

N50092.AR.000226
JEB FORT STORY, VA
5090.3a

FINAL REPORT FIREFIGHTER TRAINING AREA, LIGHTER AMPHIBIOUS RESUPPLY
CARGO (LARC) 60 MAINTENANCE AREA, AND AUTO CRAFT AREA FORT STORY VA
9/1/1994
INTERNATIONAL TECHNOLOGICAL CORPORATION

**FINAL REPORT
FIRE TRAINING AREA NO. 4 AND LARC AREA
FORT STORY, VIRGINIA**

**CONTRACT NO. DACW45-90-D-9002
DELIVERY ORDER NO. 55
IT PROJECT NO. 519029**

PREPARED BY:

**IT CORPORATION
2790 MOSSIDE BOULEVARD
MONROEVILLE, PENNSYLVANIA 15146-2792**

PREPARED FOR:

**U.S. ARMY CORPS OF ENGINEERS
OMAHA DISTRICT
215 NORTH 17TH STREET
OMAHA, NEBRASKA 68102**

AUGUST 1994

APPENDIX G
SHALLOW AQUIFER ANALYSIS REPORT



SHALLOW AQUIFER

ANALYSIS

FOR

BIOREMEDIATION AREA

LARC MAINTENANCE SITE

FORT STORY

VIRGINIA BEACH

VIRGINIA

May 12, 1993

Prepared for
Solutions Environmental Associates, Inc..
814-B Greenbrier Circle
Chesapeake, VA 23320

GES

Geotechnical & Environmental Services, Inc.
P.O. Box 354
Mt. Sidney, VA 24467
(703) 248-0610

Project Number E-9317



May 12, 1993

Ms. Dorothy Small
Solutions Environmental Associates, Inc.
814-B Greenbrier Circle
Chesapeake, Virginia 23320

Reference: Fort Story Bioremediation Project

Dear Ms. Small:

We have completed our analysis of the shallow unconfined aquifer under the referenced site to determine the optimum recovery well system to provide hydraulic isolation during bioremediation operations. To obtain the necessary field data, a total of six (6) wells were installed within the boundary of the site. The location of the wells are shown on the attached Plate 1. Four (4) of the wells labeled MW-1 through MW-4 were installed near the site corners as two (2) inch diameter monitoring wells completed to a depth of approximately fifteen (15) feet. Monitoring well No. 5, installed to a depth of twenty-five (25) feet on the west end of the site, is the four (4) inch diameter pump test well. Approximately thirty (30) feet northwest of MW-5 is MW-6 which is a two (2) inch diameter observation well installed to a depth of fifteen (15) feet. Logs for each of these wells with the exception of MW-6 are attached.

Water levels in the wells twenty-four (24) hours after installation ranged from three (3.0) to six point three five (6.35) feet below ground surface. The elevation of the static water levels across the site indicate the groundwater movement is toward the north as expected. Based on the measured static water level elevations, an average hydraulic gradient of .002 ft/ft was determined between monitoring wells.

Monitoring wells MW-1 through MW-4 were pumped after development for approximately thirty (30) to sixty (60) minutes at a rate of six (6) gpm until a static pumping level (drawdown) was established on each well. The pump was then turned off and the recovery rate measured. Based on this data, an estimate of the hydraulic conductivity was calculated for each well. The rates determined ranged from 190 to 303 gpd/sf or 9.0×10^{-3} cm/sec to 1.4×10^{-2} cm/sec which is within the range for the fine to medium sand logged in each well boring.

Geotechnical & Environmental Services

P. O. Box 354 • Mt. Sidney, VA 24467 • (703) 248-0610

UST Compliance Services • Environmental Site Assessments
Contamination Studies • Landfill Studies • Geotechnical Investigations

In addition to the short pump testing of MW-1 through MW-4, an eight (8) hour pump test was performed on MW-5. The pump test was performed at a pumping rate of 20 gpm with the four (4) inch submersible pump setting at twenty (20) feet, five (5) feet above the well bottom. Water level changes (drawdowns) were measured in MW-1, MW-4, MW-6 (observation well) and in the pumping well (MW-5) during the eight (8) hour period. The water pumped from the test well (MW-5) was discharged on site east of the pumping well and each monitoring well.

Utilizing the time-drawdown data for each monitoring well, an average hydraulic conductivity value was calculated using a modification of the equilibrium well formula for unconfined aquifers found in "Groundwater and Well" by Johnson Division UOP. The average value calculated was 1,290 gpd/sf or 6.1×10^{-2} cm/sec. An aquifer transmissivity of 107,384 gpd/ft was determined from the time-drawdown data from MW-6 (nearest well) utilizing aquifer analysis software titled Jacobfit. This software uses Jacob's form of the Theis equation and least squares method of analysis to determine transmissivity and storage coefficient. The time-drawdown curve for MW-6, labeled as OM-1, is attached.

To determine the optimum number of recovery wells and corresponding pumping rates required to provide hydraulic isolation, a computer software capture analysis was performed utilizing the pump test data from the eight (8) hour pump test, the average calculated hydraulic gradient and an estimated effective porosity of .20. Based on this analysis, capture of all groundwater to assure no off site groundwater flow can be accomplished by either two (2) wells pumping at 25 gpm each or three (3) wells pumping at 12.5 gpm each. The site plans (plate 2 and 3) showing the locations of the required recovery wells for each scenario and showing the flow lines during continuous pumping are attached.

Using the two (2) well scenario, the existing MW-5 can be utilized with the addition of one (1) more four (4) inch diameter well to a depth of twenty-five (25) feet. The three (3) well scenario assumes the use of three (3) two (2) inch diameter, five (5) feet long well points installed to a depth of fifteen (15) feet at the locations shown on Plate 3.

Ms. Dorothy Small
Fort Story Bioremediation Project/E-9317

The major advantage of the three (3) well scenario is that less groundwater pumping would be required to achieve the same results which may be very important considering all pumped water must stay on site. The location of the three (3) wells for this scenario should also be outside the planned treatment area making installation less complicated.

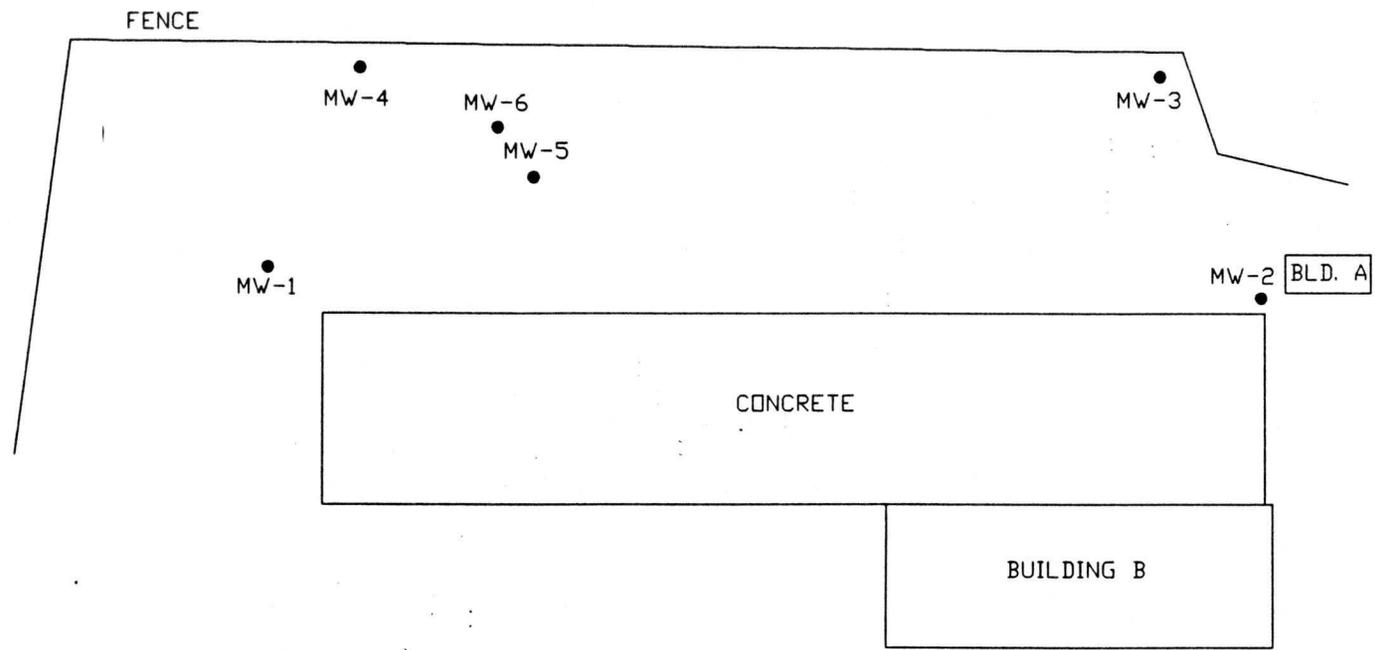
We are prepared to supervise the installation of the chosen recovery well system the week of May 17. If there are any changes in your work plan or if you have any questions pertaining to our recommendations please let me know.

Sincerely,



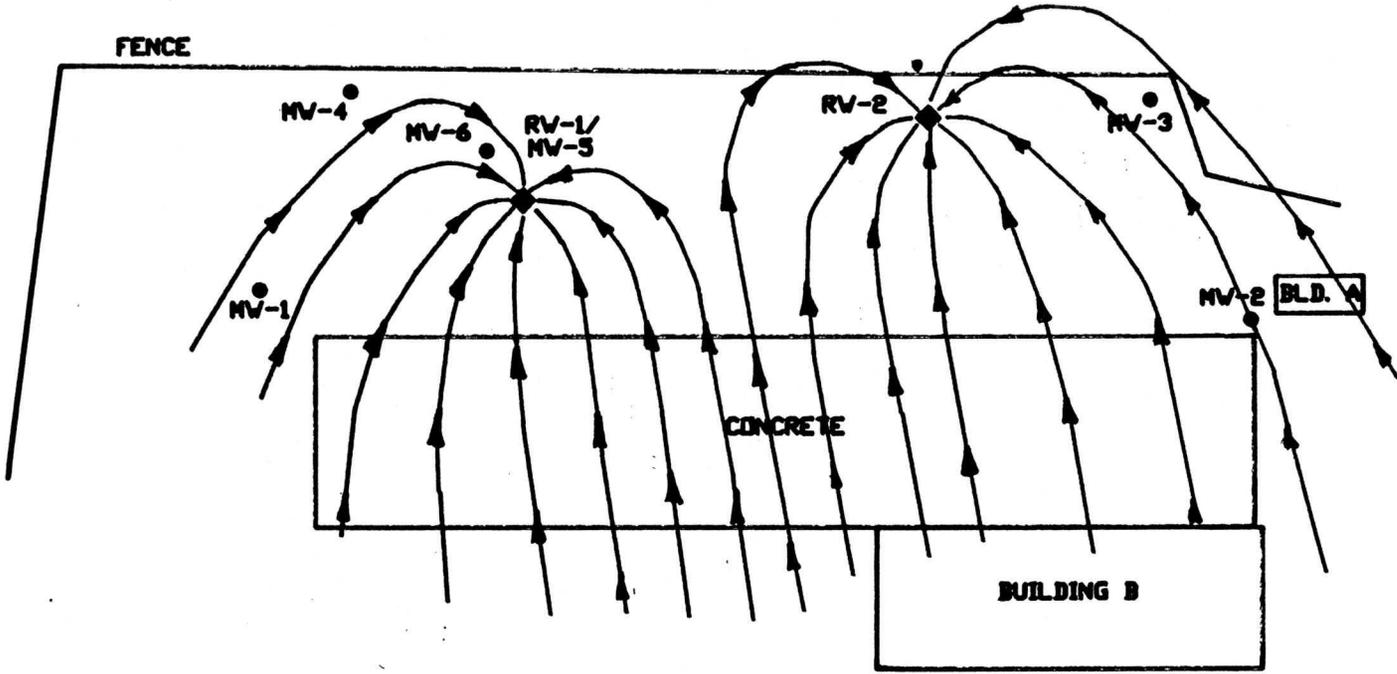
William J. Barker, P.G.
Principal Hydrogeologist

WJB: jlc
Attached.



CLIENT: SOLUTIONS ENVIRONMENTAL ASSOCIATES	
PROJECT: FORT STORY	JOB#: E-9317
Title: SITE PLAN	Plate: 1
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC	



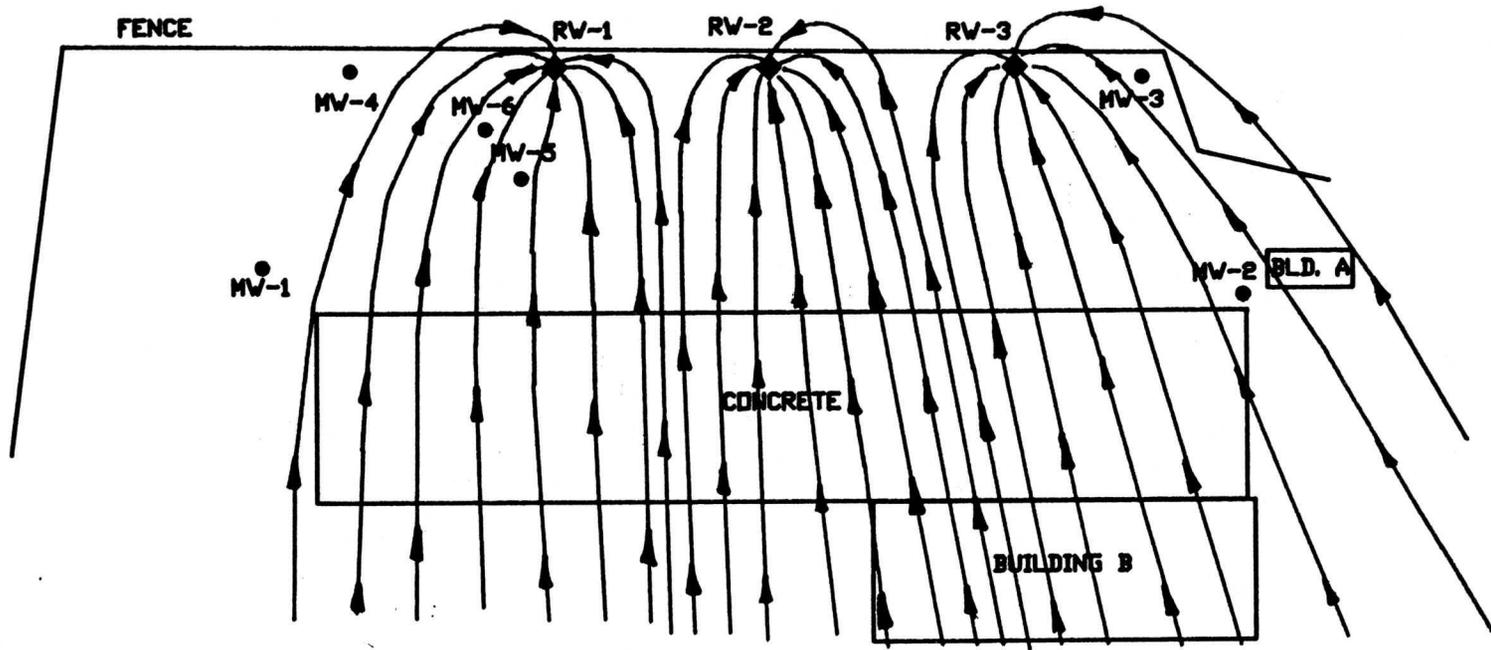


RV - Location of 4' diameter recovery well

Pathlines & Traveltimes (PAT) Capture Software

CLIENT: SOLUTIONS ENVIRONMENTAL ASSOCIATES	
PROJECT: FORT STORY BIOREMEDIATION SITE	JOB#: E-9317
Title: TWO WELL RECOVERY SYSTEM	Plate: 2
GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC	





■ RV - Recovery well locations

CLIENT: SOLUTIONS ENVIRONMENTAL ASSOCIATES	
PROJECT: FORT STORY BIOREMEDIATION SITE	JOB#: E-9317
Title: THREE WELL RECOVERY SYSTEM	Plate: 3
GEO TECHNICAL & ENVIRONMENTAL SERVICES, INC	



PATHLINES AND TRAVELTIMES

May 12, 1993

THREE WELL OPTION AT 12.5 gpm EACH

MODEL PARAMETERS

MODEL TYPE
infinite

DIMENSION OF FLOW FIELD

x-minimum	[m]	0
x-maximum	[m]	300
y-minimum	[m]	0
y-maximum	[m]	250

AQUIFER PARAMETERS

hydraulic conductivity	[m/s]	.00061
effective porosity	[-]	.25
thickness of aquifer	[m]	8
hydraulic gradient	[-]	.002
direction of natural flow	[0-360]	280

TIME PARAMETERS

maximum time	[d]	200
time increment	[d]	1
time between markers	[d]	10

WELL DATA

limit radius around well	[m]	5
number of wells	[0-30]	3

X [m]	Y [m]	Q [m ³ /s]	
115	138	.00079	new well
150	138	.00079	new well
190	138	.00079	new well

LANDMARKS

number of landmarks	[0-5]	1
corners of landmark # 1	[1-10]	4

corner points of polygon # 1

X(1) [m]	75	Y(1) [m]	100
X(2) [m]	75	Y(2) [m]	143
X(3) [m]	214.3	Y(3) [m]	141.8
X(4) [m]	227.4	Y(4) [m]	100

PATHLINES AND TRAVELTIMES
 May 12, 1993
TWO WELL OPTION AT 25 gpm EACH

MODEL PARAMETERS

MODEL TYPE
 infinite

DIMENSION OF FLOW FIELD

x-minimum	[m]	0
x-maximum	[m]	300
y-minimum	[m]	0
y-maximum	[m]	250

AQUIFER PARAMETERS

hydraulic conductivity	[m/s]	.00061
effective porosity	[-]	.25
thickness of aquifer	[m]	8
hydraulic gradient	[-]	.002
direction of natural flow	[0-360]	280

TIME PARAMETERS

maximum time	[d]	200
time increment	[d]	1
time between markers	[d]	10

WELL DATA

limit radius around well	[m]	5
number of wells	[0-30]	2

X [m]	Y [m]	Q [m ³ /s]	
119.4	121.6	.001575	existing MW-6
175	135	.001575	new well

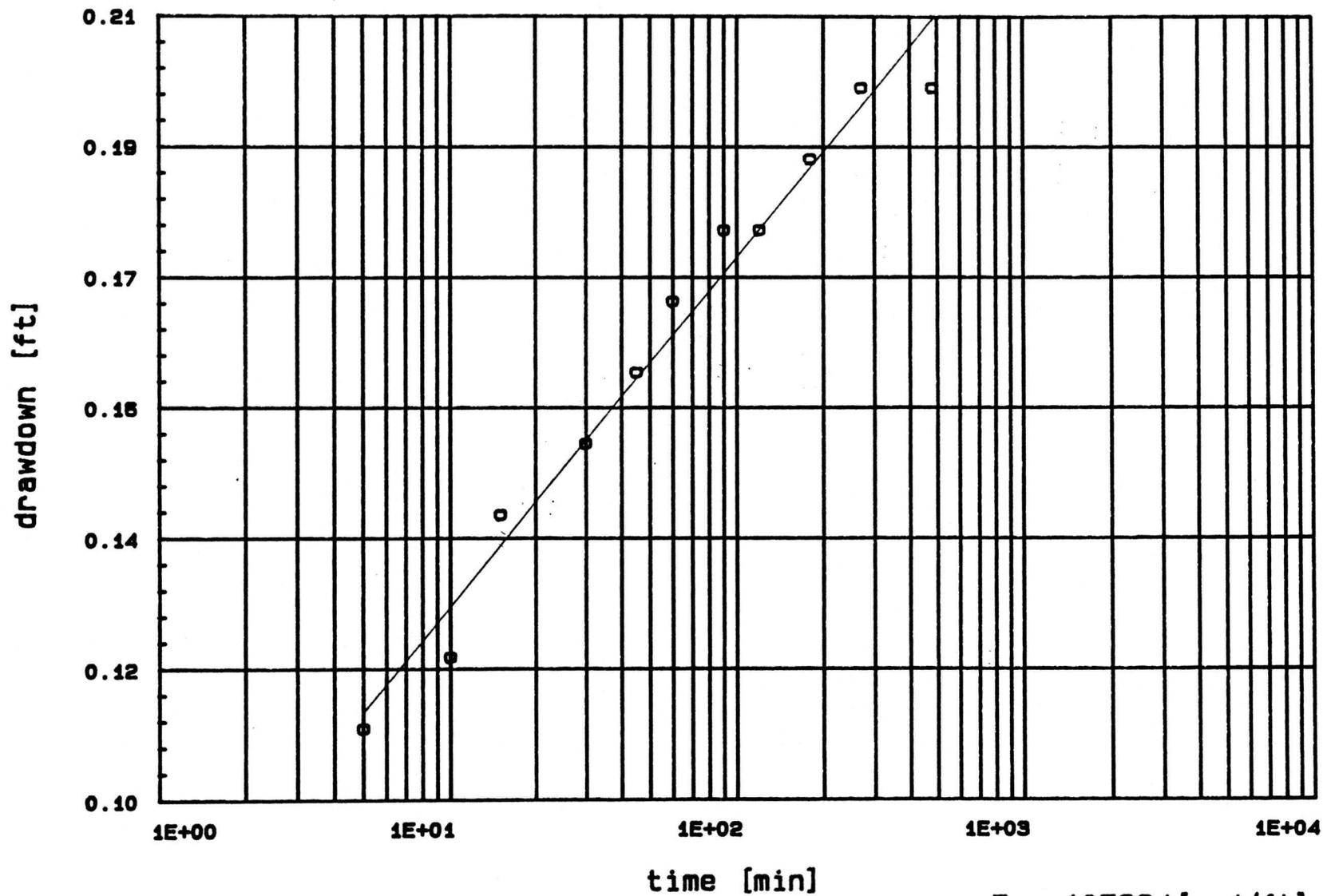
LANDMARKS

number of landmarks	[0-5]	1
corners of landmark # 1	[1-10]	4

corner points of polygon # 1

X(1) [m]	75	Y(1) [m]	100
X(2) [m]	75	Y(2) [m]	143
X(3) [m]	214.3	Y(3) [m]	141.8
X(4) [m]	227.4	Y(4) [m]	100

Fort Story Pump Test OW-1



FILE: E9317OW1

T = 107384 [gpd/ft]
S = .646E-03

WELL CONSTRUCTION	DEPTH (feet)	ELEVATION	BLOWS/FT.	PID (ppm)	SAMPLE NO.	SOIL CLASS	GRAPHIC LOG	MATERIALS DESCRIPTION
					1	SP		Tan to buff fine SAND, trace silt and organics, loose, dry to moist
		94.8	9		2	SP		Buff to orange brown, fine SAND, loose, to medium consistency, moist Saturated below 3.7 FT.
	5	92.9 92.8	12		3	SP		Buff to light grey, fine-medium SAND, loose to medium consistency
	10							
	15	81.2						
								BOTTOM OF HOLE AT: 15.4 FT. Static water level at: 3.7 FT. (92.98)



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LOG OF BORING MW-1...PROJ. E-9317

CLIENT NAME Solutions Environmental LOCATION Fort Story, Virginia
 SURFACE ELEVATION 96.88 Feet DRILLING METHOD H. S. Augers
 TOTAL DEPTH OF HOLE 15.4 Feet GEOLOGIST William J. Barker (4/28/93)

WELL CONSTRUCTION	DEPTH (feet)	ELEVATION	BLOWS/FT.	PID (ppm)	SAMPLE NO.	SOIL CLASS	GRAPHIC LOG	MATERIALS DESCRIPTION
					1	SP		Tan to brown fine-medium SAND, trace organics and debris, moist (FILL)
	88.4	13	20		2	SP		Block coal mixed with brown fine-medium SAND, medium consistency (FILL)
	83.4 83.0	21			4	SP		Light grey with black fine sand trace silt and medium SAND, medium consistency, moist-very moist Saturated below 8.3 FT.
	10	88.4				SP		Light grey fine-medium SAND, loose to medium consistency, saturated
	15	84.1						BOTTOM OF HOLE AT: 15.3 FT. Static water level at: 8.35 FT. (83.08)



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LOG OF BORING MW-2...PROJ. E-9317

CLIENT NAME <u>Solutions Environmental</u>	LOCATION <u>Fort Story, Virginia</u>
SURFACE ELEVATION <u>99.43 Feet</u>	DRILLING METHOD <u>H. S. Augers</u>
TOTAL DEPTH OF HOLE <u>15.3 Feet</u>	GEOLOGIST <u>William J. Barker (4/28/93)</u>

WELL CONSTRUCTION	DEPTH (feet)	ELEVATION	BLOWS/FT.	PTD (ppm)	SAMPLE NO.	SOIL CLASS	GRAPHIC LOG	MATERIALS DESCRIPTION
		98.3	18		1	SP		Brown fine SAND with some organics
		96.0	10		2	GM		Stone fill
		92.8			3	SP		Tan to buff, fine SAND, trace silt and medium sand, moist
	5	92.3	14					Light grey to tan fine to medium SAND, loose to medium consistency Becomes fine-coarse sand below 10 FT.
	10							
	15	81.8						
								BOTTOM OF HOLE AT: 15.7 FT. Static water level at: 4.5 FT. (92.87)



GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

LOG OF BORING MW-3...PROJ. E-9317

CLIENT NAME	Solutions Environmental	LOCATION	Fort Story, Virginia
SURFACE ELEVATION	97.37 Feet	DRILLING METHOD	H. S. Augers
TOTAL DEPTH OF HOLE	15.7 Feet	GEOLOGIST	William J. Barker, (4/28/83)

WELL CONSTRUCTION	DEPTH (feet)	ELEVATION	BLOWS/FT.	PID (ppm)	SAMPLE NO.	SOIL CLASS	GRAPHIC LOG	MATERIALS DESCRIPTION	
<p>Manhole Cover Cement/Bentonite Seal Bentonite Pellet Seal 2 in. Schedule 40 PVC Casing 0.01 Slotted PVC Screen 8 in. Borehole Marle # 2 Sand Pack Well Cap</p>		93.8	5		1	SP		Tan fine SAND, trace silt, dry to moist, loose	
	5	92.5	28		2	SP		Tan to orange-brown, fine-medium SAND, moist to very moist, medium dense	
		91.8					SP		Light grey, fine-medium SAND, little coarse sand, saturated
		81.8							BOTTOM OF HOLE AT: 15.0 FT. Static water level at: 4.3 FT. (92.57)



GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

LOG OF BORING MW-4...PROJ. E-9317

CLIENT NAME Solutions Environmental LOCATION Fort Story, Virginia
 SURFACE ELEVATION 98.87 Feet DRILLING METHOD Augers
 TOTAL DEPTH OF HOLE 15.0 Feet GEOLOGIST William J. Barker (4/29/83)

WELL CONSTRUCTION	DEPTH (feet)	ELEVATION	BLOWS/FT.	PID (ppm)	SAMPLE NO.	SOIL CLASS	GRAPHIC LOG	MATERIALS DESCRIPTION
<p>Manhole Cover Cement/Bentonite Seal Bentonite Pellet Seal 4 in. Schedule 40 PVC Casing 0.01 Slotted PVC Screen 1/2 in. Borehole Morle # 2 Sand Pack Well Cap</p>	<p>92.8 89.8 85.8 70.8</p>	<p>92.8 89.8 85.8 70.8</p>	<p>15 12</p>	<p>1 2</p>	<p>1 2</p>	<p>SP SP SP</p>		<p>Light to medium brown, fine SAND, little medium SAND, trace silt, moist-very moist, loose to medium consistency</p> <p>Buff to light grey fine-medium SAND, medium consistency, saturated</p> <p>Tan to light grey fine-medium SAND, little coarse SAND and trace fine gravel, loose to medium consistency, saturated</p> <p>BOTTOM OF HOLE AT: 25.0 FT. Static water level at: 3.3 FT. (92.80)</p>



GEOTECHNICAL & ENVIRONMENTAL SERVICES, INC.

LOG OF BORING MW-5...PROJ. E-9317

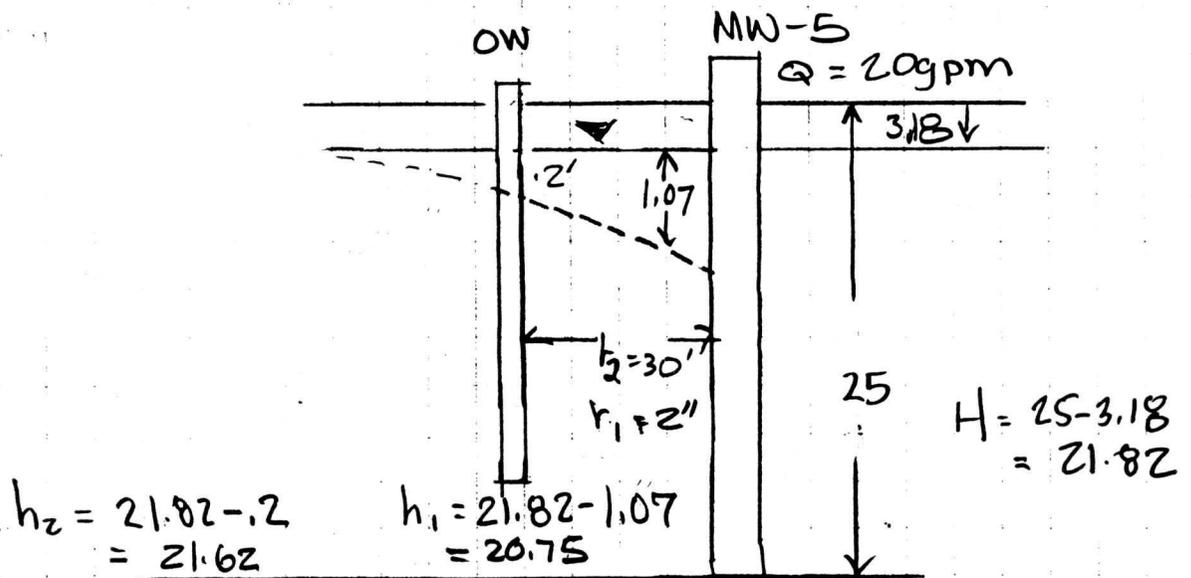
CLIENT NAME Solutions Environmental LOCATION Fort Story, Virginia
 SURFACE ELEVATION 95.80 Feet DRILLING METHOD H.S. Augers
 TOTAL DEPTH OF HOLE 25.0 Feet GEOLOGIST William J. Barker (4/28/93)

FORT STORY BIOREMEDIATION PROJECT AQUIFER ANALYSIS

DETERMINE HYDRAULIC CONDUCTIVITY (K) FOR UNCONFINED (WATER TABLE) AQUIFER

FORMULA: $K = \frac{1055 Q \log R_2/R_1}{(h_2^2 - h_1^2)}$ from "Groundwater & wells" pg 105

- K = hydraulic conductivity in gpd/sf
- Q = pumping rate in gpm
- r_1 = radius of well
- r_2 = distance to observation well (ow)
- h_2 = saturated thickness at OW
- h_1 = saturated thickness at pumping well



$$K = \frac{1055 (20) \log 30 / .166}{(21.62)^2 - (20.75)^2} = \frac{47623}{36.9}$$

$K = 1,290 \text{ gpd/sf}$

$K = 6.1 \times 10^{-4} \text{ M/s or } 6.1 \times 10^{-2} \text{ cm/sec}$

CALCULATE HYDRAULIC CONDUCTIVITY
AT MW LOCATIONS

FORMULA: $K = \frac{1055Q \log R/r}{(H^2 - h^2)}$

MW 1: $Q = 6 \text{ gpm}$; $R = .33$; $r = .08$
 $H = 15 - 3.7 = 11.3$; $h = 15 - 4.4 = 10.6$

$$K = \frac{1055(6) \log .33/.08}{(11.3^2 - (10.6)^2)} = \frac{3895.6}{15.33}$$

$$K = 254.1 \text{ gpd/sf}$$

$$K = 1.2 \times 10^{-4} \text{ m/s or } 1.2 \times 10^{-2} \text{ cm/s}$$

MW 2: $Q = 6 \text{ gpm}$; $R = .33$; $r = .08$
 $H = 15 - 6.5 = 8.5$; $h = 15 - 7.2 = 7.8$

$$K = \frac{1055(6) \log .33/.08}{(8.5)^2 - (7.2)^2} = \frac{3895}{20.41}$$

$$K = 190.8 \text{ gpd/sf}$$

$$K = 9.0 \times 10^{-5} \text{ m/s or } 9.0 \times 10^{-3} \text{ cm/s}$$

MW 3: $Q = 6 \text{ gpm}$; $R = .33$; $r = .08$
 $H = 15 - 4.5 = 10.5$; $h = 15 - 5.13 = 9.87$

$$K = \frac{1055(6) \log .33/.08}{(10.5)^2 - (9.87)^2} = \frac{3895}{12.84}$$

$$K = 303.3 \text{ gpd/sf}$$

$$K = 1.43 \times 10^{-4} \text{ m/s or } 1.4 \times 10^{-2} \text{ cm/s}$$

APPENDIX H
SAMPLING AND ANALYTICAL INFORMATION



INTERNATIONAL
TECHNOLOGY
CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

IT Corporation/Fort Story
2790 Mosside Boulevard
Monroeville, PA 15146
Attn: Tom Mathison

February 11, 1993

Job Number: Q301097/099

The Certificate of Analysis is for the following:

Client Project ID: 519029
Date Received by Lab: 01/22/93
Number of Samples: Five
Sample Type: Soil/Water

1.0 INTRODUCTION

On January 22, 1993, three soil and two water samples were received at ITAS Pittsburgh, labeled as follows:

Soil: 519029-S001 519029-S003 Water: 519029-W001
519029-S002 TRIP BLANK

2.0 ANALYTICAL RESULTS/METHODOLOGY

Results are presented in the enclosed tables and were determined in accordance with Methods 1010, 3010, 3020, 6010, 7060, 7470, 7740, 7841, referenced in Test Methods for Evaluating Solid Waste, USEPA SW-846, 3rd Ed., 1986; Environmental Protection Agency, Contract Laboratory Program, Statement of Work No. 788, Section IV, Exhibit-D, Part E, July, 1988; Federal Register, Vol. 57, No. 227, Tuesday, November 24, 1992, Appendix II.

Reviewed and Approved:

Veronica Bortot

Veronica Bortot, Project Manager

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

IT Corporation/Fort Story
Date: 02/11/93

**IT ANALYTICAL SERVICES
PITTSBURGH, PA**

Client Project ID: 519029

Job Number: Q301097/099

2.0 ANALYTICAL RESULTS/METHODOLOGY (Continued)

Results are based on sample concentration and expressed in milligrams per liter or parts per million and micrograms per liter or parts per billion. ND denotes that the compound is not detected at or above the indicated detection limit.

3.0 QUALITY CONTROL

QA/QC information can be found immediately following the analytical data.

IT Corporation/Fort Story
Date: 02/11/93

**IT ANALYTICAL SERVICES
PITTSBURGH, PA**

Client Project ID: 519029

Job Number: Q301097/099

General Chemistry Analysis

Client Sample ID: See below
Sample Date: 01/21/93
Analysis Date: 01/27/93

Client Sample ID	Lab Sample ID	Ignitability	pH
519029-W001	Q30109901	>140 °F / >140 °F	6.82/6.71

 Volatile Organic Compounds

Client Sample ID: 519029-W001

Sample Date: 01/21/93

Lab Sample ID: Q30109901

Analysis Date: 01/28/93

Compound	Concentration $\mu\text{g/L}$	Compound	Concentration $\mu\text{g/L}$
Chloromethane	ND10	cis-1,3-Dichloropropene	ND5
Bromomethane	ND10	Trichloroethene	ND5
Vinyl chloride	ND10	Dibromochloromethane	ND5
Chloroethane	ND10	1,1,2-Trichloroethane	ND5
Methylene chloride	ND5	Benzene	ND5
Acetone	ND100	trans-1,3-Dichloropropene	ND5
Carbon disulfide	ND5	2-Chloroethylvinylether	ND10
1,1-Dichloroethene	ND5	Bromoform	ND5
1,1-Dichloroethane	ND5	4-Methyl-2-pentanone	ND50
1,2-Dichloroethene (total)	ND5	2-Hexanone	ND50
Chloroform	ND5	Tetrachloroethene	ND5
1,2-Dichloroethane	ND5	1,1,2,2-Tetrachloroethane	ND5
2-Butanone	ND100	Toluene	ND5
1,1,1-Trichloroethane	ND5	Chlorobenzene	ND5
Carbon tetrachloride	ND5	Ethylbenzene	ND5
Vinyl acetate	ND50	Styrene	ND5
Bromodichloromethane	ND5	Xylenes (total)	ND5
1,2-Dichloropropane	ND5		

 Surrogate Spike
 Percent Recovery

Toluene-d ₈	96%
Bromofluorobenzene	95%
1,2-Dichloroethane-d ₄	90%

Volatile Organic Compounds

Client Sample ID: TRIP BLANK
Sample Date: 01/21/93
Lab Sample ID: Q30109902
Analysis Date: 01/28/93

Compound	Concentration $\mu\text{g/L}$	Compound	Concentration $\mu\text{g/L}$
Chloromethane	ND10	cis-1,3-Dichloropropene	ND5
Bromomethane	ND10	Trichloroethene	ND5
Vinyl chloride	ND10	Dibromochloromethane	ND5
Chloroethane	ND10	1,1,2-Trichloroethane	ND5
Methylene chloride	ND5	Benzene	ND5
Acetone	ND100	trans-1,3-Dichloropropene	ND5
Carbon disulfide	ND5	2-Chloroethylvinylether	ND10
1,1-Dichloroethene	ND5	Bromoform	ND5
1,1-Dichloroethane	ND5	4-Methyl-2-pentanone	ND50
1,2-Dichloroethene (total)	ND5	2-Hexanone	ND50
Chloroform	ND5	Tetrachloroethene	ND5
1,2-Dichloroethane	ND5	1,1,2,2-Tetrachloroethane	ND5
2-Butanone	ND100	Toluene	ND5
1,1,1-Trichloroethane	ND5	Chlorobenzene	ND5
Carbon tetrachloride	ND5	Ethylbenzene	ND5
Vinyl acetate	ND50	Styrene	ND5
Bromodichloromethane	ND5	Xylenes (total)	ND5
1,2-Dichloropropane	ND5		

Surrogate Spike
Percent Recovery

Toluene-d ₈	100%
Bromofluorobenzene	109%
1,2-Dichloroethane-d ₄	94%

IT Corporation/Fort Story
Date: 02/11/93

IT ANALYTICAL SERVICES
PITTSBURGH, PA

Client Project ID: 519029

Job Number: Q301097/099

Volatile Organic Compounds

Lab Sample ID: METHOD BLANK
Analysis Date: 01/28/93

Compound	Concentration µg/L	Compound	Concentration µg/L
Chloromethane	ND10	cis-1,3-Dichloropropene	ND5
Bromomethane	ND10	Trichloroethene	ND5
Vinyl chloride	ND10	Dibromochloromethane	ND5
Chloroethane	ND10	1,1,2-Trichloroethane	ND5
Methylene chloride	ND5	Benzene	ND5
Acetone	ND100	trans-1,3-Dichloropropene	ND5
Carbon disulfide	ND5	2-Chloroethylvinylether	ND10
1,1-Dichloroethene	ND5	Bromoform	ND5
1,1-Dichloroethane	ND5	4-Methyl-2-pentanone	ND50
1,2-Dichloroethene (total)	ND5	2-Hexanone	ND50
Chloroform	ND5	Tetrachloroethene	ND5
1,2-Dichloroethane	ND5	1,1,2,2-Tetrachloroethane	ND5
2-Butanone	ND100	Toluene	ND5
1,1,1-Trichloroethane	ND5	Chlorobenzene	ND5
Carbon tetrachloride	ND5	Ethylbenzene	ND5
Vinyl acetate	ND50	Styrene	ND5
Bromodichloromethane	ND5	Xylenes (total)	ND5
1,2-Dichloropropane	ND5		

Surrogate Spike
Percent Recovery

Toluene-d ₈	97%
Bromofluorobenzene	94%
1,2-Dichloroethane-d ₄	88%

Semivolatile Organic Compounds

Client Sample ID: 519029-W001
Sample Date: 01/21/93
Lab Sample ID: Q30109901
Extraction Date: 01/27/93
Analysis Date: 02/01/93

Compound	Concentration µg/L	Compound	Concentration µg/L
Phenol	ND10	3-Nitroaniline	ND50
bis(2-Chloroethyl)ether	ND10	Acenaphthene	ND10
2-Chlorophenol	ND10	2,4-Dinitrophenol	ND50
1,3-Dichlorobenzene	ND10	4-Nitrophenol	ND50
1,4-Dichlorobenzene	ND10	Dibenzofuran	ND10
Benzyl alcohol	ND20	2,4-Dinitrotoluene	ND10
1,2-Dichlorobenzene	ND10	Diethylphthalate	ND10
2-Methylphenol	ND10	4-Chlorophenyl-phenylether	ND10
bis(2-Chloroisopropyl)ether	ND10	Fluorene	ND10
4-Methylphenol	ND10	4-Nitroaniline	ND50
N-Nitroso-di-n-propylamine	ND10	4,6-Dinitro-2-methylphenol	ND50
Hexachloroethane	ND10	N-Nitrosodiphenylamine	ND10
Nitrobenzene	ND10	4-Bromophenyl-phenylether	ND10
Isophorone	ND10	Hexachlorobenzene	ND10
2-Nitrophenol	ND10	Pentachlorophenol	ND50
2,4-Dimethylphenol	ND10	Phenanthrene	ND10
Benzoic acid	ND50	Anthracene	ND10
bis(2-Chloroethoxy)methane	ND10	Di-n-butylphthalate	ND50
2,4-Dichlorophenol	ND10	Fluoranthene	ND10
1,2,4-Trichlorobenzene	ND10	Pyrene	ND10
Naphthalene	ND10	Butylbenzylphthalate	ND10
4-Chloroaniline	ND20	3,3'-Dichlorobenzidine	ND20
Hexachlorobutadiene	ND10	Benzo(a)anthracene	ND10
4-Chloro-3-methylphenol	ND20	Chrysene	ND10
2-Methylnaphthalene	ND10	bis(2-Ethylhexyl)phthalate	ND50
Hexachlorocyclopentadiene	ND10	Di-n-octylphthalate	ND50
2,4,6-Trichlorophenol	ND10	Benzo(b)fluoranthene	ND10
2,4,5-Trichlorophenol	ND10	Benzo(k)fluoranthene	ND10
2-Chloronaphthalene	ND10	Benzo(a)pyrene	ND10
2-Nitroaniline	ND50	Indeno(1,2,3-cd)pyrene	ND10
Dimethylphthalate	ND10	Dibenzo(a,h)anthracene	ND10
Acenaphthylene	ND10	Benzo(g,h,i)perylene	ND10
2,6-Dinitrotoluene	ND10		

Surrogate Spike Percent Recovery:

Nitrobenzene-d ₅	71%	Phenol-d ₆	29%
2-Fluorobiphenyl	75%	2-Fluorophenol	48%
Terphenyl	80%	2,4,6-Tribromophenol	93%

Semivolatile Organic Compounds

Lab Sample ID: METHOD BLANK
Extraction Date: 01/27/93
Analysis Date: 01/29/93

Compound	Concentration µg/L	Compound	Concentration µg/L
Phenol	ND10	3-Nitroaniline	ND50
bis(2-Chloroethyl)ether	ND10	Acenaphthene	ND10
2-Chlorophenol	ND10	2,4-Dinitrophenol	ND50
1,3-Dichlorobenzene	ND10	4-Nitrophenol	ND50
1,4-Dichlorobenzene	ND10	Dibenzofuran	ND10
Benzyl alcohol	ND20	2,4-Dinitrotoluene	ND10
1,2-Dichlorobenzene	ND10	Diethylphthalate	ND10
2-Methylphenol	ND10	4-Chlorophenyl-phenylether	ND10
bis(2-Chloroisopropyl)ether	ND10	Fluorene	ND10
4-Methylphenol	ND10	4-Nitroaniline	ND50
N-Nitroso-di-n-propylamine	ND10	4,6-Dinitro-2-methylphenol	ND50
Hexachloroethane	ND10	N-Nitrosodiphenylamine	ND10
Nitrobenzene	ND10	4-Bromophenyl-phenylether	ND10
Isophorone	ND10	Hexachlorobenzene	ND10
2-Nitrophenol	ND10	Pentachlorophenol	ND50
2,4-Dimethylphenol	ND10	Phenanthrene	ND10
Benzoic acid	ND50	Anthracene	ND10
bis(2-Chloroethoxy)methane	ND10	Di-n-butylphthalate	ND10
2,4-Dichlorophenol	ND10	Fluoranthene	ND10
1,2,4-Trichlorobenzene	ND10	Pyrene	ND10
Naphthalene	ND10	Butylbenzylphthalate	ND10
4-Chloroaniline	ND20	3,3'-Dichlorobenzidine	ND20
Hexachlorobutadiene	ND10	Benzo(a)anthracene	ND10
4-Chloro-3-methylphenol	ND20	Chrysene	ND10
2-Methylnaphthalene	ND10	bis(2-Ethylhexyl)phthalate	ND10
Hexachlorocyclopentadiene	ND10	Di-n-octylphthalate	ND10
2,4,6-Trichlorophenol	ND10	Benzo(b)fluoranthene	ND10
2,4,5-Trichlorophenol	ND10	Benzo(k)fluoranthene	ND10
2-Chloronaphthalene	ND10	Benzo(a)pyrene	ND10
2-Nitroaniline	ND50	Indeno(1,2,3-cd)pyrene	ND10
Dimethylphthalate	ND10	Dibenzo(a,h)anthracene	ND10
Acenaphthylene	ND10	Benzo(g,h,i)perylene	ND10
2,6-Dinitrotoluene	ND10		

Surrogate Spike Percent Recovery:

Nitrobenzene-d ₅	58%	Phenol-d ₆	24%
2-Fluorobiphenyl	72%	2-Fluorophenol	36%
Terphenyl	87%	2,4,6-Tribromophenol	71%

IT Corporation/Fort Story
Date: 02/11/93

IT ANALYTICAL SERVICES
PITTSBURGH, PA

Client Project ID: 519029

Job Number: Q301097/099

Total Metals Analysis

Client Sample ID: 519029-W001
Sample Date: 01/21/93
Lab Sample ID: Q30109901
Analysis Date: 01/26,27,29/93
Mercury: 01/26/93

Parameter	Concentration µg/L	Matrix Spike Percent Recovery
Aluminum	ND100	103%
Antimony	ND60.0	98%
Arsenic	58.7	99%
Barium	50.3	105%
Beryllium	ND5.0	96%
Cadmium	ND5.0	93%
Calcium	7000	-
Chromium	ND10.0	97%
Cobalt	ND20.0	102%
Copper	ND25.0	101%
Iron	1480	140%
Lead	ND50.0	94%/95%
Magnesium	823	-
Manganese	12.3	97%
Mercury	ND0.20	105%
Nickel	ND40.0	99%
Potassium	5560	-
Selenium	ND5.0	103%
Silver	ND10.0	88%
Sodium	4590	-
Thallium	ND10.0	31%
Vanadium	ND20.0	99%
Zinc	ND20.0	106%

Total Metals Analysis

Lab Sample ID: METHOD BLANK

Analysis Date: 01/26,27,29/93

Mercury: 01/26/93

Parameter	Concentration $\mu\text{g/L}$
Aluminum	ND100
Antimony	ND60.0
Arsenic	ND10.0
Barium	ND10.0
Beryllium	ND5.0
Cadmium	ND5.0
Calcium	ND500.0
Chromium	ND10.0
Cobalt	ND20.0
Copper	ND25.0
Iron	ND30.0
Lead	ND50.0
Magnesium	ND500.0
Manganese	ND10.0
Mercury	ND0.20
Nickel	ND40.0
Potassium	ND2000
Selenium	ND5.0
Silver	ND10.0
Sodium	ND500.0
Thallium	ND10.0
Vanadium	ND20.0
Zinc	ND20.0

IT Corporation/Fort Story
Date: 02/11/93

IT ANALYTICAL SERVICES
PITTSBURGH, PA

Client Project ID: 519029

Job Number: Q301097/099

Pesticide/PCB Analysis

Client Sample ID: 519029-W001
Sample Date: 01/21/93
Lab Sample ID: Q30109901
Extraction Date: 01/28/93
Analysis Date: 02/02, 09/93

Compound	Concentration µg/L
alpha-BHC	ND0.03
gamma-BHC	ND0.04
beta-BHC	ND0.06
Heptachlor	0.03
delta-BHC	ND0.09
Aldrin	ND0.04
Heptachlor epoxide	ND0.83
Tecnical Chlordane	ND0.14
Endosulfan I	ND0.14
4,4'-DDE	ND0.04
Dieldrin	ND0.02
Endrin	ND0.06
4,4'-DDD	ND0.11
Endosulfan II	ND0.04
4,4'-DDT	ND0.12
Endrin aldehyde	ND0.23
Endosulfan sulfate	ND0.66
Methoxychlor	ND1.8
Toxaphene	ND2.4
Aroclor 1016	ND0.65
Aroclor 1221	ND0.65
Aroclor 1232	ND0.65
Aroclor 1242	ND0.65
Aroclor 1248	ND0.65
Aroclor 1254	ND0.65
Aroclor 1260	ND0.65
	Surrogate Spike Percent Recovery
Tetrachlorometaxylene	82%
Dibutylchlorendate	58%

Pesticide/PCB Analysis

Lab Sample ID: Method Blank
Extraction Date: 01/28/93
Analysis Date: 02/02, 09/93

Compound	Concentration µg/L
alpha-BHC	ND0.03
gamma-BHC	ND0.04
beta-BHC	ND0.06
Heptachlor	ND0.03
delta-BHC	ND0.09
Aldrin	ND0.04
Heptachlor epoxide	ND0.83
Technical Chlordane	ND0.14
Endosulfan I	ND0.14
4,4'-DDE	ND0.04
Dieldrin	ND0.02
Endrin	ND0.06
4,4'-DDD	ND0.11
Endosulfan II	ND0.04
4,4'-DDT	ND0.12
Endrin aldehyde	ND0.23
Endosulfan sulfate	ND0.66
Methoxychlor	ND1.8
Toxaphene	ND2.4
Aroclor 1016	ND0.65
Aroclor 1221	ND0.65
Aroclor 1232	ND0.65
Aroclor 1242	ND0.65
Aroclor 1248	ND0.65
Aroclor 1254	ND0.65
Aroclor 1260	ND0.65
	Surrogate Spike Percent Recovery
Tetrachlorometaxylene	74%
Dibutylchlorendate	73%

IT Corporation/Fort Story
Date: 02/11/93

**IT ANALYTICAL SERVICES
PITTSBURGH, PA**

Client Project ID: 519029

Job Number: Q301097/099

Cyanide Analysis

Client Sample ID: 519029-W001

Sample Date: 01/21/93

Analysis Date: 01/27/93

Client Sample ID	Lab Sample ID	Concentration mg/L
519029-W001	Q30109901	ND0.01
-	METHOD BLANK	ND0.01

IT Corporation/Fort Story
Date: 02/11/93

**IT ANALYTICAL SERVICES
PITTSBURGH, PA**

Client Project ID: 519029

Job Number: Q301097/099

TCLP Lead Analysis

Client Sample ID: See below
Sample Date: 01/21/93
TCLP Extraction Date: 01/25/93
Analysis Date: 01/27/93

Client Sample ID	Lab Sample ID	Concentration mg/L	Matrix Spike Percent Recovery
519029-S001	Q30109701	0.765	-
519029-S002	Q30109702	0.138	-
519029-S003	Q30109703	2.54	96%
-	TCLP PREPARATION BLANK	ND0.05	-
-	METHOD BLANK	ND0.05	-

Company: IT CORPORATION

Date: 04/23/93

Client Work ID: FT. STORY 519029

519029

IT ANALYTICAL SERVICES

AUSTIN, TX

(512) 892-6684

Work Order: B3-04-192

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: 04/23/93
Client Work ID: FT. STORY 519029

519029

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-04-192

SAMPLE ID: 519029S01
SAMPLE DATE: 04/19/93
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH by GC (mod EPA 8015)	1	85	2 mg/kg	04/22/93	CALIFORNIA

Referenced notes for these results:

- 1 Concentration represents a diesel/JP-5 pattern as well as a pattern of late eluting hydrocarbons.

Company: IT CORPORATION
Date: 04/23/93
Client Work ID: FT. STORY 519029

519029

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-04-192

SAMPLE ID: 519029S02
SAMPLE DATE: 04/19/93
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH by GC (mod EPA 8015)	1	1300	35	mg/kg	04/22/93	CALIFORNIA

Referenced notes for these results:

- 1 Concentration represents a diesel/JP-5 pattern.

Company: IT CORPORATION
Date: 04/23/93
Client Work ID: FT. STORY 519029

519029

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-04-192

SAMPLE ID: 519029S04
SAMPLE DATE: 04/19/93
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>	
<u>Ref</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH by GC (mod EPA 8015)	1	66	2 mg/kg	04/22/93	CALIFORNIA

Referenced notes for these results:

- 1 Concentration represents a small diesel/JP-5 pattern as well as a larger pattern of late eluting hydrocarbons.

Company: IT CORPORATION
Date: 04/23/93
Client Work ID: FT. STORY 519029

519029

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-04-192

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME **TPH by GC (mod EPA 8015)** TEST CODE **TPH_GC**

TPH-Extractable	EPA Methods 3510/3520/3550/3580 for extraction of
Petroleum	samples and modified EPA Method 8015 for GC/FID
Hydrocarbons	analysis of extracts run against a diesel standard.



ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD *

Reference Document N° 419107
Page 1 of 1

B304192

Project Name/No. 1 T. STORY 519029
 Sample Team Members 2 BOBERG
 Profit Center No. 3 2254
 Project Manager 4 TOM MATHISON
 Purchase Order No. 6
 Required Report Date 11 NORMAL

Samples Shipment Date 7 04-19-93
 Lab Destination 8 ITAS AUSTIN, TX.
 Lab Contact 9 CARIA BUTLER
 Project Contact/Phone 12 TOM MATHISON
 Carrier/Waybill No. 13 FED EX 6275020194
COS 4/20/93

Bill to: 5 TOM MATHISON (412) 372-7701
IT CORP
2790 MOSSIDE BLVD
MONROEVILLE, PA, 15146
 Report to: 10 TOM MATHISON
IT CORP
2796 MOSSIDE BLVD
MONROEVILLE, PA, 15146

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
519029S01	SOIL (SAND)	4-19-93 0810	AMBER GLASS	1-250ML	NONE	TPH BY ^{METHOD} 418.1+METALS	GOOD COND.	
519029S02	↓	0820	↓	↓	↓	↓	TEMP 4°C	
519029S03	↓	0830	↓	↓	↓	↓	COS 4/20/93	
519029S04	↓	0840	↓	↓	↓	↓	↓	
							FOR LAB USE ONLY	

Special Instructions: ²³

Possible Hazard Identification: ²⁴ Non-hazard Flammable Skin Irritant Poison B Unknown Sample Disposal: ²⁵ Return to Client Disposal by Lab Archive (mos.)

Turnaround Time Required: ²⁶ Normal Rush QC Level: ²⁷ I. II. III. Project Specific (specify):

1. Relinquished by ²⁸ <u>Jack Boberg IT Corp</u> Date: <u>04-19-93</u> Time: <u>1100</u>	1. Received by ²⁸ <u>Tom Mathison IT</u> Date: <u>4/20/93</u> Time: <u>0933</u>
2. Relinquished by (Signature/Affiliation)	2. Received by (Signature/Affiliation)
3. Relinquished by (Signature/Affiliation)	3. Received by (Signature/Affiliation)

Comments: ²⁹

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

CERTIFICATE OF ANALYSIS

IT Corporation/Fort Story
2790 Mosside Boulevard
Monroeville, PA 15146
Attn: Tom Mathison

May 6, 1993

Job Number: Q304166/167

The Certificate of Analysis is for the following:

Client Project ID: 519029
Date Received by Lab: 04/20/93
Number of Samples: Four
Sample Type: Soil

1.0 Introduction

On April 20, 1993, four soil samples were received at ITAS Pittsburgh, labeled as follows:

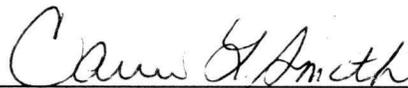
519029S01 519029S02 519029S03 519029S04

2.0 Analytical Results/Methodology

Results are presented in the enclosed tables and were determined in accordance with Method 418.1, Methods for the Chemical Analysis of Water and Waste, EPA, 600/4-79-020, 1983 revision; Methods 3050, 6010, 7060, 7471, 7740, 8240, and 8270, referenced in Test Methods for Evaluating Solid Waste, EPA SW-846, 3rd ed., 1986; Environmental Protection Agency, Contract Laboratory Program, Statement of Work No. 7/88, Section IV, Exhibit-D, Part F, July 1988.

Results of the sample concentrations are based on dry weight and expressed in milligrams per kilogram or parts per million and micrograms per kilogram or parts per billion. ND denotes that the compound is not detected at or above the indicated detection limit.

Reviewed and Approved:



Carrie L. Smith, Project Manager

IT Corporation/Fort Story

Date: 05/06/93

**IT ANALYTICAL SERVICES
PITTSBURGH, PA**

Client Project ID: 519029

Job Number: Q304166/167

2.0 Analytical Results/Methodology (Continued)

Volatiles

Sample 519029S02 has surrogates toluene-d₈ and bromofluorobenzene outside the advisory QC limits on the initial analysis; and also, a xylene hit over calibration. A medium level analysis was performed to get xylene within calibration; the surrogates for this analysis were all within the advisory QC limits. Both sets of results have been reported.

Total Petroleum Hydrocarbons

Sample 519029S04 was analyzed in triplicate for 418.1 due to the variation in the first two analyses.

3.0 Quality Control

QA/QC information can be found immediately following the analytical data.

Volatile Organic Compounds

Client Sample ID: 519029S01
 Sample Date: 04/19/93
 Lab Sample ID: Q30416701
 Analysis Date: 04/30/93

Compound	Concentration $\mu\text{g}/\text{Kg}$	Compound	Concentration $\mu\text{g}/\text{Kg}$
Chloromethane	ND10	1,2-Dichloropropane	ND5
Bromomethane	ND10	cis-1,3-Dichloropropene	ND5
Vinyl chloride	ND10	Trichloroethene	ND5
Chloroethane	ND10	Dibromochloromethane	ND5
Methylene chloride	ND5	1,1,2-Trichloroethane	ND5
Acetone	ND100	Benzene	ND5
Carbon disulfide	ND5	trans-1,3-Dichloropropene	ND5
1,1-Dichloroethene	ND5	2-Chloroethylvinylether	ND10
1,1-Dichloroethane	ND5	Bromoform	ND5
1,2-Dichloroethene (total)	ND5	4-Methyl-2-pentanone	ND50
Chloroform	ND5	2-Hexanone	ND50
1,2-Dichloroethane	ND5	Tetrachloroethene	ND5
2-Butanone	ND100	1,1,2,2-Tetrachloroethane	ND5
1,1,1-Trichloroethane	ND5	Toluene	ND5
Carbon tetrachloride	ND5	Chlorobenzene	ND5
Vinyl acetate	ND50	Ethylbenzene	ND5
Bromodichloromethane	ND5	Styrene	ND5
		Xylenes (total)	ND5

Surrogate Spike
 Percent Recovery

Method Blank 1

Toluene-d ₈	99%
Bromofluorobenzene	100%
1,2-Dichloroethane-d ₄	86%

Volatile Organic Compounds

Client Sample ID: 519029S02
 Sample Date: 04/19/93
 Lab Sample ID: Q30416702
 Analysis Date: 05/03/93

Compound	Concentration $\mu\text{g}/\text{Kg}$	Compound	Concentration $\mu\text{g}/\text{Kg}$
Chloromethane	ND41	1,2-Dichloropropane	ND20
Bromomethane	ND41	cis-1,3-Dichloropropene	ND20
Vinyl chloride	ND41	Trichloroethene	ND20
Chloroethane	ND41	Dibromochloromethane	ND20
Methylene chloride	ND20	1,1,2-Trichloroethane	ND20
Acetone	ND410	Benzene	ND20
Carbon disulfide	ND20	trans-1,3-Dichloropropene	ND20
1,1-Dichloroethene	ND20	2-Chloroethylvinylether	ND41
1,1-Dichloroethane	ND20	Bromoform	ND20
1,2-Dichloroethene (total)	ND20	4-Methyl-2-pentanone	ND200
Chloroform	ND20	2-Hexanone	ND200
1,2-Dichloroethane	ND20	Tetrachloroethene	ND20
2-Butanone	ND410	1,1,2,2-Tetrachloroethane	ND20
1,1,1-Trichloroethane	ND20	Toluene	ND20
Carbon tetrachloride	ND20	Chlorobenzene	ND20
Vinyl acetate	ND200	Ethylbenzene	ND20
Bromodichloromethane	ND20	Styrene	ND20
		Xylenes (total)	2900**

Surrogate Spike
Percent Recovery

Method Blank 2

Toluene-d ₈	73%	*
Bromofluorobenzene	384%	*
1,2-Dichloroethane-d ₄	108%	

* Outside QC limits.

** Above calibration.

Volatile Organic Compounds

Client Sample ID: 519029S02 Dilution
 Sample Date: 04/19/93
 Lab Sample ID: Q30416702
 Analysis Date: 05/04/93

Compound	Concentration $\mu\text{g}/\text{Kg}$	Compound	Concentration $\mu\text{g}/\text{Kg}$
Chloromethane	ND1300	1,2-Dichloropropane	ND660
Bromomethane	ND1300	cis-1,3-Dichloropropene	ND660
Vinyl chloride	ND1300	Trichloroethene	ND660
Chloroethane	ND1300	Dibromochloromethane	ND660
Methylene chloride	ND660	1,1,2-Trichloroethane	ND660
Acetone	ND13000	Benzene	ND660
Carbon disulfide	ND660	trans-1,3-Dichloropropene	ND660
1,1-Dichloroethene	ND660	2-Chloroethylvinylether	ND1300
1,1-Dichloroethane	ND660	Bromoform	ND660
1,2-Dichloroethene (total)	ND660	4-Methyl-2-pentanone	ND6600
Chloroform	ND660	2-Hexanone	ND6600
1,2-Dichloroethane	ND660	Tetrachloroethene	ND660
2-Butanone	ND13000	1,1,2,2-Tetrachloroethane	ND660
1,1,1-Trichloroethane	ND660	Toluene	ND660
Carbon tetrachloride	ND660	Chlorobenzene	ND660
Vinyl acetate	ND6600	Ethylbenzene	ND660
Bromodichloromethane	ND660	Styrene	ND660
		Xylenes (total)	2600

Surrogate Spike
 Percent Recovery

Method Blank 3

Toluene-d ₈	91%
Bromofluorobenzene	110%
1,2-Dichloroethane-d ₄	107%

Volatile Organic Compounds

Client Sample ID: 519029S03
 Sample Date: 04/19/93
 Lab Sample ID: Q30416703
 Analysis Date: 05/03/93

Compound	Concentration $\mu\text{g}/\text{Kg}$	Compound	Concentration $\mu\text{g}/\text{Kg}$
Chloromethane	ND11	1,2-Dichloropropane	ND6
Bromomethane	ND11	cis-1,3-Dichloropropene	ND6
Vinyl chloride	ND11	Trichloroethene	ND6
Chloroethane	ND11	Dibromochloromethane	ND6
Methylene chloride	ND6	1,1,2-Trichloroethane	ND6
Acetone	ND110	Benzene	ND6
Carbon disulfide	ND6	trans-1,3-Dichloropropene	ND6
1,1-Dichloroethene	ND6	2-Chloroethylvinylether	ND11
1,1-Dichloroethane	ND6	Bromoform	ND6
1,2-Dichloroethene (total)	ND6	4-Methyl-2-pentanone	ND56
Chloroform	ND6	2-Hexanone	ND56
1,2-Dichloroethane	ND6	Tetrachloroethene	ND6
2-Butanone	ND110	1,1,2,2-Tetrachloroethane	ND6
1,1,1-Trichloroethane	ND6	Toluene	ND6
Carbon tetrachloride	ND6	Chlorobenzene	ND6
Vinyl acetate	ND56	Ethylbenzene	ND6
Bromodichloromethane	ND6	Styrene	ND6
		Xylenes (total)	ND6

Surrogate Spike
 Percent Recovery

Method Blank 2

Toluene-d ₈	83%
Bromofluorobenzene	89%
1,2-Dichloroethane-d ₄	93%

Volatile Organic Compounds

Client Sample ID: 519029S04
 Sample Date: 04/19/93
 Lab Sample ID: Q30416704
 Analysis Date: 05/03/93

Compound	Concentration $\mu\text{g}/\text{Kg}$	Compound	Concentration $\mu\text{g}/\text{Kg}$
Chloromethane	ND11	1,2-Dichloropropane	ND6
Bromomethane	ND11	cis-1,3-Dichloropropene	ND6
Vinyl chloride	ND11	Trichloroethene	ND6
Chloroethane	ND11	Dibromochloromethane	ND6
Methylene chloride	ND6	1,1,2-Trichloroethane	ND6
Acetone	ND110	Benzene	ND6
Carbon disulfide	ND6	trans-1,3-Dichloropropene	ND6
1,1-Dichloroethene	ND6	2-Chloroethylvinylether	ND11
1,1-Dichloroethane	ND6	Bromoform	ND6
1,2-Dichloroethene (total)	ND6	4-Methyl-2-pentanone	ND55
Chloroform	ND6	2-Hexanone	ND55
1,2-Dichloroethane	ND6	Tetrachloroethene	ND6
2-Butanone	ND110	1,1,2,2-Tetrachloroethane	ND6
1,1,1-Trichloroethane	ND6	Toluene	ND6
Carbon tetrachloride	ND6	Chlorobenzene	ND6
Vinyl acetate	ND55	Ethylbenzene	ND6
Bromodichloromethane	ND6	Styrene	ND6
		Xylenes (total)	ND6

Surrogate Spike
Percent Recovery

Method Blank 2

Toluene-d ₈	100%
Bromofluorobenzene	103%
1,2-Dichloroethane-d ₄	104%

Volatile Organic Compounds

Lab Sample ID: Method Blank 1
Analysis Date: 04/30/93

Compound	Concentration $\mu\text{g}/\text{Kg}$	Compound	Concentration $\mu\text{g}/\text{Kg}$
Chloromethane	ND10	1,2-Dichloropropane	ND5
Bromomethane	ND10	cis-1,3-Dichloropropene	ND5
Vinyl chloride	ND10	Trichloroethene	ND5
Chloroethane	ND10	Dibromochloromethane	ND5
Methylene chloride	ND5	1,1,2-Trichloroethane	ND5
Acetone	ND100	Benzene	ND5
Carbon disulfide	ND5	trans-1,3-Dichloropropene	ND5
1,1-Dichloroethene	ND5	2-Chloroethylvinylether	ND10
1,1-Dichloroethane	ND5	Bromoform	ND5
1,2-Dichloroethene (total)	ND5	4-Methyl-2-pentanone	ND50
Chloroform	ND5	2-Hexanone	ND50
1,2-Dichloroethane	ND5	Tetrachloroethene	ND5
2-Butanone	ND100	1,1,2,2-Tetrachloroethane	ND5
1,1,1-Trichloroethane	ND5	Toluene	ND5
Carbon tetrachloride	ND5	Chlorobenzene	ND5
Vinyl acetate	ND50	Ethylbenzene	ND5
Bromodichloromethane	ND5	Styrene	ND5
		Xylenes (total)	ND5

Surrogate Spike
Percent Recovery

Toluene-d ₈	101%
Bromofluorobenzene	100%
1,2-Dichloroethane-d ₄	114%

Volatile Organic Compounds

Lab Sample ID: Method Blank 2

Analysis Date: 05/03/93

Compound	Concentration $\mu\text{g}/\text{Kg}$	Compound	Concentration $\mu\text{g}/\text{Kg}$
Chloromethane	ND10	1,2-Dichloropropane	ND5
Bromomethane	ND10	cis-1,3-Dichloropropene	ND5
Vinyl chloride	ND10	Trichloroethene	ND5
Chloroethane	ND10	Dibromochloromethane	ND5
Methylene chloride	ND5	1,1,2-Trichloroethane	ND5
Acetone	ND100	Benzene	ND5
Carbon disulfide	ND5	trans-1,3-Dichloropropene	ND5
1,1-Dichloroethene	ND5	2-Chloroethylvinylether	ND10
1,1-Dichloroethane	ND5	Bromoform	ND5
1,2-Dichloroethene (total)	ND5	4-Methyl-2-pentanone	ND50
Chloroform	ND5	2-Hexanone	ND50
1,2-Dichloroethane	ND5	Tetrachloroethene	ND5
2-Butanone	ND100	1,1,2,2-Tetrachloroethane	ND5
1,1,1-Trichloroethane	ND5	Toluene	ND5
Carbon tetrachloride	ND5	Chlorobenzene	ND5
Vinyl acetate	ND50	Ethylbenzene	ND5
Bromodichloromethane	ND5	Styrene	ND5
		Xylenes (total)	ND5

Surrogate Spike
Percent Recovery

Toluene-d ₈	98%
Bromofluorobenzene	96%
1,2-Dichloroethane-d ₄	105%

Volatile Organic Compounds

Lab Sample ID: Method Blank 3

Analysis Date: 05/04/93

Compound	Concentration $\mu\text{g}/\text{Kg}$	Compound	Concentration $\mu\text{g}/\text{Kg}$
Chloromethane	ND1200	1,2-Dichloropropane	ND620
Bromomethane	ND1200	cis-1,3-Dichloropropene	ND620
Vinyl chloride	ND1200	Trichloroethene	ND620
Chloroethane	ND1200	Dibromochloromethane	ND620
Methylene chloride	ND620	1,1,2-Trichloroethane	ND620
Acetone	ND12000	Benzene	ND620
Carbon disulfide	ND620	trans-1,3-Dichloropropene	ND620
1,1-Dichloroethene	ND620	2-Chloroethylvinylether	ND1200
1,1-Dichloroethane	ND620	Bromoform	ND620
1,2-Dichloroethene (total)	ND620	4-Methyl-2-pentanone	ND6200
Chloroform	ND620	2-Hexanone	ND6200
1,2-Dichloroethane	ND620	Tetrachloroethene	ND620
2-Butanone	ND12000	1,1,2,2-Tetrachloroethane	ND620
1,1,1-Trichloroethane	ND620	Toluene	ND620
Carbon tetrachloride	ND620	Chlorobenzene	ND620
Vinyl acetate	ND6200	Ethylbenzene	ND620
Bromodichloromethane	ND620	Styrene	ND620
		Xylenes (total)	ND620

Surrogate Spike
Percent Recovery

Toluene-d ₈	100%
Bromofluorobenzene	98%
1,2-Dichloroethane-d ₄	108%

Semivolatile Organic Compounds

Client Sample ID: 519029S01
 Sample Date: 04/19/93
 Lab Sample ID: Q30416701
 Extraction Date: 04/21/93
 Analysis Date: 04/26/93

Compound	Concentration µg/Kg	Compound	Concentration µg/Kg
Phenol	ND690	3-Nitroaniline	ND3400
bis(2-Chloroethyl)ether	ND690	Acenaphthene	ND690
2-Chlorophenol	ND690	2,4-Dinitrophenol	ND3400
1,3-Dichlorobenzene	ND690	4-Nitrophenol	ND3400
1,4-Dichlorobenzene	ND690	Dibenzofuran	ND690
Benzyl alcohol	ND1400	2,4-Dinitrotoluene	ND690
1,2-Dichlorobenzene	ND690	Diethylphthalate	ND690
2-Methylphenol	ND690	4-Chlorophenyl-phenylether	ND690
bis(2-Chloroisopropyl)ether	ND690	Fluorene	ND690
4-Methylphenol	ND690	4-Nitroaniline	ND3400
N-Nitroso-di-n-propylamine	ND690	4,6-Dinitro-2-methylphenol	ND3400
Hexachloroethane	ND690	N-Nitrosodiphenylamine	ND690
Nitrobenzene	ND690	4-Bromophenyl-phenylether	ND690
Isophorone	ND690	Hexachlorobenzene	ND690
2-Nitrophenol	ND690	Pentachlorophenol	ND3400
2,4-Dimethylphenol	ND690	Phenanthrene	ND690
Benzoic acid	ND3400	Anthracene	ND690
bis(2-Chloroethoxy)methane	ND690	Di-n-butylphthalate	ND690
2,4-Dichlorophenol	ND690	Fluoranthene	ND690
1,2,4-Trichlorobenzene	ND690	Pyrene	ND690
Naphthalene	ND690	Butylbenzylphthalate	ND690
4-Chloroaniline	ND1400	3,3'-Dichlorobenzidine	ND1400
Hexachlorobutadiene	ND690	Benzo(a)anthracene	ND690
4-Chloro-3-methylphenol	ND1400	Chrysene	ND690
2-Methylnaphthalene	ND690	bis(2-Ethylhexyl)phthalate	ND690
Hexachlorocyclopentadiene	ND690	Di-n-octylphthalate	ND690
2,4,6-Trichlorophenol	ND690	Benzo(b)fluoranthene	ND690
2,4,5-Trichlorophenol	ND690	Benzo(k)fluoranthene	ND690
2-Chloronaphthalene	ND690	Benzo(a)pyrene	ND690
2-Nitroaniline	ND3400	Indeno(1,2,3-cd)pyrene	ND690
Dimethylphthalate	ND690	Dibenzo(a,h)anthracene	ND690
Acenaphthylene	ND690	Benzo(g,h,i)perylene	ND690
2,6-Dinitrotoluene	ND690		
Surrogate Spike Percent Recovery:			
Nitrobenzene-d ₅	84%	Phenol-d ₆	77%
2-Fluorobiphenyl	80%	2-Fluorophenol	80%
Terphenyl	80%	2,4,6-Tribromophenol	79%

Semivolatile Organic Compounds

Client Sample ID: 519029S02
 Sample Date: 04/19/93
 Lab Sample ID: Q30416702
 Extraction Date: 04/21/93
 Analysis Date: 04/26/93

Compound	Concentration µg/Kg	Compound	Concentration µg/Kg
Phenol	ND690	3-Nitroaniline	ND850
bis(2-Chloroethyl)ether	ND690	Acenaphthene	ND690
2-Chlorophenol	ND690	2,4-Dinitrophenol	ND850
1,3-Dichlorobenzene	ND690	4-Nitrophenol	ND850
1,4-Dichlorobenzene	ND690	Dibenzofuran	ND690
Benzyl alcohol	ND140	2,4-Dinitrotoluene	ND690
1,2-Dichlorobenzene	ND690	Diethylphthalate	ND690
2-Methylphenol	ND690	4-Chlorophenyl-phenylether	ND690
bis(2-Chloroisopropyl)ether	ND690	Fluorene	1200
4-Methylphenol	ND690	4-Nitroaniline	ND850
N-Nitroso-di-n-propylamine	ND690	4,6-Dinitro-2-methylphenol	ND850
Hexachloroethane	ND690	N-Nitrosodiphenylamine	ND690
Nitrobenzene	ND690	4-Bromophenyl-phenylether	ND690
Isophorone	ND690	Hexachlorobenzene	ND690
2-Nitrophenol	ND690	Pentachlorophenol	ND850
2,4-Dimethylphenol	ND690	Phenanthrene	2300
Benzoic acid	ND850	Anthracene	2300
bis(2-Chloroethoxy)methane	ND690	Di-n-butylphthalate	ND690
2,4-Dichlorophenol	ND690	Fluoranthene	ND690
1,2,4-Trichlorobenzene	ND690	Pyrene	ND690
Naphthalene	1600	Butylbenzylphthalate	ND690
4-Chloroaniline	ND140	3,3'-Dichlorobenzidine	ND140
Hexachlorobutadiene	ND690	Benzo(a)anthracene	ND690
4-Chloro-3-methylphenol	ND140	Chrysene	ND690
2-Methylnaphthalene	5700	bis(2-Ethylhexyl)phthalate	ND690
Hexachlorocyclopentadiene	ND690	Di-n-octylphthalate	ND690
2,4,6-Trichlorophenol	ND690	Benzo(b)fluoranthene	ND690
2,4,5-Trichlorophenol	ND690	Benzo(k)fluoranthene	ND690
2-Chloronaphthalene	ND690	Benzo(a)pyrene	ND690
2-Nitroaniline	ND850	Indeno(1,2,3-cd)pyrene	ND690
Dimethylphthalate	ND690	Dibenzo(a,h)anthracene	ND690
Acenaphthylene	ND690	Benzo(g,h,i)perylene	ND690
2,6-Dinitrotoluene	ND690		
Surrogate Spike Percent Recovery:			
Nitrobenzene-d ₅	87%	Phenol-d ₆	76%
2-Fluorobiphenyl	80%	2-Fluorophenol	78%
Terphenyl	81%	2,4,6-Tribromophenol	78%

Semivolatile Organic Compounds

Client Sample ID: 519029S03
 Sample Date: 04/19/93
 Lab Sample ID: Q30416703
 Extraction Date: 04/21/93
 Analysis Date: 04/27/93

Compound	Concentration µg/Kg	Compound	Concentration µg/Kg
Phenol	ND690	3-Nitroaniline	ND350
bis(2-Chloroethyl)ether	ND690	Acenaphthene	ND690
2-Chlorophenol	ND690	2,4-Dinitrophenol	ND350
1,3-Dichlorobenzene	ND690	4-Nitrophenol	ND350
1,4-Dichlorobenzene	ND690	Dibenzofuran	ND690
Benzyl alcohol	ND140	2,4-Dinitrotoluene	ND690
1,2-Dichlorobenzene	ND690	Diethylphthalate	ND690
2-Methylphenol	ND690	4-Chlorophenyl-phenylether	ND690
bis(2-Chloroisopropyl)ether	ND690	Fluorene	ND690
4-Methylphenol	ND690	4-Nitroaniline	ND350
N-Nitroso-di-n-propylamine	ND690	4,6-Dinitro-2-methylphenol	ND350
Hexachloroethane	ND690	N-Nitrosodiphenylamine	ND690
Nitrobenzene	ND690	4-Bromophenyl-phenylether	ND690
Isophorone	ND690	Hexachlorobenzene	ND690
2-Nitrophenol	ND690	Pentachlorophenol	ND350
2,4-Dimethylphenol	ND690	Phenanthrene	ND690
Benzoic acid	ND350	Anthracene	ND690
bis(2-Chloroethoxy)methane	ND690	Di-n-butylphthalate	ND690
2,4-Dichlorophenol	ND690	Fluoranthene	ND690
1,2,4-Trichlorobenzene	ND690	Pyrene	ND690
Naphthalene	ND690	Butylbenzylphthalate	ND690
4-Chloroaniline	ND140	3,3'-Dichlorobenzidine	ND140
Hexachlorobutadiene	ND690	Benzo(a)anthracene	ND690
4-Chloro-3-methylphenol	ND140	Chrysene	ND690
2-Methylnaphthalene	ND690	bis(2-Ethylhexyl)phthalate	ND690
Hexachlorocyclopentadiene	ND690	Di-n-octylphthalate	ND690
2,4,6-Trichlorophenol	ND690	Benzo(b)fluoranthene	ND690
2,4,5-Trichlorophenol	ND690	Benzo(k)fluoranthene	ND690
2-Chloronaphthalene	ND690	Benzo(a)pyrene	ND690
2-Nitroaniline	ND350	Indeno(1,2,3-cd)pyrene	ND690
Dimethylphthalate	ND690	Dibenzo(a,h)anthracene	ND690
Acenaphthylene	ND690	Benzo(g,h,i)perylene	ND690
2,6-Dinitrotoluene	ND690		
Surrogate Spike Percent Recovery:			
Nitrobenzene-d ₅	79%	Phenol-d ₆	74%
2-Fluorobiphenyl	76%	2-Fluorophenol	68%
Terphenyl	91%	2,4,6-Tribromophenol	66%

Semivolatile Organic Compounds

Client Sample ID: 519029S04
 Sample Date: 04/19/93
 Lab Sample ID: Q30416704
 Extraction Date: 04/21/93
 Analysis Date: 04/27/93

Compound	Concentration µg/Kg	Compound	Concentration µg/Kg
Phenol	ND690	3-Nitroaniline	ND3400
bis(2-Chloroethyl)ether	ND690	Acenaphthene	ND690
2-Chlorophenol	ND690	2,4-Dinitrophenol	ND3400
1,3-Dichlorobenzene	ND690	4-Nitrophenol	ND3400
1,4-Dichlorobenzene	ND690	Dibenzofuran	ND690
Benzyl alcohol	ND1400	2,4-Dinitrotoluene	ND690
1,2-Dichlorobenzene	ND690	Diethylphthalate	ND690
2-Methylphenol	ND690	4-Chlorophenyl-phenylether	ND690
bis(2-Chloroisopropyl)ether	ND690	Fluorene	ND690
4-Methylphenol	ND690	4-Nitroaniline	ND3400
N-Nitroso-di-n-propylamine	ND690	4,6-Dinitro-2-methylphenol	ND3400
Hexachloroethane	ND690	N-Nitrosodiphenylamine	ND690
Nitrobenzene	ND690	4-Bromophenyl-phenylether	ND690
Isophorone	ND690	Hexachlorobenzene	ND690
2-Nitrophenol	ND690	Pentachlorophenol	ND3400
2,4-Dimethylphenol	ND690	Phenanthrene	ND690
Benzoic acid	ND3400	Anthracene	ND690
bis(2-Chloroethoxy)methane	ND690	Di-n-butylphthalate	ND690
2,4-Dichlorophenol	ND690	Fluoranthene	ND690
1,2,4-Trichlorobenzene	ND690	Pyrene	ND690
Naphthalene	ND690	Butylbenzylphthalate	ND690
4-Chloroaniline	ND1400	3,3'-Dichlorobenzidine	ND1400
Hexachlorobutadiene	ND690	Benzo(a)anthracene	ND690
4-Chloro-3-methylphenol	ND1400	Chrysene	ND690
2-Methylnaphthalene	ND690	bis(2-Ethylhexyl)phthalate	ND690
Hexachlorocyclopentadiene	ND690	Di-n-octylphthalate	ND690
2,4,6-Trichlorophenol	ND690	Benzo(b)fluoranthene	ND690
2,4,5-Trichlorophenol	ND690	Benzo(k)fluoranthene	ND690
2-Chloronaphthalene	ND690	Benzo(a)pyrene	ND690
2-Nitroaniline	ND3400	Indeno(1,2,3-cd)pyrene	ND690
Dimethylphthalate	ND690	Dibenzo(a,h)anthracene	ND690
Acenaphthylene	ND690	Benzo(g,h,i)perylene	ND690
2,6-Dinitrotoluene	ND690		
Surrogate Spike Percent Recovery:			
Nitrobenzene-d ₅	84%	Phenol-d ₆	80%
2-Fluorobiphenyl	81%	2-Fluorophenol	74%
Terphenyl	92%	2,4,6-Tribromophenol	73%

Semivolatile Organic Compounds

Lab Sample ID: Method Blank
 Extraction Date: 04/21/93
 Analysis Date: 04/27/93

Compound	Concentration µg/Kg	Compound	Concentration µg/Kg
Phenol	ND660	3-Nitroaniline	ND300
bis(2-Chloroethyl)ether	ND660	Acenaphthene	ND660
2-Chlorophenol	ND660	2,4-Dinitrophenol	ND300
1,3-Dichlorobenzene	ND660	4-Nitrophenol	ND300
1,4-Dichlorobenzene	ND660	Dibenzofuran	ND660
Benzyl alcohol	ND100	2,4-Dinitrotoluene	ND660
1,2-Dichlorobenzene	ND660	Diethylphthalate	ND660
2-Methylphenol	ND660	4-Chlorophenyl-phenylether	ND660
bis(2-Chloroisopropyl)ether	ND660	Fluorene	ND660
4-Methylphenol	ND660	4-Nitroaniline	ND300
N-Nitroso-di-n-propylamine	ND660	4,6-Dinitro-2-methylphenol	ND300
Hexachloroethane	ND660	N-Nitrosodiphenylamine	ND660
Nitrobenzene	ND660	4-Bromophenyl-phenylether	ND660
Isophorone	ND660	Hexachlorobenzene	ND660
2-Nitrophenol	ND660	Pentachlorophenol	ND300
2,4-Dimethylphenol	ND660	Phenanthrene	ND660
Benzoic acid	ND300	Anthracene	ND660
bis(2-Chloroethoxy)methane	ND660	Di-n-butylphthalate	ND660
2,4-Dichlorophenol	ND660	Fluoranthene	ND660
1,2,4-Trichlorobenzene	ND660	Pyrene	ND660
Naphthalene	ND660	Butylbenzylphthalate	ND660
4-Chloroaniline	ND100	3,3'-Dichlorobenzidine	ND100
Hexachlorobutadiene	ND660	Benzo(a)anthracene	ND660
4-Chloro-3-methylphenol	ND100	Chrysene	ND660
2-Methylnaphthalene	ND660	bis(2-Ethylhexyl)phthalate	ND660
Hexachlorocyclopentadiene	ND660	Di-n-octylphthalate	ND660
2,4,6-Trichlorophenol	ND660	Benzo(b)fluoranthene	ND660
2,4,5-Trichlorophenol	ND660	Benzo(k)fluoranthene	ND660
2-Chloronaphthalene	ND660	Benzo(a)pyrene	ND660
2-Nitroaniline	ND300	Indeno(1,2,3-cd)pyrene	ND660
Dimethylphthalate	ND660	Dibenzo(a,h)anthracene	ND660
Acenaphthylene	ND660	Benzo(g,h,i)perylene	ND660
2,6-Dinitrotoluene	ND660		
Surrogate Spike Percent Recovery:			
Nitrobenzene-d ₅	91%	Phenol-d ₆	84%
2-Fluorobiphenyl	85%	2-Fluorophenol	82%
Terphenyl	98%	2,4,6-Tribromophenol	72%

Client Project ID: 519029

Job Number: Q304166/167

Total Metals Analysis

Client Sample ID: 519029S01
Sample Date: 04/19/93
Lab Sample ID: Q30416701
Analysis Date: 04/29, 30/93
Mercury: 04/20/93

Parameter	Concentration mg/Kg
Arsenic	ND1.0
Barium	7.7
Cadmium	ND0.52
Chromium	2.2
Lead	10.9
Mercury	ND0.09
Selenium	ND0.52
Silver	ND1.0

Client Sample ID: 519029S02
Sample Date: 04/19/93
Lab Sample ID: Q30416702
Analysis Date: 04/29, 30/93
Mercury: 04/20/93

Parameter	Concentration mg/Kg
Arsenic	ND1.0
Barium	5.6
Cadmium	ND0.51
Chromium	1.7
Lead	22.5
Mercury	ND0.09
Selenium	ND0.51
Silver	ND1.0

Total Metals Analysis

Client Sample ID: 519029S03
Sample Date: 04/19/93
Lab Sample ID: Q30416703
Analysis Date: 04/29, 30/93
Mercury: 04/20/93

Parameter	Concentration mg/Kg
Arsenic	ND1.0
Barium	3.0
Cadmium	ND0.51
Chromium	1.2
Lead	ND5.1
Mercury	ND0.10
Selenium	ND0.51
Silver	ND1.0

Client Sample ID: 519029S04
Sample Date: 04/19/93
Lab Sample ID: Q30416704
Analysis Date: 04/29, 30/93
Mercury: 04/20/93

Parameter	Concentration mg/Kg
Arsenic	1.1
Barium	8.1
Cadmium	ND0.52
Chromium	2.9
Lead	30.0
Mercury	ND0.10
Selenium	ND0.52
Silver	ND1.0

Total Metals Analysis

Lab Sample ID: Method Blank
Analysis Date: 04/29, 30/93
Mercury: 04/20/93

Parameter	Concentration mg/Kg
Arsenic	ND1.0
Barium	ND1.0
Cadmium	ND0.50
Chromium	ND1.0
Lead	ND5.0
Mercury	ND0.10
Selenium	ND0.50
Silver	ND1.0

Total Petroleum Hydrocarbon Analysis

Client Sample ID: See Below

Sample Date: 04/19/93

Analysis Date: 04/21/93

Client Sample ID	Lab Sample ID	Concentration mg/Kg
519029S01	Q30416701	31
519029S02	Q30416702	4,000
519029S03	Q30416703	ND17
519029S04	Q30416703	210/72/71*
--	Method Blank	ND17

*Sample was analyzed in triplicate.

CERTIFICATE OF ANALYSIS

IT Corporation/Fort Story
2790 Mosside Boulevard
Monroeville, PA 15146
Attn: Tom Mathison

June 29, 1993

Job Number: Q304034/035 Revised

The Certificate of Analysis is for the following:

Client Project ID: 519029
Date Received by Lab: 04/04/93
Number of Samples: One
Sample Type: Soil

1.0 Introduction

On April 4, 1993, one soil sample was received at ITAS Pittsburgh, labeled SPC-01.

Results were faxed to Tom Mathison on April 16, 1993.

2.0 Analytical Results/Methodology

Results are presented in the enclosed tables and were determined in accordance with Methods 3010, 3520, 3550, 6010, 7470, 8020, 8080, 8240, 8270, 9045, and 9095, Sections 7.1.2.2, 7.3.4.1, and 7.3.4.2, referenced in Test Methods for Evaluating Solid Waste, EPA SW-846, 3rd ed., 1986; Direct flame determination of ignitability; ITAS-Pittsburgh Methodology; Federal Register, Vol. 57, No. 227, Tuesday, November 24, 1992; Federal Register, Vol. 55, No. 126, Friday, June 29, 1990.

Results are based on sample concentration and expressed in milligrams per kilogram or parts per million and micrograms per liter or parts per billion. ND denotes that the compound is not detected at or above the indicated detection limit. Duplicate results indicate duplicate analysis.

Reviewed and Approved:


Carrie L. Smith, Project Manager

2.0 Analytical Results/Methodology (Continued)

Volatile Organic Compounds

Sample SPC-01 was analyzed twice and confirmed matrix interference on the surrogates. Also, the methylene chloride results did not exhibit good reproducibility. Both analyses have been provided.

TCLP Metals

The spike recoveries for mercury and silver on sample SPC-01 were not within the advisory QC limits.

3.0 Quality Control

QA/QC information can be found immediately following the analytical data.

Client Project ID: 519029

Job Number: Q304034/035 Revised

General Chemistry Analysis

Client Sample ID: SPC-01
Sample Date: 04/03/93
Lab Sample ID: Q30403401
Analysis Date: 04/12, 13/93

Compound	Concentration mg/Kg
Reactive Cyanide*	ND250
Reactive Sulfide*	ND500

Lab Sample ID: Method Blank
Analysis Date: 04/12, 13/93

Compound	Concentration mg/Kg
Reactive Cyanide*	ND250
Reactive Sulfide*	ND500

* Results were determined by methodologies specified in SW-846, 3rd edition, 1986. These methods are prone to failure in both accuracy and reproducibility, therefore, we cannot assume any liability for these results. The reported detection limits are the EPA action levels for this analysis.

Client Project ID: 519029

Job Number: Q304034/035 Revised

General Chemistry Analysis

Client Sample ID: SPC-01
Sample Date: 04/03/93
Lab Sample ID: Q30403401
Analysis Date: 04/05/93

Parameter	Result
pH	5.90/5.91
Ignitability	> 140 °F Does not ignite, burn / > 140 °F Does not ignite, burn
Paint Filter Liquids Test	Passed, no free liquids / Passed, no free liquids

Client Project ID: 519029

Job Number: Q304034/035 Revised

TCLP Metals Analysis

Client Sample ID: SPC-01
Sample Date: 04/03/93
Lab Sample ID: Q30403501
TCLP Extraction Date: 04/08/93
Analysis Date: 04/14/93
Mercury: 04/12/93

Parameter	Concentration mg/L	Matrix Spike Percent Recovery
Arsenic	ND0.1	100%
Barium	ND0.5	102%
Cadmium	0.006	94%
Chromium	ND0.05	91%
Lead	0.15	95%
Mercury	ND0.0002	64%*
Selenium	ND0.05	99%
Silver	ND0.01	44%*

* Outside QC limits.

Client Project ID: 519029

Job Number: Q304034/035 Revised

TCLP Metals Analysis

Lab Sample ID: TCLP Preparation Blank
TCLP Extraction Date: 04/08/93
Analysis Date: 04/14/93
Mercury: 04/12/93

Parameter	Concentration mg/L
Arsenic	ND0.1
Barium	ND0.5
Cadmium	ND0.005
Chromium	ND0.05
Lead	ND0.05
Mercury	ND0.0002
Selenium	ND0.05
Silver	ND0.01

IT Corporation/Fort Story
Date: 06/29/93

IT ANALYTICAL SERVICES
PITTSBURGH, PA

Client Project ID: 519029

Job Number: Q304034/035 Revised

TCLP Metals Analysis

Lab Sample ID: Method Blank
Analysis Date: 04/14/93
Mercury: 04/12/93

Parameter	Concentration mg/L
Arsenic	ND0.1
Barium	ND0.5
Cadmium	ND0.005
Chromium	ND0.05
Lead	ND0.05
Mercury	ND0.0002
Selenium	ND0.05
Silver	ND0.01

Client Project ID: 519029

Job Number: Q304034/035 Revised

Volatile Organic Compounds

Client Sample ID: SPC-01
Sample Date: 04/03/93
Lab Sample ID: Q30403401
Analysis Date: 04/08/93

Compound	Concentration µg/Kg
Methylene chloride	73
Acetone	ND100
Carbon disulfide	ND5
2-Butanone	ND100
1,1,1-Trichloroethane	ND5
Carbon tetrachloride	ND5
Trichloroethene	ND5
1,1,2-Trichloroethane	ND5
Benzene	ND5
4-Methyl-2-pentanone	ND51
Tetrachloroethene	ND5
Toluene	ND5
Chlorobenzene	ND5
Ethylbenzene	ND5
Xylenes (total)	ND5
1,1,2Trichloro-1,2,2 Trifluoromethane	ND5
Ethyl acetate	ND5
Trichlorofluoromethane	ND5
Diethyl ether	ND5

Surrogate Spike
Percent Recovery

Toluene-d ₈	118%*
Bromofluorobenzene	67%*
1,2-Dichloroethane-d ₄	98%

* Outside QC limits.

Client Project ID: 519029

Job Number: Q304034/035 Revised

Volatile Organic Compounds

Client Sample ID: SPC-01 Reanalysis
Sample Date: 04/03/93
Lab Sample ID: Q30403401
Analysis Date: 04/08/93

Compound	Concentration µg/Kg
Methylene chloride	46
Acetone	ND100
Carbon disulfide	ND5
2-Butanone	ND100
1,1,1-Trichloroethane	ND5
Carbon tetrachloride	ND5
Trichloroethene	ND5
1,1,2-Trichloroethane	ND5
Benzene	ND5
4-Methyl-2-pentanone	ND51
Tetrachloroethene	ND5
Toluene	ND5
Chlorobenzene	ND5
Ethylbenzene	ND5
Xylenes (total)	ND5
1,1,2Trichloro-1,2,2 Trifluoromethane	ND5
Ethyl acetate	ND5
Trichlorofluoromethane	ND5
Diethyl ether	ND5

Surrogate Spike
Percent Recovery

Toluene-d ₈	125%*
Bromofluorobenzene	70%*
1,2-Dichloroethane-d ₄	104%

* Outside QC limits.

Client Project ID: 519029

Job Number: Q304034/035 Revised

Volatile Organic Compounds

Lab Sample ID: Method Blank
Analysis Date: 04/08/93

Compound	Concentration $\mu\text{g}/\text{Kg}$
Methylene chloride	ND5
Acetone	ND100
Carbon disulfide	ND5
2-Butanone	ND100
1,1,1-Trichloroethane	ND5
Carbon tetrachloride	ND5
Trichloroethene	ND5
1,1,2-Trichloroethane	ND5
Benzene	ND5
4-Methyl-2-pentanone	ND50
Tetrachloroethene	ND5
Toluene	ND5
Chlorobenzene	ND5
Ethylbenzene	ND5
Xylenes (total)	ND5
1,1,2Trichloro-1,2,2 Trifluoromethane	ND5
Ethyl acetate	ND5
Trichlorofluoromethane	ND5
Diethyl ether	ND5

Surrogate Spike
Percent Recovery

Toluene-d ₈	97%
Bromofluorobenzene	85%
1,2-Dichloroethane-d ₄	97%

Client Project ID: 519029

Job Number: Q304034/035 Revised

TCLP Volatile Compounds

Client Sample ID: SPC-01
Sample Date: 04/03/93
Lab Sample ID: Q30403501
TCLP Extraction Date: 04/08/93
Analysis Date: 04/13/93

Parameter	Concentration mg/L	Matrix Spike Percent Recovery
Vinyl chloride	ND0.010	66%
1,1-Dichloroethene	ND0.005	94%
Chloroform	ND0.005	105%
1,2-Dichloroethane	ND0.005	105%
2-Butanone	ND0.010	161%
Carbon Tetrachloride	ND0.005	100%
Trichloroethene	ND0.005	102%
Benzene	ND0.005	100%
Tetrachloroethene	ND0.005	101%
Chlorobenzene	ND0.005	100%

Method Blank 2 Method Blank 2

Surrogate Spike
Percent Recovery

Toluene-d ₈	102%	97%
Bromofluorobenzene	93%	88%
1,2-Dichloroethane-d ₄	100%	98%

Client Project ID: 519029

Job Number: Q304034/035 Revised

TCLP Volatile Compounds

Lab Sample ID: TCLP Preparation Blank
TCLP Extraction Date: 04/08/93
Analysis Date: 04/13/93

Parameter	Concentration mg/L
Vinyl chloride	ND0.010
1,1-Dichloroethene	ND0.005
Chloroform	ND0.005
1,2-Dichloroethane	ND0.005
2-Butanone	ND0.010
Carbon Tetrachloride	ND0.005
Trichloroethene	ND0.005
Benzene	ND0.005
Tetrachloroethene	ND0.005
Chlorobenzene	ND0.005
Method Blank 1	Surrogate Spike Percent Recovery
Toluene-d ₈	95%
Bromofluorobenzene	102%
1,2-Dichloroethane-d ₄	93%

TCLP Volatile Compounds

Lab Sample ID: Method Blank 1
Analysis Date: 04/12/93

Parameter	Concentration mg/L
Vinyl chloride	ND0.010
1,1-Dichloroethene	ND0.005
Chloroform	ND0.005
1,2-Dichloroethane	ND0.005
2-Butanone	ND0.010
Carbon Tetrachloride	ND0.005
Trichloroethene	ND0.005
Benzene	ND0.005
Tetrachloroethene	ND0.005
Chlorobenzene	ND0.005

	Surrogate Spike Percent Recovery
Toluene-d ₈	101%
Bromofluorobenzene	111%
1,2-Dichloroethane-d ₄	100%

TCLP Volatile Compounds

Lab Sample ID: Method Blank 2
Analysis Date: 04/13/93

Parameter	Concentration mg/L
Vinyl chloride	ND0.010
1,1-Dichloroethene	ND0.005
Chloroform	ND0.005
1,2-Dichloroethane	ND0.005
2-Butanone	ND0.010
Carbon Tetrachloride	ND0.005
Trichloroethene	ND0.005
Benzene	ND0.005
Tetrachloroethene	ND0.005
Chlorobenzene	ND0.005
	Surrogate Spike Percent Recovery
Toluene-d ₈	101%
Bromofluorobenzene	87%
1,2-Dichloroethane-d ₄	92%

Client Project ID: 519029

Job Number: Q304034/035 Revised

TCLP Semivolatile Compounds

Client Sample ID: SPC-01
Sample Date: 04/03/93
Lab Sample ID: Q30403501
TCLP Extraction Date: 04/08/93
Extraction Date: 04/12/93
Analysis Date: 04/15/93

Parameter	Concentration mg/L	Matrix Spike Percent Recovery
1,4-Dichlorobenzene	ND0.050	48%
Hexachloroethane	ND0.050	46%
Nitrobenzene	ND0.050	54%
Hexachlorobutadiene	ND0.050	57%
2,4,6-Trichlorophenol	ND0.050	63%
2,4,5-Trichlorophenol	ND0.250	64%
2,4-Dinitrotoluene	ND0.050	69%
Hexachlorobenzene	ND0.050	74%
Pentachlorophenol	ND0.250	89%
Total Methylphenol	ND0.050	58%
Pyridine	ND0.250	44%

	Surrogate Spike Percent Recovery	
Nitrobenzene-d ₅	77%	52%
2-Fluorobiphenyl	82%	57%
Terphenyl	81%	65%
Phenol-d ₅	74%	48%
2-Fluorophenol	68%	41%
2,4,6-Tribromophenol	75%	68%

TCLP Semivolatile Compounds

Lab Sample ID: TCLP Preparation Blank
TCLP Extraction Date: 04/08/93
Extraction Date: 04/12/93
Analysis Date: 04/15/93

Parameter	Concentration mg/L
1,4-Dichlorobenzene	ND0.050
Hexachloroethane	ND0.050
Nitrobenzene	ND0.050
Hexachlorobutadiene	ND0.050
2,4,6-Trichlorophenol	ND0.050
2,4,5-Trichlorophenol	ND0.250
2,4-Dinitrotoluene	ND0.050
Hexachlorobenzene	ND0.050
Pentachlorophenol	ND0.250
Total Methylphenol	ND0.050
Pyridine	ND0.250

Surrogate Spike
Percent Recovery

Nitrobenzene-d ₅	74%
2-Fluorobiphenyl	81%
Terphenyl	78%
Phenol-d ₅	71%
2-Fluorophenol	69%
2,4,6-Tribromophenol	76%

Client Project ID: 519029

Job Number: Q304034/035 Revised

TCLP Semivolatile Compounds

Lab Sample ID: Method Blank
Extraction Date: 04/12/93
Analysis Date: 04/15/93

Parameter	Concentration mg/L
1,4-Dichlorobenzene	ND0.010
Hexachloroethane	ND0.010
Nitrobenzene	ND0.010
Hexachlorobutadiene	ND0.010
2,4,6-Trichlorophenol	ND0.010
2,4,5-Trichlorophenol	ND0.050
2,4-Dinitrotoluene	ND0.010
Hexachlorobenzene	ND0.010
Pentachlorophenol	ND0.050
Total Methylphenol	ND0.010
Pyridine	ND0.050

	Surrogate Spike Percent Recovery
Nitrobenzene-d ₅	73%
2-Fluorobiphenyl	70%
Terphenyl	78%
Phenol-d ₅	64%
2-Fluorophenol	61%
2,4,6-Tribromophenol	56%

Client Project ID: 519029

Job Number: Q304034/035 Revised

Selected Volatile Organic Compounds

Client Sample ID: See below
Sample Date: 04/03/93
Analysis Date: 04/14/93

Client Sample ID	Lab Sample ID	Benzene	Toluene	Ethylbenzene	Total Xylenes
SPC-01	Q30403401	ND2	18	ND2	ND2
--	Method Blank	ND2	ND2	ND2	ND2

Surrogate Spike Percent Recovery:

Client Sample ID	Lab Sample ID	Alpha, Alpha, Alpha-Trifluorotoluene
SPC-01	Q30403401	92%
--	Method Blank	88%

Client Project ID: 519029

Job Number: Q304034/035 Revised

Polychlorinated Biphenyls Analysis

Client Sample ID: SPC-01
Sample Date: 04/03/93
Lab Sample ID: Q30403401
Extraction Date: 04/07/93
Analysis Date: 04/15/93

Parameter	Concentration $\mu\text{g}/\text{Kg}$
Aroclor 1016	ND44
Aroclor 1221	ND44
Aroclor 1232	ND44
Aroclor 1242	ND44
Aroclor 1248	ND44
Aroclor 1254	ND44
Aroclor 1260	ND44

	Surrogate Spike Percent Recovery
Dibutylchloroendate	75%
Tetrachlorometaxylene	62%

Polychlorinated Biphenyls Analysis

Lab Sample ID: Method Blank
Extraction Date: 04/07/93
Analysis Date: 04/15/93

Parameter	Concentration $\mu\text{g}/\text{Kg}$
Aroclor 1016	ND43
Aroclor 1221	ND43
Aroclor 1232	ND43
Aroclor 1242	ND43
Aroclor 1248	ND43
Aroclor 1254	ND43
Aroclor 1260	ND43
	Surrogate Spike Percent Recovery
Dibutylchlorendate	79%
Tetrachlorometaxylene	78%

CERTIFICATE OF ANALYSIS

IT CORPORATION
2790 MOSSIDE BLVD.
MONROEVILLE, PA 15146-2792
TOM MATHISON

Date: 09/01/93

Work Order: B3-08-294

P.O. Number: 519029

This is the Certificate of Analysis for the following samples:

Client Work ID: FT STORY 519029-000
Date Received: 08/24/93
Number of Samples: 6
Sample Type: SOIL

I. Introduction

Samples were labeled as follows:

<u>SAMPLE IDENTIFICATION</u>	<u>LABORATORY #</u>
1-A-S 01 01	B3-08-294-01
3-F-S 124 02	B3-08-294-02
4-A-S 04 03	B3-08-294-03
8-D-12 203 04	B3-08-294-04
9-E-36 471 05	B3-08-294-05
11-B-24 284 06	B3-08-294-06

Reviewed and Approved:



Jon Bartell
Laboratory Director

Company: IT CORPORATION
Date: 09/01/93
Client Work ID: FT STORY

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

519029-000

Work Order: B3-08-294

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.

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

Company: IT CORPORATION
Date: 09/01/93
Client Work ID: FT STORY

519029-000

Work Order: B3-08-294

SAMPLE ID: 1-A-S 01 01
SAMPLE DATE: 08/23/93
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-G by GC (Mod 8015)		ND	5.0 mg/L Gasoline	08/25/93	EPA8015_MOD
TPH-D by GC (Mod 8015)		45	7 mg/kg	08/27/93	EPA8015_MOD

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

Company: IT CORPORATION
Date: 09/01/93
Client Work ID: FT STORY

519029-000

Work Order: B3-08-294

SAMPLE ID: 3-F-S 124 02
SAMPLE DATE: 08/23/93
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u> <u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-G by GC (Mod 8015)		ND	5.0 mg/L Gasoline	08/25/93	EPA8015_MOD
TPH-D by GC (Mod 8015)		400	33 mg/kg	08/30/93	EPA8015_MOD

Company: IT CORPORATION
Date: 09/01/93
Client Work ID: FT STORY

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

519029-000

Work Order: B3-08-294

SAMPLE ID: 4-A-S 04 03
SAMPLE DATE: 08/23/93
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-G by GC (Mod 8015)		ND	5.0 mg/L Gasoline	08/25/93	EPA8015_MOD
TPH-D by GC (Mod 8015)		120	7 mg/kg	08/27/93	EPA8015_MOD

Company: IT CORPORATION
Date: 09/01/93
Client Work ID: FT STORY

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

519029-000

Work Order: B3-08-294

SAMPLE ID: 8-D-12 203 04
SAMPLE DATE: 08/23/93
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u> <u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-G by GC (Mod 8015)		ND	5.0 mg/L Gasoline	08/25/93	EPA8015_MOD
TPH-D by GC (Mod 8015)		65	7 mg/kg	08/27/93	EPA8015_MOD

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

Company: IT CORPORATION
Date: 09/01/93
Client Work ID: FT STORY

519029-000

Work Order: B3-08-294

SAMPLE ID: 9-E-36 471 05
SAMPLE DATE: 08/23/93
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-G by GC (Mod 8015)		ND	5.0 mg/L Gasoline	08/25/93	EPA8015_MOD
TPH-D by GC (Mod 8015)		790	69 mg/kg	08/30/93	EPA8015_MOD

Company: IT CORPORATION
Date: 09/01/93
Client Work ID: FT STORY

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

519029-000

Work Order: B3-08-294

SAMPLE ID: 11-B-24 284 06
SAMPLE DATE: 08/23/93
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u>	<u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-G by GC (Mod 8015)		ND	5.0	mg/L Gasoline	08/25/93	EPA8015_MOD
TPH-D by GC (Mod 8015)		380	34	mg/kg	08/30/93	EPA8015_MOD

Page: 9 of 10

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

Company: IT CORPORATION

Date: 09/01/93

Client Work ID: FT STORY

519029-000

Work Order: B3-08-294

Referenced notes for this work order:

B308294

TPH HIGH BOILERS WERE QUANTED AGAINST HAVOLINE SAE FORMULA 3
30 W MOTOR OIL.

Company: IT CORPORATION
Date: 09/01/93
Client Work ID: FT STORY

519029-000

Work Order: B3-08-294

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME **TPH-G by GC (Mod 8015)**

TEST CODE **TPH_G**

TPH-Extractable
Petroleum
Hydrocarbons

Modified EPA Method 8015 by purge-and-trap GC with FID detection. Quantitation of sample components as gasoline.

TEST NAME **TPH-D by GC (Mod 8015)**

TEST CODE **TPH_GC**

TPH-Extractable
Petroleum
Hydrocarbons

EPA Methods 3510/3520/3550/3580 for extraction of samples and modified EPA Method 8015 for GC/FID analysis of extracts run against a diesel standard.

SOLUTION'S LOG #
082 993-001

Solutions Laboratories, Inc.
814-B Greenbrier Circle
Chesapeake, VA 23320
(804) 420-0467/Fax 420-4204

**CHAIN-OF-CUSTODY RECORD
AND ANALYSIS REQUEST**

B308294 ANALYSIS REQUEST

COMPANY NAME:
SOLUTIONS ENV.

PROJECT MANAGER: AL DAVIS
PHONE: P.O#

ADDRESS (Office): 844-B GREENBRIER
SITE LOCATION: FT. STORY, VA.

PROJECT NUMBER: — PROJECT NAME: LARC SITE

I Attest that the proper field sampling procedures were used during the collection of these samples. Sampler's Signature: Q.C. [Signature]

FIELD ID	SOURCE OF SAMPLE	SOL LAB#	# Containers	Container Size/Type	MATRIX						PRESERVATION						SAMPLING	
					Water	Soil	Air	Sludge	Liquid	Other	HCl	HNO3	H2SO4	NaOH	Ice	None	Other	Date
1-A-S	01	01	2	40ZGL	✓												8/24/93	1027
3-F-S	124	02	2		✓													1030
4-A-S	04	03	2		✓													1025
8-D-12	203	04	2		✓													1105
9-E-36	471	05	2		✓													1058
11-B-24	284	06	2	✓	✓													1039

TPH GC HS <input type="checkbox"/>	5030 <input type="checkbox"/>	FF <input type="checkbox"/>	Oil & Grease 503 B&D <input type="checkbox"/>	TPH 418.1 <input type="checkbox"/>	BTEX only 602 <input type="checkbox"/>	8020 <input type="checkbox"/>	MTBE <input type="checkbox"/>	EPA 602 <input type="checkbox"/>	8020 <input type="checkbox"/>	EPA 601 <input type="checkbox"/>	8010 <input type="checkbox"/>	EPA 608 <input type="checkbox"/>	8080 <input type="checkbox"/>	PCBs <input type="checkbox"/>	EPA 615 <input type="checkbox"/>	8150 <input type="checkbox"/>	TCLP Metals <input type="checkbox"/>	VOA <input type="checkbox"/>	Semi VOA <input type="checkbox"/>	Silver <input type="checkbox"/>	Metals <input type="checkbox"/>	Lead FLAA <input type="checkbox"/>	GFAA <input type="checkbox"/>	Corr <input type="checkbox"/>	Flash <input type="checkbox"/>	React <input type="checkbox"/>	Phenols <input type="checkbox"/>	Cyanide <input type="checkbox"/>	Ammonia <input type="checkbox"/>	TKN <input type="checkbox"/>	Tot P <input type="checkbox"/>	BOD <input type="checkbox"/>	COD <input type="checkbox"/>	TOC <input type="checkbox"/>
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RELINQUISHED BY SAMPLER: DATE: TIME: RECEIVED BY:

RELINQUISHED BY: DATE: TIME: RECEIVED BY:

RELINQUISHED BY: Q.C. [Signature] DATE: 8/23/93 TIME: 1205 RECEIVED BY: [Signature]

REMARKS/SPECIAL DETECTION LIMITS: rec'd by Lab 8/24/93
rec'd Coord loc EPA
8/24/93 see RVR
SPECIAL REPORT REQUIREMENTS: 2 PL [Signature] ITAS
Airborne
FEDEX [Signature]
435 199 2912

CONTAINER TYPE KEY: GL=GLASS AM=AMBER PL=PLASTIC WM=WIDEMOUTH
VOA= VOLATILE ORGANIC CONTAINER L=LITER 500=500 ML 250=250ML

SPECIAL HANDLING: - 3 DAYS -
EXPEDITED 72 HR 48 HR 24 HR 12 HR
8 HR 4 HR HR



INTERNATIONAL
TECHNOLOGY
CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

IT CORPORATION
2790 MOSSIDE BLVD.
MONROEVILLE, PA 15146-2792
TOM MATHISON

Date: 08/06/93

Work Order: B3-07-293

P.O. Number: 519029

This is the Certificate of Analysis for the following samples:

Client Work ID: FT STORY
Date Received: 07/29/93
Number of Samples: 9
Sample Type: SOIL

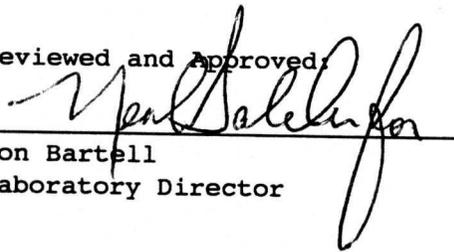
519029-000

I. Introduction

Samples were labeled as follows:

<u>SAMPLE IDENTIFICATION</u>		<u>LABORATORY #</u>
20-A-24	SOL# 01	B3-07-293-01
19-E-48	SOL# 02	B3-07-293-02
531-16-B-48	SOL# 03	B3-07-293-03
238-15-F-12	SOL# 04	B3-07-293-04
393-15-A-36	SOL# 05	B3-07-293-05
518-14-A-48	SOL# 06	B3-07-293-06
223 13-E-12	SOL# 07	B3-07-293-07
238	SOL# 08	B3-07-293-08
18-D-5	SOL# 09	B3-07-293-09

Reviewed and Approved:


Jon Bartell
Laboratory Director

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

Company: IT CORPORATION
Date: 08/06/93
Client Work ID: FT STORY

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-07-293

519029-000

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: 08/06/93
Client Work ID: FT STORY

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AUSTIN, TX
(512) 892-6684
Work Order: B3-07-293

519029-000

SAMPLE ID: 20-A-24 SOL# 01
SAMPLE DATE: 07/21/93 08:05:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note Ref</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>	<u>Method Reference</u>
TPH-G by GC (Mod 8015)		ND	5.0	mg/kg Gasoline	08/01/93	EPA8015_MOD
TPH-D by GC (Mod 8015)	1	310	2	mg/kg	08/02/93	EPA8015_MOD

Referenced notes for these results:

- 1 The sample pattern is similar to a lubricating oil or grease. The pattern does not match diesel.

Company: IT CORPORATION
Date: 08/06/93
Client Work ID: FT STORY

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SAMPLE ID: 19-E-48 SOL# 02
SAMPLE DATE: 07/21/93 08:37:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>	<u>Result</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-G by GC (Mod 8015)		ND	08/01/93	EPA8015_MOD
TPH-D by GC (Mod 8015)		ND	08/02/93	EPA8015_MOD
		5.0 mg/kg Gasoline		
		2 mg/kg		

Company: IT CORPORATION
Date: 08/06/93
Client Work ID: FT STORY

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Work Order: B3-07-293

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SAMPLE ID: 531-16-B-48 SOL# 03
SAMPLE DATE: 07/27/93 09:45:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
<u>Ref</u>	<u>Result</u>	<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-G by GC (Mod 8015)		ND	5.0 mg/kg Gasoline	08/01/93 EPA8015_MOD
TPH-D by GC (Mod 8015)	1	780	9 mg/kg	08/02/93 EPA8015_MOD

Referenced notes for these results:

- 1 The sample pattern is similar to a lubricating oil or grease. The pattern does not match diesel.

Company: IT CORPORATION
Date: 08/06/93
Client Work ID: FT STORY

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Work Order: B3-07-293

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SAMPLE ID: 238-15-F-12 SOL# 04
SAMPLE DATE: 07/27/93 09:50:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-G by GC (Mod 8015)		ND	5.0 mg/kg Gasoline	08/01/93	EPA8015_MOD
TPH-D by GC (Mod 8015)	1	240	2 mg/kg	08/02/93	EPA8015_MOD

Referenced notes for these results:

- 1 The sample pattern is similar to a lubricating oil or grease. The pattern does not match diesel.

Company: IT CORPORATION
Date: 08/06/93
Client Work ID: FT STORY

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SAMPLE ID: 393-15-A-36 SOL# 05
SAMPLE DATE: 07/27/93 10:04:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-G by GC (Mod 8015)		ND	5.0 mg/kg Gasoline	08/01/93	EPAB015_MOD
TPH-D by GC (Mod 8015)	1	690	9 mg/kg	08/02/93	EPAB015_MOD

Referenced notes for these results:

- 1 The sample pattern is similar to a lubricating oil or grease. The pattern does not match diesel.

Company: IT CORPORATION
Date: 08/06/93
Client Work ID: FT STORY

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Work Order: B3-07-293

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SAMPLE ID: 518-14-A-48 SOL# 06
SAMPLE DATE: 07/27/93 10:25:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u> <u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-G by GC (Mod 8015)		ND	5.0 mg/kg Gasoline	08/01/93	EPA8015_MOD
TPH-D by GC (Mod 8015)	1	750	9 mg/kg	08/02/93	EPA8015_MOD

Referenced notes for these results:

- 1 The sample pattern is similar to a lubricating oil or grease. The pattern does not match diesel.

Company: IT CORPORATION
Date: 08/06/93
Client Work ID: FT STORY

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Work Order: B3-07-293

519029-000

SAMPLE ID: 223 13-E-12 SOL# 07
SAMPLE DATE: 07/27/93 10:37:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u> <u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-G by GC (Mod 8015)		ND	5.0 mg/kg Gasoline	08/01/93	EPA8015_MOD
TPH-D by GC (Mod 8015)	1	170	2 mg/kg	08/02/93	EPA8015_MOD

Referenced notes for these results:

- 1 The sample pattern is similar to a lubricating oil or grease. The pattern does not match diesel. Sample results are based on wet weight basis; there was insufficient sample for dry weight analysis.

Company: IT CORPORATION
Date: 08/06/93
Client Work ID: FT STORY

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Work Order: B3-07-293

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SAMPLE ID: 238 SOL# 08
SAMPLE DATE: 07/27/93 09:50:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-G by GC (Mod 8015)		ND	5.0 mg/kg Gasoline	08/01/93	EPA8015_MOD
TPH-D by GC (Mod 8015)	1	150	2 mg/kg	08/02/93	EPA8015_MOD

Referenced notes for these results:

- 1 The sample pattern is similar to a lubricating oil or grease. The pattern does not match diesel.

Company: IT CORPORATION
Date: 08/06/93
Client Work ID: FT STORY

IT ANALYTICAL SERVICES
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Work Order: B3-07-293

519029-000

SAMPLE ID: 18-D-5 SOL# 09
SAMPLE DATE: 07/27/93 11:26:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-G by GC (Mod 8015)		ND	5.0	mg/kg Gasoline	08/01/93	EPA8015_MOD
TPH-D by GC (Mod 8015)	1	150	2	mg/kg	08/02/93	EPA8015_MOD

Referenced notes for these results:

- 1 The sample pattern is similar to a lubricating oil or grease. The pattern does not match diesel.

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Company: IT CORPORATION
Date: 08/06/93
Client Work ID: FT STORY

519029-000

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-07-293

Referenced notes for this work order:

B307293

SAMPLE ID'S FOR FRACTIONS -01A,B AND -02A,B WERE CHANGED
FROM THAT LISTED ON THE COC AT CLIENT'S REQUEST.

Company: IT CORPORATION
Date: 08/06/93
Client Work ID: FT STORY

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-07-293

519029-000

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME TPH-G by GC (Mod 8015)

TEST CODE TPH_G

TPH-Extractable
Petroleum
Hydrocarbons

Modified EPA Method 8015 by purge-and-trap GC with FID detection. Quantitation of sample components as gasoline.

TEST NAME TPH-D by GC (Mod 8015)

TEST CODE TPH_GC

TPH-Extractable
Petroleum
Hydrocarbons

EPA Methods 3510/3520/3550/3580 for extraction of samples and modified EPA Method 8015 for GC/FID analysis of extracts run against a diesel standard.



INTERNATIONAL
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CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

IT CORPORATION
2790 MOSSIDE BLVD.
MONROEVILLE, PA 15146-2792
TOM MATHISON

Date: 10/25/93

Work Order: B3-10-167

P.O. Number: 519029

This is the Certificate of Analysis for the following samples:

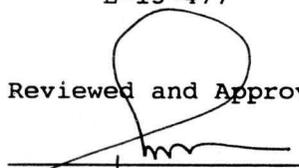
Client Work ID: FT STORY/KEROSENE 519029-000
Date Received: 10/14/93
Number of Samples: 21
Sample Type: SAND/SOIL

I. Introduction

Samples were labeled as follows:

<u>SAMPLE IDENTIFICATION</u>	<u>LABORATORY #</u>
E-16-352 ✓	B3-10-167-01
C-16-310 /	B3-10-167-02
C-14-308 /	B3-10-167-03
E-13-349 /	B3-10-167-04
D-12-325 /	B3-10-167-05
E-11-347 /	B3-10-167-06
C-10-304 /	B3-10-167-07
D-6-331	B3-10-167-08
C-5-229 /	B3-10-167-09
D-4-333 /	B3-10-167-10
E-15-477	B3-10-167-11

Reviewed and Approved:



Jon Bartell
Laboratory Director

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

Company: IT CORPORATION
Date: 10/25/93
Client Work ID: FT STORY/KEROSENE

519029-000

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-10-167

Samples, continued from above:

<u>SAMPLE IDENTIFICATION</u>	<u>LABORATORY #</u>
C-15-435	B3-10-167-12
D-14-449	B3-10-167-13
C-13-433	B3-10-167-14
E-12-474	B3-10-167-15
C-10-430	B3-10-167-16
E-7-469	B3-10-167-17
C-6-426	B3-10-167-18
E-4-466	B3-10-167-19
C-4-424	B3-10-167-20
F-15-490	B3-10-167-21

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: 10/25/93
Client Work ID: FT STORY/KEROSENE

519029-000

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-10-167

SAMPLE ID: E-16-352
SAMPLE DATE: 10/13/93
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>		
<u>Ref</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>	
TPH-D by GC (Mod EPA8015)		300	7	mg/kg	10/21/93	EPA8015_MOD

Company: IT CORPORATION

Date: 10/25/93

Client Work ID: FT STORY/KEROSENE

519029-000

IT ANALYTICAL SERVICES
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Work Order: B3-10-167

SAMPLE ID: C-16-310

SAMPLE DATE: 10/13/93

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (Mod EPA8015)		300		9 mg/kg	10/21/93	EPA8015_MOD

Company: IT CORPORATION
Date: 10/25/93
Client Work ID: FT STORY/KEROSENE

519029-000

IT ANALYTICAL SERVICES
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Work Order: B3-10-167

SAMPLE ID: C-14-308
SAMPLE DATE: 10/13/93
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (Mod EPA8015)		140	3 mg/kg	10/21/93	EPA8015_MOD

Company: IT CORPORATION
Date: 10/25/93
Client Work ID: FT STORY/KEROSENE

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IT ANALYTICAL SERVICES
AUSTIN, TX
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Work Order: B3-10-167

SAMPLE ID: E-13-349
SAMPLE DATE: 10/13/93
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (Mod EPA8015)		80		2 mg/kg	10/19/93	EPA8015_MOD

Company: IT CORPORATION
Date: 10/25/93
Client Work ID: FT STORY/KEROSENE

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IT ANALYTICAL SERVICES
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Work Order: B3-10-167

SAMPLE ID: D-12-325
SAMPLE DATE: 10/13/93
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (Mod EPA8015)		100	2	mg/kg	10/19/93	EPA8015_MOD

Company: IT CORPORATION
Date: 10/25/93
Client Work ID: FT STORY/KEROSENE

IT ANALYTICAL SERVICES
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Work Order: B3-10-167

519029-000

SAMPLE ID: E-11-347
SAMPLE DATE: 10/13/93
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Ref</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
				<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (Mod EPA8015)			48	2	mg/kg	10/19/93	EPA8015_MOD

Company: IT CORPORATION
Date: 10/25/93
Client Work ID: FT STORY/KEROSENE

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IT ANALYTICAL SERVICES
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Work Order: B3-10-167

SAMPLE ID: C-10-304
SAMPLE DATE: 10/13/93
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (Mod EPA8015)		170	2 mg/kg	10/19/93	EPA8015_MOD

Company: IT CORPORATION
Date: 10/25/93
Client Work ID: FT STORY/KEROSENE

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IT ANALYTICAL SERVICES
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Work Order: B3-10-167

SAMPLE ID: D-6-331
SAMPLE DATE: 10/13/93
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (Mod EPA8015)		450		9 mg/kg	10/21/93	EPA8015_MOD

Company: IT CORPORATION
Date: 10/25/93
Client Work ID: FT STORY/KEROSENE

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IT ANALYTICAL SERVICES
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Work Order: B3-10-167

SAMPLE ID: C-5-229
SAMPLE DATE: 10/13/93
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (Mod EPA8015)		420	17 mg/kg	10/21/93	EPA8015_MOD

Company: IT CORPORATION
Date: 10/25/93
Client Work ID: FT STORY/KEROSENE

519029-000

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-10-167

SAMPLE ID: D-4-333
SAMPLE DATE: 10/13/93
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (Mod EPA8015)		41		2 mg/kg	10/22/93	EPA8015_MOD

Company: IT CORPORATION
Date: 10/25/93
Client Work ID: FT STORY/KEROSENE

519029-000

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-10-167

SAMPLE ID: E-15-477
SAMPLE DATE: 10/13/93
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (Mod EPA8015)		2900	90	mg/kg	10/21/93	EPA8015_MOD

Company: IT CORPORATION
Date: 10/25/93
Client Work ID: FT STORY/KEROSENE

519029-000

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-10-167

SAMPLE ID: C-15-435
SAMPLE DATE: 10/13/93
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (Mod EPA8015)		270	9 mg/kg	10/21/93	EPA8015_MOD

Company: IT CORPORATION
Date: 10/25/93
Client Work ID: FT STORY/KEROSENE

IT ANALYTICAL SERVICES
AUSTIN, TX
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Work Order: B3-10-167

519029-000

SAMPLE ID: D-14-449
SAMPLE DATE: 10/13/93
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (Mod EPA8015)		3300	36 mg/kg	10/22/93	EPA8015_MOD

Company: IT CORPORATION
Date: 10/25/93
Client Work ID: FT STORY/KEROSENE

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IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-10-167

SAMPLE ID: C-13-433
SAMPLE DATE: 10/13/93
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (Mod EPA8015)		180	3 mg/kg	10/22/93	EPA8015_MOD

Company: IT CORPORATION
Date: 10/25/93
Client Work ID: FT STORY/KEROSENE

519029-000

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-10-167

SAMPLE ID: E-12-474
SAMPLE DATE: 10/13/93
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (Mod EPA8015)		68	2 mg/kg	10/19/93	EPA8015_MOD

Company: IT CORPORATION

Date: 10/25/93

Client Work ID: FT STORY/KEROSENE

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-10-167

519029-000

SAMPLE ID: E-7-469
SAMPLE DATE: 10/13/93
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (Mod EPA8015)		620	13 mg/kg	10/21/93	EPA8015_MOD

Company: IT CORPORATION

Date: 10/25/93

Client Work ID: FT STORY/KEROSENE

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

519029-000

Work Order: B3-10-167

SAMPLE ID: C-6-426

SAMPLE DATE: 10/13/93

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (Mod EPA8015)		290	13 mg/kg	10/21/93	EPA8015_MOD

Company: IT CORPORATION
Date: 10/25/93
Client Work ID: FT STORY/KEROSENE

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-10-167

519029-000

SAMPLE ID: E-4-466
SAMPLE DATE: 10/13/93
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (Mod EPA8015)		500	17 mg/kg	10/21/93	EPA8015_MOD

Company: IT CORPORATION

Date: 10/25/93

Client Work ID: FT STORY/KEROSENE

IT ANALYTICAL SERVICES
AUSTIN, TX

(512) 892-6684

Work Order: B3-10-167

519029-000

SAMPLE ID: C-4-424

SAMPLE DATE: 10/13/93

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (Mod EPA8015)		210	9 mg/kg	10/21/93	EPA8015_MOD

Company: IT CORPORATION

Date: 10/25/93

Client Work ID: FT STORY/KEROSENE

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B3-10-167

519029-000

SAMPLE ID: F-15-490
SAMPLE DATE: 10/13/93
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (Mod EPA8015)		130		2 mg/kg	10/21/93	EPA8015_MOD

Page: 24 of 25

Company: IT CORPORATION

Date: 10/25/93

Client Work ID: FT STORY/KEROSENE

IT ANALYTICAL SERVICES

AUSTIN, TX

(512) 892-6684

Work Order: B3-10-167

519029-000

Referenced notes for this work order:

B310167

ALL SAMPLES WERE QUANTED AGAINST A KEROSENE STANDARD. THE
PATTERNS DID NOT APPEAR TO BE KEROSENE. THE PEAKS WERE
LATE ELUTERS THAT COULD BE A MOTOR OIL.

Company: IT CORPORATION

Date: 10/25/93

Client Work ID: FT STORY/KEROSENE

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

519029-000

Work Order: B3-10-167

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME **TPH-D by GC (Mod EPA8015)** TEST CODE **TPH_GC**

TPH-Extractable	EPA Methods 3510/3520/3550/3580 for extraction of
Petroleum	samples and modified EPA Method 8015 for GC/FID
Hydrocarbons	analysis of extracts run against a diesel standard.

CERTIFICATE OF ANALYSIS

IT Corporation/Fort Story
2790 Mosside Boulevard
Monroeville, PA 15146
Attn: Tom Mathison

April 7, 1994

Job Number: Q403298/299

The Certificate of Analysis is for the following:

Client Project ID: 519029
Date Received by Lab: 03/24/94
Number of Samples: Thirty-three
Sample Type: Soil

1.0 Introduction

On March 24, 1994 thirty-three samples were received at ITAS Pittsburgh, labeled as follows:

294B-032394	349E-032394	273A-032394
336D-032394	280B-032394	315C-032394
378F-032394	322D-032394	357E-032394
255A-032394	322D DUP-032394	332D-032394
297C-032394	364F-032394	374F-032394
339E-032394	275B-032394	260A-032394
290B-032394	270A-032394	302C-032394
290B DUP-032394	312C-032394	344E-032394
369F-032394	354E-032394	285B-032394
265A-032394	317D-032394	285B DUP-032394
307C-032394	359F-032394	327D-032394

2.0 Analytical Results/Methodology

The analysis for Methods 9071/418.1, and 8015-Diesel were performed at our ITAS Laboratory in Austin, Texas. These results will follow under separate cover.

Results are presented in the enclosed tables, and were determined in accordance with Method 8015, Test Methods for Evaluating Solid Waste, EPA SW-846, 3rd ed., 1986.

Reviewed and Approved:


Carrie L. Smith-Gamber, Project Manager

IT Corporation/Fort Story
Date: 04/07/94
Job Number: Q403298/299
Client Project ID: 519029

IT ANALYTICAL SERVICES
5103 OLD WILLIAM PENN HIGHWAY
EXPORT, PA 15632
(412) 731-8806

2.0 Analytical Results/Methodology (Continued)

Results of sample concentrations are based on dry weight and expressed in milligrams per kilogram or parts per million. ND denotes that the compound is not detected at or above the indicated detection limit.

3.0 Quality Control

QA/QC information can be found immediately following the analytical data.

IT Corporation/Fort Story
Date: 04/07/94
Job Number: Q403298/299
Client Project ID: 519029

IT ANALYTICAL SERVICES
5103 OLD WILLIAM PENN HIGHWAY
EXPORT, PA 15632
(412) 731-8806

Total Petroleum Hydrocarbons - Gasoline Range Organics

Client Sample ID: See below
Sample Date: 03/23/94
Analysis Date: 03/27, 28, 29, 30/94

Client Sample ID	Lab Sample ID	Gasoline $\mu\text{g}/\text{Kg}$	Alpha, Alpha, Alpha- Trifluorotoluene Surrogate Spike Percent Recovery
294B-032394	Q40329801	ND6200	75%
336D-032394	Q40329802	ND6200	78%
378F-032394	Q40329803	ND6200	68%
255A-032394	Q40329804	ND6100	75%
297C-032394	Q40329805	ND6200	74%
339E-032394	Q40329806	ND6400	74%
290B-032394	Q40329807	ND6300	91%
290B DUP-032394	Q40329808	ND6100	89%
369F-032394	Q40329809	ND6200	88%
265A-032394	Q40329810	ND6400	89%
307C-032394	Q40329811	ND6500	90%
349E-032394	Q40329812	ND6300	82%
280B-032394	Q40329813	ND6500	88%
322D-032394	Q40329814	ND6700	87%
322D DUP-032394	Q40329815	ND6400	87%
364F-032394	Q40329816	ND6400	89%
275B-032394	Q40329901	ND6100	83%
270A-032394	Q40329902	ND6200	88%
312C-032394	Q40329903	ND6200	97%
354E-032394	Q40329904	ND7500	77%
317D-032394	Q40329905	ND7100	83%

IT Corporation/Fort Story
Date: 04/07/94
Job Number: Q403298/299
Client Project ID: 519029

IT ANALYTICAL SERVICES
5103 OLD WILLIAM PENN HIGHWAY
EXPORT, PA 15632
(412) 731-8806

Total Petroleum Hydrocarbons - Gasoline Range Organics

Client Sample ID: See below
Sample Date: 03/23/94
Analysis Date: 03/27, 28, 29, 30/94

Client Sample ID	Lab Sample ID	Gasoline $\mu\text{g}/\text{Kg}$	Alpha, Alpha, Alpha- Trifluorotoluene Surrogate Spike Percent Recovery
359F-032394	Q40329906	ND6200	80%
273A-032394	Q40329907	ND6200	80%
315C-032394	Q40329908	ND6700	79%
357E-032394	Q40329909	ND6600	81%
332D-032394	Q40329910	ND6500	86%
374F-032394	Q40329911	ND6500	81%
260A-032394	Q40329912	ND6400	90%
302C-032394	Q40329913	ND6200	99%
344E-032394	Q40329914	ND6200	89%
285B-032394	Q40329915	ND6200	92%
285B DUP-032394	Q40329916	ND6400	89%
327D-032394	Q40329917	ND6400	81%
--	Method Blank 03/27/94	ND6200	74%
--	Method Blank 03/28/94	ND6200	82%
--	Method Blank 03/29/94	ND6200	82%
--	Method Blank 03/30/94	ND6200	82%

IT Corporation/Fort Story
Date: 04/07/94
Job Number: Q403298/299
Client Project ID: 519029

IT ANALYTICAL SERVICES
5103 OLD WILLIAM PENN HIGHWAY
EXPORT, PA 15632
(412) 731-8806

Total Petroleum Hydrocarbons - Gasoline Range Organics

Client Sample ID: See below
Sample Date: 03/23/94
Analysis Date: 03/29/94

Client Sample ID	Lab Sample ID	Gasoline Percent Recovery	Alpha, Alpha, Alpha-Trifluorotoluene Surrogate Spike Percent Recovery
364F-032394 MS	Q40329818	66%	96%
364F-032394 MSD/DUP	Q40329817	70%	98%
327D-032394 MS	Q40329919	60%	90%
327D-032394 MSD/DUP	Q40329918	63%	99%

CERTIFICATE OF ANALYSIS

IT Corporation/Fort Story
2790 Mosside Boulevard
Monroeville, PA 15146

April 8, 1994

Attn: Tom Mathison

Job Number: Q403275/276 Revised

The Certificate of Analysis is for the following:

Client Project ID: 519029
Date Received by Lab: 03/23/94
Number of Samples: Thirty-two
Sample Type: Soil

1.0 Introduction

On March 23, 1994, thirty-two soil samples were received at ITAS Pittsburgh, labeled as follows:

01A-032294	30B DUP-032294	64D-032294	94E-032294
05A-032294	35B-032294	67D-032294	99E-032294
10A-032294	40B-032294	72D-032294	104E-032294
15A-032294	43C-032294	77D-032294	106F-032294
20A-032294	47C-032294	82D-032294	109F-032294
22B-032294	52C-032294	82D DUP-032294	114F-032294
25B-032294	57C-032294	85E-032294	119F-032294
30B-032294	62C-032294	89E-032294	124F-032294

The analysis for TPH diesel is being performed at our ITAS laboratory in Austin, Texas. These results will follow under separate cover upon completion.

2.0 Analytical Results/Methodology

Results are presented in the enclosed tables and were determined in accordance with Methods 8015 and 9071, Test Methods for Evaluating Solid Waste, EPA SW-846, 3rd ed., 1986; Method 418.1, Method for the Chemical Analysis of Water and Waste, EPA, 600/4-79-020, 1983 revision.

Reviewed and Approved:


Carrie L. Smith-Gamber, Project Manager

IT Corporation/Fort Story
Date: 04/08/94
Job Number: Q403275/276 Revised
Client Project ID: 519029

IT ANALYTICAL SERVICES
5103 OLD WILLIAM PENN HIGHWAY
EXPORT, PA 15632
(412) 731-8806

2.0 Analytical Results/Methodology (Continued)

Results are based on sample concentration and expressed in milligrams per kilogram or parts per million and micrograms per kilogram or parts per billion. ND denotes that the compound is not detected at or above the indicated detection limit.

8015 - Gasoline

All samples were analyzed using methanol dilutions which slightly elevated detection limits. However, this did not cause detection limits to be above the client action level.

3.0 Quality Control

QA/QC information can be found immediately following the analytical data.

IT Corporation/Fort Story
Date: 04/08/94
Job Number: Q403275/276 Revised
Client Project ID: 519029

IT ANALYTICAL SERVICES
5103 OLD WILLIAM PENN HIGHWAY
EXPORT, PA 15632
(412) 731-8806

Total Petroleum Hydrocarbons

Client Sample ID: See below
Sample Date: 03/22/94
Analysis Date: 03/26 and 28/94

Client Sample ID	Lab Sample ID	Concentration mg/Kg
01A-032294	Q40327510	700
05A-032294	Q40327601	120
10A-032294	Q40327615	120
15A-032294	Q40327603	180
20A-032294	Q40327501	520
22B-032294	Q40327505	120
25B-032294	Q40327503	97
30B-032294	Q40327609	190
30B DUP-032294	Q40327607	190
35B-032294	Q40327612	110
40B-032294	Q40327513	82
43C-032294	Q40327511	75
47C-032294	Q40327602	150
52C-032294	Q40327506	210
57C-032294	Q40327604	120
62C-032294	Q40327606	550
64D-032294	Q40327504	90
67D-032294	Q40327502	190
72D-032294	Q40327613	130
77D-032294	Q40327605	88
82D-032294	Q40327515	490
82D DUP-032294	Q40327516	380/420
85E-032294	Q40327512	360
89E-032294	Q40327611	370
94E-032294	Q40327610	360
99E-032294	Q40327614	150
104E-032294	Q40327508	310
106F-032294	Q40327507	340
109F-032294	Q40327509	160
114F-032294	Q40327608	230
119F-032294	Q40327616	2700*/4000*
124F-032294	Q40327514	480
--	Method Blank 03/26/94	ND17
--	Method Blank 03/28/94	ND17

IT Corporation/Fort Story
Date: 04/08/94
Job Number: Q403275/276 Revised
Client Project ID: 519029

IT ANALYTICAL SERVICES
5103 OLD WILLIAM PENN HIGHWAY
EXPORT, PA 15632
(412) 731-8806

Total Petroleum Hydrocarbons Matrix Spike Percent Recovery

Client Sample ID: See below
Sample Date: 03/22/94
Analysis Date: 03/26 and 28/94

Client Sample ID	Lab Sample ID	Matrix Spike Percent Recovery
82D DUP-032294	Q40327516	117%
119F-032294	Q40327616	1400%*

*Due to the level of petroleum hydrocarbons present in this sample, the sample, duplicate, and matrix spike all had to be diluted which resulted in the reported values.

IT Corporation/Fort Story
 Date: 04/08/94
 Job Number: Q403275/276 Revised
 Client Project ID: 519029

IT ANALYTICAL SERVICES
5103 OLD WILLIAM PENN HIGHWAY
EXPORT, PA 15632
(412) 731-8806

Total Petroleum Hydrocarbons Range Organics - Low Boilers

Client Sample ID: See below
 Sample Date: 03/22/94
 Analysis Date: 03/26, 27, 28/94

Client Sample ID	Lab Sample ID	Gasoline µg/Kg	Alpha, Alpha, Alpha- Trifluorotoluene Surrogate Spike Percent Recovery
01A-032294	Q40327510	ND7100	75%
05A-032294	Q40327601	ND6500	69%
10A-032294	Q40327615	ND6200	76%
15A-032294	Q40327603	ND6500	68%
20A-032294	Q40327501	ND6100	75%
22B-032294	Q40327505	ND6900	77%
25B-032294	Q40327503	5700	93%
30B-032294	Q40327609	ND6100	76%
30B DUP-032294	Q40327607	ND6500	69%
35B-032294	Q40327612	ND6200	76%
40B-032294	Q40327513	ND6600	73%
43C-032294	Q40327511	ND6700	73%
47C-032294	Q40327602	ND6500	69%
52C-032294	Q40327506	ND6400	83%
57C-032294	Q40327604	ND6000	68%
62C-032294	Q40327606	ND7400	68%
64D-032294	Q40327504	ND6200	77%
67D-032294	Q40327502	ND6200	80%
72D-032294	Q40327613	ND6200	76%
77D-032294	Q40327605	ND6500	69%
82D-032294	Q40327515	ND6400	72%
82D DUP-032294	Q40327516	ND6600	74%
85E-032294	Q40327512	ND6600	74%
89E-032294	Q40327611	ND6200	65%
94E-032294	Q40327610	ND6000	76%
99E-032294	Q40327614	ND6300	73%
104E-032294	Q40327508	ND6100	78%
106F-032294	Q40327507	ND6200	78%
109F-032294	Q40327509	ND6400	75%
114F-032294	Q40327608	ND6200	75%
119F-032294	Q40327616	ND6100	73%
124F-032294	Q40327514	ND6000	73%
--	Method Blank 03/26/94	ND6200	72%

IT Corporation/Fort Story
Date: 04/08/94
Job Number: Q403275/276 Revised
Client Project ID: 519029

IT ANALYTICAL SERVICES
5103 OLD WILLIAM PENN HIGHWAY
EXPORT, PA 15632
(412) 731-8806

Total Petroleum Hydrocarbons - Low Boilers (Continued)

Client Sample ID: See below
Sample Date: 03/22/94
Analysis Date: 03/26, 27, 28/94

Client Sample ID	Lab Sample ID	Gasoline µg/Kg	Alpha, Alpha, Alpha- Trifluorotoluene Surrogate Spike Percent Recovery
--	Method Blank 03/27/94	ND6200	74%
--	Method Blank 03/28/94	ND6200	82%

IT Corporation/Fort Story
Date: 04/08/94
Job Number: Q403275/276 Revised
Client Project ID: 519029

IT ANALYTICAL SERVICES
5103 OLD WILLIAM PENN HIGHWAY
EXPORT, PA 15632
(412) 731-8806

Total Petroleum Hydrocarbons Range Organics - Low Boilers

Client Sample ID: See below
Sample Date: 03/22/94
Analysis Date: 03/26, 27, 28/94

Client Sample ID	Gasoline Percentage Recovery	Surrogate Percent Recovery
20A-032294	68%/67%	101%/96%
119F-032294	67%/98%	101%/111%

CERTIFICATE OF ANALYSIS

IT Corporation/Fort Story
2790 Mosside Boulevard
Monroeville, PA 15146

April 5, 1994

Attn: Tom Mathison

Job Number: Q403275/276

The Certificate of Analysis is for the following:

Client Project ID: 519029
Date Received by Lab: 03/23/94
Number of Samples: Thirty-two
Sample Type: Soil

VOID

1.0 Introduction

On March 23, 1994, thirty-two soil samples were received at ITAS Pittsburgh, labeled as follows:

01A-032294	30B DUP-032294	64D-032294	94E-032294
05A-032294	35B-032294	67D-032294	99E-032294
10A-032294	40B-032294	72D-032294	104E-032294
15A-032294	43C-032294	77D-032294	106F-032294
20A-032294	47C-032294	82D-032294	109F-032294
22B-032294	52C-032294	82D DUP-032294	114F-032294
25B-032294	57C-032294	85E-032294	119F-032294
30B-032294	62C-032294	89E-032294	124F-032294

The analysis for TPH diesel is being performed at our ITAS laboratory in Austin, Texas. These results will follow under separate cover upon completion.

2.0 Analytical Results/Methodology

Results are presented in the enclosed tables and were determined in accordance with Methods 8015 and 9071, Test Methods for Evaluating Solid Waste, EPA SW-846, 3rd ed., 1986; Method 418.1, Method for the Chemical Analysis of Water and Waste, EPA, 600/4-79-020, 1983 revision.

Reviewed and Approved:

Carrie L. Smith-Gamber
Carrie L. Smith-Gamber, Project Manager

IT Corporation/Fort Story
Date: 04/05/94
Job Number: Q403275/276
Client Project ID: 519029

IT ANALYTICAL SERVICES
5103 OLD WILLIAM PENN HIGHWAY
EXPORT, PA 15632
(412) 731-8806

2.0 Analytical Results/Methodology (Continued)

Results are based on sample concentration and expressed in milligrams per kilogram or parts per million and micrograms per kilogram or parts per billion. ND denotes that the compound is not detected at or above the indicated detection limit.

8015 - Gasoline

All samples were analyzed using methanol dilutions which slightly elevated detection limits. However, this did not cause detection limits to be above the client action level.

3.0 Quality Control

QA/QC information can be found immediately following the analytical data.

IT Corporation/Fort Story
Date: 04/05/94
Job Number: Q403275/276
Client Project ID: 519029

IT ANALYTICAL SERVICES
5103 OLD WILLIAM PENN HIGHWAY
EXPORT, PA 15632
(412) 731-8806

Total Petroleum Hydrocarbons

Client Sample ID: See below
Sample Date: 03/22/94
Analysis Date: 03/26 and 28/94

Client Sample ID	Lab Sample ID	Concentration mg/Kg
01A-032294	Q40327510	700
05A-032294	Q40327601	120
10A-032294	Q40327615	120
15A-032294	Q40327603	180
20A-032294	Q40327501	520
22B-032294	Q40327505	120
25B-032294	Q40327503	97
30B-032294	Q40327609	190
30B DUP-032294	Q40327607	190
35B-032294	Q40327612	110
40B-032294	Q40327513	82
43C-032294	Q40327511	75
47C-032294	Q40327602	150
52C-032294	Q40327506	210
57C-032294	Q40327604	120
62C-032294	Q40327606	550
64D-032294	Q40327504	90
67D-032294	Q40327502	190
72D-032294	Q40327613	130
77D-032294	Q40327605	88
82D-032294	Q40327515	490
82D DUP-032294	Q40327516	380/420
85E-032294	Q40327512	360
89E-032294	Q40327611	370
94E-032294	Q40327610	360
99E-032294	Q40327614	150
104E-032294	Q40327508	310
106F-032294	Q40327507	340
109F-032294	Q40327509	160
114F-032294	Q40327608	230
119F-032294	Q40327616	2700*/4000*
124F-032294	Q40327514	480
--	Method Blank 03/26/94	ND17
--	Method Blank 03/28/94	ND17

~~*Due to the level of petroleum hydrocarbons present in this sample, the sample, duplicate, and matrix spike all had to be diluted which resulted in the reported values.~~

* see next page

IT Corporation/Fort Story
Date: 04/05/94
Job Number: Q403275/276
Client Project ID: 519029

IT ANALYTICAL SERVICES
5103 OLD WILLIAM PENN HIGHWAY
EXPORT, PA 15632
(412) 731-8806

Total Petroleum Hydrocarbons Matrix Spike Percent Recovery

Client Sample ID: See below
Sample Date: 03/22/94
Analysis Date: 03/26 and 28/94

Client Sample ID	Lab Sample ID	Matrix Spike Percent Recovery
82D DUP-032294	Q40327516	117%
119F-032294	Q40327616	1400%*

*Due to the level of petroleum hydrocarbons present in this sample, the sample, duplicate, and matrix spike all had to be diluted which resulted in the reported values.

IT Corporation/Fort Story
Date: 04/05/94
Job Number: Q403275/276
Client Project ID: 519029

IT ANALYTICAL SERVICES
5103 OLD WILLIAM PENN HIGHWAY
EXPORT, PA 15632
(412) 731-8806

Total Petroleum Hydrocarbons Range Organics - Low Boilers

Client Sample ID: See below
Sample Date: 03/22/94
Analysis Date: 03/26, 27, 28/94

Client Sample ID	Lab Sample ID	Gasoline $\mu\text{g}/\text{Kg}$	Alpha, Alpha, Alpha- Trifluorotoluene Surrogate Spike Percent Recovery
01A-032294	Q40327510	ND7100	75%
05A-032294	Q40327601	ND6500	69%
10A-032294	Q40327615	ND6200	76%
15A-032294	Q40327603	ND6500	68%
20A-032294	Q40327501	ND6100	75%
22B-032294	Q40327505	ND6900	77%
25B-032294	Q40327503	5700	93%
30B-032294	Q40327609	ND6100	76%
30B DUP-032294	Q40327607	ND6500	69%
35B-032294	Q40327612	ND6200	76%
40B-032294	Q40327513	ND6600	73%
43C-032294	Q40327511	ND6700	73%
47C-032294	Q40327602	ND6500	69%
52C-032294	Q40327506	ND6400	83%
57C-032294	Q40327604	ND6000	68%
62C-032294	Q40327606	ND7400	68%
64D-032294	Q40327504	ND6200	77%
67D-032294	Q40327502	ND6200	80%
72D-032294	Q40327613	ND6200	76%
77D-032294	Q40327605	ND6500	69%
82D-032294	Q40327515	ND6400	72%
82D DUP-032294	Q40327516	ND6600	74%
85E-032294	Q40327512	ND6600	74%
89E-032294	Q40327611	ND6200	65%
94E-032294	Q40327610	ND6000	76%
99E-032294	Q40327614	ND6300	73%
104E-032294	Q40327508	ND6100	78%
106F-032294	Q40327507	ND6200	78%
109F-032294	Q40327509	ND6400	75%
114F-032294	Q40327608	ND6200	75%
119F-032294	Q40327616	ND6100	73%

IT Corporation/Fort Story
Date: 04/05/94
Job Number: Q403275/276
Client Project ID: 519029

IT ANALYTICAL SERVICES
5103 OLD WILLIAM PENN HIGHWAY
EXPORT, PA 15632
(412) 731-8806

Total Petroleum Hydrocarbons - Low Boilers (Continued)

Client Sample ID: See below
Sample Date: 03/22/94
Analysis Date: 03/26, 27, 28/94

Client Sample ID	Lab Sample ID	Gasoline $\mu\text{g}/\text{Kg}$	Alpha, Alpha, Alpha- Trifluorotoluene Surrogate Spike Percent Recovery
124F-032294	Q40327514	ND6000	73%
--	Method Blank 03/26/94	ND6200	72%
--	Method Blank 03/27/94	ND6200	74%
--	Method Blank 03/28/94	ND6200	82%

IT Corporation/Fort Story
Date: 04/05/94
Job Number: Q403275/276
Client Project ID: 519029

IT ANALYTICAL SERVICES
5103 OLD WILLIAM PENN HIGHWAY
EXPORT, PA 15632
(412) 731-8806

Total Petroleum Hydrocarbons Range Organics - Low Boilers

Client Sample ID: See below
Sample Date: 03/22/94
Analysis Date: 03/26, 27, 28/94

Client Sample ID	Matrix Spike Percent Recovery
20A-032294	101%/96%
119F-032294	101%/111%

Cooler Receipt Form

Project: FORT STORY

LIMS No. Q403275 / Q403276

Use other side of this form to note details concerning check-in problems.

A. Preliminary Examination Phase:

Date cooler opened: 3/23/94

C-of-C No.: 453295/453294/417553/413603

By (print) Bob Finlay

(sign) Bob Finlay

1. Did cooler come with a shipping slip (air bill, etc.)? Yes No
If YES, enter carrier name & air bill no. here: 9710126193
2. Were custody seals on outside of cooler? Yes No
How many & where: 2 Left front Right rear
Seal date: NA Seal name: _____
3. Were custody seals unbroken and intact at the date and time of arrival: Yes No
4. Did you screen samples for radioactivity using the Geiger Counter: Yes No
5. Were custody papers sealed in a plastic bag and taped inside of the lid? Yes No
6. Were custody papers filled out properly (ink, signed, etc.)? Yes No
7. Did you sign custody papers in the appropriate place? Yes No
8. Was project identifiable from custody papers? Yes No
If YES, enter project name at the top of this form.
9. If required, was enough ice used? Yes No
Type of ice: ICE CUBES
10. Have designated person initial here to acknowledge receipt of cooler: BF Date: 3/23/94

B. Log-in Phase:

Date samples were logged-in: 3/23/94 By (print) Bob Finlay (sign) Bob Finlay

11. Describe type of packing in cooler: Vermiculite / Styrofoam beads / Ice bags
12. Were all bottles sealed in separate plastic bags? Yes No
13. Did all bottles arrive unbroken & were labels in good condition? Yes No
14. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? Yes No
15. Did all bottle labels agree with custody papers? Yes No
16. Were correct containers used for the test indicated? Yes No
17. Were correct preservatives added to samples? NA Yes No
18. Was a sufficient amount of sample sent for tests indicated? Yes No
19. Were bubbles absent in volatile samples? Yes No
If NO, list by sample number: NA
20. Was the project manager called and status discussed? Yes No
If yes, give details on the back of this form.
21. Who was called? _____ By whom? _____ Date: _____

Don Bernardo called to make sure samples arrived O.K.

CERTIFICATE OF ANALYSIS

IT Corporation/Fort Story
2790 Mosside Boulevard
Monroeville, PA 15146
Attn: Tom Mathison

April 8, 1994

Job Number: Q403321/322

The Certificate of Analysis is for the following:

Client Project ID: 519029
Date Received by Lab: 03/25/94
Number of Samples: Thirty-three
Sample Type: Soil

1.0 Introduction

On March 25, 1994 thirty-three samples were received at ITAS Pittsburgh, labeled as follows:

450D-032494	455D DUP-032494	482E-032494
492F-032494	472E-032494	484F-032494
393A-032494	430C-032494	379A-032494
435C-032494	430C DUP-032494	421C-032494
440C-032494	408B-032494	418B-032494
477E-032494	400B-032494	383A-032494
477E DUP-032494	442D-032494	425C-032494
497F-032494	403B-032494	463E-032494
413B-032494	445D-032494	467E-032494
388A-032494	487F-032494	460D-032494
455D-032494	398A-032494	502F-032494

The analysis for TPH-diesel was performed at our ITAS laboratory in Austin, Texas. these results will follow under separate cover.

2.0 Analytical Results/Methodology

Results are presented in the enclosed tables, and were determined in accordance with Methods 8015 and 9071, Test Methods for Evaluating Solid Waste, EPA SW-846, 3rd ed., 1986; and Method 418.1, Method for the Chemical Analysis of Water and Waste, EPA, 600/4-79-020, 1983 revision.

Reviewed and Approved:


Carrie L. Smith-Gamber, Project Manager

IT Corporation/Fort Story
Date: 04/08/94
Job Number: Q403321/322
Client Project ID: 519029

IT ANALYTICAL SERVICES
5103 OLD WILLIAM PENN HIGHWAY
EXPORT, PA 15632
(412) 731-8806

2.0 Analytical Results/Methodology (Continued)

Results of sample concentrations are based on dry weight and expressed in milligrams per kilogram or parts per million. ND denotes that the compound is not detected at or above the indicated detection limit.

3.0 Quality Control

QA/QC information can be found immediately following the analytical data.

IT Corporation/Fort Story
Date: 04/08/94
Job Number: Q403321/322
Client Project ID: 519029

IT ANALYTICAL SERVICES
5103 OLD WILLIAM PENN HIGHWAY
EXPORT, PA 15632
(412) 731-8806

Total Petroleum Hydrocarbons Analysis

Client Sample ID: See below
Sample Date: 03/24/94
Analysis Date: 03/31/94

Client Sample ID	Lab Sample ID	Concentration mg/Kg
450D-032494	Q40332101	120
492F-032494	Q40332102	110
393A-032494	Q40332103	270
435C-032494	Q40332104	310
440C-032494	Q40332105	290
477E-032494	Q40332106	2,300
477E DUP-032494	Q40332107	3,200
497F-032494	Q40332108	270
413B-032494	Q40332109	45
388A-032494	Q40332110	2,000
455D-032494	Q40332111	3,500
455D DUP-032494	Q40332112	3,100
472E-032494	Q40332113	500
430C-032494	Q40332114	3,400
430C DUP-032494	Q40332115	2,500
408B-032494	Q40332116	270
408B-032494 DUP	Q40332117	270
400B-032494	Q40332201	210
442D-032494	Q40332202	580
403B-032494	Q40332203	220
445D-032494	Q40332204	110
487F-032494	Q40332205	490
398A-032494	Q40332206	170
482E-032494	Q40332207	57
484F-032494	Q40332208	26
379A-032494	Q40332209	850
421C-032494	Q40332210	810
418B-032494	Q40332211	560
383A-032494	Q40332212	130
425C-032494	Q40332213	330
463E-032494	Q40332214	310
467E-032494	Q40332215	330

IT Corporation/Fort Story
Date: 04/08/94
Job Number: Q403321/322
Client Project ID: 519029

IT ANALYTICAL SERVICES
5103 OLD WILLIAM PENN HIGHWAY
EXPORT, PA 15632
(412) 731-8806

Total Petroleum Hydrocarbons Analysis - Continued

Client Sample ID: See below
Sample Date:
Analysis Date: 03/31/94

Client Sample ID	Lab Sample ID	Concentration mg/Kg
460D-032494	Q40332216	330
502F-032494	Q40332217	360
502F-032494 DUP	Q40332218	390
--	Method Blank	ND17

Client Sample ID: See Below
Sample Date: 03/24/94
Analysis Date: 03/31/94

Client Sample ID	Lab Sample ID	Matrix Spike Percent Recovery
408B-032494 MS	Q40332118	80%
502F-032494 MS	Q40332219	53%

IT Corporation/Fort Story
Date: 04/08/94
Job Number: Q403321/322
Client Project ID: 519029

IT ANALYTICAL SERVICES
5103 OLD WILLIAM PENN HIGHWAY
EXPORT, PA 15632
(412) 731-8806

Total Petroleum Hydrocarbons - Gasoline Range Organics

Client Sample ID: See below
Sample Date: 03/24/94
Analysis Date: 03/30 and 31/94

Client Sample ID	Lab Sample ID	Gasoline µg/Kg	Alpha, Alpha, Alpha- Trifluorotoluene Surrogate Spike Percent Recovery
450D-032494	Q40332101	ND7300	78%
492F-032494	Q40332102	ND6300	82%
393A-032494	Q40332103	ND6100	80%
435C-032494	Q40332104	ND6500	81%
440C-032494	Q40332105	ND7200	77%
477E-032494	Q40332106	ND6900	79%
477E DUP-032494	Q40332107	ND6500	79%
497F-032494	Q40332108	ND6500	81%
413B-032494	Q40332109	ND6400	79%
388A-032494	Q40332110	ND6500	80%
455D-032494	Q40332111	ND6600	84%
455D DUP-032494	Q40332112	ND6500	79%
472E-032494	Q40332113	ND6400	82%
430C-032494	Q40332114	ND6500	78%
430C DUP-032494	Q40332115	ND6400	79%
408B-032494	Q40332116	ND6300	79%
400B-032494	Q40332201	ND6400	90%
442D-032494	Q40332202	ND6700	81%
403B-032494	Q40332203	ND6300	81%
445D-032494	Q40332204	ND6700	81%
487F-032494	Q40332205	ND6800	82%
398A-032494	Q40332206	ND6400	89%
482E-032494	Q40332207	ND6900	80%
484F-032494	Q40332208	ND6300	84%
379A-032494	Q40332209	ND6300	86%
421C-032494	Q40332210	ND6500	82%
418B-032494	Q40332211	ND6300	82%
383A-032494	Q40332212	ND6300	81%
425C-032494	Q40332213	ND6500	83%
463E-032494	Q40332214	ND6300	82%
467E-032494	Q40332215	ND6100	79%
460D-032494	Q40332216	ND6400	81%
502F-032494	Q40332217	ND6300	82%
--	Method Blank 03/30/94	ND6200	82%
--	Method Blank 03/31/94	ND6200	66%

IT Corporation/Fort Story
Date: 04/08/94
Job Number: Q403321/322
Client Project ID: 519029

IT ANALYTICAL SERVICES
5103 OLD WILLIAM PENN HIGHWAY
EXPORT, PA 15632
(412) 731-8806

Total Petroleum Hydrocarbons - Gasoline Range Organics

Client Sample ID: See below
Sample Date: 03/24/94
Analysis Date: 03/30 and 31/94

Client Sample ID	Lab Sample ID	Gasoline Percent Recovery	Surrogate Percent Recovery
408B-032494	Q40332117/18	88%/89%	57%/60%
502F-032494	Q40332218/19	90%/101%	60%/71%

CERTIFICATE OF ANALYSIS

IT Corporation/Fort Story
2790 Mosside Boulevard
Monroeville, PA 15146
Attn: Tom Mathison

April 12, 1994

Job Number: Q403298/299

The Certificate of Analysis is for the following:

Client Project ID: 519029
Date Received by Lab: 03/24/94
Number of Samples: Thirty-three
Sample Type: Soil

1.0 Introduction

On March 24, 1994 thirty-three samples were received at ITAS Pittsburgh, labeled as follows:

94B-032394	349E-032394	273A-032394
336D-032394	280B-032394	315C-032394
378F-032394	322D-032394	357E-032394
255A-032394	322D DUP-032394	332D-032394
297C-032394	364F-032394	374F-032394
339E-032394	275B-032394	260A-032394
290B-032394	270A-032394	302C-032394
290B DUP-032394	312C-032394	344E-032394
369F-032394	354E-032394	285B-032394
265A-032394	317D-032394	285B DUP-032394
307C-032394	359F-032394	327D-032394

2.0 Analytical Results/Methodology

The analysis for Methods 9071/418.1, and 8015-Diesel were performed at our ITAS Laboratory in Austin, Texas. These results are enclosed.

Reviewed and Approved:


Carrie L. Smith-Gamber, Project Manager

CERTIFICATE OF ANALYSIS

ITAS-EXPORT
IT CORPORATION
5103 OLD WILLIAM PENN HWY.
EXPORT, PENN. 15632
CARRIE SMITH

Date: 04/07/94

Work Order: B4-03-273

P.O. Number: E94-036

This is the Certificate of Analysis for the following samples:

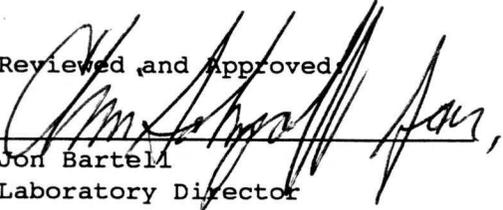
Client Work ID: FT STORY 519029 SDG FS004 3I4610
Date Received: 03/25/94
Number of Samples: 20
Sample Type: SOIL

I. Introduction

Samples were labeled as follows:

<u>SAMPLE IDENTIFICATION</u>	<u>LABORATORY #</u>
275B-032394	B4-03-273-01
270A-032394	B4-03-273-02
312C-032394	B4-03-273-03
354E-032394	B4-03-273-04
317D-032394	B4-03-273-05
359F-032394	B4-03-273-06
273A-032394	B4-03-273-07
315C-032394	B4-03-273-08
357E-032394	B4-03-273-09
332D-032394	B4-03-273-10
374F-032394	B4-03-273-11

Reviewed and approved:


Jon Bartell
Laboratory Director

Company: ITAS-EXPORT
Date: 04/07/94
Client Work ID: FT STORY 519029 SDG FS004 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-03-275

SAMPLE ID: 349E-032394
SAMPLE DATE: 03/23/94 10:10:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note Ref</u>	<u>Result</u>	<u>Reporting Limit Units</u>		<u>Date Analyzed</u>	<u>Method Reference</u>
9071/418.1 for TPH		210	11	mg/kg	04/02/94	EPA9071
Moisture		4.2		% Moisture	03/29/94	209_F
TPH-D by GC (EPA8015_MOD)	1	130	9	mg/kg	04/01/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	87
	C32	96

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-03-273

SAMPLE ID: 260A-032394
SAMPLE DATE: 03/23/94 09:00:00
SAMPLE MATRIX: SOIL

Test Name	Note		Reporting		Date	Method
	Ref	Result	Limit	Units	Analyzed	Reference
9071/418.1 for TPH		190	11	mg/kg	04/02/94	EPA9071
Moisture		4.2		% Moisture	03/29/94	209_F
TPH-D by GC (EPA8015_MOD)	1	90	1.7	mg/kg	03/30/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	72
	C32	64

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

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

Work Order: B4-03-273

SAMPLE ID: 275B-032394
SAMPLE DATE: 03/23/94 11:00:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
9071/418.1 for TPH		89	11	mg/kg	04/02/94	EPA9071
Moisture		3.6		% Moisture	03/29/94	209_F
TPH-D by GC (EPA8015_MOD)	1	73	1.7	mg/kg	03/30/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	94
	C32	101

Company: ITAS-EXPORT
Date: 04/07/94
Client Work ID: FT STORY 519029 SDG FS004 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-03-273

SAMPLE ID: 270A-032394
SAMPLE DATE: 03/23/94 11:20:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note Ref</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>	<u>Method Reference</u>
9071/418.1 for TPH		200	10	mg/kg	04/02/94	EPA9071
Moisture		2.0		% Moisture	03/29/94	209_F
TPH-D by GC (EPA8015_MOD)	1	94	1.7	mg/kg	03/30/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	88
	C32	84

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-03-273

SAMPLE ID: 312C-032394
SAMPLE DATE: 03/23/94 11:40:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>		<u>Date Analyzed</u>	<u>Method Reference</u>
			<u>Ref</u>	<u>Limit</u>		
9071/418.1 for TPH		200		11 mg/kg	04/02/94	EPA9071
Moisture		3.9		% Moisture	03/29/94	209_F
TPH-D by GC (EPA8015_MOD)	1	55		1.7 mg/kg	03/30/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	69
	C32	67

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-03-273

SAMPLE ID: 354E-032394
SAMPLE DATE: 03/23/94 11:50:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Ref</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
				<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
9071/418.1 for TPH			220	11	mg/kg	04/02/94	EPA9071
Moisture			6.7		% Moisture	03/29/94	209_F
TPH-D by GC (EPA8015_MOD)		1	120	1.8	mg/kg	03/30/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	77
	C32	75

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-03-273

SAMPLE ID: 317D-032394
SAMPLE DATE: 03/23/94 12:00:00
SAMPLE MATRIX: SOIL

Test Name	Note		Reporting			Date	Method
	Ref	Result	Limit	Units	Analyzed	Reference	
9071/418.1 for TPH		92	12	mg/kg	04/02/94	EPA9071	
Moisture		14		% Moisture	03/29/94	209_F	
TPH-D by GC (EPA8015_MOD)	1	46	2	mg/kg	03/30/94	EPA8015_MOD	

Referenced notes for these results:

	Surrogate	Recovery %
1	o-terphenyl	107
	C32	100

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

IT ANALYTICAL SERVICES

AUSTIN, TX

(512) 892-6684

Work Order: B4-03-273

SAMPLE ID: 359F-032394

SAMPLE DATE: 03/23/94 12:15:00

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>		<u>Reporting</u>			<u>Date</u>	<u>Method</u>
	<u>Ref</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>	
9071/418.1 for TPH		320	10	mg/kg	04/02/94	EPA9071	
Moisture		0.81		% Moisture	03/29/94	209_F	
TPH-D by GC (EPA8015_MOD)	1	92	1.7	mg/kg	03/30/94	EPA8015_MOD	

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	69
	C32	83

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX

(512) 892-6684

Work Order: B4-03-273

SAMPLE ID: 273A-032394

SAMPLE DATE: 03/23/94 12:10:00

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
			<u>Ref</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
9071/418.1 for TPH		310		10	04/02/94	EPA9071
Moisture		1.6			03/29/94	209_F
TPH-D by GC (EPA8015_MOD)	1	95		1.7	03/30/94	EPA8015_MOD

Referenced notes for these results:

	Surrogate	Recovery %
	o-terphenyl	81
	C32	73

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

IT ANALYTICAL SERVICES

AUSTIN, TX

(512) 892-6684

Work Order: B4-03-273

SAMPLE ID: 315C-032394

SAMPLE DATE: 03/23/94 12:40:00

SAMPLE MATRIX: SOIL

Test Name	Note		Reporting		Date	Method
	Ref	Result	Limit	Units	Analyzed	Reference
9071/418.1 for TPH		56	11	mg/kg	04/02/94	EPA9071
Moisture		6.5		% Moisture	03/29/94	209_F
TPH-D by GC (EPA8015_MOD)	1	20	1.8	mg/kg	03/30/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	114
	C32	113

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-03-273

SAMPLE ID: 357E-032394
SAMPLE DATE: 03/23/94 12:35:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting		Date	Method
			Limit	Units	Analyzed	Reference
9071/418.1 for TPH		59	11	mg/kg	04/02/94	EPA9071
Moisture		6.8		% Moisture	03/29/94	209_F
TPH-D by GC (EPA8015_MOD)	1	43	1.8	mg/kg	03/30/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	125
	C32	123

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

IT ANALYTICAL SERVICES

AUSTIN, TX

(512) 892-6684

Work Order: B4-03-273

SAMPLE ID: 332D-032394

SAMPLE DATE: 03/23/94 08:40:00

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
9071/418.1 for TPH		480	11 mg/kg	04/02/94	EPA9071
Moisture		4.1	% Moisture	03/29/94	209_F
TPH-D by GC (EPA8015_MOD)	1	300	1.7 mg/kg	03/30/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	111
	C32	96

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-03-273

SAMPLE ID: 374F-032394
SAMPLE DATE: 03/23/94 09:00:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
			<u>Ref</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
9071/418.1 for TPH		32		11 mg/kg	04/02/94	EPA9071
Moisture		3.5		% Moisture	03/29/94	209_F
TPH-D by GC (EPA8015_MOD)	1	8.1		1.7 mg/kg	03/30/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	97
	C32	100

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

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

Work Order: B4-03-273

SAMPLE ID: 302C-032394
SAMPLE DATE: 03/23/94 09:15:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
			<u>Ref</u>	<u>Limit</u>		
9071/418.1 for TPH		360		11 mg/kg	04/02/94	EPA9071
Moisture		3.6		% Moisture	03/29/94	209_F
TPH-D by GC (EPA8015_MOD)	1	140		1.7 mg/kg	03/30/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	76
	C32	70

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

IT ANALYTICAL SERVICES

AUSTIN, TX

(512) 892-6684

Work Order: B4-03-273

SAMPLE ID: 344E-032394

SAMPLE DATE: 03/23/94 09:15:00

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>		<u>Reporting</u>		<u>Date</u>	<u>Method</u>
	<u>Ref</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
9071/418.1 for TPH		260	11	mg/kg	04/02/94	EPA9071
Moisture		3.2		% Moisture	03/29/94	209_F
TPH-D by GC (EPA8015_MOD)	1	280	1.7	mg/kg	03/30/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	105
	C32	85

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-03-273

SAMPLE ID: 285B-032394
SAMPLE DATE: 03/23/94 09:20:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
			<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
9071/418.1 for TPH		120	10	mg/kg	04/02/94	EPA9071
Moisture		2.2		% Moisture	03/29/94	209_F
TPH-D by GC (EPA8015_MOD)	1	140	1.7	mg/kg	03/30/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	84
	C32	72

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-03-273

SAMPLE ID: 285BDUP-032394
SAMPLE DATE: 03/23/94 09:20:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
			<u>Ref</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
9071/418.1 for TPH		88	10	mg/kg	04/02/94	EPA9071
Moisture		2.7		% Moisture	03/29/94	209_F
TPH-D by GC (EPA8015_MOD)	1	83	1.7	mg/kg	03/30/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	102
	C32	91

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

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

Work Order: B4-03-273

SAMPLE ID: 327D-032394
SAMPLE DATE: 03/23/94 09:20:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
			<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
9071/418.1 for TPH		610	11	mg/kg	04/02/94	EPA9071
Moisture		3.9		% Moisture	03/29/94	209_F
TPH-D by GC (EPA8015_MOD)	1	290	1.7	mg/kg	03/30/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	95
	C32	78

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

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

Work Order: B4-03-273

SAMPLE ID: 327D-032394 MATRIX SPIKE

SAMPLE DATE: 03/23/94 09:20:00

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Units</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u>		<u>Analyzed</u>	<u>Reference</u>
9071/418.1 for TPH		66		% Rec	04/02/94	EPA9071
TPH-D by GC (EPA8015_MOD)	1	720		% Rec	03/30/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
o-terphenyl 46
C32 *
- * Surrogate not reported due to matrix interference.

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-03-273

SAMPLE ID: 327D-032394 MSD
SAMPLE DATE: 03/23/94 09:20:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
			<u>Ref</u>	<u>Limit</u>		
9071/418.1 for TPH		63			04/02/94	EPA9071
TPH-D by GC (EPA8015_MOD)	1	830			03/30/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	53
	C32	48

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-03-273

SAMPLE ID: METHOD BLANK

SAMPLE DATE:

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
			<u>Ref</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
9071/418.1 for TPH		ND		10	mg/kg	04/02/94 EPA9071
TPH-D by GC (EPA8015_MOD)	1	ND		2	mg/kg	03/30/94 EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	78
	C32	97

Page: 23 of 24

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 314610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-03-273

Referenced notes for this work order:

B403273

The chromatograms generally contained a pattern from C14 to C44, although integration occurred from C9 to C24 (diesel range).

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-03-273

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.

TEST NAME Moisture

TEST CODE MOIST

Moisture

Standard Method 209F/2540G or EPA CLP. Percent moisture obtained by drying of soil or sludge sample at 103-105 degrees centigrade. Moisture content is 100% - %Total Solids.

TEST NAME TPH-D by GC (EPA8015_MOD)

TEST CODE TPH_GC

TPH-Extractable
Petroleum
Hydrocarbons

EPA Methods 3510/3520/3550/3580 for extraction of samples and modified EPA Method 8015 for GC/FID analysis of extracts run against a diesel standard.



ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

8403273
Reference Document No. 489111
Page 1 of 2

Project Name/No. ¹ Fort Story 519029 Samples Shipment Date ⁷ 3/24/94
 Sample Team Members ² DeMarco/Bernardo Lab Destination ⁸ ITPS Austin
 Profit Center No. ³ 4610 Lab Contact ⁹ Chris Schynoff
 Project Manager ⁴ Carrie Smith ◀ Project Contact/Phone ¹² 412-731-8806
 Purchase Order No. ⁶ E94-036 Carrier/Waybill No. ¹³ FedEx 2305045
 Required Report Date ¹¹ 4-6-94

Bill to: ⁵ ITPS PETA
 Report to: ¹⁰ ITPS PETA

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
275B-032394	Soil Q403299-01	3-23-94 1100	AMBER GLASS	17050ml 1760ml	ICE	TPH DIESEL 8051/3550 TPHC 9071/4181	Good 1°C LA 3-25-94	
270A-032394		02 1120					FOR LAB USE ONLY	
312C-032394		03 1140						
354E-032394		04 1150						
317D-032394		05 1200						
359F-032394		06 1215						
273A-032394		07 1210						
315C-032394		08 1240						

Special Instructions: ²³ Perform QC on 3127D-032394 SDG FSD04

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 Robert H. Taylor ITPS PETA (Signature/Affiliation)	Date: 3/24/94 Time: 1400	1. Received by ²⁸ Lori Church IT (Signature/Affiliation)	Date: 3-25-94 Time: 0852
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.

Cooler Receipt Form

Project: Font Story 519029 Export Sam LIMS No. 8403273

~~LXC~~
3-25-94

Use other side of this form to note details concerning check-in problems.

A. Preliminary Examination Phase:

Date cooler opened: 3-25-94 C-of-C No.: 484101
By (print) Corri Church (sign) Corri Church

1. Did cooler come with a shipping slip (air bill, etc.)? Yes No
If YES, enter carrier name & air bill no. here: FedX 2423805045
2. Were custody seals on outside of cooler? Yes No
How many & where: 1
Seal date: — Seal name: —
3. Were custody seals unbroken and intact at the date and time of arrival: Yes No
4. Did you screen samples for radioactivity using the Geiger Counter: Yes No
5. Were custody papers sealed in a plastic bag and taped inside of the lid? Yes No
6. Were custody papers filled out properly (ink, signed, etc.)? Yes No
7. Did you sign custody papers in the appropriate place? Yes No
8. Was project identifiable from custody papers? Yes No
If YES, enter project name at the top of this form.
9. If required, was enough ice used? Yes No
Type of ice: wet
10. Have designated person initial here to acknowledge receipt of cooler: LXC Date: 3-25-94

B. Log-in Phase:

Date samples were logged-in: 3-25-94 By (print) Corri Church (sign) Corri Church

11. Describe type of packing in cooler: vermiculite
12. Were all bottles sealed in separate plastic bags? Yes No
13. Did all bottles arrive unbroken & were labels in good condition? Yes No
14. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? Yes No
15. Did all bottle labels agree with custody papers? Yes No
16. Were correct containers used for the test indicated? Yes No
17. Were correct preservatives added to samples? Yes No
18. Was a sufficient amount of sample sent for tests indicated? Yes No
19. Were bubbles absent in volatile samples? N/A Yes No
If NO, list by sample number: _____
20. Was the project manager called and status discussed? Yes No
If yes, give details on the back of this form.
21. Who was called? _____ By whom? _____ Date: _____

CERTIFICATE OF ANALYSIS

ITAS-EXPORT
IT CORPORATION
5103 OLD WILLIAM PENN HWY.
EXPORT, PENN. 15632
CARRIE SMITH

Date: 04/07/94

Work Order: B4-03-275

P.O. Number: E94-036

This is the Certificate of Analysis for the following samples:

Client Work ID: FT STORY 519029 SDG FS004 3I4610
Date Received: 03/25/94
Number of Samples: 19
Sample Type: SOIL

I. Introduction

Samples were labeled as follows:

<u>SAMPLE IDENTIFICATION</u>	<u>LABORATORY #</u>
294B-032394	B4-03-275-01
336D-032394	B4-03-275-02
378F-032394	B4-03-275-03
255A-032394	B4-03-275-04
297C-032394	B4-03-275-05
339E-032394	B4-03-275-06
290B-032394	B4-03-275-07
290BDUP-032394	B4-03-275-08
369F-032394	B4-03-275-09
265A-032394	B4-03-275-10
307C-032394	B4-03-275-11

Reviewed and Approved:


Jon Bartell
Laboratory Director

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

IT ANALYTICAL SERVICES

AUSTIN, TX

(512) 892-6684

Work Order: B4-03-273

Samples, continued from above:

<u>SAMPLE IDENTIFICATION</u>	<u>LABORATORY #</u>
302C-032394	B4-03-273-13
344E-032394	B4-03-273-14
285B-032394	B4-03-273-15
285BDUP-032394	B4-03-273-16
327D-032394	B4-03-273-17
327D-032394 MATRIX SPIKE	B4-03-273-18
327D-032394 MSD	B4-03-273-19
METHOD BLANK	B4-03-273-20

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: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

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

Work Order: B4-03-275

Samples, continued from above:

<u>SAMPLE IDENTIFICATION</u>	<u>LABORATORY #</u>
280B-032394	B4-03-275-13
322D-032394	B4-03-275-14
322DDUP-032394	B4-03-275-15
364F-032394	B4-03-275-16
364F-032394 MATRIX SPIKE	B4-03-275-17
364F-032394 MSD	B4-03-275-18
METHOD BLANK	B4-03-275-19

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: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-03-275

SAMPLE ID: 294B-032394
SAMPLE DATE: 03/23/94 07:15:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting		Date Analyzed	Method Reference
			Limit	Units		
9071/418.1 for TPH		2000	250	mg/kg	04/02/94	EPA9071
Moisture		2.3		% Moisture	03/29/94	209_F
TPH-D by GC (EPA8015_MOD)	1	930	34	mg/kg	04/01/94	EPA8015_MOD

Referenced notes for these results:

	Surrogate	Recovery %
1	o-terphenyl	81
	C32	94

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

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

Work Order: B4-03-275

SAMPLE ID: 336D-032394
SAMPLE DATE: 03/23/94 07:15:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note Ref</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
			<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
9071/418.1 for TPH		900	53	mg/kg	04/02/94	EPA9071
Moisture		3.3		% Moisture	03/29/94	209_F
TPH-D by GC (EPA8015_MOD)	1	480	9	mg/kg	04/01/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	90
	C32	89

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-03-275

SAMPLE ID: 378F-032394
SAMPLE DATE: 03/23/94 07:40:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
			<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
9071/418.1 for TPH		620	11	mg/kg	04/02/94	EPA9071
Moisture		3.7		% Moisture	03/29/94	209_F
TPH-D by GC (EPA8015_MOD)	1	350	9	mg/kg	04/01/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	87
	C32	87

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX

(512) 892-6684

Work Order: B4-03-275

SAMPLE ID: 255A-032394
SAMPLE DATE: 03/23/94 07:40:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
			<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
9071/418.1 for TPH		740	53	mg/kg	04/02/94	EPA9071
Moisture		3.4		% Moisture	03/29/94	209_F
TPH-D by GC (EPA8015_MOD)	1	54	2	mg/kg	04/01/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	106
	C32	108

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-03-275

SAMPLE ID: 297C-032394
SAMPLE DATE: 03/23/94 08:00:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting		Date Analyzed	Method Reference
			Limit	Units		
9071/418.1 for TPH		400	11	mg/kg	04/02/94	EPA9071
Moisture		3.4		% Moisture	03/29/94	209_F
TPH-D by GC (EPA8015_MOD)	1	250	2	mg/kg	04/01/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	74
	C32	62

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 314610

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

Work Order: B4-03-275

SAMPLE ID: 339E-032394
SAMPLE DATE: 03/23/94 08:15:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
9071/418.1 for TPH		650	11 mg/kg	04/02/94	EPA9071
Moisture		6.3	% Moisture	03/29/94	209_F
TPH-D by GC (EPA8015_MOD)	1	440	4 mg/kg	04/01/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	83
	C32	67

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

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

Work Order: B4-03-275

SAMPLE ID: 290B-032394
SAMPLE DATE: 03/23/94 08:30:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note Ref</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
			<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
9071/418.1 for TPH		450	11	mg/kg	04/02/94	EPA9071
Moisture		3.7		% Moisture	03/29/94	209_F
TPH-D by GC (EPA8015_MOD)	1	210	4	mg/kg	04/01/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	74
	C32	71

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

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

Work Order: B4-03-275

SAMPLE ID: 290BDUP-032394
SAMPLE DATE: 03/23/94 08:30:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting		Date Analyzed	Method Reference
			Limit	Units		
9071/418.1 for TPH		250	11	mg/kg	04/02/94	EPA9071
Moisture		3.2		% Moisture	03/29/94	209_F
TPH-D by GC (EPA8015_MOD)	1	130	2	mg/kg	04/01/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	69
	C32	70

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX

(512) 892-6684

Work Order: B4-03-275

SAMPLE ID: 369F-032394
SAMPLE DATE: 03/23/94 09:40:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
			<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
9071/418.1 for TPH		480	10	mg/kg	04/02/94	EPA9071
Moisture		2.2		% Moisture	03/29/94	209_F
TPH-D by GC (EPA8015_MOD)	1	190	3	mg/kg	04/01/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	77
	C32	108

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

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

Work Order: B4-03-275

SAMPLE ID: 265A-032394
SAMPLE DATE: 03/23/94 09:40:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
			<u>Ref</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
9071/418.1 for TPH		280		11 mg/kg	04/02/94	EPA9071
Moisture		2.6		% Moisture	03/29/94	209_F
TPH-D by GC (EPA8015_MOD)	1	170		2 mg/kg	04/01/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	88
	C32	85

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

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

Work Order: B4-03-275

SAMPLE ID: 307C-032394
SAMPLE DATE: 03/23/94 10:10:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
			<u>Ref</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>
9071/418.1 for TPH		2500		140 mg/kg	04/02/94	EPA9071
Moisture		8.1		% Moisture	03/29/94	209_F
TPH-D by GC (EPA8015_MOD)	1	730		9 mg/kg	04/01/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	64
	C32	93

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX

(512) 892-6684

Work Order: B4-03-275

SAMPLE ID: 280B-032394

SAMPLE DATE: 03/23/94 10:20:00

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
			<u>Limit</u>	<u>Units</u>		
9071/418.1 for TPH		250	11	mg/kg	04/02/94	EPA9071
Moisture		3.6		% Moisture	03/29/94	209_F
TPH-D by GC (EPA8015_MOD)	1	130	9	mg/kg	04/01/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	88
	C32	93

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

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

Work Order: B4-03-275

SAMPLE ID: 322D-032394
SAMPLE DATE: 03/23/94 10:30:00
SAMPLE MATRIX: SOIL

Test Name	Note Ref	Result	Reporting		Date	Method
			Limit	Units	Analyzed	Reference
9071/418.1 for TPH		4800	280	mg/kg	04/02/94	EPA9071
Moisture		11		% Moisture	03/29/94	209_F
TPH-D by GC (EPA8015_MOD)	1	1300	9	mg/kg	04/01/94	EPA8015_MOD

Referenced notes for these results:

- | | | |
|---|--------------------------|------------|
| 1 | Surrogate | Recovery % |
| | o-terphenyl | * |
| | C32 | * |
| | * Surrogate diluted out. | |

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

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

Work Order: B4-03-275

SAMPLE ID: 322DDUP-032394
SAMPLE DATE: 03/23/94 10:30:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
			<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
9071/418.1 for TPH		7500	130	mg/kg	04/02/94	EPA9071
Moisture		5.7		% Moisture	03/29/94	209_F
TPH-D by GC (EPA8015_MOD)	1	2300	18	mg/kg	04/01/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
o-terphenyl 64
C32 *
- * Surrogate diluted out.

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

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

Work Order: B4-03-275

SAMPLE ID: 364F-032394
SAMPLE DATE: 03/23/94 10:30:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u>	<u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
9071/418.1 for TPH		720	53	mg/kg	04/02/94	EPA9071
Moisture		4.5		% Moisture	03/29/94	209_F
TPH-D by GC (EPA8015_MOD)	1	280	9	mg/kg	04/01/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	83
	C32	75

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

IT ANALYTICAL SERVICES

AUSTIN, TX

(512) 892-6684

Work Order: B4-03-275

SAMPLE ID: 364F-032394 MATRIX SPIKE

SAMPLE DATE: 03/23/94 10:30:00

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
9071/418.1 for TPH		59	% Rec	04/02/94	EPA9071
TPH-D by GC (EPA8015_MOD)	1	310	% Rec	04/01/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	100
	C32	90

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

IT ANALYTICAL SERVICES

AUSTIN, TX

(512) 892-6684

Work Order: B4-03-275

SAMPLE ID: 364F-032394 MSD
SAMPLE DATE: 03/23/94 10:30:00
SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Units</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u>		<u>Analyzed</u>	<u>Reference</u>
9071/418.1 for TPH		74		% Rec	04/02/94	EPA9071
TPH-D by GC (EPA8015_MOD)	1	240		% Rec	04/01/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	81
	C32	77

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX

(512) 892-6684

Work Order: B4-03-275

SAMPLE ID: **METHOD BLANK**

SAMPLE DATE:

SAMPLE MATRIX: **SOIL**

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
			<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
9071/418.1 for TPH		ND	10	mg/kg	04/02/94	EPA9071
TPH-D by GC (EPA8015_MOD)	1	ND	2	mg/kg	04/01/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	83
	C32	89

Page: 22 of 23

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

IT ANALYTICAL SERVICES

AUSTIN, TX

(512) 892-6684

Work Order: B4-03-275

Referenced notes for this work order:

B403275

The chromatograms generally contained a pattern from C14 to C44, although integration occurred from C9 to C24 (diesel range).

Company: ITAS-EXPORT

Date: 04/07/94

Client Work ID: FT STORY 519029 SDG FS004 3I4610

IT ANALYTICAL SERVICES

AUSTIN, TX

(512) 892-6684

Work Order: B4-03-275

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.

TEST NAME Moisture

TEST CODE MOIST

Moisture

Standard Method 209F/2540G or EPA CLP. Percent moisture obtained by drying of soil or sludge sample at 103-105 degrees centigrade. Moisture content is 100% - %Total Solids.

TEST NAME TPH-D by GC (EPA8015_MOD)

TEST CODE TPH_GC

TPH-Extractable
Petroleum
Hydrocarbons

EPA Methods 3510/3520/3550/3580 for extraction of samples and modified EPA Method 8015 for GC/FID analysis of extracts run against a diesel standard.



ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

8403275
Reference Document No. 484100
Page 1 of 2

Project Name/No. 1 FORT STARY/SP009 Samples Shipment Date 7 3/24/94
 Sample Team Members 2 Demarco/Bernardo Lab Destination 8 ETAS Austin
 Profit Center No. 3 4610 Lab Contact 9 Chris Schup off
 Project Manager 4 Carrie Smith Project Contact/Phone 12 412-731-8806
 Purchase Order No. 6 E94-036 Carrier/Waybill No. 13 FEDX2423805036
 Required Report Date 11 4/6/94

Bill to: 5 ETAS Pitt
 Report to: 10 ETAS Pitt

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
294B-032394	Q403298-01 SOIC	3-23-94 7:15	AMBER GLASS	1250ml 1860ml	ICE	TPH DIESEL 8015/3550 TPHC 9071/418.1	Good loc LU 3-25-94	
336D-032394	Q403298-02	7:15					FOR LAB USE ONLY	
378F-032394	03	7:40						
255A-032394	04	7:40						
297C-032394	05	8:00						
339E-032394	06	8:15						
290B-032394	07	8:30						
290B DDP-032394	08	8:30						

Special Instructions: 23 Perform QC on 364F-032394 SDG FS003

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 <u>Robert Finlay ETAS Pitt</u> Date: <u>3/24/94</u> (Signature/Affiliation) Time: <u>1700</u>	1. Received by 28 <u>Lorie Chud IT</u> Date: <u>3-25-94</u> (Signature/Affiliation) Time: <u>0852</u>
2. Relinquished by _____ Date: _____ (Signature/Affiliation) Time: _____	2. Received by _____ Date: _____ (Signature/Affiliation) Time: _____
3. Relinquished by _____ Date: _____ (Signature/Affiliation) Time: _____	3. Received by _____ Date: _____ (Signature/Affiliation) Time: _____

Comments: 29

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

Cooler Receipt Form

Project: Ft. Story 519029 Export Sam LIMS No. 8403275
XXC 25-94

Use other side of this form to note details concerning check-in problems.

A. Preliminary Examination Phase:

- Date cooler opened: 3-25-94 C-of-C No.: 484100
By (print) Lorri Church (sign) Lorri Church
1. Did cooler come with a shipping slip (air bill, etc.)? Yes No
If YES, enter carrier name & air bill no. here: Fedex '2423805036
2. Were custody seals on outside of cooler? Yes No
How many & where: 1
Seal date: - Seal name: -
3. Were custody seals unbroken and intact at the date and time of arrival: Yes No
4. Did you screen samples for radioactivity using the Geiger Counter: Yes No
5. Were custody papers sealed in a plastic bag and taped inside of the lid? Yes No
6. Were custody papers filled out properly (ink, signed, etc.)? Yes No
7. Did you sign custody papers in the appropriate place? Yes No
8. Was project identifiable from custody papers? Yes No
If YES, enter project name at the top of this form.
9. If required, was enough ice used? Yes No
Type of ice: wet
10. Have designated person initial here to acknowledge receipt of cooler: XXC Date: 3-25-94

B. Log-in Phase:

- Date samples were logged-in: 3-25-94 By (print) Lorri Church (sign) Lorri Church
11. Describe type of packing in cooler: vermiculite
12. Were all bottles sealed in separate plastic bags? Yes No
13. Did all bottles arrive unbroken & were labels in good condition? Yes No
14. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? Yes No
15. Did all bottle labels agree with custody papers? Yes No
16. Were correct containers used for the test indicated? Yes No
17. Were correct preservatives added to samples? Yes No
18. Was a sufficient amount of sample sent for tests indicated? Yes No
19. Were bubbles absent in volatile samples? Yes No
If NO, list by sample number: N/A
20. Was the project manager called and status discussed? Yes No
If yes, give details on the back of this form.
21. Who was called? _____ By whom? _____ Date: _____

CERTIFICATE OF ANALYSIS

IT Corporation/Fort Story
2790 Mosside Boulevard
Monroeville, PA 15146
Attn: Tom Mathison

April 15, 1994

Job Number: Q403344/345 Revised

The Certificate of Analysis is for the following:

Client Project ID: 519029
Date Received by Lab: 03/29 and 30/94
Number of Samples: Thirty-four
Sample Type: Soil

1.0 Introduction

On March 29 and 30, 1994 thirty-four samples were received at ITAS Pittsburgh, labeled as follows:

616F-32894	611F-32894	621F-32894
574D-32894	609E-32894	579D-32894
522A-32894	525A-32894	537B-32894
527B-32894	542B-32894	537B DUP-32894
606E-32894	584D-32894	601E-32894
564C-32894	569D-32894	559C-32894
532B-32894	569D DUP-32894	517A-32894
532B DUP-32894	554C-32894	
567C-32894	512A-32894	

The analysis for TPH-diesel was performed at our ITAS laboratory in Austin, Texas. These results are enclosed.

Reviewed and Approved:


Carrie L. Smith-Gamber, Project Manager

CERTIFICATE OF ANALYSIS

ITAS-EXPORT
IT CORPORATION
5103 OLD WILLIAM PENN HWY.
EXPORT, PENN. 15632
CARRIE SMITH

Date: 04/14/94

Work Order: B4-03-318

P.O. Number: E94-037

This is the Certificate of Analysis for the following samples:

Client Work ID: FT STORY 519029 SDG FS007 3I4610
Date Received: 03/30/94
Number of Samples: 19
Sample Type: SOIL

I. Introduction

Samples were labeled as follows:

<u>SAMPLE IDENTIFICATION</u>	<u>LABORATORY #</u>
616F-32894	B4-03-318-01
616F-32894 MATRIX SPIKE	B4-03-318-02
616F-32894 MSD	B4-03-318-03
574D-32894	B4-03-318-04
522A-32894	B4-03-318-05
527B-32894	B4-03-318-06
606E-32894	B4-03-318-07
564C-32894	B4-03-318-08
532B-32894	B4-03-318-09
532BDUP-32894	B4-03-318-10
567C-32894	B4-03-318-11
611F-32894	B4-03-318-12
609E-32894	B4-03-318-13

Reviewed and Approved:



Jon Bartell
Laboratory Director

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS007 314610

Work Order: B4-03-318

Samples, continued from above:

<u>SAMPLE IDENTIFICATION</u>	<u>LABORATORY #</u>
525A-32894	B4-03-318-14
542B-32894	B4-03-318-15
584D-32894	B4-03-318-16
569D-32894	B4-03-318-17
569DDUP-32894	B4-03-318-18
METHOD BLANK	B4-03-318-19

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: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS007 3I4610

Work Order: B4-03-318

SAMPLE ID: 616F-32894

SAMPLE DATE: 03/28/94

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	46	2.0 mg/kg	04/06/94	EPA8015_MOD

Referenced notes for these results:

- | | | |
|---|--------------------------|------------|
| 1 | Surrogate | Recovery % |
| | o-terphenyl | 85 |
| | C32 | * |
| | * Surrogate diluted out. | |

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS007 3I4610

Work Order: B4-03-318

SAMPLE ID: 616F-32894 MATRIX SPIKE

SAMPLE DATE: 03/28/94

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Units</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u>		<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	95		% Rec	04/06/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	95
	C32	120

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS007 3I4610

Work Order: B4-03-318

SAMPLE ID: 616F-32894 MSD

SAMPLE DATE: 03/28/94

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Units</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u>		<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	89		% Rec	04/06/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
o-terphenyl 68
C32 *
- * Surrogate diluted out.

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS007 3I4610

Work Order: B4-03-318

SAMPLE ID: 574D-32894

SAMPLE DATE: 03/28/94

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	ND	2.0 mg/kg	04/06/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	73
	C32	96

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS007 3I4610

Work Order: B4-03-318

SAMPLE ID: 522A-32894

SAMPLE DATE: 03/28/94

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	320	9.6 mg/kg	04/07/94	EPA8015_MOD

Referenced notes for these results:

		Recovery %
1	Surrogate	
	o-terphenyl	56
	C32	57

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS007 3I4610

Work Order: B4-03-318

SAMPLE ID: 527B-32894

SAMPLE DATE: 03/28/94

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note Ref</u>	<u>Result</u>	<u>Reporting Limit Units</u>		<u>Date Analyzed</u>	<u>Method Reference</u>
TPH-D by GC (EPA8015_MOD)	1	160	2.0	mg/kg	04/06/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	56
	C32	65

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS007 3I4610

Work Order: B4-03-318

SAMPLE ID: 606E-32894

SAMPLE DATE: 03/28/94

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u> <u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	410	19 mg/kg	04/07/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	56
	C32	69

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS007 3I4610

Work Order: B4-03-318

SAMPLE ID: 564C-32894

SAMPLE DATE: 03/28/94

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	45	1.9 mg/kg	04/06/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	61
	C32	65

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS007 3I4610

Work Order: B4-03-318

SAMPLE ID: 532B-32894

SAMPLE DATE: 03/28/94

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	180	1.8 mg/kg	04/06/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	61
	C32	75

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS007 3I4610

Work Order: B4-03-318

SAMPLE ID: 532BDUP-32894

SAMPLE DATE: 03/28/94

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>	<u>Result</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	140	04/06/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
o-terphenyl 51
C32 *
* Surrogate not reported due to matrix interference.

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS007 3I4610

Work Order: B4-03-318

SAMPLE ID: 567C-32894

SAMPLE DATE: 03/28/94

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note Ref</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>	<u>Method Reference</u>
TPH-D by GC (EPA8015_MOD)	1	27	1.9	mg/kg	04/06/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	107
	C32	75

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS007 3I4610

Work Order: B4-03-318

SAMPLE ID: 611F-32894

SAMPLE DATE: 03/28/94

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	4.1	2.0	mg/kg	04/06/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	47
	C32	61

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS007 3I4610

Work Order: B4-03-318

SAMPLE ID: 609E-32894

SAMPLE DATE: 03/28/94

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u>	<u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	17	2.0	mg/kg	04/06/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	72
	C32	77

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS007 3I4610

Work Order: B4-03-318

SAMPLE ID: 525A-32894

SAMPLE DATE: 03/28/94

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>	<u>Result</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	10	04/11/94	EPA8015_MOD
		2.0 mg/kg		

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	77
	C32	77

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS007 3I4610

Work Order: B4-03-318

SAMPLE ID: 542B-32894

SAMPLE DATE: 03/28/94

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	230	1.8 mg/kg	04/06/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
o-terphenyl 60
C32 *
- * Surrogate not reported due to matrix interference.

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS007 3I4610

Work Order: B4-03-318

SAMPLE ID: 584D-32894

SAMPLE DATE: 03/28/94

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	440	19 mg/kg	04/07/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	45
	C32	47

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS007 3I4610

Work Order: B4-03-318

SAMPLE ID: 569D-32894

SAMPLE DATE: 03/28/94

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	190	2.0 mg/kg	04/06/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	78
	C32	86

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS007 3I4610

Work Order: B4-03-318

SAMPLE ID: 569DDUP-32894

SAMPLE DATE: 03/28/94

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	150	1.9 mg/kg	04/07/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	52
	C32	58

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS007 3I4610

Work Order: B4-03-318

SAMPLE ID: METHOD BLANK

SAMPLE DATE: 03/28/94

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>	<u>Result</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	ND	04/07/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	68
	C32	77

Page: 22 of 23

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS007 3I4610

Work Order: B4-03-318

Referenced notes for this work order:

B403318

The chromatograms generally contained a pattern from C14 to C44, although integration occurred from C9 to C24 (diesel range).

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS007 3I4610

Work Order: B4-03-318

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME TPH-D by GC (EPA8015_MOD) TEST CODE TPH_GC

TPH-Extractable	EPA Methods 3510/3520/3550/3580 for extraction of
Petroleum	samples and modified EPA Method 8015 for GC/FID
Hydrocarbons	analysis of extracts run against a diesel standard.



ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

B403318
Reference Document No. 484103
Page 1 of 2

Project Name/No. 1 FORT STARY 519029 Samples Shipment Date 7 3/25/94 ^{BF 3/29/94} 3/29/94
 Sample Team Members 2 Lab Destination 8 ITAS AUSTIN
 Profit Center No. 3 4610 Lab Contact 9 C. Schepcoff
 Project Manager 4 C. Smith ← Project Contact/Phone 12 412-731-8806
 Purchase Order No. 6 E94-037 Carrier/Waybill No. 13 FEDX 2423805483
 Required Report Date 11 4/11/94

Bill to: 5 ITAS PITT
 Report to: 10 ITAS PITT

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
616F-32894	Soil Q403344-01	3/28/94 1220	AMBER 61957	210ml	-	TPH DIESEL	Good 4°C	
574D-32894	-02	1230					3/30/94	
522A-32894	-03	1240						
527B-32894	-04	1250						
606E-32894	-05	1340						
564C-32894	-06	1:00						
532B-32894	-07	1:10						
532B DUP-32894	-08	1:20						

FOR LAB USE ONLY
 FOR LAB USE ONLY

Special Instructions: 23 OK SAMPLE 616F-32894 SIDG FS007

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 <u>Bob Finley ITAS PITT</u> Date: <u>3/29/94</u> Time: <u>1700</u>	1. Received by ²⁸ <u>J. C. C. IT</u> Date: <u>3/30/94</u> Time: <u>0940</u>
2. Relinquished by (Signature/Affiliation) Date: _____ Time: _____	2. Received by (Signature/Affiliation) Date: _____ Time: _____
3. Relinquished by (Signature/Affiliation) Date: _____ Time: _____	3. Received by (Signature/Affiliation) Date: _____ Time: _____

Comments: ²⁹ Client is aware that samples bottles have 32594 on them and they should be 32894

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

Cooler Receipt Form

Project: FOUR STORY EXPORT LIMS No. 2403318

Use other side of this form to note details concerning check-in problems.

A. Preliminary Examination Phase:

Date cooler opened: 3/30/94 C-of-C No.: 0553/30/94
By (print) BRUCE C. CAVE (sign) [Signature]
~~484123~~ / 484103

- Did cooler come with a shipping slip (air bill, etc.)? Yes No
If YES, enter carrier name & air bill no. here: FED EX 242 3805 483
- Were custody seals on outside of cooler? Yes No
How many & where: 1 OVER TAPE ON FRONT SEAL 1 OVER OPPOSITE REAR
Seal date: NONE Seal name: NONE
- Were custody seals unbroken and intact at the date and time of arrival? Yes No
- Did you screen samples for radioactivity using the Geiger Counter? Yes No
- Were custody papers sealed in a plastic bag and taped inside of the lid? Yes No
- Were custody papers filled out properly (ink, signed, etc.)? Yes No
- Did you sign custody papers in the appropriate place? Yes No
- Was project identifiable from custody papers? Yes No
If YES, enter project name at the top of this form.
- If required, was enough ice used? Yes No
Type of ice: WET ICE
- Have designated person initial here to acknowledge receipt of cooler: [Signature] Date: 3/30/94

B. Log-in Phase:

Date samples were logged-in: 3/30/94 By (print) CHRIS SCHERCOFF (sign) [Signature]

- Describe type of packing in cooler: WET KITTY LITTER - REAL MESS!
- Were all bottles sealed in separate plastic bags? Yes No
- Did all bottles arrive unbroken & were labels in good condition? Yes No
- Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? Yes No
- Did all bottle labels agree with custody papers? VERIFIED BY NOTES ON COB FROM EXPORT Yes No
- Were correct containers used for the test indicated? Yes No
- Were correct preservatives added to samples? Yes No
- Was a sufficient amount of sample sent for tests indicated? Yes No
- Were bubbles absent in volatile samples? n/a Yes No
If NO, list by sample number: _____
- Was the project manager called and status discussed? Yes No
If yes, give details on the back of this form.
- Who was called? CARRIE SMITH By whom? C. SCHERCOFF Date: 3/30/94



ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

ITAS-EXPORT
IT CORPORATION
5103 OLD WILLIAM PENN HWY.
EXPORT, PENN. 15632
CARRIE SMITH

Date: 04/14/94

Work Order: B4-03-322

P.O. Number: E94-037

This is the Certificate of Analysis for the following samples:

Client Work ID: FT STORY 519029 SDG FS008 3I4610
Date Received: 03/30/94
Number of Samples: 12
Sample Type: SOIL

I. Introduction

Samples were labeled as follows:

<u>SAMPLE IDENTIFICATION</u>	<u>LABORATORY #</u>
554C-32894	B4-03-322-01
512A-32894	B4-03-322-02
621F-32894	B4-03-322-03
579D-32894	B4-03-322-04
537B-32894	B4-03-322-05
537BDUP-32894	B4-03-322-06
601E-32894	B4-03-322-07
559C-32894	B4-03-322-08
517A-32894	B4-03-322-09
517A-32894 MATRIX SPIKE	B4-03-322-10
517A-32894 MSD	B4-03-322-11
METHOD BLANK	B4-03-322-12

Reviewed and Approved:


Jon Bartell
Laboratory Director

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

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS008 3I4610

Work Order: B4-03-322

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: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS008 3I4610

Work Order: B4-03-322

SAMPLE ID: 554C-32894

SAMPLE DATE: 03/28/94

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	1200	19 mg/kg	04/07/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	101
	C32	126

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS008 3I4610

Work Order: B4-03-322

SAMPLE ID: 512A-32894

SAMPLE DATE: 03/28/94

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	99	2.0	mg/kg	04/07/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	53
	C32	53

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS008 3I4610

Work Order: B4-03-322

SAMPLE ID: 579D-32894

SAMPLE DATE: 03/28/94

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	1500	92 mg/kg	04/07/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	90
	C32	127

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS008 3I4610

Work Order: B4-03-322

SAMPLE ID: 537B-32894

SAMPLE DATE: 03/28/94

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	52	1.7 mg/kg	04/07/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	56
	C32	52

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS008 3I4610

Work Order: B4-03-322

SAMPLE ID: 537BDUP-32894

SAMPLE DATE: 03/28/94

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	57	1.7 mg/kg	04/07/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	67
	C32	60

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS008 3I4610

Work Order: B4-03-322

SAMPLE ID: 601E-32894

SAMPLE DATE: 03/28/94

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note Ref</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>	<u>Method Reference</u>
TPH-D by GC (EPA8015_MOD)	1	3100	180	mg/kg	04/07/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
o-terphenyl *
- C32 *
- * Surrogate diluted out.

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS008 3I4610

Work Order: B4-03-322

SAMPLE ID: 559C-32894

SAMPLE DATE: 03/28/94

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	3000	92 mg/kg	04/07/94	EPA8015_MOD

Referenced notes for these results:

- | | | |
|---|--------------------------|------------|
| 1 | Surrogate | Recovery % |
| | o-terphenyl | * |
| | C32 | * |
| | * Surrogate diluted out. | |

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS008 314610

Work Order: B4-03-322

SAMPLE ID: 517A-32894

SAMPLE DATE: 03/28/94

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	910	94 mg/kg	04/06/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	*
	C32	*
	* Surrogate diluted out.	

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS008 314610

Work Order: B4-03-322

SAMPLE ID: 517A-32894 MATRIX SPIKE

SAMPLE DATE: 03/28/94

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	150	% Rec	04/06/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
o-terphenyl *
C32 *
* Surrogate diluted out.

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS008 3I4610

Work Order: B4-03-322

SAMPLE ID: 517A-32894 MSD

SAMPLE DATE: 03/28/94

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	160	% Rec	04/11/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
o-terphenyl *
- C32 *
- * Surrogate diluted out.

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS008 314610

Work Order: B4-03-322

SAMPLE ID: METHOD BLANK

SAMPLE DATE: 03/28/94

SAMPLE MATRIX: SOIL

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u>	<u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	ND	2.0	mg/kg	04/06/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	o-terphenyl	83
	C32	86

Page: 15 of 16

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS008 3I4610

Work Order: B4-03-322

Referenced notes for this work order:

B403322

The chromatograms generally contained a pattern from C14 to C44, although integration occurred from C9 to C24 (diesel range).

Company: ITAS-EXPORT

Date: 04/14/94

Client Work ID: FT STORY 519029 SDG FS008 3I4610

Work Order: B4-03-322

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME **TPH-D by GC (EPA8015_MOD)** TEST CODE **TPH_GC**

TPH-Extractable	EPA Methods 3510/3520/3550/3580 for extraction of
Petroleum	samples and modified EPA Method 8015 for GC/FID
Hydrocarbons	analysis of extracts run against a diesel standard.



ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 484123
Page 1 of 2

Project Name/No. FORT STOKY 519029
Sample Team Members ² _____
Profit Center No. ³ 4610
Project Manager ⁴ C. Smith
Purchase Order No. ⁶ 694-037
Required Report Date ¹¹ 4/11/94

Samples Shipment Date ⁷ 3/29/94
Lab Destination ⁸ ITAS Austin
Lab Contact ⁹ C. Schepel
Project Contact/Phone ¹² 412-731-8806
Carrier/Waybill No. ¹³ FedEx 2423805483

Bill to: ⁵ ITAS PTT
Report to: ¹⁰ ITAS PTT

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
559C-32894	SOIL 040334S-01	3-28-94 9:40	Amber Glass	200ml	-	TPH Diesel	6000 4°C	
512A-32894	02	10:00					3/30/94	
624F-32894	03	10:16						
579D-32894	04	10:20						
537B-32894	05	10:30						
537B 05P-32894	06	10:30						
601E-32894	07	10:40						
559C-32894	X 08	Y 1100	Y	Y	Y	Y	Y	

Special Instructions: ²³ QC sample 517A-32894 SDG FSP08

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) <u>Bob Finley ITAS</u>	Date: <u>3/29/94</u> Time: <u>1700</u>	1. Received by ²⁸ (Signature/Affiliation) <u>J. C. ...</u>	Date: <u>3/30/94</u> Time: <u>8:30 AM</u>
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: ²⁹ Client is aware that sample bottles have 32894 on them and they should be 3/28/94

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

Cooler Receipt Form

Project: FT. STORY / EXPORT

LIMS No. B403322

Use other side of this form to note details concerning check-in problems.

A. Preliminary Examination Phase:

Date cooler opened: 3/30/94

C-of-C No.: 484123

By (print) BRUCE C. CAVE

(sign) B.C.C.

- 1. Did cooler come with a shipping slip (air bill, etc.)? Yes No
If YES, enter carrier name & air bill no. here: FED EX 242 3805423
- 2. Were custody seals on outside of cooler? Yes No
How many & where: 2 - 1 on left front one on right rear
Seal date: NONE Seal name: NONE
- 3. Were custody seals unbroken and intact at the date and time of arrival? Yes No
- 4. Did you screen samples for radioactivity using the Geiger Counter? Yes No
- 5. Were custody papers sealed in a plastic bag and taped inside of the lid? Yes No
- 6. Were custody papers filled out properly (ink, signed, etc.)? Yes No
- 7. Did you sign custody papers in the appropriate place? Yes No
- 8. Was project identifiable from custody papers? Yes No
If YES, enter project name at the top of this form.
- 9. If required, was enough ice used? Yes No
Type of ice: WET ICE
- 10. Have designated person initial here to acknowledge receipt of cooler: BC Date: 3/30/94

B. Log-in Phase:

Date samples were logged-in: 3/30/94 By (print) CHRIS SCHERROFF (sign) Chris Scherhoff

- 11. Describe type of packing in cooler: WET FIFTY LITER - REAL MESSY
- 12. Were all bottles sealed in separate plastic bags? Yes No
- 13. Did all bottles arrive unbroken & were labels in good condition? Yes No
- 14. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? Yes No
- 15. Did all bottle labels agree with custody papers? VERIFIED BY NOTES ON COC FROM EXPORT Yes No
- 16. Were correct containers used for the test indicated? Yes No
- 17. Were correct preservatives added to samples? Yes No
- 18. Was a sufficient amount of sample sent for tests indicated? Yes No
- 19. Were bubbles absent in volatile samples? N/A Yes No
If NO, list by sample number: _____
- 20. Was the project manager called and status discussed? Yes No
If yes, give details on the back of this form.
- 21. Who was called? CARRIE SMITH By whom? C. SCHERROFF Date: 3/30/94

CERTIFICATE OF ANALYSIS

ITAS-EXPORT
IT CORPORATION
5103 OLD WILLIAM PENN HWY.
EXPORT, PENN. 15632
CARRIE SMITH

Date: 04/19/94

Work Order: B4-04-049

P.O. Number: E94-039

This is the Certificate of Analysis for the following samples:

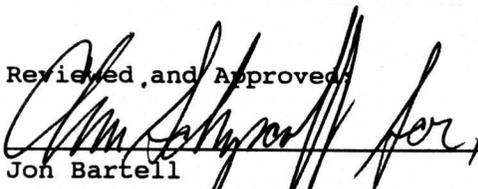
Client Work ID: FORT STORY 519029/SDG FS002 3I4610
Date Received: 04/05/94
Number of Samples: 20
Sample Type: EXTRACT

I. Introduction

Samples were labeled as follows:

<u>SAMPLE IDENTIFICATION</u>	<u>LABORATORY #</u>
032294-05A	Q403276-01 B4-04-049-01
032294-47C	Q403276-02 B4-04-049-02
032294-15A	Q403276-03 B4-04-049-03
032294-57C	Q403276-04 B4-04-049-04
032294-77D	Q403276-05 B4-04-049-05
032294-62C	Q403276-06 B4-04-049-06
032294-30B DUP	Q403276-07 B4-04-049-07
032294-114F	Q403276-08 B4-04-049-08
032294-30B	Q403276-09 B4-04-049-09
032294-94E	Q403276-10 B4-04-049-10
032294-89E	Q403276-11 B4-04-049-11
032294-35B	Q403276-12 B4-04-049-12
032294-72D	Q403276-13 B4-04-049-13

Reviewed and Approved:


Jon Bartell
Laboratory Director

Company: ITAS-EXPORT

Date: 04/19/94

Client Work ID: FORT STORY 519029/SDG FS002 3I4610

IT ANALYTICAL SERVICES

AUSTIN, TX

(512) 892-6684

Work Order: B4-04-049

Samples, continued from above:

<u>SAMPLE IDENTIFICATION</u>	<u>LABORATORY #</u>
032294-99E	Q403276-14 B4-04-049-14
032294-10A	Q403276-15 B4-04-049-15
032294-119F	Q403276-16 B4-04-049-16
032294-119F MS	Q403276-16 B4-04-049-17
032294-119F MSD	Q403276-16 B4-04-049-18
BLANK	Q403276 B4-04-049-19
BLANK SPIKE	Q403276 B4-04-049-20

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: ITAS-EXPORT

Date: 04/19/94

Client Work ID: FORT STORY 519029/SDG FS002 3I4610

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

Work Order: B4-04-049

SAMPLE ID: 032294-05A Q403276-01

SAMPLE DATE: 03/24/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	70	1.7 mg/kg	04/09/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene *
- * Surrogate not reported due to matrix interference.

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS002 314610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-049

SAMPLE ID: 032294-47C Q403276-02
SAMPLE DATE: 03/24/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>	
<u>Ref</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	55	1.7 mg/kg	04/09/94	EPA8015_MOD

Referenced notes for these results:

1 Surrogate Recovery %
Benzo(a)pyrene 111

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS002 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-049

SAMPLE ID: 032294-15A Q403276-03
SAMPLE DATE: 03/24/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	38	1.7 mg/kg	04/09/94	EPA8015_MOD

Referenced notes for these results:

- | | | |
|---|----------------|------------|
| 1 | Surrogate | Recovery % |
| | Benzo(a)pyrene | 89 |

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS002 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-049

SAMPLE ID: 032294-57C Q403276-04
SAMPLE DATE: 03/24/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u> <u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	44	1.7 mg/kg	04/09/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene 97

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS002 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-049

SAMPLE ID: 032294-77D Q403276-05
SAMPLE DATE: 03/24/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u> <u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	25	1.7 mg/kg	04/09/94	EPA8015_MOD

Referenced notes for these results:

1 Surrogate Recovery %
Benzo(a)pyrene 86

Company: ITAS-EXPORT

Date: 04/19/94

Client Work ID: FORT STORY 519029/SDG FS002 3I4610

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

Work Order: B4-04-049

SAMPLE ID: 032294-62C Q403276-06

SAMPLE DATE: 03/24/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	46	1.9 mg/kg	04/09/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene *
- * Surrogate not reported due to matrix interference.

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS002 314610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-049

SAMPLE ID: 032294-30B DUP Q403276-07
SAMPLE DATE: 03/24/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	61	1.7 mg/kg	04/09/94	EPA8015_MOD

Referenced notes for these results:

1 Surrogate Recovery %
Benzo(a)pyrene 89

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS002 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-049

SAMPLE ID: 032294-114F Q403276-08
SAMPLE DATE: 03/24/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u> <u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	70	1.7 mg/kg	04/09/94	EPA8015_MOD

Referenced notes for these results:

1 Surrogate Recovery %
Benzo(a)pyrene 123

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS002 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-049

SAMPLE ID: 032294-30B Q403276-09
SAMPLE DATE: 03/24/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	85	1.7 mg/kg	04/09/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene *
- * Surrogate not reported due to matrix interference.

Company: ITAS-EXPORT

Date: 04/19/94

Client Work ID: FORT STORY 519029/SDG FS002 3I4610

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

Work Order: B4-04-049

SAMPLE ID: 032294-94E Q403276-10

SAMPLE DATE: 03/24/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	78	1.7 mg/kg	04/09/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	Benzo(a)pyrene	77

Company: ITAS-EXPORT

Date: 04/19/94

Client Work ID: FORT STORY 519029/SDG FS002 3I4610

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

Work Order: B4-04-049

SAMPLE ID: 032294-89E Q403276-11

SAMPLE DATE: 03/24/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u> <u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	85	1.7 mg/kg	04/09/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	Benzo(a)pyrene	120

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS002 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-049

SAMPLE ID: 032294-35B Q403276-12
SAMPLE DATE: 03/24/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	40	1.7 mg/kg	04/09/94	EPA8015_MOD

Referenced notes for these results:

1 Surrogate Recovery %
Benzo(a)pyrene 139

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS002 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-049

SAMPLE ID: 032294-72D Q403276-13
SAMPLE DATE: 03/24/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	35	1.7 mg/kg	04/09/94	EPA8015_MOD

Referenced notes for these results:

1 Surrogate Recovery %
Benzo(a)pyrene 102

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS002 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-049

SAMPLE ID: 032294-99E Q403276-14
SAMPLE DATE: 03/24/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u> <u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	35	1.7 mg/kg	04/09/94	EPA8015_MOD

Referenced notes for these results:

1 Surrogate Recovery %
Benzo(a)pyrene 101

Company: ITAS-EXPORT

Date: 04/19/94

Client Work ID: FORT STORY 519029/SDG FS002 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX

(512) 892-6684

Work Order: B4-04-049

SAMPLE ID: 032294-10A Q403276-15

SAMPLE DATE: 03/24/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	26	1.7 mg/kg	04/09/94	EPA8015_MOD

Referenced notes for these results:

- | | | |
|---|----------------|------------|
| 1 | Surrogate | Recovery % |
| | Benzo(a)pyrene | 93 |

Company: ITAS-EXPORT

Date: 04/19/94

Client Work ID: FORT STORY 519029/SDG FS002 3I4610

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

Work Order: B4-04-049

SAMPLE ID: 032294-119F Q403276-16

SAMPLE DATE: 03/24/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u> <u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	800	33 mg/kg	04/11/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene *
- * Surrogate not reported due to matrix interference.

Company: ITAS-EXPORT

Date: 04/19/94

Client Work ID: FORT STORY 519029/SDG FS002 3I4610

IT ANALYTICAL SERVICES

AUSTIN, TX

(512) 892-6684

Work Order: B4-04-049

SAMPLE ID: 032294-119F MS Q403276-16

SAMPLE DATE: 03/24/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	12000	% Rec	04/11/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene *
- * Surrogate not reported due to matrix interference.

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS002 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-049

SAMPLE ID: 032294-119F MSD Q403276-16
SAMPLE DATE: 03/24/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note Ref</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>	<u>Method Reference</u>
TPH-D by GC (EPA8015_MOD)	1	9900		% Rec	04/11/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene *
- * Surrogate diluted out.

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS002 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-049

SAMPLE ID: BLANK Q403276
SAMPLE DATE: 03/24/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	7.3	1.7 mg/kg	04/11/94	EPA8015_MOD

Referenced notes for these results:

1 Surrogate Recovery %
Benzo(a)pyrene 136

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS002 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-049

SAMPLE ID: BLANK SPIKE Q403276
SAMPLE DATE: 03/24/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	130	% Rec	04/11/94	EPA8015_MOD

Referenced notes for these results:

1 Surrogate Recovery %
Benzo(a)pyrene 109

Company: ITAS-EXPORT

Date: 04/19/94

Client Work ID: FORT STORY 519029/SDG FS002 3I4610

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

Work Order: B4-04-049

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME **TPH-D by GC (EPA8015_MOD)** TEST CODE **TPH_GC**

TPH-Extractable Petroleum Hydrocarbons	EPA Methods 3510/3520/3550/3580 for extraction of samples and modified EPA Method 8015 for GC/FID analysis of extracts run against a diesel standard.
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B404049

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 481146
Page 1 of 2

Project Name/No. 1 Forestry S19029
 Sample Team Members 2 _____
 Profit Center No. 3 4610
 Project Manager 4 Carrie Smith
 Purchase Order No. 6 E94-039
 Required Report Date 11 4/6/94 *

Samples Shipment Date 7 4/4/94
 Lab Destination 8 ETAS Austin
 Lab Contact 9 Chris Schuphoff
 Project Contact/Phone 12 412-731-8806
 Carrier/Waybill No. 13 FOLK 2423805969

Bill to: ETAS PTT
 Report to: ETAS PTT

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
05A-032294	EXT Q103276-01	<u>3/24/94</u> <small>EXTRACTED</small>	Glass Vial	1ml	-	DIESEL	<u>Cond 4°C</u>	
47C-							<u>4/5/94</u>	FOR LAB USE ONLY
15A-								
57C-								
77D-								
62C-								
30B DUP-								
114F-								

Special Instructions: 23 SDG F5002 * Chris Schuphoff to fax results ASAP

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 <u>Bob Finlay ETAS PTT</u> Date: <u>4/4/94</u> (Signature/Affiliation) Time: <u>1700</u>	1. Received by 28 <u>B.C. Co 15</u> Date: <u>4/5/94</u> (Signature/Affiliation) Time: <u>0925</u>
2. Relinquished by _____ Date: _____ (Signature/Affiliation) Time: _____	2. Received by _____ Date: _____ (Signature/Affiliation) Time: _____
3. Relinquished by _____ Date: _____ (Signature/Affiliation) Time: _____	3. Received by _____ Date: _____ (Signature/Affiliation) Time: _____

Comments: 29 _____

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



INTERNATIONAL
TECHNOLOGY
CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

ITAS-EXPORT
IT CORPORATION
5103 OLD WILLIAM PENN HWY.
EXPORT, PENN. 15632
CARRIE SMITH

Date: 04/19/94

Work Order: B4-04-047

P.O. Number: E94-039

This is the Certificate of Analysis for the following samples:

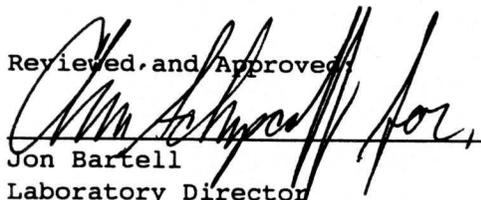
Client Work ID: FORT STORY 519029/SDG FS001 3I4610
Date Received: 04/05/94
Number of Samples: 20
Sample Type: EXTRACT

I. Introduction

Samples were labeled as follows:

<u>SAMPLE IDENTIFICATION</u>	<u>LABORATORY #</u>
032294-20A	Q403275-01 B4-04-047-01
032294-67D	Q403275-02 B4-04-047-02
032294-25B	Q403275-03 B4-04-047-03
032294-64D	Q403275-04 B4-04-047-04
032294-22B	Q403275-05 B4-04-047-05
032294-52C	Q403275-06 B4-04-047-06
032294-106F	Q403275-07 B4-04-047-07
032294-104E	Q403275-08 B4-04-047-08
032294-109F	Q403275-09 B4-04-047-09
032294-01A	Q403275-10 B4-04-047-10
032294-43C	Q403275-11 B4-04-047-11
032294-85E	Q403275-12 B4-04-047-12
032294-40B	Q403275-13 B4-04-047-13

Reviewed and Approved


Jon Bartell
Laboratory Director

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

Company: ITAS-EXPORT

Date: 04/19/94

Client Work ID: FORT STORY 519029/SDG FS001 3I4610

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

Work Order: B4-04-047

Samples, continued from above:

<u>SAMPLE IDENTIFICATION</u>	<u>LABORATORY #</u>
032294-124F Q403275-14	B4-04-047-14
032294-82D Q403275-15	B4-04-047-15
032294-82D DUPQ403275-16	B4-04-047-16
032294-20A MSDQ403275-17	B4-04-047-17
032294-20A MS Q403275-18	B4-04-047-18
BLANK Q403275	B4-04-047-19
BLANK SPIKE Q403275	B4-04-047-20

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: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS001 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-047

SAMPLE ID: 032294-20A Q403275-01
SAMPLE DATE: 03/24/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note Ref</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>	<u>Method Reference</u>
TPH-D by GC (EPA8015_MOD)	1	46	1.7	mg/kg	04/08/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene 92

Company: ITAS-EXPORT

Date: 04/19/94

Client Work ID: FORT STORY 519029/SDG FS001 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX

(512) 892-6684

Work Order: B4-04-047

SAMPLE ID: 032294-67D Q403275-02

SAMPLE DATE: 03/24/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	33	1.7 mg/kg	04/08/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	Benzo(a)pyrene	78

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS001 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-047

SAMPLE ID: 032294-25B Q403275-03
SAMPLE DATE: 03/24/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u>	<u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	28	1.7	mg/kg	04/08/94	EPA8015_MOD

Referenced notes for these results:

1 Surrogate Recovery %
Benzo(a)pyrene 99

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS001 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-047

SAMPLE ID: 032294-64D Q403275-04
SAMPLE DATE: 03/24/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u> <u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	22	1.7 mg/kg	04/08/94	EPA8015_MOD

Referenced notes for these results:

1 Surrogate Recovery %
Benzo(a)pyrene 110

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS001 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-047

SAMPLE ID: 032294-22B Q403275-05
SAMPLE DATE: 03/24/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u> <u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	31	1.9 mg/kg	04/08/94	EPA8015_MOD

Referenced notes for these results:

1 Surrogate Recovery %
Benzo(a)pyrene 124

Company: ITAS-EXPORT

Date: 04/19/94

Client Work ID: FORT STORY 519029/SDG FS001 3I4610

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

Work Order: B4-04-047

SAMPLE ID: 032294-52C Q403275-06

SAMPLE DATE: 03/24/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u> <u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	74	1.7 mg/kg	04/08/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	Benzo(a)pyrene	100

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS001 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-047

SAMPLE ID: 032294-106F Q403275-07
SAMPLE DATE: 03/24/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u> <u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	40	1.7 mg/kg	04/08/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	Benzo(a)pyrene	104

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS001 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-047

SAMPLE ID: 032294-104E Q403275-08
SAMPLE DATE: 03/24/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u> <u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	53	1.7 mg/kg	04/08/94	EPA8015_MOD

Referenced notes for these results:

1 Surrogate Recovery %
Benzo(a)pyrene 112

Company: ITAS-EXPORT

Date: 04/19/94

Client Work ID: FORT STORY 519029/SDG FS001 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX

(512) 892-6684

Work Order: B4-04-047

SAMPLE ID: 032294-109F Q403275-09

SAMPLE DATE: 03/24/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	41	1.7 mg/kg	04/08/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	Benzo(a)pyrene	115

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS001 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-047

SAMPLE ID: 032294-01A Q403275-10
SAMPLE DATE: 03/24/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	35	1.7 mg/kg	04/08/94	EPA8015_MOD

Referenced notes for these results:

1 Surrogate Recovery %
Benzo(a)pyrene 107

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS001 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-047

SAMPLE ID: 032294-43C Q403275-11
SAMPLE DATE: 03/24/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	21	1.7 mg/kg	04/08/94	EPA8015_MOD

Referenced notes for these results:

1 Surrogate Recovery %
Benzo(a)pyrene 105

Company: ITAS-EXPORT

Date: 04/19/94

Client Work ID: FORT STORY 519029/SDG FS001 3I4610

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

Work Order: B4-04-047

SAMPLE ID: 032294-85E Q403275-12

SAMPLE DATE: 03/24/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	33	1.7 mg/kg	04/08/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	Benzo(a)pyrene	130

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS001 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-047

SAMPLE ID: 032294-124F Q403275-14
SAMPLE DATE: 03/24/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>	<u>Result</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	150	04/08/94	EPA8015_MOD
		1.7 mg/kg		

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene *
- * Surrogate not reported due to matrix interference.

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS001 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-047

SAMPLE ID: 032294-82D Q403275-15
SAMPLE DATE: 03/24/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>	<u>Result</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	140	04/08/94	EPA8015_MOD
		1.7 mg/kg		

Referenced notes for these results:

1 Surrogate Recovery %
Benzo(a)pyrene 114

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS001 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-047

SAMPLE ID: 032294-82D DUPQ403275-16
SAMPLE DATE: 03/24/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note Ref</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>	<u>Method Reference</u>
TPH-D by GC (EPA8015_MOD)	1	140	1.7	mg/kg	04/08/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene *
* Surrogate not reported due to matrix interference.

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS001 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-047

SAMPLE ID: 032294-20A MSDQ403275-17
SAMPLE DATE: 03/24/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>	<u>Result</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	370	04/08/94	EPA8015_MOD
				% Rec

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene *
* Surrogate not reported due to matrix interference.

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS001 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-047

SAMPLE ID: 032294-20A MS Q403275-18
SAMPLE DATE: 03/24/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>		<u>Reporting</u>			<u>Date</u>	<u>Method</u>
	<u>Ref</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>	
TPH-D by GC (EPA8015_MOD)	1	270		% Rec	04/08/94	EPA8015_MOD	

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene *
- * Surrogate not reported due to matrix interference.

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS001 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-047

SAMPLE ID: BLANK Q403275
SAMPLE DATE: 03/24/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note Ref</u>	<u>Result</u>	<u>Reporting</u>		<u>Date Analyzed</u>	<u>Method Reference</u>
TPH-D by GC (EPA8015_MOD)	1	7.2	Limit	Units	04/08/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene 112

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS001 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-047

SAMPLE ID: BLANK SPIKE Q403275
SAMPLE DATE: 03/24/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	120	% Rec	04/08/94	EPA8015_MOD

Referenced notes for these results:

1 Surrogate Recovery %
Benzo(a)pyrene 107

Company: ITAS-EXPORT

Date: 04/19/94

Client Work ID: FORT STORY 519029/SDG FS001 314610

IT ANALYTICAL SERVICES

AUSTIN, TX

(512) 892-6684

Work Order: B4-04-047

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME TPH-D by GC (EPA8015_MOD) TEST CODE TPH_GC

TPH-Extractable Petroleum Hydrocarbons	EPA Methods 3510/3520/3550/3580 for extraction of samples and modified EPA Method 8015 for GC/FID analysis of extracts run against a diesel standard.
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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD *

2404047

Reference Document No. 404145
Page 1 of 2

Project Name/No. 1 FOR SERY 519029
Sample Team Members 2 _____
Profit Center No. 3 4610
Project Manager 4 Carrie Smith
Purchase Order No. 6 EPY-039
Required Report Date 11 4/6/94 *

Samples Shipment Date 7 4/4/94
Lab Destination 8 THAS Austin
Lab Contact 9 Chris Schup Coff
Project Contact/Phone 12 412-731-8816
Carrier/Waybill No. 13 Fedex 2423805964

Bill to: 5 THAS PTH
Report to: 10 THAS PTH

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
20A-032294	EXT Q403275-01	EXTRACTED 3/24/94	Glass/Vial	1ml	-	DIESEL	6000 4°C	
67D-		02					FOR LAB USE ONLY	
25B-		03						
69D-		04						
22B-		05						
52C-		06						
106F		07						
104E-		08						

Special Instructions: 23 SDG F5001 * Chris Schup Coff to fax results ASAP

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 <u>Bob Finlay THAS</u> (Signature/Affiliation)	Date: <u>4/4/94</u> Time: <u>1700</u>	1. Received by 28 <u>B.C. Cm IT</u> (Signature/Affiliation)	Date: <u>4/5/94</u> Time: <u>0925</u>
2. Relinquished by (Signature/Affiliation)	Date: _____ Time: _____	2. Received by (Signature/Affiliation)	Date: _____ Time: _____
3. Relinquished by (Signature/Affiliation)	Date: _____ Time: _____	3. Received by (Signature/Affiliation)	Date: _____ Time: _____

Comments: 29

White: To accompany samples

Yellow: Field copy

* See back of form for special instructions.



INTERNATIONAL
TECHNOLOGY
CORPORATION

B404047
**ANALYSIS REQUEST AND
CHAIN OF CUSTODY RECORD (cont.)***

Reference Document No. 30 48419
Page 2 of 2

Project Name FORT STORV

Project No. 519029

Samples Shipment Date 4/4/94

ONE CONTAINER PER LINE

Sample 14 Number	Sample 15 Description/Type	Date/Time 16 Collected	Container 17 Type	Sample 18 Volume	Pre-19 servative	Requested Testing 20 Program	Condition on 21 Receipt	Disposal 2 Record No.
109F-032294	FORT 040327S 09	EXTRACTED 3/24/94	Glass/Vial	1ml	-	DIESEL	Good 4°C	
01A-		10					4/5/94 BC	FOR LAB USE ONLY
43C-		11						FOR LAB USE ONLY
85E-		12						FOR LAB USE ONLY
40B-		13						FOR LAB USE ONLY
124F		14						FOR LAB USE ONLY
82D-		15						FOR LAB USE ONLY
82D DUP		16						FOR LAB USE ONLY
20A- MSD		17						FOR LAB USE ONLY
20A- MS		18						FOR LAB USE ONLY
Blank 3/24/94	040327S							FOR LAB USE ONLY
Blank Spike 3/24/94	040327S							FOR LAB USE ONLY
BF 4/4/94								



INTERNATIONAL
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CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

ITAS-EXPORT
IT CORPORATION
5103 OLD WILLIAM PENN HWY.
EXPORT, PENN. 15632
CARRIE SMITH

Date: 04/19/94

Work Order: B4-04-051

P.O. Number: E94-039

This is the Certificate of Analysis for the following samples:

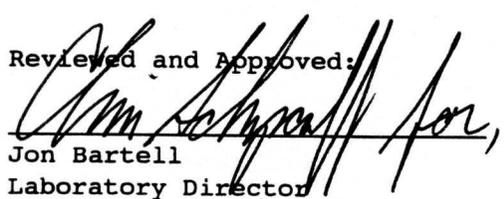
Client Work ID: FORT STORY 519029/SDG FS006 3I4610
Date Received: 04/05/94
Number of Samples: 20
Sample Type: EXTRACT

I. Introduction

Samples were labeled as follows:

<u>SAMPLE IDENTIFICATION</u>	<u>LABORATORY #</u>
032494-400B	Q403322-01 B4-04-051-01
032494-442D	Q403322-02 B4-04-051-02
032494-403B	Q403322-03 B4-04-051-03
032494-445D	Q403322-04 B4-04-051-04
032494-487F	Q403322-05 B4-04-051-05
032494-398A	Q403322-06 B4-04-051-06
032494-482E	Q403322-07 B4-04-051-07
032494-484F	Q403322-08 B4-04-051-08
032494-379A	Q403322-09 B4-04-051-09
032494-421C	Q403322-10 B4-04-051-10
032494-418B	Q403322-11 B4-04-051-11
032494-383A	Q403322-12 B4-04-051-12
032494-425C	Q403322-13 B4-04-051-13

Reviewed and Approved:


Jon Bartell
Laboratory Director

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

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS006 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-051

Samples, continued from above:

<u>SAMPLE IDENTIFICATION</u>	<u>LABORATORY #</u>
032494-463E	Q403322-14 B4-04-051-14
032494-467E	Q403322-15 B4-04-051-15
032494-460D	Q403322-16 B4-04-051-16
032494-460D MSD	Q403322-16 B4-04-051-17
032494-460D MS	Q403322-16 B4-04-051-18
BLANK	Q403322 B4-04-051-19
BLANK SPIKE	Q403322 B4-04-051-20

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: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS006 3I4610

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

Work Order: B4-04-051

SAMPLE ID: 032494-400B Q403322-01
SAMPLE DATE: 03/30/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Ref</u>	<u>Result</u>	<u>Reporting</u>	<u>Limit</u>	<u>Units</u>	<u>Date</u>	<u>Method</u>
							<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)		1	56		1.7	mg/kg	04/11/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene *
* Surrogate not reported due to matrix interference.

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS006 3I4610

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Work Order: B4-04-051

SAMPLE ID: 032494-442D Q403322-02
SAMPLE DATE: 03/30/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note Ref</u>	<u>Result</u>	<u>Reporting</u>		<u>Date Analyzed</u>	<u>Method Reference</u>
TPH-D by GC (EPA8015_MOD)	1	60	Limit	Units	04/11/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene 71

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Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS006 3I4610

Work Order: B4-04-051

SAMPLE ID: 032494-403B Q403322-03
SAMPLE DATE: 03/30/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u> <u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	39	1.7 mg/kg	04/11/94	EPA8015_MOD

Referenced notes for these results:

- | | | |
|---|-----------------------------|------------------|
| 1 | Surrogate
Benzo(a)pyrene | Recovery %
58 |
|---|-----------------------------|------------------|

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Company: ITAS-EXPORT

Date: 04/19/94

Client Work ID: FORT STORY 519029/SDG FS006 3I4610

Work Order: B4-04-051

SAMPLE ID: 032494-445D Q403322-04

SAMPLE DATE: 03/30/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u> <u>Units</u>		<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	25	1.9	mg/kg	04/11/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene 73

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Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS006 3I4610

Work Order: B4-04-051

SAMPLE ID: 032494-487F Q403322-05
SAMPLE DATE: 03/30/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u> <u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	74	1.8 mg/kg	04/11/94	EPA8015_MOD

Referenced notes for these results:

- | | | |
|---|-----------------------------|------------------|
| 1 | Surrogate
Benzo(a)pyrene | Recovery %
75 |
|---|-----------------------------|------------------|

Company: ITAS-EXPORT

Date: 04/19/94

Client Work ID: FORT STORY 519029/SDG FS006 3I4610

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Work Order: B4-04-051

SAMPLE ID: 032494-398A Q403322-06

SAMPLE DATE: 03/30/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u>	<u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	18	1.7	mg/kg	04/11/94	EPA8015_MOD

Referenced notes for these results:

1 Surrogate Recovery %
Benzo(a)pyrene 19

Company: ITAS-EXPORT

Date: 04/19/94

Client Work ID: FORT STORY 519029/SDG FS006 3I4610

IT ANALYTICAL SERVICES
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Work Order: B4-04-051

SAMPLE ID: 032494-482E Q403322-07

SAMPLE DATE: 03/30/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u> <u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	15	1.9 mg/kg	04/11/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	Benzo(a)pyrene	100

Company: ITAS-EXPORT

Date: 04/19/94

Client Work ID: FORT STORY 519029/SDG FS006 3I4610

IT ANALYTICAL SERVICES
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Work Order: B4-04-051

SAMPLE ID: 032494-484F Q403322-08

SAMPLE DATE: 03/30/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u> <u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	9.4	1.7 mg/kg	04/11/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	Benzo(a)pyrene	39

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS006 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
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Work Order: B4-04-051

SAMPLE ID: 032494-379A Q403322-09
SAMPLE DATE: 03/30/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note Ref</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>	<u>Method Reference</u>
TPH-D by GC (EPA8015_MOD)	1	190	1.7	mg/kg	04/11/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene *
* Surrogate not reported due to matrix interference.

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS006 3I4610

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Work Order: B4-04-051

SAMPLE ID: 032494-421C Q403322-10
SAMPLE DATE: 03/30/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u>	<u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	380	1.7	mg/kg	04/11/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene *
* Surrogate not reported due to matrix interference.

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Company: ITAS-EXPORT

Date: 04/19/94

Client Work ID: FORT STORY 519029/SDG FS006 3I4610

Work Order: B4-04-051

SAMPLE ID: 032494-418B Q403322-11

SAMPLE DATE: 03/30/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note Ref</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>	<u>Method Reference</u>
TPH-D by GC (EPA8015_MOD)	1	260	1.7	mg/kg	04/11/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene *
- * Surrogate not reported due to matrix interference.

Company: ITAS-EXPORT

Date: 04/19/94

Client Work ID: FORT STORY 519029/SDG FS006 3I4610

IT ANALYTICAL SERVICES

AUSTIN, TX

(512) 892-6684

Work Order: B4-04-051

SAMPLE ID: 032494-383A Q403322-12

SAMPLE DATE: 03/30/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u> <u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	34	1.7 mg/kg	04/11/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	Benzo(a)pyrene	50

Company: ITAS-EXPORT

Date: 04/19/94

Client Work ID: FORT STORY 519029/SDG FS006 3I4610

IT ANALYTICAL SERVICES
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Work Order: B4-04-051

SAMPLE ID: 032494-425C Q403322-13

SAMPLE DATE: 03/30/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>	<u>Result</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	110	04/11/94	EPA8015_MOD
		1.7 mg/kg		

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene *
- * Surrogate not reported due to matrix interference.

Company: ITAS-EXPORT

Date: 04/19/94

Client Work ID: FORT STORY 519029/SDG FS006 3I4610

IT ANALYTICAL SERVICES
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Work Order: B4-04-051

SAMPLE ID: 032494-463E Q403322-14

SAMPLE DATE: 03/30/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u> <u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	61	1.7 mg/kg	04/11/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	Benzo(a)pyrene	47

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS006 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-051

SAMPLE ID: 032494-467E Q403322-15
SAMPLE DATE: 03/30/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u>	<u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	89	1.7	mg/kg	04/11/94	EPA8015_MOD

Referenced notes for these results:

1 Surrogate Recovery %
Benzo(a)pyrene 65

Company: ITAS-EXPORT

Date: 04/19/94

Client Work ID: FORT STORY 519029/SDG FS006 3I4610

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

Work Order: B4-04-051

SAMPLE ID: 032494-460D Q403322-16

SAMPLE DATE: 03/30/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Units</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u>		<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	*		mg/kg	04/19/94	EPA8015_MOD

Referenced notes for these results:

1 * Extract received dry. Unable to analyze.

Company: ITAS-EXPORT

Date: 04/19/94

Client Work ID: FORT STORY 519029/SDG FS006 314610

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

Work Order: B4-04-051

SAMPLE ID: 032494-460D MSD Q403322-16

SAMPLE DATE: 03/30/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u>	<u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	1700		% Rec	04/11/94	EPA8015_MOD

Referenced notes for these results:

1 Surrogate Recovery %
Benzo(a)pyrene 75

Company: ITAS-EXPORT
Date: 04/19/94
Client Work ID: FORT STORY 519029/SDG FS006 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-051

SAMPLE ID: 032494-460D MS Q403322-16
SAMPLE DATE: 03/30/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u>	<u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	1300		% Rec	04/11/94	EPA8015_MOD

Referenced notes for these results:

1 Surrogate Recovery %
Benzo(a)pyrene 53

Company: ITAS-EXPORT

Date: 04/19/94

Client Work ID: FORT STORY 519029/SDG FS006 3I4610

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

Work Order: B4-04-051

SAMPLE ID: BLANK Q403322

SAMPLE DATE: 03/30/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	22	1.7 mg/kg	04/11/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene *
- * Surrogate not reported due to matrix interference.



ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD *

B404051

Reference Document No. 481144
Page 1 of 2

Project Name/No. 1 FORT STARY 519029
Sample Team Members 2 _____
Profit Center No. 3 4610
Project Manager 4 Carrie Smith
Purchase Order No. 6 E94-039
Required Report Date 11 4/8/94

Samples Shipment Date 7 4/4/94
Lab Destination 8 ITAS AUSTIN
Lab Contact 9 Chris Schepoff
Project Contact/Phone 12 412-731-8806
Carrier/Waybill No. 13 FEDX 2423805964

Bill to: 5 ITAS PTT
Report to: 10 ITAS PTT

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
400B-032494	EXTRACT 0403322-01 0404	EXTRACTED 3/30/94	Glass Vial	1ml	-	DIESEL	Good 40C	
442D-032494	0403322-02						4/5	
403B-		03						
445D-		04						
487F-		05						
398A-		06						
482E-		07						
484F-		08						

FOR LAB USE ONLY

FOR LAB USE ONLY

Special Instructions: 23 SDG FSC06 * Chris Schepoff to fax results

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) <u>Bob [Signature]</u>	Date: <u>4/4/94</u> Time: <u>1700</u>	1. Received by 29 (Signature/Affiliation) <u>J.C.G. 15</u>	Date: <u>4/5/94</u> Time: <u>0925</u>
2. Relinquished by (Signature/Affiliation)	Date: _____ Time: _____	2. Received by (Signature/Affiliation)	Date: _____ Time: _____
3. Relinquished by (Signature/Affiliation)	Date: _____ Time: _____	3. Received by (Signature/Affiliation)	Date: _____ Time: _____

Comments: 29 ONE MORE SAMPLE IS TO BE SENT FOR THIS SDG

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



INTERNATIONAL
TECHNOLOGY
CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

ITAS-EXPORT
IT CORPORATION
5103 OLD WILLIAM PENN HWY.
EXPORT, PENN. 15632
CARRIE SMITH

Date: 04/23/94

Work Order: B4-04-092

P.O. Number: E94-040

This is the Certificate of Analysis for the following samples:

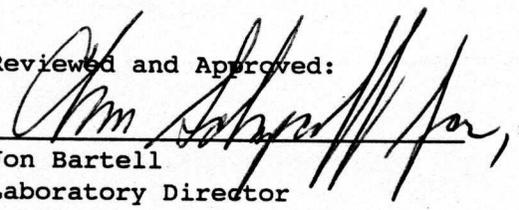
Client Work ID: FORT STORY 519029/SDG FS006 3I4610
Date Received: 04/07/94
Number of Samples: 3
Sample Type: EXTRACT

I. Introduction

Samples were labeled as follows:

<u>SAMPLE IDENTIFICATION</u>	<u>LABORATORY #</u>
502F-032494 Q403322-17	B4-04-092-01
BLANK Q403322	B4-04-092-02
BLANK SPIKE Q403322	B4-04-092-03

Reviewed and Approved:


Jon Bartell
Laboratory Director

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

Company: ITAS-EXPORT

Date: 04/23/94

Client Work ID: FORT STORY 519029/SDG FS006 3I4610

IT ANALYTICAL SERVICES

AUSTIN, TX

(512) 892-6684

Work Order: B4-04-092

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: ITAS-EXPORT

Date: 04/23/94

Client Work ID: FORT STORY 519029/SDG FS006 3I4610

IT ANALYTICAL SERVICES

AUSTIN, TX

(512) 892-6684

Work Order: B4-04-092

SAMPLE ID: 502F-032494 Q403322-17

SAMPLE DATE: 04/05/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>	<u>Result</u>	<u>Analyzed</u>	<u>Reference</u>
		<u>Limit</u> <u>Units</u>		
TPH-D by GC (EPA8015_MOD)	1	56 1.7 mg/kg	04/14/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	Benzo(a)pyrene	73

Company: ITAS-EXPORT

Date: 04/23/94

Client Work ID: FORT STORY 519029/SDG FS006 3I4610

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

Work Order: B4-04-092

SAMPLE ID: BLANK Q403322

SAMPLE DATE:

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	11	1.7 mg/kg	04/14/94	EPA8015_MOD

Referenced notes for these results:

- | | | |
|---|----------------|------------|
| 1 | Surrogate | Recovery % |
| | Benzo(a)pyrene | 87 |

Company: ITAS-EXPORT

Date: 04/23/94

Client Work ID: FORT STORY 519029/SDG FS006 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX

(512) 892-6684

Work Order: B4-04-092

SAMPLE ID: BLANK SPIKE Q403322

SAMPLE DATE:

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
<u>Ref</u>	<u>Result</u>	<u>Limit</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	130	% Rec	04/14/94 EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	Benzo(a)pyrene	86

Company: ITAS-EXPORT
Date: 04/23/94
Client Work ID: FORT STORY 519029/SDG FS006 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-092

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME TPH-D by GC (EPA8015_MOD) TEST CODE TPH_GC

TPH-Extractable Petroleum Hydrocarbons	EPA Methods 3510/3520/3550/3580 for extraction of samples and modified EPA Method 8015 for GC/FID analysis of extracts run against a diesel standard.
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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

B404092
Reference Document No. 484150
Page 1 of 2

Project Name/No. 1 FORT STORY 519029 Samples Shipment Date 7 4/6/94
Sample Team Members 2 Lab Destination 8 ITAS Austin
Profit Center No. 3 4610 Lab Contact 9 Chris Schepcoff
Project Manager 4 Carrie Lynn Smith Gamber Project Contact/Phone 12 412-731-8806
Purchase Order No. 6 E94-040 Carrier/Waybill No. 13 FedEx 2423806104
Required Report Date 11 ASAP 4/12/94

Bill to: 5 ITAS Pitt
Report to: 10 ITAS Pitt
Attn: Carrie Lynn Smith Gamber

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
* 502F-032494	EXT Q403322-17	4/5/94	Glass Vial	1ml	-	Diesel	Good 1°C ice 4-7-94	
Blank Q403358 Q403322	EXT Q403358 Q403322						FOR LAB USE ONLY	
Blank Spike Q403358 Q403322	EXT Q403358 Q403322							
630F-32894	Q403358-01							
588D-32894		02					FOR LAB USE ONLY	
588D DUP-32894		03						
546B-32894		04						
591E-32894		05						

Special Instructions: ²³ Chris Schepcoff to fax results ASAP

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 Bob Finley ITAS Pitt Date: 4/6/94 Time: 1610
1. Received by ²⁸ Louis Lynch FT Date: 4-7-94 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 * This is the remaining sample from SDG F5006 - REMAINDER OF SAMPLES ARE SDG F5008

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



INTERNATIONAL
TECHNOLOGY
CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

IT Corporation/Fort Story
2790 Mosside Boulevard
Monroeville, PA 15146
Attn: Tom Mathison

April 28, 1994

Job Number: Q403321/322/358 Revision 2

The Certificate of Analysis is for the following:

Client Project ID: 519029
Date Received by Lab: 03/25 and 30/94
Number of Samples: Twenty-six
Sample Type: Soil

1.0 Introduction

On March 25 and 30, 1994, twenty-six samples were received at ITAS Pittsburgh, labeled as follows:

450D-032494	497F-032494	430C DUP-032494	546B-32894
492F-032494	413B-032494	408B-032494	591E-32894
393A-032494	388A-032494	502F-032494	549C-32894
435C-032494	455D-032494	630F-32894	507A-32894
440C-032494	455D DUP-032494	588D-32894	626F-32894
477E-032494	472E-032494	588D DUP-32894	596E-32894
477E DUP-032494	430C-032494		

The analysis for TPH-diesel was performed at our ITAS laboratory in Austin, Texas. These results are enclosed.

Reviewed and Approved:


Carrie L. Smith-Gamber, Project Manager

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

CERTIFICATE OF ANALYSIS

ITAS-EXPORT
IT CORPORATION
5103 OLD WILLIAM PENN HWY.
EXPORT, PENN. 15632
CARRIE SMITH

Date: 04/23/94

Work Order: B4-04-093

P.O. Number: E94-040

This is the Certificate of Analysis for the following samples:

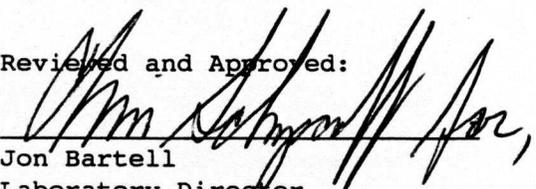
Client Work ID: FORT STORY 519029/SDG FS008 3I4610
Date Received: 04/07/94
Number of Samples: 13
Sample Type: EXTRACT

I. Introduction

Samples were labeled as follows:

<u>SAMPLE IDENTIFICATION</u>		<u>LABORATORY #</u>
630F-32894	Q403358-01	B4-04-093-01
588D-32894	Q403358-02	B4-04-093-02
588DDUP-32894	Q403358-03	B4-04-093-03
546B-32894	Q403358-04	B4-04-093-04
591E-32894	Q403358-05	B4-04-093-05
549C-32894	Q403358-06	B4-04-093-06
507A-32894	Q403358-07	B4-04-093-07
626F-32894	Q403358-08	B4-04-093-08
596E-32894	Q403358-09	B4-04-093-09
596E-32894	MATRIX SPIKE	B4-04-093-10
596E-32894	MSD	B4-04-093-11
BLANK	Q403358	B4-04-093-12
BLANK SPIKE	Q403358	B4-04-093-13

Reviewed and Approved:


Jon Bartell
Laboratory Director

Company: ITAS-EXPORT

Date: 04/23/94

Client Work ID: FORT STORY 519029/SDG FS008 3I4610

**IT ANALYTICAL SERVICES
AUSTIN, TX**

(512) 892-6684

Work Order: B4-04-093

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: ITAS-EXPORT

Date: 04/23/94

Client Work ID: FORT STORY 519029/SDG FS008 3I4610

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

Work Order: B4-04-093

SAMPLE ID: 630F-32894 Q403358-01

SAMPLE DATE: 04/05/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	330	1.7 mg/kg	04/14/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	Benzo(a)pyrene	117

Company: ITAS-EXPORT

Date: 04/23/94

Client Work ID: FORT STORY 519029/SDG FS008 3I4610

IT ANALYTICAL SERVICES

AUSTIN, TX

(512) 892-6684

Work Order: B4-04-093

SAMPLE ID: 588D-32894 Q403358-02

SAMPLE DATE: 04/05/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u> <u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	120	1.8 mg/kg	04/14/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	Benzo(a)pyrene	131

Company: ITAS-EXPORT

Date: 04/23/94

Client Work ID: FORT STORY 519029/SDG FS008 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-093

SAMPLE ID: 588DDUP-32894 Q403358-03

SAMPLE DATE: 04/05/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
<u>Ref</u>	<u>Result</u>	<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	100	1.8 mg/kg	04/14/94 EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	Benzo(a)pyrene	80

Company: ITAS-EXPORT

Date: 04/23/94

Client Work ID: FORT STORY 519029/SDG FS008 3I4610

IT ANALYTICAL SERVICES

AUSTIN, TX

(512) 892-6684

Work Order: B4-04-093

SAMPLE ID: 546B-32894 Q403358-04

SAMPLE DATE: 04/05/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>	<u>Result</u>	<u>Analyzed</u>	<u>Reference</u>
		<u>Limit</u> <u>Units</u>		
TPH-D by GC (EPA8015_MOD)	1	450 2.3 mg/kg	04/14/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene *
- * Surrogate not reported due to matrix interference.

Company: ITAS-EXPORT
Date: 04/23/94
Client Work ID: FORT STORY 519029/SDG FS008 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-093

SAMPLE ID: 591E-32894 Q403358-05
SAMPLE DATE: 04/05/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
<u>Ref</u>	<u>Result</u>	<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	160	1.9 mg/kg	04/14/94 EPA8015_MOD

Referenced notes for these results:

1 Surrogate Recovery %
Benzo(a)pyrene 90

Company: ITAS-EXPORT

Date: 04/23/94

Client Work ID: FORT STORY 519029/SDG FS008 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX

(512) 892-6684

Work Order: B4-04-093

SAMPLE ID: 549C-32894 Q403358-06

SAMPLE DATE: 04/05/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	93	1.8 mg/kg	04/14/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	Benzo(a)pyrene	111

Company: ITAS-EXPORT

Date: 04/23/94

Client Work ID: FORT STORY 519029/SDG FS008 3I4610

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

Work Order: B4-04-093

SAMPLE ID: 507A-32894 Q403358-07

SAMPLE DATE: 04/05/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	590	20 mg/kg	04/15/94	EPA8015_MOD

Referenced notes for these results:

- | | | |
|---|----------------|------------|
| 1 | Surrogate | Recovery % |
| | Benzo(a)pyrene | 83 |

Company: ITAS-EXPORT
Date: 04/23/94
Client Work ID: FORT STORY 519029/SDG FS008 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-093

SAMPLE ID: 626F-32894 Q403358-08
SAMPLE DATE: 04/05/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	6.3	1.7 mg/kg	04/15/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene 78

Company: ITAS-EXPORT

Date: 04/23/94

Client Work ID: FORT STORY 519029/SDG FS008 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX

(512) 892-6684

Work Order: B4-04-093

SAMPLE ID: 596E-32894 Q403358-09

SAMPLE DATE: 04/05/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	290	1.8 mg/kg	04/14/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene *
- * Surrogate not reported due to matrix interference.

Company: ITAS-EXPORT
Date: 04/23/94
Client Work ID: FORT STORY 519029/SDG FS008 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-093

SAMPLE ID: 596E-32894 MSD
SAMPLE DATE: 04/05/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	4600	% Rec	04/14/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene 137
Surrogate biased high due to matrix interference.

Company: ITAS-EXPORT

Date: 04/23/94

Client Work ID: FORT STORY 519029/SDG FS008 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX

(512) 892-6684

Work Order: B4-04-093

SAMPLE ID: BLANK Q403358

SAMPLE DATE: 04/05/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note Ref</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>	<u>Method Reference</u>
TPH-D by GC (EPA8015_MOD)	1	11	1.7	mg/kg	04/14/94	EPA8015_MOD

Referenced notes for these results:

1 Surrogate Recovery %
Benzo(a)pyrene 87

Company: ITAS-EXPORT

Date: 04/23/94

Client Work ID: FORT STORY 519029/SDG FS008 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX

(512) 892-6684

Work Order: B4-04-093

SAMPLE ID: BLANK SPIKE Q403358

SAMPLE DATE: 04/05/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u>		<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
			<u>Limit</u>	<u>Units</u>		
TPH-D by GC (EPA8015_MOD)	1	130		% Rec	04/14/94	EPA8015_MOD

Referenced notes for these results:

1 Surrogate Recovery %
Benzo(a)pyrene 86

Company: ITAS-EXPORT

Date: 04/23/94

Client Work ID: FORT STORY 519029/SDG FS008 3I4610

IT ANALYTICAL SERVICES

AUSTIN, TX

(512) 892-6684

Work Order: B4-04-093

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME **TPH-D by GC (EPA8015_MOD)** TEST CODE **TPH_GC**

TPH-Extractable
Petroleum
Hydrocarbons

EPA Methods 3510/3520/3550/3580 for extraction of
samples and modified EPA Method 8015 for GC/FID
analysis of extracts run against a diesel standard.



ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

B404093
Reference Document No. 484150
Page 1 of 2

Project Name/No. 1 FURT STORY 519029 Samples Shipment Date 7 4/6/94
 Sample Team Members 2 Lab Destination 8 ITAS Austin
 Profit Center No. 3 4610 Lab Contact 9 Chris Schepoff
 Project Manager 4 Carrie Lynn Smith Gamber Project Contact/Phone 12 412-731-8876
 Purchase Order No. 6 E94-040 Carrier/Waybill No. 13 FedEx 2423806104
 Required Report Date 11 ASAP 4/12/94

Bill to: 5 ITAS Pitt
 Report to: 10 ITAS Pitt
Attn: Carrie Lynn Smith Gamber

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
* 502F-032494	ECT Q403322-17	4/5/94	Glass Vial	1ml	-	Diesel	Good 1°C ice 4-7-94	
Blank ^{Q403358} ^{Q403322}	ECT ^{Q403358} ^{Q403322}						FOR LAB USE ONLY	
Blank Spike ^{Q403358} ^{Q403322}	ECT ^{Q403358} ^{Q403322}							
630F-32894	Q403358-01							
588D-32894		02					FOR LAB USE ONLY	
588D DUP-32894		03						
546B-32894		04						
591E-32894		05						

Special Instructions: ²³ Chris Schepoff to fax results ASAP

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) <u>Bob Penley ITAS Pitt</u>	Date: <u>4/6/94</u> Time: <u>1610</u>	1. Received by ²⁸ (Signature/Affiliation) <u>Laura Lynch IT</u>	Date: <u>4-7-94</u> Time: <u>0920</u>
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: ²⁹ * This is the remaining sample from SDG F5006 - REMAINDER OF SAMPLES ARE SDG F5008

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



INTERNATIONAL
TECHNOLOGY
CORPORATION

ANALYTICAL SERVICES

CERTIFICATE OF ANALYSIS

ITAS-EXPORT
IT CORPORATION
5103 OLD WILLIAM PENN HWY.
EXPORT, PENN. 15632
CARRIE SMITH

Date: 04/23/94

Work Order: B4-04-050

P.O. Number: E94-039

This is the Certificate of Analysis for the following samples:

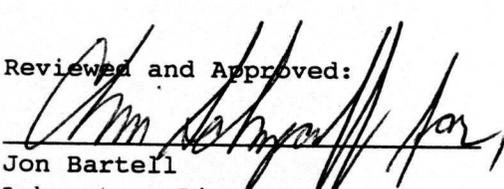
Client Work ID: FORT STORY 519029/SDG FS005 3I4610
Date Received: 04/05/94
Number of Samples: 20
Sample Type: EXTRACT

I. Introduction

Samples were labeled as follows:

<u>SAMPLE IDENTIFICATION</u>	<u>LABORATORY #</u>
032494-450D Q403321-01	B4-04-050-01
032494-492F Q403321-02	B4-04-050-02
032494-393A Q403321-03	B4-04-050-03
032494-435C Q403321-04	B4-04-050-04
032494-440C Q403321-05	B4-04-050-05
032494-477E Q403321-06	B4-04-050-06
032494-477E DUP Q403321-07	B4-04-050-07
032494-497F Q403321-08	B4-04-050-08
032494-413B Q403321-09	B4-04-050-09
032494-388A Q403321-10	B4-04-050-10
032494-455D Q403321-11	B4-04-050-11
032494-455D DUP Q403321-12	B4-04-050-12
032494-472E Q403321-13	B4-04-050-13

Reviewed and Approved:


Jon Bartell

Laboratory Director

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

Company: ITAS-EXPORT
Date: 04/23/94
Client Work ID: FORT STORY 519029/SDG FS005 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-050

Samples, continued from above:

<u>SAMPLE IDENTIFICATION</u>	<u>LABORATORY #</u>
032494-430C	Q403321-14 B4-04-050-14
032494-430C DUP	Q403321-15 B4-04-050-15
032494-408B	Q403321-16 B4-04-050-16
032494-408B MSD	Q403321-16 B4-04-050-17
032494-408B MS	Q403321-16 B4-04-050-18
BLANK	Q403321 B4-04-050-19
BLANK SPIKE	Q403321 B4-04-050-20

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: ITAS-EXPORT
Date: 04/23/94
Client Work ID: FORT STORY 519029/SDG FS005 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-050

SAMPLE ID: 032494-450D Q403321-01
SAMPLE DATE: 03/30/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>	
<u>Ref</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	38	2.0 mg/kg	04/11/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene 87

Company: ITAS-EXPORT

Date: 04/23/94

Client Work ID: FORT STORY 519029/SDG FS005 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX

(512) 892-6684

Work Order: B4-04-050

SAMPLE ID: 032494-492F Q403321-02

SAMPLE DATE: 03/30/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
<u>Ref</u>	<u>Result</u>	<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	26	1.7 mg/kg	04/11/94 EPA8015_MOD

Referenced notes for these results:

- | | | |
|---|----------------|------------|
| 1 | Surrogate | Recovery % |
| | Benzo(a)pyrene | 49 |

Company: ITAS-EXPORT

Date: 04/23/94

Client Work ID: FORT STORY 519029/SDG FS005 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-050

SAMPLE ID: 032494-393A Q403321-03
SAMPLE DATE: 03/30/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>		<u>Reporting</u>		<u>Date</u>	<u>Method</u>
	<u>Ref</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	27	1.7	mg/kg	04/11/94	EPA8015_MOD

Referenced notes for these results:

1 Surrogate Recovery %
Benzo(a)pyrene 55

Company: ITAS-EXPORT
Date: 04/23/94
Client Work ID: FORT STORY 519029/SDG FS005 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-050

SAMPLE ID: 032494-435C Q403321-04
SAMPLE DATE: 03/30/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>		<u>Reporting</u>		<u>Date</u>	<u>Method</u>
	<u>Ref</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	34	1.7	mg/kg	04/11/94	EPA8015_MOD

Referenced notes for these results:

1 Surrogate Recovery %
Benzo(a)pyrene 55

Company: ITAS-EXPORT

Date: 04/23/94

Client Work ID: FORT STORY 519029/SDG FS005 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX

(512) 892-6684

Work Order: B4-04-050

SAMPLE ID: 032494-440C Q403321-05

SAMPLE DATE: 03/30/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u> <u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	51	2.0 mg/kg	04/11/94	EPA8015_MOD

Referenced notes for these results:

1 Surrogate Recovery %
Benzo(a)pyrene 68

Company: ITAS-EXPORT

Date: 04/23/94

Client Work ID: FORT STORY 519029/SDG FS005 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX

(512) 892-6684

Work Order: B4-04-050

SAMPLE ID: 032494-477E Q403321-06

SAMPLE DATE: 03/30/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	620	9.4 mg/kg	04/11/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene *
* Surrogate not reported due to matrix interference.

Company: ITAS-EXPORT

Date: 04/23/94

Client Work ID: FORT STORY 519029/SDG FS005 3I4610

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

Work Order: B4-04-050

SAMPLE ID: 032494-477E DUP Q403321-07

SAMPLE DATE: 03/30/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u> <u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	1900	9.1 mg/kg	04/11/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene *
- * Surrogate not reported due to matrix interference.

Company: ITAS-EXPORT
Date: 04/23/94
Client Work ID: FORT STORY 519029/SDG FS005 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-050

SAMPLE ID: 032494-497F Q403321-08
SAMPLE DATE: 03/30/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note Ref</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>	<u>Method Reference</u>
TPH-D by GC (EPA8015_MOD)	1	64	1.7	mg/kg	04/11/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene 50

Company: ITAS-EXPORT

Date: 04/23/94

Client Work ID: FORT STORY 519029/SDG FS005 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-050

SAMPLE ID: 032494-413B Q403321-09
SAMPLE DATE: 03/30/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>		<u>Reporting</u>		<u>Date</u>	<u>Method</u>
	<u>Ref</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	40	1.7	mg/kg	04/11/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene *
* Surrogate not reported due to matrix interference.

Company: ITAS-EXPORT

Date: 04/23/94

Client Work ID: FORT STORY 519029/SDG FS005 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-050

SAMPLE ID: 032494-388A Q403321-10

SAMPLE DATE: 03/30/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>	<u>Result</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	310	04/11/94	EPA8015_MOD
		8.8 mg/kg		

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene *
* Surrogate not reported due to matrix interference.

Company: ITAS-EXPORT
Date: 04/23/94
Client Work ID: FORT STORY 519029/SDG FS005 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-050

SAMPLE ID: 032494-455D Q403321-11
SAMPLE DATE: 03/30/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>	
<u>Ref</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	430	9.0 mg/kg	04/11/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene *
- * Surrogate not reported due to matrix interference.

Company: ITAS-EXPORT
Date: 04/23/94
Client Work ID: FORT STORY 519029/SDG FS005 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-050

SAMPLE ID: 032494-455D DUP Q403321-12
SAMPLE DATE: 03/30/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>	<u>Result</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	420	04/11/94	EPA8015_MOD
		8.8 mg/kg		

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene *
- * Surrogate not reported due to matrix interference.

Company: ITAS-EXPORT

Date: 04/23/94

Client Work ID: FORT STORY 519029/SDG FS005 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-050

SAMPLE ID: 032494-472E Q403321-13

SAMPLE DATE: 03/30/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	97	1.7 mg/kg	04/11/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene 71

Company: ITAS-EXPORT
Date: 04/23/94
Client Work ID: FORT STORY 519029/SDG FS005 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-050

SAMPLE ID: 032494-430C Q403321-14
SAMPLE DATE: 03/30/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
<u>Ref</u>	<u>Result</u>	<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	120	1.8 mg/kg	04/11/94 EPA8015_MOD

Referenced notes for these results:

1 Surrogate Recovery %
Benzo(a)pyrene 58

Company: ITAS-EXPORT

Date: 04/23/94

Client Work ID: FORT STORY 519029/SDG FS005 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX

(512) 892-6684

Work Order: B4-04-050

SAMPLE ID: 032494-430C DUP Q403321-15

SAMPLE DATE: 03/30/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u>	<u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	160	1.7	mg/kg	04/11/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	Benzo(a)pyrene	90

Company: ITAS-EXPORT

Date: 04/23/94

Client Work ID: FORT STORY 519029/SDG FS005 3I4610

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

Work Order: B4-04-050

SAMPLE ID: 032494-408B Q403321-16

SAMPLE DATE: 03/30/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Ref</u>	<u>Result</u>	<u>Reporting</u>	<u>Limit</u>	<u>Units</u>	<u>Date</u>	<u>Method</u>
							<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)		1	87		1.7	mg/kg	04/11/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene *
- * Surrogate not reported due to matrix interference.

Company: ITAS-EXPORT
Date: 04/23/94
Client Work ID: FORT STORY 519029/SDG FS005 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-050

SAMPLE ID: 032494-408B MSD Q403321-16
SAMPLE DATE: 03/30/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note Ref</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>	<u>Method Reference</u>
TPH-D by GC (EPA8015_MOD)	1	1100		% Rec	04/11/94	EPA8015_MOD

Referenced notes for these results:

1 Surrogate Recovery %
Benzo(a)pyrene 68

Company: ITAS-EXPORT
Date: 04/23/94
Client Work ID: FORT STORY 519029/SDG FS005 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-050

SAMPLE ID: 032494-408B MS Q403321-16
SAMPLE DATE: 03/30/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note Ref</u>	<u>Result</u>	<u>Reporting Limit</u>	<u>Units</u>	<u>Date Analyzed</u>	<u>Method Reference</u>
TPH-D by GC (EPA8015_MOD)	1	1000		% Rec	04/11/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene 70

Company: ITAS-EXPORT

Date: 04/23/94

Client Work ID: FORT STORY 519029/SDG FS005 314610

IT ANALYTICAL SERVICES
AUSTIN, TX

(512) 892-6684

Work Order: B4-04-050

SAMPLE ID: BLANK Q403321

SAMPLE DATE: 03/30/94

SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u>	<u>Result</u>	<u>Reporting</u>	<u>Date</u>	<u>Method</u>
	<u>Ref</u>		<u>Limit</u> <u>Units</u>	<u>Analyzed</u>	<u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	7.7	1.7 mg/kg	04/15/94	EPA8015_MOD

Referenced notes for these results:

1	Surrogate	Recovery %
	Benzo(a)pyrene	43

Company: ITAS-EXPORT
Date: 04/23/94
Client Work ID: FORT STORY 519029/SDG FS005 3I4610

IT ANALYTICAL SERVICES
AUSTIN, TX
(512) 892-6684
Work Order: B4-04-050

SAMPLE ID: BLANK SPIKE Q403321
SAMPLE DATE: 03/30/94
SAMPLE MATRIX: EXTRACT

<u>Test Name</u>	<u>Note</u> <u>Ref</u>	<u>Result</u>	<u>Reporting</u> <u>Limit</u>	<u>Units</u>	<u>Date</u> <u>Analyzed</u>	<u>Method</u> <u>Reference</u>
TPH-D by GC (EPA8015_MOD)	1	140		% Rec	04/15/94	EPA8015_MOD

Referenced notes for these results:

- 1 Surrogate Recovery %
Benzo(a)pyrene 27

Company: ITAS-EXPORT

Date: 04/23/94

Client Work ID: FORT STORY 519029/SDG FS005 3I4610

IT ANALYTICAL SERVICES

AUSTIN, TX

(512) 892-6684

Work Order: B4-04-050

IV. Methodology

Requested analyses were performed according to the following methods.

TEST NAME **TPH-D by GC (EPA8015_MOD)** TEST CODE **TPH_GC**

TPH-Extractable	EPA Methods 3510/3520/3550/3580 for extraction of
Petroleum	samples and modified EPA Method 8015 for GC/FID
Hydrocarbons	analysis of extracts run against a diesel standard.



ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

B4104050

Reference Document No. 484147

Page 1 of 2

Project Name/No. 1 Fort Story 519029 Samples Shipment Date 7 4/4/94
 Sample Team Members 2 Lab Destination 8 FAS Austin
 Profit Center No. 3 4610 Lab Contact 9 Chris Achpoff
 Project Manager 4 Carrie Smith Project Contact/Phone 12 42-731-8806
 Purchase Order No. 6 E94-039 Carrier/Waybill No. 13 FedEx 223805964
 Required Report Date 11 4/8/94 *

Bill to: 5 FAS PCH
 Report to: 10 FAS PCH

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
4500 - 032494	EXT 0403321-01	3/30/94	Glass/Vial	1ml	-	DIESEL	Good 4°C	
492F -		02					4/5/94	
393A -		03						
435C -		04						
440C -		05						
477E -		06						
477E DUP -		07						
497F -		08						

FOR LAB USE ONLY

Special Instructions: ²³ SDG FS005 * Chris Achpoff to fax unit ASAP

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 Bob Taylor FAS PCH Date: 4/4/94 Time: 1700 1. Received by ²⁹ B.C.C. IS Date: 4/5/94 Time: 0925
 2. Relinquished by _____ Date: _____ Time: _____ 2. Received by _____ Date: _____ Time: _____
 3. Relinquished by _____ Date: _____ Time: _____ 3. Received by _____ Date: _____ Time: _____

Comments: ²⁹

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

SOLUTIONS LABORATORIES, INC.

814 B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(T) (804) 420-0467
(F) (804) 420-4204

CHAIN-OF-CUSTODY REPORT

SOLUTIONS LOG #: 06071993-002-01 THRU 06

COMPANY NAME: I T CORPORATION
PROJECT MANAGER: LOU BERNARDO
BILLING ADDRESS: TDY INN
15910 WARWICK BOULEVARD
NEWPORT NEWS, VA 23602

TELEPHONE #: 1-888-6102

FAX #:

P.O.#: 474960

DATE/TIME RECEIVED: 06/07/93; 1320

SAMPLER: RICK SCHROPP

<u>SAMPLE ID</u>	<u>FIELD SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMPLED TIME</u>	<u># OF CONT.</u>	<u>CONTAINER</u>	<u>LOCATION</u>	<u>PRESERV.</u>	<u>MATRIX</u>
01A1	A	06/07/93	11:00	1	40 ML VOA	FT. STORY	ICE	SOIL
02A1	B	06/07/93	11:23	1	40 ML VOA	FT. STORY	ICE	SOIL
03A1	C	06/07/93	12:00	1	40 ML VOA	FT. STORY	ICE	SOIL
04A1	D	06/07/93	12:20	1	40 ML VOA	FT. STORY	ICE	SOIL
05A1	E	06/07/93	12:30	1	40 ML VOA	FT. STORY	ICE	SOIL
06A1	F	06/07/93	12:45	1	40 ML VOA	FT. STORY	ICE	SOIL

<u>SAMPLE ID</u>	<u>ANALYSIS TO BE PERFORMED</u>	<u>DUE DATE</u>
01A1>06A1	TPH 8015	06/08/93

CONDITION OF SAMPLE: GOOD

RECEIVED BY: JO ANN FEROLINO

RELINQUISHED BY: RICK SCHROPP

SOLUTIONS LABORATORIES, INC.

814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(T) (804) 420-0467
(F) (804) 420-4204

REPORT OF ANALYSIS

DATE: JUNE 8, 1993

I T CORPORATION
ATTN: LOU BERNARDO
2790 MOSSIDE BLVD
MONROEVILLE, PA 15146

PROJECT NAME: FORT STORY
PROJECT NUMBER: 519029
P.O. #: 474960

SOLUTIONS LOG: 06071993-002-01 THRU 06
MATRIX: SOIL
DATE/TIME SAMPLED: 06/07/93; 11:00, 11:23, 12:00, 12:20, 12:30, 12:45

METHOD MODIFIED 8015

CLIENT NO:	A	B	C	D
LAB NO:	01A1	02A1	03A1	04A1
SAMPLE DATE:	06/07/93	06/07/93	06/07/93	06/07/93
RECEIVED DATE:	06/07/93	06/07/93	06/07/93	06/07/93
DATE EXTRACTED:	06/07/93	06/07/93	06/07/93	06/07/93
ANALYSIS DATE:	06/07/93	06/07/93	06/07/93	06/07/93
INSTRUMENT ID:	HP/FID	HP/FID	HP/FID	HP/FID
DILUTION FACTOR:	1.0	1.0	1.0	1.0
UNITS:	mg/Kg	mg/Kg	mg/Kg	mg/Kg
DET. LMT.	2.85	2.85	2.85	2.85

ANALYSIS

TOTAL PETROLEUM HYDROCARBONS	<2.85	< 2.85	< 2.85	< 2.85
TYPE	N/A	N/A	N/A	N/A

SOLUTIONS LABORATORIES, INC.

814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(T) (804) 420-0467
(F) (804) 420-4204

REPORT OF ANALYSIS

DATE: JUNE 8, 1993

I T CORPORATION
ATTN: LOU BERNARDO
2790 MOSSIDE BLVD
MONROEVILLE, PA 15146

PROJECT NAME: FORT STORY
PROJECT NUMBER: 519029
P.O. #: 474960

SOLUTIONS LOG: 06071993-002-01 THRU 06
MATRIX: SOIL
DATE/TIME SAMPLED: 06/07/93; 11:00, 11:23, 12:00, 12:20, 12:30, 12:45

METHOD MODIFIED 8015

CLIENT NO:	E	F
LAB NO:	05A1	06A1
SAMPLE DATE:	06/07/93	06/07/93
RECEIVED DATE:	06/07/93	06/07/93
DATE EXTRACTED:	06/07/93	06/07/93
ANALYSIS DATE:	06/07/93	06/07/93
INSTRUMENT ID:	HP/FID	HP/FID
DILUTION FACTOR:	1.0	1.0
UNITS:	mg/Kg	mg/Kg
DET. LMT.	2.85	2.85

ANALYSIS

TOTAL PETROLEUM HYDROCARBONS	77.6	3.16
TYPE	DIESEL	DIESEL

REVIEWED BY:

Dorothy S. Small / ds
DOROTHY S. SMALL

SOLUTIONS LABORATORIES, INC.

814 B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(T) (804) 420-0467
(F) (804) 420-4204

CHAIN-OF-CUSTODY REPORT

* AMENDED ON JULY 20, 1993.

SOLUTIONS LOG #: 07131993-006-01

COMPANY NAME: SOLUTIONS ENVIRONMENTAL ASSOCIATES

PROJECT MANAGER: AL DAVIS

BILLING ADDRESS: 814-B GREENBRIER CIRCLE

CHESAPEAKE, VA 23320

TELEPHONE #: (804) 420-0467

FAX #: (804) 420-4204

P.O.#: N/A

DATE/TIME RECEIVED: 07/13/93; 2040

SAMPLER: GREG KISER

<u>SAMPLE ID</u>	<u>FIELD SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMPLED TIME</u>	<u># OF CONT.</u>	<u>CONTAINER</u>	<u>LOCATION</u>	<u>PRESERV.</u>	<u>MATRIX</u>
01A1	01	07/13/93	1815	1	250 ML AM	POOL-FT. STORY	NONE	SLUDGE

<u>SAMPLE ID</u>	<u>ANALYSIS TO BE PERFORMED</u>	<u>DUE DATE</u>
01A1	TOTAL LEAD (GFAA)	07/15/93
01A1	* TCLP 8 METALS, TCLP BENZENE, BENZENE	07/19/93

* NEW ANALYSIS ADDED ON 07/15/93 PER AL DAVIS.

CONDITION OF SAMPLE: NOT PRESERVED

RECEIVED BY: M. RUTH GLOVER

RELINQUISHED BY: GREG KISER

SOLUTIONS LABORATORIES, INC.

814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(T) (804) 420-0467
(F) (804) 420-4204

REPORT OF ANALYSIS

DATE: JULY 20, 1993

SOLUTIONS ENVIRONMENTAL ASSOCIATES, INC.
814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(804) 420-0467

PROJECT NAME: FT. STORY
PROJECT NUMBER: N/A

SOLUTIONS LOG: 07131993-006-01
MATRIX: SLUDGE
DATE/TIME SAMPLED: 07/13/93; 1815

<u>SOL LOG #</u>	<u>FIELD ID</u>	<u>ANALYSIS</u>	<u>RESULT</u>	<u>UNITS</u>	<u>D.F.</u>	<u>DET LT.</u>	<u>METHOD/DATE/TIME/ANALYST</u>
01A1	01	TOTAL LEAD	99.0	mg/Kg	25	0.050	7421/07-14-93/1200/LP
01A1	01	TCLP ARSENIC	<0.002	mg/L	1	0.002	1311/7060/07-19-93/1320/LP
01A1	01	TCLP BARIUM	<0.150	mg/L	1	0.150	1311/7080/07-19-93/1130/LP
01A1	01	TCLP CADMIUM	0.060	mg/L	1	0.010	1311/7130/07-19-93/1230/LP
01A1	01	TCLP CHROMIUM	<0.033	mg/L	1	0.033	1311/7190/07-19-93/1250/LP
01A1	01	TCLP LEAD	3.07	mg/L	1	0.099	1311/7420/07-19-93/1150/LP
01A1	01	TCLP MERCURY	0.0008	mg/L	1	0.0002	1311/7470/07-19-93/1500/LP
01A1	01	TCLP SELENIUM	0.804	mg/L	1	0.002	1311/7740/07-19-93/1345/LP
01A1	01	TCLP SILVER	<0.016	mg/L	1	0.016	1311/7760/07-19-93/1100/LP

SOLUTIONS LABORATORIES, INC.

814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(T) (804) 420-0467
(F) (804) 420-4204

REPORT OF ANALYSIS

DATE: JULY 20, 1993

SOLUTIONS ENVIRONMENTAL ASSOCIATES, INC.
814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(804) 420-0467

PROJECT NAME: FT. STORY
PROJECT NUMBER: N/A

SOLUTIONS LOG: 07131993-006-01
MATRIX: SLUDGE
DATE/TIME SAMPLED: 07/13/93; 1815

METHOD BTEX 602

CLIENT NO:	01	01	MDL*
LAB NO:	01A1, TCLP EXT	01A1, SLUDGE	N/A
SAMPLE DATE:	07/13/93	07/13/93	N/A
RECEIVED DATE:	07/13/93	07/13/93	N/A
EXTRACTION DATE:	07/15/93	N/A	N/A
ANALYSIS DATE:	07/19/93	07/19/93	N/A
INSTRUMENT ID:	HP/FID	HP/FID	HP/FID
DILUTION FACTOR:	1	1	1
UNITS:	ug/L	ug/Kg	ug/L

COMPOUNDS

BENZENE	3.50	< 2.0	0.2
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*MDL IS THE METHOD DETECTION LIMIT.

REVIEWED BY:

Dorothy S. Small
DOROTHY S. SMALL

SOLUTIONS LABORATORIES, INC.

814 B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(T) (804) 420-0467
(F) (804) 420-4204

CHAIN-OF-CUSTODY REPORT

SOLUTIONS LOG #: 07211993-002-01 THRU 14

COMPANY NAME: SOLUTIONS ENVIRONMENTAL ASSOCIATES

PROJECT MANAGER: AL DAVIS

BILLING ADDRESS: 814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320

TELEPHONE #: (804) 420-0467

FAX #: (804) 420-4204

P.O.#: N/A

DATE/TIME RECEIVED: 07/21/93; 1145

SAMPLER: A. C. DAVIS

<u>SAMPLE ID</u>	<u>FIELD SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMPLED TIME</u>	<u># OF CONT.</u>	<u>CONTAINER</u>	<u>LOCATION</u>	<u>PRESERV.</u>	<u>MATRIX</u>
01A1	721-1	07/21/93	0735	1	40 ML VOA	FT. STORY	ICE	SOIL
02A1	721-2	07/21/93	0745	1	40 ML VOA	FT. STORY	ICE	SOIL
03A1	721-3	07/21/93	0748	1	40 ML VOA	FT. STORY	ICE	SOIL
04A1	721-4	07/21/93	0758	1	40 ML VOA	FT. STORY	ICE	SOIL
05A1	721-5	07/21/93	0805	1	40 ML VOA	FT. STORY	ICE	SOIL
06A1	721-6	07/21/93	0814	1	40 ML VOA	FT. STORY	ICE	SOIL
07A1	721-7	07/21/93	0820	1	40 ML VOA	FT. STORY	ICE	SOIL
08A1	721-8	07/21/93	0822	1	40 ML VOA	FT. STORY	ICE	SOIL
09A1	721-9	07/21/93	0825	1	40 ML VOA	FT. STORY	ICE	SOIL
10A1	721-10	07/21/93	0837	1	40 ML VOA	FT. STORY	ICE	SOIL
11A1	721-11	07/21/93	0900	1	40 ML VOA	FT. STORY	ICE	SOIL
12A1	721-12	07/21/93	0914	1	40 ML VOA	FT. STORY	ICE	SOIL
13A1	721-13	07/21/93	0920	1	40 ML VOA	FT. STORY	ICE	SOIL
14A1	721-14	07/21/93	0907	1	40 ML VOA	FT. STORY	ICE	SOIL

<u>SAMPLE ID</u>	<u>ANALYSIS TO BE PERFORMED</u>	<u>DUE DATE</u>
01A1>14A1	TPH 3550/8015	07/26/93

CONDITION OF SAMPLE: GOOD

RECEIVED BY: J. DONAHUE

RELINQUISHED BY: DOROTHY S. SMALL

SOLUTIONS LABORATORIES, INC.

814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(T) (804) 420-0467
(F) (804) 420-4204

REPORT OF ANALYSIS

DATE: JULY 27, 1993

SOLUTIONS ENVIRONMENTAL ASSOCIATES, INC.
814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(804) 420-0467

PROJECT NAME: LARC, FT. STORY
PROJECT NUMBER: N/A

SOLUTIONS LOG: 07211993-002-01 THRU 14

MATRIX: SOIL

DATE/TIME SAMPLED: 07/21/93; 0735, 0745, 0748, 0758, 0805, 0814, 0820, 0822,
0825, 0837, 0900, 0914, 0920, 0907

METHOD 3550 MODIFIED 8015

CLIENT NO:	721-1	721-2	721-3	721-4	721-5
LAB NO:	01A1	02A1	03A1	04A1	05A1
SAMPLE DATE:	07/21/93	07/21/93	07/21/93	07/21/93	07/21/93
RECEIVED DATE:	07/21/93	07/21/93	07/21/93	07/21/93	07/21/93
DATE EXTRACTED:	07/21/93	07/21/93	07/21/93	07/21/93	07/21/93
ANALYSIS DATE:	07/22/93	07/22/93	07/22/93	07/22/93	07/22/93
INSTRUMENT ID:	HP/FID	HP/FID	HP/FID	HP/FID	HP/FID
DILUTION FACTOR:	0.25	0.25	0.25	0.25	0.25
UNITS:	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg

ANALYSIS

TOTAL PETROLEUM HYDROCARBONS	3.58	1.52	< 0.10	< 0.10	31.9
TYPE	M. OIL	M. OIL	N/A	N/A	M. OIL

SOLUTIONS LABORATORIES, INC.

814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(T) (804) 420-0467
(F) (804) 420-4204

REPORT OF ANALYSIS

DATE: JULY 27, 1993

SOLUTIONS ENVIRONMENTAL ASSOCIATES, INC.
814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(804) 420-0467

PROJECT NAME: LARC, FT. STORY
PROJECT NUMBER: N/A

SOLUTIONS LOG: 07211993-002-01 THRU 14

MATRIX: SOIL

DATE/TIME SAMPLED: 07/21/93; 0735, 0745, 0748, 0758, 0805, 0814, 0820, 0822,
0825, 0837, 0900, 0914, 0920, 0907

METHOD 3550 MODIFIED 8015

CLIENT NO:	721-6	721-7	721-8	721-9	721-10
LAB NO:	06A1	07A1	08A1	09A1	10A1
SAMPLE DATE:	07/21/93	07/21/93	07/21/93	07/21/93	07/21/93
RECEIVED DATE:	07/21/93	07/21/93	07/21/93	07/21/93	07/21/93
DATE EXTRACTED:	07/21/93	07/21/93	07/21/93	07/21/93	07/21/93
ANALYSIS DATE:	07/22/93	07/26/93	07/22/93	07/22/93	07/22/93
INSTRUMENT ID:	HP/FID	HP/FID	HP/FID	HP/FID	HP/FID
DILUTION FACTOR:	0.25	0.25	0.25	0.25	0.25
UNITS:	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg

ANALYSIS

TOTAL PETROLEUM HYDROCARBONS	< 0.10	< 0.10	37.6	< 0.10	< 0.10
TYPE	N/A	N/A	M. OIL	N/A	N/A

SOLUTIONS LABORATORIES, INC.

814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(T) (804) 420-0467
(F) (804) 420-4204

REPORT OF ANALYSIS

DATE: JULY 27, 1993

SOLUTIONS ENVIRONMENTAL ASSOCIATES, INC.
814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(804) 420-0467

PROJECT NAME: LARC, FT. STORY
PROJECT NUMBER: N/A

SOLUTIONS LOG: 07211993-002-01 THRU 14

MATRIX: SOIL

DATE/TIME SAMPLED: 07/21/93; 0735, 0745, 0748, 0758, 0805, 0814, 0820, 0822,
0825, 0837, 0900, 0914, 0920, 0907

METHOD 3550 MODIFIED 8015

CLIENT NO:	721-11	721-12	721-13	721-14
LAB NO:	11A1	12A1	13A1	14A1
SAMPLE DATE:	07/21/93	07/21/93	07/21/93	07/21/93
RECEIVED DATE:	07/21/93	07/21/93	07/21/93	07/21/93
DATE EXTRACTED:	07/21/93	07/21/93	07/21/93	07/21/93
ANALYSIS DATE:	07/22/93	07/22/93	07/22/93	07/22/93
INSTRUMENT ID:	HP/FID	HP/FID	HP/FID	HP/FID
DILUTION FACTOR:	0.25	0.25	0.25	0.25
UNITS:	mg/Kg	mg/Kg	mg/Kg	mg/Kg

ANALYSIS

TOTAL PETROLEUM HYDROCARBONS	90.9	14.7	1.41	< 0.10
TYPE	M. OIL	M. OIL	KEROSINE	N/A

REVIEWED BY:

Dorothy S. Small
DOROTHY S. SMALL

SOLUTIONS LABORATORIES, INC.

814 B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(T) (804) 420-0467
(F) (804) 420-4204

CHAIN-OF-CUSTODY REPORT

SOLUTIONS LOG #: 07271993-004-01 THRU 16

COMPANY NAME: SOLUTIONS ENVIRONMENTAL ASSOCIATES
PROJECT MANAGER: D. SMALL
BILLING ADDRESS: 814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
TELEPHONE #: (804) 420-0467
FAX #: (804) 420-4204
P.O.#: N/A

DATE/TIME RECEIVED: 07/27/93; 1700
SAMPLER: DOROTHY S. SMALL

SAMPLE ID	FIELD SAMPLE ID	SAMPLED DATE	SAMPLED TIME	# OF CONT.	CONTAINER	LOCATION	PRESERV.	MATRIX
01A1,A2	184-16-C-12	07/27/93	0930	2	40 ML VOA	FT. STORY	ICE	SOIL
02A1,A2	352-16-E-24	07/27/93	0935	2	40 ML VOA	FT. STORY	ICE	SOIL
03A1	531-16-B-48	07/27/93	0945	1	40 ML VOA	FT. STORY	ICE	SOIL
04A1	238-15-F-12	07/27/93	0950	1	40 ML VOA	FT. STORY	ICE	SOIL
05A1,A2	267-15-A-24	07/27/93	0956	2	40 ML VOA	FT. STORY	ICE	SOIL
06A1	393-15-A-36	07/27/93	1004	1	40 ML VOA	FT. STORY	ICE	SOIL
07A1,A2	155-14-B-12	07/27/93	1013	2	40 ML VOA	FT. STORY	ICE	SOIL
08A1,A2	350-14-E-24	07/27/93	1019	2	40 ML VOA	FT. STORY	ICE	SOIL
09A1	518-14-A-48	07/27/93	1025	1	40 ML VOA	FT. STORY	ICE	SOIL
10A1,A2	533-14-B-48	07/27/93	1030	2	40 ML VOA	FT. STORY	ICE	SOIL
11A1,A2	30-13-B-5	07/27/93	1034	2	40 ML VOA	FT. STORY	ICE	SOIL
12A1	223-13-E-12	07/27/93	1037	1	40 ML VOA	FT. STORY	ICE	SOIL
13A1,A2	475-13-E-36	07/27/93	1102	2	40 ML VOA	FT. STORY	ICE	SOIL
14A1,A2	601-13-E-38	07/27/93	1115	2	40 ML VOA	FT. STORY	ICE	SOIL
15A1	238	07/27/93	0950	1	40 ML VOA	FT. STORY	ICE	SOIL
16A1	18-D-5	07/27/93	1126	1	40 ML VOA	FT. STORY	ICE	SOIL

SAMPLE ID	ANALYSIS TO BE PERFORMED	DUE DATE
01A1>16A1	TPH 3550/8015	08/02/93

CONDITION OF SAMPLE: GOOD

RECEIVED BY: JULIE DONAHUE

RELINQUISHED BY: DOROTHY S. SMALL

SOLUTIONS LABORATORIES, INC.

814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(T) (804) 420-0467
(F) (804) 420-4204

REPORT OF ANALYSIS

DATE: AUGUST 2, 1993

SOLUTIONS ENVIRONMENTAL ASSOCIATES, INC.
814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(804) 420-0467

PROJECT NAME: LARC
PROJECT NUMBER: N/A

SOLUTIONS LOG: 07271993-004-01 THRU 16

MATRIX: SOIL

DATE/TIME SAMPLED: 07/27/93; 0930, 0935, 0945, 0950, 0956, 1004, 1013, 1019,
1025, 1030, 1034, 1037, 1102, 1115, 0950, 1126

METHOD 3550 MODIFIED 8015

CLIENT NO:	184-16-C-12	352-16-E-24	531-16-B-48	238-15-F-12	267-15-A-24
LAB NO:	01A1	02A1	03A1	04A1	05A1
SAMPLE DATE:	07/27/93	07/27/93	07/27/93	07/27/93	07/27/93
RECEIVED DATE:	07/27/93	07/27/93	07/27/93	07/27/93	07/27/93
DATE EXTRACTED:	07/27/93	07/27/93	07/27/93	07/27/93	07/27/93
ANALYSIS DATE:	07/30/93	08/02/93	07/30/93	07/30/93	07/30/93
INSTRUMENT ID:	HP/FID	HP/FID	HP/FID	HP/FID	HP/FID
DIL. FACTOR:	0.25	0.25	0.25	0.25	0.25
UNITS:	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg

ANALYSIS

TOTAL PETROLEUM HYDROCARBONS	24.0	< 0.10	< 0.10	< 0.10	< 0.10
TYPE	M. OIL	N/A	N/A	N/A	N/A

SOLUTIONS LABORATORIES, INC.

814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(T) (804) 420-0467
(F) (804) 420-4204

REPORT OF ANALYSIS

DATE: AUGUST 2, 1993

SOLUTIONS ENVIRONMENTAL ASSOCIATES, INC.
814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(804) 420-0467

PROJECT NAME: LARC
PROJECT NUMBER: N/A

SOLUTIONS LOG: 07271993-004-01 THRU 16

MATRIX: SOIL

DATE/TIME SAMPLED: 07/27/93; 0930, 0935, 0945, 0950, 0956, 1004, 1013, 1019,
1025, 1030, 1034, 1037, 1102, 1115, 0950, 1126

METHOD 3550 MODIFIED 8015

CLIENT NO:	393-15-A-36	155-14-B-12	350-14-E-24	518-14-A-48	533-14-B-48
LAB NO:	06A1	07A1	08A1	09A1	10A1
SAMPLE DATE:	07/27/93	07/27/93	07/27/93	07/27/93	07/27/93
RECEIVED DATE:	07/27/93	07/27/93	07/27/93	07/27/93	07/27/93
DATE EXTRACTED:	07/27/93	07/27/93	07/27/93	07/27/93	07/27/93
ANALYSIS DATE:	08/02/93	07/30/93	07/30/93	07/30/93	07/30/93
INSTRUMENT ID:	HP/FID	HP/FID	HP/FID	HP/FID	HP/FID
DIL. FACTOR:	0.25	0.25	0.25	0.25	0.25
UNITS:	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg

ANALYSIS

TOTAL PETROLEUM HYDROCARBONS	< 0.10	< 0.10	< 0.10	29.6	31.9
TYPE	N/A	N/A	N/A	M. OIL	M. OIL

SOLUTIONS LABORATORIES, INC.

814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(T) (804) 420-0467
(F) (804) 420-4204
REPORT OF ANALYSIS

DATE: AUGUST 2, 1993

SOLUTIONS ENVIRONMENTAL ASSOCIATES, INC.
814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(804) 420-0467

PROJECT NAME: LARC
PROJECT NUMBER: N/A

SOLUTIONS LOG: 07271993-004-01 THRU 16
MATRIX: SOIL

DATE/TIME SAMPLED: 07/27/93; 0930, 0935, 0945, 0950, 0956, 1004, 1013, 1019,
1025, 1030, 1034, 1037, 1102, 1115, 0950, 1126

METHOD 3550 MODIFIED 8015

CLIENT NO:	30-13-B-5	223-13-E-12	475-13-E-36	601-13-E-38	238
LAB NO:	11A1	12A1	13A1	14A1	15A1
SAMPLE DATE:	07/27/93	07/27/93	07/27/93	07/27/93	07/27/93
RECEIVED DATE:	07/27/93	07/27/93	07/27/93	07/27/93	07/27/93
DATE EXTRACTED:	07/27/93	07/27/93	07/27/93	07/27/93	07/27/93
ANALYSIS DATE:	07/29/93	07/29/93	07/29/93	07/29/93	07/29/93
INSTRUMENT ID:	HP/FID	HP/FID	HP/FID	HP/FID	HP/FID
DIL. FACTOR:	0.25	0.25	0.25	0.25	0.25
UNITS:	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg

ANALYSIS

TOTAL PETROLEUM HYDROCARBONS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
TYPE	N/A	N/A	N/A	N/A	N/A

SOLUTIONS LABORATORIES, INC.

814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(T) (804) 420-0467
(F) (804) 420-4204
REPORT OF ANALYSIS

DATE: AUGUST 2, 1993

SOLUTIONS ENVIRONMENTAL ASSOCIATES, INC.
814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(804) 420-0467

PROJECT NAME: LARC
PROJECT NUMBER: N/A

SOLUTIONS LOG: 07271993-004-01 THRU 16
MATRIX: SOIL

DATE/TIME SAMPLED: 07/27/93; 0930, 0935, 0945, 0950, 0956, 1004, 1013, 1019,
1025, 1030, 1034, 1037, 1102, 1115, 0950, 1126

METHOD 3550 MODIFIED 8015

CLIENT NO: 18-D-5
LAB NO: 16A1
SAMPLE DATE: 07/27/93
RECEIVED DATE: 07/27/93
DATE EXTRACTED: 07/27/93
ANALYSIS DATE: 07/29/93
INSTRUMENT ID: HP/FID
DIL. FACTOR: 0.25
UNITS: mg/Kg

ANALYSIS

TOTAL PETROLEUM
HYDROCARBONS < 0.10

TYPE N/A

REVIEWED BY:

Dorothy S. Small
DOROTHY S. SMALL

SOLUTIONS LABORATORIES, INC.

814 B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(T) (804) 420-0467
(F) (804) 420-4204

CHAIN-OF-CUSTODY REPORT

SOLUTIONS LOG #: 08231993-001-01 THRU 06

COMPANY NAME: SOLUTIONS ENVIRONMENTAL ASSOCIATES

PROJECT MANAGER: AL DAVIS

BILLING ADDRESS: 814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320

TELEPHONE #: (804) 420-0467

FAX #: (804) 420-4204

P.O.#: N/A

DATE/TIME RECEIVED: 08/23/93; 1205

SAMPLER: A. C. DAVIS

<u>SAMPLE ID</u>	<u>FIELD SAMPLE ID</u>	<u>SAMPLED DATE</u>	<u>SAMPLED TIME</u>	<u># OF CONT.</u>	<u>CONTAINER</u>	<u>LOCATION</u>	<u>PRESERV.</u>	<u>MATRIX</u>
01A1,A2	1-A-S-01	08/23/93	1027	2	4 OZ GL	FT. STORY	ICE	SOIL
02A1,A2	3-F-S-124	08/23/93	1030	2	4 OZ GL	FT. STORY	ICE	SOIL
03A1,A2	4-A-S-04	08/23/93	1025	2	4 OZ GL	FT. STORY	ICE	SOIL
04A1,A2	8-D-12-203	08/23/93	1105	2	4 OZ GL	FT. STORY	ICE	SOIL
05A1,A2	9-E-36-471	08/23/93	1058	2	4 OZ GL	FT. STORY	ICE	SOIL
06A1,A2	11-B-24-284	08/23/93	1039	2	4 OZ GL	FT. STORY	ICE	SOIL

<u>SAMPLE ID</u>	<u>ANALYSIS TO BE PERFORMED</u>	<u>DUE DATE</u>
01A1>06A1	TPH 3550/8015	08/30/93

CONDITION OF SAMPLE: GOOD

RECEIVED BY: JO ANN FEROLINO

RELINQUISHED BY: A. C. DAVIS

SOLUTIONS LABORATORIES, INC.

814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(T) (804) 420-0467
(F) (804) 420-4204

REPORT OF ANALYSIS

DATE: AUGUST 30, 1993

SOLUTIONS ENVIRONMENTAL ASSOCIATES, INC.
814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(804) 420-0467

PROJECT NAME: LARC SITE
PROJECT NUMBER: N/A

SOLUTIONS LOG: 08231993-001-01 THRU 06

MATRIX: SOIL

DATE/TIME SAMPLED: 08/23/93; 1027, 1030, 1025, 1105, 1058, 1039

METHOD 3550 MODIFIED 8015

CLIENT NO:	1-A-S-01	3-F-S-124	4-A-S-04	8-D-12-203	9-E-36-471
LAB NO:	01A1	02A1	03A1	04A1	05A1
SAMPLE DATE:	08/23/93	08/23/93	08/23/93	08/23/93	08/23/93
RECEIVED DATE:	08/23/93	08/23/93	08/23/93	08/23/93	08/23/93
DATE EXTRACTED:	08/26/93	08/26/93	08/26/93	08/26/93	08/26/93
ANALYSIS DATE:	08/27/93	08/26/93	08/26/93	08/26/93	08/26/93
INSTRUMENT ID:	HP/FID	HP/FID	HP/FID	HP/FID	HP/FID
DILUTION FACTOR:	0.25	0.25	0.25	0.25	0.25
UNITS:	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg

ANALYSIS

TOTAL PETROLEUM HYDROCARBONS	< 0.10	< 0.10	< 0.10	< 0.10	3.99
TYPE	N/A	N/A	N/A	N/A	DIESEL

SOLUTIONS LABORATORIES, INC.

814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(T) (804) 420-0467
(F) (804) 420-4204

REPORT OF ANALYSIS

DATE: AUGUST 30, 1993

SOLUTIONS ENVIRONMENTAL ASSOCIATES, INC.
814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(804) 420-0467

PROJECT NAME: LARC SITE
PROJECT NUMBER: N/A

SOLUTIONS LOG: 08231993-001-01 THRU 06
MATRIX: SOIL
DATE/TIME SAMPLED: 08/23/93; 1027, 1030, 1025, 1105, 1058, 1039

METHOD 3550 MODIFIED 8015

CLIENT NO: 11-B-24-284
LAB NO: 06A1
SAMPLE DATE: 08/23/93
RECEIVED DATE: 08/23/93
DATE EXTRACTED: 08/26/93
ANALYSIS DATE: 08/26/93
INSTRUMENT ID: HP/FID
DILUTION FACTOR: 0.25
UNITS: mg/Kg

ANALYSIS

TOTAL PETROLEUM
HYDROCARBONS 12.7
TYPE M. OIL

REVIEWED BY:

Dorothy S. Small
DOROTHY S. SMALL

SOLUTION'S LOG #

0823, 93-001

Solutions Laboratories, Inc.
814-B Greenbrier Circle
Chesapeake, VA 23320
(804) 420-0467/Fax 420-4204

**CHAIN-OF-CUSTODY RECORD
AND ANALYSIS REQUEST**

COMPANY NAME:

SOLUTIONS ENV.

ANALYSIS REQUEST

PROJECT MANAGER:

AL DAVIS

PHONE:

P.O#

ADDRESS (Office)

844-B GREENBRIER

SITE LOCATION:

FT. STORY, VA.

PROJECT NUMBER:

PROJECT NAME:

LARC SITE

I attest that the proper field sampling procedures were used during the collection of these samples. **Sampler's Signature:**

A.C. Davis

FIELD ID	SOURCE OF SAMPLE	SOL LAB#	# Containers	Container Size/Type	MATRIX						PRESERVATION						SAMPLING	
					Water	Soil	Air	Sludge	Liquid	Other	HCl	HNO3	H2SO4	NaOH	Ice	None	Other	Date
1-A-S	01	01	2	40ZGL	✓												8/23/93	1027
3-F-S	124	62	2		✓													1020
4-A-S	04	03	2		✓													1025
8-D-12	203	04	2		✓													1105
9-E-36	471	05	2		✓													1058
11-B-24	284	06	2	✓	✓													1039

TPH GC HS <input type="checkbox"/>	3550 <input type="checkbox"/>	5030 <input type="checkbox"/>	FF <input type="checkbox"/>	A1
Oil & Grease 503 B&D <input type="checkbox"/>	TPH 418.1 <input type="checkbox"/>			
BTEX only 602 <input type="checkbox"/>	8020 <input type="checkbox"/>	MTBE <input type="checkbox"/>		
EPA 602 <input type="checkbox"/>	8020 <input type="checkbox"/>			
EPA 601 <input type="checkbox"/>	8010 <input type="checkbox"/>			
EPA 608 <input type="checkbox"/>	8080 <input type="checkbox"/>	PCBs <input type="checkbox"/>		
EPA 615 <input type="checkbox"/>	8150 <input type="checkbox"/>			
TCLP Metals <input type="checkbox"/>	VOA <input type="checkbox"/>	Semi VOA <input type="checkbox"/>		
Silver <input type="checkbox"/>	Metals <input type="checkbox"/>			
Lead FLAA <input type="checkbox"/>	GFAA <input type="checkbox"/>			
Corr <input type="checkbox"/>	Flash <input type="checkbox"/>	React <input type="checkbox"/>		
Phenols <input type="checkbox"/>	Cyanide <input type="checkbox"/>			
Ammonia <input type="checkbox"/>	TKN <input type="checkbox"/>	Tot P <input type="checkbox"/>		
BOD <input type="checkbox"/>	COD <input type="checkbox"/>	TOC <input type="checkbox"/>		

RELINQUISHED BY SAMPLER: DATE: TIME: RECEIVED BY:

RELINQUISHED BY: DATE: TIME: RECEIVED BY:

RELINQUISHED BY: *A.C. Davis* DATE: 8/23/93 TIME: 1205 RECEIVED BY: *[Signature]*

REMARKS/SPECIAL DETECTION LIMITS:

SPECIAL REPORT REQUIREMENTS:

FAX _____

CONTAINER TYPE KEY: GL=GLASS AM=AMBER PL=PLASTIC WM=WIDEMOUTH
VOA= VOLATILE ORGANIC CONTAINER L=LITER 500=500 ML 250=250ML

SPECIAL HANDLING: EXPEDITED 72 HR 48 HR 24 HR 12 HR
8 HR 4 HR HR
- 3 DAYS -

SOLUTIONS LABORATORIES, INC.

814 B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(T) (804) 420-0467
(F) (804) 420-4204

CHAIN-OF-CUSTODY REPORT

SOLUTIONS LOG #: 08031993-003-01 THRU 32

COMPANY NAME: SOLUTIONS ENVIRONMENTAL ASSOCIATES

PROJECT MANAGER: AL DAVIS

BILLING ADDRESS: 814-A GREENBRIER CIRCLE

CHESAPEAKE, VA 23320

TELEPHONE #: (804) 420-0467

FAX #: (804) 420-4204

P.O.#: N/A

DATE/TIME RECEIVED: 08/03/93; 1545

SAMPLER: DOROTHY S. SMALL

SAMPLE ID	FIELD SAMPLE ID	SAMPLED DATE	SAMPLED TIME	# OF CONT.	CONTAINER	LOCATION	PRESERV.	MATRIX
01A1	12-A-24	08/03/93	1035	1	40 ML VOA	FT. STORY	NONE	SOIL
02A1	11-C-S	08/03/93	1040	1	40 ML VOA	FT. STORY	NONE	SOIL
03A1	11-E-S	08/03/93	1043	1	40 ML VOA	FT. STORY	NONE	SOIL
04A1	11-F-S	08/03/93	1045	1	40 ML VOA	FT. STORY	NONE	SOIL
05A1	11-B-24	08/03/93	1050	1	40 ML VOA	FT. STORY	NONE	SOIL
06A1	10-C-12	08/03/93	1055	1	40 ML VOA	FT. STORY	NONE	SOIL
07A1	10-E-36	08/03/93	1100	1	40 ML VOA	FT. STORY	NONE	SOIL
08A1	9-A-12	08/03/93	1104	1	40 ML VOA	FT. STORY	NONE	SOIL
09A1	9-B-24	08/03/93	1120	1	40 ML VOA	FT. STORY	NONE	SOIL
10A1	9-E-36	08/03/93	1128	1	40 ML VOA	FT. STORY	NONE	SOIL
11A1	9-F-36	08/03/93	1133	1	40 ML VOA	FT. STORY	NONE	SOIL
12A1	8-A-S	08/03/93	1140	1	40 ML VOA	FT. STORY	NONE	SOIL
13A1	8-A-12	08/03/93	1150	1	40 ML VOA	FT. STORY	NONE	SOIL
14A1	8-B-12	08/03/93	1145	1	40 ML VOA	FT. STORY	NONE	SOIL
15A1	8-D-12	08/03/93	1155	1	40 ML VOA	FT. STORY	NONE	SOIL
16A1	7-E-48	08/03/93	1205	1	40 ML VOA	FT. STORY	NONE	SOIL
17A1	6-B-12	08/03/93	1210	1	40 ML VOA	FT. STORY	NONE	SOIL
18A1	6-F-12	08/03/93	1215	1	40 ML VOA	FT. STORY	NONE	SOIL
19A1	5-F-48	08/03/93	1220	1	40 ML VOA	FT. STORY	NONE	SOIL
20A1	4-A-S	08/03/93	1225	1	40 ML VOA	FT. STORY	NONE	SOIL
21A1	4-D-S	08/03/93	1230	1	40 ML VOA	FT. STORY	NONE	SOIL
22A1	4-D-12	08/03/93	1235	1	40 ML VOA	FT. STORY	NONE	SOIL
23A1	4-D-48	08/03/93	1240	1	40 ML VOA	FT. STORY	NONE	SOIL
24A1	3-C-S	08/03/93	1242	1	40 ML VOA	FT. STORY	NONE	SOIL
25A1	3-F-S	08/03/93	1245	1	40 ML VOA	FT. STORY	NONE	SOIL
26A1	3-A-24	08/03/93	1250	1	40 ML VOA	FT. STORY	NONE	SOIL
27A1	3-E-24	08/03/93	1255	1	40 ML VOA	FT. STORY	NONE	SOIL
28A1	2-A-S	08/03/93	1300	1	40 ML VOA	FT. STORY	NONE	SOIL
29A1	2-D-S	08/03/93	1303	1	40 ML VOA	FT. STORY	NONE	SOIL
30A1	1-A-S	08/03/93	1310	1	40 ML VOA	FT. STORY	NONE	SOIL
31A1	595	08/03/93	1205	1	40 ML VOA	FT. STORY	NONE	SOIL
32A1	505	08/03/93	1310	1	40 ML VOA	FT. STORY	NONE	SOIL

SAMPLE ID	ANALYSIS TO BE PERFORMED	DUE DATE
01A1>32A1	TPH 3550/8015	08/10/93

CONDITION OF SAMPLE: NOT PRESERVED

RECEIVED BY: JO ANN FEROLINO

RELINQUISHED BY: DOROTHY S. SMALL

SOLUTIONS LABORATORIES, INC.

814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(T) (804) 420-0467
(F) (804) 420-4204

REPORT OF ANALYSIS

DATE: AUGUST 11, 1993

SOLUTIONS ENVIRONMENTAL ASSOCIATES, INC.
814-A GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(804) 420-0467

PROJECT NAME: CLOSE OUT GRID
PROJECT NUMBER: N/A

SOLUTIONS LOG: 08031993-003-01 THRU 32
MATRIX: SOIL

DATE/TIME SAMPLED: 08/03/93; 1035, 1040, 1043, 1045, 1050, 1055, 1100, 1104,
1120, 1128, 1113, 1140, 1150, 1145, 1155, 1205, 1210, 1215,
1220, 1225, 1230, 1235, 1240, 1242, 1245, 1250, 1255, 1300,
1303, 1310, 1205, 1310

METHOD 3550 MODIFIED 8015

CLIENT NO:	12-A-24	11-C-S	11-E-S	11-F-S	11-B-24
LAB NO:	01A1	02A1	03A1	04A1	05A1
SAMPLE DATE:	08/03/93	08/03/93	08/03/93	08/03/93	08/03/93
RECEIVED DATE:	08/03/93	08/03/93	08/03/93	08/03/93	08/03/93
DATE EXTRACTED:	08/04/93	08/04/93	08/04/93	08/04/93	08/04/93
ANALYSIS DATE:	08/06/93	08/06/93	08/05/93	08/06/93	08/06/93
INSTRUMENT ID:	HP/FID	HP/FID	HP/FID	HP/FID	HP/FID
DILUTION FACTOR:	0.25	0.25	0.25	0.25	0.25
UNITS:	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg

ANALYSIS

TOTAL PETROLEUM HYDROCARBONS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
TYPE	N/A	N/A	N/A	N/A	N/A

SOLUTIONS LABORATORIES, INC.

814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(T) (804) 420-0467
(F) (804) 420-4204

REPORT OF ANALYSIS

DATE: AUGUST 11, 1993

SOLUTIONS ENVIRONMENTAL ASSOCIATES, INC.
814-A GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(804) 420-0467

PROJECT NAME: CLOSE OUT GRID
PROJECT NUMBER: N/A

SOLUTIONS LOG: 08031993-003-01 THRU 32
MATRIX: SOIL

DATE/TIME SAMPLED: 08/03/93; 1035, 1040, 1043, 1045, 1050, 1055, 1100, 1104,
1120, 1128, 1113, 1140, 1150, 1145, 1155, 1205, 1210, 1215,
1220, 1225, 1230, 1235, 1240, 1242, 1245, 1250, 1255, 1300,
1303, 1310, 1205, 1310

METHOD 3550 MODIFIED 8015

CLIENT NO:	10-C-12	10-E-36	9-A-12	9-B-24	9-E-36
LAB NO:	06A1	07A1	08A1	09A1	10A1
SAMPLE DATE:	08/03/93	08/03/93	08/03/93	08/03/93	08/03/93
RECEIVED DATE:	08/03/93	08/03/93	08/03/93	08/03/93	08/03/93
DATE EXTRACTED:	08/04/93	08/04/93	08/04/93	08/04/93	08/04/93
ANALYSIS DATE:	08/06/93	08/08/93	08/05/93	08/06/93	08/08/93
INSTRUMENT ID:	HP/FID	HP/FID	HP/FID	HP/FID	HP/FID
DILUTION FACTOR:	0.25	0.25	0.25	0.25	0.25
UNITS:	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg

ANALYSIS

TOTAL PETROLEUM HYDROCARBONS	< 0.10		< 0.10	< 0.10	
DIESEL		1.44			3.69
MOTOR OIL		36.7			14.4
TYPE	N/A		N/A	N/A	

SOLUTIONS LABORATORIES, INC.

814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(T) (804) 420-0467
(F) (804) 420-4204

REPORT OF ANALYSIS

DATE: AUGUST 11, 1993

SOLUTIONS ENVIRONMENTAL ASSOCIATES, INC.
814-A GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(804) 420-0467

PROJECT NAME: CLOSE OUT GRID
PROJECT NUMBER: N/A

SOLUTIONS LOG: 08031993-003-01 THRU 32
MATRIX: SOIL

DATE/TIME SAMPLED: 08/03/93; 1035, 1040, 1043, 1045, 1050, 1055, 1100, 1104,
1120, 1128, 1113, 1140, 1150, 1145, 1155, 1205, 1210, 1215,
1220, 1225, 1230, 1235, 1240, 1242, 1245, 1250, 1255, 1300,
1303, 1310, 1205, 1310

METHOD 3550 MODIFIED 8015

CLIENT NO:	9-F-36	8-A-S	8-A-12	8-B-12	8-D-12
LAB NO:	11A1	12A1	13A1	14A1	15A1
SAMPLE DATE:	08/03/93	08/03/93	08/03/93	08/03/93	08/03/93
RECEIVED DATE:	08/03/93	08/03/93	08/03/93	08/03/93	08/03/93
DATE EXTRACTED:	08/04/93	08/04/93	08/04/93	08/04/93	08/04/93
ANALYSIS DATE:	08/08/93	08/06/93	08/07/93	08/07/93	08/05/93
INSTRUMENT ID:	HP/FID	HP/FID	HP/FID	HP/FID	HP/FID
DILUTION FACTOR:	0.25	0.25	0.25	0.25	0.25
UNITS:	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg

ANALYSIS

TOTAL PETROLEUM HYDROCARBONS		< 0.10			< 0.10
DIESEL	2.56			0.64	
MOTOR OIL	86.8		16.3	21.5	
TYPE		N/A			N/A

SOLUTIONS LABORATORIES, INC.

814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(T) (804) 420-0467
(F) (804) 420-4204

REPORT OF ANALYSIS

DATE: AUGUST 11, 1993

SOLUTIONS ENVIRONMENTAL ASSOCIATES, INC.
814-A GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(804) 420-0467

PROJECT NAME: CLOSE OUT GRID
PROJECT NUMBER: N/A

SOLUTIONS LOG: 08031993-003-01 THRU 32
MATRIX: SOIL

DATE/TIME SAMPLED: 08/03/93; 1035, 1040, 1043, 1045, 1050, 1055, 1100, 1104,
1120, 1128, 1113, 1140, 1150, 1145, 1155, 1205, 1210, 1215,
1220, 1225, 1230, 1235, 1240, 1242, 1245, 1250, 1255, 1300,
1303, 1310, 1205, 1310

METHOD 3550 MODIFIED 8015

CLIENT NO:	7-E-48	6-B-12	6-F-12	5-F-48	4-A-S
LAB NO:	16A1	17A1	18A1	19A1	20A1
SAMPLE DATE:	08/03/93	08/03/93	08/03/93	08/03/93	08/03/93
RECEIVED DATE:	08/03/93	08/03/93	08/03/93	08/03/93	08/03/93
DATE EXTRACTED:	08/09/93	08/09/93	08/04/93	08/04/93	08/04/93
ANALYSIS DATE:	08/10/93	08/10/93	08/08/93	08/07/93	08/05/93
INSTRUMENT ID:	HP/FID	HP/FID	HP/FID	HP/FID	HP/FID
DILUTION FACTOR:	0.25	0.25	0.25	0.25	0.25
UNITS:	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg

ANALYSIS

TOTAL PETROLEUM HYDROCARBONS			16.8	< 0.10	< 0.10
DIESEL	5.67	2.34			
MOTOR OIL	62.8	32.5			
TYPE			DIESEL/M.OIL	N/A	N/A

SOLUTIONS LABORATORIES, INC.

814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(T) (804) 420-0467
(F) (804) 420-4204

REPORT OF ANALYSIS

DATE: AUGUST 11, 1993

SOLUTIONS ENVIRONMENTAL ASSOCIATES, INC.
814-A GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(804) 420-0467

PROJECT NAME: CLOSE OUT GRID
PROJECT NUMBER: N/A

SOLUTIONS LOG: 08031993-003-01 THRU 32
MATRIX: SOIL

DATE/TIME SAMPLED: 08/03/93; 1035, 1040, 1043, 1045, 1050, 1055, 1100, 1104,
1120, 1128, 1113, 1140, 1150, 1145, 1155, 1205, 1210, 1215,
1220, 1225, 1230, 1235, 1240, 1242, 1245, 1250, 1255, 1300,
1303, 1310, 1205, 1310

METHOD 3550 MODIFIED 8015

CLIENT NO:	4-D-S	4-D-12	4-D-48	3-C-S	3-F-S
LAB NO:	21A1	22A1	23A1	24A1	25A1
SAMPLE DATE:	08/03/93	08/03/93	08/03/93	08/03/93	08/03/93
RECEIVED DATE:	08/03/93	08/03/93	08/03/93	08/03/93	08/03/93
DATE EXTRACTED:	08/04/93	08/04/93	08/04/93	08/04/93	08/04/93
ANALYSIS DATE:	08/06/93	08/07/93	08/05/93	08/05/93	08/05/93
INSTRUMENT ID:	HP/FID	HP/FID	HP/FID	HP/FID	HP/FID
DILUTION FACTOR:	0.25	0.25	0.25	0.25	0.25
UNITS:	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg

ANALYSIS

TOTAL PETROLEUM HYDROCARBONS			< 0.10	< 0.10	< 0.10
DIESEL		8.63			
MOTOR OIL	28.3	9.06			
TYPE			N/A	N/A	N/A

SOLUTIONS LABORATORIES, INC.

814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(T) (804) 420-0467
(F) (804) 420-4204

REPORT OF ANALYSIS

DATE: AUGUST 11, 1993

SOLUTIONS ENVIRONMENTAL ASSOCIATES, INC.
814-A GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(804) 420-0467

PROJECT NAME: CLOSE OUT GRID
PROJECT NUMBER: N/A

SOLUTIONS LOG: 08031993-003-01 THRU 32
MATRIX: SOIL

DATE/TIME SAMPLED: 08/03/93; 1035, 1040, 1043, 1045, 1050, 1055, 1100, 1104,
1120, 1128, 1113, 1140, 1150, 1145, 1155, 1205, 1210, 1215,
1220, 1225, 1230, 1235, 1240, 1242, 1245, 1250, 1255, 1300,
1303, 1310, 1205, 1310

METHOD 3550 MODIFIED 8015

CLIENT NO:	3-A-24	3-E-24	2-A-S	2-D-S	1-A-S
LAB NO:	26A1	27A1	28A1	29A1	30A1
SAMPLE DATE:	08/03/93	08/03/93	08/03/93	08/03/93	08/03/93
RECEIVED DATE:	08/03/93	08/03/93	08/03/93	08/03/93	08/03/93
DATE EXTRACTED:	08/09/93	08/09/93	08/04/93	08/09/93	08/04/93
ANALYSIS DATE:	08/11/93	08/10/93	08/05/93	08/11/93	08/05/93
INSTRUMENT ID:	HP/FID	HP/FID	HP/FID	HP/FID	HP/FID
DILUTION FACTOR:	0.25	0.25	0.25	0.25	0.25
UNITS:	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg

ANALYSIS

TOTAL PETROLEUM HYDROCARBONS			< 0.10	22.7	
DIESEL	121	57.4			
MOTOR OIL	3.85				42.9
TYPE			N/A	DIESEL/M.OIL	

SOLUTIONS LABORATORIES, INC.

814-B GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(T) (804) 420-0467
(F) (804) 420-4204

REPORT OF ANALYSIS

DATE: AUGUST 11, 1993

SOLUTIONS ENVIRONMENTAL ASSOCIATES, INC.
814-A GREENBRIER CIRCLE
CHESAPEAKE, VA 23320
(804) 420-0467

PROJECT NAME: CLOSE OUT GRID
PROJECT NUMBER: N/A

SOLUTIONS LOG: 08031993-003-01 THRU 32

MATRIX: SOIL

DATE/TIME SAMPLED: 08/03/93; 1035, 1040, 1043, 1045, 1050, 1055, 1100, 1104,
1120, 1128, 1113, 1140, 1150, 1145, 1155, 1205, 1210, 1215,
1220, 1225, 1230, 1235, 1240, 1242, 1245, 1250, 1255, 1300,
1303, 1310, 1205, 1310

METHOD 3550 MODIFIED 8015

CLIENT NO:	595	505
LAB NO:	31A1	32A1
SAMPLE DATE:	08/03/93	08/03/93
RECEIVED DATE:	08/03/93	08/03/93
DATE EXTRACTED:	08/09/93	08/04/93
ANALYSIS DATE:	08/10/93	08/05/93
INSTRUMENT ID:	HP/FID	HP/FID
DILUTION FACTOR:	0.25	0.25
UNITS:	mg/Kg	mg/Kg

ANALYSIS

TOTAL PETROLEUM HYDROCARBONS		< 0.10
DIESEL	4.37	
MOTOR OIL	41.6	
TYPE		N/A

REVIEWED BY:

Dorothy S Small, P

DOROTHY S. SMALL

SOLUTION'S LOG #
08031.3.003
COMPANY NAME:
SOLUTIONS ENVIRONMENTAL ASSOCIATES, INC.

Solutions Laboratories, Inc.
814-B Greenbrier Circle
Chesapeake, VA 23320
(804) 420-0467/Fax 420-4204

CHAIN-OF-CUSTODY RECORD
AND ANALYSIS REQUEST

Page 3 of 4

ANALYSIS REQUEST

PROJECT MANAGER: AL Davis
PHONE: P.O.#

ADDRESS (Office): 814 B Greenbrier Cir. Ches VA FT. STORY
SITE LOCATION:

PROJECT NUMBER: PROJECT NAME: Close Out Grid

I Attest that the proper field sampling procedures were used during the collection of these samples. Sampler's Signature: David Small

FIELD ID	SOURCE OF SAMPLE	SOL LAB#	# Containers	Container Size/Type	MATRIX							PRESERVATION						SAMPLING	
					Water	Soil	Air	Sludge	Liquid	Other	HCl	HNO3	H2SO4	NaOH	Ice	None	Other	Date	Time
4-D-S		21	1	40ml VOA	✓													8/3/93	1230
4-D-12		22	1		✓														1235
4-D-4B		23	1		✓														1240
3-C-S		24	1		✓														1242
3-F-S		25	1		✓														1245
3-A-24		26	1		✓														1250
3-E-24		27	1		✓														1255
2-A-S		28	1		✓														1300
2-D-S		29	1		✓														1303
1-A-S		30	1		✓														1310

TPH GC HS <input type="checkbox"/>	3550 <input checked="" type="checkbox"/>	5030 <input type="checkbox"/>	FF <input type="checkbox"/>
Oil & Grease 503 B&D <input type="checkbox"/>	TPH 418.1 <input type="checkbox"/>		
BTEX only 602 <input type="checkbox"/>	8020 <input type="checkbox"/>	MTBE <input type="checkbox"/>	
EPA 602 <input type="checkbox"/>	8020 <input type="checkbox"/>		
EPA 601 <input type="checkbox"/>	8010 <input type="checkbox"/>		
EPA 608 <input type="checkbox"/>	8080 <input type="checkbox"/>	PCBs <input type="checkbox"/>	
EPA 615 <input type="checkbox"/>	8150 <input type="checkbox"/>		
TCLP Metals <input type="checkbox"/>	VOA <input type="checkbox"/>	Semi VOA <input type="checkbox"/>	
Silver <input type="checkbox"/>	Metals <input type="checkbox"/>		
Lead FLAA <input type="checkbox"/>	GFAA <input type="checkbox"/>		
Corr <input type="checkbox"/>	Flash <input type="checkbox"/>	React <input type="checkbox"/>	
Phenols <input type="checkbox"/>	Cyanide <input type="checkbox"/>		
Ammonia <input type="checkbox"/>	TKN <input type="checkbox"/>	Tot P <input type="checkbox"/>	
BOD <input type="checkbox"/>	COD <input type="checkbox"/>	TOC <input type="checkbox"/>	

RELINQUISHED BY SAMPLER: DATE: TIME: RECEIVED BY:
 RELINQUISHED BY: DATE: TIME: RECEIVED BY:
 RELINQUISHED BY: DATE: TIME: RECEIVED BY:

REMARKS/SPECIAL DETECTION LIMITS:
 SPECIAL REPORT REQUIREMENTS:
 FAX _____

CONTAINER TYPE KEY: GL=GLASS AM=AMBER PL=PLASTIC WM=WIDEMOUTH
 VOA= VOLATILE ORGANIC CONTAINER L=LITER 500=500 ML 250=250ML

SPECIAL HANDLING: EXPEDITED 72 HR 48 HR 24 HR 12 HR
 8 HR 4 HR HR

CHAIN-OF-CUSTODY RECORDS

Project Name/No. 1 Mt. Stord
 Sample Team Members 2 Randy Hock
 Profit Center No. 3 3511
 Project Manager 4 Tom Mathison
 Purchase Order No. 6
 Required Report Date 11 10/15/93

Samples Shipment Date 7 10/13/93
 Lab Destination 8 Austin, Texas
 Lab Contact 9 HAL
 Project Contact/Phone 12 Tom Mathison
 Carrier/Waybill No. 13

Bill to: 5 FT Corp
2700 Mossy Blud.
Mourkoeville PA.
ATTN: Tom Mathison
 Report to: 10 Tom Mathison
1-800-444-9596

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
E-16-477	SAND/soil	10/13 1100	10A- 250ml	Soil	None	Kerosine	Rec 900 Sec Rec 10-14-93 1c	
C-15-435		10/13 1110					FOR LAB USE ONLY	
D-14-449		10/13 1120						
C-13-433		10/13 1130						
E-12-474		10/13 1135						
C-10-430		10/13 1140						
E-7-469		10/13 1153						
C-6-426		10/13 1200						

COPY

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: _____
 Time: _____

1. Received by 28
 (Signature/Affiliation) Date: 10-14-93
 Time: 0857

2. Relinquished by
 (Signature/Affiliation) _____ Date: _____
 Time: _____

2. Received by
 (Signature/Affiliation) _____ Date: _____
 Time: _____

3. Relinquished by
 (Signature/Affiliation) _____ Date: _____
 Time: _____

3. Received by
 (Signature/Affiliation) _____ Date: _____
 Time: _____

Comments: 29

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



ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD *

0310161

Reference Document N 416513
Page 1 of 1

Project Name/No. 1 Ft. Story
Sample Team Members 2 Randy Hook
Profit Center No. 3 3511
Project Manager 4 Tom Mathison
Purchase Order No. 6
Required Report Date 11 10/15/93

Samples Shipment Date 7 10/13/93
Lab Destination 8 Austin, Texas
Lab Contact 9
Project Contact/Phone 12
Carrier/Waybill No. 13

Bill to: 5 IT Corp
2790 Mosside Blvd.
Monroeville, PA
Attn: Tom Mathison
Report to: 10 Tom Mathison
IT Corp

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
E-16-352	Sand/soil	10/13 0830	Clear 250ml	Filled sand	NONE	Kerosene	Rel 900, 1 st See RVR 10-14-93	
C-16-310		10/13 0940	250ml	SAND	NONE		FOR LAB USE ONLY	
C-14-308		10/13 0940	350ml	SAND				
E-13-349		10/13 0940	250ml					
D-12-325		10/13 0940	250ml					
E-11-347		10/13 0955						
C-10-394		10/13 0955						
D-6-331		10/13 1030						

COPY

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) Rouie Bernath Date: 10/13/93
Time: 1300

1. Received by ²⁸
(Signature/Affiliation) [Signature] Date: 10-14-93
Time: 0857

2. Relinquished by
(Signature/Affiliation) Date: _____
Time: _____

2. Received by
(Signature/Affiliation) Date: _____
Time: _____

3. Relinquished by
(Signature/Affiliation) Date: _____
Time: _____

3. Received by
(Signature/Affiliation) Date: _____
Time: _____

Comments: ²⁹

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



ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. **158294**
Page 1 of 2

Project Name/No. 1 Fort Story 519028 Samples Shipment Date 7 3-22-94
 Sample Team Members 2 Demarco/Bernardo Lab Destination 8 IT Export
 Profit Center No. 3 3511 Lab Contact 9 Carrie Smith
 Project Manager 4 Tom Mathison Project Contact/Phone 12 Tom Mathison (412) 372-7701
 Purchase Order No. 6 519029 Carrier/Waybill No. 13 9710126193
 Required Report Date 11 N TAT

Bill to: 5 Tom Mathison
IT Corp
2790 Mosside Blvd
Monroeville Pa 15146
 Report to: 10 Tom Mathison
IT Corp
2790 Mosside Blvd
Monroeville Pa 15146

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
DIA-032294	Soil	3-22-94 8:00	Amber glass	(3) 60ml	ice 40	8015	FOR LAB USE ONLY	
DIA-032294	Soil	3-22-94 8:00	Amber glass	250ml	ice 40	418.1		
H3A-032294	Soil	3-22-94 8:10	Amber glass	60ml	ice 40	8015		
H3C-032294	Soil	3-22-94 8:10	Amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	
H5E-032294	Soil	3-22-94 8:20	Amber glass	(3) 60ml	ice 40	8015		
H5E-032294	Soil	3-22-94 8:20	Amber glass	250ml	ice 40	418.1		
40B-032294	Soil	3-22-94 8:30	Amber glass	(3) 60ml	ice 40	8015		
40B-032294	Soil	3-22-94 8:30	Amber glass	250ml	ice 40	418.1		

COPY

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 10 days

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

1. Relinquished by ²⁸
 (Signature/Affiliation) _____ Date: _____ Time: _____
 2. Relinquished by _____ Date: 3/22/94 Time: 4:50
 3. Relinquished by _____ Date: _____ Time: _____

1. Received by ²⁸
 (Signature/Affiliation) _____ Date: _____ Time: _____
 2. Received by _____ Date: _____ Time: _____
 3. Received by _____ Date: _____ Time: _____

Comments: ²⁹

* See back of form for special instructions.



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

Reference Document No. 30 53294
Page 2 of 2

Project Name Fort Story

Project No. 519029

Samples Shipment Date 3/27/94

ONE CONTAINER PER LINE

Sample 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.
124F-032294	Soil	3-22-94 8:40	Amber glass	(3) 60ml	ice 40	8015		
124F-032294	Soil	3-22-94 8:40	Amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	
82D-032294	Soil	3-22-94 8:50	Amber glass	(3) 60ml	ice 40	8015		
82D-032294	Soil	3-22-94 8:50	Amber glass	(3) 250ml	ice 40	418.1	FOR LAB USE ONLY	
82DDUP-032294	Soil	3-22-94 9:10	Amber glass	(3) 60ml	ice 40	8015		
82DDUP-032294	Soil	3-22-94 9:10	Amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	
124F-032294	Soil	3-22-94 9:20	Amber glass	(3) 60ml	ice 40	8015	FOR LAB USE ONLY	
124F-032294	Soil	3-22-94 9:20	Amber glass	(3) 60ml	ice 40	418.1	FOR LAB USE ONLY	
05A-032294	Soil	3-22-94 9:30	Amber glass	(3) 60ml	ice 40	8015	FOR LAB USE ONLY	
05A-032294	Soil	3-22-94 9:30	Amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	
47C-032294	Soil	3-22-94 9:45	Amber glass	(3) 60ml	ice 40	8015		
47C-032294	Soil	3-22-94 9:45	Amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	
VOID	Soil		Amber glass	(3) 60ml	ice 40	8015		
VOID	Soil		Amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	
VOID	Soil		Amber glass	(3) 60ml	ice 40	8015		
VOID	Soil		Amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	
VOID	Soil		Amber glass	(3) 60ml	ice 40	8015		
VOID	Soil		Amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	
VOID	Soil		Amber glass	(3) 60ml	ice 40	8015		
VOID	Soil		Amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	

COPY

White: To accompany samples
Yellow: Field copy

*See back of form for special instructions.



ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document N 417552
Page 1 of 1

Project Name/No. Fort Story 519029
Sample Team Members Demarco/Bernardo
Profit Center No. 3 3511
Project Manager Tom Mathison
Purchase Order No. 6 519029
Required Report Date 11

Samples Shipment Date 7 3-22-94
Lab Destination 8 MRD Lab
Lab Contact 9
Project Contact/Phone Tom Mathison (412) 372-7701
Carrier/Waybill No. 13 9626951972

Bill to: 5 Tom Mathison IT Corp
2790 Mosside Blvd
Monroeville Pa 15146
Report to: 10 Tom Mathison
IT Corp
2790 Mosside Blvd
Monroeville PA 15146

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
082D-032294	soil	3-22-94 9:00	amber glass	(3) 60ml	ice 4°	8015	FOR LAB USE ONLY	
082D-032294	soil	3-22-94 9:00	amber glass	250ml	ice 4°	418.1		
30D-032294	soil	3-22-94 10:55	amber glass	60ml	ice 4°	8015		
30D-032294	soil	3-22-94 10:55	amber glass	250ml	ice 4°	418.1		
							FOR LAB USE ONLY	

COPY

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) <u>Tom Bernardo</u>	Date: <u>3/22/94</u> Time: <u>4:20</u>	1. Received by ²⁸ (Signature/Affiliation)	Date: _____ Time: _____
2. Relinquished by (Signature/Affiliation)	Date: _____ Time: _____	2. Received by (Signature/Affiliation)	Date: _____ Time: _____
3. Relinquished by (Signature/Affiliation)	Date: _____ Time: _____	3. Received by (Signature/Affiliation)	Date: _____ Time: _____

Comments: ²⁹

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



ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD *

Reference Document N 453295
Page 1 of 2

Project Name/No. 1st Story 519029 Samples Shipment Date 7 3-22-94
 Sample Team Members 2 Demarco / Bernardo Lab Destination 8 IT Export
 Profit Center No. 3 3511 Lab Contact 9 Carrie Smith
 Project Manager 4 Tom Mathison Project Contact/Phone 10 Tom Mathison (412) 372-7701
 Purchase Order No. 6 519029 Carrier/Waybill No. 13
 Required Report Date 11

Bill to: 5 Tom Mathison
IT Corp
2790 Mosside Blvd.
Monroeville Pa 15146
 Report to: 10 Tom Mathison
IT Corp
2790 Mosside Blvd.
Monroeville Pa 15146

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
20A-032294	soil	12:15 3-22-94	amber glass	3) 60ml	ice 4°	8015	FOR LAB USE ONLY	
20A-032294	soil	12:15 3-22-94	amber glass	250ml	ice 4°	418.1		
67D-032294	soil	12:00 3-22-94	amber glass	60ml	ice 4°	8015		
67D-032294	soil	12:00 3-22-94	amber glass	250ml	ice 4°	418.1		
25B-032294	soil	11:55 3-22-94	amber glass	3) 60ml	ice 4°	8015	FOR LAB USE ONLY	
25B-032294	soil	11:56 3-22-94	amber glass	250ml	ice 4°	418.1		
64D-032294	soil	12:25 3-22-94	amber glass	3) 60ml	ice 4°	8015		
64D-032294	soil	12:25 3-22-94	amber glass	250ml	ice 4°	418.1		

COPY

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 10 days

QC Level: 27

I. II. III. Project Specific (specify): _____

1. Relinquished by 28

(Signature/Affiliation) [Signature]

Date: 3/22/94
Time: 4:36

1. Received by 28
(Signature/Affiliation)

Date: _____
Time: _____

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

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



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

Project Name Fort Story

Project No. 519029

Samples Shipment Date _____

ONE CONTAINER PER LINE

Sample Number	Sample Description/Type	Date/Time Collected	Container Type	Sample Volume	Preservative	Requested Testing Program	Condition on Receipt	Disposal Record No.
22B-032294	Soil	12:15 3-22-94	amber glass	(3) 60ml	ice 4°	8015		
22B-032294	Soil	12:15 3-22-94	amber glass	250 ml	ice 4°	418.1	FOR LAB USE ONLY	
22C-032294	Soil	10:35 3-22-94	amber glass	(3) 60ml	ice 4°	8015		
22C-032294	Soil	10:35 3-22-94	amber glass	250 ml	ice 4°	418.1	FOR LAB USE ONLY	
06F-032294	Soil	12:25 3-22-94	amber glass	(3) 60ml	ice 4°	8015		
106F-032294	Soil	12:25 3-22-94	amber glass	250ml	ice 4°	418.1		
104E-032294	Soil	11:55 3-22-94	amber glass	(3) 60ml	ice 4°	8015	FOR LAB USE ONLY	
104E-032294	Soil	11:55 3-22-94	amber glass	250ml	ice 4°	418.1		
109F-032294	Soil	12:10 3-22-94	amber glass	(3) 60ml	ice 4°	8015	FOR LAB USE ONLY	
109F-032294	Soil	12:10 3-22-94	amber glass	250ml	ice 4°	418.1		
Soil	Soil		amber glass	(3) 60ml	ice 4°	8015	FOR LAB USE ONLY	
Soil	Soil		amber glass	250ml	ice 4°	418.1	FOR LAB USE ONLY	
Soil	Soil		amber glass	(3) 60ml	ice 4°	8015	FOR LAB USE ONLY	
Soil	Soil		amber glass	250ml	ice 4°	418.1	FOR LAB USE ONLY	
Soil	Soil		amber glass	(3) 60ml	ice 4°	8015	FOR LAB USE ONLY	
Soil	Soil		amber glass	250ml	ice 4°	418.1	FOR LAB USE ONLY	
Soil	Soil		amber glass	(3) 60ml	ice 4°	8015	FOR LAB USE ONLY	
Soil	Soil		amber glass	250ml	ice 4°	418.1	FOR LAB USE ONLY	
Soil	Soil		amber glass	(3) 60ml	ice 4°	8015	FOR LAB USE ONLY	
Soil	Soil		amber glass	250ml	ice 4°	418.1	FOR LAB USE ONLY	

COPY

Handwritten notes:
KOD
VOD
MPO
MPO

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

Project Name/No. 1 Fort Story 519029 Samples Shipment Date 7 3-22-94
 Sample Team Members 2 Demarco/Bernardo Lab Destination 8 IT Export
 Profit Center No. 3 3511 Lab Contact 9 Carrie Smith
 Project Manager 4 Tom Mathison Project Contact/Phone 121 Mathison (412) 372-7701
 Purchase Order No. 8 519029 Carrier/Waybill No. 13 9710126193
 Required Report Date 11 NTAT

Bill to: 5 Tom Mathison
IT Corp
2790 Moss side Blvd
Monroeville Pa 15146
 Report to: 10 Tom Mathison
IT Corp
2790 Moss side Blvd.
Monroeville Pa 15146

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
15A-032294	Soil	11:25 3-22-94	amber glass	(3) 60ml	ice 40	8015		
15A-032294	Soil	11:25 3-22-94	amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	
57C-032294	Soil	11:35 3-22-94	amber glass	60ml	ice 40	8015		
57C-032294	Soil	11:35 3-22-94	amber glass	250ml	ice 40	418.1		
77D-032294	Soil	10:10 3-22-94	amber glass	(3) 60ml	ice 40	8015	FOR LAB USE ONLY	
77D-032294	Soil	10:10 3-22-94	amber glass	250ml	ice 40	418.1		
62C-032294	Soil	12:10 3-22-94	amber glass	(3) 60ml	ice 40	8015		
62C-032294	Soil	12:10 3-22-94	amber glass	250ml	ice 40	418.1		

COPY

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 10 days

QC Level: ²⁷

I. II. III. Project Specific (specify): _____

1. Relinquished by ²⁸

(Signature/Affiliation) [Signature]

Date: 2/22/04

Time: 4:30

1. Received by ²⁸

(Signature/Affiliation) _____ Date: _____

2. Relinquished by

(Signature/Affiliation)

Date: _____

Time: _____

2. Received by

(Signature/Affiliation)

Date: _____

Time: _____

3. Relinquished by

(Signature/Affiliation)

Date: _____

Time: _____

3. Received by

(Signature/Affiliation)

Date: _____

Time: _____

Comments: ²⁹

White: To accompany samples

Yellow: Field copy

* See back of form for special instructions.



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

Reference Document No. 17553
Page 2 of 2

Project Name Hot Work

Project No. 519029

Samples Shipment Date 3-22-94

ONE CONTAINER PER LINE

Sample Number	Sample Description/Type	Date/Time Collected	Container Type	Sample Volume	Preservative	Requested Testing Program	Condition on Receipt	Disposal Record No.
30B-DUP-032294	SO ₂	10:55 3-22-94	amber glass	(3) 60ml	ice 40	8015		
30B-DUP-032294	SO ₂	10:55 3-22-94	amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	
174F-032294	SO ₂	11:15 3-22-94	amber glass	(3) 60ml	ice 40	8015	FOR LAB USE ONLY	
174F-032294	SO ₂	11:15 3-22-94	amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	
30B-032294	SO ₂	10:55 3-22-94	amber glass	(3) 60ml	ice 40	8015	FOR LAB USE ONLY	
30B-032294	SO ₂	10:55 3-22-94	amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	
94E-032294	SO ₂	10:45 3-22-94	amber glass	(3) 60ml	ice 40	8015	FOR LAB USE ONLY	
94E-032294	SO ₂	10:45 3-22-94	amber glass	50ml	ice 40	418.1	FOR LAB USE ONLY	
89E-032294	SO ₂	9:55 3-22-94	amber glass	(3) 60ml	ice 40	8015	FOR LAB USE ONLY	
89E-032294	SO ₂	9:55 3-22-94	amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	

COPY

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

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Project Name/No. 47. Story 519029 Samples Shipment Date 3-23-94
 Sample Team Members 2 Demarco / Bernardo Lab Destination 8 MRD
 Profit Center No. 3 3511 Lab Contact 9
 Project Manager 4 Tom Mathison Project Contact/Phone 4 Tom Mathison (412) 372-7701
 Purchase Order No. 6 519029 Carrier/Waybill No. 13 9710126215
 Required Report Date 11 NTAT

Bill to: 5 Tom Mathison
IT Corp
2790 Mossdale Blvd
Monroeville Pa 15146
 Report to: 10 Tom Mathison
IT Corp
2790 Mossdale Blvd
Monroeville Pa 15146

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
322D-032394	Soil	10:30 3-23-94	Amber glass	(3) 60ml	Ice 4°	8015	FOR LAB USE ONLY	
332D-032394	Soil	10:30 3-23-94	Amber glass	250ml	Ice 4°	118.1		
							FOR LAB USE ONLY	

COPY

Special Instructions: ²³

Possible Hazard Identification: ²⁴ Non-hazardous Flammable Skin Irritant Poison B Unknown Sample Disposal: ²⁵ Return to Client Disposal by Lab Archive _____ (mos.)

Turnaround Time Required: ²⁶ Normal Rush QC Level: ²⁷ I. II. III. Project Specific (specify): _____

1. Relinquished by ²⁸ (Signature/Affiliation) <u>Tom Mathison</u>	Date: <u>3/23/94</u> Time: <u>4:30</u>	1. Received by ²⁸ (Signature/Affiliation)	Date: _____ Time: _____
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

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



INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document N° **413605**
Page 1 of 1

Project Name/No: **Fort Story 519029** Samples Shipment Date: **MRD LIMS 2482 3-23-94**
 Sample Team Members: **2 Demario / Bernardo** Lab Destination: **8 MRD**
 Profit Center No.: **3 3511** Lab Contact: **9**
 Project Manager: **4 Tom Mathison** Project Contact/Phone: **12 T. Mathison**
 Purchase Order No.: **6 519029** Carrier/Waybill No.: **13 9710126215**
 Required Report Date: **11 N/A**

Bill to: **5 Tom Mathison**
IT Corp
2790 Moss Side Blvd
Monroeville Pa 15146
 Report to: **10 Tom Mathison**
IT Corp
2790 Moss Side Blvd
Monroeville Pa 15146

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
290B-032394	Soil	8:30 3-23-94	amber glass	(3) 60ml	ice 40	8015	FOR LAB USE ONLY	
290B-032394	Soil	8:30 3-23-94	amber glass	250ml	ice 40	418-1		
285B-032394	Soil	9:20 3-23-94	amber glass	60ml	ice 40	8015		
285B-032394	Soil	9:00 3-23-94	amber glass	250ml	ice 40	418-1		
							FOR LAB USE ONLY	

COPY

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) *Tom Mathison*

Date: **3/23/94**
Time: **4:50**

1. Received by **28**
(Signature/Affiliation)

Date: _____
Time: _____

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**

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

Project Name/No. Fort Story 519029 Samples Shipment Date 3-23-94
 Sample Team Members DeMarco/Bernardo Lab Destination IT Export
 Profit Center No. 3 3511 Lab Contact Carri Smith
 Project Manager Tom Mathison Project Contact/Phone F. Mathison 412-372-7701
 Purchase Order No. 6 519029 Carrier/Waybill No. 13 145123686
 Required Report Date 11 NAT

Bill to: Tom Mathison
IT Corp
2790 Mosside Blvd.
Monroeville Pa 15146
 Report to: Tom Mathison
IT Corp
2790 Mosside Blvd.
Monroeville Pa 15146

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
275B-032394	Soil	11:00 3-23-94	amber glass	(3) 100ml	ice 40	8015		
275B-032394	Soil	11:00 3-23-94	amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	
270A-032394	Soil	11:20 3-23-94	amber glass	100ml	ice 40	8015		
270A-032394	Soil	11:00 3-23-94	amber glass	250ml	ice 40	418.1		
312C-032394	Soil	11:40 3-23-94	amber glass	100ml	ice 40	8015		
312C-032394	Soil	11:40 3-23-94	amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	
354E-032394	Soil	11:50 3-23-94	amber glass	(3) 100ml	ice 40	8015		
354E-032394	Soil	11:50 3-23-94	amber glass	250ml	ice 40	418.1		

COPY

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 10 days QC Level: ²⁷ I. II. III. Project Specific (specify):

1. Relinquished by ²⁸ (Signature/Affiliation) <u>Tom Bernier</u>	Date: <u>3/23/94</u> Time: <u>4:30</u>	1. Received by ²⁸ (Signature/Affiliation)	Date: _____ Time: _____
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

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



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

Project Name Fl. Store

Project No. 519029

Samples Shipment Date 3-23-94

ONE CONTAINER PER LINE

Sample Number	Sample Description/Type	Date/Time Collected	Container Type	Sample Volume	Pre-servative	Requested Testing Program	Condition on Receipt	Disposal Record No.
317D-032394	Soil	12:00 3-23-94	amber glass	(3) 60ml	ice 4°	8015	FOR LAB USE ONLY	
317D-032394	Soil	12:00 3-23-94	amber glass	250ml	ice 4°	418.1		
359F-032394	Soil	12:15 3-23-94	amber glass	(3) 60ml	ice 4°	8015	FOR LAB USE ONLY	
359F-032394	Soil	12:15 3-23-94	amber glass	250ml	ice 4°	418.1		
073A-032394	Soil	12:10 3-23-94	amber glass	(3) 60ml	ice 4°	8015	FOR LAB USE ONLY	
073A-032394	Soil	12:10 3-23-94	amber glass	250ml	ice 4°	418.1		
315C-032394	Soil	12:40 3-23-94	amber glass	(3) 60ml	ice 4°	8015	FOR LAB USE ONLY	
315C-032394	Soil	12:40 3-23-94	amber glass	250ml	ice 4°	418.1		
357E-032394	Soil	12:35 3-23-94	amber glass	(3) 60ml	ice 4°	8015	FOR LAB USE ONLY	
357E-032394	Soil	12:35 3-23-94	amber glass	250ml	ice 4°	418.1		
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	

COPY

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



INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document N **413604**
Page 1 of 2

Project Name/No. 1 Fort Story 519029
 Sample Team Members 2 Demario Bernado
 Profit Center No. 3 3511
 Project Manager 4 Tom Mathison
 Purchase Order No. 6 519029
 Required Report Date 11 WTAT
 Samples Shipment Date 7 3-23-94
 Lab Destination 8 IT Export
 Lab Contact 9 Carrie Smith
 Project Contact/Phone 12 T. Mathison (412) 372-7701
 Carrier/Waybill No. 13 1415123686

Bill to: 5 Tom Mathison
2790 Mosside Blvd.
Monroeville PA 15146
C/O IT Corp
 Report to: 10 Tom Mathison
IT Corp
2790 Mosside Blvd.
Monroeville PA 15146

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
294B-032394	soil	7:15 3-23-94	amber glass	(3) 60ml	ice 4°	8015	FOR LAB USE ONLY	
294B-032394	soil	7:15 3-23-94	amber glass	250ml	ice 4°	418.1		
336D-032394	soil	7:15 3-23-94	amber glass	60ml	ice 4°	8015		
336D-032394	soil	7:15 3-23-94	amber glass	250ml	ice 4°	418.1		
378F-032394	soil	7:40 3-23-94	amber glass	(3) 60ml	ice 4°	8015	FOR LAB USE ONLY	
378F-032394	soil	7:40 3-23-94	amber glass	250ml	ice 4°	418.1		
255A-032394	soil	7:40 3-23-94	amber glass	(3) 60ml	ice 4°	8015		
255A-032394	soil	7:40 3-23-94	amber glass	250ml	ice 4°	418.1		

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 10 days

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

1. Relinquished by ²⁸
 (Signature/Affiliation) Demario Bernado Date: 3/23/94
 Time: 4:30
 2. Relinquished by
 (Signature/Affiliation) Date: _____
 Time: _____
 3. Relinquished by
 (Signature/Affiliation) Date: _____
 Time: _____

1. Received by ²⁸
 (Signature/Affiliation) Date: _____
 Time: _____
 2. Received by
 (Signature/Affiliation) Date: _____
 Time: _____
 3. Received by
 (Signature/Affiliation) Date: _____
 Time: _____

Comments: ²⁹

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



ANALYSIS REPORT TEST AND CHAIN OF CUSTODY RECORD (cont.)*

Project Name Fort Story

Project No. 519029

Samples Shipment Date 3-23-94

ONE CONTAINER PER LINE

Sample 14 Number	Sample 15 Description/Type	Date/Time 16 Collected	Container 17 Type	Sample 18 Volume	Pre-19 servative	Requested Testing 20 Program	Condition on 21 Receipt	Disposal 22 Record No.
297C-032394	Soil	8:00 3-23-94	amber glass	(3) 60ml	ice 40	8015		
297C-032394	Soil	8:00 3-23-94	amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	
339E-032394	Soil	8:15 3-23-94	amber glass	(3) 60ml	ice 40	8015	FOR LAB USE ONLY	
339E-032394	Soil	8:15 3-23-94	amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	
290B-032394	Soil	8:30 3-23-94	amber glass	(3) 60ml	ice 40	8015	FOR LAB USE ONLY	
290B-032394	Soil	8:30 3-23-94	amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	
290B DUP-032394	Soil	8:30 3-23-94	amber glass	(3) 60ml	ice 40	8015	FOR LAB USE ONLY	
290B DUP-032394	Soil	8:30 3-23-94	amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	

COPY

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

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Project Name/No. Fort Story 519029 Samples Shipment Date 7 3-23-94
 Sample Team Members 2 Lab Destination 8 IT Corp Export
 Profit Center No. 3 3511 Lab Contact 9 Carrie Smith
 Project Manager 4 Tom Mathison Project Contact/Phone 12 T. Mathison 412-372-7701
 Purchase Order No. 6 519029 Carrier/Waybill No. 13 1451223686
 Required Report Date 11

Bill to: 5 Tom Mathison
IT Corp
2790 Mossido Blvd
Monroeville Pa 15146
 Report to: 10 Tom Mathison
IT Corp
2790 Mossido Blvd
Monroeville Pa 15146

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
332D-032394	Soil	8:40 3-23-94	amber glass	(3) 60ml	ice 40	8015	FOR LAB USE ONLY	
332D-032394	Soil	8:40 3-23-94	amber glass	250ml	ice 40	418.1		
374F-032394	Soil	9:00 3-23-94	amber glass	60ml	ice 40	8015		
374F-032394	Soil	9:00 3-23-94	amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	
260A-032394	Soil	9:00 3-23-94	amber glass	60ml	ice 40	8015		
260A-032394	Soil	9:00 3-23-94	amber glass	250ml	ice 40	418.1		
302C-032394	Soil	9:15 3-23-94	amber glass	(3) 60ml	ice 40	8015		
302C-032394	Soil	9:15 3-23-94	amber glass	250ml	ice 40	418.1		

COPY

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 10 days

QC Level: ²⁷

I. II. III. Project Specific (specify): _____

1. Relinquished by ²⁸

(Signature/Affiliation) [Signature]

Date: 3/22/94

Time: 4:10

1. Received by ²⁸

(Signature/Affiliation)

Date: _____

Time: _____

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

Write: To accompany samples

Yellow: Field copy

* See back of form for special instructions.



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

Project Name Fort Story

Project No. 519029

Samples Shipment Date 3-23-94

ONE CONTAINER PER LINE

Sample 14 Number	Sample 15 Description/Type	Date/Time 16 Collected	Container 17 Type	Sample 18 Volume	Pre-19 servative	Requested Testing 20 Program	Condition on 21 Receipt	Disposal 22 Record No.
344E-032394	Soil	9:15 3-23-94	amber glass	(3) 60ml	ice 40	8015		
344E-032394	Soil	9:15 3-23-94	amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	
285B-032394	Soil	9:20 3-23-94	amber glass	(3) 60ml	ice 40	8015	FOR LAB USE ONLY	
285B-032394	Soil	9:20 3-23-94	amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	
285B-DUP-032394	Soil	9:20 3-23-94	amber glass	(3) 60ml	ice 40	8015	FOR LAB USE ONLY	
285B-DUP-032394	Soil	9:20 3-23-94	amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	
327D-032394	Soil	9:20 3-23-94	amber glass	(3) 60ml	ice 40	8015	FOR LAB USE ONLY	
327D-032394	Soil	9:20 3-23-94	amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
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							FOR LAB USE ONLY	
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							FOR LAB USE ONLY	

COPY

Write: To accompany samples
Yellow: Field copy

* See back of form for special instructions.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Project Name/No. Fort Story 519029 Samples Shipment Date 7 3-23-94
 Sample Team Members 2 De Marco, Bernardo Lab Destination 8 IT Export
 Profit Center No. 3 3511 Lab Contact 9 Carri Smith
 Project Manager 4 Tom Mathison Project Contact/Phone 12 Mathison (412) 372-7701
 Purchase Order No. 8 519029 Carrier/Waybill No. 13 1415123686
 Required Report Date 11

Bill to: 5 Tom Mathison
IT Corp
2790 Mosside Blvd
monroeville Pa 15146
 Report to: 10 Tom Mathison
IT Corp
2790 Mosside Blvd
monroeville Pa 15146

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
369F-032394	Soil	3-23-94 9:40	amber glass	(3) 60ml	ice 4°	8015	FOR LAB USE ONLY	
31AF-032394	Soil	3-23-94 9:40	amber glass	250ml	ice 4°	418.1		
265A-032394	Soil	3-23-94 9:40	amber glass	60ml	ice 4°	8015		
265A-032394	Soil	3-23-94 9:40	amber glass	250ml	ice 4°	418.1		
307C-032394	Soil	3-23-94 10:10	amber glass	(3) 60ml	ice 4°	8015		
307C-032394	Soil	3-23-94 10:10	amber glass	250ml	ice 4°	418.1		
349E-032394	Soil	3-23-94 10:10	amber glass	(3) 60ml	ice 4°	8015	FOR LAB USE ONLY	
349E-032394	Soil	3-23-94 10:10	amber glass	250ml	ice 4°	418.1		

COPY

Special Instructions: 23

Possible Hazard Identification: 24
 Non-hazardous Flammable Skin Irritant Poison B Unknown

Sample Disposal: 25
 Return to Client Disposal by Lab Archive (mbs.)

Turnaround Time Required: 26
 Normal Rush 10 days

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

1. Relinquished by 28
 (Signature/Affiliation) [Signature] Date: 3/23/94
 Time: 4:30
 2. Relinquished by _____ Date: _____
 Time: _____
 3. Relinquished by _____ Date: _____
 Time: _____

1. Received by 28
 (Signature/Affiliation) _____ Date: _____
 Time: _____
 2. Received by _____ Date: _____
 Time: _____
 3. Received by _____ Date: _____
 Time: _____

Comments: 29

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



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

Project Name Fort Stoney

Project No. 519029

Samples Shipment Date 3-23-94

ONE CONTAINER PER LINE

Sample 14 Number	Sample 15 Description/Type	Date/Time 16 Collected	Container 17 Type	Sample 18 Volume	Pre-19 servative	Requested Testing 20 Program	Condition on 21 Receipt	Disposal 22 Record No.
280B-032394	SOI	10:20 3-23-94	amber glass	(3) 60ml	ice 4°	8015		
280B-032394	SOI	10:20 3-23-94	amber glass	250ml	ice 4°	418.1	FOR LAB USE ONLY	
322D-032394	SOI	10:30 3-23-94	amber glass	(3) 60ml	ice 4°	8015		
322D-032394	SOI	10:30 3-23-94	amber glass	250ml	ice 4°	418.1	FOR LAB USE ONLY	
364F-032394	SOI	10:30 3-23-94	amber glass	(3) 60ml	ice 4°	8015		
322D DUPO32394	SOI	10:30 3-23-94	amber glass	(3) 60ml	ice 4°	8015		
322D DUPO32394	SOI	10:30 3-23-94	amber glass	250ml	ice 4°	418.1	FOR LAB USE ONLY	
364F-032394	SOI	10:30 3-23-94	amber glass	250ml	ice 4°	418.1		
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	

COPY

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

**ANALYSIS REQUEST AND
CHAIN OF CUSTODY RECORD***

Reference Document N **413614**
Page 1 of 2

Project Name/No. Fort Story 519029
Sample Team Members 2 DeMarco/Bernardo
Profit Center No. 3 3511
Project Manager 4 Tom Mathison
Purchase Order No. 6 519029
Required Report Date 11 normal TAT

Samples Shipment Date 7 3-24-94
Lab Destination 8 IT Export
Lab Contact 9 Carrie Smith
Project Contact/Phone 421 mathison (412) 372-7701
Carrier/Waybill No. 13 1451223690

Bill to: 5 Tom Mathison
IT Corp
2790 Mosside Blvd
Monroeville Pa 15146
Report to: 10 Tom Mathison
IT Corp
2790 Mosside Blvd.
Monroeville Pa 1514

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
400B-032494	Soil	11:15 3-24-94	amber glass	(3) 60ml	ice 4°	8015		
400B-032494	↑	11:15 3-24-94	↑	250ml		418.1	FOR LAB USE ONLY	
442D-032494		11:20 3-24-94		60ml		8015		
442D-032494		11:30 3-24-94		250ml		418.1		
403B-032494		11:30 3-24-94		(3) 60ml		8015	FOR LAB USE ONLY	
403B-032494		11:36 3-24-94		250ml		418.1		
445D-032494		11:38 3-24-94		(3) 60ml		8015		
445D-032494	Soil	11:38 3-24-94	amber glass	250ml	ice 4°	418.1		

COPY

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 10 days

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

Relinquished by ²⁸ (Signature/Affiliation) <u>David DeMarco</u>	Date: <u>3/24/94</u> Time: <u>4:30</u>	1. Received by ²⁸ (Signature/Affiliation)	Date: _____ Time: _____
Relinquished by (Signature/Affiliation)	Date: _____ Time: _____	2. Received by (Signature/Affiliation)	Date: _____ Time: _____
Relinquished by (Signature/Affiliation)	Date: _____ Time: _____	3. Received by (Signature/Affiliation)	Date: _____ Time: _____

Comments: ²⁹

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

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

Reference Document No. 413 614
Page 2 of 2

Project Name Fort Story

Project No. 519029

Samples Shipment Date 3-24-94

ONE CONTAINER PER LINE

Sample 14 Number	Sample 15 Description/Type	Date/Time 16 Collected	Container 17 Type	Sample 18 Volume	Pre-19 servative	Requested Testing 20 Program	Condition on 21 Receipt	Disposal 22 Record No.
487F-032494	Soil	11:50 3-24-94	amber glass	(3) 60ml	ice 40	8015		
487F-032494	↑	11:50 3-24-94	↑	250ml	ice 40	418.1	FOR LAB USE ONLY	
398A-032494		12:00 3-24-94		(3) 60ml	ice 40	8015		
398A-032494		12:00 3-24-94		250ml	ice 40	418.1	FOR LAB USE ONLY	
482E-032494		12:12 3-24-94		(3) 60ml	ice 40	8015		
482E-032494		12:12 3-24-94		250ml	ice 40	418.1	FOR LAB USE ONLY	
484F-032494		12:30 3-24-94		(3) 60ml	ice 40	8015		
484F-032494	Soil	12:30 3-24-94	amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	

COPY

Handwritten signature

Handwritten date: 2/29/94

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

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document N 413610
Page 1 of 2

Project Name/No. 1 Fort Story 519029
 Sample Team Members 2 Delmarco / Bermuda
 Profit Center No. 3 3511
 Project Manager 4 Tom Mathison
 Purchase Order No. 6 519029
 Required Report Date 11 Normal TAT

Samples Shipment Date 7 3-24-94
 Lab Destination 8 IT Export
 Lab Contact 9 Carrie Smith
 Project Contact/Phone 12 Tom Mathison (412) 372-7701
 Carrier/Waybill No. 13 1451233690

Bill to: 5 Tom Mathison
IT Corp
2790 Mosside Blvd.
Monroeville Pa 15146
 Report to: 10 Tom Mathison
IT Corp
2790 Mosside Blvd.
Monroeville Pa 15146

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
379A-032494	soil	8:00 3-24-94	amber glass	3) 100ml	ice 40	8015		
379A-032494	soil	8:00 3-24-94	amber glass	250ml	ice 40	418.1		
421C-032494	soil	8:15 3-24-94	amber glass	60ml	ice 40	8015		
421C-032494	soil	8:15 3-24-94	amber glass	250ml	ice 40	418.1		
418B-032494	soil	8:15 3-24-94	amber glass	60ml	ice 40	8015		
418B-032494	soil	8:15 3-24-94	amber glass	250ml	ice 40	418.1		
393A-032494	soil	8:27 3-24-94	amber glass	3) 100ml	ice 40	8015		
393A-032494	soil	8:27 3-24-94	amber glass	250ml	ice 40	418.1		

FOR LAB USE ONLY

FOR LAB USE ONLY

Special Instructions: 23
 Possible Hazard Identification: 24
 Non-hazard Flammable Skin Irritant Poison B Unknown
 Sample Disposal: 25
 Return to Client Disposal by Lab Archive _____ (mos.)
 Turnaround Time Required: 26
 Normal Rush 10 days
 QC Level: 27
 I. II. III. Project Specific (specify): _____

1. Relinquished by 28
 (Signature/Affiliation) Tom Mathison Date: 3/24/94 Time: 11:30
 1. Received by _____ Date: _____ Time: _____
 2. Relinquished by _____ Date: _____ Time: _____
 2. Received by _____ Date: _____ Time: _____
 3. Relinquished by _____ Date: _____ Time: _____
 3. Received by _____ Date: _____ Time: _____

Comments: 29

White: To accompany samples

Yellow: Field copy

*See back of form for special instructions.

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

Reference Document No. 413610
Page 2 of 2

Project Name Fort Story

Project No. 519029

Samples Shipment Date 3-24-94

ONE CONTAINER PER LINE

Sample 14 Number	Sample 15 Description/Type	Date/Time 16 Collected	Container 17 Type	Sample 18 Volume	Pre-19 servative	Requested Testing 20 Program	Condition on 21 Receipt	Disposal 22 Record No.
425C-032494	soil	8:34 3-24-94	amber glass	(3) 60ml	ice 40	8015		
425C-032494	soil	8:34 3-24-94	amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	
463E-032494	soil	8:41 3-24-94	amber glass	(3) 60ml	ice 40	8015		
463E-032494	soil	8:41 3-24-94	amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	
467E-032494	soil	8:45 3-24-94	amber glass	(3) 60ml	ice 40	8015		
467E-032494	soil	8:45 3-24-94	amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	
460D-032494	soil	8:45 3-24-94	amber glass	(3) 60ml	ice 40	8015		
460D-032494	soil	8:45 3-24-94	amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	
502F-032494	soil	8:50 3-24-94	amber glass	(3) 60ml	ice 40	8015		
502F-032494	soil	8:50 3-24-94	amber glass	250ml	ice 40	418.1	FOR LAB USE ONLY	
								FOR LAB USE ONLY
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	

COPY

White: To accompany samples
Yellow: Field copy

* See back of form for special instructions.



**ANALYSIS REQUEST AND
CHAIN OF CUSTODY RECORD***

Project Name/No. Fort Story 519029

MRD LIMS 2482
Samples Shipment Date 3-24-94

Bill to: Tom Mathison
IT Corp
2790 Mosside Blvd
Monroeville Pa 15146

Sample Team Members 2 Demarco Bernardo

Lab Destination 8 MRD

Profit Center No. 3 3511

Lab Contact 9

Project Manager 4 Tom Mathison

Project Contact/Phone 12 Tom Mathison (412) 372-7701

Purchase Order No. 6 519029

Carrier/Waybill No. 13 1451223675

Report to: 10 Tom Mathison
IT Corp
2790 Mosside Blvd
monroeville Pa 15146

Required Report Date 11 normal TAT

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
465D-032494	soil	9:21 3-24-94	amber glass	(3) 60ml	ice 40	8015	FOR LAB USE ONLY	
465D-032494	soil	9:21 3-24-94	amber glass	250ml	ice 40	418.1		
430C-032494	soil	9:35 3-24-94	amber glass	60ml	ice 40	8015		
430C-032494	soil	9:51 3-24-94	amber glass	250ml	ice 40	418.1		
477E-032494	soil	10:50 3-24-94	amber glass	(3) 60ml	ice 40	8015		
477E-032494	soil	10:50 3-24-94	amber glass	250ml	ice 40	418.1		

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 10 days

QC Level: ²⁷

I. II. III. Project Specific (specify): _____

1. Relinquished by ²⁸

(Signature/Affiliation) Jamie Bernier

Date: 3/24/94
Time: 4:30

1. Received by ²⁸

(Signature/Affiliation)

Date: _____
Time: _____

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

Write: To accompany samples

Yellow: Field copy

* See back of form for special instructions.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document Number **413611**
Page 1 of 2

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

Project Name/No: Fort Story 519029 Samples Shipment Date: 7 3-24-94
 Sample Team Members: 2 Demarco Bernard Lab Destination: 8 IT Export
 Profit Center No.: 3 3511 Lab Contact: 9 Corri Smith
 Project Manager: 4 Tom Mathison Project Contact/Phone: 12 T. Mathison (412) 377-7791
 Purchase Order No.: 6 519029 Carrier/Waybill No.: 13 1451223690
 Required Report Date: 11 normal TAT

Bill to: 5 Tom Mathison
IT Corp
2790 Massada Blvd.
Monroeville Pa 15146
 Report to: 10 Tom Mathison
IT Corp
2790 Massada Blvd
Monroeville

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
413B-032494	Soil	3-24-94 9:00	amber glass	(3) 10ml	ice 4°	8015		
413B-032494	Soil	3-24-94 9:00	amber glass	250ml	ice 4°	418.1	FOR LAB USE ONLY	
388A-032494	Soil	3-24-94 9:17	amber glass	60ml	ice 40°	8015		
388A-032494	Soil	3-24-94 9:17	amber glass	250ml	ice 40°	418.1		
455D-032494	Soil	3-24-94 9:21	amber glass	(3) 60ml	ice 4°	8015	FOR LAB USE ONLY	
455D-032494	Soil	3-24-94 9:21	amber glass	250ml	ice 40°	418.1		
455DDUP-032494	Soil	3-24-94 9:21	amber glass	(3) 10ml	ice 40°	8015		
455DDUP-032494	Soil	3-24-94 9:21	amber glass	250ml	ice 40°	418.1		

COPY

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) <u>Corri Bernard</u> Date: <u>3/24/94</u> Time: <u>4:30</u>	1. Received by ²⁸ (Signature/Affiliation) _____ Date: _____ Time: _____
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

**ANALYSIS REPORT AND
CHAIN OF CUSTODY RECORD***

Project Name/No. 1 Fort Story 519029
 Sample Team Members 2 Demarco/Bernardo
 Profit Center No. 3 3511
 Project Manager 4 Tom Mathison
 Purchase Order No. 6 519029
 Required Report Date 11 Normal TAT

Samples Shipment Date 7 3-24-94
 Lab Destination 8 IT Export
 Lab Contact 9 Carrie Smith
 Project Contact/Phone 12 T. Mathison (40) 372-7796
 Carrier/Waybill No. 13 1451223690

Bill to: 5 Tom Mathison
IT Corp
2790 Mossdale Blvd
Monroeville Pa 15146
 Report to: 10 Tom Mathison
IT Corp
2790 Mossdale Blvd
Monroeville Pa 15146

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
450D-032494	Soil	10:10 3-24-94	amber glass	(3) 60ml	ice 40	8015	FOR LAB USE ONLY	
450D-032494	Soil	10:10 3-24-94	2	250ml	ice 40	418.1		
492F-032494		10:13 3-24-94		60ml	ice 40	8015		
492F-032494		10:13 3-24-94		250ml	ice 40	418.1	FOR LAB USE ONLY	
393A-032494		10:21 3-24-94		60ml	ice 40	8015		
393A-032494		10:21 3-24-94		250ml	ice 40	418.1		
435C-032494		10:38 3-24-94		(3) 60ml	ice 40	8015	FOR LAB USE ONLY	
435C-032494		10:38 3-24-94		250ml	ice 40	418.1		

COPY

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 10 days
 QC Level: ²⁷
 I. II. III. Project Specific (specify): _____

1. Relinquished by ²⁸ (Signature/Affiliation) <u>Tom Bernado</u>	Date: <u>3/24/04</u> Time: <u>4:30</u>	1. Received by ²⁸ (Signature/Affiliation)	Date: _____ Time: _____
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

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

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

Reference Document No. 413617
Page 2 of 2

Project Name F. Story

Project No. 519029

Samples Shipment Date 3/28/94

ONE CONTAINER PER LINE

Sample 14 Number	Sample 15 Description/Type	Date/Time 16 Collected	Container 17 Type	Sample 18 Volume	Pre-19 servative	Requested Testing Program 20	Condition on 21 Receipt	Disposal 22 Record No.
542B-32894	Soil	2:00 3/28/94	Glas Amber	(3) 60ml	Ice	8015		
542B-32894		2:00 3/28/94		250ml		418.1	FOR LAB USE ONLY	
584D-32894		2:00 3/28/94		(3) 60ml		8015		
584D-32894		2:10 3/28/94		250ml		418.1	FOR LAB USE ONLY	
569D-32894		2:20 3/28/94		(3) 60ml		8015		
569D-32894		2:20 3/28/94		250ml		418.1	FOR LAB USE ONLY	
569D Dup 32894		2:20 3/28/94		(3)		8015		
569D Dup 32894	Soil	3/28/94	Glas Amber	250ml		418.1	FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
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							FOR LAB USE ONLY	
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							FOR LAB USE ONLY	

COPY

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

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Project Name/No. Fort Story 519029 Samples Shipment Date 7 3-28-94
 Sample Team Members 2 Demarco Bernardo Lab Destination 8 IT Export
 Profit Center No. 3 3511 Lab Contact 9 Carrie Smith
 Project Manager 4 T. Mathison Project Contact/Phone 14 T. Mathison
 Purchase Order No. 6 519029 Carrier/Waybill No. 13 9826951854
 Required Report Date 11 Normal TAT

Bill to: 5 Tom Mathison
IT Corp
2790 Mosside Blvd.
Monroeville Pa 15146
 Report to: 10 Tom Mathison
IT Corp
2790 Mosside Blvd
Monroeville Pa 15146

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
676F-32894	Soil	12:20 3-28-94	amber glass	(3) (10ml)	ice 4°	8015		
616F-32894		12:20 3-28-94		250ml		418.1	FOR LAB USE ONLY	
574D-32894		12:30 3-28-94		60ml		6015		
574D-32894		12:30 3-28-94		30ml		118.1		
522A-32894		12:30 3-28-94		(3) 60ml		8015		
522A-32894		12:30 3-28-94		250ml		418.1	FOR LAB USE ONLY	
527B-32894		12:50 3-28-94		(3) 60ml		8015		
527B-32894	Soil	12:30 3-28-94	amber glass	250ml	ice 4°	418.1		

Special Instructions: ²³ Samples were taken 3x per bottle date are 3/28/94

Possible Hazard Identification: ²⁴ Non-hazardous Flammable Skin Irritant Poison B Unknown
 Sample Disposal: ²⁵ Return to Client Disposal by Lab Archive (mos.)

Turnaround Time Required: ²⁶ Normal Rush
 QC Level: ²⁷ I. II. III. Project Specific (specify):

1. Relinquished by ²⁸ (Signature/Affiliation) <u>David Berner</u>	Date: <u>3/28/94</u> Time: <u>4:30</u>	1. Received by ²⁸ (Signature/Affiliation)	Date: _____ Time: _____
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

Write: To accompany samples
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**ANALYSIS REQUEST AND
CHAIN OF CUSTODY RECORD (cont.)***

Project Name Ft. Story

Project No. 519029

Samples Shipment Date 3/28/94

ONE CONTAINER PER LINE

Sample 14 Number	Sample 15 Description/Type	Date/Time 16 Collected	Container 17 Type	Sample 18 Volume	Pre-19 servative	Requested Testing 20 Program	Condition on 21 Receipt	Disposal 22 Record No.
606E 32894	Soil	1340 3/28/94	Amber glass	(3) 60ML	1cc	8015		
606E-32894		1340 3/28/94		250ML (3)		418.1	FOR LAB USE ONLY	
564C-32894		1340 3/28/94		60ML (3)		8015		
564c-32894		1340 3/28/94		250ML (3)		418.1	FOR LAB USE ONLY	
532 B 32894		1340 3/28/94		60ML (3)		8015		
532 B 32894		1340 3/28/94		250ML (3)		418.1	FOR LAB USE ONLY	
532 B Dup 32894		1340 3/28/94		60ML (3)		8015		
532 B Dup 32894		1340 3/28/94		250ML (3)		418.1	FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
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							FOR LAB USE ONLY	

COPY

Write: To accompany samples

Yellow: Field copy

*See back of form for special instructions.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Project Name/No. **1 Fort Story 510A** Samples Shipment Date **7 3-28-94**
 Sample Team Members **2 Dellarco/Rorward** Lab Destination **8 IT Export**
 Profit Center No. **3 3511** Lab Contact **9 Carrie Smith**
 Project Manager **4 Tom Mathison** Project Contact/Phone **12 T. Mathison (412) 2701**
 Purchase Order No. **6 519029** Carrier/Waybill No. **13 9026951854**
 Required Report Date **11 Normal MAT**

Bill to: **5 Tom Mathison**
IT Corp
2790 Massside Blvd
Monroeville PA 15146
 Report to: **10 Tom Mathison**
SAME

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
630 F-028994	Soil	7:20 3-24-94	Amber glass	(3) 60ml	40	8015	FOR LAB USE ONLY	
1030 F-032894		7:10 3-28-94		250ml	40	418.1		
588 D-032894		7:50 3-28-94		60ml		8015		
588 D-032894		8:00 3-28-94		250ml		418.1		
588 D-Dup 32894		8:10 3-28-94		(3) 250ml		8015		
588 D-Dup 32894		9:20 3-28-94		250ml		418.1		
546 B-32894		8:30 3-28-94		(3) 60ml		8015		
546 B-32894	Soil	8:30 3-28-94		250ml		418.1		

COPY

Special Instructions: **23 bottles with 3/25/94 were taken on 3/28/94**

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
 GC Level: **27** I. II. III. Project Specific (specify):

1. Relinquished by 28 (Signature/Affiliation) <i>David Berman</i>	Date: 3/28/94 Time:	1. Received by 28 (Signature/Affiliation)	Date: Time:
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**

Write: To accompany samples
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* See back of form for special instructions.

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

Project Name Ft. Story

Project No. 519029

Samples Shipment Date 3/24/94

ONE CONTAINER PER LINE

Sample 14 Number	Sample 15 Description/Type	Date/Time 16 Collected	Container 17 Type	Sample 18 Volume	Pre-19 servative	Requested Testing 20 Program	Condition on 21 Receipt	Disposal 22 Record No.
591 E 32894	SOIL	3/29/94	amber	60ml	ccc	8015		
591 E 32894	}	3/29/94	}	250ml	}	418.1	FOR LAB USE ONLY	
549 C 32894		3/28/94		60ml		8015		
549 C 32894		3/28/94		250ml		418.1		
507 A 32894		3/29/94		60ml		8015		
507 A 32894		3/28/94		250ml		418.1		
626 F 32894		3/28/94		60ml		8015		
626 F 32894		3/28/94		250ml		418.1		
596 E 32894		3/28/94		60ml		8015		
596 E 32894		3/28/94		250ml		418.1		
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	

COPY

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