ID:	A
SET (BATCH) #:	1

Work Orders/Fractions Associated With Batch

Lab Sample ID's

1 B312246-02C'
2 -03C'
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20

Batch QC ID's

LCS ID: LCS011094-1
LCSD ID: LCSD011094-1
MB ID: ICB 1/10/94
MS ID: B312246-04C' ms of 03C
MSD ID: " -05C' msd of 03C'
REP ID: LCS/LCSD

Batch QC Results

MDL: — PQL: 1.0 mg/L

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	<1.0	mg/L	BBG	1/10/94 10:00
LCS % Rec	103	% Rec		
LCSD % Rec	103	% Rec		
LCS/LCSD RPD	Ø	% RPD		
MS % Rec	93.3	% Rec		
MSD % Rec	89.3	% Rec		
MS/MSD RPD	4.38	% RPD		
REP RPD	Ø	% RPD		

Comments:

QC BATCH ID FOR WET CHEM - Test Code: TKN-N	
PREPREP METHOD:	
PREP METHOD:	
ANALYSIS METHOD:	351.2
BATCH DATE:	1-8-94
INSTRUMENT ID:	A
SET (BATCH) #:	1

Work Orders/Fractions Associated With Batch

Lab Sample ID's	
1	B312198-01C
2	02C
3	B312246-02C
4	03C
5	B312247-01B
6	B312276-03B
7	05B
8	B312327-01D
9	02D
10	03D
11	04D
12	05H
13	
14	
15	
16	
17	
18	
19	
20	

Batch QC ID's	
LCS ID:	ICV 010894-1
LCSD ID:	LCS 010894-1
MB ID:	MB 010894-1
MS ID:	B312246-04C
MSD ID:	B312246-05C
REP ID:	

Batch QC Results MDL: _____ PQL: 0.25

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	ND	mg/L	DSB	1/10/94 08:44
LCS % Rec	82.0	% Rec		
LCSD % Rec	97.2	% Rec		
LCS/LCSD RPD	—	% RPD		
MS % Rec	100 ~~98.4~~	% Rec		
MSD % Rec	102	% Rec		
MS/MSD RPD	1.98	% RPD		
REP RPD	—	% RPD		

Comments:

QC BATCH ID FOR WET CHEM - Test Code: TP	
PREPREP METHOD:	—
PREP METHOD:	—
ANALYSIS METHOD:	365.4
BATCH DATE:	1-8-94
INSTRUMENT ID:	A
SET (BATCH) #:	1

Work Orders/Fractions Associated With Batch

Lab Sample ID's

1 B312246-02C
2 " -03C
3 B312327-01D
4 " -02D
5 -03D
6 -04D
7 " -05H
8
9
10
11
12
13
14
15
16
17
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19
20

Batch QC ID's

LCS ID: LCS010894-1
LCSD ID: —
MB ID: PBW010894-1
MS ID: B312246-04C MS of 03C
MSD ID: -05C MSD of 03C
REP ID: —

Batch QC Results

MDL: ____ PQL: 0.10

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	<0.10	mg/L	DSB	1/10/94 10:40
LCS % Rec	107	% Rec	✓	✓
LCSD % Rec	—	% Rec	✓	✓
LCS/LCSD RPD	—	% RPD	✓	✓
MS % Rec	105	% Rec	✓	✓
MSD % Rec	104	% Rec	✓	✓
MS/MSD RPD	0.96	% RPD	✓	✓
REP RPD	—	% RPD	✓	✓

Comments:

QC BATCH ID FOR WET CHEM - Test Code: 310_1

PREPREP METHOD:

PREP METHOD:

ANALYSIS METHOD: 310_1

BATCH DATE: ~~12/28/93~~ 12/27/93

INSTRUMENT ID: A

SET (BATCH) #:

Work Orders/Fractions Associated With Batch

Lab Sample ID's	
1	B312246-02C
2	03C
3	Dupl of 04C
4	D3C D5C
5	B312263-01A
6	D2A
7	
8	
9	
10	
11	
12	
13	
14	SAT
15	
16	12/28
17	
18	
19	
20	

Batch QC ID's

LCS ID: ~~LCS122093-1~~ SAT LCS1227-93-1

LCSD ID: ~~LCSD122093~~ SAT LCSD122793-1

MB ID: MB 122793-1

MS ID: NA

MSD ID: NA

REP ID: B312246-04C
B312246-05C

Batch QC Results

MDL: _____ PQL: 1D

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	0	mg/L	SAT	12/27 12:00
LCS % Rec	90.4	% Rec		
LCSD % Rec	88.1	% Rec		
LCS/LCSD RPD	2.6	% RPD		
MS % Rec	NA	% Rec		
MSD % Rec		% Rec		
MS/MSD RPD		% RPD		
REP RPD	0/0.508	% RPD		

Comments:

44-8-85

QC BATCH ID FOR WET CHEM - Test Code: SiO2
PREPREP METHOD:
PREP METHOD:
ANALYSIS METHOD: SI D2
BATCH DATE: 12/29/93
INSTRUMENT ID: D
SET (BATCH) #: 2

Work Orders/Fractions Associated With Batch

Lab Sample ID's

1 B312176-02C
2 -03C
3 ~~-04C~~ SAT
4 B312246-02C
5 03C
6 04C
7 05C
8
9
10
11
12
13
14
15
16
17
18
19
20

Batch QC ID's

LCS ID: LCS 122993-2
LCSD ID: LCSD 122993-2
MB ID: MB 122993-2
MS ID: B312176-04C
MSD ID: B312176-05C
REP ID: LCSD 122993

Batch QC Results MDL:_____ PQL: 0.20 mg/L

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	0	mg/L	SA	12/29
LCS % Rec	90.0	% Rec		
LCSD % Rec	96.0	% Rec		
LCS/LCSD RPD	6.45	% RPD		
MS % Rec	90.0	% Rec		
MSD % Rec	104	% Rec		
MS/MSD RPD	12.2	% RPD		
REP RPD	6.45	% RPD		

Comments:

QC BATCH ID FOR WET CHEM - Test Code: COD
PREPREP METHOD:
PREP METHOD:
ANALYSIS METHOD: COD
BATCH DATE: 12/28/93
INSTRUMENT ID: A
SET (BATCH) #: 2D

Work Orders/Fractions Associated With Batch

Lab Sample ID's

1 B312246-02C
2 -03C
3
4
5
6
7
8
9
10
11
12 SAT
13
14 12/28
15
16
17
18
19
20

Batch QC ID's

LCS ID: LCS 122893-2
LCSD ID: LCSD 122893-2
MB ID: MB 122893-2
MS ID: B312246-04C
MSD ID: B312246-05C
REP ID: LCSD 122893-2

Batch QC Results

MDL: _____ PQL: 25 mg/L

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	0	mg/L	SAT	12/28 16:00
LCS % Rec	96.4	% Rec		
LCSD % Rec	106	% Rec		
LCS/LCSD RPD	9.49	% RPD		
MS % Rec	101	% Rec		
MSD % Rec	104	% Rec		
MS/MSD RPD	2.93	% RPD		
REP RPD	9.49	% RPD		

Comments:

ITAS - AUSTIN

Prep Code/Date: 3520 /
Test Code/Date: 5220 / 12-22-9
Set #: _____ Inst. ID: _____

Type	Lab Sample ID	Lab File ID	Performed (Y or N)
Blank	B312246-BLK		
Sample			
MS	B312246-4B	3MS	
MSD	-5B	3MSD	
LCS	-LCS		

This QA Spike Lot applies to the following Samples:

#	Client Sample ID	Lab Sample ID	Lab File ID
		B312246-2B	12/22 Set1
1		-3B	↓ ↓
2		B312245-8B	
3		B312266-12B	
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

Comments: _____

WATER SEMIVOLATILE BLANK SPIKE RECOVERY

Lab Name: ITAS - Austin CLIENT ID: QC BATCH ID

Sample Names: FG246BS FG246BLK Prep Code/Date: 3520 | 1/5/94

Date Ran: 1/6/94 1/6/94 Test Code/Date: 8270 | 1/5/94

Time Ran: 16.09 15.33 Set #: 1 Inst.ID: F

Matrix Spike - SAM Sample No. B312246BLK Matrix: WATER

(1000 ML TO 1 ML) 1.0 X DIL

COMPOUND NAME	SPIKE ADDED (ug/L)	BLANK CONC (ug/L)	BS CONC (ug/L)	BS % REC	#	QC LIMITS REC.	CLP LIMIT SPIKE	%RPD
PHENOL	100.00	0	39.74	40		14 - 99	12 - 110	42
2-CHLOROPHENOL	100.00	0	90.61	91		19 - 107	27 - 123	40
1,4-DICHLOROBENZENE	50.00	0	42.11	84		18 - 101	36 - 97	28
N-NITROSODI-N-PROPYLAMINE	50.00	0	52.38	105		32 - 108	41 - 116	38
1,2,4-TRICHLOROBENZENE	50.00	0	39.43	79		24 - 99	39 - 98	28
4-CHLORO-3-METHYLPHENOL	100.00	0	94.18	94		31 - 111	23 - 97	42
ACENAPHTHENE	50.00	0	51.81	104		33 - 110	46 - 118	31
4-NITROPHENOL	100.00	0	32.88	33		1 - 141	10 - 80	50
2,4-DINITROTOLUENE	50.00	0	47.10	94		35 - 106	24 - 96	38
PENTACHLOROPHENOL	100.00	0	88.54	89		1 - 147	9 - 103	50
PYRENE	50.00	0	58.79	118		42 - 119	26 - 127	51

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

* Values outside of QC limits.

Spike Recovery: 0 out of 22 outside limits.

SURROGATE RECOVERIES	FG246BS	FG246BLK	LIMITS
D5-NITROBENZENE	92	80	35 - 114
2-FLUOROBIPHENYL	83	75	43 - 116
D14-P-TERPHENYL	108	103	33 - 141
D5-PHENOL	40	32	10 - 94
2-FLUOROPHENOL	63	58	21 - 100
2,4,6-TRIBROMOPHENOL	103	82	10 - 123

FORM III SV-1

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY AND BLANK SPIKE RECOVERY

Lab Name: ITAS - Austin QC BATCH ID

Sample Names: FG24604 FG24605 Prep Code/Date: 3520 |1/5/94

Date Ran: 1/6/94 1/6/94 Test Code/Date: 8270 |1/5/94

Time Ran: 17.20 17.56 Set #: * Inst.ID: F

Matrix Spike - SAM Sample No. B3122460 Matrix: WATER

(450 ML TO 1 ML) 1.0 X DIL

COMPOUND NAME	SPIKE ADDED (ug/L)	SAMPLE CONC (ug/L)	MS CONC (ug/L)	MS % REC #	QC LIMITS REC.
PHENOL	222.22	.00	85.11	38	26 - 90
2-CHLOROPHENOL	222.22	.00	203.91	92	25 - 102
1,4-DICHLOROBENZENE	111.11	.00	94.07	85	28 - 104
N-NITROSODI-N-PROPYLAMINE	111.11	.00	114.47	103	41 - 126
1,2,4-TRICHLOROBENZENE	111.11	.00	88.78	80	38 - 107
4-CHLORO-3-METHYLPHENOL	222.22	.00	208.47	94	26 - 103
ACENAPHTHENE	111.11	.00	113.09	102	31 - 137
4-NITROPHENOL	222.22	.00	79.96	36	11 - 114
2,4-DINITROTOLUENE	111.11	.00	104.40	94 *	28 - 89
PENTACHLOROPHENOL	222.22	.00	199.69	90	17 - 109
PYRENE	111.11	.00	137.11	123	35 - 142

COMPOUND NAME	SPIKE ADDED (ug/L)	MSD CONC. (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
PHENOL	222.22	87.69	39	3	35	26 - 90
2-CHLOROPHENOL	222.22	199.04	90	2	50	25 - 102
1,4-DICHLOROBENZENE	111.11	101.18	91	7	27	28 - 104
N-NITROSODI-N-PROPYLAMINE	111.11	112.40	101	2	38	41 - 126
1,2,4-TRICHLOROBENZENE	111.11	93.47	84	5	23	38 - 107
4-CHLORO-3-METHYLPHENOL	222.22	215.93	97	4	33	26 - 103
ACENAPHTHENE	111.11	113.38	102	0	19	31 - 137
4-NITROPHENOL	222.22	82.49	37	3	50	11 - 114
2,4-DINITROTOLUENE	111.11	104.73	94 *	0	47	28 - 89
PENTACHLOROPHENOL	222.22	205.16	92	3	47	17 - 109
PYRENE	111.11	137.53	124	0	36	35 - 142

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

* Values outside of QC limits.

RPD: 0 out of 11 outside limits.

Spike Recovery: 2 out of 22 outside limits.

SURROGATE RECOVERIES	FG24604	FG24605	LIMITS
D5-NITROBENZENE	97	97	35 - 114
2-FLUOROBIPHENYL	82	84	43 - 116
D14-P-TERPHENYL	113	114	33 - 141
D5-PHENOL	40	40	10 - 94
2-FLUOROPHENOL	58	61	21 - 100
2,4,6-TRIBROMOPHENOL	90	92	10 - 123

QC BATCH ID FOR GFAA/CVAA - Test Code: As-GF
PREPREP METHOD:
PREP METHOD: 3020
ANALYSIS METHOD: 7060
BATCH DATE: 12-28-93
INSTRUMENT ID: D
SET (BATCH) #: 2

Work Orders/Fractions Associated With Batch

Lab Sample ID's

1	B312245-08B
2	B312246-02D
3	-03D
4	B312266-12B
5	
6	
7	
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19	
20	

Batch QC ID's

LCS ID:	LCS20 122893-2
LCSD ID:	LCSD20 122893-2
MB ID:	B320 122893-2
MS ID:	B312246-04D
MSD ID:	-05D
REP ID:	-03D DUP

Batch QC Results

MDL: 0.65 PQL: 0.010

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	<0.010		BG	1-7-94 11:33
LCS % Rec	107	% Rec		
LCSD % Rec	99	% Rec		
LCS/LCSD RPD	7.8	% RPD		
MS % Rec	109	% Rec		
MSD % Rec	108	% Rec		
MS/MSD RPD	0.92	% RPD		
REP RPD	0	% RPD		

Comments:

QC BATCH ID FOR WET CHEM - Test Code: CR_VI

PREPREP METHOD:
PREP METHOD:
ANALYSIS METHOD: CR_VI
BATCH DATE: 12/18/93
INSTRUMENT ID: A
SET (BATCH) #: 1

Work Orders/Fractions Associated With Batch

Lab Sample ID's	
1	B312246-02C
2	-03C
3	
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16	
17	
18	
19	
20	

Batch QC ID's	
LCS ID:	LCS 121893-1
LCSD ID:	LCSD 121893-1
MB ID:	MB 121893-1
MS ID:	B312246-04C
MSD ID:	B312246-05C
REP ID:	LCSD 121893

Batch QC Results MDL: _____ PQL: 0.010

Sample ID	Result	Units	Analyst	Date/Time
Method Blk	0	mg/L	SAE	12/18 09:00
LCS % Rec	98.0	% Rec		
LCSD % Rec	~~98~~ ~~100.2~~	% Rec		
LCS/LCSD RPD	0 ~~2.22~~	% RPD		
MS % Rec	~~104.2~~	% Rec		
MSD % Rec	~~100.98~~	% Rec		
MS/MSD RPD	4.0 ~~3.91~~	% RPD		
REP RPD	2.02	% RPD		

Comments:

44-8-85

APPENDIX E
SITE SURVEY REPORT

Phone: (405) 843-4847
WATS: (800) 864-3219
FAX: (405) 843-0975

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

Surveying and Mapping for Oklahoma's Energy Industry

6709 N. Classen Blvd. Oklahoma City, Oklahoma 73116

International Technology Corporation
Attn.: Joe Pacelli
312 Directors Drive
Knoxville, Tn 37923
Reference: IT Subcontract No. **547295**
IDO-5001
Bid 93116
(*Survey Contract*)
4.4 Documentation of Surveying Activities

Survey Contractor:

Topographic Land Surveyors of Oklahoma
6709 N. Classen Blvd.
Oklahoma City, Oklahoma 73116
Edward D. (Deral) Paulk, PLS
President
Harry McClintick, PLS
Party Chief
(405) 843-4847

Instrumentation:

Work done was completed with a Topcon/Sokkisha Model C3E. Last calibration by the factory was done 10/10/1993 and was checked daily by standard survey methods to determine that the tolerance was within factory limits. The unique serial number for the instrument is # 153047. The data collector was a Hewlett-Packard 48SX using the TDS Survey card.

Methods:

Standard mil-spec survey methods were employed during the survey and included.
Double sets of repetitive angles, both in horizontal and vertical.
Distance in Meters and Feet for double redundancy.

Control Points:

All control points used were set by the Corps of Engineers and the coordinates were supplied to us in NAD-83 Meters, Oklahoma North Zone (3501) based upon the Lambert projection. Typical numbers were;

BM SE (secondary control points)
BM PR (Primary control points)

These points were established by Trimble 4000SE GPS receivers and are capable of obtaining accuracy in the centimeter range. During our survey we confirmed this accuracy and due to the nature of GPS usage, we did not balance our traverse of the monumentation. See explanation beginning on page three, this document.

Tabulation of Vertical and Horizontal Coordinates:

In sheet form broken into per site information in three formats.
NAD-83 Meters
NAD-27 Feet
NAD-83 Feet

Field Notes, Calculations and Reduction Techniques:

All field work was performed using Total Station and no reduction was necessary. Grid and Sea level factors used in the calculations are attached as part of this report. No paper field notes were kept, except diagrams explaining shot points. These are included as drawings and are part of the digital information supplied.
Actual closure of each particular site is disclosed within this document beginning on page 4.

This survey is true and accurate based upon monumentation supplied by Tinker Air Force Base.

Edward D. Paulk, PLS #1279
Topographic Land Surveyors of Oklahoma
6709 N. Classen Blvd.
Oklahoma City, Oklahoma 73116

REGISTERED LAND SURVEYOR
Edward Deral Paulk, Jr.
L. S. 1279
OKLAHOMA

USAGE OF GPS MONUMENTATION

Qualifications:
We are a Trimble Navigation dealer for the Midwest and have had crews surveying using GPS for over two years. Edward D. Paulk, has attended training and seminars continually to maintain a level of experience and technical knowledge of GPS that exceeds specs of GPS surveys.

During the course of our preliminary survey, we had closures that exceeded specs and we were forced to continue surveys back to our point of beginning to check our accuracy. We continually proved our surveys by closures exceeding 1 in 10,000, but we could not achieve this using the provided GPS monumentation and closing on a third monument.

We contacted the base mapping department and learned that the monuments were set using 4000SE receivers (GPS) by the Corps of Engineers. The 4000SE is capable of accuracy on any point of +/- 1-3 Centimeters. After this determination, we were well within specs of their given coordinates.

Their survey closure was probably quite good given the distances that they monumented, however when you use relatively close monuments as our survey dictated and very few traverse points, the error looks poor. Had we shot a mile away, then back to add some footage to our survey, the closure would have been much better. Since this technique is only used to comply with a pure mathematical closure, not a better survey, and would not actually improve positional accuracy, we did not do this.

Site by Site Report

File HM-A
HCL Tank
4 Soil Borings
IT Drawing #409832 Fig. 5.5
Horizontal and Vertical Control was establish for (4) four Soil Borings.
BM SE-33, SE-05 and PR-07 were used for control.

Upon first completion of traverse, we closed on PR-07 with 3.041' of error, but our vertical was with 0.05'. We made a closure back to SE-05 and closed within 0.4'. This site had the only apparent large discrepancy in their control. Since SE-33 and SE-05 agreed within limits we used these to determine closure.

Horizontal Accuracy 1 in 10,000
Vertical Accuracy 1 in 95,800

File HM-B
SPILL POND
2 Soil Borings
IT Drawing #409832 Fig. 5.6
Horizontal and Vertical Control was establish for (2) Soil Borings.
BM SE-33, SE-37 and SE-42 were used for control.

Horizontal Accuracy 1 in 5902
Vertical Accuracy 1 in 12,000

We closed back upon our first monument horizontally 1 in 25,000 as a check.

File HM-C
Sludge Drying Beds and Old Pesticide Area
13 Soil Borings
6 Monitor Wells
7 SG Points
IT Drawing # 409832 Fig. 5.3 and 5.7
Horizontal and Vertical Control was established for (13) Soil Borings, (6) Six Monitor wells and (7) SG Points.
BM SE-41, SE-45 and SE-47 were used for control.
Horizontal Accuracy 1 in 8725
Vertical Accuracy 1 in 390,000

We closed back upon BM SE-45 as a check and closed 1 in 14,000 Horizontally.

FileHM-D
Fuel Truck
(8) Soil Borings
(3) Monitor Wells
(3) SG Points
IT Drawing #409832 Fig. 5.4
Horizontal and Vertical Control was established for (8) Soil Borings, (3) Monitor wells and (3) SG Points.
BM PR-02, SE-16 and PR-03 were used for control.

Horizontal Accuracy 1 in 22,586
Vertical Accuracy 1 in 20,000

File HM-E
Ordnance Disposal Area
(5) Soil Borings
(4) Corners of area as per staked and Dan McGregor's instructions.
IT Drawing #409832 Fig. 5.1
Horizontal and Vertical Control was established for (5) Soil Borings, (4) Corners of area.
BM SE-19, PR-02 and SE-016 were used for control.

Horizontal Accuracy 1 in 10,000
Vertical Accuracy 1 in 20,000

File HM-F
Fire Training Area 2
(8) Monitor Wells
IT Drawing #409832 Fig. 5.8
Horizontal and Vertical Control was established for (8) Monitor Wells.
BM SE-37, SE-33 and BM32 were used for control.

Horizontal Accuracy 1 in 34,800
Vertical Accuracy 1 in 95,000

File HM-G
AFFF Fire Control Pond
(4) Soil Borings
IT Drawing #409832 Fig. 5.2
Horizontal and Vertical Control was established for (4) Soil Borings.
BM SE-31, SE-22 and PR-01 were used for control.

Horizontal Accuracy 1 in 6500
Vertical Accuracy 1 in 58,000

Shots Typical

Soil Borings- One X,Y,Z placed center of drill hole, typically on top of concrete fill-in area.
(36) Total Soil Borings

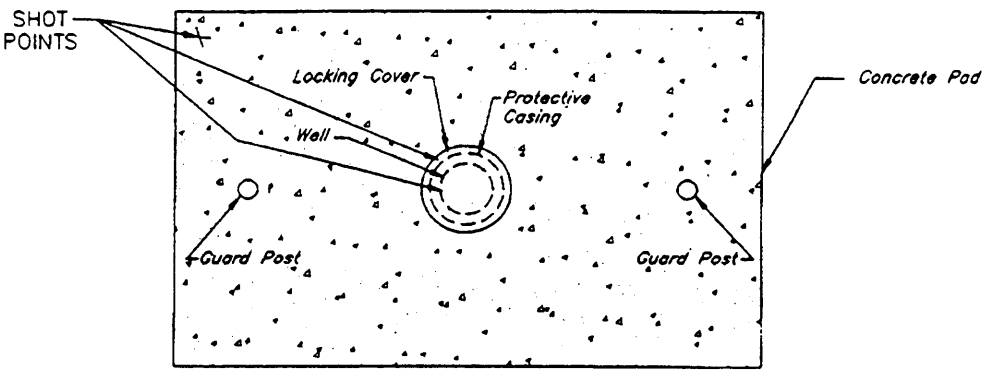
Monitor Well- (*Flush mount*) Three X,Y,Z,s were placed upon each well.
1: NW Corner of concrete pad.
2: Top of retaining casing, where well number was stamped into a milled area.
3: Top of well, under seal, (X,Y determined for center, and Z determined at north lip of well.

(*Tower Mount*) Three X,Y,Z,s were placed upon each well.
1: NW Corner of concrete pad.
2: Top of square guard, center
3: Screw cap removed, X and Y in Center and Z on the North lip of well.
(17) Total Monitoring wells. 51 points.

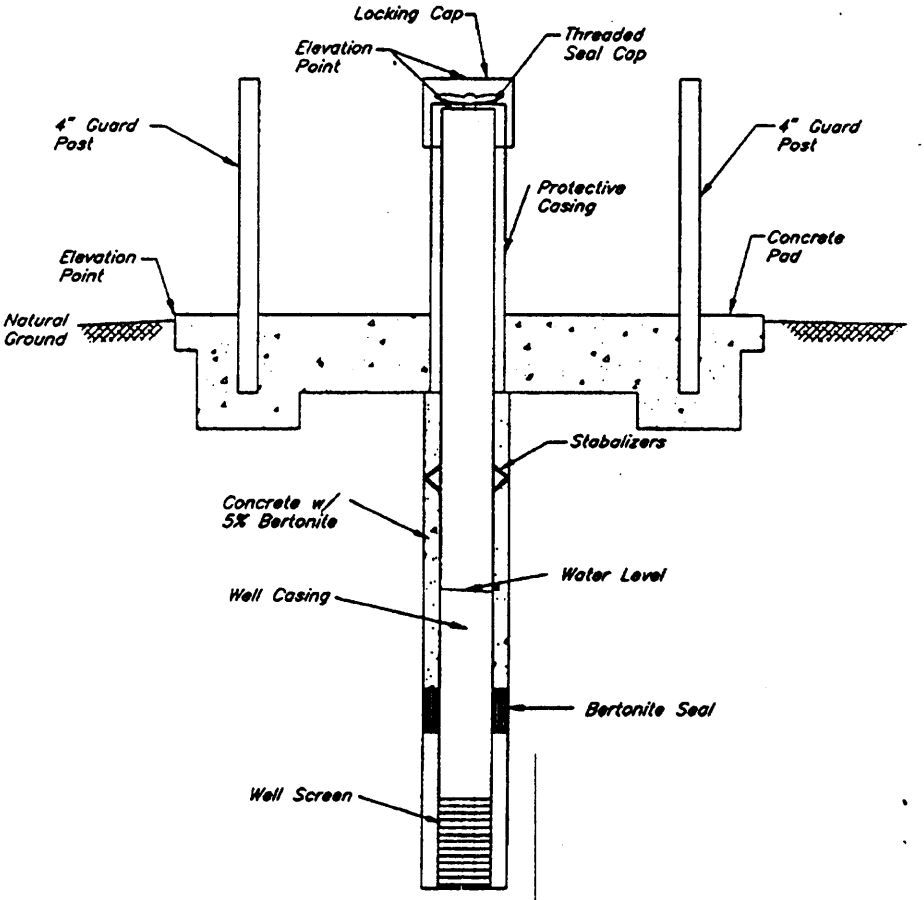
In addition; we determined X,Y and Z for a number of SG points. These were determined at center of dig point.

In addition; we determined X,Y and Z for four corners of an area in the **Ordnance Disposal area** as per Dan McGregor's instructions. These points were stakes set by previous contractor.

Included in this report are two drawings showing typical well layouts.
Drawing Flush.Dwg
Tower.Dwg



TOP VIEW



SIDE VIEW

NO.	REVISION	DATE	BY

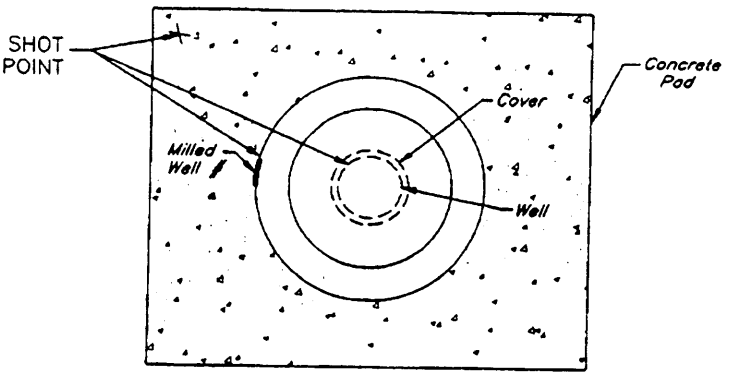
TYPICAL STICK-UP MONITORING WELLS

TOPOGRAPHIC LAND SURVEYORS
OKLAHOMA CITY, OKLAHOMA

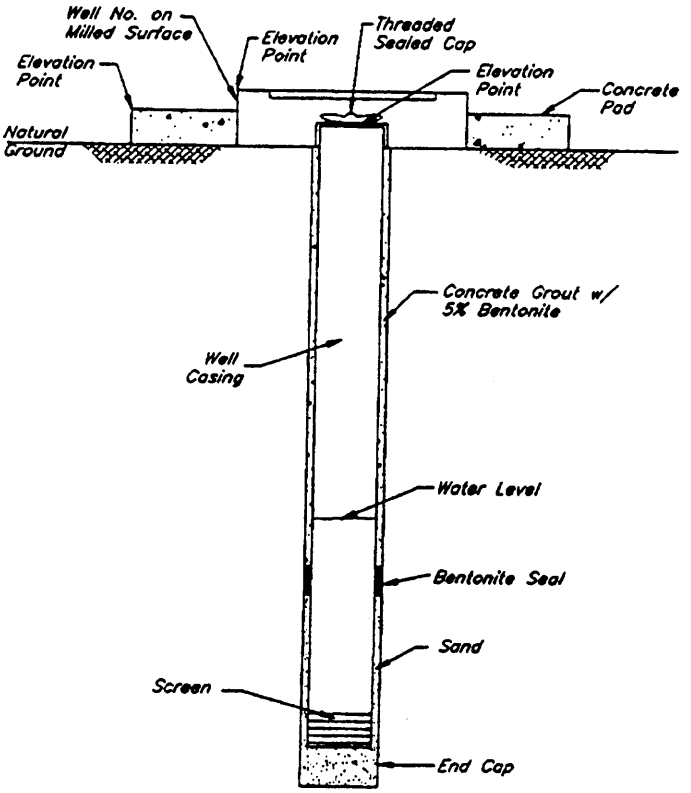
DATE: 1-19-94

DRAWING: STICK-UP.DWG

SHEET OF



TOP VIEW



SIDE VIEW

NO.	REVISION	DATE	BY

TYPICAL FLUSH MOUNT MONITORING WELLS

TOPOGRAPHIC LAND SURVEYORS
OKLAHOMA CITY, OKLAHOMA

DATE: 1-18-94

DRAWING: FLUSH.DWG

SHEET OF

Tinker AFB		**Factors**	
		Factors.txt	
Calculations for Grid Distance			
Formula Used	1-(1250)/(20,906,000)	0.9999402086	Elevation Factor
Elevation average is 1250			
Grid Factor from USGS Tables			
Average Latitude is 35-25		1.0000306000	Grid Factor
Combination Factor is multiple of these		0.9999708067	Combo Factor

Diskette Files

Disk Labeled *IDO-5001*
#547295
Text Files and Final Reports

FILE NAME	DESCRIPTION
Report.WPS	Microsoft Works file of final report
Report.TXT	ASCII file of final report.
Finals.WB1	Quattro Pro for Windows data base All areas, control and Factors NAD-83, NAD-27
Finals.WK3	1-2-3 V.3.x database All areas, control and Factors
Hcl.TXT	ASCII of HCL Area
Spill.TXT	ASCII of Spill Pond
Sludge.TXT	ASCII of Sludge and Pesticide
Fuel.TXT	ASCII of Fuel Truck
Ordance.TXT	ASCII of Ordnance area
Fire.TXT	ASCII of Fire Training
FireC.TXT	ASCII of Fire Control
NAD83.TXT	ASCII of X,Y,Z and Description
NAD27.TXT	ASCII of X,Y,Z and Description
Control.TXT	ASCII of X,Y,Z and Description of control monuments.
Factor.TXT	ASCII of grid/elevation factors used in calculations.

Nad 83 Datum

Format given was in meters

State Plane Lambert Coordinate System

Conversion used was [redacted]

Oklahoma North Zone

Meters X 3.280833337

Values in Feet [redacted]

Nad 1927

Control Coordinates from GPS

	GPS	[redacted]		Meters		[redacted]		Feet	
	Marker	Meters	Feet	Northing	Easting	[redacted]	Easting	Northing	Easting
Fire Training Center	SE24	385.017	1,263.16	45950.816	655952.839	[redacted]	2152071.943	150730.564	2183669.404
	SE28	377.809	1,239.53	45604.798	655531.584	[redacted]	2150689.874	149595.353	2182287.332
	SE32	386.662	1,248.69	45431.969	655045.990	[redacted]	2149096.721	149028.353	2180694.179
	SE43	378.071	1,240.39	46303.717	654817.311	[redacted]	2148346.462	151888.413	2179943.944
Bldg 1030 Spill Pond	SE37	377.952	1,240.00	45788.902	654625.746	[redacted]	2147717.970	150199.400	2179315.440
	SE42	374.688	1,229.29	46296.627	654526.676	[redacted]	2147392.938	151865.163	2178990.423
Bldg 976-AFFF	SE22	384.243	1,267.20	44861.607	655589.130	[redacted]	2150878.873	147157.075	2182476.110
	SE31	388.877	1,273.22	44877.485	654833.045	[redacted]	2148398.085	147209.198	2179995.530
	PR01	392.724	1,268.46	44381.814	655603.420	[redacted]	2150925.555	145582.956	2182522.978
Sludge Drying Beds	SE45	374.749	1,229.49	46693.176	654086.696	[redacted]	2145949.437	153166.188	2177546.973
	SE47	372.466	1,222.00	47117.173	654049.981	[redacted]	2145828.983	154557.245	2177426.496
	SE41	371.582	1,219.10	46360.622	653942.053	[redacted]	2145474.889	152075.142	2177072.383
HCL Tank	SE05	387.294	1,270.65	46999.293	656307.763	[redacted]	2153236.387	154170.415	2184833.870
	SE08	395.886	1,298.84	46012.200	656807.677	[redacted]	2154976.523	150931.917	2186473.977
	PR07	387.441	1,271.13	47640.475	656374.729	[redacted]	2153456.092	156274.017	2185053.591
Ordinance Disposal	SE16	395.670	1,298.13	44935.219	656910.278	[redacted]	2155213.140	147398.529	2186810.565
	PR02	397.412	1,303.84	44519.766	656757.523	[redacted]	2154711.975	146035.506	2186309.389
	SE15	395.393	1,297.22	44874.549	656322.201	[redacted]	2153283.757	147199.504	2184881.187
Fuel Truck Maint.	SE10	391.854	1,285.61	45464.255	656655.015	[redacted]	2154375.662	149134.216	2185973.103
	PR03	398.292	1,306.73	45229.480	657014.725	[redacted]	2155555.811	148363.948	2187153.241
Others	SE03	386.877	1,269.28	47481.646	656307.338	[redacted]	2153234.994	155752.933	2184832.489
	SE19	386.425	1,267.80	44134.062	656649.276	[redacted]	2154356.837	144770.084	2185954.242
	SE33	384.161	1,260.37	45572.014	654847.132	[redacted]	2148444.301	149487.824	2180041.762
	SE38	384.347	1,260.98	45560.105	653975.745	[redacted]	2145585.425	149448.783	2177182.896
	[redacted]	382.527	1,255.01	45726.546	654009.317	[redacted]	2145695.571	149994.849	2177293.048

Tinker AFB		
Calculations for Grid Distance		
Formula Used	1-(1250)/(20,906,000)	0.9999402086 Elevation Factor
Elevation average is 1250		
Grid Factor from USGS Tables		
Average Latitude is 35-25		1.0000306000 Grid Factor
Combination Factor is multiple of these		0.9999708067 Combo Factor

Topographic	HM-A File	HCL Tank									
	NAD-83 Feet				NAD-83 Meters				NAD-27		
Description	Northing	Easting	Elevation		Northing	Easting	Elevation		Northing	Easting	Elevation
SB-045	153284.190	2153636.064	1275.110		46721.114	656,429.578	388.654		153257.757	2,185,233.520	1275.110
SB-044	153838.492	2153621.494	1275.980		46890.066	656,425.137	388.919		153812.059	2,185,218.954	1275.980
SB-042	154150.008	2153620.517	1276.230		46985.016	656,424.839	388.996		154123.573	2,185,217.979	1276.230
SB-043	154445.476	2153604.478	1275.830		47075.075	656,419.950	388.874		154419.041	2,185,201.941	1275.830
					Conversion Factor				NAD-27 Derived with		
					Meters X 3.28083337				Corpscon Program		
					3.28083337						

Topographic	*HM-B File*	Spill Pond								
	NAD-83 Feet			NAD-83 Meters				NAD-27		
Description	Northing	Easting	Elevation	Northing	Easting	Elevation		Northing	Easting	Elevation
SB-019	150763.571	2148028.472	1227.435	45952.828	654,720.380	374.123		150737.212	2,179,625.925	1227.435
SB-020	150782.180	2148011.904	1226.202	45958.500	654,715.330	373.747		150755.821	2,179,609.357	1226.202
				Conversion Factor				NAD-27 Derived with		
				Meters X 3.28083337				Corpscon Program		
				3.28083337						

Topographic	HM-C	Sludge and Pesticide		Conversion	3.28083337				
	NAD-83 Feet			NAD-83 Meters			NAD-27		
Description	Northing	Easting	Elevation	Northing	Easting	Elevation	Northing	Easting	Elevation
SB-029	153312.251	2145687.276	1226.929	46729.667	654006.782	373.969	153285.911	2177284.758	1226.929
SB-030	153346.842	2145683.882	1225.960	46740.210	654005.748	373.673	153320.501	2177281.365	1225.960
SB-031	153365.289	2145684.283	1226.145	46745.833	654005.870	373.730	153338.949	2177281.766	1226.145
SB-032	153366.845	2145704.893	1226.026	46746.307	654012.152	373.693	153340.504	2177302.376	1226.026
SB-033	153369.982	2145725.373	1226.205	46747.263	654018.394	373.748	153343.640	2177322.855	1226.205
SB-034	153367.428	2145750.652	1225.884	46746.485	654026.099	373.650	153341.088	2177348.133	1225.884
NWCorPad	153327.504	2145660.862	1227.987	46734.316	653998.731	374.291	153301.164	2177258.344	1227.987
BrassTag	153325.646	2145662.395	1228.252	46733.750	653999.199	374.372	153299.307	2177259.879	1228.252
MW2-67A	153325.656	2145662.944	1227.880	46733.753	653999.366	374.259	153299.317	2177260.427	1227.880
NWCorPad	153334.792	2145660.365	1227.942	46736.538	653998.580	374.277	153308.454	2177257.848	1227.942
BrassTag	153332.586	2145662.743	1228.136	46735.865	653999.305	374.337	153306.246	2177260.227	1228.136
MW2-67B	153333.109	2145662.460	1227.749	46736.025	653999.218	374.219	153306.771	2177259.941	1227.749
SG-021	153294.259	2145661.494	1227.875	46724.183	653998.924	374.257	153267.920	2177258.977	1227.875
SG-027	153504.913	2145656.153	1227.450	46788.391	653997.296	374.128	153478.575	2177253.637	1227.450
NWCorPad	153485.156	2145668.540	1227.773	46782.369	654001.072	374.226	153458.818	2177266.025	1227.773
BrassTag	153482.661	2145670.729	1227.992	46781.608	654001.739	374.293	153456.321	2177268.214	1227.992
MW2-68A	153483.317	2145670.331	1227.639	46781.808	654001.618	374.185	153456.977	2177267.817	1227.639
NWCorPad	153498.329	2145667.974	1227.737	46786.384	654000.899	374.215	153471.990	2177265.458	1227.737
BrassTag	153497.345	2145669.894	1227.801	46786.084	654001.484	374.234	153471.006	2177267.377	1227.801
MW2-68B	153496.783	2145670.021	1227.501	46785.913	654001.523	374.143	153470.445	2177267.505	1227.501
SB-035	153513.044	2145686.160	1225.832	46790.869	654006.442	373.634	153486.704	2177283.644	1225.832
SB-041	153461.953	2145572.501	1226.184	46775.296	653971.799	373.742	153435.613	2177169.986	1226.184
SG-045	153403.851	2145548.281	1227.352	46757.587	653964.417	374.098	153377.514	2177145.766	1227.352
SG-043	153478.151	2145547.779	1227.388	46780.233	653964.264	374.109	153451.811	2177145.265	1227.388
SB-039	153436.514	2145600.936	1225.186	46767.542	653980.466	373.437	153410.174	2177198.420	1225.186
SB-040	153422.287	2145576.593	1225.367	46763.206	653973.046	373.493	153395.948	2177174.077	1225.367
SB-036	153520.297	2145709.088	1225.408	46793.080	654013.431	373.505	153493.958	2177306.573	1225.408
SB-037	153515.849	2145723.059	1225.822	46791.724	654017.689	373.631	153489.509	2177320.543	1225.822
SB-038	153515.734	2145749.026	1225.397	46791.689	654025.604	373.502	153489.394	2177346.511	1225.397
SG-030	153587.989	2145651.621	1228.246	46813.712	653995.915	374.370	153561.649	2177249.107	1228.246
SG-034	153561.346	2145780.604	1228.528	46805.591	654035.229	374.456	153535.004	2177378.089	1228.528
SG-035	153529.622	2145780.692	1228.755	46795.922	654035.256	374.525	153503.281	2177378.177	1228.755
NWCorPad	153503.822	2145892.455	1228.566	46788.058	654069.321	374.468	153477.479	2177489.938	1228.566
BrassTag	153501.522	2145894.847	1228.786	46787.357	654070.050	374.535	153475.180	2177492.330	1228.786
MW2-66B	153501.835	2145894.243	1228.424	46787.452	654069.866	374.424	153475.491	2177491.726	1228.424
NWCorPad	153512.675	2145892.637	1228.458	46790.756	654069.377	374.435	153486.331	2177490.122	1228.458
BrassTag	153511.424	2145894.290	1228.601	46790.375	654069.880	374.478	153485.081	2177491.772	1228.601
MW2-66A	153510.700	2145894.300	1228.209	46790.154	654069.883	374.359	153484.356	2177491.782	1228.209

Topographic	HM-D	Fuel Truck								
	NAD-83 Feet				NAD-83 Meters			NAD-27		
Description	Northing	Easting	Elevation		Northing	Easting	Elevation	Northing	Easting	Elevation
NWCorPad	148775.507	2155282.108	1295.444		45346.865	656931.293	394.852	148749.069	2186879.522	1295.444
TopCap	148773.603	2155283.795	1298.011		45346.284	656931.807	395.635	148747.163	2186881.208	1298.011
MW2-59	148773.597	2155283.829	1297.780		45346.283	656931.818	395.564	148747.160	2186881.244	1297.780
NWCorPad	148680.914	2155133.601	1295.503		45318.033	656886.028	394.870	148654.478	2186731.015	1295.503
TopCap	148679.362	2155135.280	1297.910		45317.560	656886.540	395.604	148652.926	2186732.695	1297.910
MW2-61	148679.399	2155135.301	1297.669		45317.571	656886.546	395.530	148652.962	2186732.714	1297.669
SG-011	148684.532	2155080.720	1293.606		45319.135	656869.910	394.292	148658.094	2186678.134	1293.606
SG-007	148683.636	2155169.969	1294.398		45318.862	656897.113	394.533	148657.198	2186767.383	1294.398
SB-028	148708.492	2155153.422	1295.649		45326.439	656892.069	394.915	148682.056	2186750.834	1295.649
SB-026	148715.397	2155133.878	1295.280		45328.543	656886.112	394.802	148688.959	2186731.291	1295.280
SB-025	148744.572	2155125.634	1295.337		45337.436	656883.600	394.820	148718.136	2186723.049	1295.337
SB-024	148770.840	2155121.237	1295.452		45345.442	656882.259	394.855	148744.402	2186718.650	1295.452
SB-023	148773.587	2155152.471	1295.640		45346.273	656891.780	394.912	148747.128	2186749.887	1295.640
SG-003	148792.311	2155168.857	1295.340		45351.987	656896.774	394.820	148765.875	2186766.271	1295.340
SB-021	148790.269	2155106.589	1295.427		45351.364	656877.795	394.847	148763.832	2186704.005	1295.427
SB-022	148767.379	2155095.618	1295.804		45344.387	656874.451	394.962	148740.941	2186693.033	1295.804
SB-027	148708.128	2155095.209	1295.822		45326.328	656874.326	394.967	148681.693	2186692.623	1295.822
NWCorPad	148744.809	2155092.856	1295.791		45337.508	656873.609	394.958	148718.373	2186690.271	1295.791
Brasstag	148743.943	2155093.661	1295.890		45337.244	656873.854	394.988	148717.506	2186691.074	1295.890
MW2-60	148743.299	2155093.599	1295.587		45337.048	656873.835	394.896	148716.863	2186691.012	1295.587
		Conversion	3.28083337							
		Factor								

Topographic									
Topographic	*HM-E File*	Ordnance							
	NAD-83 Feet			NAD-83 Meters			NAD-27		
Description	Northing	Easting	Elevation	Northing	Easting	Elevation	Northing	Easting	Elevation
SB-014	146445.086	2154383.435	1311.061	44636.551	656657.377	399.612	146418.665	2185980.834	1311.061
SB-013	146413.073	2154355.429	1310.171	44626.793	656648.841	399.341	146386.651	2185952.828	1310.171
SB-011	146447.893	2154329.998	1310.433	44637.407	656641.089	399.421	146421.474	2185927.396	1310.433
SB-012	146465.811	2154321.959	1310.473	44642.868	656638.639	399.433	146439.390	2185919.358	1310.473
SB-010	146542.271	2154343.810	1311.318	44666.173	656645.299	399.691	146515.850	2185941.209	1311.318
NWCorSite	146721.400	2154322.520	1309.813	44720.772	656638.810	399.232	146694.980	2185919.921	1309.813
SWCorSite	146451.388	2154188.076	1308.511	44638.472	656597.831	398.835	146424.969	2185785.474	1308.511
SECorSite	146305.859	2154478.943	1308.422	44594.115	656686.488	398.808	146279.439	2186076.341	1308.422
NECorSite	146573.205	2154611.871	1306.203	44675.602	656727.004	398.131	146546.781	2186209.268	1306.203
		Conversion Factor	3.28083337						

Topographic	HM-F	Fire Training							
	NAD-83 Feet			NAD-83 Meters			NAD-27		
Description	Northing	Easting	Elevation	Northing	Easting	Elevation	Northing	Easting	Elevation
NWCorPad	150499.212	2150362.314	1246.117	45872.251	655431.737	379.817	150472.826	2181959.759	1246.117
Brasstag	150496.710	2150361.243	1246.334	45871.488	655431.410	379.883	150470.323	2181958.686	1246.334
MW2-64A	150496.592	2150361.920	1246.052	45871.452	655431.617	379.797	150470.205	2181959.365	1246.052
NWCorPad	150496.378	2150370.497	1245.748	45871.387	655434.231	379.705	150469.991	2181967.941	1245.748
BrassTag	150494.048	2150369.766	1245.897	45870.677	655434.008	379.750	150467.662	2181967.209	1245.897
MW2-64B	150493.787	2150370.314	1245.586	45870.598	655434.175	379.655	150467.403	2181967.757	1245.586
NWCORPAD	150413.765	2150435.848	1243.361	45846.207	655454.150	378.977	150387.380	2182033.291	1243.361
BRASSTAG	150412.971	2150437.446	1243.561	45845.965	655454.637	379.038	150386.585	2182034.889	1243.561
MW2-63B	150412.498	2150437.914	1243.284	45845.821	655454.780	378.954	150386.113	2182035.358	1243.284
NWCORPAD	150417.479	2150443.373	1243.630	45847.339	655456.444	379.059	150391.093	2182040.817	1243.630
BRASSTAG	150416.999	2150445.608	1243.790	45847.192	655457.125	379.108	150390.611	2182043.052	1243.790
MW2-63A	150416.351	2150445.576	1243.387	45846.995	655457.115	378.985	150389.964	2182043.019	1243.387
NWCORPAD	150472.247	2150540.674	1246.052	45864.032	655486.101	379.797	150445.859	2182138.117	1246.052
BRASSTAG	150471.088	2150542.460	1246.266	45863.679	655486.645	379.863	150444.701	2182139.902	1246.266
MW2-62B	150470.906	2150543.115	1245.940	45863.623	655486.845	379.763	150444.517	2182140.558	1245.940
NWCORPAD	150475.671	2150552.586	1246.409	45865.076	655489.732	379.906	150449.284	2182150.03	1246.409
BRASSTAG	150474.251	2150554.084	1246.531	45864.643	655490.188	379.943	150447.863	2182151.526	1246.531
MW2-62A	150474.276	2150554.721	1246.213	45864.651	655490.383	379.846	150447.890	2182152.166	1246.213
NWCORPAD	150726.091	2150590.145	1251.120	45941.404	655501.180	381.342	150699.702	2182187.591	1251.120
BRASSTAG	150724.666	2150593.078	1251.270	45940.970	655502.074	381.388	150698.278	2182190.524	1251.270
MW2-65A	150724.671	2150592.440	1250.976	45940.971	655501.879	381.298	150698.281	2182189.884	1250.976
NWCORPAD	150740.546	2150583.419	1250.939	45945.810	655499.130	381.287	150714.157	2182180.865	1250.939
BRASSTAG	150739.181	2150585.126	1251.089	45945.394	655499.650	381.333	150712.792	2182182.571	1251.089
MW2-65B	150739.263	2150585.757	1250.812	45945.419	655499.842	381.248	150712.875	2182183.201	1250.812
		Conversion Factor	3.28083337						

Topographic	HMA-G File	Fire Control								
	NAD-83 Feet			NAD-83 Meters				NAD-27		
Description	Northing	Easting	Elevation	Northing	Easting	Elevation		Northing	Easting	Elevation
SB-018	147211.133	2150886.702	1268.631	44870.043	655,591.571	386.679		147184.752	2,182,484.119	1268.631
SB-017	147032.432	2150889.734	1270.361	44815.574	655,592.495	387.207		147006.049	2,182,487.149	1270.361
SB-016	146809.976	2150890.028	1273.784	44747.770	655,592.584	388.250		146783.596	2,182,487.440	1273.784
SB-015	146611.995	2150890.336	1275.957	44687.425	655,592.678	388.912		146585.615	2,182,487.746	1275.957
				Conversion Factor				NAD-27 Derived		
				Meters X 3.28083337				Corpscon Prog		
				3.28083337						

Coordinates in NAD 27 (Feet)

SB-045	153257.757	2185233.520	1275.110
SB-044	153812.059	2185218.954	1275.980
SB-042	154123.573	2185217.979	1276.230
SB-043	154419.041	2185201.941	1275.830
SB-019	150737.212	2179625.925	1227.435
SB-020	150755.821	2179609.357	1226.202
SB-029	153285.911	2177284.758	1226.929
SB-030	153320.501	2177281.365	1225.960
SB-031	153338.949	2177281.766	1226.145
SB-032	153340.504	2177302.376	1226.026
SB-033	153343.640	2177322.855	1226.205
SB-034	153341.088	2177348.133	1225.884
NWCorPad	153301.164	2177258.344	1227.987
BrassTag	153299.307	2177259.879	1228.252
MW2-67A	153299.317	2177260.427	1227.880
NWCorPad	153308.454	2177257.848	1227.942
BrassTag	153306.246	2177260.227	1228.136
MW2-67B	153306.771	2177259.941	1227.749
SG-021	153267.920	2177258.977	1227.875
SG-027	153478.575	2177253.637	1227.450
NWCorPad	153458.818	2177266.025	1227.773
BrassTag	153456.321	2177268.214	1227.992
MW2-68A	153456.977	2177267.817	1227.639
NWCorPad	153471.990	2177265.458	1227.737
BrassTag	153471.006	2177267.377	1227.801
MW2-68B	153470.445	2177267.505	1227.501
SB-035	153486.704	2177283.644	1225.832
SB-041	153435.613	2177169.986	1226.184
SG-045	153377.514	2177145.766	1227.352
SG-043	153451.811	2177145.265	1227.388
SB-039	153410.174	2177198.420	1225.186
SB-040	153395.948	2177174.077	1225.367
SB-036	153493.958	2177306.573	1225.408
SB-037	153489.509	2177320.543	1225.822
SB-038	153489.394	2177346.511	1225.397
SG-030	153561.649	2177249.107	1228.246
SG-034	153535.004	2177378.089	1228.528
SG-035	153503.281	2177378.177	1228.755
NWCorPad	153477.479	2177489.938	1228.566
BrassTag	153475.180	2177492.330	1228.786
MW2-66B	153475.491	2177491.726	1228.424
NWCorPad	153486.331	2177490.122	1228.458
BrassTag	153485.081	2177491.772	1228.601
MW2-66A	153484.356	2177491.782	1228.209
NWCorPad	148749.069	2186879.522	1295.444
TopCap	148747.163	2186881.208	1298.011
MW2-59	148747.160	2186881.244	1297.760
NWCorPad	148654.478	2186731.015	1295.503
TopCap	148652.926	2186732.695	1297.910
MW2-61	148652.962	2186732.714	1297.669
SG-011	148658.094	2186678.134	1293.606
SG-007	148657.198	2186767.383	1294.398
SB-028	148682.056	2186750.834	1295.649
SB-026	148688.959	2186731.291	1295.280
SB-025	148718.136	2186723.049	1295.337
SB-024	148744.402	2186718.650	1295.452
SB-023	148747.128	2186749.887	1295.640
SG-003	148765.875	2186766.271	1295.340
SB-021	148763.832	2186704.005	1295.427
SB-022	148740.941	2186693.033	1295.804
SB-027	148681.693	2186692.623	1295.822
NWCorPad	148718.373	2186690.271	1295.791
Brasstag	148717.506	2186691.074	1295.890
MW2-60	148716.863	2186691.012	1295.587
SB-014	146418.665	2185980.834	1311.061
SB-013	146386.651	2185952.828	1310.171
SB-011	146421.474	2185927.396	1310.433
SB-012	146439.390	2185919.358	1310.473
SB-010	146515.850	2185941.209	1311.318
NWCorSite	146894.980	2185919.921	1309.813
SWCorSite	146424.969	2185785.474	1308.511
SECorSite	146279.439	2186076.341	1308.422
NECorSite	146546.781	2186209.268	1306.203
NWCorPad	150472.826	2181959.759	1246.117

Brasstag	150470.323	2181958.686	1246.334
MW2-64A	150470.205	2181959.365	1246.052
NWCorPad	150469.991	2181967.941	1245.748
BrassTag	150467.662	2181967.209	1245.897
MW2-64B	150467.403	2181967.757	1245.586
NWCORPAD	150387.380	2182033.291	1243.361
BRASSTAG	150386.585	2182034.889	1243.561
MW2-63B	150386.113	2182035.358	1243.284
NWCORPAD	150391.093	2182040.817	1243.630
BRASSTAG	150390.611	2182043.052	1243.790
MW2-63A	150389.984	2182043.019	1243.387
NWCORPAD	150445.859	2182138.117	1246.052
BRASSTAG	150444.701	2182139.902	1246.266
MW2-62B	150444.517	2182140.558	1245.940
NWCORPAD	150449.284	2182150.03	1246.409
BRASSTAG	150447.863	2182151.526	1246.531
MW2-62A	150447.890	2182152.166	1246.213
NWCORPAD	150699.702	2182187.591	1251.120
BRASSTAG	150698.278	2182190.524	1251.270
MW2-65A	150698.281	2182189.884	1250.976
NWCORPAD	150714.157	2182180.865	1250.939
BRASSTAG	150712.792	2182182.571	1251.089
MW2-65B	150712.875	2182183.201	1250.812
SB-018	147184.752	2,182,484.119	1268.631
SB-017	147006.049	2,182,487.149	1270.361
SB-016	146783.596	2,182,487.440	1273.784
SB-015	146585.615	2,182,487.746	1275.957

NRO-27

Coordinates in NAD 83 (Meters)

46721.114	656429.578	388.654	SB-045
46890.066	656425.137	388.919	SB-044
46985.016	656424.839	388.996	SB-042
47075.075	656419.950	388.874	SB-043
45952.828	654720.380	374.123	SB-019
45958.500	654715.330	373.747	SB-020
46729.667	654006.782	373.969	SB-029
46740.210	654005.748	373.673	SB-030
46745.833	654005.870	373.730	SB-031
46746.307	654012.152	373.693	SB-032
46747.263	654018.394	373.748	SB-033
46746.485	654026.099	373.650	SB-034
46734.318	653998.731	374.291	NWCorPad
46733.750	653999.199	374.372	BrassTag
46733.753	653999.366	374.259	MW2-67A
46736.538	653998.580	374.277	NWCorPad
46735.865	653999.305	374.337	BrassTag
46736.025	653999.218	374.219	MW2-67B
46724.183	653998.924	374.257	SG-021
46788.391	653997.296	374.128	SG-027
46782.369	654001.072	374.226	NWCorPad
46781.608	654001.739	374.293	BrassTag
46781.808	654001.618	374.185	MW2-68A
46786.384	654000.899	374.215	NWCorPad
46786.084	654001.484	374.234	BrassTag
46786.913	654001.523	374.143	MW2-68B
46790.869	654006.442	373.634	SB-035
46775.296	653971.799	373.742	SB-041
46767.587	653964.417	374.098	SG-045
46780.233	653964.264	374.109	SG-043
46767.542	653980.466	373.437	SB-039
46783.206	653973.046	373.493	SB-040
46793.080	654013.431	373.505	SB-036
46791.724	654017.689	373.631	SB-037
46791.689	654025.604	373.602	SB-038
46813.712	653995.915	374.370	SG-030
46805.591	654035.229	374.456	SG-034
46795.922	654035.256	374.525	SG-035
46788.058	654069.321	374.468	NWCorPad
46787.357	654070.050	374.535	BrassTag
46787.452	654069.866	374.424	MW2-66B
46790.786	654069.377	374.435	NWCorPad
46790.375	654069.880	374.478	BrassTag
46790.154	654069.883	374.359	MW2-66A
45346.865	656931.293	394.852	NWCorPad
45346.284	656931.807	395.635	TopCap
45346.263	656931.818	395.564	MW2-59
45318.033	656886.028	394.870	NWCorPad
45317.580	656886.540	395.604	TopCap
45317.571	656886.546	395.530	MW2-61
45319.135	656869.910	394.292	SG-011
45318.862	656897.113	394.533	SG-007
45328.439	656892.069	394.915	SB-028
45328.543	656886.112	394.802	SB-026
45337.436	656883.600	394.820	SB-025
45345.442	656882.259	394.855	SB-024
45346.273	656891.780	394.912	SB-023
45351.987	656896.774	394.820	SG-003
45351.364	656877.795	394.847	SB-021
45344.387	656874.451	394.962	SB-022
45328.328	656874.326	394.967	SB-027
45337.508	656873.609	394.958	NWCorPad
45337.244	656873.854	394.988	Brasstag
45337.048	656873.835	394.896	MW2-60
44838.551	656657.377	399.612	SB-014
44828.793	656648.841	399.341	SB-013
44637.407	656641.089	399.421	SB-011
44642.868	656638.639	399.433	SB-012
44666.173	656645.299	399.691	SB-010
44720.772	656638.810	399.232	NWCorSite
44638.472	656597.831	398.835	SWCorSite
44594.115	656686.488	398.808	SECorSite
44876.602	656727.004	398.131	NECorSite
45872.251	655431.737	379.817	NWCorPad

45871.488	655431.410	379.883	Brasstag
45871.452	655431.617	379.797	MW2-64A
45871.387	655434.231	379.705	NWCorPad
45870.677	655434.008	379.750	BrassTag
45870.598	655434.175	379.655	MW2-64B
45846.207	655454.150	378.977	NWCORPAD
45845.965	655454.637	379.038	BRASSTAG
45845.821	655454.780	378.954	MW2-63B
45847.339	655456.444	379.059	NWCORPAD
45847.192	655457.125	379.108	BRASSTAG
45846.995	655457.115	378.985	MW2-63A
45864.032	655486.101	379.797	NWCORPAD
45863.679	655486.645	379.863	BRASSTAG
45863.623	655486.845	379.763	MW2-62B
45865.076	655489.732	379.906	NWCORPAD
45864.643	655490.188	379.943	BRASSTAG
45864.651	655490.383	379.846	MW2-62A
45941.404	655501.180	381.342	NWCORPAD
45940.970	655502.074	381.388	BRASSTAG
45940.971	655501.879	381.298	MW2-65A
45945.810	655499.130	381.287	NWCORPAD
45945.394	655499.650	381.333	BRASSTAG
45945.419	655499.842	381.248	MW2-65B
44870.043	655591.571	386.679	SB-018
44815.574	655592.495	387.207	SB-017
44747.770	655592.584	388.250	SB-016
44687.425	655592.678	388.912	SB-015

NAD-83

END

APPENDIX F
GEOTECHNICAL, CERTIFICATES OF ANALYSIS, CHAIN OF CUSTODY

INTERNATIONAL TECHNOLOGY CORPORATION

GEOTECHNICAL LABORATORY

3/21/9

409802
409832

CERTIFICATE OF ANALYSIS

Routed to CF, TL, KM
3/21/94

Karmen Deane
IT Corporation
5307 Industrial Oaks Blvd.
Suite 160
Austin, TX 78735

March 16, 1994

ETDC Project Number: 483500.094.04 P.O. Number: 4627-341
Job Number: 4I4627

This is the Certificate of Analysis for the following samples:

Client Project ID:	**Tinker AFB**
Date Received by Lab:	**November 23, 29, & 30, 1993**
Number of Samples:	**Twelve (12)**
Sample Type:	**Soil**

I. Introduction/Case Narrative

Twelve (12) soil samples were received by IT/ETDC for analyses of grain size distribution, cation exchange capacity, moisture content and permeability.

Please see Appendix A, the Sample Number Cross Reference List; Appendix B, the Analysis Results; Appendix C, the Chain of Custody and Request for Analysis Records and Appendix D, the Nonconformance/Variance report.

Reviewed and Approved:

Chanley Morgan

Chanley Morgan
Project Manager, Geotechnical Services

IT Environmental Technology Development Center
P.O. Box 4339 • 1570 Bear Creek Road • Oak Ridge, TN 37830 • 615-482-6497 • FAX: 615-482-1890

681A-6-93

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II. Analytical Results/Methodology

REFERENCES: Annual Book of ASTM Standards, Section 4, Construction, Volume 04.08, Soil and Rock; Dimension Stone; Geosynthetics. Volume 4.02, Concrete and Aggregates.

Grain Size Distribution	**ASTM D422**
Cation Exchange Capacity	**EPA, Method 9081**
Moisture Content	**ASTM D 2216**
Permeability	**ASTM D 5084**

III. Quality Control

Except for cation exchange capacity analysis, quality control checks such as duplicates and spikes (QC samples), are not normally applicable to geotechnical testing. This is due to the inability of obtaining samples with known characteristics, the heterogenous nature of the samples, and Quality Control procedures built-in to the analytical method.

QC measures to ensure accuracy and precision of test results include the following:

- 100% verification on all numerical results - all raw data entries, transcriptions and calculations entered by lab technicians are checked, recalculated and verified. Most data calculations are performed by computer programs.

- Data validation through test reasonableness - summaries of all test results for individual reports are reviewed to determine the overall reasonableness of data and to determine the presence of any data that may be considered outliers.

- Quality control procedures are built into most standardized geotechnical procedures. For example, many analyses routinely call for a re-analysis, specifying an acceptance criteria.

- Routine instrument calibration - all instruments, gauges and equipment used in testing are calibrated on a routine basis. All instrument calibration follows ASTM or manufacturer guidelines.

- Maintenance of all past calibration records - records and certification documents of all instruments, gauges and equipment are updated routinely and maintained in the Quality Control Coordinators Quality/Operations files.

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- Use of trained personnel for conducting tests - all technicians are trained in the application of standard laboratory procedures for geotechnical analyses as well as the quality assurance measures implemented by IT.

IV. Data Qualification

Fine sieve and hydrometer results occasionally overlap due to organic debris, soluble salts or other contaminants contained in the sample. Data points are plotted as calculated. No attempt has been made to curve-fit the grainsize data points.

The cation exchange procedure included analysis of a blank, and duplicates. The blank value was found to be below the method detection limit of 0.05 mg/l for sodium analysis. The relative percent difference (RPD) for the duplicate samples were 2.8 and 26.8. The RPD for sample ETDC-4686 which was outside the limit is thought to be due to sample heterogeneity rather than analytical precision.

Moisture contents are calculated in accordance with ASTM D 2216. Given results are based on the sample dry weight, not on the sample wet weight as is common in analytical chemistry.

On RFA/COC No: 417423, a permeability analysis was requested for sample number B311314-02B. There was an insufficient sample amount to perform requested analysis. Sample was obtained from tube marked as duplicate B311314-02A to perform permeability analysis.

The constant-head permeability test is based on the quantity of water flowing through the soil specimen versus time under essentially equilibrium conditions. ASTM D 5084, paragraph 8.5.3, states that equilibrium conditions are indicated by four consecutive permeation results not varying by more than 25% of the average of the tests. Porous soils containing appreciable amounts of silt normally saturate quickly and establish equilibrium in a few test runs of short duration. Soils containing high amounts of clays generally require longer saturation periods at higher confining pressures, and require much longer permeation periods at higher hydraulic gradients. Results are reported based on the average of the last four consecutive tests meeting the requirements of equilibrium conditions.

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Three permeability samples did not establish equilibrium conditions as defined by ASTM D 5084 before February 18, 1994, and were removed from testing in accordance with the memorandum dated February 9, 1994. The given results for sample numbers ETDC-4685, ETDC-4688, and ETDC-4692 are based on the average of three test runs, not four, as indicated in the ASTM reference. We feel that the final results would not have been significantly different had the samples been allowed to run until all the requirements of ASTM D 5084 had been met. These three samples approached the lower limit of permeability for most naturally occurring soils.

Appendix A

Karmen Deane
IT Corporation
March 16, 1994
Client Project ID: TINKER AFB
ETDC Project No.: 483500.094.04

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CROSS-REFERENCE LIST

ETDC SAMPLE NO.	CLIENT SAMPLE NO.
ETDC-4676	B311255-05A
ETDC-4677	B311255-05B
ETDC-4678	B311256-05A
ETDC-4679	B311256-05B
ETDC-4680	B311256-06A
ETDC-4681	B311256-06B
ETDC-4684	B311282-05A
ETDC-4685	B311282-05B
ETDC-4690	B311314-01A
ETDC-4691	B311314-01B
ETDC-4692	B311314-02A
ETDC-4693	B311314-02B

Appendix B

Karmen Deane
IT Corporation
March 16, 1994
Client Project ID: TINKER AFB
ETDC Project No.: 483500.094.04

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Routed to CF, TL, K
3/21/94

PARTICLE SIZE ANALYSIS
ASTM D 422

Project Name: Tinker AFB

Client No. B311314-01A

Project Number: 483500.094.04

ETDC No. ETDC-4690

Specific Gravity 2.6500 Assumed

Moisture Content = 12.2%

SIEVE ANALYSIS

COARSE

Sieve No.	Diameter mm	Percent Finer
3"	75.000	100.0%
1.5"	37.500	100.0%
0.75"	19.000	100.0%
0.375"	9.500	100.0%
#4	4.750	99.7%
#10	2.000	99.2%

FINE

Sieve No.	Diameter mm	Percent Finer
#20	0.850	98.8%
#40	0.425	98.4%
#60	0.250	98.1%
#100	0.149	97.8%
#140	0.106	97.6%
#200	0.075	97.3%

HYDROMETER ANALYSIS

HYDROMETER

Diameter mm	Percent Finer
0.05193	93.5%
0.03744	89.5%
0.02713	85.6%
0.01757	80.6%
0.01037	75.6%
0.00755	68.6%
0.00555	59.7%
0.00397	53.7%
0.00285	46.8%
0.00125	31.8%

Karmen Deane
IT Corporation
March 16, 1994
Client Project ID: TINKER AFB
ETDC Project No.: 483500.094.04

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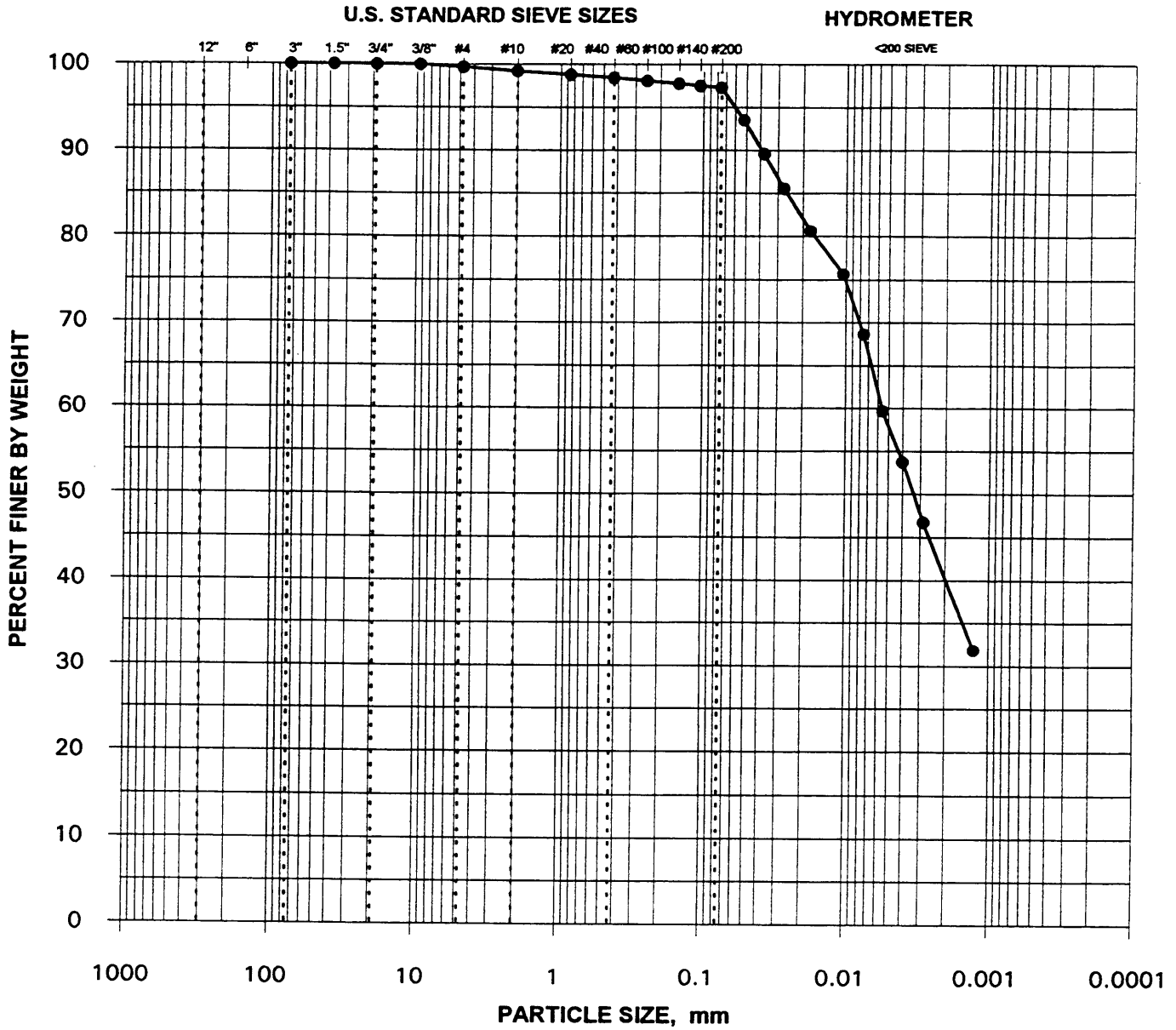
Round to CF, I-4
3/2 92

Tinker AFB



CLIENT SAMPLE NO. B311314-01A

ETDC SAMPLE NO. ETDC-4690

BOULDERS	COBBLES	GRAVEL		SAND			SILT 2 - 75 microns CLAY <2 microns
		COARSE	FINE	COARSE	MEDIUM	FINE	

682A-6-93

Karmen Deane
IT Corporation
March 16, 1994
Client Project ID: TINKER AFB
ETDC Project No.: 483500.094.04

IT ENVIRONMENTAL TECHNOLOGY
DEVELOPMENT CENTER
OAK RIDGE, TN
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PARTICLE SIZE ANALYSIS
ASTM D 422

Project Name: Tinker AFB

Client No. B311314-02A

Project Number: 483500.094.04

ETDC No. ETDC-4692

Specific Gravity 2.6500 Assumed

Moisture Content = 12.9%

SIEVE ANALYSIS

COARSE	Sieve No.	Diameter mm	Percent Finer
	3"	75.000	100.0%
	1.5"	37.500	100.0%
	0.75"	19.000	100.0%
	0.375"	9.500	100.0%
	#4	4.750	100.0%
	#10	2.000	100.0%

FINE	Sieve No.	Diameter mm	Percent Finer
	#20	0.850	99.9%
	#40	0.425	99.7%
	#60	0.250	99.6%
	#100	0.149	99.2%
	#140	0.106	98.8%
	#200	0.075	98.4%

HYDROMETER ANALYSIS

HYDROMETER	Diameter mm	Percent Finer
	0.03672	95.2%
	0.02647	91.1%
	0.01726	85.1%
	0.01054	72.9%
	0.00777	62.8%
	0.00562	56.7%
	0.00411	48.6%
	0.00291	42.5%
	0.00126	30.4%

Karmen Deane
IT Corporation
March 16, 1994
Client Project ID: TINKER AFB
ETDC Project No.: 483500.094.04

IT ENVIRONMENTAL TECHNOLOGY
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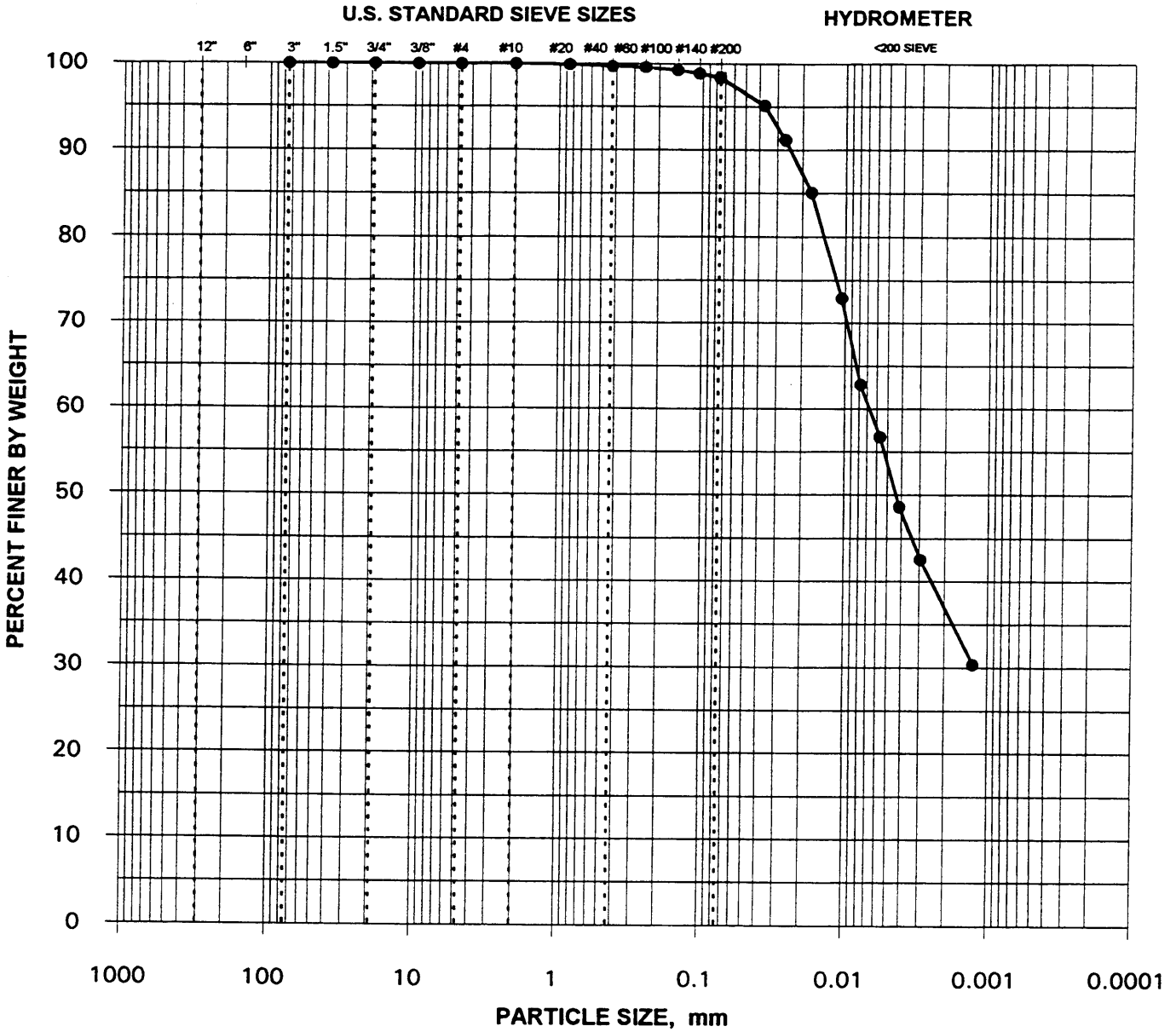
3/21/95

Tinker AFB



CLIENT SAMPLE NO. B311314-02A

ETDC SAMPLE NO. ETDC-4692

BOULDERS	COBBLES	GRAVEL		SAND			
		COARSE	FINE	COARSE	MEDIUM	FINE	SILT 2 - 75 microns CLAY <2 microns

682A-6-93

Karmen Deane
IT Corporation
March 16, 1994
Client Project ID: TINKER AFB
ETDC Project No.: 483500.094.04

IT ENVIRONMENTAL TECHNOLOGY
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MOISTURE CONTENT
ASTM D 2216

PROJECT NAME: TINKER AFB **PROJECT NUMBER:** 483500.094.04

ETDC SAMPLE NO.	CLIENT SAMPLE NO.	MOISTURE CONTENT
ETDC-4676	B311255-05A	10.7%
ETDC-4678	B311256-05A	8.5%
ETDC--4680	B311256-06A	9.6%
ETDC-4684	B311282-05A	9.4%
ETDC-4690	B311314-01A	12.2%
ETDC-4692	B311314-01A	12.9%

Karmen Deane
IT Corporation
March 16, 1994
Client Project ID: TINKER AFB
ETDC Project No.: 483500.094.04

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(615) 482-6497

Routed to

CATION EXCHANGE CAPACITY
EPA SW-846
METHOD 9081

PROJECT NAME: TINKER AFB PROJECT NUMBER: 483500.094.04

ETDC SAMPLE NUMBER	CLIENT SAMPLE NUMBER	WEIGHT OF SAMPLE, GRAMS	SODIUM CONCENTRATION, MG/L	CATION EXCHANGE CAPACITY, MEQ/100 GRAMS	RPD % *
ETDC-4676	B311255-05A	6.00	328.0	23.78	
ETDC-4678	B311256-05A	6.02	77.6	5.61	
ETDC-4678DUP.	B311256-05A	6.05	80.2	5.77	2.8
ETDC-4680	B311256-06A	6.05	122.0	8.77	
ETDC-4684	B311282-05A	6.09	231.0	16.50	
ETDC-4690	B311314-01A	6.08	338.0	24.18	
ETDC-4692	B311314-02A	6.18	274.0	19.29	

*RPD = RELATIVE PERCENT DIFFERENCE FOR ORIGINAL & DUPLICATE SAMPLES

Karmen Deane
IT Corporation
March 16, 1994
Client Project ID: TINKER AFB
ETDC Project No.: 483500.094.04

IT ENVIRONMENTAL TECHNOLOGY
DEVELOPMENT CENTER
OAK RIDGE, TN
(615) 482-6497

PERMEABILITY RESULTS

ETDC SAMPLE NO.	CLIENT SAMPLE NO.	LENGTH/ DIAMETER/ WEIGHT	COEFF. OF PERMEABILITY
ETDC-4677	B311255-05B	2.547 cm/ 3.464 cm/ 49.16 grams	3.2 E-9 cm/s
ETDC-4679	B311256-05B	4.752 cm/ 3.556 cm/ 83.51 grams	2.3 E-6 cm/s
ETDC-4681	B311256-06B	4.214 cm/ 3.585 cm/ 85.36 grams	9.2 E-7 cm/s
ETDC-4685	B311282-05B	5.318 cm/ 3.522 cm/ 107.14 grams	2.9 E-9 cm/s
ETDC-4691	B311314-01B	4.844 cm/ 3.494 cm/ 103.65 grams	2.6 E-9 cm/s
ETDC-4692	B311314-02A	3.979 cm/ 3.490 cm/ 81.88 grams	2.9 E-9 cm/s

Appendix C

483500.094.04

Routed to CF, JL, KN 3/21/94

417423

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 8311314

Page 1 of 1

Project Name/No. [1] Tinker 5001

Sample Team Members [2] client

Profit Center No. [3] 4627

Project Manager [4] Karmen Deane

Purchase Order No. [6] To follow

Required Report Date [11]

Samples Shipment Date [7] 11-29-93

Lab Destination [8] ETDC

Lab Contact [9] B. Leaman

Project Contact/Phone [12] 512 8926684

Carrier/Waybill No. [13] Fed X

Bill to: [5] ITAS Austin

Report to: [10] ITAS Austin Karmen Deane

ONE CONTAINER PER LINE

Sample Number [14]	Sample Description/Type [15]	Date/Time Collected [16]	Container Type [17]	Sample Volume [18]	Preservative [19]	Requested Testing Program [20]	Condition on Receipt [21]	Disposal Record No. [22]
8311314-01A	J5430 / soil	11-23-93 1800	sleeve	x1	4°C	GRAIN, GEC-A, MOIS-G	ETDC OK 4690	
-01B	J5430	↓	↓	x1	↓	V-Perm	ETDC 4691	
-02A	J5431	11-23-93 1726	↓	x1	↓	GRAIN, CEC-A, MOIS-G	ETDC 4692	
-02B	J5431	↓	↓	x1	↓	V-Perm	ETDC 4693	

4°C 11-29-93

Special Instructions: [23] One extra sleeve sent for both J5430 & J5431

Possible Hazard Identification: [24] Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☑

Sample Disposal: [25] Return to Client ☐ Disposal by Lab ☑ Archive (mos.)

Turnaround Time Required: [26] Normal ☐ Rush ☐

QC Level: [27] I. ☐ II. ☐ III. ☐ Project Specific (specify):

1. Relinquished by [28] (Signature/Affiliation) Laura Church IT	Date: 11-29-93 Time: 1800	1. Received by [28] (Signature/Affiliation) Joel A. Osborn IT	Date: 11-30-93 Time: 0955
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: [29]

White: To accompany samples

Yellow: Field copy

*See back of form for special instructions