2021 Hazardous Waste Scanning Project

File Form Naming Convention.

(*File_Type*).(*Program*).(*Site_Number*).(*YYYY-MM-DD*).(*File_Name*).pdf

Note 1: Each category is separated by a period "."
Note 2: Each word within category is separated by an underscore "_"

Specific File Naming Convention Label:

Report. HW. 915149. 1993-11-03. Remedial_Investigation_Report.pdf

REMEDIAL INVESTIGATION REPORT

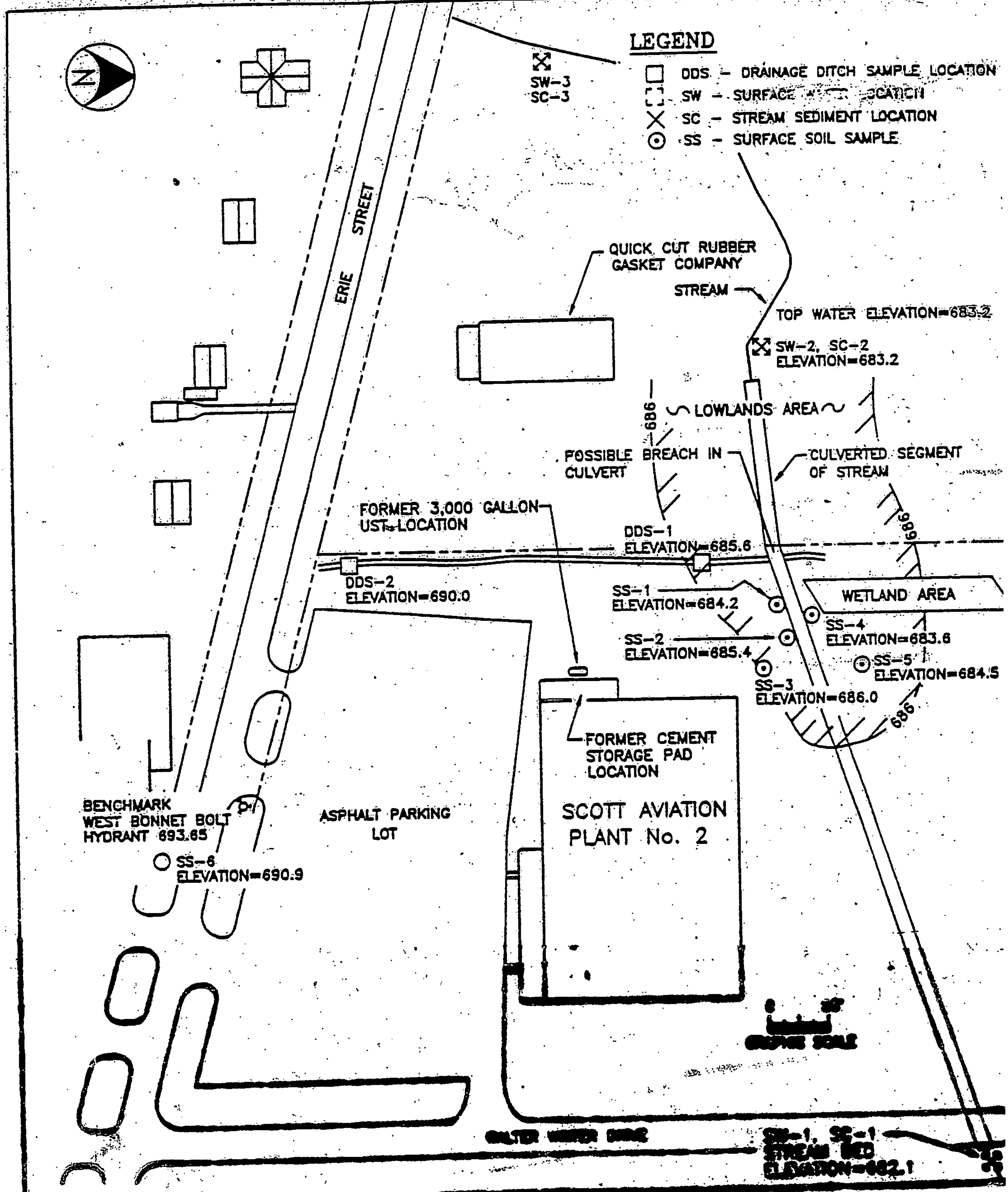
Scott Aviation
225 Erie Street
Lancaster, New York

Prepared for:

Scott Aviation
225 Erie Street
Lancaster, New York

Prepared by:

Versar, Inc.
2010 Cabot Boulevard West
Langhorne, Pennsylvania 19047



SCOTT AVIATION, LANCASTER, NY

Versar Inc.
(215) 741-4211

FIGURE 3-3

SURFACE WATER, SURFACE SOIL AND SEDIMENT SAMPLING LOCATIONS - March 1993

SUMMARY OF ROUND 2 QUALITY DATA (IN PPB)

COMPOUND	MW-3	MW-4	MW-6	RP-5
	MONITORING. WELL/SAMPLING POINT			
CHLOROETHANE	28	U	U	3,900
TCA	U	U	U	40,000
TCE	U	2,800	U	U
DCA	3J	270	U	29,000
DCE	U	5,100	U	21,000
VINYL CHLORIDE	25	240J	U	U
TOLUENE	U	U	U	1,000J
TOTAL VOC's	56	8,410	U	94,900

NONE OF THE ABOVE COMPOUNDS WERE DETECTED IN MW-1, MW-2 OR MW-5

LEGEND

- - - - - APROXIMATE EXTENT OF TOTAL VOC CONTAMINATION

⊗ MW MONITORING WELL

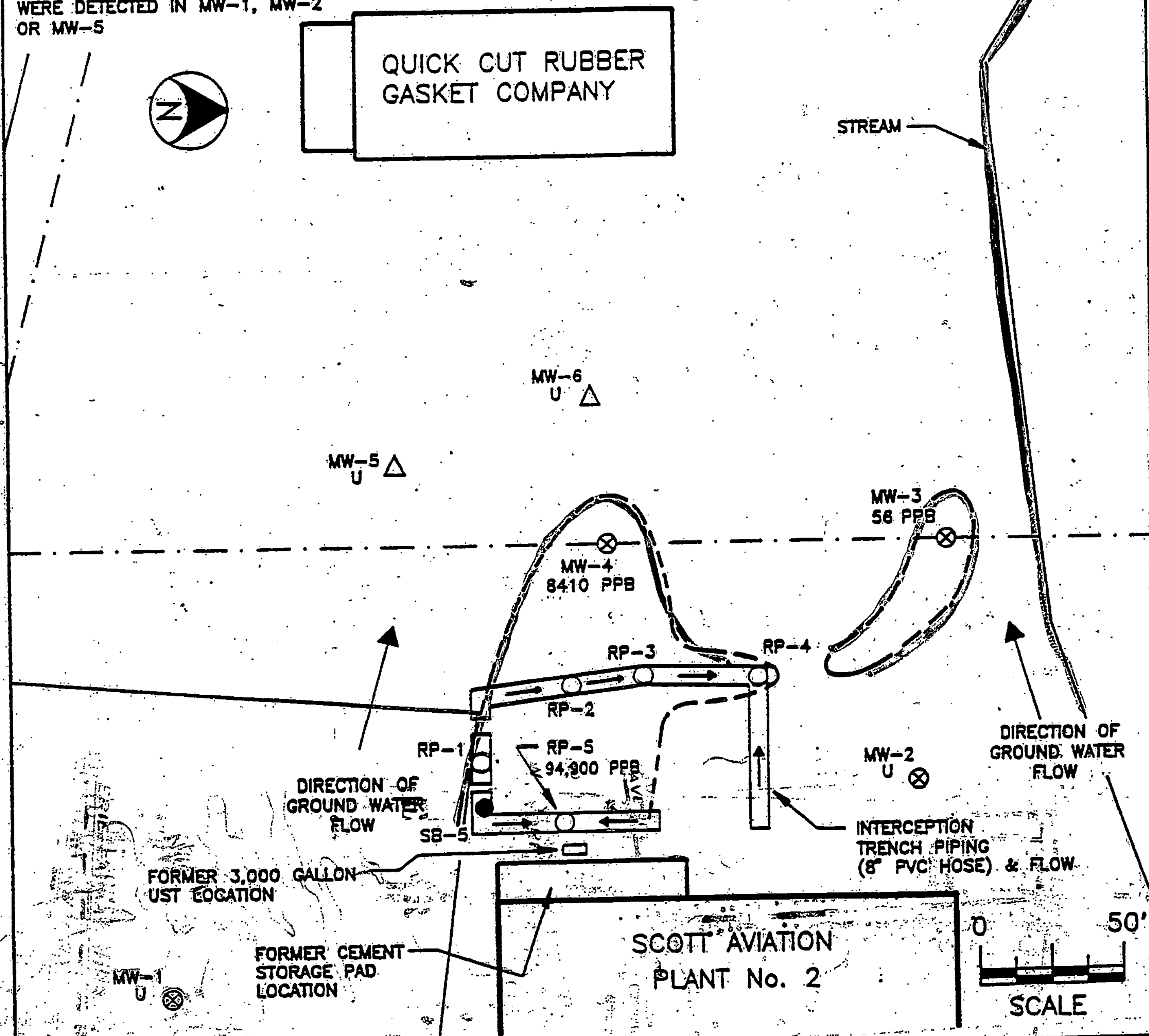
△ MW MONITORING WELL

○ RP INTERCEPTION TRENCH RISER PIPE

● SB SOIL BORING LOCATION

J = ESTIMATED VALUE

U = UNDETECTED



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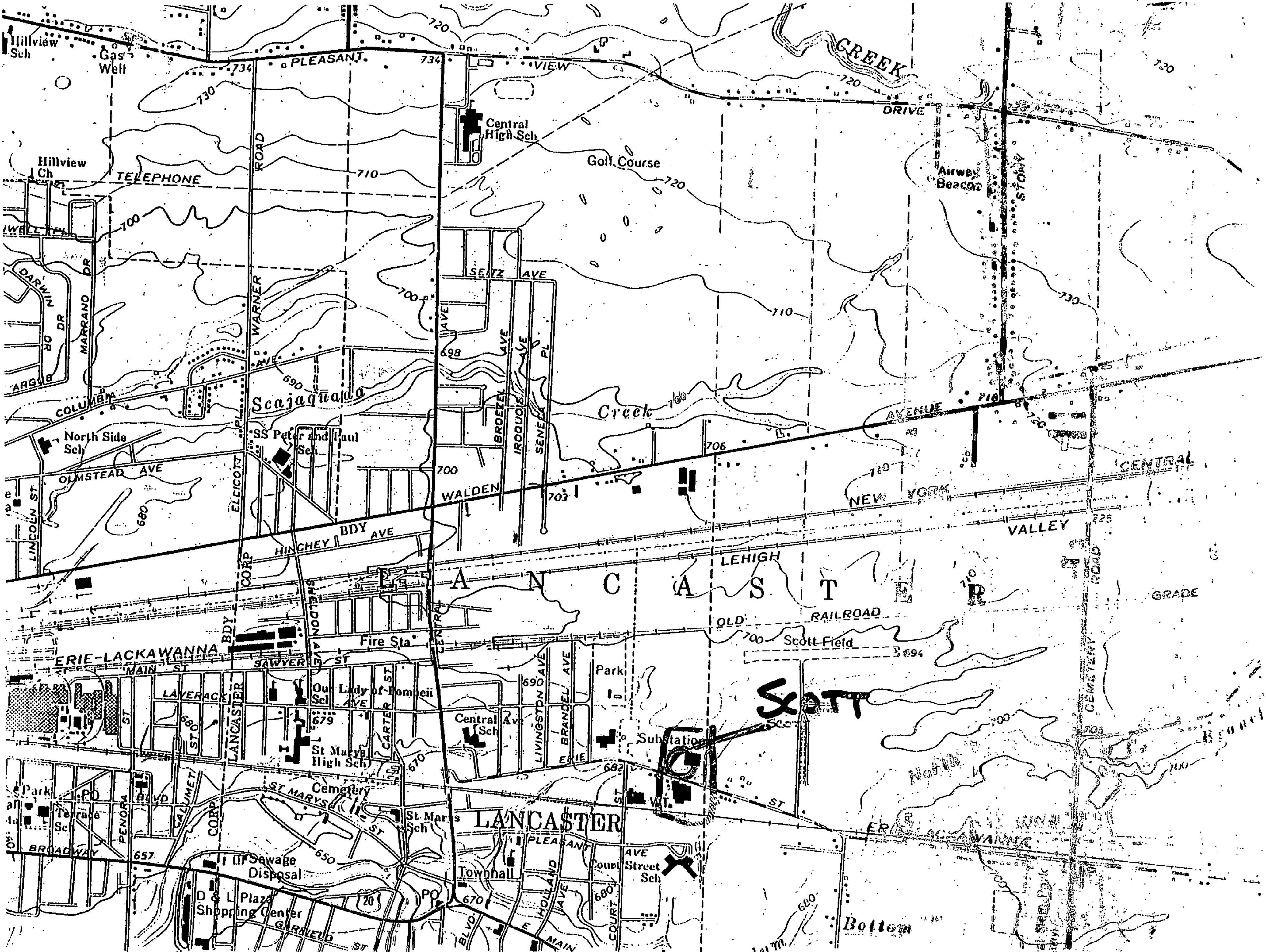
SCOTT AVIATION, LANCASTER, NY

FIGURE 5-2

INTERPRETED FROM ROUND 2 (NOV, 1992) DATA
MARCH - 1993 (REVISED OCTOBER, 1993)



Hillview Sch
Gas Well
PLEASANT VIEW DRIVE
CREEK
Central High Sch
Golf Course
Hillview Ch
TELEPHONE
Airway Beacon
DARWIN DR
MARRANO DR
WARNER ROAD
SENTZ AVE
COLUMBIA AVE
Scajaquada Creek
North Side Sch
SS Peter and Paul Sch
OLMSTEAD AVE
ELLICOTT PL
BROEZEL AVE
IROQUOIS AVE
SENECA PL
WALDEN AVENUE
LINCOLN ST
HINCHEY AVE
BDY
CORP
NEW YORK CENTRAL
VALLEY
LEHIGH
LANCASTER
GRADE
CEMETERY ROAD
SHELDON AVE
OLD RAILROAD
Scott Field
Fire Sta
ERIE-LACKAWANNA
SAWYER ST
MAIN ST
LAVERACK AVE
Our Lady of Pompeii Sch
Park
LIVINGSTON AVE
BRANDEL AVE
CARTER ST
Central Ave Sch
St Marys High Sch
Substation
SCOTT
ERIE ST
Cemetery
ST MARYS ST
St Marys Sch
LANCASTER
Park
PO
Terrace Sch
PENORA ST
BOVD
CALUMET ST
BROADWAY
Sewage Disposal
D & L Plaza Shopping Center
GARFIELD ST
Townhall
PO
PLEASANT AVE
HOLLAND AVE
Court Street Sch
COURT ST
E MAIN
BLVD
Bottom
W.T.

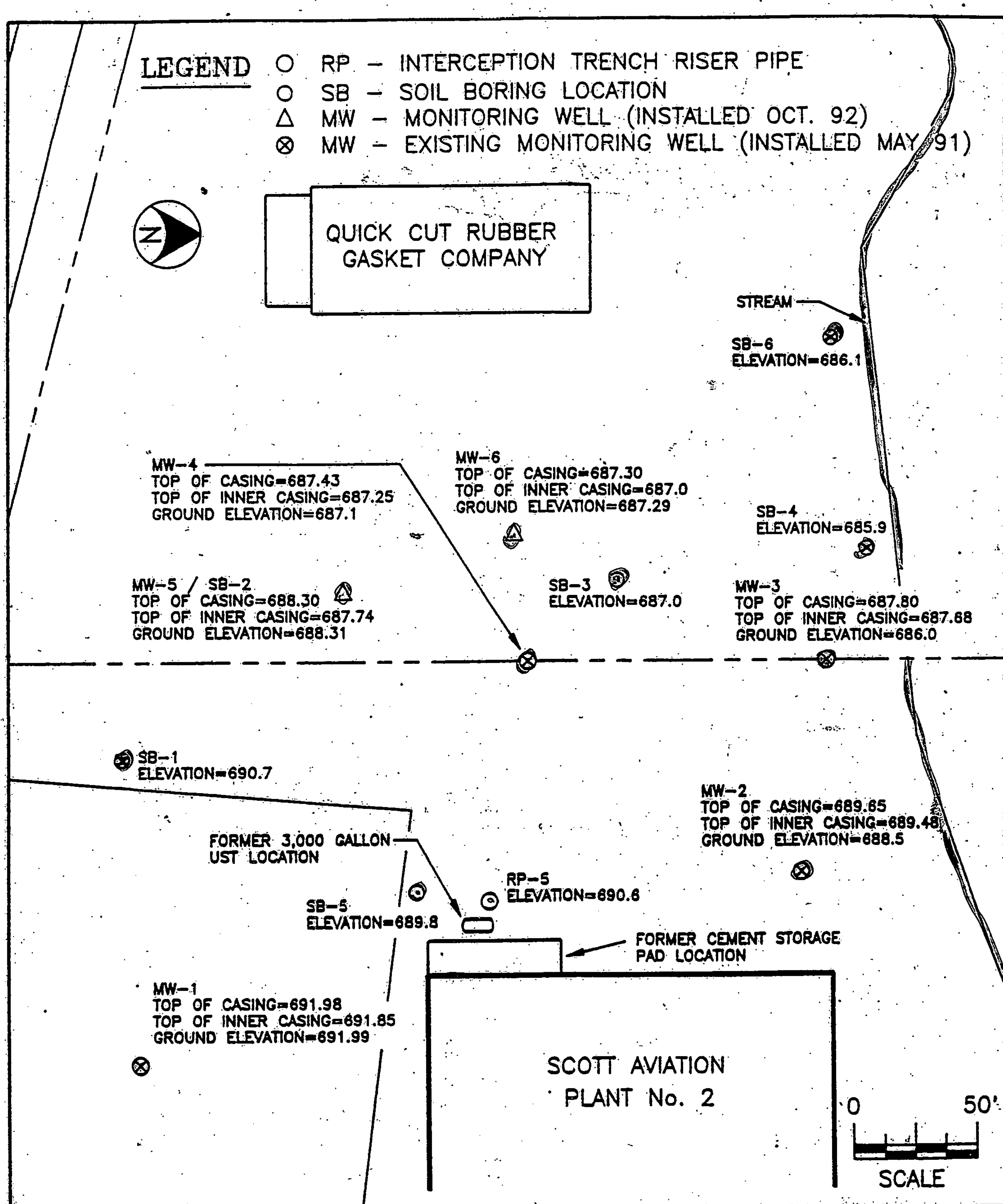
TABLE 5-11

Inorganic Compounds in Stream and Drainage Ditch Sediments
(Results in ppm)

October 30, 1992

Compound	SC-1[1]	SC-2	SC-3	DDS-1	DDS-2[1]
Aluminum	21000	9400	17000	5990	13300
Antimony	U	U	U	U	U
Arsenic	3.8B	3.8B	5.1	3.8	3.8
Barium	144	99.1	89.4	70.6	61.9
Beryllium	1.8B	0.65B	0.99B	0.68B	0.89B
Cadmium	3.7	3.6	1.6	1.7	U
Calcium	5030	246000	11500	23300	18600
Chromium	33.3	258	23.3	16.2	17.3
Cobalt	9.9B	7.3B	8.5B	5.3B	9.3B
Copper	49.0	152	24.6	60.5	33.9
Iron	28100	63700	24600	22600	211000
Lead	134	127	18.8	89.1	66.2
Magnesium	5820	14700	67100	4760	4110
Manganese	478	1770	768	910	298
Mercury	U	U	U	U	U
Nickel	32.1	62.2	27.1	20.2	16.6
Potassium	2150	877B	1190B	779B	558B
Selenium	U	U	U	U	U
Silver	U	U	U	2.1B	U
Sodium	339B	586B	294B	335B	445B
Thallium	U	U	U	U	U
Vanadium	37.6	44.9	31.8	19.6	28.8
Zinc	292	153	83.5	282	108

1. Indicates background location.
B Reading was less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Instrument Detection Limit (IDL).
U Not detected



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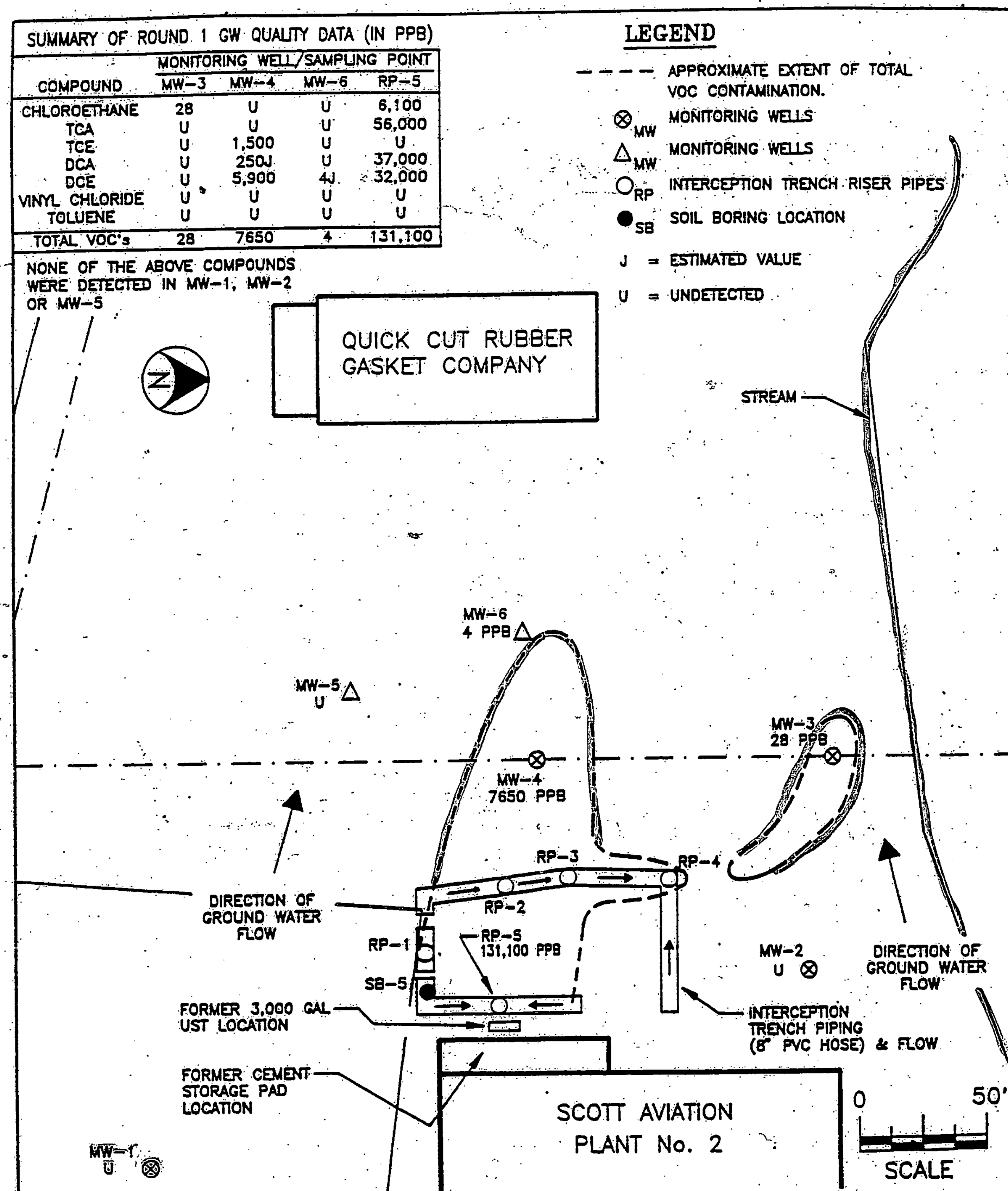
SCOTT AVIATION, LANCASTER, NY

FIGURE 3–4
SUBSURFACE SOIL AND GROUND WATER SAMPLING LOCATIONS
MARCH – 1993

SUMMARY OF ROUND 1 GW QUALITY DATA (IN PPB)

COMPOUND	MW-3	MW-4	MW-6	RP-5
	MONITORING WELL/SAMPLING POINT			
CHLOROETHANE	28	U	U	6,100
TCA	U	U	U	56,000
TCE	U	1,500	U	U
DCA	U	250J	U	37,000
DCE	U	5,900	4J	32,000
VINYL CHLORIDE	U	U	U	U
TOLUENE	U	U	U	U
TOTAL VOC's	28	7650	4	131,100

NONE OF THE ABOVE COMPOUNDS WERE DETECTED IN MW-1, MW-2 OR MW-5



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SCOTT AVIATION, LANCASTER, NY

FIGURE 5-1

INTERPRETED FROM ROUND 1 (OCT, 1992) DATA

MARCH - 1993 (REVISED OCTOBER, 1993)

1324SRI.010

TABLE 5-3

VOCs in Subsurface Soils (Results in ppb)

Compound[1]	SB-1 20-22'	SB-2 18-20'	SB-3 18-20'	SB-4 20-22'	SB-5A 0-2'	SB-5B[2] 10-12'	SB-5C 14-16'	SB-5D 16-18'	SB-6 16-18'	MW-6 18-20'
Methylene Chloride	4JB	5JB	U	U	U	10J	860JB	3200JB	5J	5JB
Acetone	21B	17B	13B	46	170	46	3900B	4000JB	U	U
1,1-DCA	U	U	U	U	27J	U	3500	6700	U	U
1,2-DCE (total)	U	U	U	U	390	U	1500J	5100J	U	U
1,1,1-TCA	U	U	U	U	U	U	20000	2900J	U	U
TCE	U	U	U	3J	U	U	200000D	120000	U	U
Toluene	U	U	U	U	48J	U	12000	5000J	U	U
Ethylbenzene	U	U	U	U	U	U	940J	U	U	U
Xylene	U	U	U	U	U	U	4300	U	U	U
2-Butanone	U	U	U	U	U	9J	U	U	U	U

1. Includes all compounds detected in at least one sample
2. See Data Validation comment 3 Chain-of-Custody (Appendix)

J Indicates an estimated value
B Compound detected in blank
U Undetected
D Diluted sample

PROJECT REVIEW
SCOTT AVAITION, SITE NO. 915149
LANACSTER(V), ERIE CO.

BACKGROUND:

SITE LOCATION:

LAND USE:

LOCAL WATER BODIES:

TOPOGRAPHY:

LOCAL WATER SUPPLY:

HISTORY:

Cutting oil tank removal - Spill group

- Tank installed 1968
- Waste oil samples never tested pos. for solvents
- Tank excavated strong solvent odor

Contaminated soil excavated and disposed

GW collection trench installed

TABLE 5-3

VOCs in Subsurface Soils (Results in ppb)

MW-5

Compound[1]	SB-1 20-22'	SB-2 18-20'	SB-3 18-20'	SB-4 20-22'	SB-5A 0-2'	SB-5B[2] 10-12'	SB-5C 14-16'	SB-5D 16-18'	SB-6 16-18'	MW-6 18-20'
Methylene Chloride	4JB	5JB	U	U	U	10J	860JB	3200JB	5J	5JB
Acetone	21B	17B	13B	46	170	46	3900B	4000JB	U	U
1,1-DCA	U	U	U	U	27J	U	3500	6700	U	U
1,2-DCE (total)	U	U	U	U	390	U	1500J	5100J	U	U
1,1,1-TCA	U	U	U	U	U	U	20000	2900J	U	U
TCE	U	U	U	3J	U	U	200000D	120000	U	U
Toluene	U	U	U	U	48J	U	12000	5000J	U	U
Ethylbenzene	U	U	U	U	U	U	940J	U	U	U
Xylene	U	U	U	U	U	U	4300	U	U	U
2-Butanone	U	U	U	U	U	9J	U	U	U	U

1. Includes all compounds detected in at least one sample
2. See Data Validation comment 3 Chain-of-Custody (Appendix)

J Indicates an estimated value
B Compound detected in blank
U Undetected
D Diluted sample

CURRENT PROJECT STATUS:

GEOLOGY:

GROUNWATER FLOW: DIRECTION AND PERMEABILITY

SUMMARY OF REMEDIAL INVESTIGATION:

TABLE 5-11

Inorganic Compounds in Stream and Drainage Ditch Sediments (Results in ppm)

October 30, 1992

Compound	SC-1[1]	SC-2	SC-3	DDS-1	DDS-2[1]	Back ground	criteria	Limit of Tolerance
	up stream culvert	downstream culvert	downstream @ rock cut	ditch @ road	ditch @ culvert	ppm		
Aluminum	21000	9400	17000	5990	13300			
Antimony	U	U	U	U	U			
Arsenic	3.8B	3.8B	5.1	3.8	3.8			
Barium	144	99.1	89.4	70.6	61.9			
Beryllium	1.8B	0.65B	0.99B	0.68B	0.89B			
Cadmium	3.7	3.6	1.6	1.7	U			
Calcium	5030	246000	11500	23300	18600			
Chromium	33.3	258	23.3	16.2	17.3	75	26	111
Cobalt	9.9B	7.3B	8.5B	5.3B	9.3B			
Copper	49.0	152	24.6	60.5	33.9	65	19	114
Iron	28100	63700	24600	22600	211000			
Lead	134	127	18.8	89.1	66.2	55	27	250
Magnesium	5820	14700	67100	4760	4110			
Manganese	478	1770	768	910	298	1200	428	1100
Mercury	U	U	U	U	U			
Nickel	32.1	62.2	27.1	20.2	16.6			
Potassium	2150	877B	1190B	779B	558B			
Selenium	U	U	U	U	U			
Silver	U	U	U	2.1B	U			
Sodium	339B	586B	294B	335B	445B			
Thallium	U	U	U	U	U			
Vanadium	37.6	44.9	31.8	19.6	28.8			
Zinc	292	153	83.5	282	108			

From corrugated steel conduit added to steel zinc coating process.

1. Indicates background location.
B Reading was less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Instrument Detection Limit (IDL).
U Not detected

TABLE 5-2

STREAM SEPERATION

Inorganic Compounds in Surface Soils
(Results in ppm)

SOUTH SIDE | NORTH SIDE

Compound	SS-1	SS-2	SS-3	SS-4	SS-5	SS-5D (Dup)	SS-6[1] OFF-SITE	(1) AVG	RANGE
Aluminum	19800	19700	14700	15600	16200	16200	7150		
Antimony	U	U	U	U	U	U	U		
Arsenic	3.4	5.2	4.8	4.4	4.2	4.2	3.0		
Barium	114	116	104	102	96.7	96.7	51.3		
Beryllium	1.3B	1.4	1.0B	1.2B	1.1B	1.1B	0.66B		
Cadmium	2.3	1.7	2.8	2.4	1.4B	1.4B	U		
Calcium	3470	4030	14700	35000	29500	29500	7670		
Chromium	25.8	25.5	21.6	23.2	19.7	19.7	19.1	53.	1-1,500
Cobalt	20.3	37.6	13.2B	12.8B	11.9B	11.9B	5.6B		
Copper	28.8	85.1	69.3	50.9	42.4	42.4	34.2	25	1-300
Iron	29100	34400	27000	28500	26500	26500	15600		
Lead	35.2	27	46.9	41.5	23.7	23.7	21.4	20	10-700
Magnesium	5620	5730	9620	14900	13500	13500	3690		
Manganese	849	1180	516	430	425	425	288	9200	50,-100,000
Mercury	U	U	U	U	U	U	U		
Nickel	29.1	34	29.7	29.4	27.9	27.9	15.0		
Potassium	1850	1270B	1030B	1920	1830	1830	514B		
Selenium	U	U	U	U	U	U	U		
Silver	U	2.7B	2.3B	2.3B	U	U	U		
Sodium	240B	370B	460B	368	333B	333B	291B		
Thallium	U	U	U	U	U	U	U		
Vanadium	37	41.3	32.5	36.8	33.9	33.9	17.7		
Zinc	102	112	205	123	99.5	99.5	141		

1. Indicates background sample
B Reading was less than the Contract Required Detection Limit but greater than or equal to the Instrument Detection Limit
U Not detected

(1) Elemental Composition of Surficial Mat'ls in U.S. 1971 USGS Paper 574-D

TABLE 5-4

Inorganic Compounds in Subsurface Soils
(Results in ppm)

MW-5

Compound	SB-1 20-22'	SB-2 18-20'	SB-3 18-20'	SB-4 20-22'	SB-5A 0-2'	SB-5B[1] 10-12'	SB-5C 14-16'	SB-5D 16-18'	SB-6 16-18'	MW-6 18-20'	Typical Metal Concentrations[2]
Aluminum	12400	14300	6500	2300	24400	20900	13300	13000	2420	2780	33000
Antimony	U	U	U	U	U	U	U	U	U	U	<1[3]
Arsenic	4.2	3.3	3.8	U	6.4	2.7	2.6	6.0	1.5B	2.2B	3-12
Barium	91	97.7	45.8	15.4B	181	124	89.7	118	16.2B	24.7B	15-600
Beryllium	.84B	1.0B	.50B	U	1.4	1.3	.76B	0.89B	0.32B	U	0-1.75
Cadmium	1.2B	1.5	U	U	1.8	U	1.4	U	U	U	0.1-1
Calcium	7170	78200	67500	160000	4770	3250	[illegible]	61300	95400	120000	130-35000
Chromium	16.8	19.5	9.6	6.6	28.1	22.3	20.6	21.7	5.8	5.7	1.5-40
Cobalt	9.3	9.3B	6.4B	4.2B	11.5	8.1B	9.4B	11.8B	3.4B	2.7B	2.5-60
Copper	44.1	20.4	16.9	16.7	23.4	26.8	31.7	31.8	20.1	14.5	1-50
Iron	21800	21800	13100	7790	31000	23400	20900	23400	7400	7210	2000-550,000
Lead	15.4	15.3	9.1	6.9	53.1	31.8	14.2	15.8	5.0	4.9	4-61
Magnesium	29800	34200	22900	18900	8730	4650	28300	25900	23300	36000	100-5000
Manganese	394	399	258	140	183	214	445	494	138	168	50-5000
Mercury	U	U	U	U	U	U	U	U	U	U	0.001-0.2
Nickel	19.4	19.9	12.9	16.9	31.3	19.8	23.4	25.8	13.0	10.1	0.5-25
Potassium	2260	2640	1260	429	2050	1200	2770	2320	387	510B	8500-43000
Selenium	U	U	U	U	U	U	U	U	U	U	0.1-3.9
Silver	U	U	U	1.5	U	2.8	U	U	U	U	–
Sodium	504B	462B	334B	240	322B	310B	347B	374B	306B	406B	[illegible]
Thallium	U	U	U	U	U	U	U	U	U	U	–
Vanadium	28.7	31.9	18.0	12.9	42.3	34.0	28.9	27.2	12.1	11.5	1-300
Zinc	74.0	72.5	55.2	47.4	97.3	95.1	71.7	75.6	89.7	64.2	9-50

1. See Data Validation comment 3 Chain-of-Custody (Appendix E).
2. Based on NYSDEC TAGM: "Determination of Soil Cleanup Objectives and Cleanup Levels," November 1992.
3. Based on "Element Concentrations in Soil and Other Surficial Materials of the Conterminous United States," 1984.
B Reading was less that the Contract Required Detection Limit but greater than or equal to the Instrument Detection Limit
U Not detected

1324TAB1.RI

REMEDIAL INVESTIGATION REPORT

Scott Aviation
225 Erie Street
Lancaster, New York

Prepared for:

Scott Aviation
225 Erie Street
Lancaster, New York

Prepared by:

Versar, Inc.
2010 Cabot Boulevard West
Langhorne, Pennsylvania 19047

NOVEMBER 1993

CERTIFICATION

Pursuant to Section II (E) (4) of order on Consent Index No. B9-0377-91-06, entered into between the New York State Department of Environmental Conservation and Figgie International, the undersigned, a New York State licensed Professional Engineer with primary responsibility for performance of the Remedial Investigation conducted at the Scott Aviation site in Lancaster, New York certifies that all activities that comprised the Remedial Investigation were performed in full accordance with the requirements of the Department approved workplan, Exhibit 2 of the reference Consent Order.

Stephen M. Schwartz, P.E.

CONTENTS

Page

Page

FIGURES

TABLES

APPENDICES

ABBREVIATIONS USED IN THIS REPORT

1,1-DCE	1,1,Dichloroethylene
1,1-DCA	1,1,Dichloroethane
1,2-DCE	1,2,Dichloroethylene
1,2-DCA	1,2,Dichloroethane
TCE	Trichloroethylene
bgs.	below ground surface
VOCs	volatile organic compounds
Hnu	type of photoionization detector
PCBs	polychlorinated biphenyls
TPHC	total petroleum hydrocarbons
RI	remedial investigation
FS	feasibility study
USDA	United States Department of Agriculture
UST	underground storage tank
TCL	Target Compound List
TAL	Target Analyte List
QAPP	Quality Assurance Project Plan
NYSDEC	New York State Department of Environmental Conservation
HBA	Habitat Based Assessment
APA	Air Pathways Analysis
RAOs	Remedial Action Objectives
SCGs	Standards, Criteria and Guidances

EXECUTIVE SUMMARY

Scott Aviation is a manufacturer of gas/vapor detection instruments, aviation products, and health and safety equipment. The facility is located approximately seven miles east of Buffalo, in Lancaster, New York. Building No. 2 is a 43,200 square foot (approximate size) structure that was constructed in 1965. This building, used primarily for product development and manufacturing, contains machine shops and an engineering laboratory. A concrete pad located west of Building No. 2 was used for the storage of metal cuttings and 55-gallon drums of cutting oils, lubricating oils, and solvents. A 3,000 gallon underground storage tank (UST), located adjacent to the concrete pad, was used to store waste oil and spent chlorinated solvents produced during the manufacturing process.

In 1991, it was discovered that the 3,000 gallon underground tank had leaked. Subsequent field sampling revealed that the release had impacted on-site soils, the drainage ditch located west of the site, and ground water west of Building No. 2.

On June 4, 1992, Scott Aviation and the New York State Department of Environmental Conservation (NYSDEC) entered into an Administrative Order on Consent, which required Scott Aviation to complete a Remedial Investigation and Feasibility Study (RI/FS). Remedial Investigation activities were conducted during October and November 1992. The RI consisted of a soil gas survey, the sampling and analysis of the surface water and stream sediments of the unnamed stream, the installation of two additional ground water monitoring wells, the analysis of a total of six monitoring wells (two rounds), the installation of seven soil borings, the collection of ten subsurface soil samples, the collection of six surface soil samples, a residential well survey, a utilities survey, a habitat based assessment, and an air pathways analysis. The *Remedial Investigation Report* documents the results of the site investigation, defines the nature and extent of contamination, and identifies potential pathways of contaminant migration. The *Risk Assessment* provides an assessment of the risks posed to human health and the environment by the potential contaminants of concern. The *Standards, Criteria, and Guidances/Remedial Action Objectives Report* compares the contaminants of concern to Federal and State requirements and developed a list of remedial action objectives for each medium of concern. After the Remedial Investigation, *Risk Assessment* and *Remedial Action* objectives reports are approved by NYSDEC, the *Feasibility Study Report* will present the basis and procedures used to identify, screen and evaluate remedial action alternatives and select a preferred alternative.

Significant items noted during the RI are presented below:

- Field activities confirmed the presence of VOC contamination in subsurface soils in the area of the former waste storage tank. The contaminants of concern include: 1,1-dichloroethane (1,1-DCA), 1,2-dichloroethylene (1,2-DCE total), 1,1,1-trichloroethane (1,1,1-TCA), trichloroethylene (TCE), toluene, ethylbenzene, xylene, and 2-butanone. Subsurface soil contamination extends from an approximate depth of 2 feet to 18 feet. The subsurface soil contamination extends laterally to the western property boundary.

- Elevated levels of VOCs have been detected in the ground water at on-site and off-site wells and the on-site interception trench. The contaminants of potential concern include: chloroethane, 1,1-DCA, 1,2-DCE (total), 1,1,1-TCA, TCE, toluene, and vinyl chloride. The ground water contaminant plume appears to be moving very slowly in a west-northwesterly direction. The slow movement of the plume is supported by hydrogeologic data, which revealed that the hydraulic conductivity and ground water velocity in the area of the highest contamination is very low. The ground water plume extends from the former waste storage area approximately 100 feet to the west.

- Based on the results of the soil gas survey, ground water sampling, and soil sampling, there is no evidence to suggest that the VOC contamination extends to the neighboring residences or poses a threat to these potential receptors.

- No evidence that site-related activities have impacted the surface water and sediments of the unnamed stream was found during the site investigation. This finding is consistent with the hydrogeologic investigation, which indicates that there is not a hydraulic relationship between ground water and surface water in the vicinity of the site.

- There is no evidence that site-related activities have impacted surface soils located in the lowlands north of the former waste storage area, indicating that no transport pathway exists between the former tank/storage pad and this area.

- The results of the air pathways analysis revealed that based on near-surface soil concentrations of VOCs detected at the site, there is no threat of impacts to air quality resulting from the volatilization of organic compounds. The volatilization of near surface organics from soil to the air is therefore not a transport pathway.

- No inorganic contamination attributable to site-related activities was confirmed in any media sampled during the RI field investigation.

- No semi-volatile organic compound, PCBs, or pesticides were detected in any media sampled during the RI field investigation.

Based on these observations, the extent of contaminated media at the Scott Aviation site is confined to an area of less than 1/3 acre. The removal of an underground storage tank and visually contaminated soils was an initial step in remediating the release associated with this waste oil tank. Future remediation of residually contaminated soils at the former tank location will eliminate the source of ground water degradation at the site. The soil remediation in conjunction with the Interim Remedial Measure (IRM) that has already been implemented, i.e. the site ground water interception trench, will provide a continuing restoration of ground water quality.

1.0 INTRODUCTION

Scott Aviation a Division of Figgie International Inc., located in Lancaster, New York, approximately 7 miles due east of Buffalo, is a manufacturer of gas/vapor detection instruments, aviation products, and health and safety equipment. Early in 1991, it was discovered that the underground waste oil and solvent storage tank, located at the southwest corner of Building No. 2, had leaked. Site soils, a drainage ditch located west of the site, and ground water west of the waste storage tank were apparently impacted by the leak. The New York State Department of Environmental Conservation (NYSDEC) listed the site on the New York State Registry of Inactive Hazardous Waste Sites as site No. 915149, based on the identification of certain compounds detected in soil and water samples collected from test pits in the area west of Building No. 2. These compounds were 1,1,1 trichloroethane, 1,1 dichloroethane, trichloroethylene, 1,2 dichloroethylene, and vinyl chloride.

On June 4, 1992, Scott Aviation and the NYSDEC entered into an Administrative Order on Consent that requires Scott Aviation to complete a Remedial Investigation and Feasibility Study (RI/FS) at the site. This report presents the results of the Remedial Investigation (RI) conducted at Scott Aviation.

The RI is conducted to collect data characterizing the site and, to establish potential pathways of contaminant migration.

1.1 Purpose and Objectives

An RI/FS Work Plan, incorporated into the Order on Consent as Exhibit B, was prepared and submitted to the NYSDEC in April 1992 to define the scope of the investigation to be conducted at the site. The results of the investigations conducted in accordance with the Work Plan are presented in this document.

In April 1992, a Quality Assurance Project Plan (QAPP), a Sampling and Analysis Plan (SAP), and a Health and Safety Plan (HASP), incorporated into the Order on Consent as Exhibit B, were prepared and submitted to the NYSDEC as companion documents to the Work Plan. The QAPP defines the laboratory performance requirements and the data quality objectives for the RI. The SAP defines sample collection protocols and the number of samples to be collected from each media. The HASP defines the health and safety procedures to be implemented during the field investigation.

All work conducted by Versar and its subcontractors was performed in accordance with Consent Order requirements.

The objectives of the investigation were to collect sufficient data to more clearly define the extent of potential contamination in soils and ground water, determine migratory pathways of contaminants from the waste storage area into the surrounding environment, determine potential environmental receptors, and further characterize the physical setting at the Scott Aviation site. Other studies conducted in accordance with the RI Work Plan included a Habitat Based Assessment, an Air Pathways Analysis, and an evaluation of the effectiveness of the existing interception trench constructed downgradient of the former waste storage area and east of the drainage ditch.

1.2 Site Background/History

1.2.1 Site Description

Scott Aviation is located at 225 Erie Street, Lancaster, New York. The company occupies land on both the north and south sides of Erie Street. Scott Aviation's Building No. 2, located north of Erie Street, is a 43,200 square foot (approximate size) brick structure constructed in 1965. Used primarily for product development and manufacturing, Building No. 2 contains machine shops and an engineering laboratory. Based on a review of aerial photographs, a portion of the land currently occupied by Building No. 2 was a parking lot prior to 1965. The remainder of the 22+ acre tract, consisted of open/undeveloped ground.

A concrete pad located at the southwest corner of Building No. 2 was used for the storage of metal cuttings and 55-gallon drums of cutting oils, lubricating oils, and solvents. A 3,000-gallon underground storage tank (UST) located adjacent to the concrete pad was used to store waste oil and spent chlorinated solvents produced during the manufacturing process.

Building No. 2 is bounded by an unnamed stream (culverted across the Scott Aviation property) and open grassed fields to the north, open fields and private residences (one of which is vacant) to the east, Scott Aviation's Building No. 1 and private residences to the south, and Quick Cut Gasket and Rubber Corporation, a private trucking company, and a New York State Electric and Gas substation to the west. The site appears on the United States Geological Survey 7.5 x 15 minute Lancaster, New York Topographic Quadrangle Map (1982).

Approximate coordinates are latitude 42° 54′ 00" and longitude 78° 39′ 30". The site location map is shown as Figure 1-1.

1.2.2 Previous Investigations

In the summer of 1990, stained soils were detected near the northwest corner of Scott Aviation, Building No. 2, north of the former waste storage pad. On July 20, 1990, Northeast Environmental collected surface soil samples from the affected area. Results of the surface soil sampling indicated the presence of total petroleum hydrocarbons at concentrations of up to 85,000 parts per million (ppm).

A visual site inspection by Environmental Service Group, Inc., a local consultant, revealed that the drainage ditch, located along the western border of the property, had apparently been impacted by activities related to the former waste storage area. This discovery prompted the removal of a 3,000-gallon waste oil tank located adjacent to the concrete pad. Upon removal of the tank, it was apparent that there had been a release from the tank. The New York Department of Environmental Conservation (NYSDEC) was notified that there had been a release. On April 9, 1991, 12-18 inches of visually contaminated soil and the concrete pad were removed from the area west of Building No. 2 under the direction of the NYSDEC.

In a letter dated April 18, 1991, the NYSDEC recommended that Scott Aviation take the following actions: (1) construct an interception trench backfilled with stone to contain contamination; (2) pump the standing water out of the drainage ditch and once the water has recharged, collect samples for volatile organic analysis; (3) install a minimum of four ground water monitoring wells; (4) provide the NYSDEC with material safety data sheets (MSDSs) for all solvents used at the plant; and (5) submit a schedule for the initiation of a detailed site assessment and remedial action plan.

The interception trench was installed in April 1991 and has been continuously operated as an interim remedial measure (IRM).
Initial sampling results from the trench revealed the presence of elevated concentrations of chlorinated solvents. Subsequently, Versar, Inc. was contracted by Figgie International to provide consulting services for the Scott Aviation site. Versar prepared a schedule of future site investigation/remedial action activities and submitted it to the NYSDEC in May 1991.

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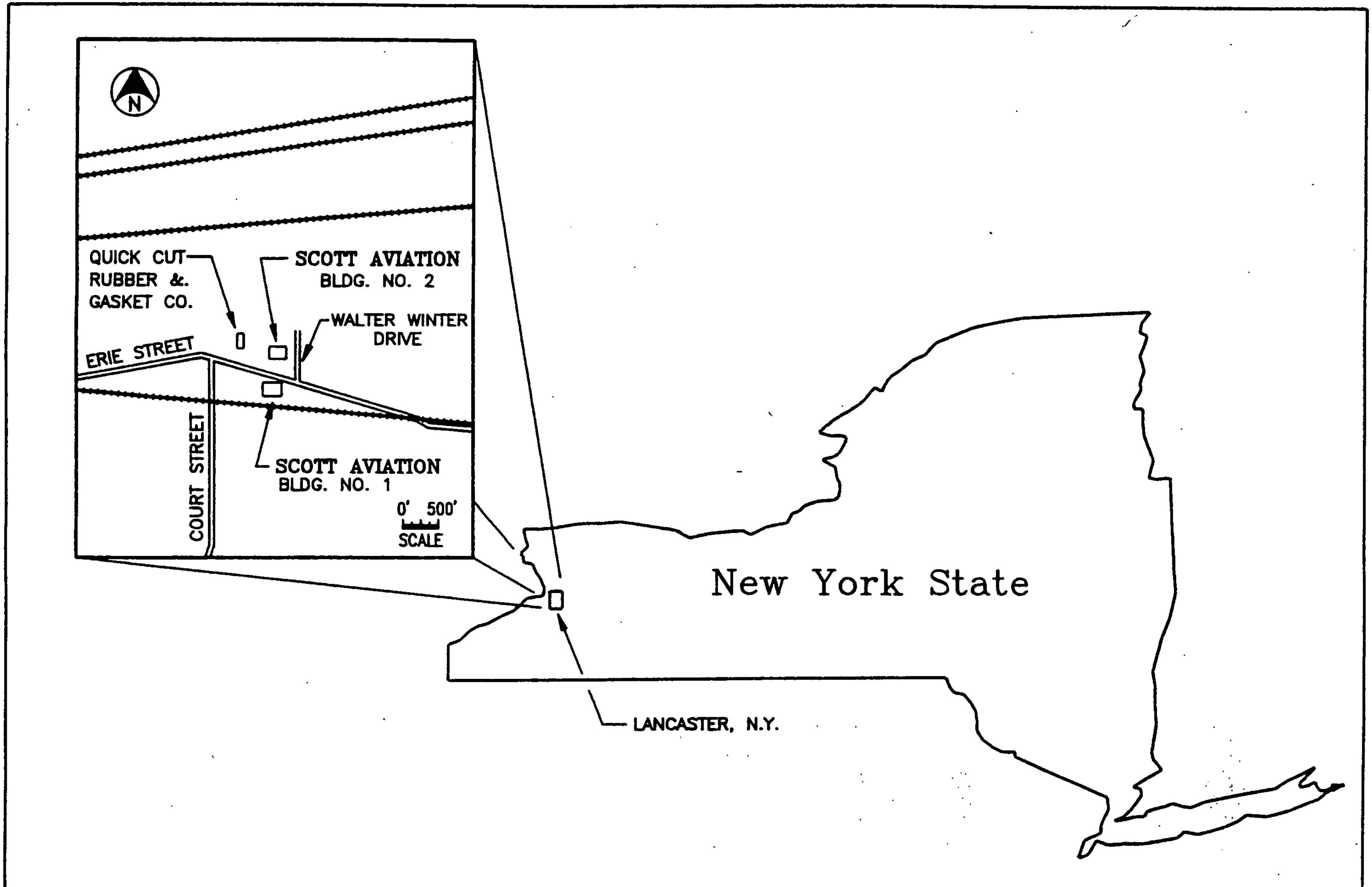

SCOTT AVIATION, LANCASTER, NY

FIGURE 1-1
SITE LOCATION MAP
February - 1993

In May 1991, Versar conducted a hydrogeological assessment of the Scott Aviation site to gather information on the geologic profile and the ground water flow direction and to provide preliminary soils and ground water data. The results of the hydrogeological assessment are documented in a report entitled *Final Hydrogeological Assessment, Scott Aviation, Lancaster, New York* (June 1991). A summary of significant findings and field activities conducted is presented below.

During the week of May 20, 1991, Versar installed four 2-inch diameter, polyvinyl chloride (PVC) ground water monitoring wells in the upper aquifer (see Figure 1-2, Monitoring Well Location Map). The wells were located based on the location of the former underground storage tank and on existing topographic and hydrogeologic conditions as understood from regional mapping. The boreholes were screened for volatile organic compounds using a photoionization detector (Hnu). Soil samples were collected from the boreholes using stainless steel split spoons and shipped to the analytical laboratory to be analyzed for volatile organic compounds (VOCs). Ground water samples were collected from these wells on May 28, 1991, and shipped to the laboratory to be analyzed for VOCs.

Soil and ground water samples collected west of the site (from MW-4) revealed the presence of elevated concentrations of VOCs, but these concentrations were significantly lower than contaminant concentrations measured in the source area (e.g., 10 times lower). Low concentrations of VOCs were detected in soil samples collected northwest of the site. These samples were obtained at or near the area where surface soil discoloration had previously been observed. This location may have been affected by runoff from the waste storage pad. However, no VOCs were detected in the ground water at this location (MW-2). Ground water and soil samples collected north and upgradient (MW-1) (southeast) of the former UST area did not indicate the presence of contamination.

On 5 July 3, 1991, Buffalo Drilling, Inc. under Versar's supervision collected an additional ground water sample from the monitoring well previously shown to contain the highest levels of VOCs (i.e., MW-4). This ground water sample was analyzed for VOCs, semi-volatile organic compounds, pesticides, polychlorinated biphenyls (PCBs), total petroleum hydrocarbons (TPHC), total metals, dissolved metals, and cyanide. The analytical results of this sampling event indicated that there were elevated levels of VOCs and some metals in the

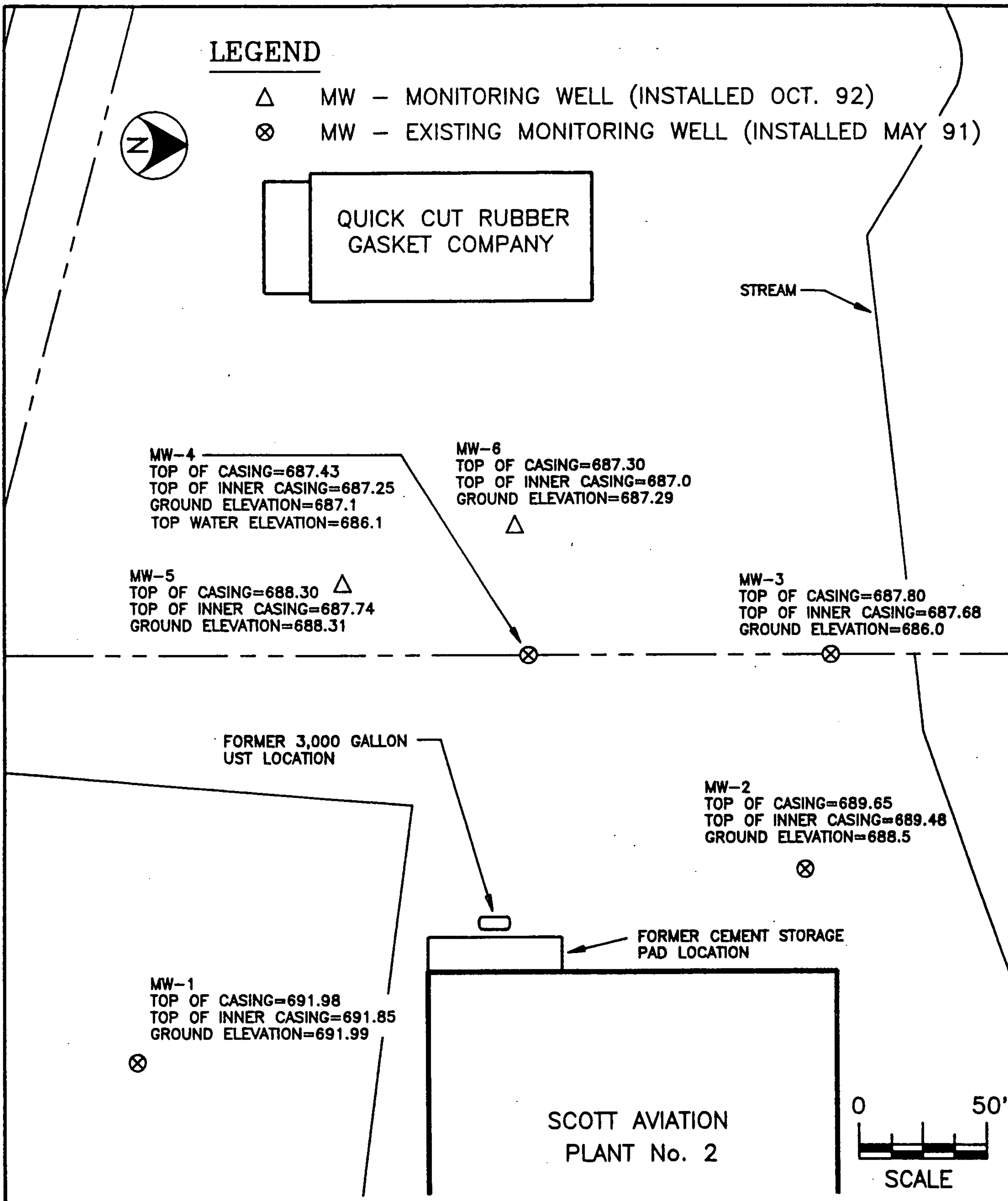

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FIGURE 1–2
MONITORING WELL LOCATIONS
MARCH – 1993

ground water. However, semi-volatile organic compounds, pesticides, PCBs, TPHC, and cyanide were undetected in this sample. The VOC analytical results for ground water samples collected from MW-4 are summarized below.

Compound	MW-4A May 1991	MW-4B July 1991
Vinyl Chloride	7 ppb	15 ppb
1,1-Dichloroethane	4.9 ppb	10 ppb
1,2-Dichloroethane	20 ppb	62 ppb
Trichloroethene	59 ppb	380 ppb

In light of the analytical results of ground water samples collected from MW-4, Scott Aviation entered into a Consent Order and Agreement with the New York State Department of Environmental Conservation (No. B9-0377-91-06) to conduct a Remedial Investigation/Feasibility Study at the Building No. 2 site.

1.3 Report Organization

This draft RI report summarizes the data collected for the field investigation conducted at the Scott Aviation Building No. 2 site. It is organized in accordance with the recommended format presented in EPA document 54/6-89/004 entitled *Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA Interim Final* (October 1988).

Section 1.0, Introduction, contains the history of previous site use and operations, waste streams, waste handling procedures, and a summary of previous site investigations. Section 2.0, Site Setting, describes local climatology and meteorology, surface features, demography and land use, and ecology. It also describes the surface water hydrology, regional and local geology and hydrogeology, and soils. Section 3.0, Study Area Investigation, describes the field activities performed at the site. Section 4.0, Results of Hydrogeologic Investigation, evaluates and interprets site-related hydrogeologic data. Section 5.0, Nature and Extent of Contamination, provides a summary of analytical results and discusses the nature and extent of contamination. Section 6.0, Contaminant Fate and Transport, evaluates contaminant migration in affected media and the fate of contaminants over the period between the release and the present. Section 7.0, Summary and Conclusions, summarizes findings regarding the nature and extent of contamination and the fate and transport of contaminants.

2.0 SITE SETTING

2.1 Climatology

According to information obtained from the National Climatic Center, Asheville, North Carolina, Erie County is typically cold and snowy in the winter seasons and moderately warm in the summer. From late fall through winter, snow squalls are frequent and total snowfall is heavy. In some years, single snowfalls of more than 2 feet have been recorded. The average winter temperature is 26°F, with an average daily minimum temperature of 20°F, while the average summer temperature is 69°F with an average daily maximum temperature of 78°F.

Total annual precipitation in Erie County is 37 inches, of which approximately 18.5 inches, or 50 percent, falls during the period from April to September. On average, in 2 years out of 10, the rainfall in April through September is less than 16 inches. The heaviest rainfall (3.9 inches) on record occurred in Buffalo on August 7, 1963. Thunderstorms occur approximately 31 days each year, most in the summer months. Mean temperature and precipitation data for Buffalo recorded during the period between 1962 and 1991 are summarized below.

	J	F	M	A	M	J	J	A	S	O	N	D
Mean Temp. (°F)	24.9	24.7	32.6	43.7	55.0	64.8	70.5	69.0	62.5	51.5	40.0	29.5
Mean Precip. (In.)	3.06	2.70	2.78	2.74	2.96	2.91	2.92	3.22	3.09	3.09	3.33	3.31

Average seasonal snowfall in Erie County is approximately 97 inches. The greatest snow depth recorded at any one time was 42 inches.

Relative humidity in mid-afternoon averages 60 percent. Humidity is typically higher at night, with the average at dawn approximately 80 percent. The sun shines about 65 percent of the time possible in the summer and 30 percent in the winter. The prevailing wind in the area is from the southwest and average windspeed is highest in the winter (14 miles per hour).

2.2 Surface Features

The Scott Aviation site and surrounding area are flat to gently rolling;

elevations range from approximately 629 to 721 feet above mean sea level (msl). The elevation of the Scott Aviation Building No. 2 facility at grade level is approximately 689 feet above MSL.

Building No. 2 is bordered on the north by open, hummocky ground, Walter Winter Drive and private residences on the east, Scott Aviation Building No. 1 on the south, and Quick Cut Rubber and Gasket Company on the west. A private trucking company and a New York State Electric and Gas Sub-Station are located west of the Quick Cut facility.

An unnamed tributary to Plum Bottom Creek flows east to west immediately north of Building No. 2. This stream is culverted across the Scott Aviation facility and a portion of the Quick Cut property.

Located along the western border of the Scott Aviation property is a drainage ditch flowing northward toward the above mentioned unnamed stream. Flow in the drainage ditch is sustained by surface and parking lot runoff directed toward the ditch via underground pipe. At the confluence of the stream and ditch is a lowland area where water ponds during periods of heavy rainfall.

2.3 Surface Water Hydrology

Scott Aviation is located in the Drainage Basin of the Cayuga Creek, a meandering stream approximately 3/4 of a mile south of the site, with headwaters in Wyoming county. It flows east to west and discharges into the Buffalo River at a point 5 miles west-southwest of the site. The Buffalo River, in turn, discharges into Lake Erie. Tributaries to Cayuga Creek near Lancaster include Little Buffalo Creek, which drains the areas south of Cayuga Creek, and Plum Bottom Creek, which drains the area north of Cayuga Creek. The confluence of these streams is within the City of Lancaster, approximately 1/4 mile southeast of East Lancaster.

An unnamed tributary of Plum Bottom Creek flows in a west-southwest direction across the Scott Aviation site approximately 100 to 200 feet north of Building No. 2. This tributary is culverted underneath the site from east of Walter Winter Drive to a point on the Quick Cut property approximately 200 feet west of the site. This tributary discharges into Plum Bottom Creek more than 6/10 of a mile southwest of the Scott Aviation property. The dimensions of this unnamed stream vary. Near Walter Winter Drive, the stream is 15.5 feet wide and 1.5 feet deep; on the Quick Cut property, the stream is 5 feet wide and 1.35

feet deep. Flow in the stream, as measured on the Quick Cut property, is estimated at 11.9 feet^3/sec.

A drainage ditch is located along the western border of the site. Flow in this ditch runs north from Erie Street toward an isolated lowlands area and the unnamed, culverted stream. The culvert is exposed at the confluence of the drainage ditch and the unnamed stream. A visual inspection of the pipe revealed a break in the pipe at this location. Two sections of pipe in the culvert had parted slightly in the vicinity of the drainage ditch. The breach, approximately 4 inches wide, occurs near the top of the piping and does not cause water from the drainage ditch to enter the stream.

Ponded water was observed within the lowlands area located at the confluence of the drainage ditch and unnamed stream. The surface area of ponded water is estimated at 200 square feet. Ponded water was also observed in an area approximately 200 feet north of the lowlands. The surface area of ponded water at this location is estimated at 3,000 square feet.

2.4 Soils

The United States Department of Agriculture (USDA) Soil Conservation Service has mapped the soils in and around the study area and identified three distinct soil units as described below. The spatial distribution of the soil types at the site is shown in Figure 2-1.

SaB - Schoharie silt loam (3 to 8 percent slopes) - This soil is, in general, well drained to moderately well drained. It is typically formed in reddish glacial lake sediments that have a high clay content. This soil is found on convex areas of shoulder slopes that parallel dissected drainage ways on the lowland lake plain. A typical soil profile is as follows:

0-9" - Dark brown silt loam (surface layer)

9-31" - Brown silty clay loam in the upper part, reddish brown silty clay in the middle, and mottled, reddish brown silty clay in the lower part (subsoil)

31-61" - Reddish brown silty clay and clay varied with silt (substratum)

General characteristics of the Schoharie silt loam include wetness, low soil strength, poor soil compaction, clayey texture, and slow to very slow permeability (< 0.2 in/hr). According to the USDA Soil Survey of Erie County, New York (1986), the depth to seasonal high water table is 1.5-3.0 feet.

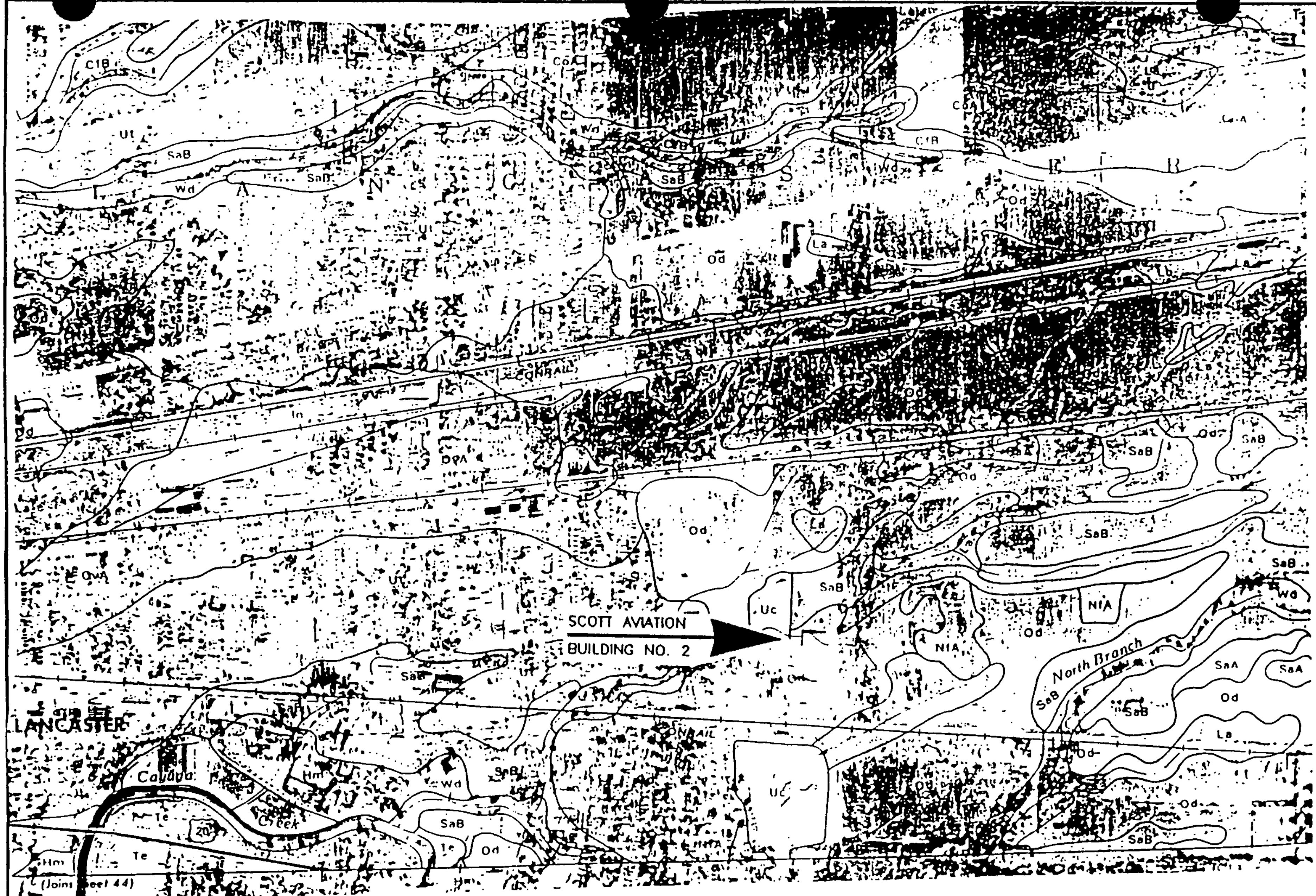

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FIGURE 2-1

SPATIAL DISTRIBUTION OF SOIL TYPES
February - 1993

Od - Odessa silt loam (0-3 percent slope) - This soil is deep and somewhat poorly drained. The Odessa silt loam is high in clay content and is formed on flat plains that were formerly the bottoms of glacial lakes. In general, this soil is found on intermittent drainage ways. A typical soil profile is as follows:

0-9"	- Very dark grayish brown silt loam (surface layer)
9-22"	- Mottled, pinkish gray silty clay in the upper part and mottled, reddish brown silty clay in the lower part (subsoil)
22-60"	- Varied, reddish brown, gray, reddish gray, and weak red silty clay (substratum)

According to the Soil Survey of Erie County, Odessa soils have a perched water table in the upper part of the subsoil from December to May. Permeability is slow to very slow in the subsoil and substratum (< 0.2 in/hr.). Runoff is slow, and there is usually no gravel in the soil.

Uc - Udorthents, smoothed - According to the soil survey, these soils are formed in deep, manmade cuts or fills most of which are located near industrial sites, urban developments, or construction sites. Udorthents consists of various kinds of excavated earthy material that has been stockpiled for use as fill or topdressing, soil and rock material that has been trucked from other areas and leveled, or soil deposits that are left in areas that have been excavated or deeply scalped. In general, the soils are variable in composition (loamy soil mixed with slag or cinders, concrete, asphalt or other wastes). A soil profile may contain a surface layer 1-8 inches thick consisting of brown or grayish brown, very gravelly, loamy sand to silty clay loam. The substratum may consist of light olive brown, brown, or dark yellowish brown, very gravelly, loamy sand to silty clay.

Udorthent soils are mostly excessively drained. Often the fill has been placed on very poorly drained to moderately drained soils, and the soil texture, stone content, soil reaction, and depth to bedrock vary considerably from one area to another. The depth to the seasonal high water table and soil permeability vary and depend on topography, degree of compaction, soil texture, and other related factors.

Based on observations from test pits excavated in the area of the former UST, virgin soil west of Building No. 2 has been regraded several times.

Distinct layering is apparent and the composition of fill materials ranges from sand to clay.

2.5 Geology

2.5.1 Physiographic Setting

Erie County is located in two physiographic provinces. The western edge and the northern half of the county are within the Erie-Ontario Lake plain province. The southern section of the county is in the Allegheny Plateau province. The Erie-Ontario Plain, in general, has little significant relief except near drainage ways. The topography of the Erie-Ontario Plain is typical of an abandoned lakebed. However, on its southern and eastern boundaries, which are formed by ancient glacial lake beaches, the topography changes to that of the Allegheny Plateau. In these areas, steep valley walls are commonplace and wide ridgetops and flat-topped hills occur between the drainage ways.

Elevations in the county range from a high of 1,935 feet above mean sea level to a low of 569 feet above mean sea level at the Lake Erie shoreline. On the Erie-Ontario Plain, elevations range from 700 to 1,000 feet above mean sea level. Elevations on the Allegheny Plateau range from 1,500 to 1,900 feet.

2.5.2 Regional Geology

Erie County is underlain by bedrock of the Upper Silvrean and the Middle and Upper Devonian geologic periods. The rock formations occur in bands that, in general, have an east-west orientation. The older (Silurian age) bedrock is found in the northern section of the county. The beds become progressively younger to the south.

The Salina Group, the oldest bedrock formation, forms a 5-6 mile wide band along the northernmost section of the county. The Salina Group is composed primarily of shale and dolomite.

Stratigraphically above the Salina Group is the Akron Dolomite and Bertie Group. This formation forms a band only 1/2 mile wide.

The Onondaga Limestone occurs immediately south of the Bertie Group. This is the oldest formation from the Devonian period and occurs in a band approximately 2 miles wide. The Devonian age Hamilton Group is above (south) of the Onondaga formation. It consists primarily of shales and limestone and forms a 4-mile wide band.

The Genesee Group overlies the Hamilton Group. The Genesee is characterized by limestone and shale. This formation, in turn, is overlain by the Sonyea Group which consists of shale.

Above the Sonyea Group in the south central portion of Erie County are the sandstones and shales of the Java and West Fall Groups. These formations extend southward into the valleys near the northern edge of the Allegheny Plateau.

The Canadaway Group, a formation consisting of shale, sandstone, and siltstone, are the youngest rocks in Erie County. This formation occupies the remainder of the county to the southern border at Cattaraugus Creek.

The bedrock in Erie County dips 50 feet per mile toward the southwest. In general, the bedrock has retained much of the form it had when it was originally deposited as silts and sands in ancient seas that covered the area 300 million years ago.

Western New York was covered and uncovered by several advances and retreats of glacial ice. As the ice moved south, it accumulated soil material and pieces of bedrock lying in its path, ultimately redepositing them as mixtures of unconsolidated materials of various sizes, shapes, and mineral content. In addition, glacial lakes occupied a large portion of northern Erie County for several long periods of time.

2.5.3 Local Geology

Scott Aviation lies within the Erie-Ontario Plain Physiographic Province. As noted above, the Erie-Ontario Plain is characterized by a lack of significant relief and typifies the topography of an abandoned, glacial lakebed.

2.5.3.1 Surficial Geology

Based on information contained in *Ground-Water Resources of the Erie-Niagara Basin, New York* (LaSala 1968), bedrock in the area of Scott Aviation is covered with unconsolidated glacial deposits consisting of till: a non-sorted mixture of clay, silt, sand, and stones deposited directly from the ice sheet that once covered the region. The characteristics of the till depend upon the types of rocks over which the ice passed and the vigor with which the ice crushed and abraded the rock. Typically, the till overlying shale formations in the Erie-Niagara Basin is dark gray and clayey or silty. The thickness of the till varies from a thin cover of two or three feet to more than 200 feet.

Overlying the till are lakebed deposits. Lake deposits consist of bedded clay, silt, and sand that settled out in glacial lakes that were fed by melting ice. They can range in thickness from a thin skin to 300 feet or more.

The subsurface geology encountered in the recently installed boreholes consisted generally of massive clay or silty clay from surface to approximately 14 feet below ground surface (bgs), clay with interstratified saturated fine sand and silt lenses from 14 to 20 feet bgs, and silty sand and gravel from 20 to 24 feet bgs with some clay. In the boring for MW-6, weathered black shale was encountered from 24 to 26 feet bgs. Complete saturation of the subsurface soils was noted at approximately 18 to 19 feet bgs in the borings during drilling.

2.5.3.2 Bedrock Geology

The bedrock beneath Building No. 2 consists of the Devonian aged Marcellus Formation (Hamilton Group). In western New York, this formation consists of predominantly dense fissile, gray to black shale with a few thin limestone and sandstone interbeds. The thickness of this formation is estimated at 30-55 feet. Based on test borings, the depth to bedrock at the site is, approximately 25 feet below ground surface.

The contact between the Skaneateles Formation (Hamilton Group), which underlies Building No. 1, and the Marcellus Formation, which underlies Building No. 2, crosses Erie Street between the two buildings. In western New York, the Skaneateles Formation consists of gray limestone overlain by gray to black shale. The thickness of this formation is estimated at 60-90 feet.

The Middle Devonian aged Onondaga Limestone underlies the Marcellus Formation. The thickness of this formation is estimated at 108 feet.

2.6 Hydrogeology

The soil, lake deposits, and till (surficial deposits) and the bedrock differ in the types of water-bearing openings they contain. The surficial deposits are composed of grains packed together with open spaces, or pore spaces, between the grains (primary porosity). Water permeates the surficial deposits because it can fill the pore spaces between the grains.

The sediments composing the bedrock initially contained pore spaces. However, these pore spaces were closed when the sediments were compacted and cemented. Ground water in bedrock is encountered mostly within joints and fractures (secondary porosity).

2.6.1 Occurrence of Ground Water in Surficial Deposits

In Erie County, only small amounts of water are contained within the till (LaSala 1968) due to the low permeability of the material. Large diameter wells can obtain only small water supplies.

Lakebed deposits consist of horizontally bedded sand, silt and clay. The permeability of the clay beds is, in general, so low as to yield no water to wells. The lakebed deposits also contain thick sections of water bearing fine sands that can be utilized for water supply. In general, lakebed deposits are not commonly used as a source of potable water.

Shale formations, like the Marcellus and Skaneateles Formations (Hamilton Group) that underlie the study area, are cut by both vertical and bedding-plane joints along which are hairline openings. Openings along the thin limestone interbedded with the shale may be widened by solution. Also, a discontinuous zone of fracturing that follows the upper surface of the rock is common.

Locally, this zone consists of only shallow tension cracks as the result of the movement of glacial ice over the rock. In other places, the fractured zone is as thick as 10 feet and consists of crumpled and broken rock. According to LaSala (1968), some exposures show convoluted beds interfolded with glacial deposits.

Recharge to the shale occurs via percolation through the overlying glacial deposits. In general, the water table lies within surficial deposits above the bedrock. The water table exists within the shale only where glacial deposits are thin or absent. The fractured zone in the upper bedrock is, in general, hydrologically connected to the glacial deposits. The glacial deposits and the fracture zone, therefore, act as a single water bearing zone. The vertical joints and bedding planes, which extend into the shale at depth, receive water where they intersect the overlying surficial deposits.

Shale formations in the Erie-Niagara basin typically contain small volumes of water. However, large volumes of ground water are present within the limestone interbeds which have been enlarged by solution openings.

Ground water in the Onondaga Limestone, which stratigraphically underlies the Marcellus Formation, occurs primarily in bedding plane and vertical joints.

Bedding-plane joints can be continuous for some miles, but they are not water bearing everywhere. Water bearing joints in the Onondaga Limestone have, in general, been enlarged by the solution of the rock by ground water. Bedding-plane joints can be as large as 1/8 inch wide where vertical joints are typically narrow.

Limestone in the region contains large volumes of water. Some wells completed in the Onondaga limestone can yield up to 300 gallons per minute.

2.7 Demography and Land Use

The Scott Aviation site is situated within the Township of Lancaster, a southeastern suburb of metropolitan Buffalo, New York. The Township incorporates the Village of Lancaster and a portion of the Village of Depew within its 42 square miles. Approximately 32,362 people live in the Township according to the 1990 census. Situated at an average of 700 feet above mean sea level, Lancaster Township contains approximately 140 miles of roadway.

The area surrounding the site is zoned as light industrial to the southwest and general industrial in the remaining directions. The central portion of Lancaster Township, mainly along the railroad tracks as well as north of the New York State Thruway, consists of large industrial and commercial areas. The remaining portions of the Township are residential or undeveloped.

3.0 STUDY AREA INVESTIGATION

3.1 Vadose Zone Investigation

On October 26, 1992, a vadose zone investigation was conducted at the site, utilizing a soil gas survey method subcontracted to Tracer Research Corporation of Monmouth Junction, New Jersey. The survey served as a screening tool to ensure that soil borings and monitoring wells were located in areas of suspected contamination, thereby minimizing the potential for sampling uncontaminated areas. In addition, this survey aided in delineating contaminant plume boundaries, and the selection of surface water and sediment sampling locations.

The survey was conducted using the "active" soil gas sampling method. Samples were obtained by evacuating a small amount of soil gas from the soil through hollow stainless steel probes driven hydraulically into the ground. The samples were analyzed immediately on-site by highly sensitive gas chromatographic equipment. The active soil gas survey allows for the immediate identification and quantification of contaminants and the tracking of potential contaminant plumes at the site. Analytes for this survey were as follows: vinyl chloride; toluene; 1,1-dichloroethylene (1,1-DCE); 1,2-dichloroethylene (1,2-DCE); 1,1-dichloroethane (1,1-DCA); 1,2-dichloroethane (1,2-DCA); and trichloroethylene (TCE).

The survey was performed north, south, and west of the former waste storage area on a 75 x 75 foot grid. A total of 15 soil gas data points were completed in the survey; their locations are depicted on Figure 3-1. Depths of data point collection ranged from 5 to 8.5 feet bgs.

3.2 Surface Water and Sediment Investigation

There are two drainage pathways that carry surface runoff from the site: an unnamed stream, partly culverted, and an intermittent drainage ditch. The unnamed stream, located north of the Scott Aviation Building No. 2, flows from east to west-southwest, intercepting Erie Street west of Quick Cut Gasket. The stream is culverted through a corrugated steel pipe from the east side of Walter Winter Drive, through the Scott Aviation property, to a point behind the Quick Cut building (Figure 3-2). The drainage ditch runs north-south,

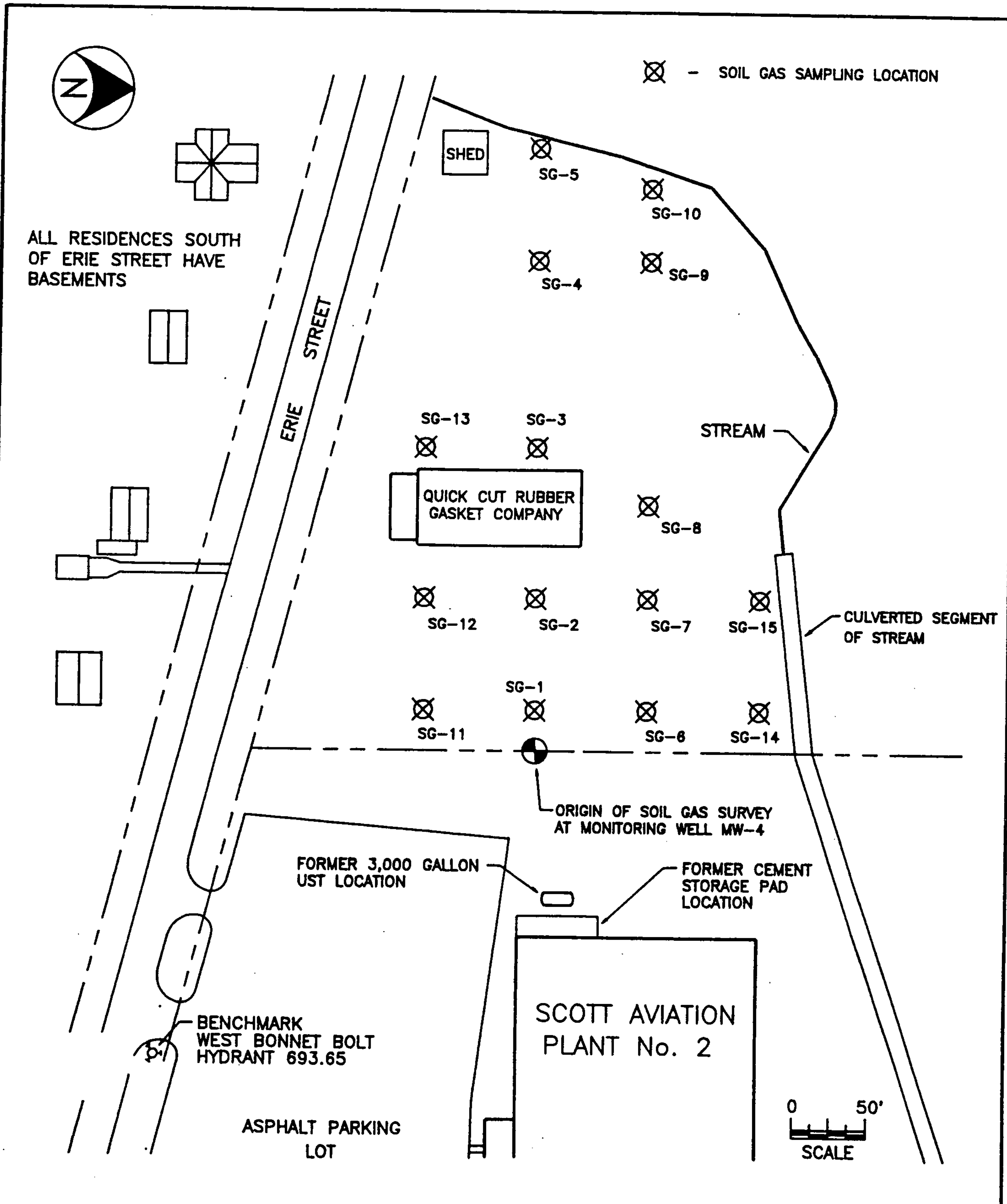

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FIGURE 3-1
SOIL GAS SURVEY SAMPLING GRID
March - 1993

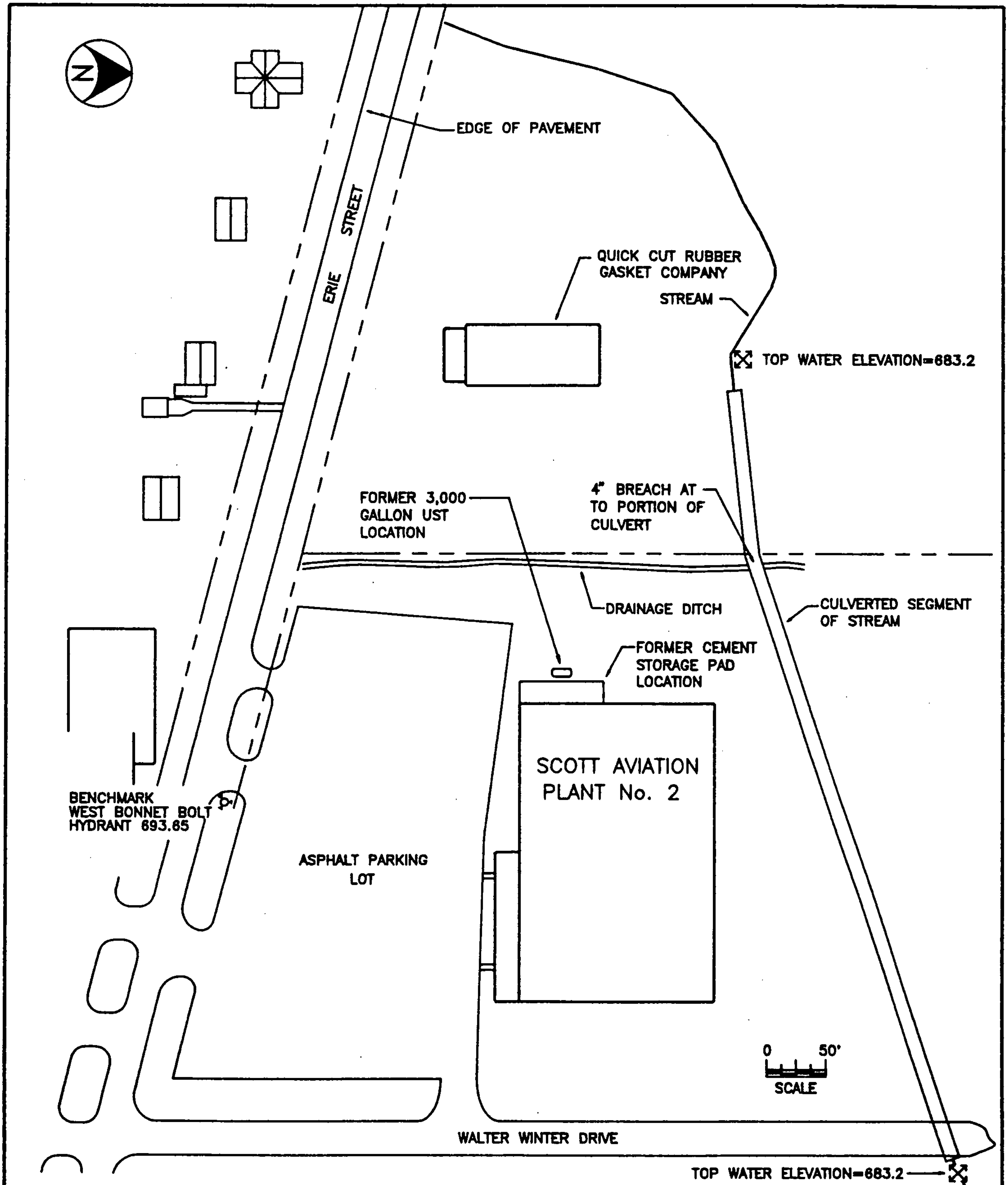

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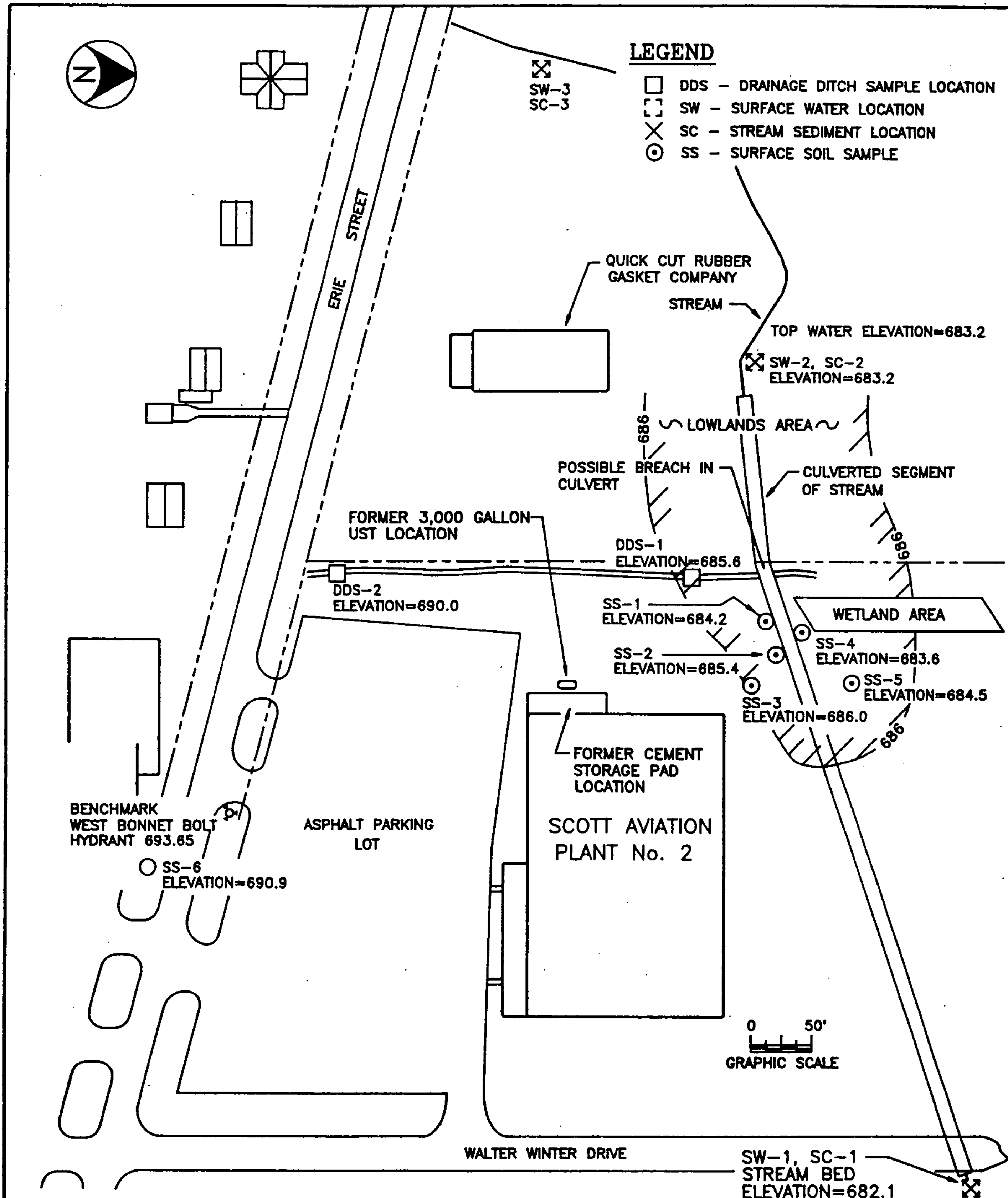
FIGURE 3-2
STREAM LOCATION MAP
March - 1993

immediately east of MW-4 and MW-3, and flows north intercepting the culverted stream. The culvert is open at the interception point; intermittent drainage ditch waters discharge into the stream.

Three surface water samples, SW-1, SW-2, and SW-3, were collected from the unnamed stream. Sample SW-1, the upstream sampling location, was collected east of the existing culvert, just east of Walter Winter Drive. SW-2, the source location, was collected immediately west of the existing culvert. SW-3 was collected at a point approximately halfway between where the stream bends to the south and where it intercepts Erie Street. For surface water sampling locations, see Figure 3-3.

Surface water samples were collected to determine if the stream has been impacted by the overland flow of contaminants, transport within the stream, or the migration of contaminants from ground water to surface water. SW-1, SW-2, and SW-3 were collected according to the procedures outlined in the QAPP, and were chemically analyzed for Target Compound List (TCL) VOCs, Target Analyte List (TAL) metals (total and dissolved), and dissolved oxygen. In accordance with the requirements for the habitat based assessment, the following stream characteristics were measured: depth, flow rate, substrate, bed morphology, and gradients. When integrated on the site potentiometric surface map, this information provided insight into the relationship between surface water and ground water. It will be discussed further in Section 4.3 Aquifer and Surface Water Relationships.

Stream sediment samples and drainage ditch sediment samples were also collected on-site. Three stream sediment samples; SC-1, SC-2, and SC-3, were collected from the same locations as the surface water samples (see Figure 3-3). These samples were collected along with two drainage ditch sediment samples, DDS-1 and DDS-2, in order to determine if the site drainage sediments have been impacted by the overland transport of contaminants via surface runoff from the nearby parking lot, transport within the stream, transport from ditch to stream, migration of contaminants from ground water to stream sediments, and to evaluate the potential migration pathway to fish and wildlife. The five sediment samples were analyzed for TCL VOCs and TAL metals. Sediment sample collection followed all outlined procedures in the QAPP.



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Because surface drainage flows west-northwest towards the ditch and the stream, sediment samples SC-1 and DDS-2 are considered the upgradient samples for the sediment investigation.

3.3 Geological Investigation

The site geological investigation consisted of the sampling of subsurface soils located northwest, west, and southwest of the former waste storage area, in order to determine the vertical and horizontal extent of soil contamination at the site. Seven borings, SB-1 through SB-6 and MW-6, were installed under the direction of a Versar geologist. These locations are depicted on Figure 3-4. Excluding the background soil boring SB-1, final boring locations were based on the results of the soil gas survey.

Borings SB-1 through SB-6 and MW-6 were drilled to depths ranging from 18 to 26 feet bgs. Soil boring SB-2 was chosen along with boring MW-6 to be converted into ground water monitoring wells SB-2/MW-5 and MW-6. This decision was agreed upon by both the Versar geologist and NYSDEC representative on-site.

Soil samples from the borings were collected with standard split-spoon samplers at continuous 2-foot intervals from the ground surface to the completion of each boring. The sampling method employed (split-spoon barrel sampling) utilizes a 2-foot long, 2.5-inch outer diameter split-spoon sampler driven into the soil with a 140-pound hammer from a 30-inch drop height. Organic vapors within the borehole, split spoons, and breathing zone were monitored with a photoionization detector (Hnu) at each boring location.

Upon retrieval, each spoon was monitored for volatile organic compounds with the Hnu, both before and after it was opened. All Hnu readings and any visible signs of staining were documented on the lithologic boring logs. The amount of sample recovery (in inches, or percent spoon) and the blow counts required to drive the spoon according to standard penetration tests were also recorded at 6, 12, 18, and 24 inches of advance. Soil samples were described according to the Unified Soil Classification System and the Munsell color chart. Copies of the soil boring logs are presented in Appendix A.

Borings not selected for monitoring well installation (SB-1, SB-3, SB-4, SB-5, and SB-6) were sealed with bentonite grout immediately upon completion.

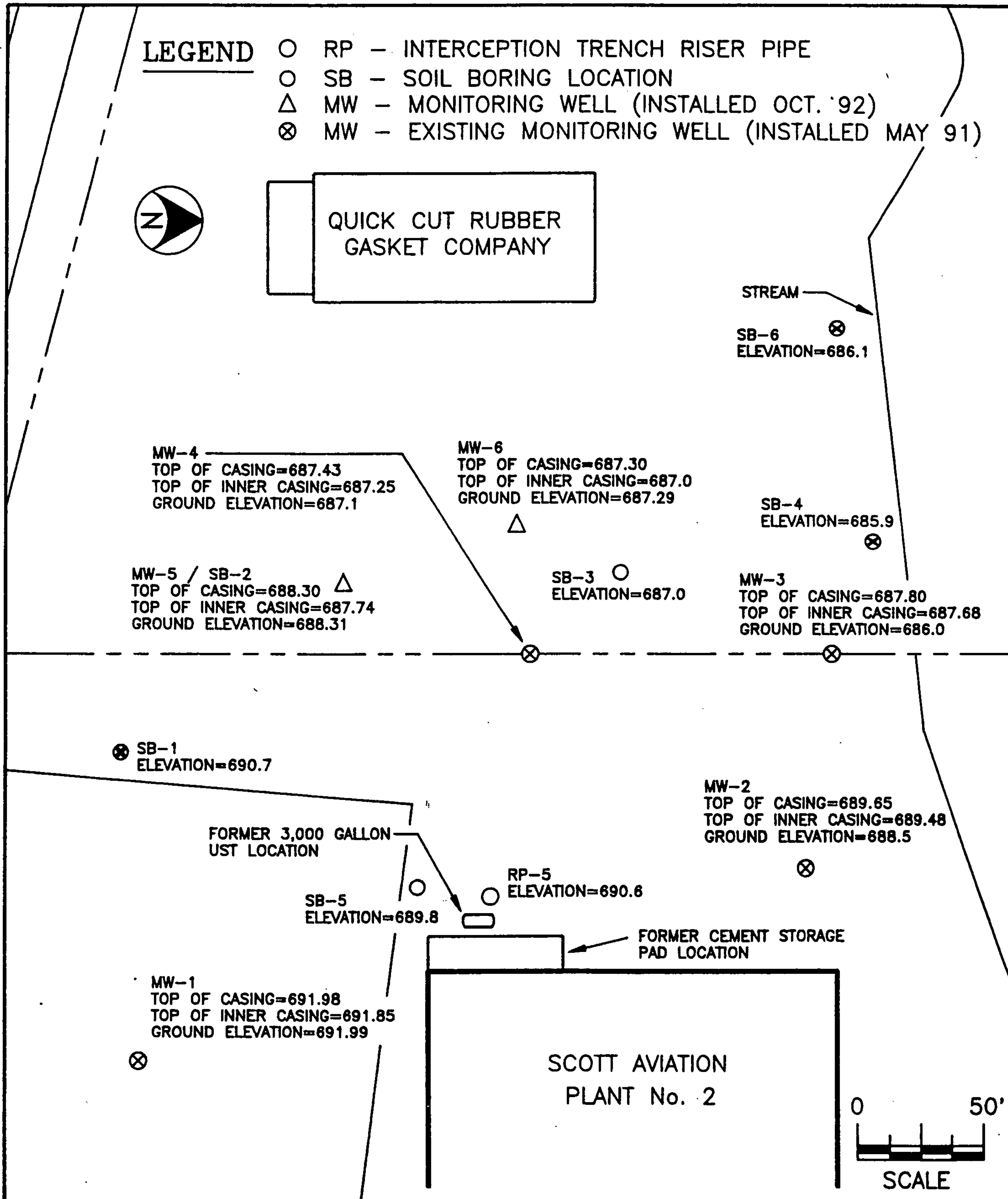

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FIGURE 3–4

SUBSURFACE SOIL AND GROUND WATER SAMPLING LOCATIONS
MARCH – 1993

Each abandoned borehole was inspected at 24-hour periods following initial sealing and, if necessary, additional grout was added to each hole. Borehole abandonment followed procedures outlined in the QAPP and approved site sampling plan.

Sampling and drill cuttings were containerized in 55-gallon drums, sealed, and stored on-site at a centralized location. Each drum was labeled as to the contents and boring location, and the date the contents were generated. Under the terms of the Order on Consent, Scott Aviation, at its sole discretion, has chosen the option of maintaining drummed investigation derived wastes on-site, in accordance with federal and NYSDEC regulations, pending the determination of any need for the development of a site remediation plan.

Equipment decontamination activities were completed on-site following all procedures outlined in the site sampling plan. Steam-cleaner water was also captured and containerized in 55-gallon DOT drums to be disposed of at a later date.

A total of ten soil samples were collected for laboratory analysis from the seven borings. Four samples were collected from SB-5, and one each from the remaining boreholes. Boreholes were continuously split-spoon sampled from the surface to the top of the interstratified aquifer, and samples for laboratory analysis were generally collected from the soil-water interface in each boring. Borehole SB-5 was completed between the former waste storage pad and the interception trench. Four soil samples were collected from this boring as follows: one at the surface; one between the surface and the top of the uppermost confined aquifer exhibiting the highest head space reading; one from the soil-water interface; and one between the top of the uppermost confined aquifer and the bedrock exhibiting the highest head space reading. The sample from boring SB-5 with the highest headspace reading (14-16 feet bgs) was analyzed for full TCL parameters to form a baseline for comparison. Samples were collected in this manner in order to determine variations in contaminant concentrations with depth.

3.4 Surface Soil Investigation

The surficial lowlands north of the former waste storage area have been targeted as a potential area of concern because they are topographically downgradient of the former waste storage area and because stained soils have previously been identified in this section of the property. A total of six surface soil samples were collected by Versar personnel under the observation of a NYSDEC representative on October 26, 1992. For background purposes, five samples were collected from the lowlands area and one, SS-6, was collected adjacent to the front of Scott Aviation's Building No. 1 (see Figure 3-3). These samples were collected to investigate the potential for the migration of contaminants from the former waste storage area into the lowland area via overland flow. Of the five surface soil samples collected from the lowlands area, two were located north of the culverted stream segment to evaluate the potential fish and wildlife migration pathway. Because the stream is culverted along the length of the Scott Aviation property, the migration of contaminants from the waste storage area north of the stream is deemed unlikely. The soil samples were collected from 2-6 inches bgs using stainless steel hand augers or scoops, and were submitted for laboratory analysis of TCL VOCs and TAL metals.

3.5 Hydrogeological Investigation

The installation of additional monitoring wells was completed to supplement ground water data acquired during the Preliminary Hydrogeologic Assessment at Scott Aviation. Potentiometric, hydraulic conductivity, and water quality data from a total of six monitoring wells provided the framework for characterization of ground water flow and contaminant transport.

3.5.1 Monitoring Well Installation

Previous analytical results from samples collected from MW-4 have confirmed that ground water west of Building No. 2 has been impacted by activities related to the former underground storage tank.

To investigate ground water conditions west and southwest of MW-4, two additional ground water monitoring wells were installed within the uppermost confined aquifer. Monitoring well MW-5 was installed southwest of existing well MW-4 to examine the potential for the migration of contaminants southwest of the former waste storage area. Monitoring well MW-6 was installed to examine the potential for the migration of contaminants hydrologically downgradient of MW-4.

Analytical results from the May 1991 sampling of monitoring well MW-3 revealed the absence of VOCs in the ground water northwest of the former waste storage area. Therefore, no additional ground water monitoring wells were installed northwest of MW-4.

Monitoring wells MW-5 and MW-6 were constructed with 2-inch diameter, Schedule 40 PVC screen with slot size of .010 inches. Schedule 40 PVC riser pipe extends from the top of the screened interval to the ground surface. For additional well construction details, see Appendix A.

Newly installed wells MW-5 and MW-6 and existing wells MW-1 through MW-4 were developed with bailers, in accordance with the procedures specified in the SAP. Details of well development including; quantities of water removed, Ph, conductivity, and temperature measurements recorded during the development, and comments are provided in Appendix B.

Water levels measurements in wells MW-1 through MW-6 were obtained using an electronic static water level indicator. Data from November 16, 1992 and August, 1993 are summarized below.

TABLE 3-1

Well	Well Depth	Depth to Water	Elevation TOC	Elevation Water Table Nov. 1992	Elevation Water Table Aug. 1993	Elevation BOS
MW-1	27.1 ft	6.54 ft	691.85	685.31	682.91	664.75*
MW-2	17.3 ft	3.63 ft	689.48	685.85	683.52	672.18
MW-3	27.7 ft	3.50 ft	687.68	684.18	680.70	659.98*
MW-4	25.9 ft	2.77 ft	687.25	684.48	681.12	661.35*
MW-5	23.1 ft	3.31 ft	687.74	684.43		664.65*
MW-6	25.0 ft	3.35 ft	687.00	683.65	680.86	658.65*

TOC - Top of inner well casing BOS - Bottom of screen/well
* - Based on information obtained from split spoon sampling, these wells were installed on top of the bedrock surface.

3.5.2 Monitoring Well and Interception Trench Sampling

Ground water samples previously analyzed from monitoring well MW-4 revealed significant concentrations of VOCs within the interstratified aquifer. VOCs that were detected above minimum detection levels included: vinyl chloride; 1,1-dichloroethane; 1,2-dichloroethane (total); and trichloroethene (TCE). No semi-volatile organic compounds, pesticides, PCBs, or TPHCs were detected in this well.

Two rounds of ground water samples were collected from each of the four original monitoring wells and the two newly installed monitoring wells, for a total of 12 samples. Ground water monitoring wells were sampled according to procedures outlined in the NYSDEC-approved QAPP attached to the workplan. All ground water samples were analyzed for TCL VOCs, TAL metals (total and dissolved), Ph, conductivity, and temperature.

Ground water samples were collected on October 30, 1992 and November 17, 1992. Prior to sampling, the monitoring wells were purged of three equivalent well volumes, or one well volume if bailed dry, to ensure that the samples were representative of the formation water within the aquifer. As measured with an Hnu, no organic vapors were detected within the interior of the well casing prior to purging.

To evaluate the interception trench as a deterrent to the westward migration of contaminants, the trench was sampled at vertical pipe RP-5 (see Figure 3-4) in conjunction with the monitoring well sampling program, in accordance with procedures outlined in the NYSDEC-approved QAPP. The contents of the trench were not purged prior to sampling. The interception trench samples were also analyzed for TCL VOCs, TAL metals (total and dissolved), Ph, conductivity, and temperature.

Analytical data derived from each round of field sampling activities is discussed and interpreted in section 5.0 of this report.

3.5.3 Hydraulic Testing

Aquifer testing was conducted in each of the six monitoring wells at the Scott Aviation site to evaluate aquifer hydraulic conductivity trends and the relationship to ground water contaminant transport. Slug tests were performed from November 18 to November 20, 1992, following the second round of ground water sampling.

Testing was performed using a 5-foot long PVC slug with a 2-inch diameter. After introduction of the slug into each well, water level measurements were determined through the use of a pressure transducer and time-drawdown data were electronically recorded via a "hermit" (data logger). Time-drawdown data were acquired from slug-in and slug-out tests and downloaded from the hermit to a computer diskette for later formatting and modeling.

Time-drawdown data were formatted as an ASCII file for entry into the AQTESOLV modeling code. This aquifer test evaluation software program provides a rapid plot of time-drawdown data and allows convenient curve matching to a family of type curves stored in the program for unconfined and confined aquifer settings. The Cooper-Bredehoft method for confined aquifers was selected for curve matching and data interpretation, based on characterization of aquifer information acquired during drilling and well installation.

Time-drawdown data and the selected type curve matches for the slug-in and slug-out tests for each well are presented in Appendix C. Individual monitoring well hydraulic conductivities and aquifer hydraulic conductivity trends are reported and discussed in Section 4.0.

3.6 Residential Investigation

Residences in the immediate vicinity of Scott Aviation's Building No. 2 were surveyed to identify those homes with basements and/or private water supply wells and determine whether any of these residences lay within interpreted contaminant transport pathways.

The homes situated on the south side of Erie Street and to the east of Court Street have basements. These homes are located approximately 300 to 700 feet southwest of Scott Aviation Building No. 2. The homes in the immediate vicinity of Scott Aviation (from Walter Winter Drive to Court Street along Erie Street) are on public water supply. A single home known to have had a private supply well is located on the northeast corner of the intersection of Erie Street and Walter Winter Drive. Reportedly now out of service, this well is located in an upgradient direction from Building No. 2. This residence now receives potable water through the public supply distribution system.

Investigation of the local geology reveals that a surficial clay layer about 10 feet thick is located in the area between Scott Aviation's Building No. 2 and the residences described above. The impermeable nature of this clay appears to limit the migration of VOCs originating from the former waste oil tank near Building No. 2. The lack of off-site movement of these contaminants is verified by soil gas data and analysis of subsurface soil and ground water samples collected to the west of the Scott property, near the Quick Cut Rubber and Gasket building. These data are reviewed in Sections 5.2, 5.3, and 5.4 of this report.

3.7 Underground Utilities Investigation

Before subsurface activities commenced, a review of underground utilities was conducted at the site and adjacent property. This survey included the marking out of sewer, water, gas, and electric lines along Erie Street by local utility companies, and the interviewing of Scott Aviation personnel to determine the location of utilities within the property boundaries. After the preliminary identification of underground utility lines, a site walk-over was conducted to check for drains, manholes, or other surface features that may be tied into or indicate the presence of any additional pipes or cables.

Dye and smoke tests were not deemed necessary because the utilities were not observed to traverse the area immediately west of Building No. 2, where the former waste oil tank had been located and where the bulk of the Remedial Investigation was conducted. The absence of manholes, storm water sumps, or catch basins contiguous to the study area eliminated the need for sampling of such features. Storm water in the area west of Scott Aviation Building No. 2 appears to be conveyed to a low-lying section of the property, just to the north of the culverted stream, via a drainage ditch which runs along the property line between the Scott and Quick Cut facilities. Water and sediment samples taken from this drainage ditch are discussed in Section 5.0.

Up-to-date site utility maps are not available for the Scott Aviation property. According to Scott personnel, water, sewer, and gas lines enter the east side of Building No. 2 from Walter Winter Drive. Electrical lines run from the southwest corner of Building No. 2 to Erie Street, cross the parking lot, and skirt the former tank area to the southeast. The only utility line known to exist west of Building No. 2 is a fiber optic telephone cable that runs aboveground from the building to the drainage ditch and continues underground toward the firehouse on Erie Street. With its aboveground configuration and small diameter, the fiber optic cable does not constitute a likely off-site migration pathway.

3.8 Habitat Based Assessment

Prior to commencing site characterization activities, a Habitat Based Assessment (HBA) was performed to evaluate potential impacts of the former Scott Aviation waste storage area on fish and wildlife. The primary focus of the HBA was to document whether fish and wildlife resources are present and if potential migration pathways to these resources are complete. The HBA consisted of the following tasks: (1) preparation of a site map, (2) a description of fish and wildlife in the vicinity of the site, (3) a qualitative description of the value of the habitat to fish and wildlife, and (4) identification of fish and wildlife regulatory criteria. The results of the site characterization will be used to determine if a migration pathway exists and what impact, if any, it is likely to have on fish and wildlife resources. Data from the Habitat Based Assessment is discussed in Section 5.8 of this report, and the HBA document is presented in Appendix F.

3.9 Air Pathways Analysis

An Air Pathways Analysis (APA) was conducted, in accordance with NYSDEC guidance, to evaluate potential effects the site may have on ambient air quality. The focus of the APA was ambient exposure as a result of volatilization of VOCs found in site-related soils and surface water. The APA is presented in Section 5.9 of this report.

4.0 RESULTS OF HYDROGEOLOGIC INVESTIGATION

Geologic and hydrogeologic data acquired during the drilling, installation, and sampling of six ground water monitoring wells at the Scott Aviation site provides the basis for determining aquifer geometry, hydraulic gradient, and hydraulic conductivities. Raw data used to define these parameters was generated from sample logs, water level measurements, and slug tests. Data reduction involved the preparation of cross sections, a potentiometric surface map, and hydraulic conductivity trend map. Final interpretations were evaluated for consistency with published regional geologic and hydrogeologic data for the western New York and Erie County areas.

4.1 Aquifer Characteristics

Aquifer geometry, hydraulic gradient, and hydraulic conductivities were quantified as a prerequisite to determining ground water flowpaths and velocities. Uppermost confined aquifer thickness was measured for estimating transmissivity and for evaluating the potential for separate phase contaminant transport pathways. A comparison of total aquifer thickness and vertical monitoring coverage afforded by 10-15 foot well screen intervals supported that assessment.

Hydraulic gradient and hydraulic conductivity data were mapped and interpreted to verify previously determined ground water flow directions, to calculate velocities, and to check for any site specific anomalies that might exert an influence on ground water flow patterns.

The nature of the uppermost confined aquifer, previously described as the interstratified aquifer, was found to have the characteristics of a confined aquifer based on the following observations:

- Soil samples collected in the upper 10 feet of overburden from site borings were classified primarily as clays (CL) with low moisture content.
- At depths below 10 feet, sand laminae showed a gradation of moisture content increasing through an apparent transition to saturated conditions.
- Water level measurements in well screens set at 10 feet or more below grade rose to within 2-4 feet of the land surface after well completion, indicating the presence of a potentiometric surface.

4.1.1 Aquifer Geometry

The classification of soils penetrated during drilling activities, together with observations relative to the degree of saturation in these soils, were used to characterize the thickness and areal distribution of the uppermost confined aquifer. Regional geologic reports (LaSala 1968) indicate that the Scott Aviation site is situated in an area of glaciolacustrine deposits and till overlying bedrock of the Devonian Skaneateles Formation. In Erie County, aquifers developed in these glacial deposits occur both as confined and unconfined.

Local aquifer development at the Scott site appears to be consistent with the regional hydrogeologic setting based on Unified Soil Classification System (USCS) data acquired during drilling. Approximately 25 feet of overburden is present and overlies a weathered shale formation. The upper 10 feet is represented by a dense, unsaturated clay confining unit. Where undisturbed by excavation, this clay unit may restrict the migration of gaseous phase VOCs and serve as a barrier to the infiltration of any near surface releases. A depth to the top of the former tank of 2 feet below grade, tank diameter of 5 feet, and the fact that the tank was not installed in ground water suggests that several feet of this upper clay unit remained beneath the tank following its installation.

Underlying the clay unit is an interstratified/laminated sand and clay unit averaging about 15 feet in thickness and uniformly developed at the six monitoring well locations. The latter stratigraphic unit, interpreted to be the glaciolacustrine facies described by LaSala, is depicted in the geologic cross sections shown in Figures 4.1 and 4.2.

Monitoring ground water with 10-15 foot well screens in the thin, uppermost confined aquifer (less than 16 feet in thickness) makes it unlikely that separate phase contaminant transport pathways will go undetected. In MW-5, which lies both downgradient and downdip of the former underground storage tank and the area showing the highest concentrations of VOC soil contamination, a 15-foot well screen providing 90-100% monitoring coverage of the aquifer revealed no volatile ground water contamination. This finding indicates that no contaminant transport pathway occurs at the aquifer/bedrock interface. (A discussion of contaminant distribution trends in ground water is presented in Section 5.0.) Use of complete vertical monitoring coverage of site wells

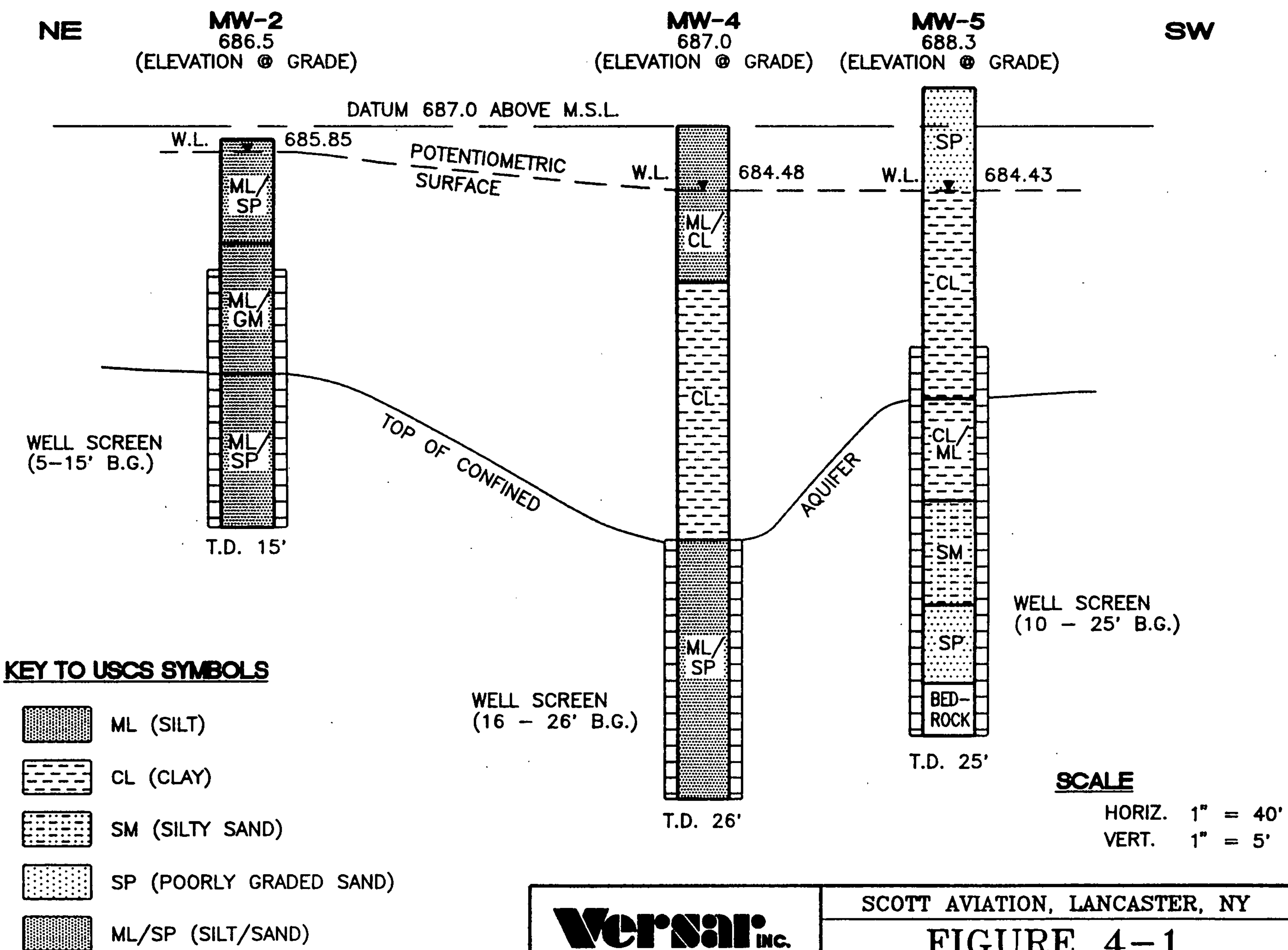

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FIGURE 4-1
GEOLOGICAL CROSS SECTION
February - 1993

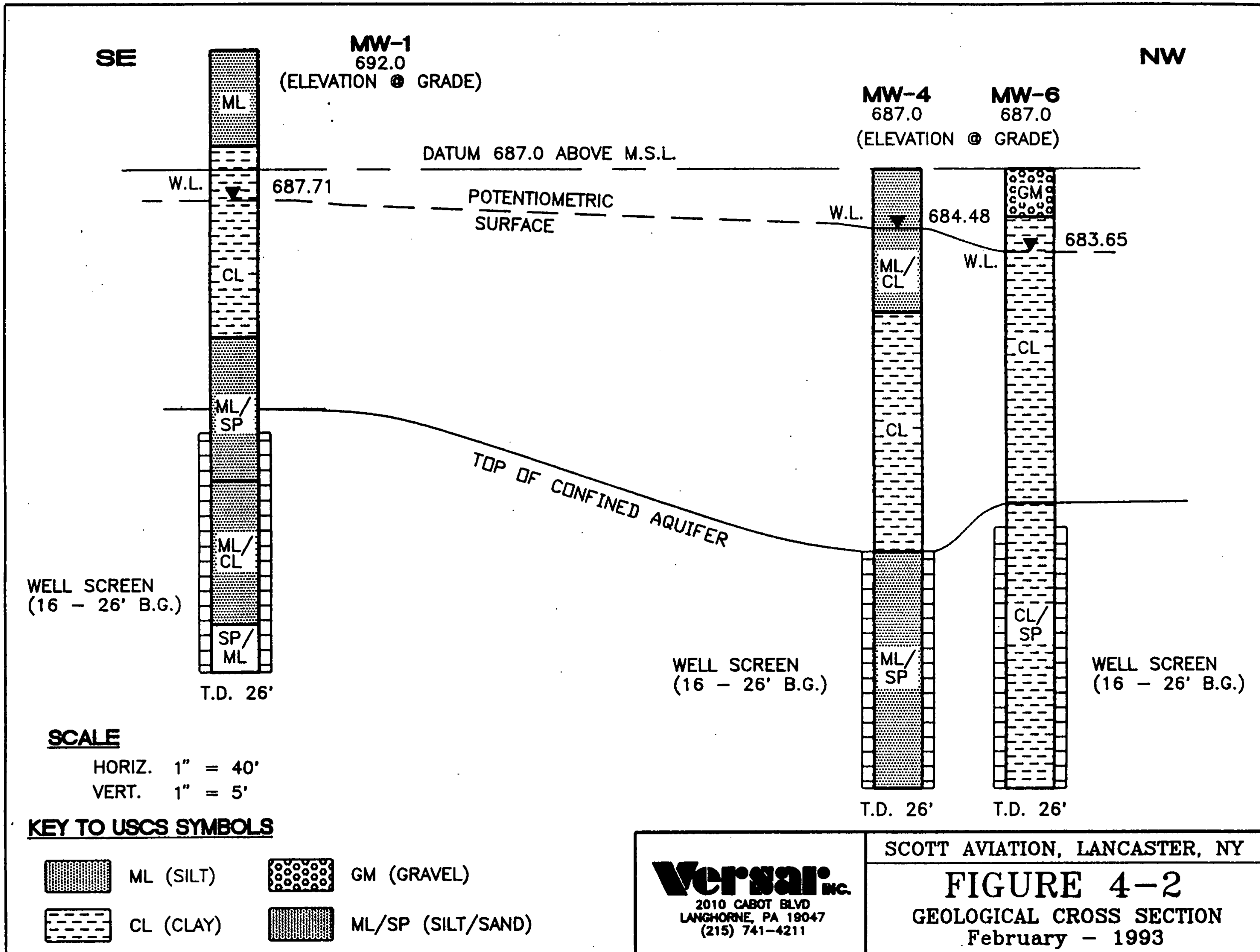

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FIGURE 4-2
GEOLOGICAL CROSS SECTION
February – 1993

ensures that potential contaminant transport pathways along the soil/bedrock interface are adequately evaluated.

4.1.2 Hydraulic Conductivity

Slug tests were performed in each of the six monitoring wells to quantify aquifer hydraulic conductivities in the site vicinity. Time-drawdown data from slug-in and slug-out tests were recorded via pressure transducers and a data logger and then downloaded for computer modeling. Slug tests were plotted using the AQTESOLV modeling code and were interpreted with the Cooper-Bredehoft method for confined aquifers. AQTESOLV drawdown curves for the twelve slug tests performed are presented in Appendix C. Hydraulic conductivities were determined for each well from slug-in and slug-out data; their mean values are reported in Table 4-1 below.

TABLE 4-1
Hydraulic Conductivities in
Scott Aviation Site Monitoring Wells

Monitoring Well I.D. Number	Mean Hydraulic Conductivity
MW-1	3.8×10^{-3} cm/sec (10.6 ft/day)
MW-2	1.7×10^{-4} cm/sec (0.48 ft/day)
MW-3	1.6×10^{-4} cm/sec (0.45 ft/day)
MW-4	6.7×10^{-5} cm/sec (0.18 ft/day)
MW-5	3.4×10^{-3} cm/sec (9.5 ft/day)
MW-6	1.4×10^{-4} cm/sec (0.39 ft/day)

Hydraulic conductivities at the site span a range of three orders of magnitude and are consistent with anticipated values for fine-grained sands and silts. Figure 4.3 shows a trend of hydraulic conductivities in the uppermost confined aquifer that increase in a southerly direction away from the unnamed stream transecting the site. (The only exception to this trend is the anomalously low hydraulic conductivity which occurs in the vicinity of MW-4.) However, since no direct relationship exists between the Pleistocene glaciolacustrine deposits of the uppermost confined aquifer and the Holocene stream deposits, the stream does not affect this trend.

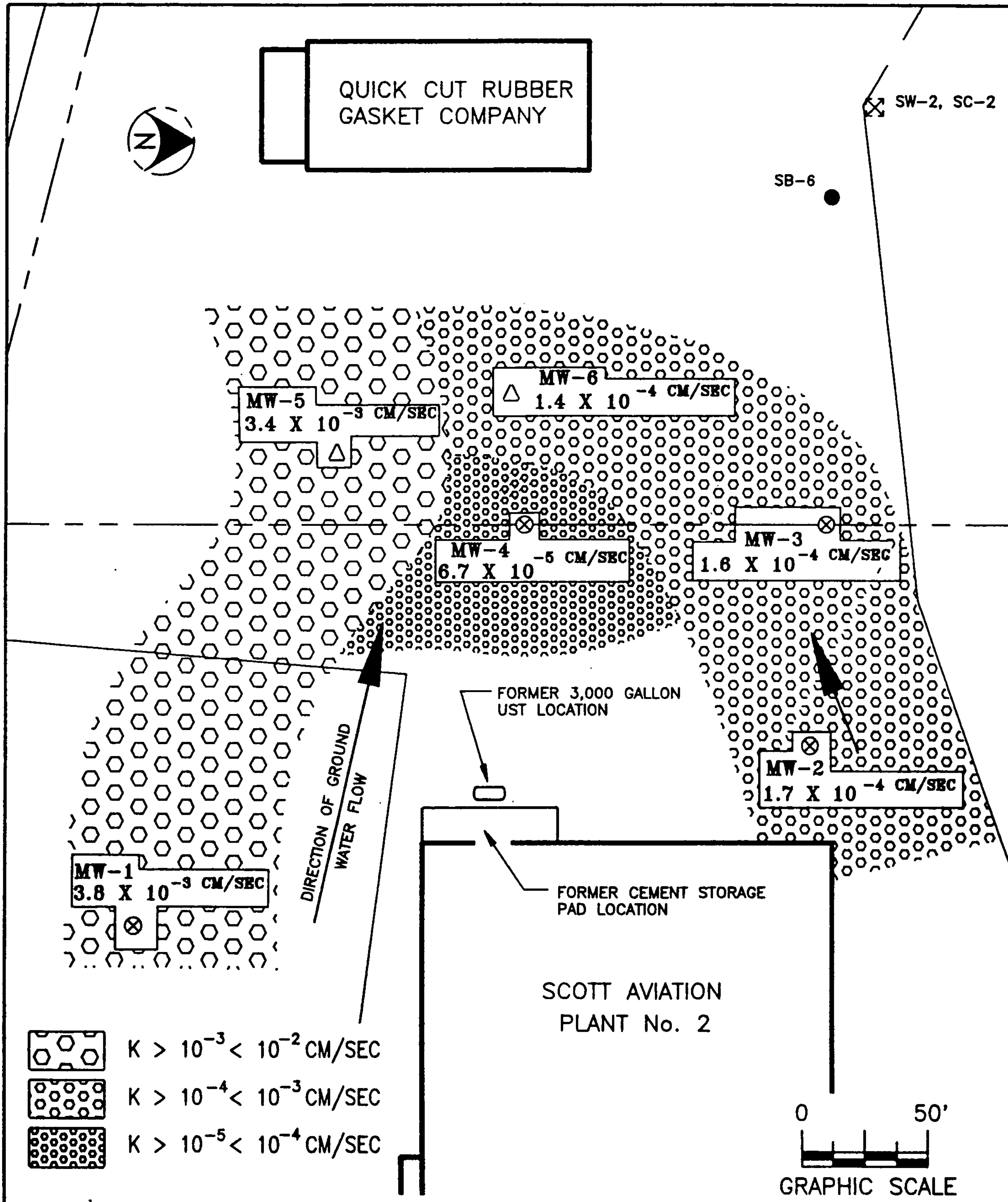

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FIGURE 4-3

HYDRAULIC CONDUCTIVITY TREND MAP
February - 1993

The presence of volatile organic compounds in ground water samples from MW-4 is likely to be related to a former underground storage tank located near this portion of the site. The base of the former 3,000-gallon tank appears to have been in close proximity to the top of the uppermost confined aquifer, which occurs at an average depth of only 10 feet below grade. Over time, leakage from perforations observed during the removal of this tank through the remaining unexcavated portion of the clay confining unit caused contaminants to enter the uppermost confined aquifer.

The laminated character of the uppermost confined aquifer and slug test data from MW-4 indicate the presence of low vertical and horizontal hydraulic conductivities in the area at and downgradient of the former UST. These factors have limited the migration of tank related contaminants to an area of approximately 1/3 acre, west of Building No. 2. (Contaminant distribution trends are discussed in detail in Section 5.0).

A hydraulic conductivity of only 6.7 x 10^{-5} cm/sec in the aquifer segment where MW-4 was installed will be a significant consideration during the site feasibility study and subsequent planning of remedial design or remedial action. Although the specific capacity of MW-4 has not yet been determined, the time/drawdown data indicate that it will not be able to sustain much yield during pumping, a factor that will need to be evaluated when ground water remediation requirements and design parameters are assessed. Well development data, presented in Appendix B, shows that MW-4 can be bailed dry following the removal of 13 gallons of water over a 20 minute period.

Transmissivity in the uppermost confined aquifer ranges from 1.0 x 10^{-3} cm/sec (2.7 ft^2/day) at the central part of the site to 5.7 x 10^{-2} cm/sec (1.6 x 10^2 ft^2/day) to the south. A limited volume of water flows through this thin, silty, low permeability aquifer, particularly in the central and northern portions of the study area.

4.1.3 Hydraulic Gradient

Potentiometric surface maps (Figures 4-4 and 4-5) were prepared from synoptic water level measurements acquired from the six site monitoring wells during mid-November 1992 and August 1993 (see Table 3-1). The potentiometric surface slopes toward the west with a slight refraction at the contact between the lower and higher permeability aquifer deposits shown in Figure 4-3.

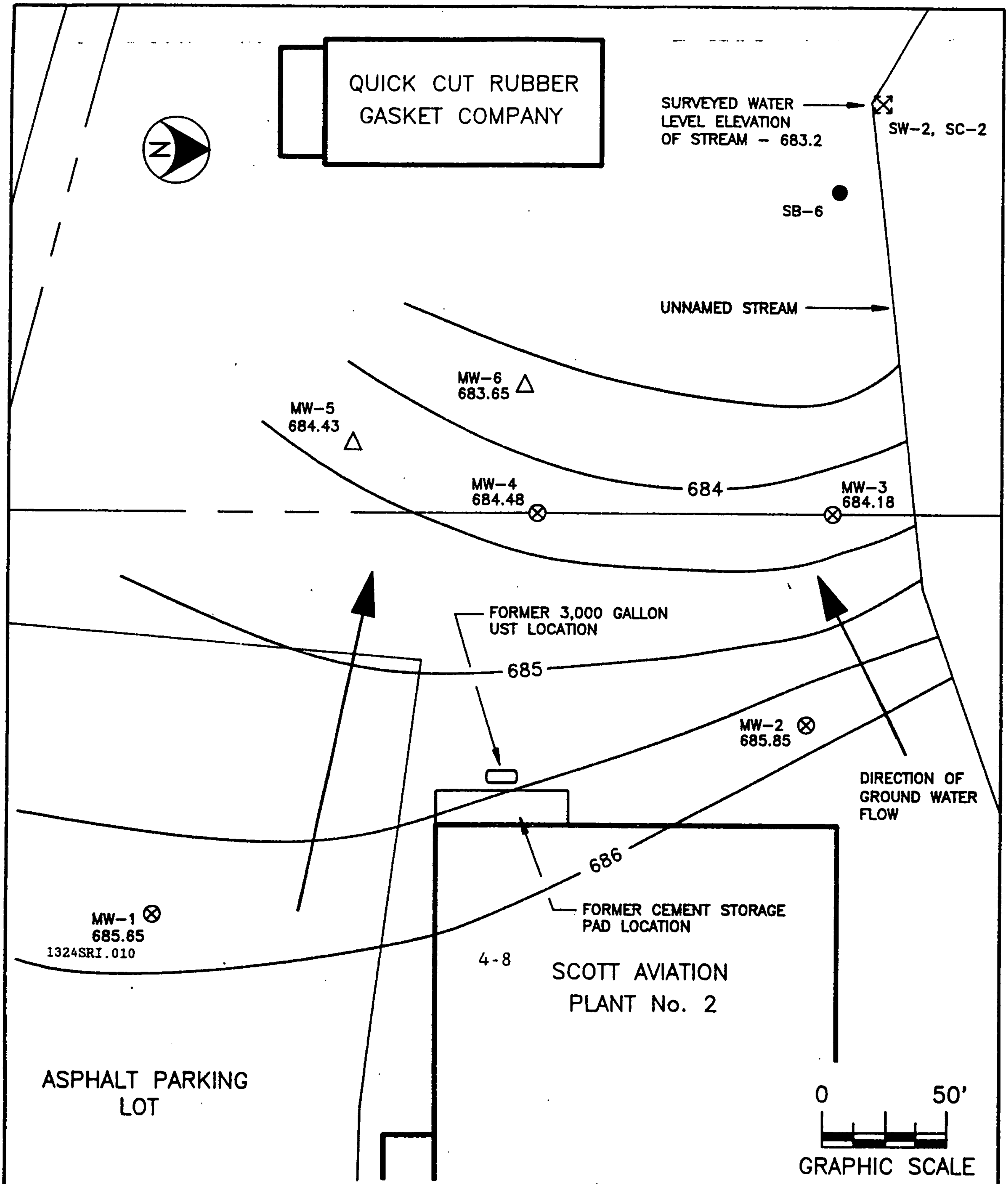

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FIGURE 4-4

POTENTIOMETRIC SURFACE MAP
NOVEMBER - 1992

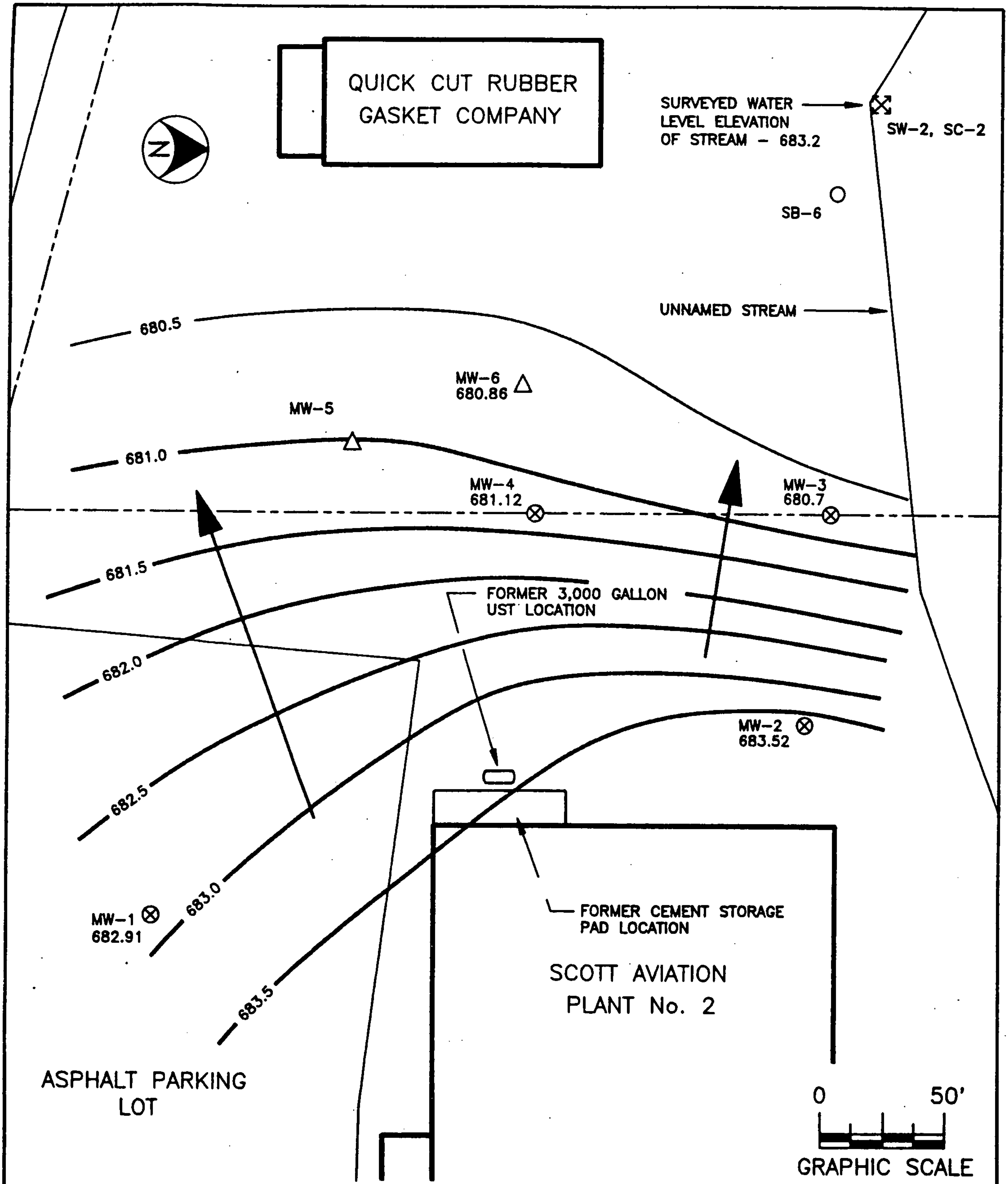

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FIGURE 4-5
POTENTIOMETRIC SURFACE MAP
AUGUST - 1993

The refraction is probably attributable to the difference in head loss in these two separate portions of the aquifer.

In the northern sector of the site, a hydraulic gradient of 0.022 was calculated in contrast to a much gentler gradient of 0.007 in the southern portion. This order of magnitude increase in hydraulic gradient is inversely proportional to the hydraulic conductivity change which occurs from north to south. As expected, head loss is greater in the lower hydraulic conductivity aquifer segment to the north. The net effect of this change in hydraulic conductivity and gradients is a slight shift in the direction of ground water. During November 1992, this shift in flow occurred from a westerly to northwesterly direction near the middle of the site. In August 1993, following a 2-3 foot decline in the potentiometric surface, this shift occurred from a westerly to southwesterly direction.

It is significant to note that the shift in ground water flowpaths at the site between Fall, 1992 and Summer, 1993 may have been affected by the change in recharge patterns over that period of time. In Fall, 1992 recharge to the aquifer was accelerated due to the conveyance of stormwater from the parking lot to the interception trench area. At this time, the volume of water being pumped from the trench for off-site disposal increased by several thousand gallons per month.

In 1993, this surface water drainage pattern was again modified, when stormwater was diverted away from the interception trench to the unnamed stream via catch basins on Walter Winter Drive. The northwesterly component of ground water flow observed in the October and November 1992 potentiometric surface maps may explain the relationship between the northern limit of the interception trench and VOC concentrations recorded in MW-3. Sections 5.5.1 and 5.5.2 discuss this former VOC transport pathway in further detail.

4.2 Ground Water Flow

The preliminary phases of the Scott Aviation investigation involved the installation of four ground water monitoring wells and established the basis for siting additional wells during the subsequent Remedial Investigation. In the Preliminary Hydrogeologic Assessment, VOCs were detected in ground water samples from MW-4. Using the initial monitoring array and the installation and sampling of two additional monitoring wells, MW-5 and MW-6, the extent of VOC contamination in ground water was evaluated.

The new wells were sited in a downgradient and downdip direction from MW-4, located at the western site boundary near the former waste oil tank area. Monitoring well MW-6 was installed due west of MW-4 at a distance of approximately 50 feet and was verified to be downgradient of the latter well. VOCs were detected at very low concentrations in MW-6 during the ground water sampling conducted in October and November 1992. Monitoring well MW-5 was installed 75 feet to the southwest of MW-4, in a downgradient and downdip direction from MW-4. It is screened from the top of the aquifer to the overburden/bedrock interface. Ground water quality data obtained from this well were considered in the evaluation of possible contaminant migration along the surface of the shale bedrock underlying the uppermost confined aquifer. No VOCs were detected in MW-5 during either of the two rounds of ground water sampling conducted.

4.2.1 Direction and Rate of Ground Water Flow

Using the potentiometric data presented in Figure 4.4, ground water flow directions at the Scott Aviation site were determined to be predominantly westerly at the northern portion of the study area, with a slight shift from northwest to southwest between the Fall of 1992 and Summer of 1993. Based on this interpretation of flowpaths in the uppermost confined aquifer, monitoring wells installed in accordance with the Remedial Investigation work plan appear to have been properly sited to accurately assess the extent of ground water contamination.

Ground water flow velocities were evaluated using hydraulic conductivity data obtained from slug tests, hydraulic gradients calculated from potentiometric measurements, and an assumed aquifer porosity of 25%. This porosity value was selected based on the fine grained and laminated nature of the uppermost confined aquifer as described in site boring logs.

A range of ground water velocities from 0.04 feet/day to 0.29 feet/day was calculated from the above referenced data. The slower velocities occur at the north portion of the site adjacent to the unnamed stream and appear to be associated with siltier aquifer materials and correspondingly lower hydraulic conductivities in this area. Velocities of less than a tenth of a foot per day persist in the aquifer through the area of MW-4 and explain, in part, why VOCs were not detected in MW-5 and were detected at very low concentrations in MW-6, located downgradient of MW-4 and just west of the site boundary.

Velocities in the uppermost confined aquifer increase to just over a quarter of a foot per day in the sandier aquifer deposits developed near Erie Street. The higher velocities are evident in monitoring wells MW-1 and MW-5. However, no VOC contamination has been detected in either of these wells, and the significantly higher ground water velocities in this area appear to have had little effect on contaminant transport associated with a release from the former waste oil tank.

The location of the release associated with the former UST relative to site subsurface characteristics and ground water flow patterns has apparently constrained the migration of contaminants to a relatively small area, approximately 1/3 acre in total size.

4.3 Aquifer and Surface Water Relationships

The uppermost confined aquifer in the study area, interpreted as confined, is not believed to be hydraulically connected with surface waters in the unnamed stream that traverses the northern part of the property. Figure 4.4 shows the potentiometric surface in the aquifer sloping to the west and a surface water elevation that appears to correlate with that surface and gradient. However, a stream elevation of 683.2 feet above mean sea level was measured both at the upstream part of the site, near Walter Winter Drive, as well as at a location downstream, near the Quick Cut Rubber and Gasket building.

These elevation data indicate that there is no change in the gradient of the stream over the same distance where there is a significant change in the hydraulic gradient of the aquifer. The aquifer, therefore, is neither being recharged by the stream nor discharging into it. It is also evident that there can be no relationship between surface water and ground water in this vicinity because the stream is piped over this entire distance. The stream and the aquifer appear to be independent of one another; the aquifer is probably recharging at some upgradient location beyond the Scott Aviation property. The only potential contribution from the Scott site to base flow in the unnamed stream is that produced by runoff, but such a contribution is probably negligible because of the length and location of the culverted section of stream.

In the past, storm water run-off entering the drainage swale near the western property boundary flowed in a northerly direction into the wetland area shown in Figure 3-3. Run-off from this ditch did not flow into the unnamed stream which runs through a culvert at this location.

At present, the drainage ditch no longer contributes surface water to the wetland area. Formerly, storm water was conveyed to the ditch from the Building No. 2 parking lot. In 1992, during the installation of the fiber optic telephone line, the piping which conveyed water to the drainage ditch was disconnected and allowed to drain to the current interception trench area. This continued for a period of about four to six months, until the storm water was again diverted and reconfigured to flow toward Walter Winter Drive.

5.0 THE NATURE AND EXTENT OF CONTAMINATION

Versar conducted a site characterization investigation and an evaluation of the horizontal and vertical extent of contamination in soil, ground water, surface water, sediment, and air. This section provides a summary of the analytical results for each medium of concern and compares the analytical results to background concentrations in order to develop a list of contaminants of potential concern on a medium-specific basis. The analytical results were validated by Versar Laboratories, Inc. The data validation report is presented in Appendix F. Our findings are used to determine contaminant fate and transport, to assess risks based on specific contaminants, and to select appropriate remedies for consideration in the Feasibility Study. The Baseline Risk Assessment Report and the Standards, Criteria, and Guidances/Remedial Action Objectives (SCGs/RAOs) Report will more fully evaluate whether the contaminants of concern warrant remedial action.

5.1 Contaminant Source

The former 3,000-gallon UST and waste storage area are believed to be the sources of the contamination detected in soil and ground water collected at the Scott Aviation Building No. 2 site. Metal cuttings and 55-gallon drums of cutting oils, lubricating oils, and solvents were at one time stored on a concrete waste storage pad located at the southwest corner of Building No. 2. The UST, located adjacent to the concrete pad, was used to store waste oil and spent chlorinated solvents used in the manufacturing process. In April 1991, the tank and concrete pad were excavated. Upon removal, it was apparent that some portion of the tank contents had been released. The date of any tank release is not known, but based on site findings (e.g., vinyl chloride, which is a degradation product of TCE, was detected downgradient of the source), it is believed the release occurred many years prior to the tank removal. Contaminated soil in the area west of Building No. 2 is restricted to the immediate vicinity of the former tank as indicated by subsurface sample data. The contaminant source area has apparently only impacted soil and ground water media over an area of less than 1/3 acre (Figures 3-4, 5-1, and Tables 5-3, 5-5 and 5-6).

5.2 Soil Gas Investigation

The siting of off-site ground water monitoring wells and borings proposed in the approved Remedial Investigation work plan was finalized using the results of a soil gas survey to select optimum locations. The survey, conducted on October 26, 1992, covered the area west of the initial site monitoring well array consisting of wells MW-1 through MW-4. The survey limits were laid out in a east-west direction, beginning at the Scott/Quick Cut property line and extending west to the point where the unnamed, meandering stream cuts across Erie Street. Of the fifteen sampling points evaluated during the soil gas survey, nine measurements were taken off-site on the east side of the Quick Cut Building, and six measurements were made between the stream and the west side of the Quick Cut Building. Figure 3-1 indicates the final sampling grid configuration at the conclusion of soil gas sampling activities.

Soil gas probes were advanced to depths of 5-9 feet below grade in the surficial clay present in the study area. Probes were not advanced to ten feet or more below grade because this marks the top of the uppermost confined aquifer at the site. Soil gas samples were analyzed for vinyl chloride, 1,1 DCE, 1,1 DCA, total 1,2 DCE, 1,2 DCA and TCE via a truck-mounted gas chromatograph. Detailed sampling protocols and quality control requirements are described in the Shallow Soil Gas Investigation Report presented in Appendix D.

The soil gas survey was commenced near monitoring well MW-4 at the Scott/Quick Cut site boundary, an area of known VOC ground water contamination. Sample location No. 1 (SG-1), obtained at a depth of 8.5 feet below grade, detected toluene, TCE, total 1,2 DCA, and vinyl chloride at concentrations of 2 ppb, 0.3 ppb, 0.7 ppb and 0.4 ppb, respectively. SG-11, a second soil gas sample acquired at a sampling station approximately 75 feet south of SG-1, detected toluene at a concentration of 2 ppb.

Although real time data allowed the survey grid to be modified as needed, no additional soil gas was detected at the remaining sampling stations. Therefore, the siting of monitoring wells MW-5 and MW-6 was not significantly altered from the original work plan specifications. MW-5 was, however, moved slightly east to avoid exposing the wellhead to the constant truck traffic at the entrance to the Quick Cut Building. Soil gas data appear to confirm that the low permeability of the surficial clay at the site limits the migration of gaseous phase contaminants in the unsaturated zone.

The lack of detectable soil gas concentrations west of the Scott Aviation property line, together with the limited area of contaminated soil near Building No. 2, and low hydraulic conductivities in the unsaturated and vadose zones preclude the likelihood of VOC migration to basements in nearby residences.

5.3 Surface Soils

The surface soil investigation was conducted to determine the horizontal extent of surficial soil contamination. Analytical results for surface soil sampling are presented in Table 5-1 (VOCs) and Table 5-2 (Inorganics).

5.3.1 Volatile Organic Compounds in Surface Soil

Methylene chloride was detected in three of the five surface soil samples, including the background sample, at concentrations ranging from 5 to 6 ppb. However, methylene chloride was also detected in associated laboratory blanks and field blanks, indicating that its presence in surface soil at the site is suspect.

Acetone was detected in surface soil samples SS-1 (30 ppb), SS-4 (61 ppb), SS-5 (24 ppb), and SS-5D, the duplicate sample for SS-5 (250 ppb). However, acetone, a common laboratory contaminant, was also detected in associated laboratory blanks and field blanks, indicating that its presence in surface soil at the site is suspect. Neither methylene chloride, nor acetone was utilized in any of the machine shop operations conducted at Building No. 2.

5.3.2 Inorganic Compounds in Surface Soil

The concentrations of inorganic compounds detected in surface soil samples SS-1 through SS-5 are compared with those detected in background sample SS-6. Inorganic concentrations in samples SS-1 through SS-5 were generally higher than in SS-6, ranging from 1.1 times as high (antimony) to 4.5 times as high (calcium). On the average, metal concentrations in samples SS-1 through SS-5 were twice as high as in SS-6. (Table 5-2).

It is believed that the trend towards higher metal concentrations in site surface soil samples is an apparent reflection of the limited basis upon which background ranges were established (i.e. a single sample). Additional

TABLE 5-1

VOCs in Surface Soils
(Results in ppb)

Compound[1]	SS-1	SS-2	SS-3	SS-4	SS-5	SS-5D	SS-6[2]
Methylene Chloride	U	5JB	5JB	U	U	U	6JB
Acetone	30B	U	U	61B	24B	250B	U

1. Includes all compounds detected in at least one sample
2. Indicates background sample

J Indicates an estimated value
B Compound detected in blank

TABLE 5-2

Inorganic Compounds in Surface Soils (Results in ppm)

Compound	SS-1	SS-2	SS-3	SS-4	SS-5	SS-5D (Dup)	SS-6[1]
Aluminum	19800	19700	14700	15600	16200	16200	7150
Antimony	U	U	U	U	U	U	U
Arsenic	3.4	5.2	4.8	4.4	4.2	4.2	3.0
Barium	114	116	104	102	96.7	96.7	51.3
Beryllium	1.3B	1.4	1.0B	1.2B	1.1B	1.1B	0.66B
Cadmium	2.3	1.7	2.8	2.4	1.4B	1.4B	U
Calcium	3470	4030	14700	35000	29500	29500	7670
Chromium	25.8	25.5	21.6	23.2	19.7	19.7	19.1
Cobalt	20.3	37.6	13.2B	12.8B	11.9B	11.9B	5.6B
Copper	28.8	85.1	69.3	50.9	42.4	42.4	34.2
Iron	29100	34400	27000	28500	26500	26500	15600
Lead	35,2	27	46.9	41.5	23.7	23.7	21.4
Magnesium	5620	5730	9620	14900	13500	13500	3690
Manganese	849	1180	516	430	425	425	288
Mercury	U	U	U	U	U	U	U
Nickel	29.1	34	29.7	29.4	27.9	27.9	15.0
Potassium	1850	1270B	1030B	1920	1830	1830	514B
Selenium	U	U	U	U	U	U	U
Silver	U	2.7B	2.3B	2.3B	U	U	U
Sodium	240B	370B	460B	368	333B	333B	291B
Thallium	U	U	U	U	U	U	U
Vanadium	37	41.3	32.5	36.8	33.9	33.9	17.7
Zinc	102	112	205	123	99.5	99.5	141

1. Indicates background sample
B Reading was less than the Contract Required Detection Limit but greater than or equal to the Instrument Detection Limit
U Not detected

background samples may have demonstrated a broader range of metal concentrations as might typically be anticipated in the native near-surface silty and clayey soils of this area. EPA guidances (HRS,CFR Vol. 55. No. 241) for establishing a basis for the identification of soils impacted by site related activities call for the use of concentrations exceeding three times background. Only these values are considered significant in the following data comparisons.

Calcium (SS-4 and SS-5), magnesium (SS-4, and SS-5), manganese (SS-2), and potassium (SS-1, SS-4, and SS-5) were detected in at least one of the surface soil samples at a concentration in excess of three times background levels. Each of these compounds can be eliminated from further consideration because they are essential human nutrients and are not toxic to humans unless ingested at extremely high concentrations. Many natural soils and minerals contain these elements in the percent range found at this site.

5.4 Subsurface Soils

The subsurface soil investigation was conducted to determine the vertical and horizontal extent of soil contamination. Analytical results for subsurface soils are presented in Table 5-3 (VOCs) and Table 5-4 (Inorganics).

5.4.1 Volatile Organic Compounds in Subsurface Soils

The following is a summary of the volatile organic compounds detected in soil samples collected from test borings completed at the Scott Aviation site.

SB-1: Methylene chloride (4 ppb estimated concentration) and acetone (21 ppb) were detected in soil sample SB-1. However, these compounds were also detected in the associated field and laboratory blanks, indicating probable laboratory contamination.

SB-2: Methylene chloride (5 ppb estimated concentration) and acetone (17 ppb) were detected in soil sample SB-2. However, these compounds were also detected in the associated field and laboratory blanks, indicating probable laboratory contamination.

SB-3: Acetone (13 ppb) was detected in soil sample SB-3. Acetone was also found in the associated field and laboratory blanks, indicating probable laboratory contamination.

SB-4: Acetone (46 ppb) and trichloroethene (3 ppb estimated concentration) were detected in soil sample SB-4. Acetone was also found in the

TABLE 5-3

VOCs in Subsurface Soils
(Results in ppb)

Compound[1]	SB-1 20-22'	SB-2 18-20'	SB-3 18-20'	SB-4 20-22'	SB-5A 0-2'	SB-5B[2] 10-12'	SB-5C 14-16'	SB-5D 16-18'	SB-6 16-18'	MW-6 18-20'
Methylene Chloride	4JB	5JB	U	U	U	10J	860JB	3200JB	5J	5JB
Acetone	21B	17B	13B	46	170	46	3900B	4000JB	U	U
1,1-DCA	U	U	U	U	27J	U	3500	6700	U	U
1,2-DCE (total)	U	U	U	U	390	U	1500J	5100J	U	U
1,1,1-TCA	U	U	U	U	U	U	20000	2900J	U	U
TCE	U	U	U	3J	U	U	200000D	120000	U	U
Toluene	U	U	U	U	48J	U	12000	5000J	U	U
Ethylbenzene	U	U	U	U	U	U	940J	U	U	U
Xylene	U	U	U	U	U	U	4300	U	U	U
2-Butanone	U	U	U	U	U	9J	U	U	U	U

1. Includes all compounds detected in at least one sample
2. See Data Validation comment 3 Chain-of-Custody (Appendix)

J Indicates an estimated value
B Compound detected in blank
U Undetected
D Diluted sample

TABLE 5-4

Inorganic Compounds in Subsurface Soils (Results in ppm)

Compound	SB-1 20-22'	SB-2 18-20'	SB-3 18-20'	SB-4 20-22'	SB-5A 0-2'	SB-5B[1] 10-12'	SB-5C 14-16'	SB-5D 16-18'	SB-6 16-18'	MW-6 18-20'	Typical Metal Concentrations[2]
Aluminum	12400	14300	6500	2300	24400	20900	13300	13000	2420	2780	33000
Antimony	U	U	U	U	U	U	U	U	U	U	<1[3]
Arsenic	4.2	3.3	3.8	U	6.4	2.7	2.6	6.0	1.5B	2.2B	3-12
Barium	91	97.7	45.8	15.4B	181	124	89.7	118	16.2B	24.7B	15-600
Beryllium	.84B	1.0B	.50B	U	1.4	1.3	.76B	0.89B	0.32B	U	0-1.75
Cadmium	1.2B	1.5	U	U	1.8	U	1.4	U	U	U	0.1-1
Calcium	7170	78200	67500	160000	4770	3250	70300	61300	95400	120000	130-35000
Chromium	16.8	19.5	9.6	6.6	28.1	22.3	20.6	21.7	5.3	5.7	1.5-40
Cobalt	9.3	9.3B	6.4B	4.2B	11.5	8.1B	9.4B	11.8B	3.4B	2.7B	2.5-60
Copper	44.1	20.4	16.9	16.7	23.4	26.8	31.7	31.8	20.1	14.5	1-50
Iron	21800	21800	13100	7790	31000	23400	20900	23400	7400	7210	2000-550,000
Lead	15.4	15.3	9.1	6.9	53.1	31.8	14.2	15.8	5.0	4.9	4-61
Magnesium	29800	34200	22900	18900	8730	4650	28300	25900	23300	36000	100-5000
Manganese	394	399	258	140	183	214	445	494	136	168	50-5000
Mercury	U	U	U	U	U	U	U	U	U	U	0.001-0.2
Nickel	19.4	19.9	12.9	16.9	31.3	19.8	23.4	25.8	13.0	10.1	0.5-25
Potassium	2260	2640	1260	429	2050	1200	2770	2320	387	510B	8500-43000
Selenium	U	U	U	U	U	U	U	U	U	U	0.1-3.9
Silver	U	U	U	1.5	U	2.8	U	U	U	U	–
Sodium	504B	462B	334B	240	322B	310B	347B	374B	306B	408B	6000-8000
Thallium	U	U	U	U	U	U	U	U	U	U	–
Vanadium	28.7	31.9	18.0	12.9	42.3	34.0	28.9	27.2	12.1	11.5	1-300
Zinc	74.0	72.5	55.2	47.4	97.3	95.1	71.7	75.5	29.7	64.2	9-50

1. See Data Validation comment 3 Chain-of-Custody (Appendix E).
2. Based on NYSDEC TAGM: "Determination of Soil Cleanup Objectives and Cleanup Levels," November 1992.
3. Based on "Element Concentrations in Soil and Other Surficial Materials of the Conterminous United States," 1984.

B Reading was less that the Contract Required Detection Limit but greater than or equal to the Instrument Detection Limit
U Not detected

5-8 (T5-4) associated field and laboratory blanks, indicating that its presence in soil sample SB-4 is suspect. Test boring SB-4 is located hydraulically downgradient from the source area. The soil sample from SB-4 was collected at the soil/ground water interface.

SB-5: Test boring SB-5 was installed to provide information regarding contaminant migration in the vertical direction in the vicinity of the former UST/waste storage area. Soil samples were collected from the following depths: 0-2 feet (SB-5A); 10-12 feet (SB-5B); 14-16 feet (SB-5C); and 16-18 feet (SB-5D). Based on total VOC concentrations detected in the four soil samples collected from test boring SB-5, soil contamination appears to increase with depth (Table 5-3). Because acetone and methylene chloride were detected in associated field blanks and laboratory blanks, their presence was precluded from consideration in the following analysis.

Soil Sample	Depth	Total VOCs
SB-5A	0-2 feet	465 ppb
SB-5B	10-12 feet	9 ppb
SB-5C	14-16 feet	242,240 ppb
SB-5D	16-18 feet	139,700 ppb

SB-6: Methylene chloride (5 ppb) was detected in soil sample SB-6. Since this compound was also detected in the blanks, its presence is suspect.

MW-6: Methylene chloride (5 ppb estimated concentration) was detected in soil sample MW-6. However, this compound was also detected in the associated field and laboratory blank, indicating probable laboratory contamination.

The results of the subsurface soil sampling indicate that there are elevated concentrations of certain VOCs in the source area (Table 5-3). Some residual soil contamination was also detected downgradient of the source area, indicating that the contamination may be migrating through the uppermost confined aquifer, but not to any appreciable extent. In summary, the VOC contamination extends only a short distance from the source to MW-4, from the surface to a depth of approximately 18 feet. Remediation of additional soil volumes in the immediate vicinity of the former underground storage tank should be carefully explored in the Feasibility Study as a potential way to provide both a substantial reduction in subsurface soil VOC concentrations, as well as an immediate and continuing improvement in ground water quality downgradient of the source area.

5.4.2 Pesticides and PCBs in Subsurface Soil

Two soil samples (SB-5B and SB-5C) collected from test boring SB-5, installed in the center of the former waste storage area, were analyzed for pesticides and PCBs. No pesticides or PCBs were detected.

5.4.3 Semivolatile Compounds in Subsurface Soil

Two soil samples collected from test boring SB-5 (SB-5B and SB-5C) were analyzed for base neutral/acid extractable compounds (BNAs). No BNAs were detected in these samples.

5.4.4 Inorganic Compounds in Subsurface Soil

The concentrations of inorganic compounds found in subsurface soils were compared to typical metals concentrations in the eastern United States (NYSDEC 1992). Only those compounds detected at a concentration three times background levels were considered significant. Based on this comparison, magnesium and calcium were the only metals exceeding regional background levels. These compounds are essential human nutrients and many natural soil and minerals contain these elements in the percent range found at this site.

5.5 Ground Water

To investigate the horizontal extent of ground water contamination west of Building No. 2, two additional ground water monitoring wells were installed: monitoring well MW-5, located southwest of the former waste storage area, and monitoring well MW-6, located west of existing well MW-4 (see Figure 3-4 for all well locations.) Two rounds of ground water samples were collected from the six wells (four existing and two recently installed) and the interception trench and analyzed for TCL VOCs and TAL metals (total and dissolved). Analytical results are presented in Tables 5-5 through 5-8.

TABLE 5-5

VOCs in Groundwater
(Results in ppb)

Round I
October 30, 1992

Compound[1]	Monitoring Wells						
	MW-1[2]	MW-2	MW-3	MW-4	MW-5	MW-6	IT[3]
Chloroethane	U	U	28	U	U	U	6100
Methylene Chloride	4JB	4JB	3JB	270J	6JB	6JB	2400J
Acetone	19	21	16B	U	U	U	3400J
1,1-DCA	U	U	U	250J	U	U	37000
1,2-DCE (total)	U	U	U	5900	U	4J	32000
1,1,1-TCA	U	U	U	U	U	U	56000
TCE	U	U	U	1500	U	U	U
Toluene	U	U	U	U	U	U	U
Vinyl chloride	U	U	U	U	U	U	U

1. Includes all compounds detected in at least one sample.
2. Indicates background location.
3. Detection limits for interception trench (IT) samples differ from those for monitoring well (MW) samples.

U Not detected
J Indicates an estimated value
B Compound detected in blank

TABLE 5-6

VOCs in Groundwater (Results in ppb)

Round II November 17, 1992

Compound[1]	Monitoring Wells							
	MW-1[2]	MW-2	MW-3	MW-4	MW-4A DUP.	MW-5	MW-6	IT[3]
Chloroethane	U	U	28	U	U	U	U	3900
Methylene Chloride	3JB	3JB	4JB	180JB	220JB	5JB	5JB	1600JB
Acetone	15	16	15	U	U	U	7J	U
1,1-DCA	U	U	3J	270	340	U	U	29000
1,2-DCE (total)	U	U	U	5100	6100	U	U	21000
1,1,1-TCA	U	U	U	U	U	U	U	40000
TCE	U	U	U	2800	3400	U	U	U
Toluene	U	U	U	U	U	U	U	1000J
Vinyl chloride	U	U	25	240J	280J	U	U	U

VOCs in Groundwater (Results in ppb)

August 31, 1993

Compound[1]	MW-3	MW-4	MW-6	MW-6 (DUP)
Chloroethane	87	300J	U	U
Methylene Chloride	U	U	U	U
Acetone	U	U	U	U
1,1-DCA	U	U	U	U
1,2-DCE (total)	U	9400	U	U
1,1,1-TCA	U	170J	U	U
TCE	U	6900	U	U
Toluene	U	U	U	U
Vinyl Chloride	26	300J	U	U

1. Includes all compounds detected in at least one sample.
2. Indicates background location.
3. Detection limits for interception trench (IT) samples differ from those for monitoring well (MW) samples.

U Not detected
J Indicates an estimated value
B Compound detected in blank

TABLE 5-7

Inorganic Compounds in Groundwater Samples - Filtered and Unfiltered (Results in ppb)

Round I - October 30, 1992

Compound	IT-U	IT-F	MW-1U[1]	MW-1F[1]	MW-2U	MW-2F	MW-3U	MW-3F	MW-4U	MW-4F	MW-5U	MW-5F	MW-6U	MW-6F
Aluminum	U	U	12700	U	2610	U	727	U	670	U	37100	U	447	U
Antimony	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Arsenic	U	U	U	U	U	2.0B	3.9B	U	5.1B	U	U	2.1B	5.8B	U
Barium	309	286	422	220	290	337	101B	117B	219	215	715	144B	139B	169B
Beryllium	1.0B	U	U	1.6B	U	1.1B	1.0B	1.8B	1.0B	1.3B	3.4B	1.3B	1.6B	1.3B
Cadmium	U	U	U	U	4.8B	U	U	U	U	U	12.2	U	U	U
Calcium	261000	287000	514000	21400	152000	169000	44200	33600	51600	33200	1110000	31200	30200	25500
Chromium	U	U	20	U	U	U	U	U	U	U	109	U	U	U
Cobalt	U	U	21.5B	U	11.2B	U	U	U	U	U	51.6	U	U	U
Copper	57.8	U	161	U	75.4	U	53.5	U	55.5	U	249	U	35.0	U
Iron	28300	3880	35200	20.7B	18400	12400	1690	77.7B	1640	35.0B	106000	23.3B	1130	184
Lead	25.9	U	U	U	U	U	U	U	U	U	U	U	U	U
Magnesium	61300	67200	152000	33900	87700	104000	43400	46500	62500	59500	299000	45700	44400	52700
Manganese	2070	2130	1210	5.6B	1380	1520	80.9	45.8	87.1	29.5	2950	35.7	33.7	13.5B
Mercury	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Nickel	37.1B	U	55.1	U	68.5	U	U	U	117	U	168	U	U	U
Potassium	2780B	5470	4980B	5560	1800B	2510B	1370B	1930B	2740B	4390B	5530	2630B	1490B	2330B
Selenium	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Silver	U	12.6	U	U	U	U	U	8.1B	U	8.1B	U	U	U	8.0B
Sodium	51600	55700	27000	30300	43300	54100	37000	42100	35300	34600	35900	41100	30900	36900
Thallium	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Vanadium	U	U	43.1B	U	U	U	U	U	U	U	104	U	U	U
Zinc	98.9	104	292	U	232	U	71.1	U	70.8	U	473	U	73.9	U

1. Indicates background location.
B Reading was less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Instrument Detection Limit (IDL)
U Not detected

TABLE 5-8

Inorganic Compounds in Groundwater Samples - Filtered and Unfiltered (Results in ppb)

Round II - November 17, 1992

Compound	IT-U	IT-F	MW-1U[1]	MW-1F[1]	MW-2U	MW-2F	MW-3U	MW-3F	MW-4U	MW-4F	MW-4U Dup	MW-4F Dup	MW-5U	MW-5F	MW-6U	MW-6F
Aluminum	U	U	4130	U	9980	U	1230	U	3740	U	1990	U	21100	U	487	U
Antimony	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Arsenic	8.3B	8.3B	10.6	8.2B	8.5B	6.7B	2.2B	3.6B	5.4B	U	5.0B	U	12.3	U	U	U
Barium	289	285	161B	107B	304	206	134B	152B	228	199B	207	207	392	148B	152B	157B
Beryllium	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Cadmium	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Calcium	259000	256000	60600	15100	200000	153000	48800	42600	102000	34700	81400	36500	597000	30700	31700	25300
Chromium	U	U	11.1	U	23.2	U	U	U	20.0	U	20.0	11.7	47.9	U	U	U
Cobalt	U	U	U	U	11.8B	U	U	U	U	U	U	U	20.5B	U	U	U
Copper	U	U	34.0	U	U	U	U	U	U	U	U	U	40	U	37.8	U
Iron	30600	27100	7250	18.1B	34200	12700	2900	308	7050	U	3710	33.9B	44700	67.8B	940	108
Lead	11.5	3.3	8.7	U	12.1	U	2.6B	U	6.7	U	6.0	U	31.2	2.1B	8.7	U
Magnesium	59000	58300	23000	13700	96900	80200	44100	45700	74500	57400	68700	58400	170000	45200	47900	49200
Manganese	1870	1880	145	21.4	2010	1650	103	92.3	228	49.1	167	65.2	1340	31.7	30.4	18.2
Mercury	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Nickel	U	U	U	U	27.4B	U	U	U	U	U	U	U	61.0	U	U	U
Potassium	2070B	2070B	4700B	4190B	2310B	1120B	1640B	1340B	2800B	2050B	2760B	2100B	3380B	1250B	1480B	1380B
Selenium	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Silver	U	7.1B	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Sodium	48100	46700	18600	19400	42800	40600	37300	38800	33900	33900	33100	34100	32400	30800	31800	33400
Thallium	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Vanadium	U	U	U	U	20.9B	U	U	U	U	U	U	U	58	U	U	U
Zinc	43.4	14.1B	79.6	16.4B	123	14.6B	49.4	6.5B	76.7	10.2B	50.8	9.8B	162	9.6B	43	6.8B

1. Indicates background location.
B Reading was less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Instrument Detection Limit (IDL).
U Not detected

5.5.1 Volatile Organic Compounds in Ground Water

Methylene chloride was detected in each monitoring well, including the background well, and in the interception trench at estimated concentrations ranging from 3 to 2400 ppb. However, methylene chloride was also detected in the associated laboratory blank, trip blank, and field blank, indicating probable laboratory contamination.

Similarly, in two rounds of sampling, acetone was detected at least once in ground water samples from MW-1 (background), MW-2, MW-3, MW-6, and the interception trench. However, because acetone was also detected in the associated laboratory blank, trip blank, and field blank, its presence as a contaminant of concern is suspect.

Chloroethane was detected in the Round I and Round II ground water samples collected from well MW-3 at a concentration of 28 ppb. This compound was also detected in both Round I and Round II interception trench samples at concentrations of 6100 ppb and 3900 ppb, respectively. Chloroethane was not detected in the background well. Since according to the Fall 1992 sampling, monitoring well MW-3 appeared to be located hydraulically downgradient of the interception trench, the presence of chloroethane at both locations tended to indicate that this compound could potentially be migrating in a northerly direction along the interception trench, then through the uppermost confined aquifer from the former waste storage area northwest towards well MW-3. Figure 5-4 demonstrates graphically how ground water within the interception trench flows toward RP-4.

Additional ground water sampling was conducted in August 1993 to further evaluate the west and north limits of the VOC plume. VOC concentrations shown in Table 5-6 were consistent with the results of previous Round 1 and 2 sampling; no VOCs were detected in MW-6; MW-4 continued to show the highest total VOC level, increasing by 8,190 ppb from November 1992 to August 1993; total VOC concentrations in MW-3 increased only slightly by 57 ppb.

Although MW-3 does not lie directly downgradient of the former UST and cement pad believed to be the source of the VOC release, the persistence of low levels of VOCs in ground water samples from MW-3 indicate that this is not a data outlier. However, the northwesterly component of ground water flow observed to occur during the Fall of 1992 appears to have been caused by the temporary and inadvertent

SUMMARY OF ROUND 1 GW QUALITY DATA (IN PPB)

COMPOUND	MONITORING WELL/SAMPLING POINT MW-3	MW-4	MW-6	RP-5
CHLOROETHANE	28	U	U	6,100
TCA	U	U	U	56,000
TCE	U	1,500	U	U
DCA	U	250J	U	37,000
DCE	U	5,900	4J	32,000
VINYL CHLORIDE	U	U	U	U
TOLUENE	U	U	U	U
TOTAL VOC's	28	7650	4	131,100

NONE OF THE ABOVE COMPOUNDS WERE DETECTED IN MW-1, MW-2 OR MW-5

LEGEND

- - - - APPROXIMATE EXTENT OF TOTAL VOC CONTAMINATION.

⊗ MW MONITORING WELLS

△ MW MONITORING WELLS

○ RP INTERCEPTION TRENCH RISER PIPES

● SB SOIL BORING LOCATION

J = ESTIMATED VALUE

U = UNDETECTED

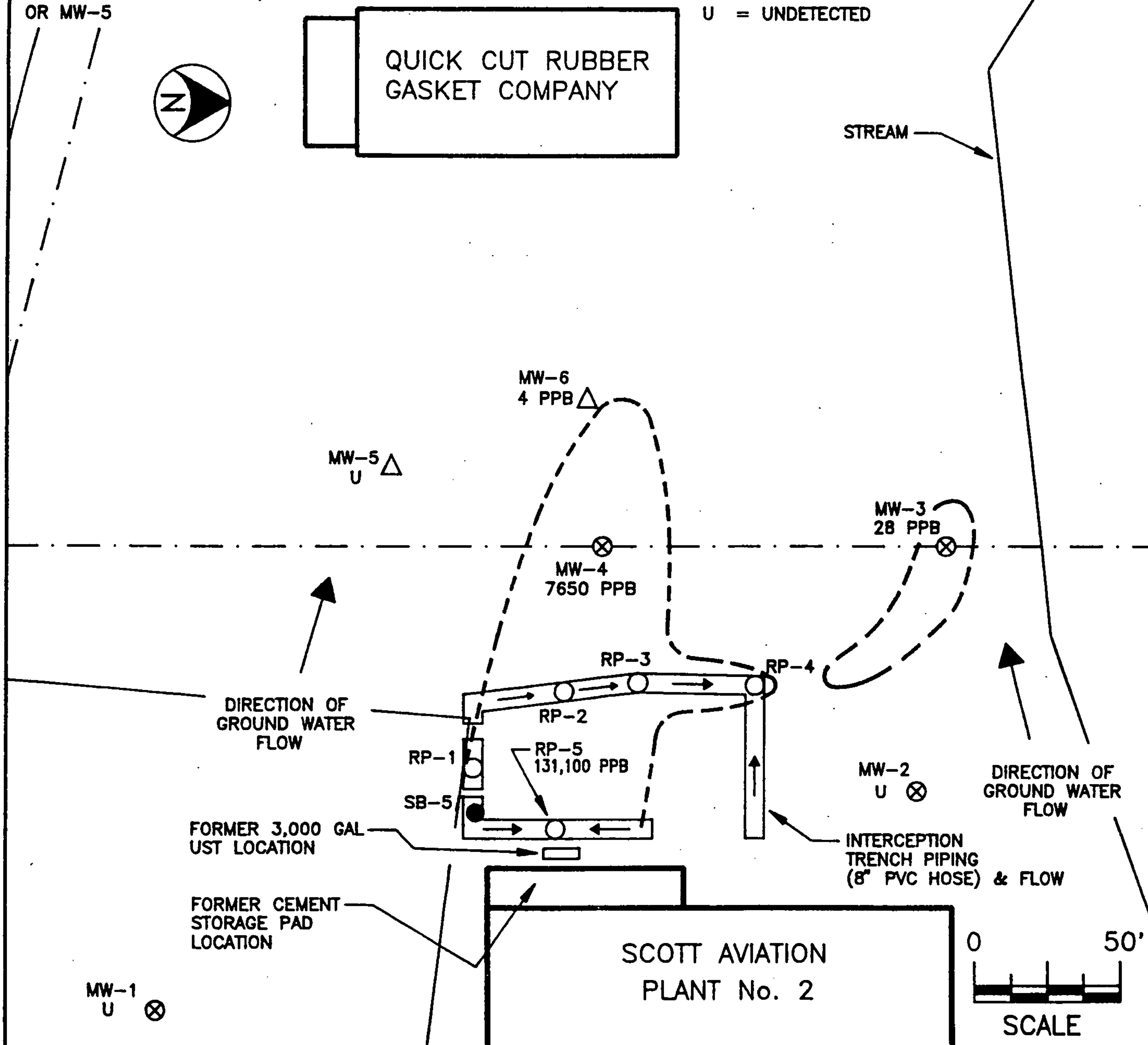

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FIGURE 5-1

INTERPRETED FROM ROUND 1 (OCT, 1992) DATA
MARCH – 1993 (REVISED OCTOBER, 1993)

SUMMARY OF ROUND 2 QUALITY DATA (IN PPB)

COMPOUND	MW-3	MW-4	MW-6	RP-5
	MONITORING WELL/SAMPLING POINT			
CHLOROETHANE	28	U	U	3,900
TCA	U	U	U	40,000
TCE	U	2,800	U	U
DCA	3J	270	U	29,000
DCE	U	5,100	U	21,000
VINYL CHLORIDE	25	240J	U	U
TOLUENE	U	U	U	1,000J
TOTAL VOC's	56	8,410	U	94,900

NONE OF THE ABOVE COMPOUNDS WERE DETECTED IN MW-1, MW-2 OR MW-5

LEGEND

- - - - - - APROXIMATE EXTENT OF TOTAL VOC CONTAMINATION

⊗ MW MONITORING WELL

△ MW MONITORING WELL

○ RP INTERCEPTION TRENCH RISER PIPE

● SB SOIL BORING LOCATION

J = ESTIMATED VALUE

U = UNDETECTED

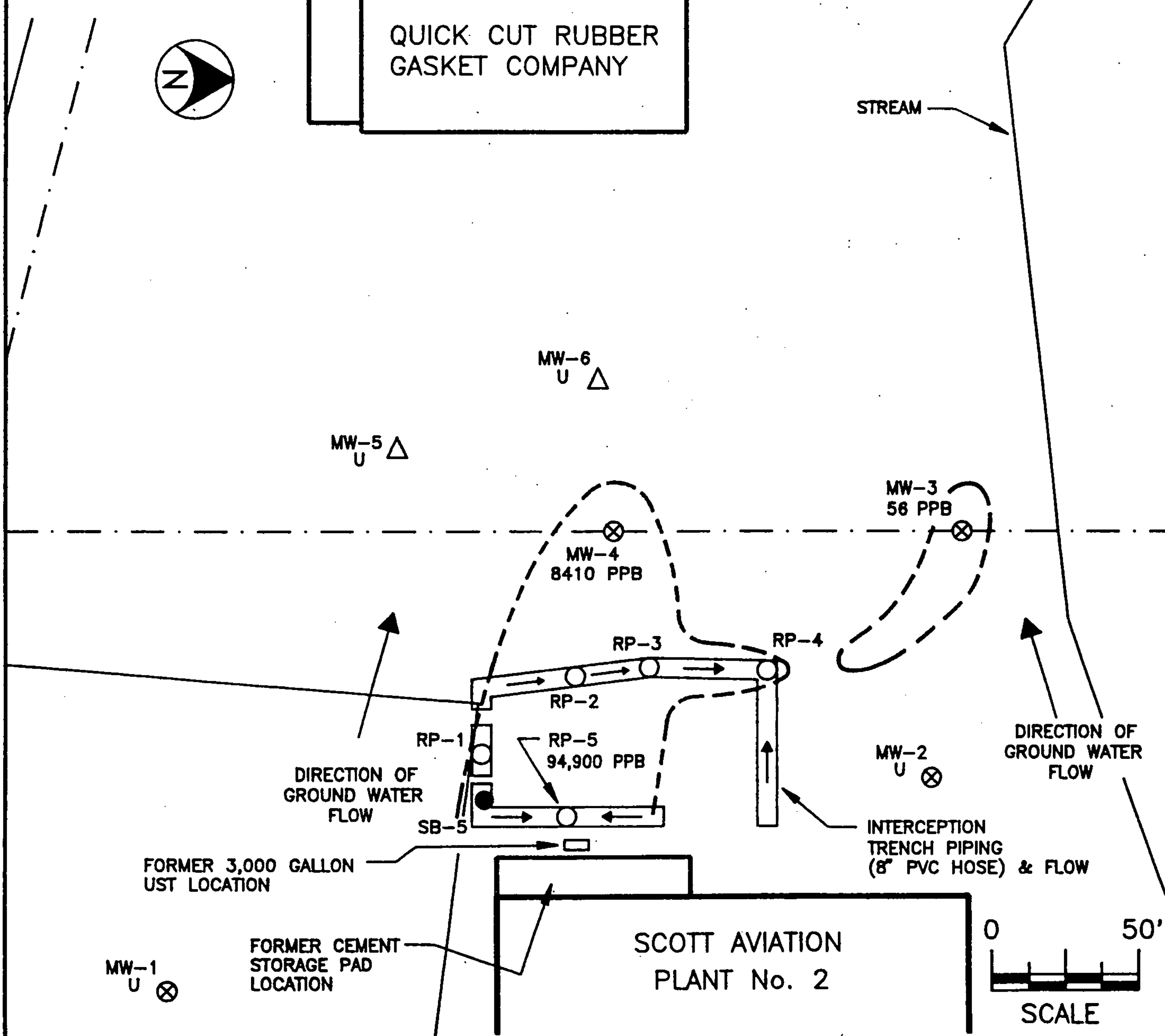

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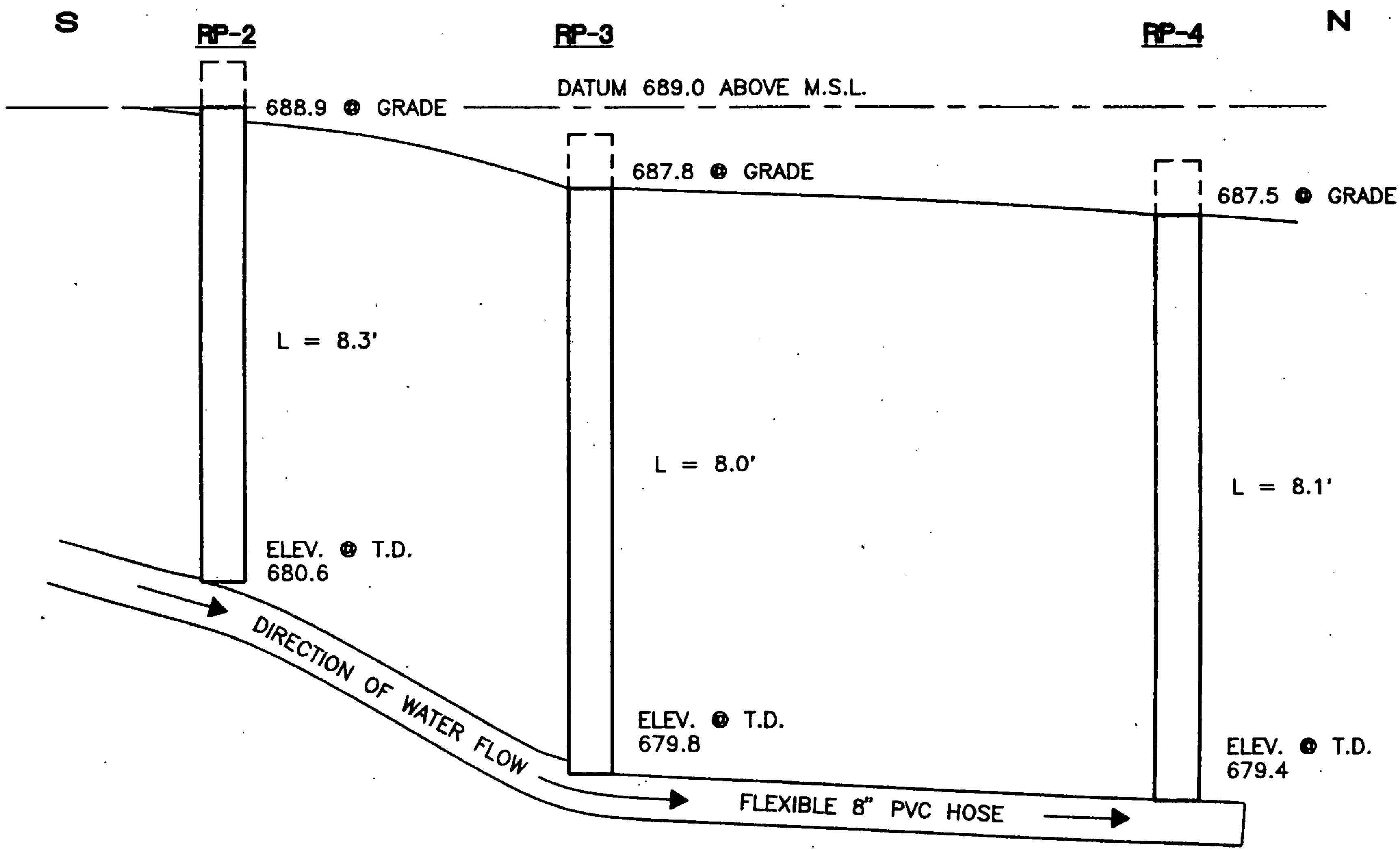
FIGURE 5-2

INTERPRETED FROM ROUND 2 (NOV, 1992) DATA

MARCH - 1993 (REVISED OCTOBER, 1993)



ABBREVIATIONS

RP – RISER PIPE
TD – TOTAL DEPTH

SCALE

HORIZ. 1" = 10'
VERT. 1" = 2'

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FIGURE 5-4
CONFIGURATION OF FLEXIBLE PVC PIPING ALONG THE WESTERN SEGMENT OF THE INTERCEPTION TRENCH

discharge of stormwater into the interception trench, which in turn caused the migration of VOCs from the north limit of the interception trench to the vicinity of MW-3. Ground water contamination at this portion of the site has been interpreted as an isolated slug disconnected from the primary plume (Figures 5-1, 5-2 and 5-3). This previous transport pathway has been eliminated since the diversion of stormwater discharge from the interception trench at the end of the calendar year 1992.

Volatile organic compounds 1,1-DCA, total 1,2-DCE, TCE, and vinyl chloride were detected in monitoring well MW-4 during the ground water investigation conducted by Versar in June 1991. The presence of these compounds in well MW-4 was confirmed during three rounds of the RI ground water sampling events. In addition, 1,1-DCA (3 ppb estimated value) and vinyl chloride (25 ppb) were detected in well MW-3 during the Round II sampling event. With the exception of TCE and vinyl chloride, each of the compounds detected in the monitoring wells was detected at elevated levels in the interception trench. The presence of TCE in MW-4, but not in the interception trench, may be attributed to the high detection levels required to quantify the other VOCs detected in the interception trench thus masking those two compounds in the interception trench. Although vinyl chloride was not detected in the interception trench, this compound is a degradation product of TCE. Therefore, the presence of vinyl chloride in MW-3 and MW-4 indicates that TCE is being degraded to form vinyl chloride and the contaminant plume is moving slowly in a west-northwest direction. The results of the VOC sampling indicate that the majority of the ground water contamination is confined from the source area to MW-4, with some minor contamination extending to MW-6 and MW-3. The results of ground water sampling indicate that the contaminant plume has not impacted neighboring residences. Schematic diagrams of the extent of contamination are presented in Figures 5-1 (Round I) and 5-2 (Round II).

5.5.2 Inorganic Compounds in Ground Water

To investigate potential impacts to the uppermost confined aquifer from activities related to the storage of metal cuttings, ground water samples were analyzed for TAL metals (total and dissolved). The concentrations of inorganic compounds detected in downgradient wells will be compared to those detected in background well MW-1. Only those metals detected at a concentration three times the background level are considered significant. This criterion is applied based on its use by the USEPA in hazardous ranking scoring (HRS, CFR Vol. 55, No. 241).

Round I, Unfiltered Samples:

Inorganic compounds detected in downgradient ground water samples at concentrations in excess of three times background levels include beryllium (MW-5), cadmium (MW-5 and interception trench), calcium (MW-5), chromium (MW-5), iron (MW-5), lead (interception trench), and nickel (MW-5).

Round I, Filtered Samples:

Inorganic compounds detected in excess of three times background levels in downgradient filtered ground water samples include calcium (interception trench, MW-2), iron (interception trench, MW-2), magnesium (MW-2), and manganese (all wells and interception trench).

Round II, Unfiltered samples:

Inorganic compounds detected at concentrations in excess of three times background levels include aluminum (MW-5), calcium (MW-2, MW-5, interception trench), chromium (MW-5), iron (MW-2, MW-5), nickel (MW-5), manganese (MW-2, MW-5, interception trench), and magnesium (MW-2, MW-4, and MW-5).

Round II, Filtered samples:

Inorganic compounds detected in excess of three times background levels in filtered ground water include calcium (MW-2 and interception trench), iron (MW-2, MW-3, MW-5, MW-6 and interception trench), magnesium (all wells and interception trench), and manganese (MW-2, MW-3 and interception trench).

The inorganic analysis revealed that metals concentrations in unfiltered samples were generally much higher in MW-5. However, this trend was not observed for filtered metals, indicating that ground water from this well contained high levels of suspended matter. This finding is consistent with field observations noting ground water from this well to be very silty (Appendix B).

The only dissolved metals that were consistently detected in ground water above background levels in both rounds of sampling are calcium, magnesium, manganese, and iron. Since calcium and magnesium were also detected at relatively high concentrations during subsurface sampling, this finding is not unusual. These metals are all considered essential human nutrients and are not anticipated to be toxic to human health unless ingested at extremely high concentrations. They are also normal components of water hardness at these concentrations. Based on these findings, there does not appear to be any site-related inorganic groundwater contamination of concern.

5.6 Surface Water and Stream Sediment Sampling

Samples of surface water and stream sediment were collected from three locations along the unnamed stream located north of the site and analyzed for TCL VOCs and TAL metals. Filtered and unfiltered surface water samples were also analyzed for dissolved oxygen. The data are presented in Tables 5-9 through 5-11. Analytical results for these samples suggest that contaminants found in the former waste storage area have not impacted stream quality or stream sediment.

5.6.1 Volatile Organic Compounds in Surface Water

Methylene chloride was detected in surface water samples SW-1 and SW-2 at an estimated concentration of 4 ppb. Acetone was detected in surface water sample SW-2 at a concentration of 10 ppb and in SW-3 at an estimated concentration of 9 ppb. However, methylene chloride and acetone are common laboratory contaminants, indicating that their presence in surface water samples is suspect.

5.6.2 Dissolved Oxygen in Surface Water

Dissolved oxygen (DO) has been the single most frequently used indicator of water quality in streams and rivers (U.S. EPA 1985). Based on the Habitat Based Assessment conducted at the site, the unnamed tributary to Plum Bottom Creek is classified as a Class C stream. By definition, Class C surface waters are suitable for fish propagation and survival. In addition, the stream is suitable for primary and secondary contact recreation, although other factors may limit its use for these purposes.

TABLE 5-9

VOCs and Dissolved Oxygen in Surface Water and Stream Sediment (Results in ppb)

October 30, 1992

Compound	SW-1	SW-2	SW-3
Surface Water			
Methylene Chloride	4JB	4JB	U
Acetone	U	10	9J
Dissolved Oxygen	11.6 ppm	11.0 ppm	12.1 ppm
Stream Sediment			
Methylene Chloride	7J	U	6J
Acetone	150	41	U
Drainage Ditch Sediment			
Compound	DDS-1	DDS-2	
Methylene Chloride	35	U	
Acetone	7J	5JB	

U - Not detected
J - Indicates an estimated value
B - Compound detected in laboratory blank

TABLE 5-10

Inorganic Compounds in Surface Water (Filtered and Unfiltered)
(Results in ppb)

October 30, 1992

Compound	SW-1U[1]	SW-1F[1]	SW-2U	SW-2F	SW-3U	SW-3F
Aluminum	U	U	U	U	U	U
Antimony	U	U	U	U	U	U
Arsenic	U	U	4.4B	U	4.1B	U
Barium	14.9B	22.2B	18.6B	29.6B	18.6B	34.2B
Beryllium	U	1.8B	U	1.1B	U	1.3B
Cadmium	U	U	U	U	U	U
Calcium	37700	40400	38900	42300	40400	49600
Chromium	U	U	U	U	U	U
Cobalt	U	U	U	U	U	U
Copper	U	U	U	U	U	U
Iron	345	145	349	192	346	183
Lead	U	U	U	U	U	U
Magnesium	14300	15100	14400	15700	14800	17600
Manganese	51.3	44.2	68.4	62.4	51.3	46.2
Mercury	U	U	U	0.93	U	U
Nickel	U	U	U	U	U	U
Potassium	U	1430B	1450B	1610B	1450B	1360B
Selenium	U	U	U	U	U	U
Silver	U	U	U	U	U	U
Sodium	12100	12700	12000	12900	12900	14400
Thallium	U	U	U	U	U	U
Vanadium	19.1B	U	U	U	U	U
Zinc	U	U	7.3B	U	5.9B	U

1. Indicates background location.
B Reported value was obtained from a reading that was less than the CRDL but greater than or equal to the IDL.

TABLE 5-11

Inorganic Compounds in Stream and Drainage Ditch Sediments
(Results in ppm)

October 30, 1992

Compound	SC-1[1]	SC-2	SC-3	DDS-1	DDS-2[1]
Aluminum	21000	9400	17000	5990	13300
Antimony	U	U	U	U	U
Arsenic	3.8B	3.8B	5.1	3.8	3.8
Barium	144	99.1	89.4	70.6	61.9
Beryllium	1.8B	0.65B	0.99B	0.68B	0.89B
Cadmium	3.7	3.6	1.6	1.7	U
Calcium	5030	246000	11500	23300	18600
Chromium	33.3	258	23.3	16.2	17.3
Cobalt	9.9B	7.3B	8.5B	5.3B	9.3B
Copper	49.0	152	24.6	60.5	33.9
Iron	28100	63700	24600	22600	211000
Lead	134	127	18.8	89.1	66.2
Magnesium	5820	14700	67100	4760	4110
Manganese	478	1770	768	910	298
Mercury	U	U	U	U	U
Nickel	32.1	62.2	27.1	20.2	16.6
Potassium	2150	877B	1190B	779B	558B
Selenium	U	U	U	U	U
Silver	U	U	U	2.1B	U
Sodium	339B	586B	294B	335B	445B
Thallium	U	U	U	U	U
Vanadium	37.6	44.9	31.8	19.6	28.8
Zinc	292	153	83.5	282	108

1. Indicates background location.
B Reading was less than the Contract Required Detection Limit (CRDL) but greater than or equal to the Instrument Detection Limit (IDL).
U Not detected

The NYSDEC standard for dissolved oxygen in Class C waters is 7.0 mg/L or greater. Dissolved oxygen concentrations detected in surface water samples collected on October 30, 1992, are as follows:

Location	DO
SW-1	11.6 mg/L
SW-2	11.0 mg/L
SW-3	12.1 mg/L

Based on the concentration of DO detected in these surface water samples from the unnamed tributary to Plum Bottom Creek, activities related to the former waste storage area do not appear to have impacted surface water quality in the area of the site.

5.6.3 Inorganic Compounds in Surface Water

To investigate the potential impacts of the former waste/metal cuttings storage area on stream water quality, surface water samples were collected and analyzed for TAL metals (total and dissolved). Stream water samples collected at the western end of the culvert (approximately 200 feet west of the former waste storage area; SW-2) and at a point approximately 250 feet west of the culvert, are compared to background metal concentrations as detected in surface water sample SW-1 collected north of the Scott Aviation property (at the eastern end of the culvert). For this comparison, only the concentrations of inorganic compounds in downstream samples that are three times greater than background levels are considered significant.

Unfiltered samples:

The only inorganic compound found in surface water that exceeded background concentrations was mercury. Unfiltered samples taken from locations SW-2 and SW-3 contained concentrations below background for each inorganic compound. The concentration of mercury at sample location SW-2 was slightly greater than background for the filtered sample. However, the concentration for the filtered samples was greater than the unfiltered sample, indicating the results of the mercury analysis are suspect. In any case, at 0.93 ppb, the mercury concentration is not a cause for concern.

Mercury was not identified as a contaminant of concern at the site. Therefore, any presence of this compound in the stream is not considered site-related, and it can be concluded that the Scott Aviation site has not impacted surface water.

5.6.4 Volatile Organic Compounds in Stream Sediment

Methylene chloride was detected in stream sediment samples SC-1 and SC-3 at estimated concentrations of 7 ppb and 6 ppb, respectively. Acetone was detected in stream sediment sample SC-1 and SC-2 at concentrations of 150 ppb and 41 ppb, respectively. However, since methylene chloride and acetone were also detected in associated laboratory blanks, field blanks, and trip blanks, their presence in surface water samples is suspect.

5.6.5 Inorganic Compounds in Stream Sediment

Stream sediment samples were collected at the same locations as surface water samples in order to investigate potential impacts of the former waste and metal cuttings storage area on stream sediments. The concentrations of inorganic compounds detected in downstream sediment samples SC-2 and SC-3 are compared to background levels as detected in upstream sample SC-1, and only concentrations greater than three times the background levels are considered significant.

Calcium, chromium, copper, and manganese were detected in downstream sediment sample SC-2 in concentrations in excess of three times the background concentration. In SC-3, only calcium and magnesium were detected at a concentration considered significant. Many natural soils and minerals contain these elements in the percent range found at this site. Since these compounds are essential human nutrients and are only toxic if ingested at extremely high concentrations, they can be eliminated from future consideration. Chromium and copper were not found in excess of background levels in drainage ditch sediments, subsurface soils, or ground water, indicating that they are not site-related, hence should not be of concern.

5.7 Drainage Ditch Sediment Sampling

Two sediment samples, DDS-1 and DDS-2, were collected from the drainage ditch located west of the former waste storage area. Sediment sample DDS-1 was collected west of the former waste storage area to investigate potential impacts to the drainage ditch from former waste handling activities. Background drainage ditch sediment sample DDS-2 was collected approximately 300 feet south of that location.

5.7.1 Volatile Organic Compounds in Drainage Ditch Sediment

Methylene chloride was detected in both drainage ditch sediment samples. (Table 5-9). Acetone was also detected in sample DDS-1 at a concentration of 35 ppb. However, both compounds were also detected in associated laboratory and/or field blanks, and indicating that their presence at the site is suspect.

5.7.2 Inorganic Compounds in Drainage Ditch Sediment

The concentrations of inorganic compounds detected in background drainage ditch sediment sample DDS-2 were compared to the concentrations of inorganic compounds detected in sample DDS-1. Only compounds found at concentrations greater than three times background levels are considered significant. For analytical results, see Table 5-11.

The only inorganic detected in drainage ditch sediments in excess of background levels was manganese. Many natural soils and minerals contain this element in the percent range found at this site. This compound is an essential human nutrients and not toxic to human health unless ingested in extremely high concentrations.

5.8 Sediment Criteria Evaluation

A total of five sediment samples were collected during the remedial investigation to evaluate potential impacts to these areas associated with the release from the former UST. The locations and elevations for the two drainage ditch and three stream sediment samples are indicated in Figure 3-3. To give an accurate context for the comparison of analytical data from these samples to NYSDEC sediment criteria, the relationship between the former UST/cement pad location, drainage ditch and unnamed stream is first discussed to present a preliminary perspective of transport pathways.

The drainage ditch which occurs along the western site property boundary is a man-made feature. This swale was originally constructed to receive storm water piped from a catch basin in the parking lot area north of building number two. Use of the swale for this purpose was discontinued approximately May, 1991 due to construction of the interception trench. The swale is pitched towards the unnamed stream. However, storm water conveyed to the ditch bypasses the stream which is culverted (hard piped) across the entire site and discharges exclusively to a lowland area just to the northwest of building number two. The location of this low wet area is shown in figure 3-3. A breach initially detected in the culvert near the vicinity of the drainage ditch was confirmed to be only a slight separation at the top of two pipe joints. Field inspection of this breach confirmed that it did not create any pathway between the drainage ditch and the stream.

Flow in the ditch is intermittent and has decreased following the diversion of storm water run-off to another area. No benthic organisms were observed or documented at this location during the Habitat Based Assessment performed in October 1992. Inspection of a USGS topographic map quadrangle suggests that overland run-off from the former UST area travels directly downslope towards the culverted unnamed stream and not to the drainage ditch. This interpretation led to the siting of surface soil samples SS-1 through SS-5 to evaluate possible impacts associated with this potential transport pathway.

In this context, it is important to note that no discernible pathway exists between the former UST location and the unnamed stream which flows in a west-southwesterly direction across the site directly behind building number two. This stream flows through a culvert (pipe) from a point located upstream at Walter Winter Drive at the eastern site boundary to an off-site location directly behind the Quick Cut Rubber and Gasket Company. It is not known whether any activities at that company impacted the stream. There is no opportunity for surface water from the former UST area, or western part of the Scott Aviation site to enter the culverted segment of stream. Interpretation of ground water flow patterns in the uppermost confined aquifer do not indicate any hydraulic connection between the aquifer and surface water flow in the unnamed stream. Therefore, analytical data for downstream (off-site) sediment samples SC-2 and SC-3 are not expected to reflect impacts from any site related activities.

The NYSDEC Sediment Criteria Guidance document calls for the evaluation of ten specific metals including arsenic, cadmium, chromium, copper, iron, lead, manganese, mercury, nickel and zinc. The guidance document states that analytical data from sediment samples is to be compared to both local background metal concentrations, as well as the sediment criteria listed in Table 4 of the document. The table also provides limit of tolerance concentrations (which represent threshold values which would be detrimental to the majority of species which come in contact with the sediment), and pre-industrial concentrations of Great Lake sediments (PICGLS) which serve to establish regional background levels of these compounds. For metals, the primary concern in sediments is toxicity to benthic (bottom dwelling) organisms. The sediment comparison is performed in five steps:

1. Compare sediment concentrations with sediment criteria.
2. Compare sediment criteria with unimpacted, local background concentrations; consider significance of criteria exceedances in light of background concentrations, in particular, for naturally occurring substances such as metals.
3. If sediment concentrations are less than criteria, remediation is not necessary to ensure compliance with standards.
4. If sediments exceed criteria, and especially if exceedance is widespread in the ecosystem of concern, a number of steps can be taken to verify the need for remediation.
5. When sediment concentrations and criteria are less than detection, ecological assessments are necessary to directly measure toxicity of sediments or residues in biota if it is suspected that sediments were contaminated by releases.

5.8.1 Drainage Ditch Sediment Sample Comparison

Although samples DDS-1 and DDS-2 exceeded sediment criteria for copper, cadmium and manganese, they were below background levels for pre-industrial concentrations in Great Lake sediments (PICGLS) used as a regional basis for comparison in the NYSDEC Sediment Criteria Evaluation Guidance Document. Lead and zinc also exceeded sediment criteria but were below three times PICGLS backgrounds and limit of tolerance levels. The Hazard Ranking System (HRS) indicates that compounds occurring at concentrations of less than three times background levels are not considered significant (EPA Hazard Ranking System, 40CFR300 Appendix A, Table 2-3, December 1, 1990).

The drainage ditch has an overall length of approximately 400 feet and is only a few feet wide. Water depth is less than a foot deep and flow is intermittent. No benthic organisms or fish were observed in the ditch during the Habitat Based Assessment conducted in October, 1992. As set forth in the RI report , and previously herein, there is no hydraulic connection between the ditch and the unnamed stream toward which it flows. Metal concentrations exceeding sediment criteria at this location, therefore, should have no effect on any benthic ecosystem associated with the primary surface water feature flowing through the site.

5.8.2 Stream Sediment Sample Comparison

Stream sediment samples were collected and analyzed from locations upstream and downstream of the Scott Aviation site. All samples were collected from off-site areas due to the fact the stream flows through a culvert (pipe) across the entire Scott Aviation property. Samples SC-1, SC-2 and SC-3 were acquired over a distance of approximately one-quarter of a mile along the course of the stream. Sample SC-1 was collected immediately upstream of the culvert near Walter Winter Drive at an elevation of 682.1. Sample SC-2 was collected at a point immediately behind the Quick Cut Rubber and Gasket facility, where water exits the culvert. The elevation of this sample location is 683.2 feet. Sample SC-3 was collected at the Oaley Trucking site, west of Quick Cut Rubber and Gasket, where the stream turns and flows in a more southerly direction towards Erie Street. Due to the presence of the culvert at Scott Aviation, it was not possible to collect either surface water or sediment samples from the stream there.

Sediment criteria for nickel were exceeded in samples SC-1 and SC-2 but concentrations at both locations were below PICGLS background levels. Cadmium, exceeded sediment criteria all three stream samples but only exceeded PICGLS background levels in SC-2. However, cadmium levels in SC-2 did not exceed the limit of tolerance or three times PICGLS background, thus are not considered significant. Lead and zinc exceeded sediment criteria and PICGLS background levels in SC-1 and SC-2 but neither sample had lead or zinc concentrations in excess of limit of tolerance levels or three times PICGLS background.

Copper, manganese, and chromium were also above sediment criteria in SC-1 and SC-2 but only SC-2 had copper, manganese and chromium concentrations in excess of PICGLS background and limit of tolerance levels. The copper concentration in SC-2 is not above three times PICGLS background levels and is, therefore, not considered to be significant. Chromium concentration in SC-2 is above three times PICGLS background and limit of tolerance levels but is limited to an unhabitated portion of the stream between the west end of the culvert and sample SC-3. It is notable that this segment of the stream lies between the Quick Cut Rubber and Gasket/Oaley Trucking facilities and a very broadly disturbed area of surface soils which is plainly evident from aerial photo inspection. Chromium concentrations at this location are not believed to be associated with any Scott Aviation activities. For this reason, no further evaluation or actions with respect to the occurrence of chromium in the SC-2 sample are recommended. In the context of this investigation, any such future evaluations or actions which are determined to be necessary should be undertaken by the parties found to be responsible for any release of this compound into the stream.

All three stream sediment samples including SC-1, the upstream background sample had metal concentrations which exceeded the NYSDEC sediment criteria values. For this reason, a comparison to unimpacted local background concentrations is not possible. It is unknown what general water and sediment quality conditions exist in the unnamed stream throughout the Lancaster vicinity. It is possible that the metal concentrations observed in the RI sediment samples are typical to other upstream and downstream segments of this surface water body. However, no general water/sediment quality studies are known to have been performed on the stream over its entire course. To the east the stream flows through areas which are primarily rural, while west-southwest of the Scott Aviation site, it flows through areas of mixed residential development and light industry.

The highest metal concentrations, particularly those where limit of tolerances were exceeded occur in SC-2, the sample collected at the downstream end of the culvert, immediately behind the Quick Cut Rubber and Gasket Building. The waste oil release from the former UST at the Scott Aviation site does not correlate with metal impacted soils, nor do any transport pathways exist between the former tank location and the stream. Manufacturing processes and associated regulatory permit/compliance requirements at the adjacent Quick Cut Rubber and Gasket facility have not been researched. The presence of metal concentrations in off-site sediment samples, therefore, cannot be used as a guide to determine either ecological risks or remediation requirements associated with the waste oil/solvent release from the former UST at the Scott Aviation site.

It is significant that the benthic ecosystem in the vicinity of Scott Aviation and contiguous areas is either extremely limited or absent according to the Habitat Based Assessment conducted in October, 1992. In that report, the following observation was made: "Although no fish were observed at the time of the site investigation, the stream is believed to provide suitable habitat for indigenous fish species, especially upstream and downstream of the Scott Aviation site. The quality of habitat on the subject site is limited by the fact that the stream is enclosed within a conduit. There was no evidence of the stream being used for recreation purposes such as fishing." Based on this observation it seems evident that Scott Aviation has not impacted these or any off-site sediments.

5.9 Habitat Based Assessment

A Habitat Based Assessment (HBA) was conducted to evaluate potential impacts that activities at the Scott Aviation site may have had on fish and wildlife. A copy of the HBA is presented in Appendix F. A summary of significant findings is presented below.

The Scott Aviation site and surrounding area support a limited population of fish and wildlife. Site observations and records research did not reveal any evidence of stressed vegetation or fish kills in the area. The results of the site investigation did not indicate that site-related activities have had any adverse impacts on surface water, stream sediments, or the lowlands. Several potential pathways of contaminant migration exist, including (1) overland transport of contaminants to the lowlands, (2) overland transport of contaminant to surface water and stream sediments, and (3) discharge of ground water to the stream. However, there is no evidence to suggest that any of these pathways do, in fact, exist based on a comparison of analytical data for soil and water samples at the source and areas described above (see Section 6.1). No further action is recommended, in light of these findings.

5.10 Air Pathways Analysis

An air pathways analysis was conducted for the Scott Aviation site in accordance with (1) *Air Cleanup Criteria* document and (2) *Air Pathway Analysis Requirements in the Remedial Investigation* document published by the New York State Environmental Conservation Department, Division of Air Resources. The objective was to evaluate potential effects on ambient air quality resulting from the volatilization of organic compounds found near the surface of the site. The concentrations obtained would assist in determining the future course for remediation at the site.

Ten volatile organic compounds (VOCs) were selected as indicator compounds based on the record of activities at the site. The VOCs were confirmed through surface soil samples taken at the Scott Aviation site. Those samples taken from monitoring wells and the interception trench were not considered in the air pathways analysis since they originated from samples taken significantly below the surface. Since the wells are capped and the trench is covered with gravel and soil, the compounds would not reach the surface and volatilize into the air. The measured near-surface soil concentrations of the indicator compounds are shown in Table 5-12.

Item 3 of the *Air Pathway Analysis Requirements in the Remedial Investigation* document states:

> No air pathway investigation is required if the known concentration of each site contaminant is less than the Air Guide I Ambient Guideline Concentration (AGC) expressed in parts per billion.

Similarly, section II.B, Uncontrolled Sources of the *Air Cleanup Criteria* document states:

> If the concentration of a chemical in the contaminated medium (expressed in parts per million) is less than the appropriate ambient air quality standard or ambient guideline concentration for that chemical (also expressed in parts per million), it is highly unlikely that volatilization would create air concerns.

The concentrations of the ten selected compounds were compared to the Ambient Guideline Concentration (AGC) for each respective compound. Of the ten compounds, six were found to be undetected in the first two feet of surface soil and therefore were excluded from further analysis. When the remaining four VOCs were compared to the AGC limit for each compound, they were found to be well below the respective AGC, as demonstrated in Table 5-12. No further action was required for the four compounds, since they were below their respective AGC levels and therefore did not pose a threat to air quality.

5.11 Summary of Site Investigation

The site characterization study was conducted at the Scott Aviation site to assess the horizontal and vertical extent of contamination in subsurface soil,

TABLE 5-12

Air Pathway Analysis Summary of Maximum Concentrations of Near-Surface Compounds

Compound	Concentration[1] (ppb)	MW	AGC ($\mu g/m^3$)	AGC (ppb)
Methylene chloride	Undetected	84.93	27.0	7.77
Acetone	170	58.09	14,000	5892.58
1,1-DCA	27	98.96	5000	1235.35
1,2-DCE	390	96.94	1900	479.21
1,1,1-TCA	Undetected	133.40	1000	183.28
TCE	Undetected	131.39	0.45	0.08
Toluene	48	92.14	2000	530.71
Ethylbenzene	Undetected	106.17	1000	230.29
Xylene	Undetected	106.17	300	69.09
Methyl ethyl ketone	9	72.11	300	101.72

1. Refer to Table 5-3

MW - Molecular weight of compound

ppb - ($\mu g/m^3$)(24.45)/MW

ground water, surface soil, surface water, stream sediments and air. The analytical data collected during the investigation was compared to background levels for each medium (1) to determine if site-related activities have had an impact on the environment and (2) to develop a list of potential contaminants of concern on a media specific basis. The contaminants of potential concern identified will be more fully evaluated during the Baseline Risk Assessment and the SCGs/RAOs Report.

Based on the comparative evaluation of analytical data, the following conclusions can be drawn:

- No inorganic contamination of concern was confirmed in any of the media studied.

- No semi-volatile organic, PCB, or pesticide contamination was detected during the site investigation.

- Elevated levels of VOCs were detected in subsurface soil samples collected from the area of the former waste storage tank. The potential contaminants of concern include: 1,1-DCA, 1,2-DCE (total), 1,1,1-TCA, TCE, toluene, ethylbenzene, xylene, and 2-butanone. Contaminant concentrations were detected at various depths ranging from 0-2 feet to 16-18 feet below grade. Contaminant concentrations generally increased with depth bgs. It appears that the lateral extent of subsurface soil contamination extends from the source area to about MW-4.

- Elevated levels of VOCs in ground water were detected in the interception trench and the uppermost confined aquifer. Potential contaminants of concern include: chloroethane, 1,1-DCA, 1,2-DCE (total), TCE, and vinyl chloride. Contaminant concentrations were greatest in the interception trench and MW-4, respectively. Extremely low levels of contamination were detected in MW-6 and MW-3, which are located west and north-west of MW-4, respectively. These findings are consistent with the results of the hydrogeologic investigation, which found that ground water is flowing in a westerly direction and ground water flow velocities in the vicinity of MW-4 are very low (e.g., less than a tenth of a foot per day).

- Based on the results of the soil gas survey, ground water sampling, and soil sampling there is no evidence to suggest that the VOC contamination extends to the neighboring residences.

- No evidence was found during the site investigation to indicate that site-related activities have impacted the surface water and sediments of the unnamed stream.

- There is no evidence that site-related activities have impacted surface soils located in the lowlands north of the former waste storage area.

- The results of the air pathways analysis revealed that based on near-surface soil concentrations of VOCs detected at the site, there is no threat of impacts to air quality resulting from the volatilization of organic compounds.

SUMMARY OF ROUND 2 QUALITY DATA (IN PPB)

COMPOUND	MONITORING WELL/SAMPLING POINT MW-3	MW-4	MW-6
CHLOROETHANE	87	300J	U
TCA	U		U
TCE	U	6,900	U
DCA	U	U	U
DCE	U	9,400	U
VINYL CHLORIDE	26	300J	U
TOLUENE	U	U	U
TOTAL VOC's	113	16,770	U

LEGEND

- - - - - - APROXIMATE EXTENT OF TOTAL VOC CONTAMINATION

⊗ MW MONITORING WELL

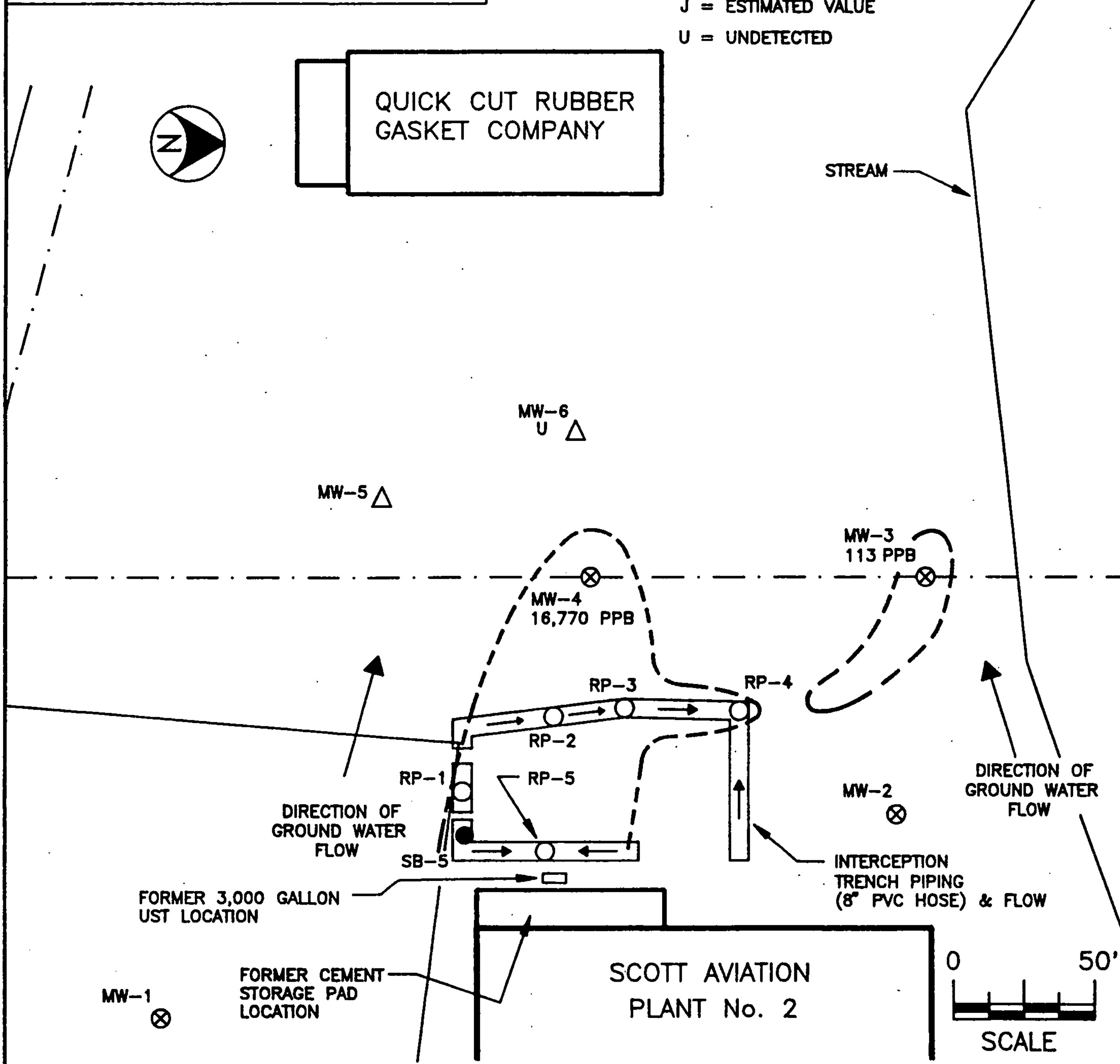
△ MW MONITORING WELL

○ RP INTERCEPTION TRENCH RISER PIPE

● SB SOIL BORING LOCATION

J = ESTIMATED VALUE

U = UNDETECTED



Versar INC.
2010 CABOT BLVD
LANGHORNE, PA 19047
(215) 741-4211

SCOTT AVIATION, LANCASTER, NY

FIGURE 5-3

INTERPRETED FROM AUGUST, 1993 DATA
OCTOBER - 1993

6.0 CONTAMINANT FATE AND TRANSPORT

When a chemical is released to the environment, it may be transported, transformed (physically, chemically, or biologically), or accumulated in one or more media (e.g., soil, air, surface water, ground water). The purpose of fate and transport analysis is to identify the media impacted by site-related contaminants, determine the contaminant's transport pathway, and predict potential future exposures.

Contamination was found on the Scott Aviation site in the area of the former underground storage tank and its concrete pad; both were removed in early 1991. Contamination detected in on-site soil and ground water resulted from the release of waste oils and solvents from the former 3,000-gallon UST and waste handling activities in the area of the former waste storage pad. Contaminants have been detected in on-site soil and ground water samples, indicating that volatile organic compounds (VOCs) have migrated from the former UST/waste storage area. The mobility and fate of the compounds of concern at the Scott Aviation site are governed by site characteristics and the physical, chemical, and environmental properties of the contaminants. A study of potential routes of migration, contaminant persistence, and contaminant migration provides further indication of their impact.

6.1 Potential Routes of Contaminant Migration

Based on the results of the site characterization the following potential pathways of contaminant migration were determined to be incomplete:

- The transport of contaminants from ground water to the surface water and sediments of the unnamed stream has been determined to be incomplete because no site-related contaminants were detected in the surface water or stream sediments and there does not appear to be a hydraulic relationship between ground water and the unnamed stream.

- The overland transport of contaminants to the surface water and sediments of the unnamed stream is not a transport pathway. The unnamed stream is culverted along the length of the site to a point approximately 200 feet west of the site. No site-related contamination was detected in the surface water or sediments of the unnamed stream. This conclusion is further supported by the results of the HBA.

- The overland transport of contaminants to the lowlands located north of the former waste storage area has been found to be an incomplete pathway. The results of surface soil sampling in the lowlands revealed that there is no site-related contamination of surface soils in the lowlands.

- The results of the air pathways analysis has determined that the volatilization of near surface contaminants to the air is an incomplete pathway, since the concentration of contaminants in the air at the site surface is well below the Ambient Guideline Concentration (AGC).

The following potential pathways of contaminant migration will be evaluated in this section:

- The leaching of contaminants from the soil into the uppermost confined aquifer.
- The migration of contaminants through subsurface soil.
- The migration of contaminants through the uppermost confined aquifer.

6.2 Contaminant Persistence

The properties of the contaminants that are most likely to affect their mobility in the environment are water solubility, the propensity to bind to soil (organic carbon partition coefficient or K_{oc}), and vapor pressure. Compounds that volatilize can migrate upward through soil and in time escape to the atmosphere. However, due to the dense clay overburden at the Scott Aviation site, this transport pathway was not found to exist. Compounds that dissolve in water can be leached downward through the soil and be transported downgradient via ground water. Insoluble compounds are more likely to bind to soil particles and remain immobile.

Chemical and biological transformation processes (e.g., hydrolysis, oxidation, reduction, and biodegradation) affecting the fate and transport of contaminants in the environment must also be examined in relation to the contaminants of concern at the Scott Aviation site.

6.2.1 Volatile Organic Compounds

The highest concentration of VOCs at the Scott Aviation site was detected in subsurface soil samples collected from the former waste storage area (test boring SB-5). The VOCs detected in this test boring include 1,1-DCA, 1,2-DCE, 1,1,1-TCA, TCE, toluene, ethylbenzene, xylene, and vinyl chloride. The physical and chemical properties of these compounds are presented in Table 6-1. In general, VOCs can partition into liquid and vapor phases in the subsurface

TABLE 6-1

Chemical and Physical Properties of Volatile Organic Compounds of Concern

Compounds	Density (g/cm^{2})	Solubility (mg/l)	Henry's Law Constant ($atm\text{-}m^3/mole$)	Vapor Pressure (mm Hg @ 20-25°C)	K_{oc} (l/mg)
1,1-DCA	1.26	5.50E+03[1]	5.87E-3	227	3.78E+1[1]
1,2-DCE	1.25	7.00E+02[2]	6.72E-3	340	5.90E+01[2]
1,1,1-TCA	1.35	4.40E+03[2]	8.0E-3	124	1.52E+02[2]
TCE	1.47	1.10E+03[2]	1.03E-3	69	1.26E+02[2]
Toluene	0.86	5.35E+02[2]	5.94E-3	28	2.50E+02[2]
Ethylbenzene	0.87	1.52E+02[2]	8.44E-3	10	1.10E+03[2]
Xylene	0.88	1.60E+02[2]	5.19E-3	7	2.68E+02[2]
Vinyl Chloride	0.91	2.70E+03[2]	1.07E-2	2,660	8.20E+00[2]

1. from EPA/600/6-85/002a, September 1985
2. from EPA/540/2-89/057, October 1989

environment. They may then dissolve in soil moisture, volatilize in air, adsorb to soil particles, or migrate towards ground water.

The extent of partitioning of a VOC between soil gas and soil moisture is measured by Henry's Law Constant, a ratio (expressed in units of atm-m^3/mole) of a compound's concentration in soil gas and soil moisture at equilibrium and constant temperature. Larger Henry's Law Constant values indicate a greater likelihood that the compounds are most likely to partition into soil gas. Smaller Henry's Law Constant values indicate that compounds are more likely to be retained in soil moisture.

In general, the VOCs of concern at the Scott Aviation site have high Henry's Law Constants (>1E-3) and relatively high vapor pressures (>50mm Hg). Based on these physical properties, the VOCs are likely to evaporate rapidly from exposed soil, waste, and surface water and are less likely to be detected in surface water or shallow soil at the site. This hypothesis is supported by analysis of surface soil and surface water samples at the site. None of the VOCs of concern were found in either medium. These data, in conjunction with site specific geologic data, indicate that soil to air transport is not a significant migration pathway for VOCs at the site.

In addition to partitioning between vapor and liquid phases, VOCs may adsorb to the surface of soil particles and organic matter. To determine the extent of VOC adsorption to soil, an equation involving the soil-water partition coefficient (K_p) is used to establish the minimum concentration of a soil contaminant that would elevate ground water contaminant levels above ground water quality goals. Findings can be used to evaluate whether the presence of a particular VOC in soil at Scott Aviation will be a potentially contributing source of ground water degradation.

$$S = K_p C \qquad \text{(a)}$$

Where: S = concentration of the contaminant adsorbed to the soil in the saturated zone (μg/kg)

K_p = soil-water partition coefficient

C = NYSDEC water quality criteria for a contaminant of concern (μg/l)

For example, it can be determined whether the concentration of 1,1,1-TCA detected in the soil within the former waste storage area will 1) elevate ground water contaminant levels above NYSDEC ground water quality goals and 2) be a continuing source of ground water degradation within the interstratified aquifer. Knowing the organic carbon partition coefficient is 152 ml/g (Table 6-1) and assuming a 5% fraction of organic carbon (F_{oc}) in the soil (*Soil Survey of Erie County*), the soil-water partition coefficient (K_p) can be determined using the following relationships:

$$K_p = (K_{oc})\ (F_{oc}) \qquad \text{(b)}$$

$$K_p = (152\ \text{ml/g})\ (0.05)$$

$$K_p = 7.6\ \text{ml/g}$$

Substituting the K_p value (7.6 ml/g) into equation (a) and using the NYSDEC water quality value for 1,1,1-TCA (5 μg/l) yields a threshold value for 1,1,1,-TCA in soil of 38 μg/Kg (ppb).

$$S = K_p\ C$$

$$S = (7.6\ \text{ml/g})\ (5\ \mu\text{g/l})$$

$$S = 38\ \mu\text{g/kg}$$

The value 38 μg/kg represents the maximum allowable concentration of 1,1,1-TCA in soil that will not contribute to the degradation of ground water at Scott Aviation. The concentration of 1,1,1-TCA detected in sample SB-5C was 20,000 μg/Kg, indicating that site soils may require some remedial action to reduce the threat of continued degradation of ground water at the site. A summary of allowable soil concentrations based on partition theory is presented in Table 6-2.

As illustrated above, at a high enough concentration a compound can partition from soil particles into ground water. Due to the relatively high concentrations of VOCs in site soils, it is not surprising that these compounds were detected in ground water samples collected from the interception trench and three of the downgradient wells (MW-3, MW-4, and MW-6).

The concentrations of VOCs in ground water decrease in the downgradient direction (west and northwest). In MW-4, located immediately west of the drainage ditch, VOCs were detected at a total concentration of about 8,410 ppb (Round II; sample MW-4). In MW-6, located approximately 50 feet west of MW-4,

TABLE 6-2

Allowable Soil Concentrations for Volatile Organic Compounds of Concern

Compound	Solubility (mg/l)	Partition Coefficient K_{oc} (ml/mg)[2]	Groundwater Standard (ppb)	Allowable Soil Concentration (ppb) (or ug/kg)
1,1-DCA	5500	38	5	9.5
1,2-DCE (total)	700	59	5	14.8
1,1,1-TCA	4400	152	5	38
TCE	1100	126	5	31.5
Toluene	535	250	5	62.5
Ethylbenzene	152	110	5	27.5
Xylene	160	268	5	67
2-Butanone	268000	4.5	--	--

1. $S = C\ K_{oc}\ f$; where f = 5% organic carbon, where S = allowable soil concentration, and C = ground water standard.
2. Calculated based on $\log K_{oc} = -.55 \log L + 3.64$, where L = solubility.

-- No groundwater standard available.

total VOCs were detected at a much lower concentration (Round I; 4 ppb, estimated value). In MW-3, located northwest of the former waste storage area and adjacent to the unnamed stream, total VOCs (excluding acetone and methylene chloride) were detected at 56 ppb in Round II sampling. The attenuation of VOC concentrations in the downgradient direction is likely due to dilution and dispersion. Based on the above findings, the western-most extent of contamination is marked by monitoring well MW-6. The approximate extent of ground water contamination in the northwest direction is marked by MW-3. The analytical results obtained from the surface water and sediments of the stream provide no evidence that the stream has been impacted by site-related activities.

Vinyl chloride was detected in MW-3 and MW-4. Although this compound was not detected in the ground water sample collected from the interception trench, its presence in wells MW-3 and MW-4 can be attributed to the fact that vinyl chloride is a degradation product of TCE and 1,2-DCE. Given that the first order rate of vinyl chloride transformation from 1,2-DCE has been reported as very slow, the presence of vinyl chloride in ground water downgradient of the waste storage area indicates that the parent compounds have had considerable residence time.

The chlorinated aliphatics (i.e., TCE, 1,2-DCE) are not susceptible to hydrolysis (i.e., the degradation of contaminants by chemical reactions involving water or an aqueous solution). Oxidation reduction reactions involving chlorinated aliphatic compounds have not been extensively researched. The reduction of aromatic compounds (e.g., toluene and xylenes) has been reported.

Most VOCs ultimately biodegrade. Chlorinated aliphatics (e.g., TCE, 1,2-DCE) degrade more rapidly in an anaerobic environment, whereas aromatic VOCs (e.g., toluene, xylene) degrade more rapidly under aerobic conditions. Therefore, we may expect aromatic VOCs will degrade primarily in the unsaturated zone while degradation of the chlorinated aliphatics would be favored in the saturated zone. In addition, bacteria in soil play a significant role in degradation of aromatic and aliphatic solvents. These factors indicate that the bioremediation of soils at the former tank location at the Scott Aviation site is a potential remedial alternative to be considered during the Feasibility Study.

In general, VOCs are mobile in the environment. Therefore, they are good indicators of how far chemical constituents have migrated from the source area. Dispersion, dilution, and biodegradation appear to be primary fate processes of VOCs in the subsurface environment. The migration of VOCs of concern from soil to ground water has been demonstrated by the presence of VOCs in well. Migration of VOCs from ground water into the unnamed stream does not appear to have occurred. However, based on soil and water equilibrium estimates, the VOCs found in subsurface soils in the former waste storage area were detected at high enough concentrations to act as a possible continuing source of ground water degradation at the site.

6.2.2 Inorganic Contaminants

The results of inorganic sampling conducted during the RI indicate that no inorganic contamination has resulted from site-related activities. Calcium, iron, magnesium, manganese, potassium, and zinc were detected at concentrations consistent the anticipated ranges for soil types found in western New York state and for ground/surface waters associated with that soils. Many natural soils and minerals contain these elements in the percent range found at this site. These compounds are all essential human minerals, and appear commonly in many soils and minerals at much higher concentrations than found here. These are not considered toxic unless ingested at extremely high concentrations.

6.3 Summary of Contaminant Fate and Transport

The presence of elevated concentrations of VOCs in on-site and off-site ground water samples indicates that contaminants have been released from soil to ground water. The evaluation of the extent to which VOCs will adsorb to soil particles (i.e., soil partitioning theory), demonstrates that VOC concentrations detected in subsurface soil may be a continuing source of ground water degradation. Sampling results indicate that the vertical extent of subsurface soil contamination extends to a depth of approximately 18 feet and although there has been some lateral movement of soil contamination in a westerly direction, the subsurface soil contamination has not extended beyond the property boundary.

The VOC contamination in the uppermost confined aquifer is moving very slowly in a west-northwesterly direction. The data indicates that the plume extends from the former waste storage area in a westerly direction with the approximate outer limits of the plume being marked by MW-6 and MW-3. The presence of vinyl chloride in ground water is an indication that the VOC contamination has been present for a long period of time and the chlorinated solvents are slowly degrading. There are no data to suggest that there is a hydraulic relationship between the uppermost confined aquifer and the unnamed stream. This conclusion is supported by the fact that no site-related contaminants were detected in the surface water and sediments of the unnamed stream.

Screens in the Scott Aviation site monitoring wells were positioned to extend either to or just above bedrock and would therefore detect any "sinking" contaminants migrating at or near the bedrock/aquifer interface. No such sinking contaminants were detected in site downgradient wells, so that it is highly unlikely that sinking contaminants are present downgradient.

7.0 SUMMARY AND CONCLUSIONS

In accordance with the requirements of the Administrative Order on Consent entered into by Scott Aviation and the NYSDEC, Versar has completed a Remedial Investigation at the Scott Aviation site in Lancaster, New York. The RI was conducted to characterize the nature and extent of contamination and establish potential pathways of contaminant migration.

The RI field activities, conducted during October and November 1992, consisted of a soil gas survey, the sampling and analysis of the surface water and stream sediments of the unnamed stream, the installation of two additional ground water monitoring wells, the analysis of ground water samples from a total of six monitoring wells (two rounds), the installation of seven soil borings, the collection of ten subsurface soil samples, the collection of six surface soil samples, a residential well survey, a utilities survey, a habitat based assessment, and an air pathways analysis. Based on the results of the RI, the following conclusions regarding the nature and extent of contamination at the Scott Aviation site can be drawn:

- Field activities have confirmed the presence of VOC contamination in subsurface soils in the area of the former waste storage tank. The contaminants of concern include: 1,1-DCA, 1,2-DCE (total), 1,1,1-TCA, TCE, toluene, ethylbenzene, xylene, and 2-butanone. Subsurface soil contamination extends from an approximate depth of 2 feet to 18 feet. The subsurface soil contamination extends laterally to MW-4, located west of the former waste storage area near the property boundary. An evaluation of soil partitioning indicates that the subsurface soil contamination may be a continuing source of ground water degradation. Remediation of subsurface soils in the source area would help mitigate this ground water degradation.

- Elevated levels of VOCs have been detected in the ground water in on-site and off-site wells (i.e., MW-4, MW-6, and MW-3) and the interception trench. The contaminants detected in ground water are consistent with those found in subsurface soil and include: chloroethane, 1,1-DCA, 1,2-DCE (total), 1,1,1-TCA, TCE, toluene, and vinyl chloride. The ground water contaminant plume appears to be moving very slowly in a west-northwesterly direction (toward Quick Cut Gasket). The slow movement of the plume is supported by hydrogeologic data, which revealed that the hydraulic conductivity and ground water velocity in the vicinity of MW-4 is very low. The ground water plume extends from the former waste storage area and tapers off west of the site around MW-6 and MW-3. There are no data to indicate that there is a hydraulic relationship between ground water and surface water and analytical data did not reveal any evidence that the Scott Aviation site has impacted the unnamed stream.

- Based on the results of the soil gas survey, ground water sampling, and soil sampling there is no evidence to suggest that the VOC contamination extends to the neighboring residences or poses a threat to these potential receptors.

- No evidence was found that site-related activities have impacted the surface water and sediments of the unnamed stream during the site investigation.

- There is no evidence that site-related activities have impacted surface soils located in the lowlands north of the former waste storage area, indicating that this is not a contaminant transport pathway.

- The results of the air pathways analysis revealed that based on near-surface soil concentrations of VOCs detected at the site, there is no threat of impacts to air quality resulting from the volatilization of organic compounds. The volatilization of near surface organics from soil to the air is therefore not a contaminant transport pathway.

- No inorganic contamination that can be attributed to site-related activities was confirmed in any of the media sampled during the RI field investigation. Many natural soils and minerals contain these elements in the percent range found at this site.

- No semi-volatile organic, PCB, or pesticides were detected in any of the media sampled during the RI field investigation.

The results of the RI will be used to determine if the contaminants of potential concern identified pose an unacceptable risk to human health and the environment (Baseline Risk Assessment) and to develop a list of remedial action objectives (SCGs/RAOs Report), which will be evaluated during the Feasibility Study.

7.1 Evaluation of Additional Data Requirements

No additional data is required at this time.

8.0 REFERENCES

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APPENDIX A

SOIL BORING LOGS AND WELL CONSTRUCTION DETAILS

Location Map: QUICK CUT

*SB-2/MW-5.
~~Quick~~

Versar INC. 2010 CABOT BLVD, LANGHORNE, PA 19047, (215) 741-4211

TEST HOLE/WELL LOG

Test/Well Number: MW-5/SB-2	Project: Scott Aviation
Date: 10/27/92	Project Number: 1324.007
Logged By: K. Trantow	Drilled By: Empire

Elevation:	Detector: HNU	Drilling Method: HSA 2"	Sampling Method: SS
Gravel Pack: morey sand #1		Seal: bentonite pellets	Grout:
Casing Type: PVC		Diameter: 2" Length: 10'	Hole Dia: / Depth to Liquid:
Screen Type: PVC	Slot: .010	Diameter: 2" Length: 15'	Total Depth: 25' / Depth to Water: 22.5'

USCS Classification	Color	Moisture Content	% Fines (time)	Structure	Vapor (PID)	Staining	Sample #	Depth	Sample Recovery	Penetration Resistence
CL	10YR 5/4		14:20		2 (background)			0	12"	11/10, 11/11
↓	10YR 5/2		1425		2	"		2	12"	6/7, 8/12
↓	↓		1430		0			4	24"	7/11, 11/8
↓	↓		1435		0			6	24"	16/7, 9/12
CL	10YR 5/6		1440		0			8	24"	12/10, 14/9
↓	10YR 5/4		1445		0			10	24"	5/9, 11/16
↓	5YR 5/3		1450		0			12	24"	6/9, 13/15
↓	5YR 5/2		1455		0			14	18"	3/7, 8/11
↓	↓		1500		0			16	24"	3/5, 6/8
↓	↓		1510		0		X	18	24"	10/12, 8/7
CL	↓	▽			0			20	24"	2/3, 4/4
SM	10YR 5/1				0			22		
↓	2.5YR 5/0				0			24	12"	2/2, 1/3

LITHOLOGY/REMARKS

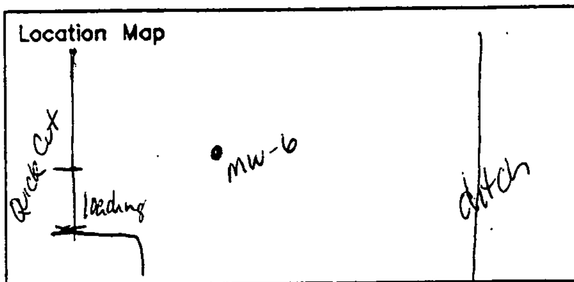
0-6" gravel, sand fill
6-2' brown, stiff clay, dry, no odor.
2-4' gravel + sand at top. stiff clay. brown mottled w/ dark + orange colors dry.
4-10' clay w/ interfingering silt lens in last 4" of sample. very plastic clay. no odors. dry.
6-8' mostly red-brown clay, some mottled black + dk brown colors. plastic
8-10' same as above w/ some organics at top of spoon. gray silt stringers. gravel downhole PID - 0.0ppm.
10-12' same as above, few gravel pieces, no stringers.
12-14' same red brown clay, bottom of spoon more moist. plastic. no odor
14-16' last 6" shaved by large cobble stuck in end piece. same stiff clay. small pieces of gravel.
16-18' clay w/ silt-fine sand lenses every 1-2 inches. ~~wet~~ lenses are wet, clay only moist.
18-20' saturated @ 19' in a fine sand lens approx 2-4" thick. rest of spoon is clay as above. no odors, moist to wet
20-22' clay at top to 21'. silty sand w/ gravel below - saturated.
23-25' wet. poorly sorted sand + gravel. gray no odor.

TD 25'

WELL COMPLETION

slurry
blank
B
5
8
10.3
25.3

Location Map	**Versar INC.** 2010 CABOT BLVD LANGHORNE, PA 19047 (215) 741-4211



TEST HOLE/WELL LOG

Page 1	of 1		
Test/Well Number: MW-6	Project: Figgie Scott Aviation		
Date: 10/28/92	Project Number: 1324.007		
Logged By: K. Trantow	Drilled By: Empire		
Elevation:	Detector: HNU	Drilling Method: HSA 4"	Sampling Method: SS
Gravel Pack: morey sand 1		Seal: bentonite pellets (piezometer)	Grout: cement
Casing Type: PVC		Diameter: 2" Length: 16'	Hole Dia: / Depth to Liquid:
Screen Type: PVC	Slot: .010	Diameter: 2" Length: 10'	Total Depth: 26' / Depth to Water: 19'

USCS Classification	Color	Moisture Content	~~% Fines~~ time	Structure	Vapor (PID)	Staining	Sample #	Depth	Sample Recovery	Penetration Resistence	LITHOLOGY/REMARKS	WELL COMPLETION
CL	10YR 3/1		1410		1.5			0	6"	2/4 8/7	0-2' gravel/silt. last 4" are dk brn clay. dry. no odor.	
	10YR 4/2		1420		0.5			2	8"	8/6 8/19	2-4' silty clay w/gravel + cobbles sub-angular pieces.	
			1425		0			4	24"	5/5 6/9	4-6' silty clay. large orange brick chunk 6" from top of spoon. gravel pieces.	
			1430		0			6	18"	2/3 4/5	6-8' same as above. moist. (no brick)	slurry
CL	10YR 4/3		1435		0.5			8	24"	3/3 7/10	8-10' top foot of spoon same as above. grading to mottled brown clay, stiffer + less moist.	blank
			1439		0.5			10	18"	4/7 9/5	10-12' BR. clay w/ TRACE Gravel; some Gray SILT.	13.5'
	7.5YR 4/3		1450		1.5			12	24"	4.0 9.11	12-14' same as above w/gravel/sand lenses light brown	B 14'
	5YR 5/3		1455		0			14	24"	4/3 3/6	14-16' red-brown clay w/small 2mm silt lenses, gray. lenses are saturated. clay is moist.	16'
		▽	1520		0			16	24"	3/3 4/4	16-18' same as above very moist.	
GM			~~1528~~ 1530		1		X	18	24"	4/5 5/5	18-20' Same as above first foot. 2nd foot saturated sandy silt w/gravel.	
								20				
								22				
					0			24	12"	20/28 13/20	24-26' sandy silt w/ weathered black shale. moist to saturated.	
								26			TD 26'	

Location Map: Quill → • SB-3 — DITCH	**Versar INC.** 2010 CABOT BLVD LANGHORNE, PA. 19047 (215) 741-4211

TEST HOLE/WELL LOG

Page	of		
Test/Well Number: SB-3		Project: Scott Aviation	
Date: 10-27-92		Project Number:	
Logged By:		Drilled By: Empire	
Elevation:	Detector: HNU	Drilling Method: HSA 2"	Sampling Method: SS
Gravel Pack:		Seal:	Grout:
Casing Type:		Diameter: Length:	Hole Dia: / Depth to Liquid:
Screen Type:	Slot:	Diameter: Length:	Total Depth: / Depth to Water:

USCS Classification	Color	Moisture Content	% Fines	Structure	Vapor (PID)	Staining	Sample #	Depth	Sample Recovery	Penetration Resistence	LITHOLOGY/REMARKS	WELL COMPLETION
GP / CL	10YR 5/3				0		1	0	18"	11-7 / 8-12	Dark Gravel/sand -6" Br. Clay/silt; Dry - No odor	
CL	10YR 5/3				0		2	2 / 4	12"	4-5 / 4-6	Br. Green Clay - Gray SILT. Trace fine SS	
CL	5Y 3/1				0		3	6	15"	4-4 / 5-7	Gray-Green SILT w/ clay	
-	5Y 3/1				0		4	8	20"	4-4 / 8-5	as above	
CL	10YR 5/3				0		5	10	20"	3-3 / 7-9	SILT 6" - sand lense - Br. clay w/ SILT rest	
CL	5Y 3/1 / 10YR 5/3				0		6	12	24"	4-11 / 13-16	Gray-Green SILT on top foot w/ fine SS. Br. Clay rest.	
CL	10YR 5/3				0		7	14	24"	9-11 / 13-17	Br. Clay trace gravel	
CL	"				0		8	16	24"	4-7 / 7-9	Br. Clay w/ fine sand/SILT lenses Gray/Green sands lense (moist lense)	
CL	"				1		9	18	24"	2-3 / 4-6	As above more moisture	
CL	"	—			0		10	20		3-4 / 4-7	brown clay to 19.5' then gro	
SC / SP	2.5YR 5/2							22			fine sand w/ trace gravel - wet.	
SP								24			As above - wet	
							TD	25			TD 25'	

Location Map

ditch

SB-1

fire house

Versar INC. 2010 CABOT BLVD LANGHORNE, PA 19047 (215) 741-4211

TEST HOLE/WELL LOG — Page 1 of 1

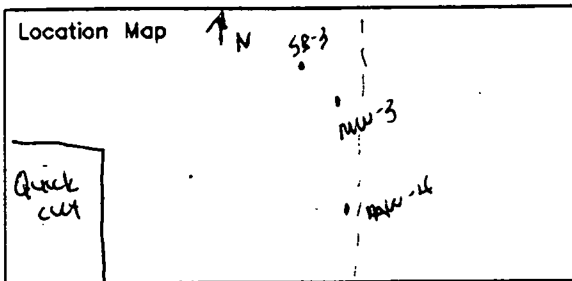
Test/Well Number: SB-1	Project: Scott Aviation
Date: 10/27/92	Project Number: 1324.007
Logged By: Miki Bond.	Drilled By: Empire
Elevation:	Detector: HNU
Drilling Method: HSA 2"	Sampling Method: SS
Gravel Pack:	Seal: bentonite/cement slurry.
Grout:	
Casing Type:	Diameter: / Length:
Hole Dia:	Depth to Liquid:
Screen Type: / Slot:	Diameter: / Length:
Total Depth: 25'	Depth to Water: 22.6

USCS Classification	Color 10YR	Moisture Content	% Fines	Structure	Vapor (PID)	Staining	Sample #	Depth	Sample Recovery	Penetration Resistence	LITHOLOGY/REMARKS	WELL COMPLETION
CL	5/2		1100		3ppm		1	0	6"	7/6/4	Brown DK clay w/ some organics on top. ~~DK BR clay w/ SILT (Gray)~~	
CL	5/2				3ppm		2	2	18"	6/8 8/14		
CL					3ppm		3	4 / 6	23"	4/12 13/19	Br clay w/ SILT more SILT content Fail worm test, 1 thumb test	
CL					4ppm		4	8	20"	7-14 12-18	same	
CL					2		5	10	23"	5-11 11-16	Same w/ SILT singlr ~1/4 thick	
CL					2		6		23"	5-10 12-14	same - moist at end	
CL					2			12	24	3 5 6 8	Sam - moist - Gray silt layers	
CL					2			14	20	3-4 5-6	LIGHTER BR. moist	
CL	5/4				2			16 / 18	20	2/2 4-4	Gray Brown clay - very moist at 18'	
CL					2				24	2-2 5-6	same - wet silt seams	
CL		▽	1220		1.5		X	20		3-3 6-4	water at 21' BG - Gr-Br color more silt	
GM							TD	22 / 24 / 25		3/6 7/ref	Gray sand - fine sand & silt w/ gravel.	

Glacial TX

TD 25'

Location Map	**Versar INC.** 2010 CABOT BLVD LANGHORNE, PA 19047 (215) 741-4211	



TEST HOLE/WELL LOG — Page of

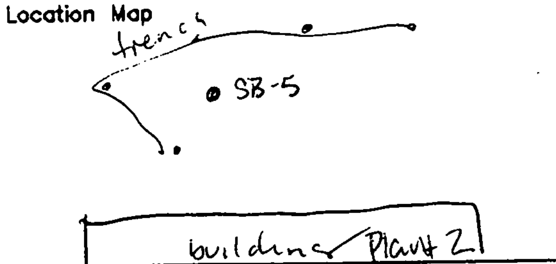
Test/Well Number: SB-4	Project: Scott Aviation
Date: 10-28-92	Project Number:
Logged By:	Drilled By: EMPire
Elevation:	Detector: HNU
Drilling Method: HSA 2"	Sampling Method:
Gravel Pack:	Seal:
Grout:	
Casing Type:	Diameter: Length:
Hole Dia:	Depth to Liquid:
Screen Type: Slot:	Diameter: Length:
Total Depth:	Depth to Water:

USCS Classification	Color	Moisture Content	T	Structure	Vapor (PID)	Staining	Sample #	Depth / Sample Recovery	Depth	Penetration Resistence	LITHOLOGY/REMARKS	WELL COMPLETION
7.5YR 2/0			1112		0		1	18"	0–2	16-35, 12-6	Black fill material asphalt mixed w/ Br. clay - dry no odor, trace gravel	
	NA		1118		0		2	0"	2–4	5-3, 6-2	No Recovery - Rock	
CL	10YR 5/2		1120		0		3	22"	4–6	2-2, 7-10	Gravel at top 6" - Black clay ~~wet~~ ~~Brown~~ BR color w/ silt	
CL	"		1127		0		4	24"	6–8	10-17, 18-27	Br. silty clay w/ trace gravel Dry	
CL	"		1131		0		5	24"	8–10	10-17, 23-28	As Above Dry	
CL	"		1137		3		6	24"	10–12	8-14, 12-20	As Above - Dry	
CL	"		1143		0		7	24"	12–14	3-5, 6-7	As above w/ sand silt seam/lenses - moist	
CL	"		1147		0		8	24"	14–16	2-2, 2-3	As above moist	
CL	"				0		9	20"	16–18	2-1, 3-5	As Above w/ no lenses - moist / more silt %	
CL	"	▼	1153		0		10	2"	18–20	2-3, 5-6	2" recovery - wet Clayie Sand and gravel	
GL	"		1205		0	X	11	18"	20–22	3-12, 14-16	fine gravel / sand - silt Lt Brown	
GP	5Y 4/1		1212		0		12		22–24	11-43, 52-44	sand and fine gravel - wet Bottom 6" - silt compacted - dry Gravel	

TD 24'

.163
20
3260

Location Map



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(215) 741-4211

TEST HOLE/WELL LOG

Page of

Test/Well Number: SB-5	Project: Scott Aviation
Date: 10/28/92	Project Number: 1324.007
Logged By: K. Tranton	Drilled By: Empire
Elevation:	Detector: HNu
Drilling Method: HSA 4"	Sampling Method:
Gravel Pack:	Seal:
Grout:	
Casing Type:	Diameter: Length:
Hole Dia:	Depth to Liquid:
Screen Type: Slot:	Diameter: Length:
Total Depth:	Depth to Water:

USCS Classification	Color	Moisture Content	~~% Fines~~ time	Structure	Vapor (PID)	Staining	Sample #	Depth	Sample Recovery	Penetration Resistence	LITHOLOGY/REMARKS	WELL COMPLETION downhole PID	break area
CL	7.5YR 5/3		9:15		3		A	0	24"	8/9 5/7	0-2' clay w/silt lenses, large gravel pieces mottled coloring black + brown.	0-1	0
	5YR 3/2		9:20		6			2	18"	4/7 8/8	2-4' dk clay w/ unsorted sand lenses coarse sand to gravel. looks stained slight odors.		
			9:30		1			4	18"	3/4 4/2	4-6' clay w/ 4" sand lens including gravel black + dk brown	0-1	0
			9:35		0			6	12"	5/8 4/3	6-8' same as above tho gravel/sand lens is saturated.	0-.5	0
			9:40		4			8	24"	4/8 3/4	8-10' top of spoon - light brown sand/silt w/ gravel. clay below	3-4	0
			9:45		0		B	10	18"	2/3 7/13	10-12' clay - ~~stained~~ dk brown at top no odor sand lens/w/gravel at center of spoon.	0-2	0
			9:50		0-4			12	6"	10/12 15/16	12-14' hit a rock - shaved clay	0-1	0
			1010		200+ / 2nd spoon 15		C	14	24"	3/6 7/9	14-16 clay high PID some gravel	0-3	0
		▽	1020		5-15		D	16	24"	3/7 4/4	16-18' clay w/silt lenses saturated		
								18					
								20					
								22					
								24					
								26					

TD 18'

Location Map

Quick Cut

Z→

• SB6

Versar INC. 2010 CABOT BLVD LANGHORNE, PA 19047 (215) 741-4211

TEST HOLE/WELL LOG

Page 1 of 1

Test/Well Number: SB6	Project: Figgie Scott Aviation
Date: 10/19/92	Project Number: 1324.007
Logged By: K. Tantow	Drilled By: Empire Ken + Steve
Elevation:	Detector: HNu
Drilling Method: HSA 4"	Sampling Method: SS
Gravel Pack:	Seal:
Grout:	
Casing Type:	Diameter: / Length:
Hole Dia:	Depth to Liquid:
Screen Type: / Slot:	Diameter: / Length:
Total Depth:	Depth to Water:

USCS Classification	Color	Moisture Content	~~% Fines~~ time	Structure	Vapor (PID)	Staining	Sample #	Depth	Sample Recovery	Penetration Resistence	LITHOLOGY/REMARKS	WELL COMPLETION
SP			930		—			0	0'	5/12, 10/11	0-2' gravel /stones no sample caught	
			945		0			2	6"	11/8, 7/7	2-4' cobbles, sand + gravel, black + brown moist.	
CL	10YR 3/1		950		0			4	6"	5/4, 5/10	4-6' silty clay blackish, moist, no odor	
	10YR 4/3		1002		0			6	18"	4/4, 5/7	6-8' silty clay w/ fine sand + gravel grey brown	
			1010		0			8	24"	10/16, 20/24	8-10' silt/clay brown w/ gravel pieces somewhat mottled in color	
			1020		0			10	24"	5/15, 17/21	10-12' silty clay same as above	
			1030		0			12	24"	7/6, 6/7	12-14' brown clay w/ gray silt lenses every inch or so. clay is moist, silt is wet.	
		▽	1040		0			14	24"	4/3, 3/4	14-16' same as above w/ silt lenses every 4-6" or so.	
SM	10YR 4/1		1050		0		X	16	18"	7/63, 21/5	16-18' silty sand + gravel, saturated	
GM			1100		0			20	18"	20/32, 16/50, 85/–	20-22' sand w/ gravel, decomposed shale weathered	
GM								22			bedrock - refusal 23'	
								24			TD 23'	

DRILLING RECORD

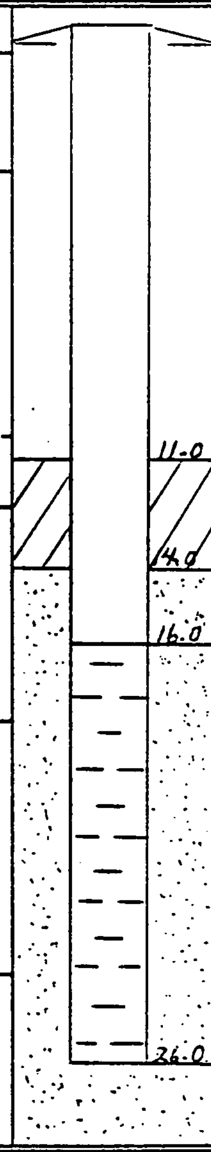
Driller: Buffalo Drilling
Inspector: Mike Kanazawich
Rig Type: Truck Mounted
Drilling Method: H.S. Auger

PROJECT NAME Scott Aviation
PROJECT LOCATION Lancaster, NY
PROJECT NUMBER 7361.002.01

BORING NO. MW-1
SHEET NO. 1 of 1
Date/Time Start 05-22-91/0845
Date/Time Finish 05-22-91/1430

Sample Depths	Sample No.	SPT	HNU Reading	FIELD IDENTIFICATION OF MATERIAL
0-2'	none	none	none	0-1 feet: Black top, sub-base (stone) Brown clayey silt, little very fine sand, damp, medium stiff, slighty plastic
2-4'	MW1-24	6/12 17/19	0	
4-6'	MW1-46	8/10 18/20	0	Gray silty clay, trace very fine sand, damp, stiff to very stiff, few tan mottles at 4.5 feet increasing to many at 5 feet
6-8'	MW1-68	8/12 13/15	0	
8-10'	MW1-810	7/7 9/12	0	
10-12'	MW1-1012	2/2 5/8	0	Soil moist at 11 feet, few black shale rock fragments at 12 feet
12-14'	MW1-1214	6/8 9/10	0	Silt and fine sand, sand content increasing with depth, very thin gray sand partings, moist
14-16'	MW1-1416	3/6 8/8	0	
16-18'	MW1-1618	5/6 6/7	0	
18-20'	MW1-1820	2/3 5/4	0	Gray silt and clay, moist to wet plastic with interbedded gray fine grained sand interbeds (≈ 1/32 to 1/10" thick), wet
20-22'	MW1-2022	1/2 3/4	0	
22-24'	MW1-2224	2/3 3/6	0	
24-26'	MW1-2426	WOH/2 10/12	0	Gray fine to medium grained sand and silt, little to some clay, wet, medium dense, grading to fine to coarse grained sand and fine to medium grained sub-angular gravel (possibly decomposed shale)
26-28'	MW1-2628	10/11 16/21	0	

WELL SCHEMATIC



COMMENTS

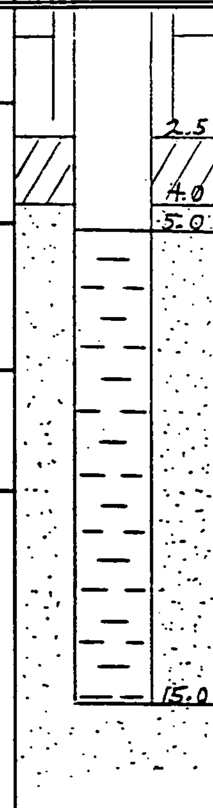
10' of screen set at 26', sand to a depth of 14', bentonite to a depth of 11', cement/bentonite slurry to a depth of 2', cement collar, flush mounted well cap, 2" PVC wells, screen - 0.020 slot

SPT=STANDARD PENETRATION TEST
D=DRY W=WASHED
U=UNDISTURBED C=CORED
P=PIT SS=SPLIT SPOON
A=AUGER CUTTING

Soil Stratigraphy Study

DRILLING RECORD

Driller: Buffalo Drilling Inspector: Mike Kanazawich Rig Type: Truck Mounted Drilling Method: H.S. Auger	PROJECT NAME Scott Aviation PROJECT LOCATION Lancaster, NY PROJECT NUMBER 7361.002.01	BORING NO. MW-2 SHEET NO. 1 of 1 Date/Time Start 05-23-91/1700 Date/Time Finish 05-24-91/1000

Sample Depths	Sample No.	SPT	HNU Reading	FIELD IDENTIFICATION OF MATERIAL	WELL SCHEMATIC	COMMENTS
0-2'	MW2-02	2/3 4/4	3	Brown silt and very fine sand, little clay, trace medium grained gravel, dry, root zone (possibly fill material)		10' screen set at 15', sand to a depth of 4', bentonite to a depth of 2.5', bentonite/ cement slurry to 1', protective casing about 3' above ground surface, wells constructed of 2" PVC, sceen - 0.020 slot
2-4'	MW2-24	1/2 3/3	2	1.5-4.5 feet: Dark gray clayey silt and very fine sand, damp soft, plastic, root zone (top soil)		
4-6'	MW2-46	1/2 2/4	0	4.5-8 feet: Brown Clayey silt and very fine sand, trace medium to coarse grained gravel (sub-rounded), dry slightly plastic, tan/gray mottles (many)		
6-8'	MW2-68	3/5 6/8	0			
8-10'	MW2-810	10/20 30/28	0	Brown silty clay, little fine to medium grained gravel (rounded shale), some fine sand, wet, medium stiff (sticky), plastic .		
10-12'	MW2-1012	4/6 17/23	0	Same as above with interbedded gray very fine to fine grained sand, trace coarse sand (partings = 1/16" thick)		
12-14'	MW2-1214	9/17 13/11	0			
14-16'	MW2-1416	2/2 2/3	0			
16-18'	MW2-1618	4/3 3/3	0			

SPT=STANDARD PENETRATION TEST
D=DRY W=WASHED
U=UNDISTURBED C=CORED
P=PIT SS=SPLIT SPOON
A=AUGER CUTTING

Soil Stratigraphy Study

DRILLING RECORD

Driller: Buffalo Drilling
Inspector: Mike Kanazawich
Rig Type: Truck Mounted
Drilling Method: H.S. Auger

PROJECT NAME Scott Aviation

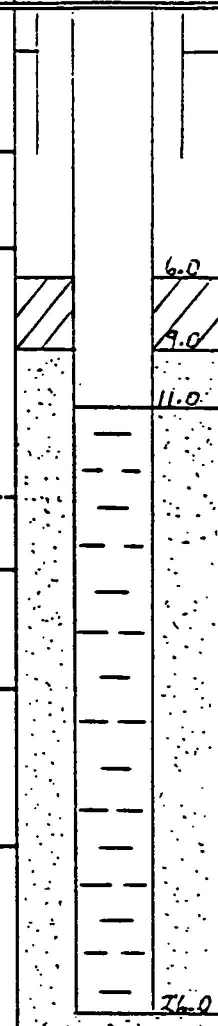
PROJECT LOCATION Lancaster, NY

PROJECT NUMBER 7361.002.01

BORING NO. MW-3
SHEET NO. 1 of 1
Date/Time Start 05-23-91/1000
Date/Time Finish 05-23-91/1300

Sample Depths	Sample No.	SPT	HNU Reading	FIELD IDENTIFICATION OF MATERIAL
0-2'	MW3-02	7/10 5/3	1	Brown silt, fine to coarse grained sand, trace gravel, wood, brick (fill material)
2-4'	MW3-24	2/2 2/3	1	
4-6'	MW3-46	2/2 2/7	0	Greenish gray to black clayey silt, organic material, root zone, damp, slightly plastic
6-8'	MW3-68	3/9 17/19	0	Brown silt and clay, trace very fine sand and fine to coarse grained gravel (rounded), dry (hard), sand partings (very thin, gray, damp)
8-10'	MW3-810	7/9 17/19	1	
10-12'	MW3-1012	4/12 19/26	3	
12-14'	MW3-1214	8/7 6/6	1	Interbedded gray sand layers (1/10" thick) at a depth of 13', sand wet
14-16'	MW3-1416	2/2 2/2	0	Brown silty clay, trace very fine sand, sand partings, moist to wet, soft, plastic
16-18'	MW3-1618	2/2 2/2	1	Gray silt, sand, and clay, wet, very soft, plastic (sticky), little shale fragments
18-20'	MW3-1820	6/8 10/12	NR	
20-22'	MW3-2022	2/3 8/20	1	Gray silty sand and fine to medium grained gravel, some clay, moist to wet, gravel consists of sub-angular shale rock fragments (possibly highly decomposed bedrock)
22-24'	MW3-2224	13/17 17/19	NR	
24-26'	MW3-2426	16/19 17/20	0	

WELL SCHEMATIC



COMMENTS

15' of screen set at 26', sand to a depth of 9', bentonite to a depth of 6', cement/bentonite slurry to a depth of 3', outer protective casing, cement collar, well consists of 2" PVC, screen - 0.020 slot

SPT=STANDARD PENETRATION TEST
D=DRY W=WASHED
U=UNDISTURBED C=CORED
P=PIT SS=SPLIT SPOON
A=AUGER CUTTING

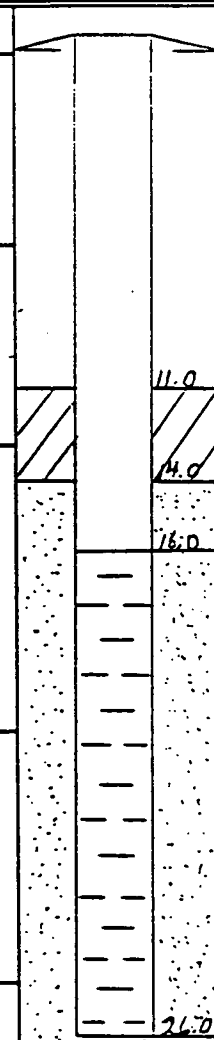
Soil Stratigraphy Study

DRILLING RECORD

Driller: Buffalo Drilling
Inspector: Mike Kanazawich
Rig Type: Truck Mounted
Drilling Method: H.S. Auger

PROJECT NAME Scott Aviation
PROJECT LOCATION Lancaster, NY
PROJECT NUMBER 7361.002.01

BORING NO. MW-4
SHEET NO. 1 of 1
Date/Time Start 05-22-91/1600
Date/Time Finish 05-23-91/1000

Sample Depths	Sample No.	SPT	HNU Reading	FIELD IDENTIFICATION OF MATERIAL	WELL SCHEMATIC	COMMENTS
0-2'	none	none	none	0-1 feet: Black top, sub-base (stone)		10' of screen set at 26', sand to a depth of 14', bentonite to a depth of 11', cement/ bentonite slurry to 2', cement collar, flush mounted well constructed of PVC, well screen - 0.020 slot
2-4'	MW4-24	4/6 8/10	16	Gray-black silt and clay, damp medium stiff, plastic, organic material, root zone, brick fragments (fill material), moisture content decreases with depth, organic vapors in 2-4 foot spoon		
4-6'	MW4-46	2/3 5/8	3			
6-8'	MW4-68	3/4 7/8	30	Gray silty clay, little very fine grained sand, dry, medium stiff, plastic, few tan mottles, brown silty clay layer = 2' thick at 9' with trace rounded to sub-rounded fine grained quartz gravel		
8-10'	MW4-810	3/8 13/16	50			
10-12'	MW4-1012	6/12 17/18	60			
12-14'	MW4-1214	5/8 11/11	110	Same as above, moisture content increases to "damp", fine sand content increases to "some", gray sand partings (very fine sand) and trace shale fragments at 16'		
14-16'	MW4-1416	3/3 5/5	5			
16-18'	MW4-1618	3/4 5/7	0			
18-20'	MW4-1820	4/10 7/8	25	Gray clayey silt, some very fine sand layers interbedded within the horizon (1/10" thick), sand is wet, trace fine grained gravel (shale, angular)		
20-22'	MW4-2022	2/4 5/3	0			
22-24'	MW4-2224	7/22 44/51	1			
24-26'	MW4-2426	7/21 49/52	5			
26-28'	MW4-2628	31/39 29/43	0	Highly decomposed gray-black shale, dry		

SPT=STANDARD PENETRATION TEST
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Soil Stratigraphy Study

APPENDIX B

WELL DEVELOPMENT DATA

Scott Aviation - Groundwater Investigation DATE: May 29, 1991

SUMMARY OF WELL DEVELOPMENT/GROUNDWATER TESTING

Well # MW-1

Time	W.L.*	Temp. (.C)	pH	Conductivity (μS)	Remarks
1200	7.49	17.1	12.6		Sample from 1st bail removed from well - near water surface.
1218	-	15.0	9.6	508	Sample recovered after 5 gallons bailed from well.
1315	7.82				Total of 10 gal. bailed from well today. Approx. 30 gal. was pumped from well on 5/24/91. Water sample for analytical testing recovered at 1315.

Well # MW-2

Time	W.L.*	Temp. (.C)	pH	Conductivity (μS)	Remarks
0900	5.06	20.0	7.6	760	Sample from 1st bail removed from well - near water surface.
0925	-	12.2	8.1	828	Sample recovered after 5 gallons bailed from well.
1400	14.80				Total of 7 gal. bailed from well today. Water sample for analytical testing recovered at 1400.

REMARKS: * W.L. = Water Level.

1) Depth to groundwater level measured from the top of PVC well pipe (north edge) using a electronic water level indicator.

2) Analytical samples were recovered by Buffalo Drilling Company, Inc. geologist Mr. David Frazier. The samples, trip blank and chain-of-custody record were transfered to Ms. Karen Kromer of Creative Errands courier service for subsequent delivery to Huntington Laboratory.

Scott Aviation - Groundwater Investigation DATE: May 29, 1991

SUMMARY OF WELL DEVELOPMENT/GROUNDWATER TESTING

Well # MW-3

Time	W.L.*	Temp. (°C)	pH	Conductivity (μS)	Remarks
1045	4.48	18.9	8.7	453	Sample from 1st bail removed from well - near water surface.
1135	-	11.6	8.2	553	Sample recovered after 5 gallons bailed from well.
1350	17.30				Total of 20 gal. bailed from well today. Water sample for analytical testing recovered at 1350.

Well # MW-4

Time	W.L.*	Temp. (°C)	pH	Conductivity (μS)	Remarks
1015	3.64	18.5	10.0	424	Sample from 1st bail removed from well - near water surface.
1035	-	11.9	9.9	353	Sample recovered after 6 gallons bailed from well.
1340	12.96				Total of 20 gal. bailed from well today. Water sample for analytical testing recovered at 1340.

REMARKS: * W.L. = Water Level.

1) Depth to groundwater level measured from the top of PVC well pipe (north edge) using a electronic water level indicator.

2) Analytical samples were recovered by Buffalo Drilling Company, Inc. geologist Mr. David Frazier. The samples, trip blank and chain-of-custody record were transfered to Ms. Karen Kromer of Creative Errands courier service for subsequent delivery to Huntington Laboratory.

WELL DEVELOPMENT RECORD (10/29/92) - MONITORING WELL MW-1				
Volume Purged (Gallons)	Conductivity (μ/SEC)	Temperature (Degrees F.)	pH	Time
2.5	720	56.2	10.55	1430
5	550	55.8	9.55	1437
8	510	54.4	9.21	1441
10	540	54.8	9.06	1445
12.5	520	54.4	8.9	1450
14	600	54.5	8.8	1453
16.5	630	54.0	8.73	1500
17.5	630	54.1	8.73	1505

WELL DEVELOPMENT RECORD (10/29/92) - MONITORING WELL MW-2				
Volume Purged (Gallons)	Conductivity (μ/SEC)	Temperature (Degrees F.)	pH	Time
1	1132	56.1	7.24	1205
2	2004	55.9	7.06	1210
5	2011	55.3	6.82	1215
8	2001	55.1	6.83	1220
Removed 9 gallons of water and well went dry. Dedicated bailer black on outside, slight sheen on water.				

WELL DEVELOPMENT RECORD (10/29/92) - MONITORING WELL MW-3				
Volume Purged (Gallons)	Conductivity (μ/SEC)	Temperature (Degrees F.)	pH	Time
1	1180	56.7	7.44	1240
2	1120	55.4	7.47	1245
5	1400	54.5	7.44	1250
10	1040	53.4	7.49	1300
15	1120	53.8	7.51	1305
17	1040	53.4	7.49	1310
Removed 18 gallons of water and well went dry.				

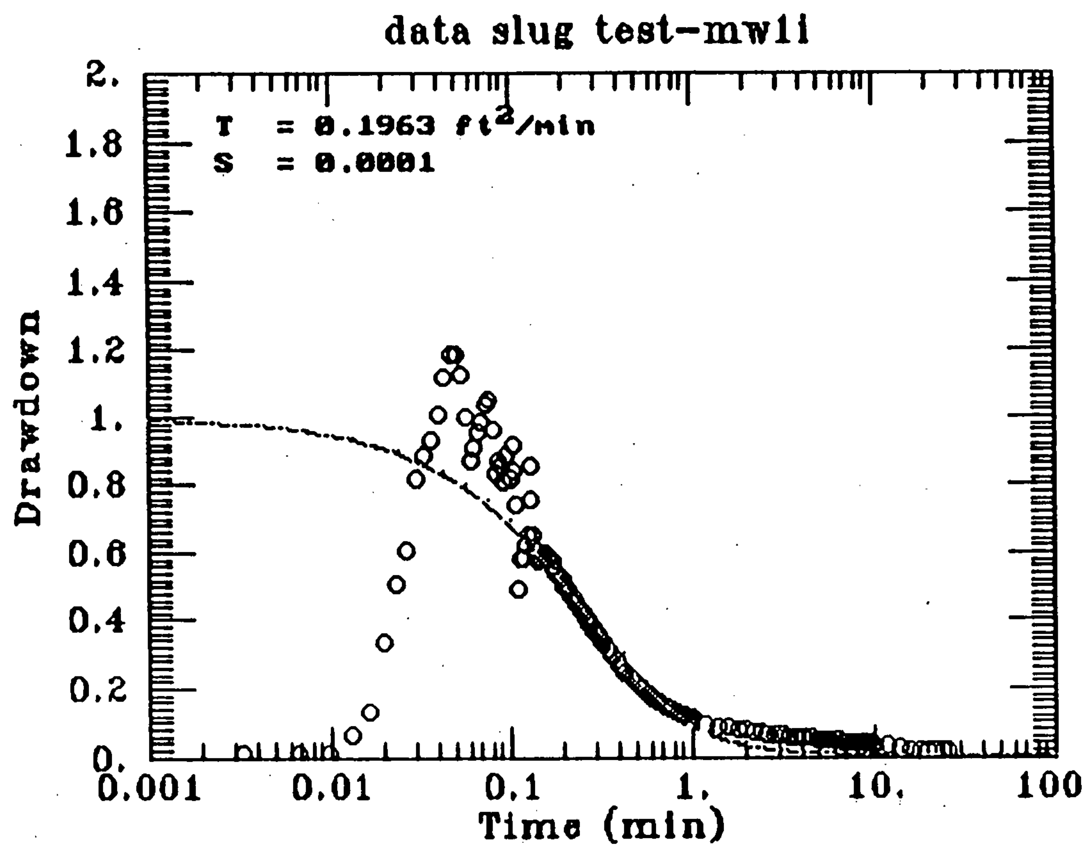
WELL DEVELOPMENT RECORD (10/29/92) - MONITORING WELL MW-4				
Volume Purged (Gallons)	Conductivity (μ/SEC)	Temperature (Degrees F.)	pH	Time
3	1260	55.4	7.89	1330
6	1050	54.2	7.83	1340
10	1140	54.2	7.82	1345
13	1000	53.6	7.82	1350
Removed 13 gallons of water and well went dry.				

WELL DEVELOPMENT RECORD (10/29/92) - MONITORING WELL MW-5				
Volume Purged (Gallons)	Conductivity (μ/SEC)	Temperature (Degrees F.)	pH	Time
2	1040	52.2	8.5	1630
4	870	51.2	8.4	1640
9	790	50.6	8.38	1651
12.5	770	50.9	8.31	1659
16	750	50.4	8.3	1702
21	800	49.9	8.38	1715
27	740	48.3	8.27	1730
Removed 27 gallons of very silty water - well recharged quickly.				

WELL DEVELOPMENT RECORD (10/29/92) - MONITORING WELL MW-6				
Volume Purged (Gallons)	Conductivity (μ/SEC)	Temperature (Degrees F.)	pH	Time
0.5	1310	61.8	8.86	
4.5	1070	55.3	8.72	
6.5	1240	54.2	8.50	
10	1040	52.9	8.43	
13	960	52.0	8.42	
15	950	52.8	8.44	
Removed 18 gallons of water - not too silty, no odor.				

APPENDIX C

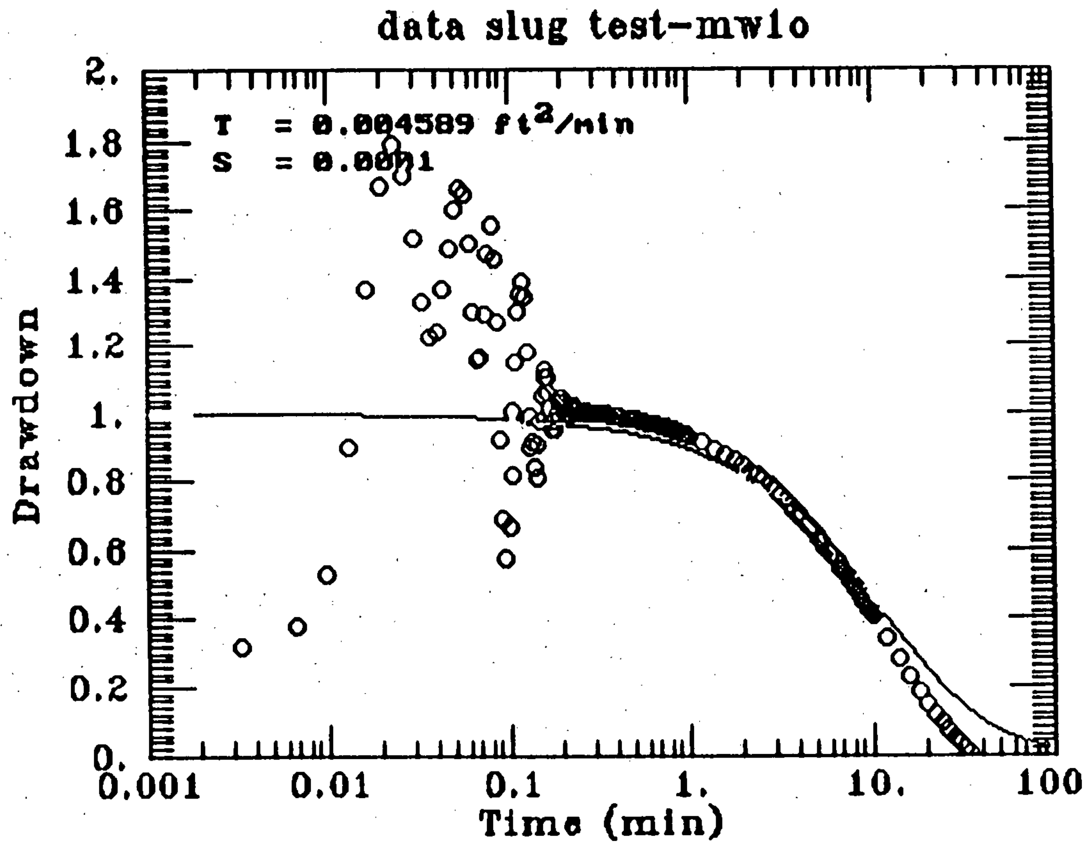
AQTESOLV DRAWDOWN CURVES



AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group



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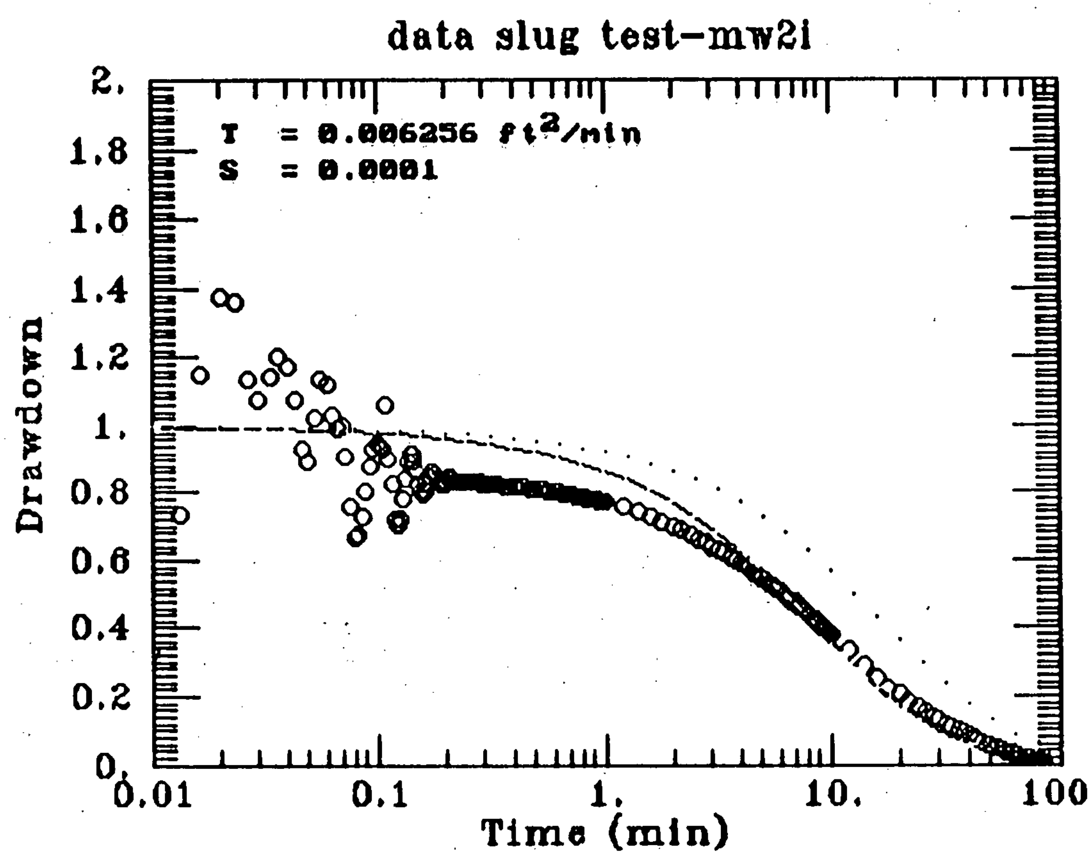
GERAGHTY & MILLER, INC.

Modeling Group



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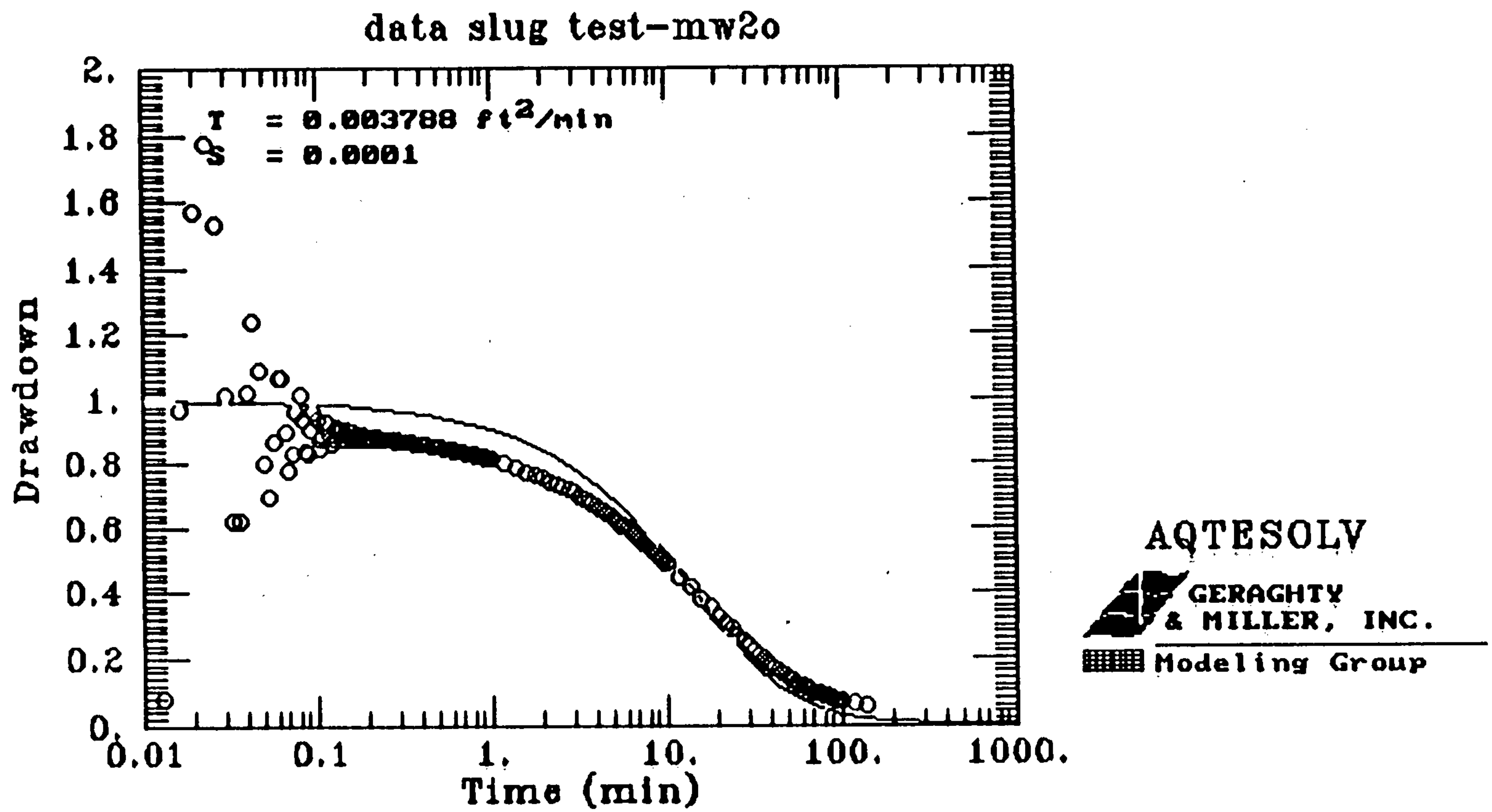
GERAGHTY & MILLER, INC.

Modeling Group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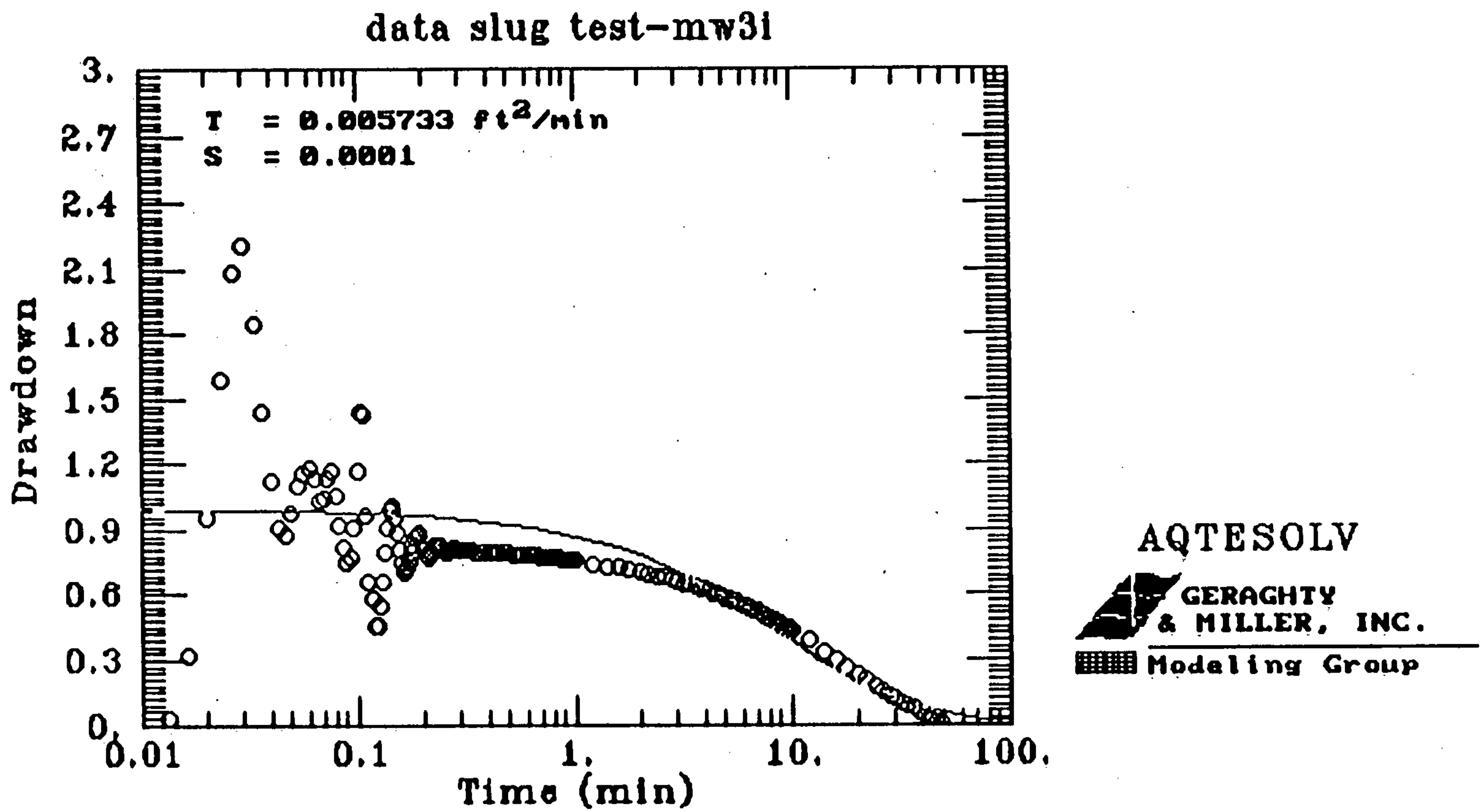
1.4
1.2
1.
0.8
0.6
0.4
0.2
0.
0.01
0.1
1.
10.
100.
1000.
Time (min)
AQTESOLV
GERAGHTY & MILLER, INC.
Modeling Group



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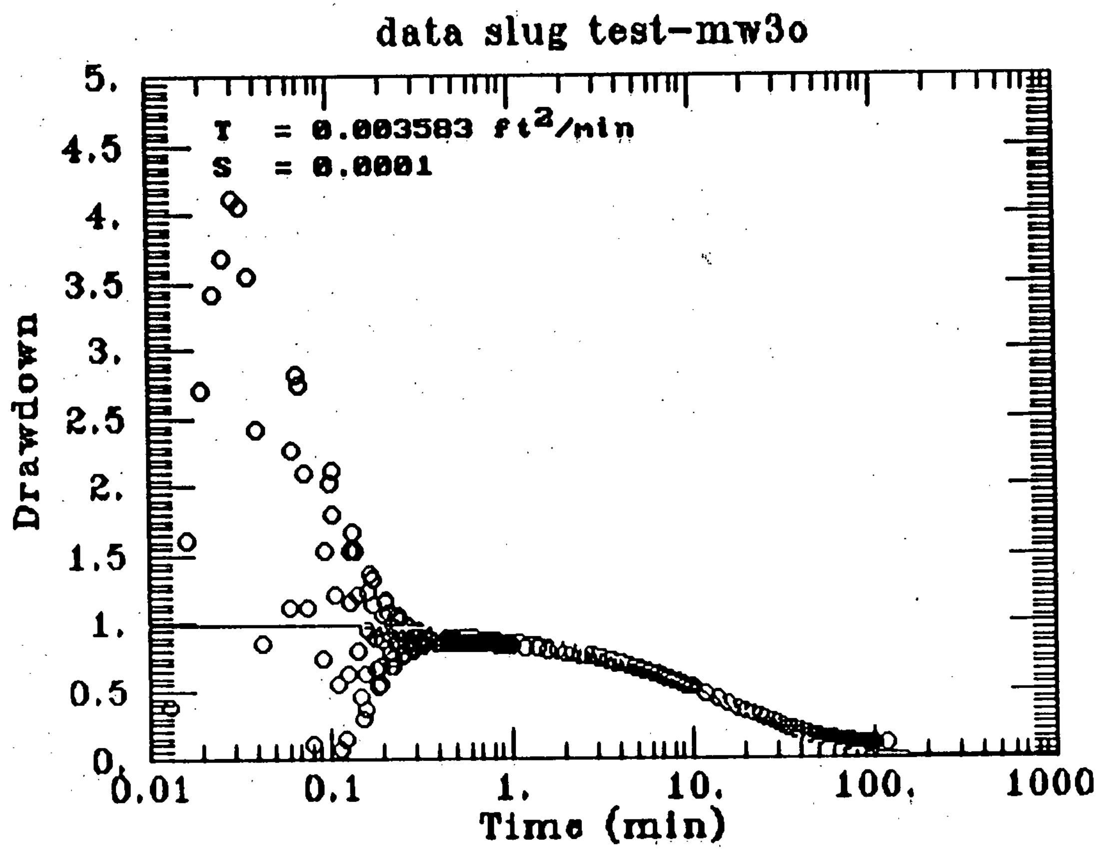
0.1
1.
10.
100.
0
0.3
0.6
0.9
1.2
1.5
1.8
2.1
2.4
2.7
3.
AQTESOLV
GERAGHTY & MILLER, INC.
Modeling Group



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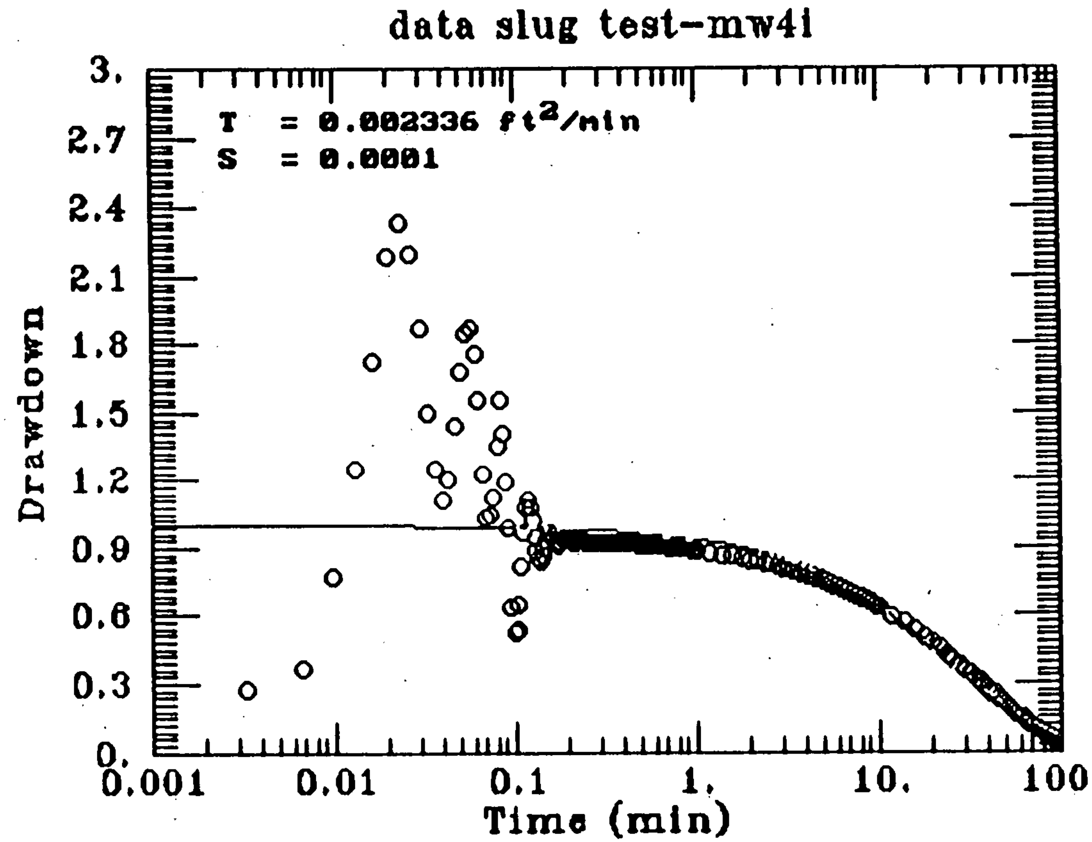

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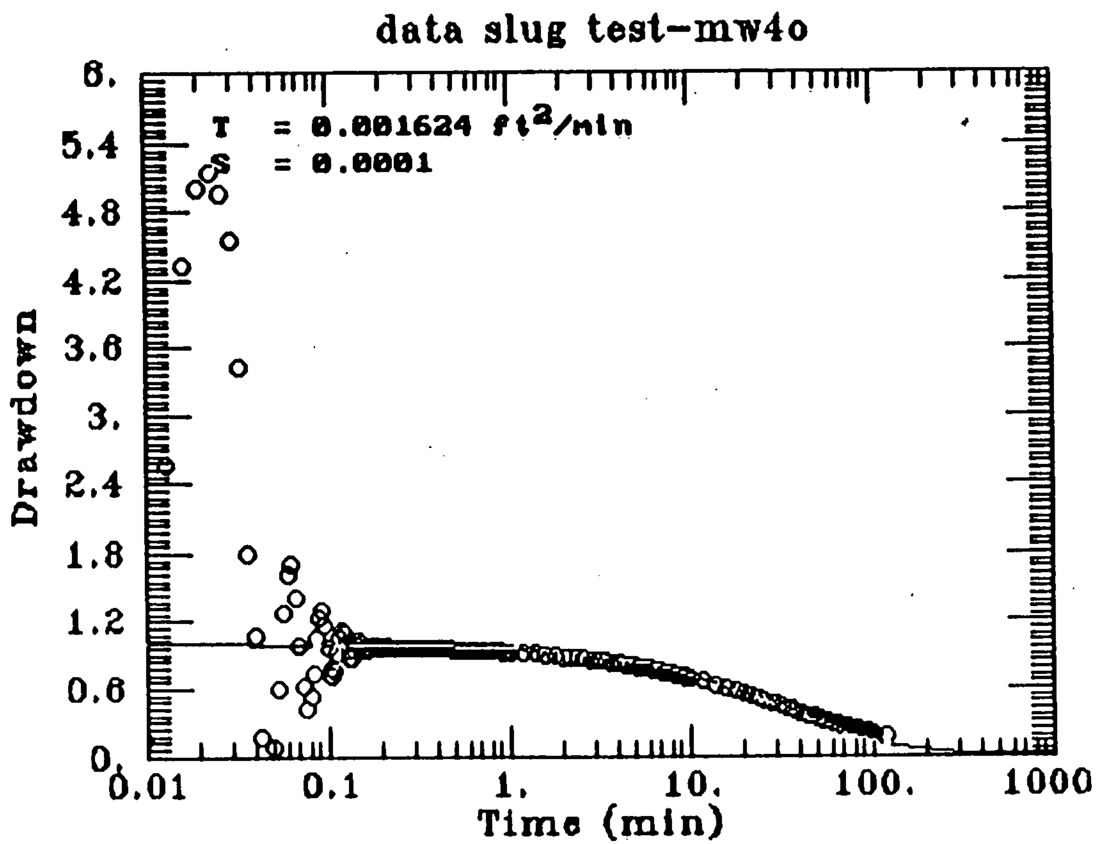

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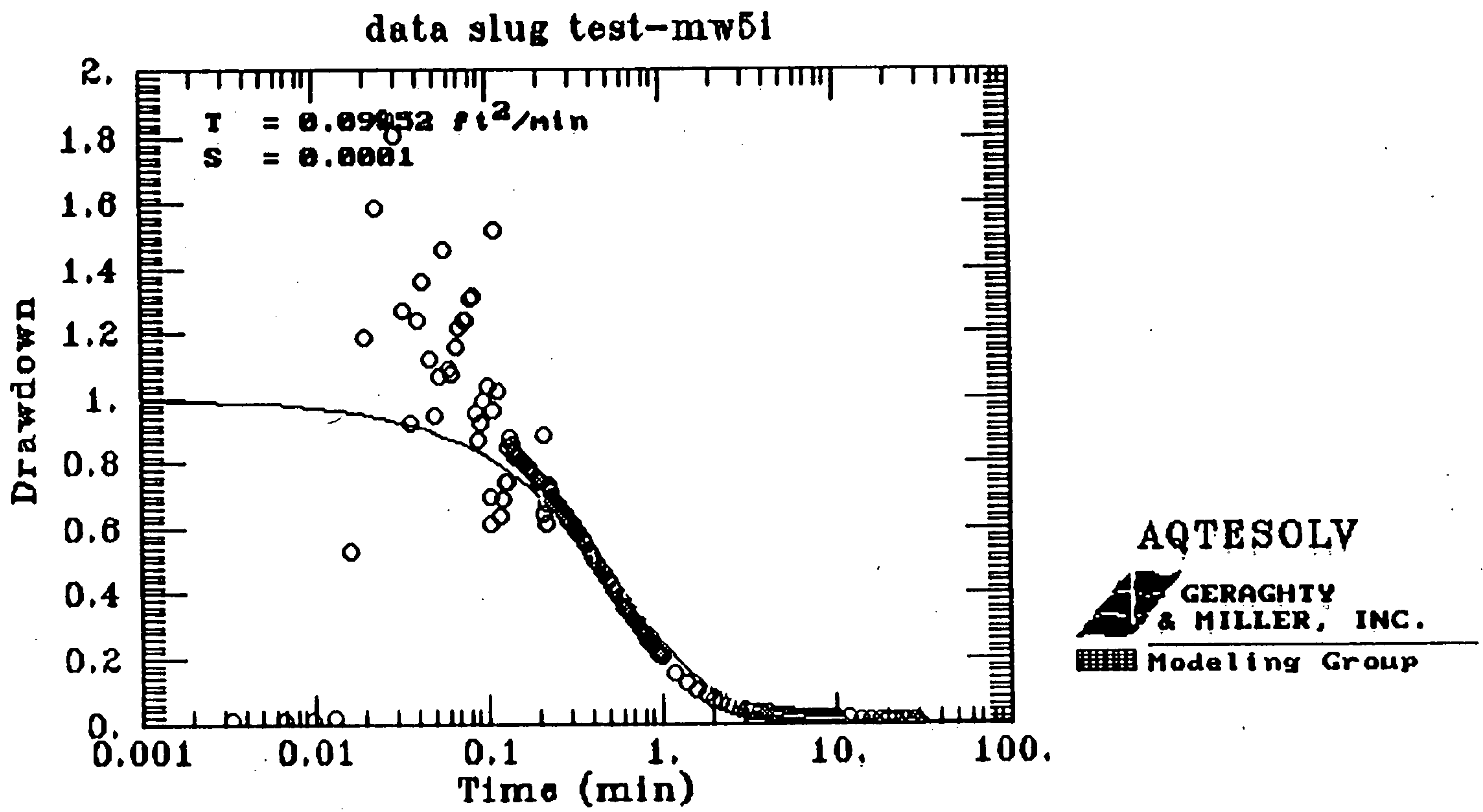
GERAGHTY & MILLER, INC.

Modeling Group



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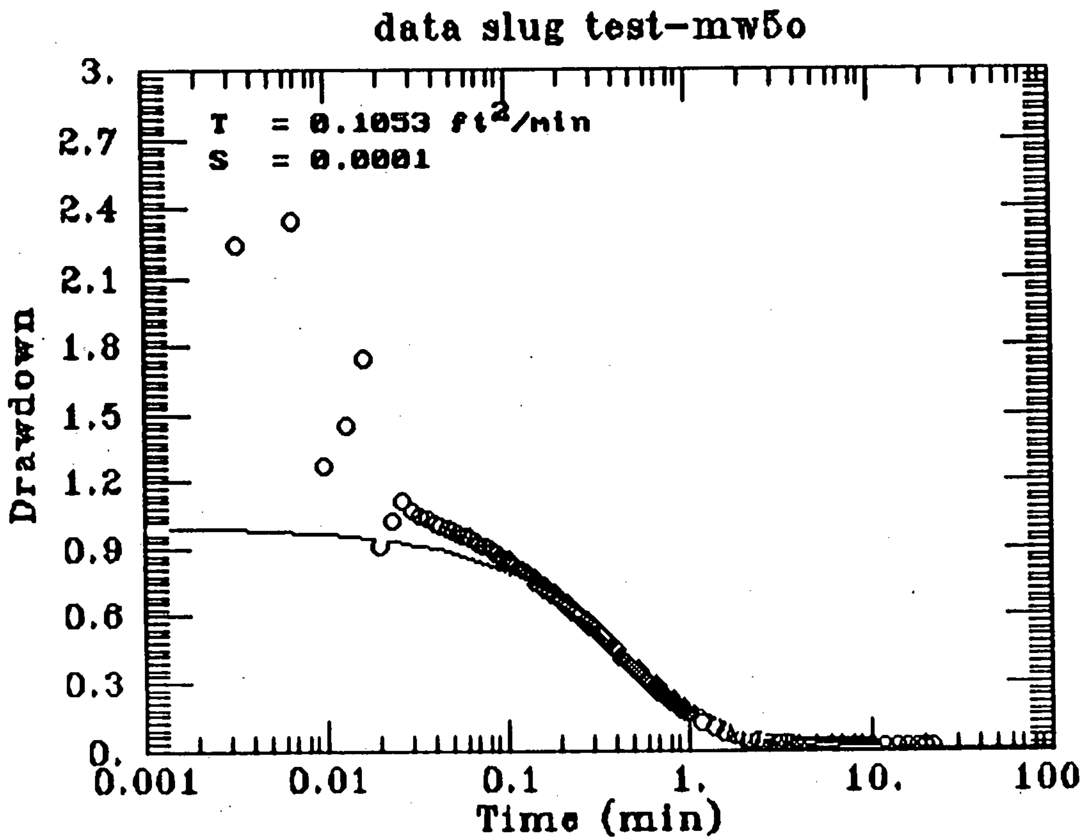
1.6
1.4
1.2
1.
0.8
0.6
0.4
0.2
0.
0.001
0.01
0.1
1.
10.
100.
Time (min)
AQTESOLV
GERAGHTY & MILLER, INC.
Modeling Group



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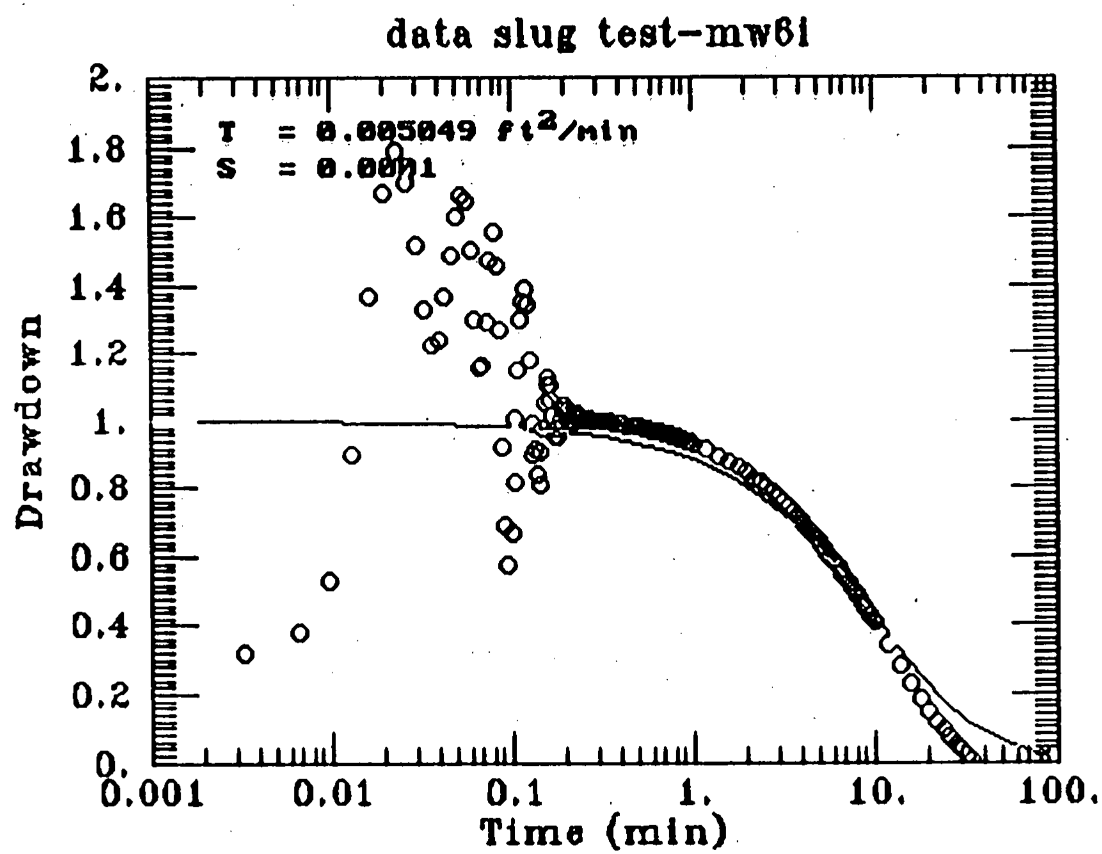
Modeling Group



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GERAGHTY & MILLER, INC.

Modeling Group

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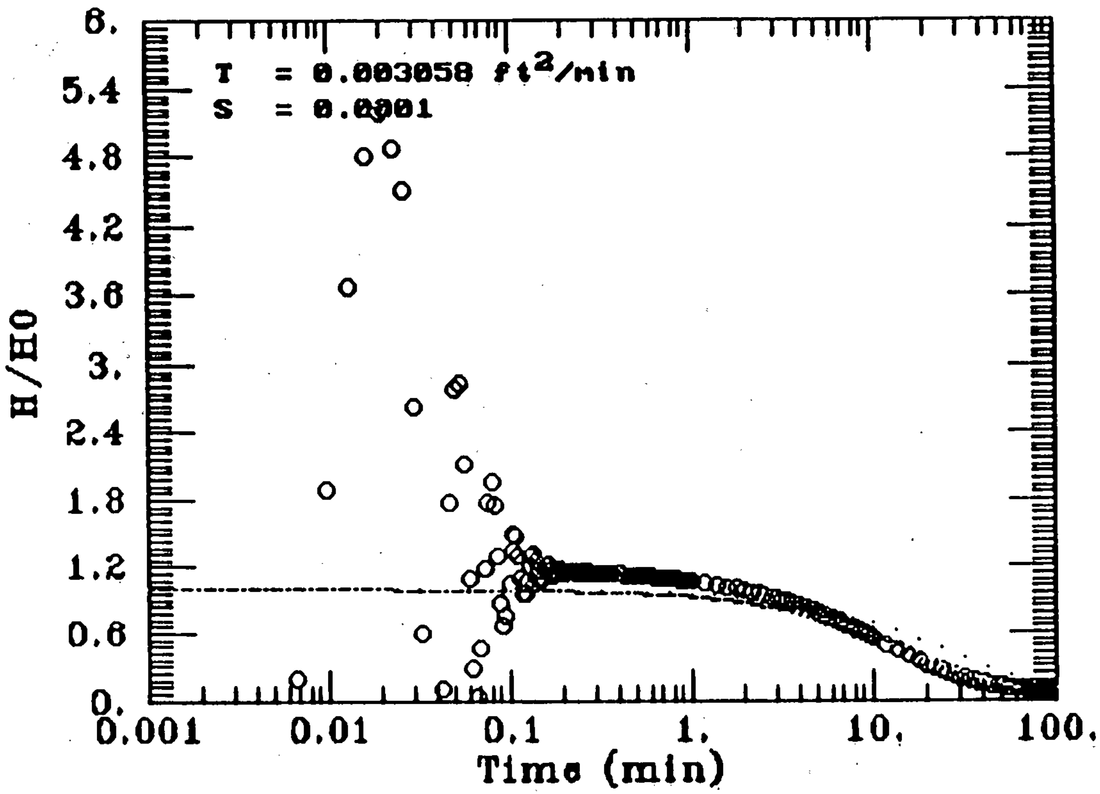

AQTESOLV

GERAGHTY & MILLER, INC.

Modeling Group

APPENDIX D

SOIL GAS INVESTIGATION REPORT

Shallow Soil Gas Investigation

SCOTT AVIATION
Lancaster, New York

October 26, 1992

Prepared for:

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Submitted by:

Marjorie D. Stivers

Eric J. Kaufinger

2-92-561-S

Shallow Soil Gas
Investigation

SCOTT AVIATION
Lancaster, New York

October 26, 1992

1.0 SCOTT AVIATION SITE INVESTIGATION

Tracer Research Corporation (Tracer Research) performed a shallow soil gas investigation at Scott Aviation in Lancaster, New York. The investigation was conducted October 26, 1992, for VERSAR.

1.1 Objective

The purpose of the investigation was to evaluate the site for possible soil and groundwater contamination by screening shallow soil gas for the presence of volatile organic chemicals (VOCs). The investigation was also used to determine locations for monitoring wells and soil borings. Samples collected were analyzed for the following halocarbons and hydrocarbons.

Vinyl Chloride
Toluene
1,1 dichloroethene (1,1 DCE)
1,1 dichloroethane (1,1 DCA)
1,2 dichloroethene (Total 1,2 DCE)
1,2 dichloroethane (1,2 DCA)
trichloroethene (TCE)

1.2 Overview of Results

For this investigation, 16 soil gas samples were collected at depths of 5 to 9 feet below grade from 16 locations. A summary of the soil gas investigation is presented in the table on the following page.

TABLE OF CONTENTS

TABLES

Table 1. Soil Gas Sample Summary

Compound	# of samples in which compound was detected	Low conc. ug/L	High conc. ug/L	Sample(s) with high conc.
Vinyl Chloride	1	NA	0.4	SG-1-8.5'
Toluene	2	1	2	SG-11-5'
1,1 DCE	0	NA	NA	NA
1,1 DCA	0	NA	NA	NA
Total 1,2 DCE	1	NA	0.7	SG-1-8.5'
1,2 DCA	0	NA	NA	NA
TCE	1	NA	0.3	SG-1-8.5'

NA = Not Applicable

2.0 SITE DESCRIPTION

The investigation was conducted near the former Scott Aviation waste storage area. The subsurface at the site consisted of sand and clay mix. Depth to groundwater is approximately 8 to 14 feet below grade (bg). Groundwater flow is to the west.

3.0 SAMPLING PARAMETERS

Soil gas sampling probes consisted of 7-and 14- foot lengths of 3/4-inch diameter hollow steel pipe. The probes were fitted with detachable drive tips and advanced to depths of 5 to 9 feet below ground surface (bgs). All probes were hydraulically pushed and or pounded to the desired depths.

The aboveground end of each probe was fitted with an aluminum reducer (manifold) and a length of polyethylene tubing leading to a vacuum pump. Soil gas was pulled by the vacuum pump into the probe. Samples were collected in a glass syringe by inserting a syringe needle through a silicone rubber segment in the evacuation line and down into the steel probe. The vacuum was monitored by a vacuum gauge to ensure an adequate gas flow from the vadose zone was maintained.

The volume of air within the probe was purged by evacuating 2 to 5 probe volumes of gas. The evacuation time in minutes versus the vacuum in inches of mercury (Hg) was used to calculate the necessary evacuation time. The vacuum in inches Hg was recorded at each sampling location.

Sample probe vacuums ranged from 9 to 20 inches Hg. The vacuum capacity of the pump was approximately 22 inches Hg.

4.0 ANALYTICAL PARAMETERS

During this investigation, 3 to 5 milliliters (mL) of soil gas were collected for each sample and immediately analyzed in the Tracer Research analytical van. Subsamples (replicates) from these samples were injected into the gas chromatograph (GC) in volumes of 200 to 500 microliters (µL).

4.1 Analyte Class

The soil gas samples were analyzed for the following analyte classes and compounds:

Analyte Class: Hydrocarbon
Toluene

Analyte Class: Halocarbon
Vinyl Chloride
1,1 dichloroethene (1,1 DCE)
1,1 dichloroethane (1,1 DCA)
cis and trans 1,2 dichloroethene (total 1,2 DCE)
1,2 dichloroethane (1,2 DCA)
trichlorethene (TCE)

4.2 Chromatographic System

A Varian 3300 gas chromatograph, equipped with an electron capture detector (ECD), a flame ionization detector (FID), and two computing integrators, was used for the soil gas analyses. Compounds were separated in the GC on two 6 foot by 1/8 inch outer diameter (OD) packed analytical columns (1% SP1000 stationary phase bonded to 60/80 mesh Carbopack B support) in a temperature controlled oven.The halocarbons were detected on the ECD and vinyl chloride and toluene were detected on the FID. Nitrogen was used as the carrier gas.

The instrument calibrations were checked periodically throughout each day to monitor the response factor and retention time. The following paragraphs explain the GC, ECD, and FID processes.

GC Process

The soil gas vapor is injected into the GC where it is swept through the analytical column by the carrier gas. The detector senses the presence of a component different from the carrier gas and converts that information to an electrical signal. The components of the sample pass through the column at different rates, according to their individual properties, and are detected by the detector. Compounds are identified by the time it takes them to pass through the column (retention time).

ECD Process

The ECD captures low energy thermal electrons that have been ionized by beta particles. The flow of these captured electrons into an electrode produces a small current, which is collected and measured. When the halogen atoms (halocarbons) are introduced into the detector, electrons that would otherwise be collected at the electrode are captured by the sample, resulting in decreased current. The current causes the computing integrator to record a peak on a chromatogram. The area of the peak is compared to the peak generated by a known standard to determine the concentration of the analyte.

FID Process

The FID utilizes a flame produced by the combustion of hydrogen and air. When a component, which has been separated on the GC analytical column, is introduced into the flame, a large increase in ions occurs. A collector with a polarizing voltage is applied near the flame and the ions are attracted and produce a current, which is proportional to the amount of the sample compound in the flame. The electrical current causes the computing integrator to record a peak on a chromatogram. By measuring the area of the peak and comparing that area to the integrator response of a known aqueous standard, the concentration of the analyte in the sample is determined.

4.3 Analyses

The detection limits for target compounds depend on the sensitivity of the detector to the individual compound as well as the volume of the injection. The detection limits of the target compounds were calculated from the response factor, the sample size, and the calculated minimum peak size (area) observed under the conditions of the analyses. If any compound was not detected in an analysis, the detection limit is given as a "less than" value, e.g., <0.1 µg/L. The approximate detection limits for the target compounds are presented in the table below.

Table 2. Detection Limits for Soil Gas Compounds

Compound	Detection Limits (ug/L)
Vinyl Chloride	0.4
Toluene	0.2
1,1 DCE	0.08
1,1 DCA	0.1
Total 1,2 DCE	0.1
1,2 DCA	0.07
TCE	0.002

5.0 QUALITY ASSURANCE AND QUALITY CONTROL

Tracer Research's Quality Assurance (QA) and Quality Control (QC) program was followed to maintain data that was reproducible through the investigation. An overview presenting the significant aspects of this program is presented in the following paragraphs.

Soil Gas Sampling Quality Assurance

To ensure consistent collection of soil gas samples, the following procedures are performed:

- Sampling Manifolds

Tracer Research's custom designed sampling manifold connects the sample probe to the vacuum line and pump. The manifold is designed to eliminate sample exposure to the polymeric (plastic) materials that connect the probe to the vacuum pump.

The sampling manifold is attached to the end of the probe, forming an air tight union between the probe and the silicone tubing septum. The septum connects the manifold to the pump vacuum line and permits syringe sampling.

This sampling system allows the sample to be taken upstream of the sampling pump, manifold, and septum. Since cross contamination of sampling equipment can be a major problem, Tracer Research replaces the materials (probe and syringe), between sampling points, that contact the soil gas before or during sampling.

-Sampling Probes

Steel probes are used only once each day. To eliminate the possibility of cross contamination, they are washed with high pressure soap and hot water spray, or steam-cleaned. Enough sampling probes are carried on each van to avoid the need to re-use any during the day.

-Glass Syringes

Glass syringes are used for only one sample a day and are washed and baked out at night. If they must be used twice, they are purged with carrier gas (nitrogen) and baked out between probe samplings.

-Sampling Efficiency

Soil gas pumping is monitored by a vacuum gauge to ensure that an adequate flow of gas from the soil is maintained. A reliable gas sample can be obtained if the sample vacuum gauge reading is at least 2 inches Hg less than the maximum measured vacuum of the vacuum pump.

Analytical Quality Assurance Samples

Quality assurance samples are performed at the below listed, or greater, frequencies. The frequency depends on the number of soil gas samples analyzed and the length of time of the survey:

Table 3. Quality Assurance Samples

Sample type	Frequency
Ambient Air Samples	2 per day or per site
Analytical Method Blanks	5% (1 per 20 samples or 1 a day)
Continuing Calibration Check	10% (1 every 10 samples)
Field System Blank	10% (1 every 10 samples or 1 a day)
Reagent Blank	1 per set of working standards
Replicate Samples	10% of all soil gas samples

The ambient air samples are obtained on site by sampling the air immediately outside the mobile analytical van and directly injecting it into the GC. Analytical method blanks are taken to demonstrate that the analytical instrumentation is not contaminated. These are performed by injecting carrier gas (nitrogen) into the GC with the sampling syringe. Subsampling syringes are also checked in this fashion.

The injector port septa through which soil gas samples are injected into the GC are replaced daily to prevent possible gas leaks from the chromatographic column. All sampling and subsampling syringes are decontaminated after use and are not used again until they have been decontaminated by washing in anionic detergent and baking at 90°C.

Field system blanks are analyzed to check for contamination of the sampling apparatus, e.g., probe and sampling syringe. A sample is collected using standard soil gas sampling procedures, but without putting the probe into the ground. The results are compared to those obtained from a concurrently sampled ambient air analysis.

If the blanks detect compounds of interest at concentrations that indicate equipment contamination or concentrations that exceed normal background levels (ambient air analysis), corrective actions are performed. If the problem cannot be corrected, an out-of-control event is documented and reported.

A reagent blank is performed to ensure the solvent used to dilute the stock standards is not contaminated. Analytical instruments are calibrated daily using fresh working standards made from National Institute of Sciences and Technology traceable standards and reagent blanked solvents.

Quantitative precision is assured by replicating analysis of 10 percent of the soil gas samples. Replicate analyses are performed by subsampling vapors from the original sampling syringe.

6.0 RESULTS

The analytical results from this soil gas investigation are condensed in Appendix A. The data are presented by location and by analyte concentration. When the compound was not detected, the detection limit is presented as a "less than" value; e.g., <0.002 µg/L.

Soil gas samples are identified by sample location and sampling depth. For example, SG-1-8.5' represents soil gas sample number 1, collected at a depth of 8.5 feet below the ground surface.

TRACER RESEARCH CORPORATION - ANALYTICAL RESULTS
VERSAR/ SCOTT AVIATION/ LANCASTER, NEW YORK/ Job No. 2-92-561-S
10/26/92

SAMPLE	VINYL CHLORIDE µg/L	TOLUENE µg/L	1,1 DCE µg/L	1,1 DCA µg/L	TOTAL 1,2 DCE µg/L	1,2 DCA µg/L	TCE µg/L
AIR	<0.2	<0.1	<0.04	<0.06	<0.06	<0.03	<0.0008
SG-1-8.5'	0.4	<0.2	<0.2	<0.3	0.7	<0.2	0.3
SG-2-6.5'	<0.4	<0.2	<0.1	<0.2	<0.2	<0.1	<0.003
SG-3-6'	<0.4	<0.2	<0.08	<0.1	<0.1	<0.07	<0.002
SG-3-9'	<0.4	<0.2	<0.08	<0.1	<0.1	<0.07	<0.002
SG-4-5'	<6	<0.2	<0.08	<0.1	<0.1	<0.07	<0.002
SG-5-5'	I	<0.2	<0.08	<0.1	<0.1	<0.07	<0.002
SG-6-5'	<0.4	I	<0.08	<0.1	<0.1	<0.07	<0.002
AIR	<0.2	<0.1	<0.04	<0.06	<0.06	<0.03	<0.0008
SG-7-6'	<0.4	<0.2	<0.08	<0.1	<0.1	<0.07	<0.002
SG-8-5'	I	<0.2	<0.08	<0.1	<0.1	<0.07	<0.002
SG-9-5'	<0.4	<0.2	<0.08	<0.1	<0.1	<0.07	<0.002
SG-10-6'	<0.4	<0.2	<0.08	<0.1	<0.1	<0.07	<0.002
SG-11-5'	<0.4	2	<0.08	<0.1	<0.1	<0.07	<0.002
SG-12-6'	<0.4	<0.2	<0.08	<0.1	<0.1	<0.07	<0.002
SG-13-6'	<0.4	<0.2	<0.08	<0.1	<0.1	<0.07	<0.002
SG-14-6'	<0.4	<0.2	<0.08	<0.1	<0.1	<0.07	<0.002
SG-15-6'	<0.4	<0.2	<0.08	<0.1	<0.1	<0.07	<0.002
AIR	<0.2	<0.1	<0.04	<0.06	<0.06	<0.03	<0.0008

I = Interference with adjacent peaks

Analyzed by: L. Schenmeyer
Proofed by: M. Stivers

APPENDIX E

DATA VALIDATION REPORT

DATA VALIDATION FOR THE SCOTT AVIATION SITE

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February, 1993

The analytical results reported by Laboratory Resources, Inc. were submitted to Versar Laboratories, Inc. for validation. The data validation was performed following the guidelines in the Quality Assurance Project Plan (QAPP) prepared for the Scott Aviation Site, Lancaster, NY., Sections 4.0, 8.0, and 12.0. In conjunction with the QAPP, Appendix A - Remedial Investigation Sampling Plan was referred to for additional information regarding the Sampling Plan (Table 1) and Quality Control Sample Analysis Summary (Table 2). The analytical results for metals, volatiles, pesticides/PCBs and BNAs were evaluated.

SAMPLING PLAN

The chain of custody (COC), which listed the samples collected was compared with the Sampling Plan (Table 1) to determine if the sampling plan was followed. Sampling occurred following the Sampling Plan with the following deviations:

1. Samples were not collected from the utilities investigation. This site was listed as optional.

2. Six surface soil samples (sampling plan specified five) were collected and analyzed for TCL volatiles and TAL metals.

The COC lists MW-6, collected on 10/28/92 as a solid sample. Since MW stands for monitoring well, it is unlikely that a soil sample was taken from a monitoring well. The field number may have been mislabeled and should most likely be listed as a soil boring (SB). This is further confirmed by the sampling plan which specifies the collection of ten soil borings and only nine soil borings were listed on the COC. In addition, if MW-6 is not counted as a monitoring well, than the total number of samples collected from monitoring wells is according to the sampling plan. For evaluation, MW-6 was assumed to be a soil boring, bring the total soil borings collected to ten.

CHAIN OF CUSTODY (COC)

The COC was compared with the data submitted from Laboratory Resources, Inc. to determine if all sample analysis were performed as specified. All samples submitted to the laboratory for analysis were completed with the following discrepancies:

1. Dissolved oxygen analytical results were not submitted for validation.

2. Arsenic was not reported for Field Blank 3 in the metals data package.

CHAIN OF CUSTODY (COC) (continued)

3. The COC for sample SB-5B MS/MSD was misinterpreted for the metals analysis. It appears that the laboratory did not see SB-5B specified as a sample. In addition, instead of reading the COC to mean, "do MS/MSD on SB-5B", the MS and MSD were interpreted as samples with MS/MSD required on the MSD. The result was an extra analysis of SB-5B labeled in the data package as MS and no analysis occurred on the sample SB-5B.

4. The COC for sample SS-5 duplicate was misinterpreted for the metals analysis. Instead of reading the COC to mean a "field duplicate to be handled as a sample", the sample was treated the field duplicate as a laboratory duplicate on SS-5. The results are found on Form VI under duplicate sample.

ANALYTICAL METHODS

The analytical results were evaluated under the methods specified in the QAPP, Table 3, pg 12. The QAPP specified the use of EPA Test Methods for Evaluating Solid Waste, SW 846 Third Edition methods for the analyses of the samples. The laboratory followed methods from the EPA Contract Laboratory Program (CLP) when performing the analyses on these samples. The samples submitted for the analysis of metals were determined following methods from EPA CLP version ILMO2.1. The specific EPA CLP version followed for the analyses of orgainics is not identified anywhere in the data package, but is believed to have been OLM01.8. The differences, and their significance will be outlined where appropriate.

QUALITY CONTROL SAMPLE ANALYSIS SUMMARY

The Quality Control Sample Analysis Summary (Table 4) found on page 13 of the Quality Assurance Project Plan and the Quality Control Sample Analysis Summary (Table 2) found on page 8 of the Appendix A - Remedial Investigation Sampling Plan were used to evaluate adherence to the quality control plan.

The following definitions and field activities are provided for clarity:

Definitions

EVENT: An event is defined as one sampling round. Two sampling events occurred for the collection of these samples.

LOT: A lot consists of twenty samples of the same matrix.

MS/MSD: A MS/MSD is defined as a matrix spike and matrix spike duplicate. A MS/MSD is the specified sample QC in SW846 Third Edition. The laboratory performed a MS/MSD for the organic analysis but duplicates (D) and spikes (S) were performed for the metals. The D/S for metals are requirements of ILMO2.1 and are usually acceptable substitutes for a MS/MSD.

Field Activities

WATER MATRIX:

Hydrogeological Investigation:

Consisted of ground water monitoring (MW) and interception trench (IT) samples.

Surface Water Investigation:

Consisted of surface water (SW) samples.

SOIL MATRIX:

Soil Investigation:

Consisted of soil boring (SB) and surface soil (SS) samples.

Sediment Investigation:

Consisted of drainage ditch sediment (DDS) and stream sediment (SC).

According to the Quality Control Sample Analysis Summary, each Field Activity should have a field blank, trip blank, field duplicate sample, MS/MSD, and blank/blank spike. Following these guidelines the following discrepancies exist:

Field Blanks

A field blank was required per sampling event per field activity. During the first sampling event, samples were collected from each field activity. Therefore, the total number of field blanks required for the first round of sampling should be four. Only three field blanks were collected and analyzed. During the second sampling event, samples were collected from only one field activity. Therefore only one field blank was required for the second round of sampling. One field blank was collected and analyzed.

According to SW846 Third Edition, Volume II: Field Manual, Chapter 11, Section 1.2.2.1 General Requirements, the minimum frequency for field blanks is 1 field blank per 20 samples. The total number of field blanks meets the minimum frequency requirements of SW846 Third Edition.

Trip Blanks (VOCs only)

A trip blank was required per sampling event per field activity. During the first sampling event, samples were collected from each field activity. Therefore, the total number of trip blanks required for the first round of sampling should be four. Only one field blank was collected and analyzed. During the second sampling event, samples were collected from only one field activity. Therefore only one field blank was required for the second round of sampling. Only field blank was collected and analyzed.

According to SW846 Third Edition, Volume II: Field Manual, Chapter 11, Section 1.2.2.1 General Requirements, the minimum frequency for trip blanks is 1 trip blank per 20 samples. The total number of field blanks meets the minimum frequency requirements of SW846 Third Edition.

MS/MSD

A MS/MSD or D/S was required 1:20 samples per field activity. However, for SW846 Third Edition, an acceptable MS/MSD or D/S frequency is 1:20 samples of the same matrix. At this frequency, the proper amount of MS/MSD or D/S was performed on the water samples. An extra soil sample was collected for TAL and TCL analysis bringing the total number of soil samples to 21. The additional soil mandates the need for an additional MS/MSD or D/S. A total of two MS/MSD's or D/S's should have been done on the soil samples. Only one MS/MSD or D/S was preformed on the soil samples.

Field Duplicates

A duplicate sample was required 1:20 samples per field activity. However, for SW846 Third Edition, an acceptable frequency is 1:20 samples of the same matrix. At this frequency, the proper amount of field duplicates were collected on the water samples. An extra soil sample was collected for TAL and TCL analysis bringing the total number of soil samples to 21. The additional soil mandates the need for an additional field duplicate. A total of two field duplicates should have been done on the soil samples. Only one field duplicate was performed on the soil samples.

A chart has been included that outlines the differences between the sampling and analyses' plan and the actual sampling and analyses. As the chart summarizes, adequate quality control samples were performed for these samples.

SAMPLING PLAN AND FIELD QC
Actual Versus Plan

Number of Samples Submitted for Metal and Volatile Analyses

Soil Matrix	Actual No. of Samples	Plan No. of Samples	Actual No. of Field Dup	Plan No. of Field Dup	Actual No. of MS/MSD	Plan No. of MS/MSD
SB	10	10		1	1	1
SS	6	5	1	1		1
SC	3	3		1		1
DDS	2	2		1		1
TOTAL	21	20	1	4	1	4

Water Matrix	Actual No. of Samples	Plan No. of Samples	Actual No. of Field Dup	Plan No. of Field Dup	Actual No. of MS/MSD	Plan No. of MS/MSD
MW	12	12	1	1	1	1
IT	2	2		1		1
SW	3	3		1		1
TOTAL	17	17	1	4	1	4

For all water samples, a corresponding dissolved water sample was also submitted for metals analyses. A field duplicate and MS/MSD was also performed on the dissolved monitoring well samples.

Number of Samples Submitted for Pesticide/PCBs and BNAs

Soil Matrix	Actual No. of Samples	Plan No. of Samples	Actual No. of Field Dup	Plan No. of Field Dup	Actual No. of MS/MSD	Plan No. of MS/MSD
SB	2	1	1	1	1	1
TOTAL	1	1	1	1	1	1

KEY:

Soil
- SB = Soil boring
- SS = Surface soil
- SC = Stream sediment
- DDS = Drainage ditch sediment

Water
- MW = Ground water monitoring
- SW = Surface water
- IT = Interception trench

METALS EVALUATION

Below is a list of quality control / quality assurance guidelines that were evaluated to determine protocol compliance:

1. Holding times
2. Calibration
3. Calibration verifications
4. Calibration blank
5. Interelement check samples
6. Laboratory ctrl. samples
7. Reporting units
8. Accuracy (spike-S)
9. Precision (duplicate-D)

All analyses for metals were completed within specified holding times. All instruments were calibrated properly prior to analyses of samples. All calibration verifications were analyzed at the required frequency and were within specified control limits. All calibration blanks were analyzed at the required frequency and were within specified control limits. All interelement check samples were analyzed at the required frequency and were within specified control limits. Laboratory control samples were analyzed at the specified frequency. Although there is no criteria, all laboratory control samples were within 20% control limits. All water sample results were reported in ug/L and all soil sample results were reported in MG/KG. All spikes reported were within the criteria identified in the QAPP, Section 4.2, page 14. (See **METALS DISCREPANCIES**, comment 6). All duplicates were within the criteria identified in the QAPP, Section 4.2, page 14. A duplicate and spike were done as specified by the chain of custody. All appropriate raw data was included in the data package and was spot checked against the report for correctness.

METALS DISCREPANCIES

The following discrepancies were found with the metals analysis:

1. According to the date on the COC, the first round of sampling was received at the laboratory on 10/31/92, however the Metals reports indicate that the receipt date was 11/3/92.

2. According to the date on the COC, the second round of sampling was received at the laboratory on 11/17/92, however the Metals reports indicate that the receipt date was 11/18/92 or 11/19/92.

3. The actual solid sample weight was not recorded on the preparation logs for AA, ICP, and mercury. The sample weight used in calculating the analyte concentrations for ICP and AA was assumed to be exactly 1 gram and for mercury was assumed to be exactly 0.2 grams.

METALS DISCREPANCIES (continued)

4. The digestion of the samples for mercury analysis followed an alternate procedure in ILMO2.1 which approves the use of an autoclave. This is not an acceptable preparation alternative for SW846 Third Edition. Analytically, the difference in the preparation of the samples should hot have a significant affect on the sample results.

5. The digestion of the samples for AA and ICP was not in accordance with EPA SW846 Third Edition. The preparation was in accordance with EPA CLP digestion procedures. Analytically, the differences in the preparation of the samples should not have a significant affect on the sample results.

6. All soil spiked samples were not spiked for aluminum, calcium, iron, magnesium, potassium, and sodium. All water spiked samples were not spiked for calcium, magnesium, potassium, and sodium. This is acceptable for CLP ILMO2.1, however, all analytes should have been spiked for evaluation under SW846 Third Edition. Since all analytes were not spiked, an indication of the accuracy and precision for these analytes can not be made.

7. According to the preparation logs in the Metals data package, the filtered samples (SW-1, SW-2, SW-3, MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, IT-1, and FB-4) sampled on 10/31/92 were not preserved prior to digestion and analysis. No further documentation is provided concerning the pH of these samples.

VOLATILE EVALUATION

Below is a list of quality control / quality assurance guidelines that were evaluated to determine protocol compliance:

1.	Holding times	2.	Calibration
3.	Calibration verifications	4.	Method blanks
5.	Surrogates	6.	BFB ion abundances
7.	Internal std. area and RT	8.	Reporting units
9	Accuracy (spike-MS)	9.	Precision (duplicate-MSD)

All analyses for volatiles were completed within specified holding times. The instruments were calibrated at the required frequency. All calibration verifications (continuing check compounds (CCC) and system performance check compounds (SPCC)) were analyzed at the required frequency and were within specified control limits with one exception. (see **VOLATILE DISCREPANCIES**, comment 5). All method blanks were analyzed at the required frequency and were within specified control limits. Every sample was spiked with surrogates and all surrogates were within specified control limits. (see **VOLATILE DISCREPANCIES**, comment 1). All BFB ion abundances were analyzed at the required frequency and were within specified criteria. All internal standards were within specified criteria for area and retention time with one exception. (see **VOLATILE DISCREPANCIES**, comment 6). All water sample results were reported in ug/L and all soil sample results were reported in UG/KG. All spikes reported were within the criteria identified in the QAPP, Section 4.2, page 14. All spike duplicates were within the criteria identified in the QAPP, Section 4.2, page 14. Spike and spike duplicate were done as specified by the chain of custody. All appropriate raw data was included in the data package and was spot checked against the report for correctness.

VOLATILE DISCREPANCIES

The following discrepancies were found with the volatile analysis:

1. The raw data indicates that the correct surrogates, toluene-d_8, 4-bromofluorobenzene, and 1,2-dichloroethane-d_4 were spiked into each sample. However, all Form 2s indicate that Nitrobenzene-d_5, 2-Fluorobiphenyl, and 1,2-Dichloroethane-d_4 were used as internal standards. This appears to be a documentation problem associated with Form 2.

VOLATILE DISCREPANCIES (continued)

2. The volatile data package, Case: 10202, included sample 002-02 with MS/MSD. This samples, 002-02, was not listed on the COC as a sample from the Scott Aviation Site. According to the narrative, these results may have been included to provide an indication of the accuracy (MS) and precision (MSD) of the method associated with the soil matrix. However, the sample, 002-02, was not reported on a Form I, i.e. sample results page. Information regarding the MS/MSD results of 002-02 can be found on Form 2B. In all practicality, the results associated with sample 002-02 should be disregarded, and the results for SB-5B MS/MSD should be used to serve as an indication of the accuracy and precision of the method associated with the soil matrix.

3. According to methodology, the calibration for the analyses of water samples should be done without a heated purge. In addition, all associated water samples and calibration verifications (SPCCs and CCCs) should also be analyzed without a heated purge. However, for soil samples, the calibration and subsequent soil samples and calibration verifications (SPCCs and CCCs) should be analyzed with a heated purge. The quantitation reports indicate that all samples, waters and soils, were analyzed under a soil program which implies that all samples were analyzed against a heated purge. However, inconsistencies on the report forms indicate that calibrations and associated calibration verifications and/or samples, may or may not have been analyzed under similar instrument conditions.

4A. The samples SB-5C, SB-5C DL, and SB-5D were extracted and analyzed following medium level guidelines. An additional MS/MSD was done on the medium level samples to provide information regarding the accuracy and precision of the method. The raw data indicates that the MS/MSD was done on SB-5D but the narrative indicates MS/MSD was done on SB-5C.

4B. Medium level soil samples are extracted into an aqueous matrix and the aqueous matrix is then analyzed. Therefore, according to methodology, medium level soil samples should be analyzed without a heated purge under the same conditions as water samples. Again, inconsistencies in the raw data and report make in impossible to determine if the medium level soil samples and associated calibration and calibration verifications were analyzed under the same instrument conditions.

VOLATILE DISCREPANCIES (continued)

5. The percent difference for the CCCs must be less than 25 percent. The percent difference for vinyl chloride (lab file ID >A0155) was 29.52 percent. The samples analyzed against this CCC were SB-5C DL and its blank. Since the sample was diluted for trichloroethene and 1,1,1-trichloroethane, the non-compliant CCC does not indicate that the sample and blank results would be significantly biased.

6. The internal standard area for IS2 (DFB) and IS3 (CBZ) were not within specified control limits for SB-5D MSD. The out of control internal standard may indicate that the MSD results are biased low. In addition, SW846 Third Edition requires a reanalysis anytime the internal standard is not within control limits. In this instance, the out of control internal standard for the MSD should have been reanalyzed. As per EPA CLP, no reanalysis was performed. Evaluation of the MSD versus the sample and the MS indicate the low recovery is due to poor purging/injection, not the sample matrix.

SEMI-VOLATILE (BNA) EVALUATION

Below is a list of quality control / quality assurance guidelines that were evaluated to determine protocol compliance:

1. Holding times
2. Calibration
3. Calibration verifications
4. Method blanks
5. Surrogates
6. DFTPP ion abundances
7. Internal std. area and RT
8. Reporting units
9 Accuracy (spike-MS)
9. Precision (duplicate-MSD)

All analyses for semi-volatiles were completed within specified holding times. (see **SEMI-VOLATILE DISCREPANCIES**, comment 3). The instruments were calibrated at the required frequency and were in accordance with SW 846 Third Edition. All initial calibration verifications (continuing check compounds (CCC) and system performance check compounds (SPCC)) were analyzed at the required frequency and were within specified control limits. All continuing calibration verifications were analyzed at the required frequency but they did not meet all control limits. (see **SEMI-VOLATILE DISCREPANCIES**, comment 1). All method blanks were analyzed at the required frequency and were within specified control limits. Every sample was spiked with surrogates and all surrogates were within specified control limits with one exception. (see **SEMI-VOLATILE DISCREPANCIES**, comment 2). All DFTPP ion abundances were analyzed at the required frequency and were within specified criteria. All internal standards were within specified criteria for area and retention time. All water sample results were reported in ug/L and all soil sample results were reported in UG/KG. All spikes reported were within the criteria identified in the QAPP, Section 4.2, page 14. All spike duplicates were within the criteria identified in the QAPP, Section 4.2, page 14. A spike/spike duplicate was done as specified by the chain of custody. The raw data was spot checked against the report for correctness.

SEMI-VOLATILE (BNA) DISCREPANCIES

The following discrepancies were found with the semi-volatile analysis:

1. In all continuing calibration checks (CCCs), hexachlorocyclopentadiene was not within specified control limits. In addition, 2,4-dinitrophenol and pentachlorphenol were not within specified control limits for various CCCs. All BNA sample data is affected by the out of control CCCs. Due to scope of the non-compliant CCCs, all BNA detection limits and detected compounds should be considered estimated.

SEMI-VOLATILE (BNA) DISCREPANCIES (continued)

2. According to methodology, surrogate recoveries should be within 20-100 percent. The surrogate, 2-fluorophenol, for the field blank was slightly outside of control limits at 101 percent recovery. The slightly high recovery should be considered insignificant. The slightly high recovery would have been acceptable for EPA CLP.

3. Extraction logs were not provided for the water samples and the extraction logs for the soil samples were ambiguous. No determination could be made as to the correctness of the extraction method. In addition, the lack of documentation made it impossible to verify that the water samples were extracted within specified holding times.

4. On the reporting forms, the blank and blank spike reported with the field blank were neither extracted nor run with the sample. Therefore, the results of the blank and blank spike are irrelevant.

5. On the reporting forms, the reagent blank extraction date associated with the soil samples was written 10/05/92. Since the soil samples were received on 10/31/92, this is most likely a documentation error. If the results reported are from a blank extracted on 10/5/92, than the results are also irrelevant.

PESTICIDE/PCB EVALUATION

Below is a list of quality control / quality assurance guidelines that were evaluated to determine protocol compliance:

1. Holding times
2. Calibration
3. Calibration verifications
4. Method blanks
5. Surrogates
6. Reporting units
7. Internal std. area and RT
8. Accuracy (spike-MS)
9. Precision (duplicate-MSD)

All analyses for pesticides were completed within specified holding times. (see **PESTICIDE/PCB DISCREPANCIES**, comment 3). The instruments were calibrated at the required frequency but were not in accordance with SW 846 Third Edition. (see **PESTICIDE/PCB DISCREPANCIES**, comment 4). All calibration verification were analyzed at the required frequency but did not meet all criteria. (see **PESTICIDE/PCB DISCREPANCIES**, comment 1). All method blanks were analyzed at the required frequency and were within specified control limits. Every sample was spiked with surrogates but were not within specified control limits. (see **PESTICIDE/PCB DISCREPANCIES**, comment 2). All internal standards were within specified criteria for area and retention time. All water sample results were reported in ug/L and all soil sample results were reported in UG/KG. All spikes reported were within the criteria identified in the QAPP, Section 4.2, page 14. All spike duplicates were within the criteria identified in the QAPP, Section 4.2, page 14. A spike/spike duplicate was done as specified by the chain of custody. The raw data was spot checked against the report for correctness.

PESTICIDE/PCB DISCREPANCIES

1A. The initial calibration for decachlorobiphenyl was out of control for all pesticide/PCB analysis.

1B. The continuing calibration verification RPD in the PEM compound mixture for alpha-BHC was outside of control limits for all pesticide/PCB analysis.

2. The surrogates on the field blank and its associated reagent blank were not within advisory limits for TCX (the secondary surrogate). However, the primary surrogate was within advisory limits.

PESTICIDE/PCB DISCREPANCIES (continued)

3. Extraction logs were not provided for the water samples and the extraction logs for the soil samples were ambiguous. No determination could be made as to the correctness of the extraction method. In addition, the lack of documentation made it impossible to verify that the water samples were extracted within specified holding times.

4. SW 846 Third Edition requires a five point calibration before the analysis of any samples. The laboratory calibrated the instrument using only three points. Due to the scope of the non-compliant calibrations, all pesticide/PCB detection limits and detected compounds should be considered estimated.

SUMMARY

While some discrepancies exist which should be clarified, the types and quantity of quality control samples that were collected and analyzed in association with each sampling event and media meet the requirements for general use, such as risk assessment or site characterization. Samples were collected and analyzed from each field activity and the analytical results should provide sufficient data for evaluation of each media. Appropriate analytical techniques were used to quantitate the requested analytes.

The laboratory analytical results meet the minimum accuracy and precision requirements as outlined in the QAPP. As per scope of work, the completeness objective of 95 percent has been met.

DATA VALIDATION FOR THE SCOTT AVIATION SITE

Prepared for:

Versar, Inc.
Dan Morganelli
2010 Cabot Boulevard West, Suite 4
Langhorne, PA 19047

Prepared by:

Andrew W. Oravetz, Jr.
Versar, Inc.
6850 Versar Center
Springfield, VA 22151

September 1993

The analytical results reported by Laboratory Resources, Inc. were submitted to Versar, Inc., Springfield, Virginia, for validation. The data validation was performed following the guidelines in the Quality Assurance Project Plan (QAPP) prepared for the Scott Aviation Site, Lancaster, NY, Sections 4.0, 8.0, and 12.0. In conjunction with the QAPP, the scope of work for Round 3 Ground Water Sampling and Analysis, Scott Aviation, was referred to for additional information regarding the sampling and Quality Control sample analysis. The analytical results for TCL volatiles were evaluated.

SAMPLING PLAN

The chain of custody was compared to the Scope of Work for the Round 3 ground water sampling. No deviations were noted.

CHAIN OF CUSTODY (COC)

The COC was compared with the data submitted from Laboratory Resources, Inc. to determine if all sample analysis were performed as specified. All samples submitted to the laboratory for analysis were completed with the following discrepancies:

1. The Field Blank was not analyzed as indicated in the Scope of Work. The Laboratory reported that the client canceled the analysis.

ANALYTICAL METHODS

The analytical results were evaluated under the methods specified in the QAPP, Table 3, page 12. The QAPP specified the use of EPA Test Methods for Chemical Analysis of Water and Wastes. The laboratory followed methods from the EPA Contract Laboratory Program (CLP) when performing the analyses on these samples. The specified EPA CLP version followed for the analyses of organics is not identified anywhere in the data package, but is believed to have been OLM01.8.

QUALITY CONTROL SAMPLE ANALYSIS SUMMARY

The Quality Control Sample Analysis Summary (Table 4) found on page 13 of the Quality Assurance Project Plan was used to evaluate adherence to the quality control plan.

The following definitions and field activities are provided for clarity:

<u>Definitions</u>

EVENT: An event is defined as one sampling round.

LOT: A lot consists of twenty samples of the same matrix.

MS/MSD: A MS/MSD is defined as a matrix spike and matrix spike duplicate. A MS/MSD is the specified sample QC in SW846 Third Edition. The laboratory performed a MS/MSD for the volatile organic analysis.

Field Activities

WATER MATRIX:

Hydrogeological Investigation:

Consisted of ground water monitor well (MW) samples.

Field Blanks

A field blank was required per sampling event per field activity. Only one field blank was required for the sampling. One field blank was collected but not analyzed.

According to SW846 Third Edition, Volume II: Field Manual, Chapter 11, Section 1.2.2.1 General Requirements, the minimum frequency for field blanks is 1 field blank per 20 samples. Since the field blank was not analyzed, the minimum frequency requirements of SW846 Third Edition were not met.

Trip Blanks (VOCs only)

A trip blank was required per sampling event per field activity. According to SW846 Third Edition, Volume II: Field Manual, Chapter 11, Section 1.2.2.1 General Requirements, the minimum frequency for trip blanks is 1 trip blank per 20 samples. Since a trip blank was not collected, the minimum frequency requirements of SW846 Third Edition were not met.

MS/MSD

A MS/MSD or D/S was required 1:20 samples per field activity. However, for SW846 Third Edition, an acceptable MS/MSD or D/S frequency is 1:20 samples of the same matrix. At this frequency, the proper amount of MS/MSD or D/S was performed on the ground water samples.

Field Duplicates

A duplicate sample was required 1:20 samples per field activity. However, for SW846 Third Edition, an acceptable frequency is 1:20 samples of the same matrix. At this frequency, the proper amount of field duplicates were collected on the ground water samples.

VOLATILE EVALUATION

Below is a list of quality control/quality assurance guidelines that were evaluated to determine protocol compliance:

1. Holding times
2. Calibration
3. Calibration verifications
4. Method blanks
5. Surrogates
6. BFB ion abundances
7. Internal std. area and RT
8. Reporting units
9. Accuracy (spike-MS)
10. Precision (duplicate-MS)

All analyses for volatiles were completed within specified holding times. The instruments were calibrated at the required frequency. All calibration verifications (continuing check compounds (CCC) and system performance check compounds (SPCC)) were analyzed at the required frequency and were within specified control limits. All method blanks were analyzed at the required frequency and were within specified control limits with the exception noted below. Every sample was spiked with surrogates and all surrogates were within specified control limits. All BFB ion abundances were analyzed at the required frequency and were within specified criteria. All internal standards were within specified criteria for area and retention time. All water sample results were reported in $\mu g/L$. All spikes reported were within the criteria identified in the QAPP, Section 4.2, page 14, and all spike duplicates were within the criteria identified in the QAPP, Section 4.2, page 14 with the exception noted below. Spike and spike duplicate were done as specified by the chain of custody. All appropriate raw data was included in the data package and was spot checked against the report for correctness.

VOLATILE DISCREPANCIES

The following discrepancies were found with the volatile analysis:

1. Methylene chloride and 4-methyl-2-pentanone were detected in the laboratory method blanks. However, the results were detected at less than 5 times the detection limit and these are common laboratory contaminants. Since these compounds were not detected in any of the samples, their presence in the blanks presents no problems.

2. In the MS/MSD sample, trichloroethene was outside of the QC limits for percent recovery in the first run and outside of the QC limits for RFP in the second run. Evaluation of this result and the actual sample results indicate that these results are matrix related.

SUMMARY

While some main discrepancies exist, the types and quantity of quality control samples that were collected and analyzed in association with each sampling event and media meet the requirements for general use, such as risk assessment or site characterization. The analytical results for the ground water samples should provide sufficient data for evaluation. Appropriate analytical techniques were used to quantitate the requested analytes.

The laboratory analytical results meet the minimum accuracy and precision requirements as outlined in the QAPP. As per scope of work, the completeness objective of 95 percent has been met.

APPENDIX F

HABITAT BASED ASSESSMENT

FISH AND WILDLIFE IMPACT ANALYSIS

SCOTT AVIATION
225 Erie Street
Lancaster, New York

Prepared for

SCOTT AVIATION
225 Erie Street
Lancaster, New York

Prepared by

VERSAR. INC.
2010 Cabot Boulevard West
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March, 1993

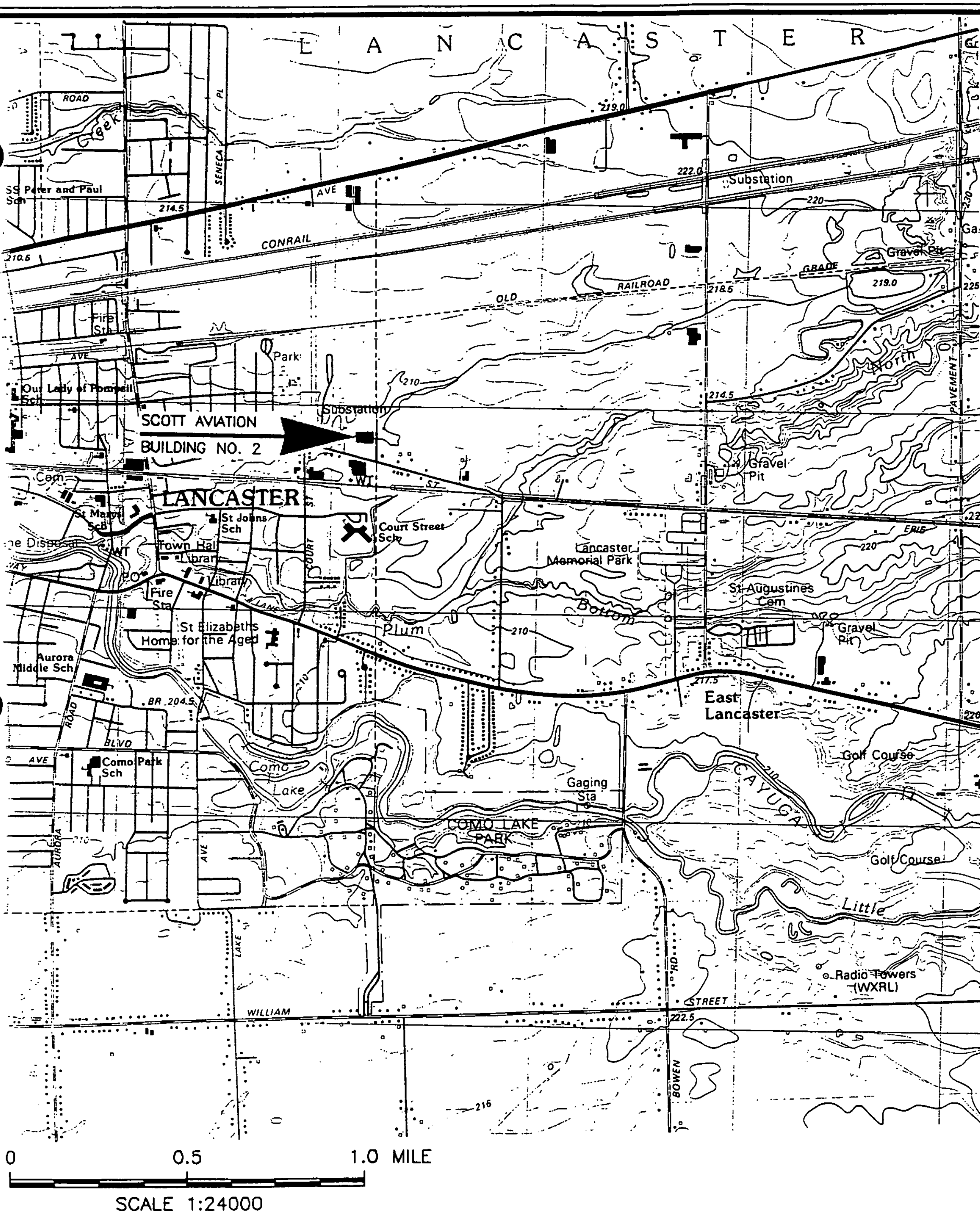
HABITAT BASED ASSESSMENT

1.0 GENERAL SITE DESCRIPTION

The Scott Aviation site is located at 225 Erie Street in the Village of Lancaster, Erie County, New York (Figure 1). The southern portion of the site is used for manufacturing, while the northernmost portion of the property is presently undeveloped. Two buildings are located on the property. One building (referred to as Building No. 1) is located on the south side of Erie Street and the second (referred to as Building No. 2) is located on the north side of Erie Street. Both buildings contain office and manufacturing space and have associated parking lots. Scott Aviation manufactures chemical oxygen generators in Building No. 2. The northernmost building also contains a machine shop used for machining parts for aviation equipment and air packs. A former underground storage tank area is located off the southwest corner of the Building No. 2. The tank, which has been removed, contained waste oils and solvents which leaked into the underlying soils and leached into ground water. The purpose of this Fish and Wildlife Impact Analysis is to provide an evaluation of the impacts of the former underground storage tank area on fish and wildlife resources on and within a half-mile radius of the Scott Aviation property.

The Scott Aviation property is bounded on the north by an abandoned railroad track; on the east by Walter Winter Drive (a dead-end street) and undeveloped property; on the south by an active railroad track and a water tower; and on the west by Quick Cut Gasket Company, residences, and undeveloped property. Additional undeveloped land is located north of the abandoned railroad track and to the southeast of the site. Two residences, one of which is presently unoccupied, are situated across Walter Winter Drive to the east. The eastern boundary of the Village of Lancaster is located along the eastern edge of Walter Winter Drive. The land in the site vicinity is used for a variety of uses: manufacturing, residential, public utility (substation and power lines), railroad and undeveloped.

The site is relatively level and is situated at elevations ranging from 700 feet above mean sea level (MSL) near the northern property boundary to 680 feet above MSL in the southwestern portion of the site where an unnamed stream exits the site (Figure 1). In general, surface drainage on the site and



SOURCE: NEW YORK STATE DEPARTMENT OF TRANSPORTATION, 7.5 MINUTE SERIES TOPOGRAPHIC MAP, LANCASTER, NEW YORK QUADRANGLE, DATED 1988

FIGURE 1.
Topographic Map
Scott Aviation, Lancaster, N.Y
Versar Project No. 1324.005

vicinity is towards the southwest. However, local drainage in the vicinity of Building No. 2 is to the west and north-northwest. A drainage ditch located west of Building No. 2 drains to the north towards the tributary located along the northern edge of Building No. 2 and immediately west of the former storage tank area. This unnamed tributary of Plum Bottom Creek has been enclosed in a pipe and runs underground from the eastern property boundary and resurfaces again approximately 200 feet west of the site and north of the Quick Cut Rubber Gasket Company building.

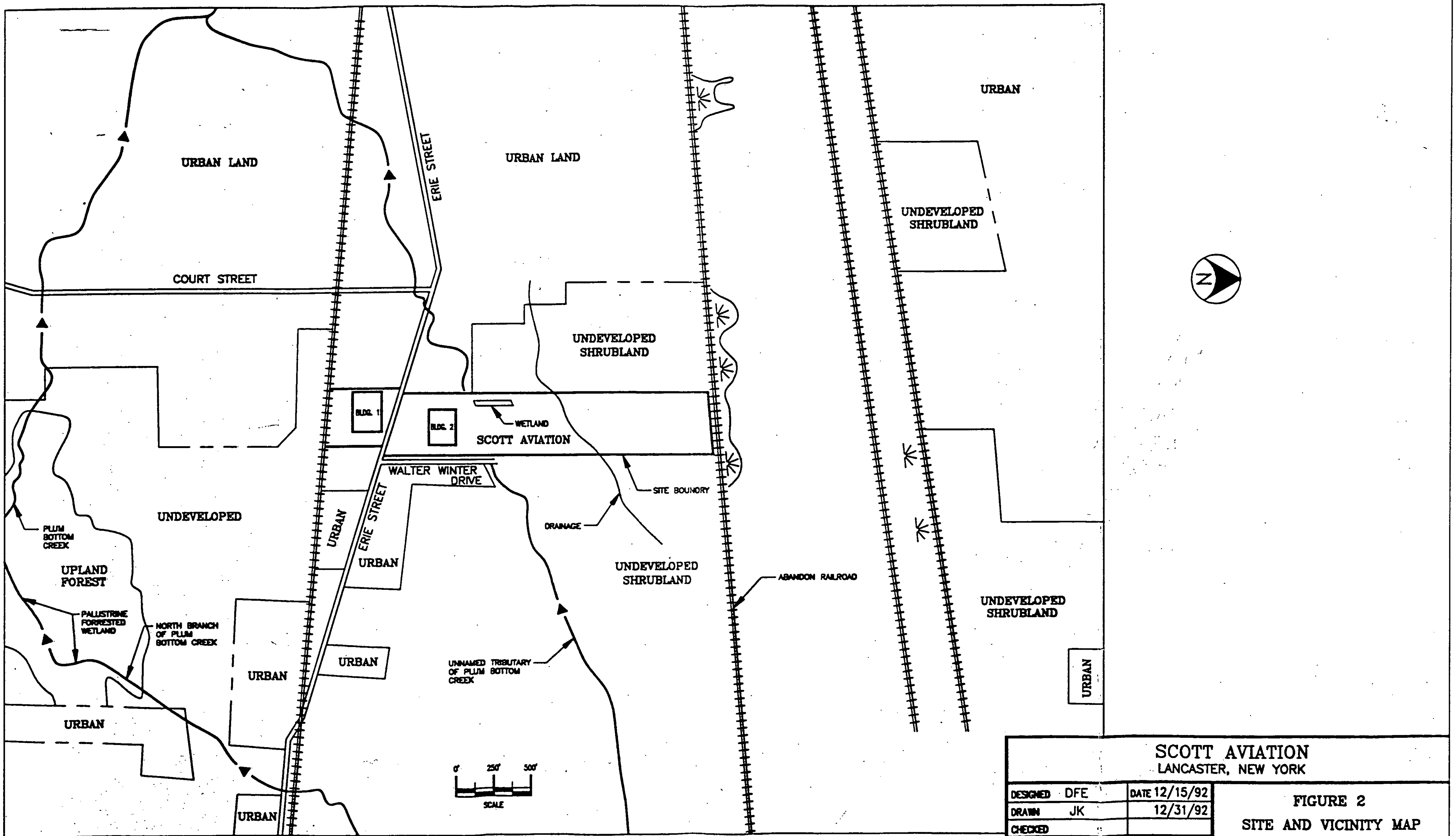
The site and vicinity are located in a soil map unit comprised of Odessa-Schoharie-Rhinebeck soils (USDA Soil Conversation Service 1986). These soils are defined as: lowland plain soils which are nearly level and gently sloping; deep; somewhat poorly drained to well drained; medium textured and moderately fine textured soils. According to the Erie County Soil Survey, most areas in this map unit were at one time cleared of forest cover and used for farming. To a great extent, these areas have subsequently become idle, and those areas which have not been developed are now covered with brushy or shrubland vegetation. This brushy cover predominates on the undeveloped portions of the Scott Aviation site and other undeveloped tracts of land in the site vicinity.

2.0 PLANT HABITATS AND FISH AND WILDLIFE RESOURCES

As previously mentioned, approximately two-thirds of the site is presently undeveloped, while the remaining third is used for manufacturing. The discussion of plant, fish, and wildlife resources is limited primarily to the undeveloped portion of the property. The majority of the undeveloped portion of the site is best described as an open upland area, containing herbaceous and brush cover with some trees, with the density of the cover varying with location. The character of the site has been determined by past human activities on the property. According to Scott Aviation personnel, surface soils were stripped from the site, although the time frame of this activity could not be pinpointed. This activity has impacted the vegetation on the subject site, creating an area in the middle third of the property where vegetative growth is apparently limited by nutrient-poor soils. In this area, which is best described as an old field, the ground cover is primarily herbaceous with a percent of ground cover less than fifty percent in some areas. Characteristic plant species include goldenrods and Queen-Anne's-lace and various grasses. The quality of the habitat in this portion of the property is expected to be poor due to the limited vegetative growth. The northernmost third of the property is much more densely vegetated with herbaceous and brush cover (one hundred percent cover) and is best described as a successional shrubland, with shrubs comprising approximately fifty percent of the vegetation. One common bush observed was arrowwood (Viburnum), a plant common in the diet of deer. A majority of the trees on the property were associated with the wetland area and a minor drainage that traverses the property in a west-southwest direction approximately 800 feet north of Building No. 2 (Figure 2). The predominant tree species are willows (Salix spp.) and Eastern cottonwood (Populus deltoides). This portion of the property is expected to provide decent foraging habitat for deer and other small mammals and birds. Other habitat types on the site consist of an emergent wetland area, which is described in more detail in the wetland section of this report, and small areas immediately behind Building No. 2 and on the north side of the culverted stream that are used for the deposition of construction/road maintenance spoils. Due to the recentness of the deposition, these areas contain no vegetation. The wetland area is best characterized as a small cattail marsh (approximately 10,000 square feet in size) and by nature of its small size provides only limited amount of habitat.

At the time of the site investigation, no obviously contaminated areas were observed, although the site of the tank removal and remediation were recognizable by the presence of disturbed soils and ground water monitoring wells. No stressed vegetation of any kind was observed on the site either in association with the leaking underground storage tank, or for any other reason.

The undeveloped properties to the north, west, east, and southeast of the site contain habitats very similar to that of the northern portion of the Scott Aviation site, consisting of successional old field and shrubland areas with a herbaceous-brushy cover containing varying amounts of trees, primarily hardwoods. The developed lands to the west and south of the subject site are best described as urban land and include buildings, paved parking and road areas, railroad beds, mowed lawns, and mowed lawns with trees. Figure 2 provides a description of the various habitat types found within a half-mile radius of the subject site.



SCOTT AVIATION
LANCASTER, NEW YORK

DESIGNED DFE	DATE 12/15/92	FIGURE 2	
DRAWN JK	12/31/92	SITE AND VICINITY MAP	
CHECKED			
Versar INC. 2010 CABOT BLVD LANGHORNE, PA 19047 (215) 741-4211		APPROVAL	DATE
		PROJECT NO. 1324	SCALE: 1" = 500'
		DRAWING NO.	

The undeveloped portion of the Scott Aviation site provides habitat for a number of animal species. Numerous deer tracks were observed on the subject site, indicating that the property is providing deer habitat, although the quality of the habitat varies: the sparsely vegetated central portion of the site is presumed to be poor deer habitat due to the limited food resources and cover it provides. Shell casings were found on the Scott Aviation property, although, according to Mr. Mark Kandel of the New York State Department of Environmental Conservation (NYSDEC), Bureau of Wildlife, hunting is illegal within the limits of the Village of Lancaster, within which the site resides. According to Scott Aviation personnel, other wildlife spotted on the site include racoons and skunks. No animals were spotted on the property at the time of the site investigation.

Like the northernmost portion of the property, the adjacent undeveloped sites have successional shrubland vegetation that is suitable habitat for deer and other animals. Hunting is allowed in the Town of Lancaster, and the village/town border is located along the eastern property boundary of the Scott Aviation property. A deer stand was observed on the property east of the site, indicating that hunting does take place. Other wildlife that have been sighted in the vicinity of the subject site include beaver. Beaver have been reported on Plum Bottom Creek and its tributaries within a one mile radius of the subject site.

According to Mr. Mark Kandel of the NYSDEC Bureau of Wildlife, no significant plant or wildlife habitat exists within a one-mile radius of the subject site. Significant habitat includes deer concentration areas and habitat types that are rare or unique or that contain threatened or endangered plants or animals.

A review of the files of the Natural Heritage Program available at the NYSDEC office in Buffalo, New York, revealed that only one rare species of plant or animal has ever been observed within a one mile radius of the subject site. The bigeye chub, <u>Notropis</u> <u>amblops</u>, is a rare but unprotected fish species within New York state, which was last observed in Cayuga Creek upstream of its confluence with Plum Bottom Creek, in 1921. Because the fish was last observed in 1921 and since it was spotted above the confluence of the two creeks, its potential presence will not be considered a factor in this fish and wildlife impact analysis.

Letters requesting information on threatened and endangered species and significant habitat were also submitted to the New York Natural Heritage Program in Latham, New York, and to the U.S. Department of the Interior Fish and Wildlife Service in Cortland, New York. The New York Natural Heritage Program has indicated that they have not identified "any potential impacts on endangered, threatened or special concern wildlife species, rare plant, animal or natural community occurrences, or other significant habitat." The Fish and Wildlife Service has indicated that no federally threatened or endangered species are known to exist on or in the vicinity of the subject site.

The NYSDEC was contacted for information pertaining to wildlife mortality that could potentially be attributed to contaminants at the Scott Aviation site. According to Mr. Mark Kandel and Mr. Bruce Wager, NYSDEC personnel, there are no reports of any fish or wildlife kills in the area.

3.0 SURFACE WATERS

The unnamed tributary of Plum Bottom Creek flows in a west-southwest direction across the site approximately 100 to 200 feet north of the plant building. The tributary is piped underneath the site from the east side of Walter Winter Drive to a point approximately 200 feet west of the site on the adjacent Quick Cut Rubber Gasket Company property. The tributary empties into Plum Bottom Creek over six-tenths of a mile southwest of the subject site. Plum Bottom Creek in turn flows in a westerly direction for approximately one-quarter mile and empties into Cayuga Creek (Figure 1).

In general, the surface drainage on the subject site is to the southwest. However, a drainage ditch located along the western property boundary runs in a northerly direction from Erie Street towards the unnamed creek. The drainage ditch is located west of the former underground storage tank area. The conduit, which carries the creek offsite, is exposed at the point where the ditch and the creek intersect. A visual inspection of the pipe revealed a break in the pipe at this location. Two sections of pipe in the culvert had parted slightly in the vicinity of the drainage ditch. The breach, approximately 4 inches wide, occurs near the top of the piping and does not cause water from the drainage ditch to enter the stream. Therefore, surface water contaminants, if present in runoff from the former tank location, would not be released into the stream at this location. In addition, the drainage ditch may be connected with a wetland area approximately 100 feet north of the western corner of the Scott Aviation building. Based upon site topography, water is expected to drain out of the wetland area towards the creek. It is possible, however, that surface water runoff could potentially be by-passing the stream and accumulating in the wetland area. This wetland area is described further in the wetland section of this report.

The upstream and downstream sections of the tributary are characteristically different. The upstream section of the tributary was observed to be wider, less channelized, and shallower than the downstream section. East (upstream) of the site, the tributary was estimated to be approximately 15.5 feet wide and up to a foot and a half deep at its deepest point near the culvert, although in most areas the stream was less than a foot deep. The stream bottom was comprised of silty soils with a large amount of organic material (dead leaves). The stream had a number of meanders around the roots of trees and shrubs growing in the stream bed. The predominant plant species were observed to be willows (*Salix* spp.) and Eastern cottonwood (*Populus deltoides*). At the time of the investigation in late October 1992, no floating aquatic vegetation was observed. Based upon the thick overhead canopy, it is believed that such floating aquatic growth is minimal. Available topographic maps indicate that stream flow becomes intermittent upstream of the Scott Aviation site.

West (downstream) of the site, the stream channel was observed to be more well defined. The stream was estimated to be approximately 5 feet wide and 1.35 feet deep at a point downstream of where it emerges behind the Quick Cut Rubber Gasket Company. The flow rate of the stream was estimated to be 2.5 feet per second at this point. The stream at this point had very little tree canopy, and the banks were lined with shrubs and grasses. There was only a limited quantity of emergent vegetation in the stream, primarily grasses along the edges of the stream bank. The stream bed was comprised of gravel and silt.

Although no fish were observed at the time of the site investigation, the stream is believed to provide suitable habitat for indigenous fish species, especially upstream and downstream of the Scott Aviation site. The quality of the habitat on the subject site is limited by the fact that the stream is enclosed within a conduit. There was no evidence of the stream being used for recreational purposes such as fishing.

Water Quality Classifications

According to New York State Water Quality Regulations (1991), Plum Bottom Creek and all of its tributaries and Cayuga Creek below its confluence with Plum Bottom Creek are classified as Class C fresh surface waters. The regulations state that Class C waters are best suited for fishing and fish propagation and should be suitable for primary and secondary contact recreation, although the latter two uses may be limited by other factors. The shallow depth of the stream which ranges from 0.5 to 1.5 feet makes it unsuitable for swimming and there are few, if any, public access areas along the stream for fishing in this northeastern section of Lancaster. At the time of the site visit, no fish were observed upstream or downstream of the Scott Aviation site. However, there is no reason to believe that they are not present.

Flood Boundaries

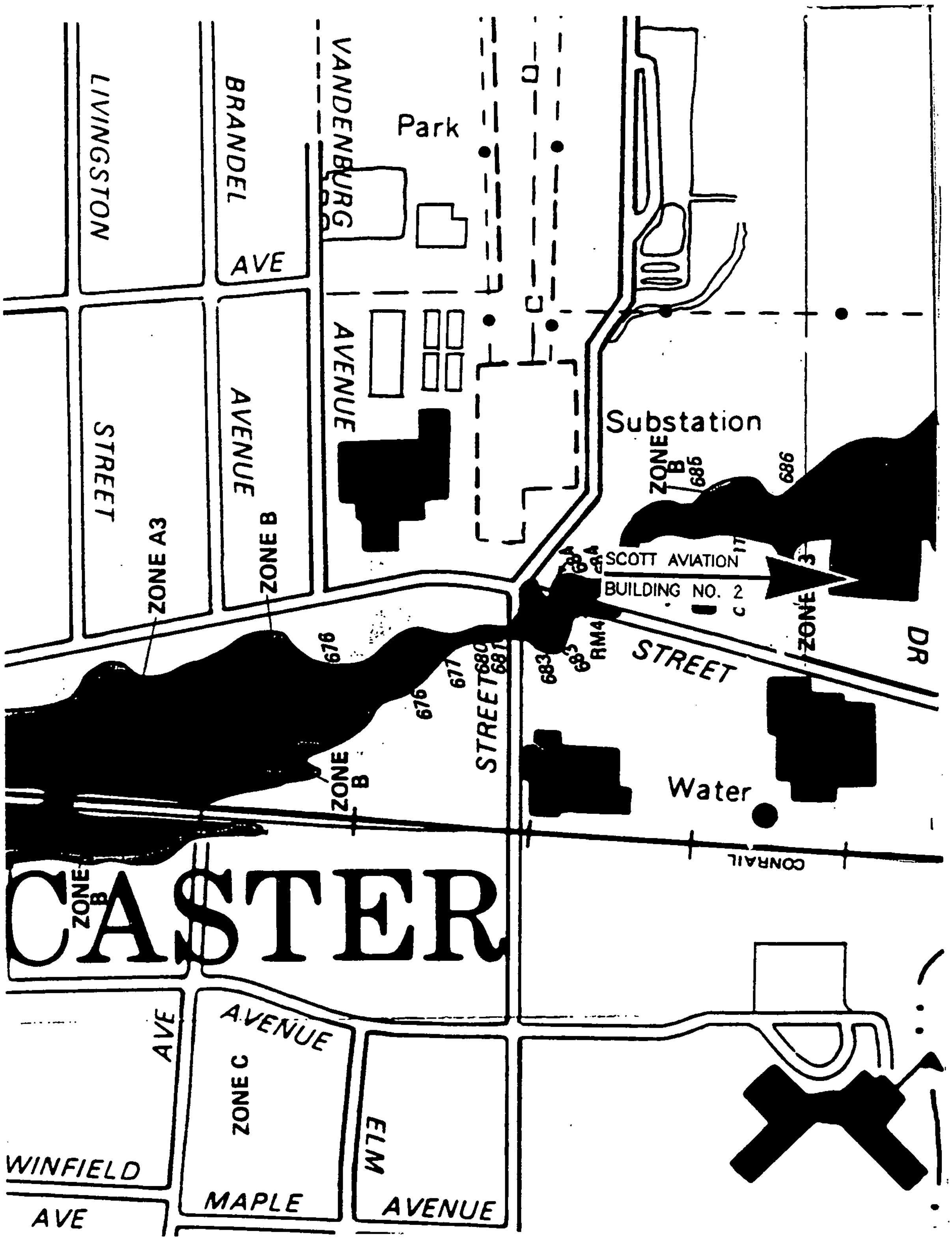
The land surrounding the stream on the site is located within the 100-year flood boundary (National Flood Insurance Program 1979), which indicates that during a 100-year storm, parts of the site would be expected to flood (Figure 3). At its widest point at the eastern property line, the 100-year flood boundary is approximately 375 feet wide. The 100-year flood boundary is approximately 140 feet wide at the western property line.

4.0 WETLANDS

Wetlands are defined as those lands that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation adapted for life in saturated soil conditions. The determination of wetlands requires positive evidence of three criteria:

- hydrophytic vegetation;
- hydric soils; and
- wetland hydrology.

Hydrophytic vegetation includes those plants that have adapted in one way or another to life in permanently or periodically inundated or saturated



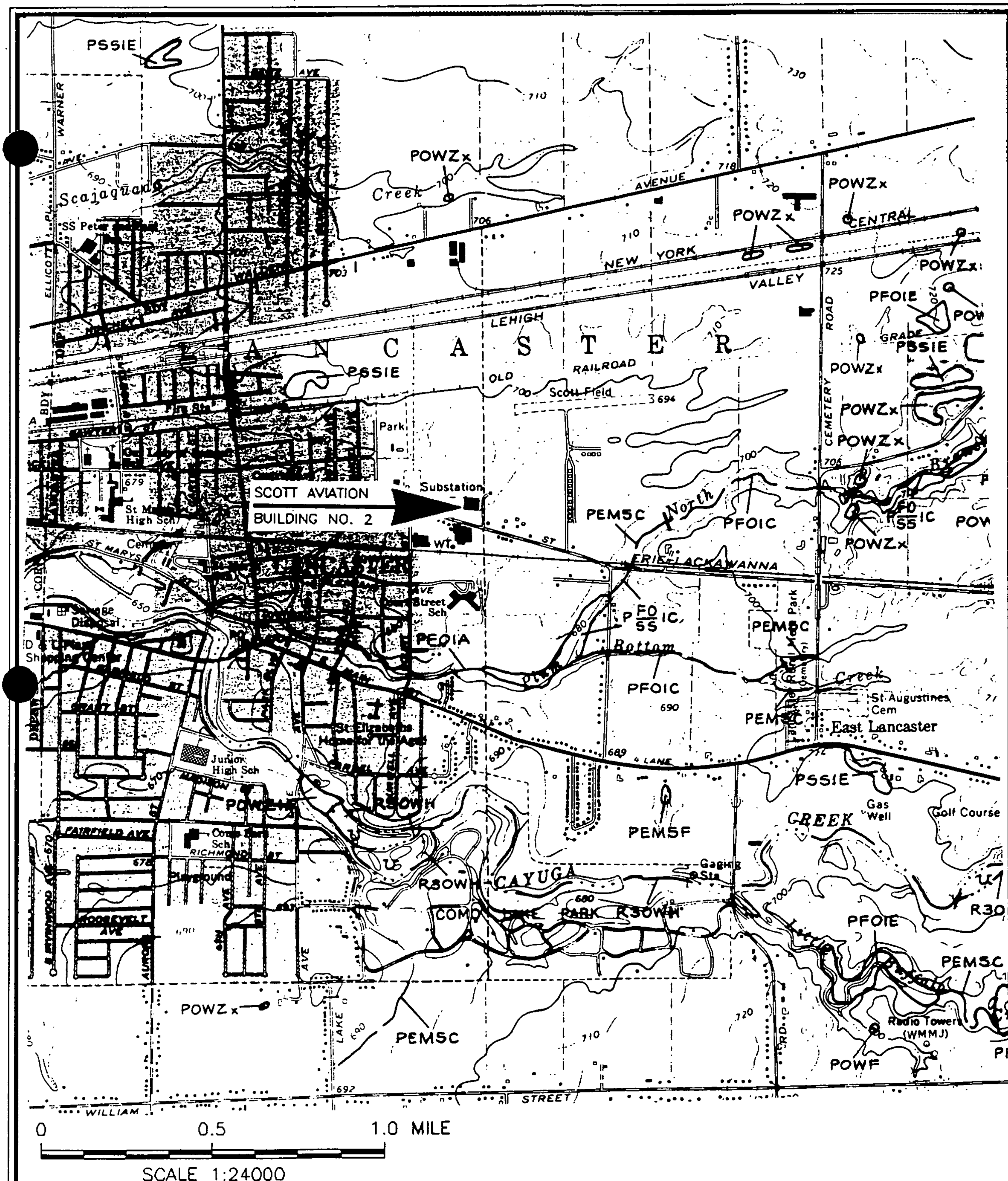
SOURCE: National Flood Insurance Program, Flood Insurance Rate Map, Village of Lancaster, New York, Erie County Community, Panel No. 360248 0001C, Dated July 2, 1979	FIGURE 3. Flood Boundry Map Scott Aviation, Lancaster, N.Y Versar Project No. 1324.003

soils. Hydric soils are defined as soils that are saturated, flooded or ponded long enough during the growing season to develop anaerobic (oxygen depleted) conditions in the upper part. An inspection of the site soils was not conducted as part of this study, although available soil maps were reviewed for information pertaining to the classification of on-site soils. Wetland hydrology is considered to be the permanent or periodic inundation or saturation of the surface or near surface soils for a period of seven or more days during the growing season. The hydrological conditions observed at the time of the site investigation are likely to be different from those observed at the site during the growing season (spring and summer) and thus provide only limited information on the water regime at that time.

Two wetland maps have been prepared for the Lancaster area: one of federally regulated wetlands, prepared by the U.S Department of the Interior Fish and Wildlife Service, and one of state regulated wetlands, prepared by the New York State Department of Environmental Conservation. According to the National Wetland Inventory (NWI) Map (USDOI Fish and Wildlife Service 1978), no wetlands are present on the subject site or in its immediate vicinity. This is evident from Figure 4 which indicates only Palustine wetland development (bold areas with POWZ designations) approximately 1-1.5 miles east-northeast of the Scott Aviation site. This finding, however, does not preclude the presence of wetlands on the site. Based upon the NWI map, the closest wetlands to the subject site are the wetlands associated with Plum Bottom Creek and its North Branch.

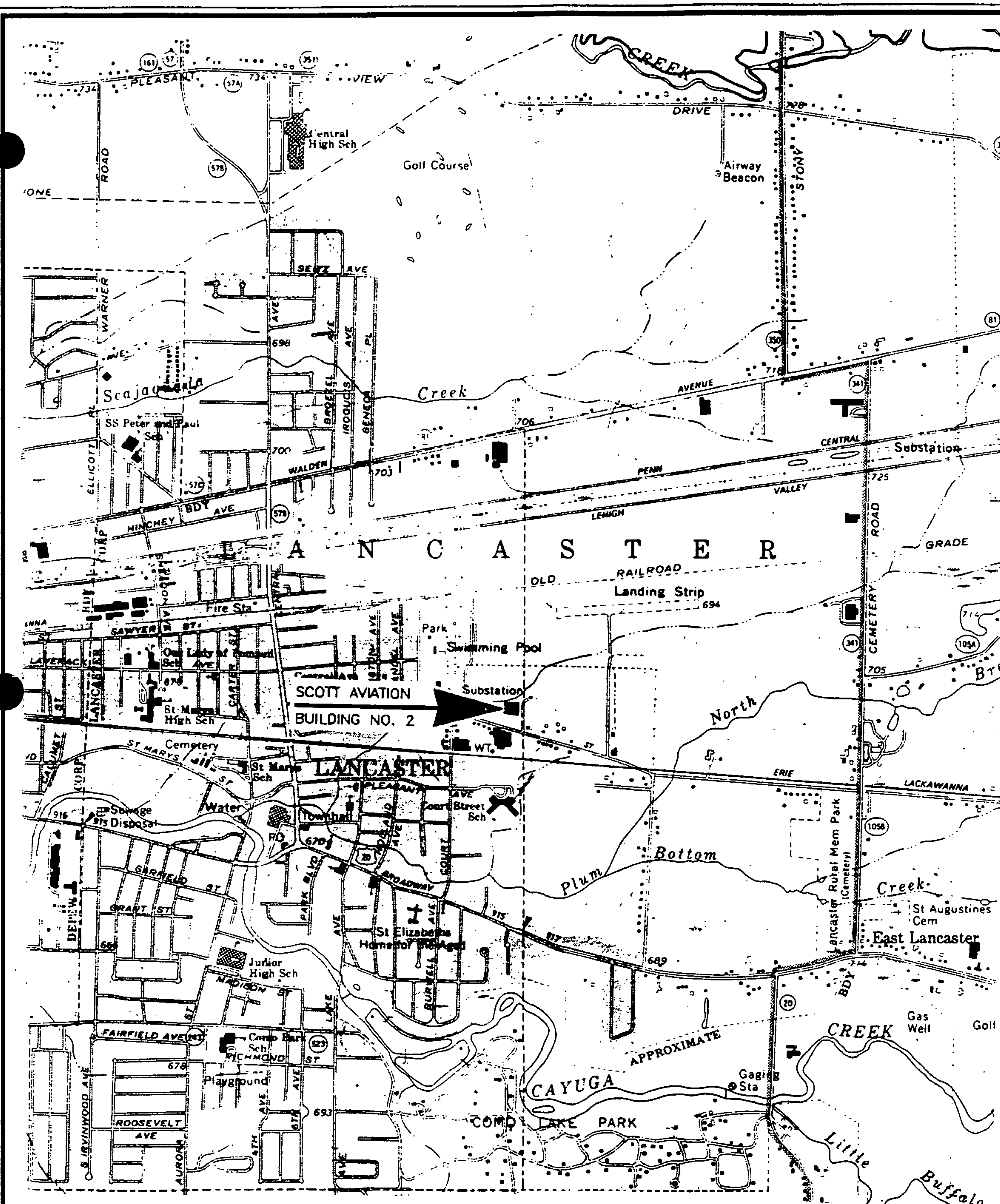
A map of New York State regulated wetlands (NYSDEC 1975) indicates that no state regulated wetlands are present on or within a half-mile radius of the subject site (Figure 5). Under the New York State Freshwater Wetlands Act, the State has the authority to regulate wetlands that are 5 hectares (12.4 acres) or larger in size, although smaller wetlands may be included if they contain unusual or critical areas. Because of its limited size, the wetland area on the Scott Aviation property would not be regulated under the Freshwater Wetlands Act.

The presence of hydric soils can be used as an indicator of the potential presence of wetlands. According to the Soil Survey of Erie County, New York (USDA SCS, 1986), the soils on the subject site have been characterized as Odessa silt loam, Lakemont silt loam, and Schoharie silt loam (Figure 6).



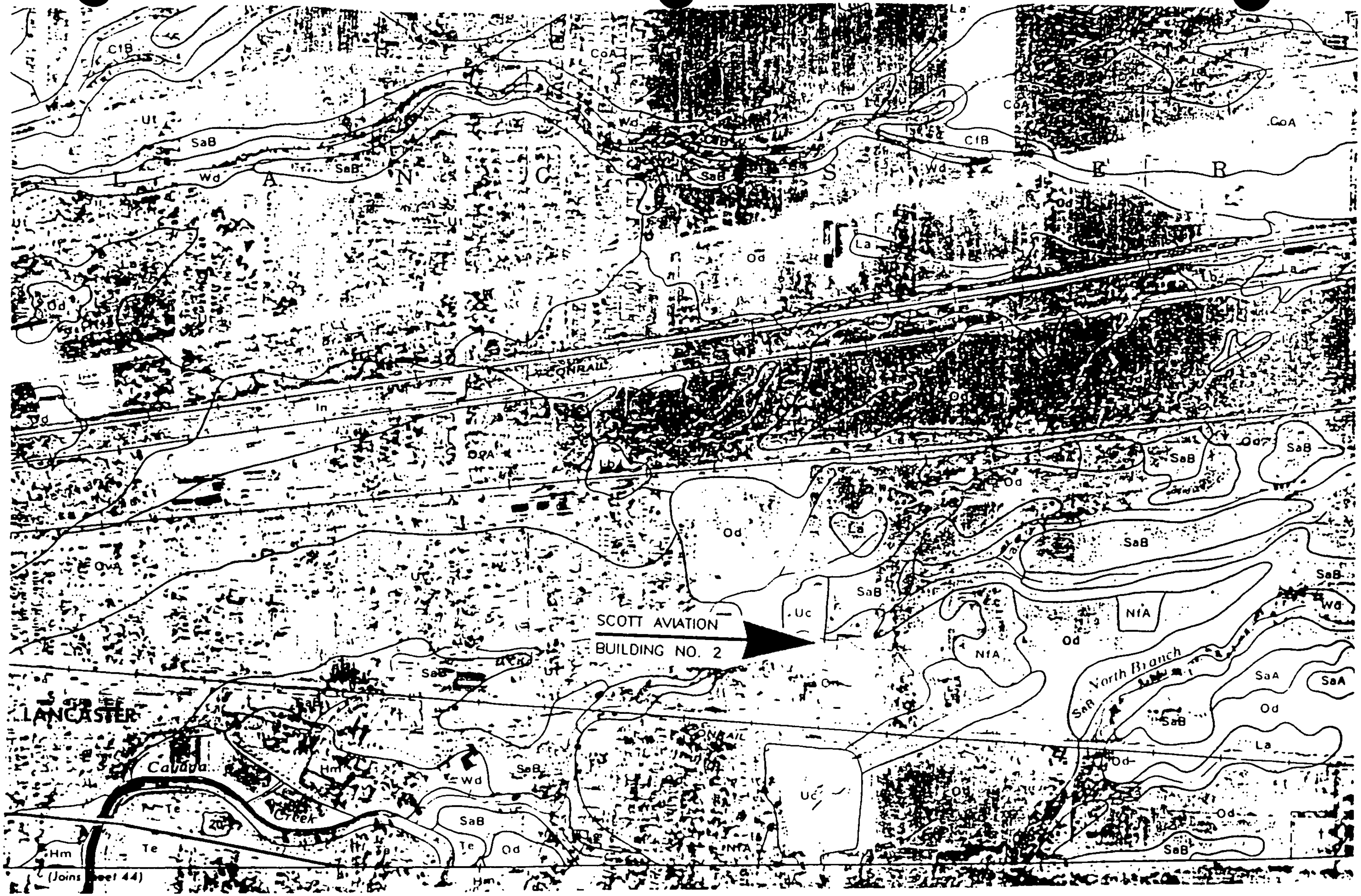
SOURCE: USDOI FISH AND WILDLIFE SERVICE, NATIONAL WETLAND INVENTORY MAP, LANCASTER, NEW YORK QUADRANGLE, DATED 1978

FIGURE 4.
National Wetland Inventory Map
Scott Aviation, Lancaster, N.Y
Versar Project No. 1324.003



SOURCE: NEW YORK STATE FRESHWATER WETLANDS MAP, LANCASTER, NEW YORK QUADRANGLE, DATED 1975

FIGURE 5.
State Wetland Map
Scott Aviation, Lancaster, N.Y
Versar Project No. 1324.003



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SCOTT AVIATION, LANCASTER, NY

FIGURE 6
SPATIAL DISTRIBUTION OF SOIL TYPES
February - 1993

According to information obtained from the Soil Conservation Service, the Lakemont silt loam series is considered a hydric soil series. Furthermore, the Odessa silt loam series was indicated to be likely to contain hydric inclusions, indicating that wetlands could be present in areas of this soil series. The Lakemont soils are present in the western-central portion of the site surrounding the intermittent drainage feature which cuts across the central portion of the site, draining areas from the northeast. This drainage feature and potential wetland area have no apparent hydrological connection with the drainage ditch in the southwestern portion of the site west of the former tank storage area.

Although a wetland delineation study was not conducted on the site to confirm the presence of the three wetland parameters, another potential wetland area was visually identified based upon the presence of hydrophytic vegetation. This wetland area is located approximately 200 feet north of the northwest corner of the plant building. The cattail-willow wetland was estimated to be approximately 200 feet long and 50 feet wide and apparently was created by soil excavation and stockpiling activities at the site. According to Scott Aviation personnel, surface soils were stripped from the site and stockpiled. An embankment remains on the west side of the cattail-willow wetland and may be responsible for blocking drainage and creating the wetland area. This wetland area may receive drainage from east-northeast portions of the property and potentially from the drainage ditch adjacent to the former tank storage area.

5.0 FISH AND WILDLIFE REGULATORY CRITERIA

No threatened or endangered plant, fish, or wildlife species or sensitive habitat was found to be present on or within a one mile radius of the subject site, and thus regulations pertaining to such protected species or habitat are not pertinent to the subject site. However, a stream and a freshwater wetland are present on the Scott Aviation site, and these areas are regulated under various regulations (Table 1). Any work in or on the banks of the tributary of Plum Bottom Creek or in wetland areas might be regulated by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act. Section 404 governs the discharge of dredged or fill materials into waters of the United States, including wetlands.

Any discharge of treated waters into Plum Bottom Creek or its tributaries would be regulated by the State of New York under Section 302 of the Clean Water Act and would have to meet effluent limitations set forth by the State to maintain the water quality of the stream.

TABLE 1

Pertinent Fish and Wildlife Regulatory Criteria

Regulation	Impact
Federal/State endangered species regulations	Not pertinent. No known endangered species within a one-mile radius of the subject site.
Section 404 of the Clean Water Act	Regulates the placement of dredged and fill material in waters of the U.S. including wetlands.
New York State Water Quality Regulations, Surface Water and Ground water Classifications and Standards	Sets forth classifications of surface waters and ground waters and effluent standards.
New York State Freshwater Wetlands Act	Not pertinent. No state-regulated wetlands within a one-mile radius of the subject site.
National Flood Insurance Program	Limits construction within the flood zones.
New York State Protection of Waters Program	Not pertinent. Regulates disturbance of the bed or banks of protected streams (Classes AA, A, B, and C(trout)). Class C waters are not protected under this regulation.

SUMMARY

Based upon the findings of the fish and wildlife impact analysis, fish and wildlife resources exist on and in the vicinity of the subject site; potential migration pathways exist in both surface waters and ground water that could expose fish and wildlife to site-related contaminants. The habitat on the site was classified as successional old field and shrubland. The quality of the plant habitat has been impacted by past surface soil mining on the site but has not been visibly impacted by the former underground storage tank area. In some areas of the site, plant cover is lower than fifty percent, more than likely due to soil nutrient limitations. The wildlife associated with the site is typical of the wildlife associated with successional old field and scrubland habitats and includes such animals as deer, snakes, racoons, and skunks. No rare, threatened, or endangered plant or animal species were found to be present on or within a one-mile radius of the subject site. Thus, although the site does provide habitat for wildlife, the quality of the habitat is not high, and no unique species are present. A small emergent wetland area is present on the site, and another wetland area may be associated with the intermittent drainage feature that traverses the center of the undeveloped portion of the site in a west-southwest direction. A wetland delineation study would have to be conducted to determine the limits of the wetlands on the site. An unnamed tributary of Plum Bottom Creek flows across the site approximately 200 feet north of Building No. 2. This tributary is enclosed within a conduit on the Scott Aviation property and thus provides less than optimal fish habitat. There are no signs of vegetative stress or records of fish or wildlife kills to indicate that harmful levels of contaminants are present on the site or in its vicinity.

REFERENCES

National Flood Insurance Program, July 2, 1979, Flood Insurance Rate Map, Village of Lancaster, New York, Erie County Community, Panel No. 360248 001C.

New York Natural Heritage Program, March 1990, Ecological Communities of New York State, N.Y.S. Department of Environmental Conservation, Latham, New York.

New York State Codes, Rules and Regulations, Title 6, Chapter X, Parts 700-705, Revised September 1, 1991, Water Quality Regulations: Surface Water and Ground water Classifications and Standards.

New York State Department of Transportation, 1988, 7.5 Minute Series Topographic Map, Lancaster, New York Quadrangle.

New York State, 1975, Freshwater Wetlands Map, Lancaster, New York Quadrangle.

United States Department of Agriculture, Soil Conservation Service, December 1986, Soil Survey of Erie County, New York.

United States Department of the Interior, Fish and Wildlife Service, 1978, National Wetland Inventory Map, Lancaster, New York Quadrangle.

New York State Department of Environmental Conservation

Wildlife Resources Center
Information Services
700 Troy-Schenectady Road
Latham, New York 12110-2400

Thomas C. Jorling
Commissioner

December 8, 1992

Ms. Deborah A. Forbes-Emery
Versar Inc.
2010 Cabot Boulevard West
Langhorne, Pennsylvania 19047

Dear Ms. Forbes-Emery:

We have reviewed the New York Natural Heritage Program files with respect to your request for biological data concerning the Scott Aviation feasibility study site, Erie Street, as indicated on your map, located in the Town of Lancaster, Erie County, New York State.

We did not identify any potential impacts on endangered, threatened, or special concern wildlife species, rare plant, animal or natural community occurrences, or other significant habitats.

The absence of data does not necessarily mean that rare or endangered elements, natural communities or other significant habitats do not exist on or adjacent to the proposed site, but rather that our files currently do not contain any information which indicates the presence of these. Our files are continually growing as new habitats and occurrences of rare species and communities are discovered. In most cases, site-specific or comprehensive surveys for plant and animal occurrences have not been conducted. For these reasons, we cannot provide a definitive statement on the presence or absence of species, habitats or communities. This information should not be substituted for on-site surveys that may be required for environmental assessment.

This response applies only to known occurrences of rare animals, plants and natural communities and/or significant wildlife habitats. You should contact our regional office, Division of Regulatory Affairs, at the address on the enclosed list for information regarding any regulated areas or permits that may be required (e.g., regulated wetlands) under state law.

If this proposed project is still active one year from now we recommend that you contact us again so that we can update this response.

Sincerely,

Burrell Buffington

Burrell Buffington
NY Natural Heritage Program

Enc.
cc: Reg. 9, Wildlife Mgr.
Reg. 9, Fisheries Mgr.

United States Department of the Interior

FISH AND WILDLIFE SERVICE
3817 Luker Road
Cortland, New York 13045

December 3, 1992

Ms. Deborah A. Forbes-Emery
Consultant
Versar, Inc.
2010 Cabot Boulevard West
Langhorne, PA 19047

Dear Ms. Forbes-Emery:

This responds to your letter of November 4, 1992, requesting information on the presence of Federally listed or proposed endangered or threatened species in the vicinity of the Scott Aviation site at 225 Erie Street in the Village of Lancaster, Erie County, New York.

Except for occasional transient individuals, no Federally listed or proposed endangered or threatened species under our jurisdiction are known to exist in the project impact area. Therefore, no Biological Assessment or further Section 7 consultation under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) is required with the U.S. Fish and Wildlife Service (Service). Should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered. A compilation of Federally listed and proposed endangered and threatened species in New York is enclosed for your information.

The above comments pertaining to endangered species under our jurisdiction are provided pursuant to the Endangered Species Act. This response does not preclude additional Service comments under the Fish and Wildlife Coordination Act or other legislation.

For additional information on fish and wildlife resources or State-listed species, we suggest you contact:

New York State Department of
Environmental Conservation
Region 9
128 South Street
Olean, NY 14760
(716) 372-0645

New York State Department of
Environmental Conservation
Significant Habitat Unit
Information Services
700 Troy-Schenectady Road
Latham, NY 12110-2400
(518) 783-3932

The National Wetlands Inventory (NWI) map of the Lancaster Quadrangle indicates that there may be wetlands in the project vicinity. Copies of NWI maps may be obtained through:

CLEARS
Cornell University
464 Hollister Hall
Ithaca, NY 14853
(607) 255-6520

An order form listing the topographic quadrangles that have been mapped in New York State is enclosed for your information. The NWI maps are reasonably accurate but should not be used in lieu of field surveys for determining the presence of wetlands or delineating wetland boundaries for Federal regulatory purposes.

Work in certain waters and wetlands of the United States may require a permit from the U.S. Army Corps of Engineers (Corps). If a permit is required, in reviewing the application pursuant to the Fish and Wildlife Coordination Act, the Service may concur, with or without stipulations, or recommend denial of the permit depending upon the potential adverse impacts on fish and wildlife resources associated with project implementation. The need for a Corps permit may be determined by contacting Mr. Paul Leuchner, Chief, Regulatory Branch, U.S. Army Corps of Engineers, 1776 Niagara Street, Buffalo, NY 14207 (telephone: (716) 879-4321).

If you have any questions regarding this letter, contact Tom McCartney at (607) 753-9334.

Sincerely,

Mark W. Clough
ACTING FOR

Leonard P. Corin
Field Supervisor

Enclosures

cc: NYSDEC, Albany & Olean, NY (Regulatory Affairs)
NYSDEC, Latham, NY
COE, Buffalo, NY
EPA, Chief, Marine & Wetlands Protection Branch, New York, NY

Law Offices of
THEODORE HADZI-ANTICH
STATLER TOWERS
107 Delaware Avenue • Suite 640
Buffalo, New York 14202-2906
Tel: (716) 852-3000 • Fax: (716) 852-4174

Privileged and Confidential
Attorney-Client Communication
Attorney Work Product

July 1, 1993

VIA FAX AND U.S. MAIL

Lu Ann Lewis, Esq.
Figgie International
Scott Aviation
225 Erie Street
Lancaster, New York 14086

Re: DEC's response to comments regarding Draft Remedial Investigation Report and related documents.

Dear Lu Ann:

Enclosed is DECs response to our latest submittal in connection with the above-referenced matter.

Although some of the statements in the letter are certainly positive, (note especially the statement regarding the Remedial Objectives Report), others are somewhat troublesome, especially the suggestion regarding quarterly groundwater monitoring (see Item No. 4 in the enclosed letter).

DEC indicates that a response is required by July 16, 1993.

Apparently, Dan Morganelli is on vacation until July 12, 1993. Therefore, I have placed a call to Greg Sutton of DEC to seek an extension of the July 16, 1993 deadline. When Dan returns, we will schedule a conference call. In light of DEC's suggestion for quarterly monitoring reports, we may wish to meet with DEC before finalizing the documents.

As always, please let me know if you have any questions.

Sincerely,

Ted

Theodore Hadzi-Antich

THA/smw
Enclosure

cc: Mr. Dan Morganelli (with enclosure)
Robert Vilsack, Esq. (with enclosure)

VIEW LOOKING WEST TOWARDS THE POWER SUB STATION FROM THE CENTRAL PORTION OF THE SITE.

VIEW LOOKING WEST ACROSS THE NORTHERNMOST PORTION OF THE SCOTT AVIATION PROPERTY.

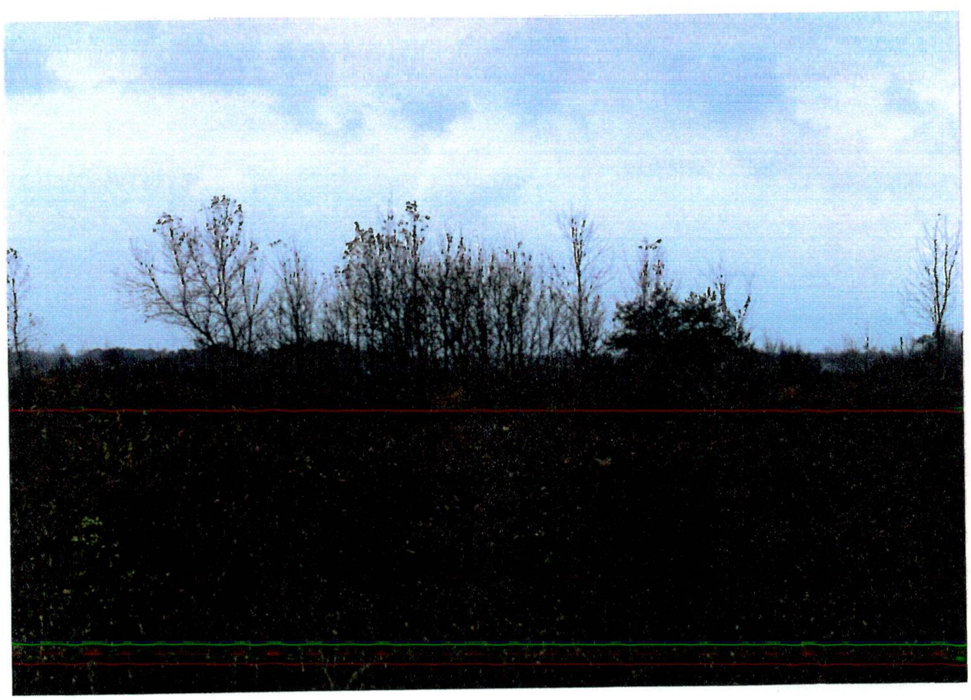
VIEW LOOKING EAST AT THE AREA NORTH OF THE PLANT BUILDING.

VIEW LOOKING SOUTH AT THE PLANT BUILDING FROM THE CENTRAL PORTION OF THE SITE. THE SOIL IN THE FOREGROUND WAS REMOVED FROM AN AREA WEST OF BUILDING #2 AND WAS REGRADED WITH NYSDEC AUTHORIZATION.

VIEW LOOKING WEST OF THE AREA LOCATED IMMEDIATELY BEHIND THE PLANT BUILDING WHERE STONE AND FILL HAS BEEN PLACED

VIEW LOOKING NORTH AT AN AREA NORTH OF THE PLANT BUILDING WHERE STONE AND SOIL HAS BEEN PLACED.

TWO VIEWS LOOKING SOUTH ACROSS THE PROPERTY FROM THE RAILROAD TRACKS



VIEW LOOKING EAST AT THE UNNAMED TRIBUTARY OF PLUM BOTTOM CREEK
AT A POINT WEST OF THE SCOTT AVIATION PROPERTY WHERE IT
RESURFACES THROUGH A CONDUIT

VIEW LOOKING WEST ALONG THE UNNAMED TRIBUTARY OF PLUM BOTTOM CREEK
WEST OF THE SCOTT AVIATION PROPERTY. NOTE THE POWER SUBSTATION
IN THE BACKGROUND.

VIEW LOOKING EAST ALONG THE UNNAMED TRIBUTARY OF PLUM BOTTOM CREEK AT A POINT IMMEDIATELY EAST OF THE SCOTT AVIATION PROPERTY. THE TREE AND SHRUB VEGETATION IS OBSCURING THE STREAM. THE STREAM IS PIPED FROM THE EAST SIDE OF THE ROAD, UNDERNEATH THE PROPERTY TO A POINT APPROXIMATELY 200 FEET WEST OF THE WESTERN PROPERTY BOUNDARY.

VIEW OF THE UNNAMED TRIBUTARY OF PLUM BOTTOM CREEK
AT THE POINT IMMEDIATELY EAST OF THE SCOTT AVIATION PROPERTY.

VIEW LOOKING WEST OVER A SMALL CATTAIL-WILLOW WETLAND AREA
LOCATED NORTH OF THE NORTHWEST CORNER OF THE PLANT BUILDING

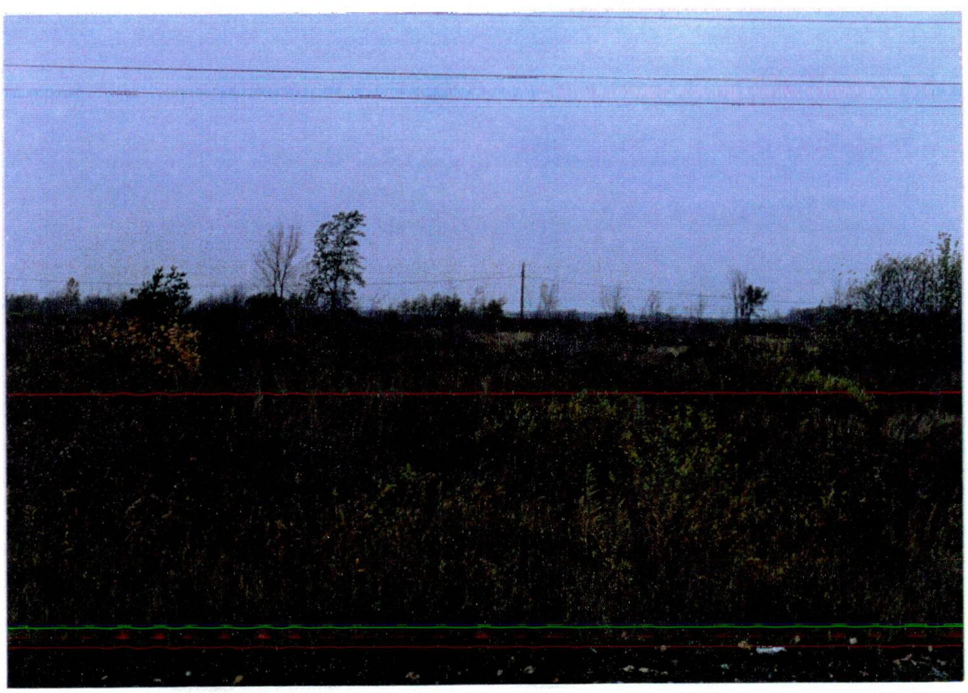
VIEW LOOKING SOUTH AT THE SMALL CATTAIL-WILLOW WETLAND AREA LOCATED NORTH OF THE NORTHWEST CORNER OF THE PLANT BUILDING

VIEW LOOKING WEST TOWARDS THE SMALL CATTAIL-WILLOW WETLAND AREA, WHICH IS LOCATED ON THE EAST SIDE OF THE SMALL RIDGE

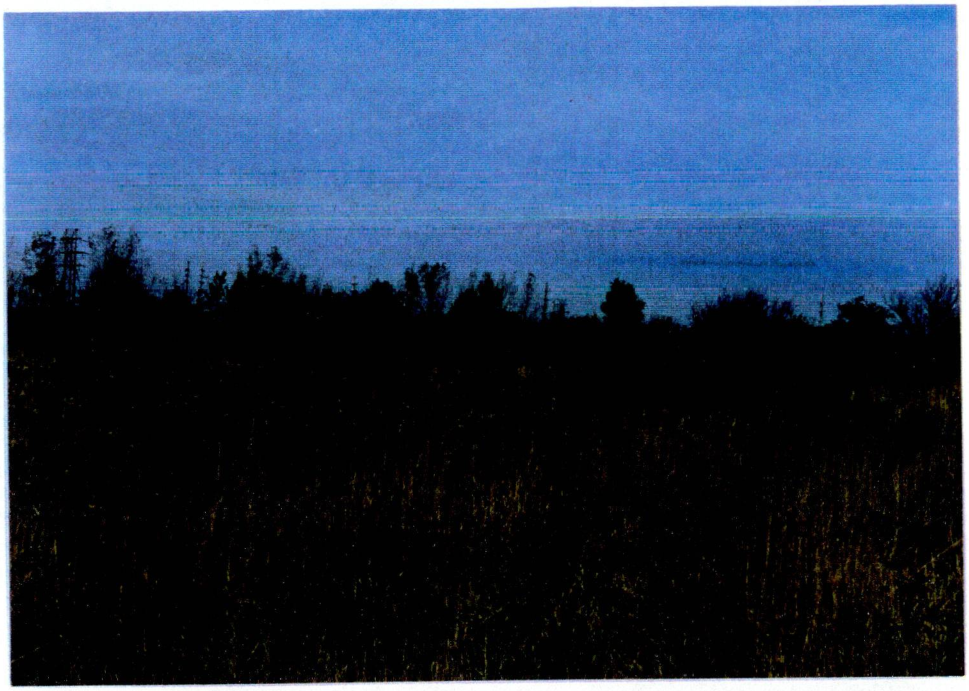
VIEW LOOKING SOUTHWEST FROM THE EASTERN EDGE OF THE PROPERTY
ALONG A DRAINAGE AREA CROSSING THE CENTRAL PORTION OF THE PROPERTY

VIEW LOOKING WEST ACROSS NORTHERNMOST PORTION OF THE
SCOTT AVIATION PROPERTY

VIEW LOOKING EAST ONTO THE ADJACENT PROPERTY. NOTE THE DEER STAND IN THE TREE



VIEW LOOKING NORTH FROM THE RAILROAD TRACKS ONTO THE ADJACENT PROPERTY



VIEW LOOKING NORTHWEST TOWARDS THE NORTH END OF THE SCOTT AVIATION PROPERTY

APPENDIX G

SAMPLE ANALYSIS SUMMARY SHEETS INDICATING METHOD DETECTION LIMITS

GROUNDWATER ANALYSIS (METALS)
(ROUND I)

DEC 10 1992

CASE NARRATIVE
FOR INORGANICS (NYASP)

ALL THE SAMPLES WERE SUBBED OUT TO CHEMTECH CONSULTING GROUP FOR ANALYSIS OF METALS (DISSOLVED). Lab Name: CHEMTECH

Client:VERSAR ENV. Project:Figgie-Scott Aviation

Job No.: I210202 CASE No. : 10202 SDG No. : MW-1(F)

The following samples are included in this Sample Delivery Group:

CHEMTECH ID	Client ID on forms
5671S	SW-1
5672S2	SW-1D
5673DS	SW-1S
5674S	SW-2
5675S	SW-3
5676S	MW-1
5677S	MW-2
5678S	MW-3
5679S	MW-4
5680S	MW-5
5681S	MW-6
5682S	IT-1
5683S	FIELDBLANK3

Detailed Documentation of Problems Encountered With These Samples

General:

1. The above liquid samples were analyzed for metals dissolved.

2. Please note that the client sample number with the sample description (identification) is too many characters, therefore as per the software being used only limited characters can be used for EPA sample number. Never-the-less for the cross reference check the Lab sample ID. with Client ID. is listed above on this case narrative.

   - Please be advised that using the Software for data processing of CLP Inorganic Packages, the software is designed to accomodate one SDG at a time made of twenty samples or less of the same matrix.

   - The Inorganic CLP data package contains respectively in this order: Case Narrative followed by: forms, ICAP raw data, Furnace raw data, Mercury raw data, and finally the last part is General (samples preparation log, sample log in pages, Chain-of-Custody).

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELDBLANK3

'ame: CHEMTECH CONSULTING GROUP Contract: 68D20041

'ode: CHEM Case No.: 10202 SAS No.: SDG No.: MW-1(F)

x (soil/water): WATER Lab Sample ID: 5683S

(low/med): LOW Date Received: 11/03/92

ids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic				NR
7440-39-3	Barium	11.0	U		P
7440-41-7	Beryllium	1.8	B		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	310	U		P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	25.9	B		P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	185	U		P
7439-96-5	Manganese	4.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	900	U		A
7782-49-2	Selenium	3.0	U		F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	432	B		P
7440-28-0	Thallium	4.0	U		F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	5.0	U		P
	Cyanide				NR

Before: COLORLESS Clarity Before: CLEAR Texture:

After: COLORLESS Clarity After: CLEAR Artifacts:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

IT-1

Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Code: CHEM Case No.: 10202 SAS No.: SDG No.: MW-1(F)

ix (soil/water): WATER Lab Sample ID: 5682S

l (low/med): LOW Date Received: 11/03/92

lids: ✓0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	286			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	287000			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	3880			P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	67200			P
7439-96-5	Manganese	2130			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	5470			A
7782-49-2	Selenium	3.0	U		F
7440-22-4	Silver	12.6			P
7440-23-5	Sodium	55700			P
7440-28-0	Thallium	4.0	U		F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	104			P
	Cyanide				NR

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After: COLORLESS Clarity After: CLEAR Artifacts:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1

Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Code: CHEM Case No.: 10202 SAS No.: SDG No.: MW-1(F)

ix (soil/water): WATER Lab Sample ID: 5676S

1 (low/med): LOW Date Received: 11/03/92

lids: <0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	220			P
7440-41-7	Beryllium	1.6	B		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	21400			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	20.7	B		P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	33900			P
7439-96-5	Manganese	5.6	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	5560			A
7782-49-2	Selenium	3.0	U		F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	30300			P
7440-28-0	Thallium	4.0	U	W	F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	5.0	U		P
	Cyanide				NR

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After: COLORLESS Clarity After: CLEAR Artifacts:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2

lame: CHEMTECH CONSULTING GROUP Contract: 68D20041

:ode: CHEM Case No.: 10202 SAS No.: SDG No.: MW-1(F)

x (soil/water): WATER Lab Sample ID: 5677S

(low/med): LOW Date Received: 11/03/92

ids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	2.0	B		F
7440-39-3	Barium	337			P
7440-41-7	Beryllium	1.1	B		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	169000			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	12400			P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	104000			P
7439-96-5	Manganese	1520			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	2510	B		A
7782-49-2	Selenium	3.0	U		F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	54100			P
7440-28-0	Thallium	4.0	U		F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	5.0	U		P
	Cyanide				NR

Before: BROWN Clarity Before: CLEAR Texture:

After: COLORLESS Clarity After: CLEAR Artifacts:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-3

lame: CHEMTECH CONSULTING GROUP Contract: 68D20041

lode: CHEM Case No.: 10202 SAS No.: SDG No.: MW-1(F)

x (soil/water): WATER Lab Sample ID: 5678S

(low/med): LOW Date Received: 11/03/92

ids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	117	B		P
7440-41-7	Beryllium	1.8	B		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	33600			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	77.7	B		P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	46500			P
7439-96-5	Manganese	45.8			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	1930	B		A
7782-49-2	Selenium	3.0	U		F
7440-22-4	Silver	8.1	B		P
7440-23-5	Sodium	42100			P
7440-28-0	Thallium	4.0	U	W	F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	5.0	U		P
	Cyanide				NR

Before: COLORLESS Clarity Before: CLEAR Texture:

After: COLORLESS Clarity After: CLEAR Artifacts:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-4

Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Code: CHEM Case No.: 10202 SAS No.: SDG No.: MW-1(F)

ix (soil/water): WATER Lab Sample ID: 5679S

l (low/med): LOW Date Received: 11/03/92

lids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	215			P
7440-41-7	Beryllium	1.3	B		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	33200			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	35.0	B		P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	59500			P
7439-96-5	Manganese	29.5			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	4390	B		A
7782-49-2	Selenium	3.0	U		F
7440-22-4	Silver	8.1	B		P
7440-23-5	Sodium	34600			P
7440-28-0	Thallium	4.0	U	W	F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	5.0	U		P
	Cyanide				NR

Before: COLORLESS Clarity Before: CLEAR Texture:

After: COLORLESS Clarity After: CLEAR Artifacts:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5

ɿame: CHEMTECH CONSULTING GROUP Contract: 68D20041

:ode: CHEM Case No.: 10202 SAS No.: SDG No.: MW-1(F)

.x (soil/water): WATER Lab Sample ID: 5680S

(low/med): LOW Date Received: 11/03/92

ids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	2.1	B		F
7440-39-3	Barium	144	B		P
7440-41-7	Beryllium	1.3	B		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	31200			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	23.3	B		P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	45700			P
7439-96-5	Manganese	35.7			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	2630	B		A
7782-49-2	Selenium	3.0	U		F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	41100			P
7440-28-0	Thallium	4.0	U	W	F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	5.0	U		P
	Cyanide				NR

ɘfore: COLORLESS Clarity Before: CLEAR Texture:

:ter: COLORLESS Clarity After: CLEAR Artifacts:

::

FORM I - IN

ILM02.1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-6

ame: CHEMTECH CONSULTING GROUP Contract: 68D20041

ode: CHEM Case No.: 10202 SAS No.: SDG No.: MW-1(F)

x (soil/water): WATER Lab Sample ID: 5681S

(low/med): LOW Date Received: 11/03/92

.ds: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	169	B		P
7440-41-7	Beryllium	1.3	B		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	25500			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	184			P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	52700			P
7439-96-5	Manganese	13.5	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	2330	B		A
7782-49-2	Selenium	3.0	U		F
7440-22-4	Silver	8.0	B		P
7440-23-5	Sodium	36900			P
7440-28-0	Thallium	4.0	U	W	F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	5.0	U		P
	Cyanide				NR

fore: COLORLESS Clarity Before: CLEAR Texture:

er: COLORLESS Clarity After: CLEAR Artifacts:

FORM I - IN

ILM02.1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

SW-1

Name: CHEMTECH CONSULTING GROUP   Contract: 68D20041

Code: CHEM   Case No.: 10202   SAS No.:   SDG No.: MW-1(F)

ix (soil/water): WATER   Lab Sample ID: 5671S

l (low/med): LOW   Date Received: 11/03/92

lids: ~0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	22.2	B		P
7440-41-7	Beryllium	1.8	B		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	40400			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	145			P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	15100			P
7439-96-5	Manganese	44.2			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	1430	B		A
7782-49-2	Selenium	3.0	U		F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	12700			P
7440-28-0	Thallium	4.0	U		F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	5.0	U		P
	Cyanide				NR

Before: COLORLESS   Clarity Before: CLEAR   Texture:

After: COLORLESS   Clarity After: CLEAR   Artifacts:

nts:

FORM I - IN   ILM02.1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

SW-2

Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Code: CHEM Case No.: 10202 SAS No.: SDG No.: MW-1(F)

ix (soil/water): WATER Lab Sample ID: 5674S

l (low/med): LOW Date Received: 11/03/92

lids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	29.6	B		P
7440-41-7	Beryllium	1.1	B		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	42300			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	192			P
7439-92-1	Lead	2.0	U	W	F
7439-95-4	Magnesium	15700			P
7439-96-5	Manganese	62.4			P
7439-97-6	Mercury	0.93			CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	1610	B		A
7782-49-2	Selenium	3.0	U		F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	12900			P
7440-28-0	Thallium	4.0	U		F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	5.0	U		P
	Cyanide				NR

Before: COLORLESS Clarity Before: CLEAR Texture:

After: COLORLESS Clarity After: CLEAR Artifacts:

its:

FORM I - IN ILM02.1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-3

Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Code: CHEM Case No.: 10202 SAS No.: SDG No.: MW-1(F)

ix (soil/water): WATER Lab Sample ID: 5675S

l (low/med): LOW Date Received: 11/03/92

lids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	34.2	B		P
7440-41-7	Beryllium	1.3	B		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	49600			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	183			P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	17600			P
7439-96-5	Manganese	46.2			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	1360	B		A
7782-49-2	Selenium	3.0	U		F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	14400			P
7440-28-0	Thallium	4.0	U		F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	5.0	U		P
	Cyanide				NR

Before: COLORLESS Clarity Before: CLEAR Texture:

After: COLORLESS Clarity After: CLEAR Artifacts:

its:

FORM I - IN ILM02.1

5A

SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

SW-1S

Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Code: CHEM Case No.: 10202 SAS No.: SDG No.: MW-1(F)

ix: WATER Level (low/med): LOW

lids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

alyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
ninum	75-125	2057.4000		100.0000	U	2000.00	102.9		P
imony	75-125	540.5300		40.0000	U	500.00	108.1		P
enic	75-125	40.1000		2.0000	U	40.00	100.2		F
ium	75-125	2066.7000		22.2200	B	2000.00	102.2		P
yllium	75-125	52.3400		1.7900	B	50.00	101.1		P
nium	75-125	50.5800		4.0000	U	50.00	101.2		P
cium									NR
omium	75-125	201.4700		9.0000	U	200.00	100.7		P
lt	75-125	539.9000		7.0000	U	500.00	108.0		P
er	75-125	244.1700		20.0000	U	250.00	97.7		P
	75-125	1263.0000		145.0800		1000.00	111.8		P
	75-125	21.8000		2.0000	U	20.00	109.0		F
esium									NR
anese	75-125	536.5000		44.2000		500.00	98.5		P
ury	75-125	0.9300		0.2000	U	1.00	93.0		CV
el	75-125	534.9500		16.0000	U	500.00	107.0		P
ssium									NR
nium	75-125	10.7000		3.0000	U	10.00	107.0		F
er	75-125	44.1600		7.0000	U	50.00	88.3		P
um									NR
lium	75-125	50.3000		4.0000	U	50.00	100.6		F
dium	75-125	490.5500		16.0000	U	500.00	98.1		P
	75-125	514.4800		5.0000	U	500.00	102.9		P
ide									NR

its:

DUPLICATES

EPA SAMPLE NO.

SW-1D

Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Code: CHEM Case No.: 10202 SAS No.: SDG No.: MW-1(F)

ix (soil/water): WATER Level (low/med): LOW

lids for Sample: 0.0 % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		100.0000	U	100.0000	U			P
Antimony		40.0000	U	40.0000	U			P
Arsenic		2.0000	U	2.0000	U			F
Barium		22.2200	B	28.7000	B	25.5		P
Beryllium		1.7900	B	1.7900	B	0.0		P
Cadmium		4.0000	U	4.0000	U			P
Calcium		40409.0000		40854.0000		1.1		P
Chromium		9.0000	U	9.0000	U			P
Cobalt		7.0000	U	7.0000	U			P
Copper		20.0000	U	20.0000	U			P
Iron	100.0	145.0800		187.8300		25.7		P
Lead		2.0000	U	2.0000	U			F
Magnesium	5000.0	15123.0000		15231.0000		0.7		P
Manganese	15.0	44.2000		38.1400		14.7		P
Mercury		0.2000	U	0.2000	U			CV
Nickel		16.0000	U	16.0000	U			P
Potassium		1430.0000	B	1430.0000	B	0.0		A
Selenium		3.0000	U	3.0000	U			F
Silver		7.0000	U	7.0000	U			P
Sodium	5000.0	12705.0000		12688.0000		0.1		P
Thallium		4.0000	U	4.0000	U			F
Vanadium		16.0000	U	16.0000	U			P
Zinc		5.0000	U	5.0000	U			P
Cyanide								NR

ICP SERIAL DILUTIONS

EPA SAMPLE NO.

SW-1L

› Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

› Code: CHEM Case No.: 10202 SAS No.: SDG No.: MW-1(F)

rix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	100.00	U	500.00	U			P
Antimony	40.00	U	200.00	U			P
Arsenic							NR
Barium	22.22	B	55.00	U	100.0		P
Beryllium	1.79	B	6.70	B	274.3		P
Cadmium	4.00	U	20.00	U			P
Calcium	40409.00		40291.00		0.3		P
Chromium	9.00	U	45.00	U			P
Cobalt	7.00	U	35.00	U			P
Copper	20.00	U	100.00	U			P
Iron	145.08		174.85	B	20.5		P
Lead							NR
Magnesium	15123.00		14921.50	B	1.3		P
Manganese	44.20		30.05	B	32.0		P
Mercury							NR
Nickel	16.00	U	80.00	U			P
Potassium							NR
Selenium							NR
Silver	7.00	U	38.30	B			P
Sodium	12705.00		12654.50	B	0.4		P
Thallium							NR
Vanadium	16.00	U	80.00	U			P
Zinc	5.00	U	25.00	U			P

GROUNDWATER ANALYSIS (VOCs)
(ROUND I)

INTECH BIOLABS DIVISION

158 Tices Lane East Brunswick, New Jersey 08816 (908) 257-1050. Fax (908) 257-2790

...rsar, Inc.

DEC 16 1992

CASE NARRATIVE
FOR ORGANICS (NYASP)

Lab Name: INTECH Client: VERSAR INC.

Project: Figgie-Scott Aviation JOB No.: I210202

CASE No. : 10202 SDG No. : SW-1

The following samples are included in this Sample Delivery Group:

LAB ID #	ClIENT ID #	LAB ID #	CLIENT ID #
I210202-01	SW-1	I210202-10	MW-4
I210202-02	SC-1	I210202-11	MW-5
I210202-03	SW-2	I210202-12	MW-6
I210202-04	SC-2	I210202-13	IT-1
I210202-05	SW-3	I210202-14	FB-1
I210202-06	SC-3	I210202-15	FB-2
I210202-07	MW-1	I210202-16	FB-3
I210202-08	MW-2	I210202-17	TB-1
I210202-09	MW-3	I210202-18	SS-1

Detailed Documentation of Problems Encountered With These Samples

General:

1. Please note that the client sample number with the sample description (identification) is too many characters, therefore as per the software being used for Organics data processing only limited characters can be used for EPA sample number. Never-the-less for the cross reference check the Lab sample ID. with Client ID. is listed above on this case narrative.

2. The EPA sample number in all the forms is the Client identification from the Chain-of-Custody, the last 6 characters (include dashes). as an example:VERSAR ID: SW-1 61537,68187,61507 for this sample on forms SAMPLE ID: SW-1

3. On the run logs use the following lab identifications: - last 3 digits of the Intech job number followed by the sample number: an example Job No. I210202 sample identification to be used on the run logs becomes 20215, etc. and also on some run logs as I210202-01, -02, -03 etc.

Volatile Fraction:

1. Please note that the concentrations of trans-1,3-Dichloropropene and cis-1,3-Dichloropropene are 92 and 106 percent respectively from the theoretical value in the standard solution mix which is purchased from Supelco.

NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

SW-1

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10202 SAS No.: SDG No.:SW-1

Matrix: [soil/water] WATER Lab Sample ID: I210202-01

Sample wt/vol: 5.0 [g/mL] ML Lab File ID: >A0107

Level: [low/med] LOW Date Received: 10/31/92

% Moisture: decanted: (Y/N) N Date Analyzed : 11/04/92

GC Column : PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	4	JB
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

SW-1

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10202 SAS No.: SDG No.: SW-1

Matrix: (soil/water) WATER

Lab Sample ID: I210202-01

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: >A0107

Level: (low/med) LOW

Date Received: 10/31/92

% Moisture: NA not dec.

Date Analyzed: 11/04/92

GC Column: PACK ID: 2.0 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

SC-1

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10202 SAS No.: SDG No.:SW-1

Matrix: [soil/water] SOIL Lab Sample ID: I210202-02

Sample wt/vol: 5.0 [g/mL] G Lab File ID: >C3730

Level: [low/med] LOW Date Received: 10/31/92

% Moisture: 49.0 decanted (Y/N) Y Date Analyzed : 11/07/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG

CAS NO.	COMPOUND	UG/KG	Q
74-87-3	Chloromethane	20	U
74-83-9	Bromomethane	20	U
75-01-4	Vinyl Chloride	20	U
75-00-3	Chloroethane	20	U
75-09-2	Methylene Chloride	7	J
67-64-1	Acetone	150	
75-15-0	Carbon Disulfide	20	U
75-35-4	1,1-Dichloroethene	20	U
75-34-3	1,1-Dichloroethane	20	U
540-59-0	1,2-Dichloroethene (total)	20	U
67-66-3	Chloroform	20	U
107-06-2	1,2-Dichloroethane	20	U
78-93-3	2-Butanone	20	U
71-55-6	1,1,1-Trichloroethane	20	U
56-23-5	Carbon Tetrachloride	20	U
75-27-4	Bromodichloromethane	20	U
78-87-5	1,2-Dichloropropane	20	U
10061-01-5	cis-1,3-Dichloropropene	20	U
79-01-6	Trichloroethene	20	U
124-48-1	Dibromochloromethane	20	U
79-00-5	1,1,2-Trichloroethane	20	U
71-43-2	Benzene	20	U
10061-02-6	trans-1,3-Dichloropropene	20	U
75-25-2	Bromoform	20	U
108-10-1	4-Methyl-2-Pentanone	20	U
591-78-6	2-Hexanone	20	U
127-18-4	Tetrachloroethene	20	U
79-34-5	1,1,2,2-Tetrachloroethane	20	U
108-88-3	Toluene	20	U
108-90-7	Chlorobenzene	20	U
100-41-4	Ethylbenzene	20	U
100-42-5	Styrene	20	U
1330-20-7	Xylene (total)	20	U

DF: 1.96

FORM I-CLP-VOA-1

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

SC-1

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10202 SAS No.: SDG No.: SW-1

Matrix: (soil/water) SOIL Lab Sample ID: I210202-02

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >C3730

Level: (low/med) LOW Date Received: 10/31/92

% Moisture: 49 not dec. Date Analyzed: 11/07/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SW-2

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10202 SAS No.: SDG No.: SW-1

Matrix: [soil/water] WATER Lab Sample ID: I210202-03

Sample wt/vol: 5.0 [g/mL] ML Lab File ID: >A0119

Level: [low/med] LOW Date Received: 10/31/92

% Moisture: decanted: (Y/N) N Date Analyzed : 11/05/92

GC Column : PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	4	JB
67-64-1	Acetone	10	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

SW-2

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10202 SAS No.: SDG No.: SW-1

Matrix: (soil/water) WATER Lab Sample ID: I210202-03

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: >A0119

Level: (low/med) LOW Date Received: 10/31/92

% Moisture: NA not dec. Date Analyzed: 11/05/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SC-2

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10202 SAS No.: SDG No.:SW-1

Matrix: [soil/water] SOIL Lab Sample ID: I210202-04

Sample wt/vol: 5.0 [g/mL] G Lab File ID: >C3731

Level: [low/med] LOW Date Received: 10/31/92

% Moisture: 53.0 decanted (Y/N) Y Date Analyzed : 11/07/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	21	U
74-83-9	Bromomethane	21	U
75-01-4	Vinyl Chloride	21	U
75-00-3	Chloroethane	21	U
75-09-2	Methylene Chloride	21	U
67-64-1	Acetone	41	
75-15-0	Carbon Disulfide	21	U
75-35-4	1,1-Dichloroethene	21	U
75-34-3	1,1-Dichloroethane	21	U
540-59-0	1,2-Dichloroethene (total)	21	U
67-66-3	Chloroform	21	U
107-06-2	1,2-Dichloroethane	21	U
78-93-3	2-Butanone	21	U
71-55-6	1,1,1-Trichloroethane	21	U
56-23-5	Carbon Tetrachloride	21	U
75-27-4	Bromodichloromethane	21	U
78-87-5	1,2-Dichloropropane	21	U
10061-01-5	cis-1,3-Dichloropropene	21	U
79-01-6	Trichloroethene	21	U
124-48-1	Dibromochloromethane	21	U
79-00-5	1,1,2-Trichloroethane	21	U
71-43-2	Benzene	21	U
10061-02-6	trans-1,3-Dichloropropene	21	U
75-25-2	Bromoform	21	U
108-10-1	4-Methyl-2-Pentanone	21	U
591-78-6	2-Hexanone	21	U
127-18-4	Tetrachloroethene	21	U
79-34-5	1,1,2,2-Tetrachloroethane	21	U
108-88-3	Toluene	21	U
108-90-7	Chlorobenzene	21	U
100-41-4	Ethylbenzene	21	U
100-42-5	Styrene	21	U
1330-20-7	Xylene (total)	21	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

SC-2

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10202 SAS No.: SDG No.: SW-1

Matrix: (soil/water) SOIL Lab Sample ID: I210202-04

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >C3731

Level: (low/med) LOW Date Received: 10/31/92

% Moisture: 53 not dec. Date Analyzed: 11/07/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

SW-3

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10202 SAS No.: SDG No.:SW-1

Matrix: [soil/water] WATER Lab Sample ID: I210202-05

Sample wt/vol: 5.0 [g/mL] ML Lab File ID: >A0132

Level: [low/med] LOW Date Received: 10/31/92

% Moisture: decanted: (Y/N) N Date Analyzed : 11/06/92

GC Column : PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	9	J
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

...SDEL SAMPLE NO.

SW-3

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10202 SAS No.: SDG No.: SW-1

Matrix: (soil/water) WATER Lab Sample ID: I210202-05

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: >A0132

Level: (low/med) LOW Date Received: 10/31/92

% Moisture: NA not dec. Date Analyzed: 11/06/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SC-3

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10202 SAS No.: SDG No.: SW-1

Matrix: [soil/water] SOIL Lab Sample ID: I210202-06

Sample wt/vol: 5.0 [g/mL] G Lab File ID: >C3732

Level: [low/med] LOW Date Received: 10/31/92

% Moisture: 28.0 decanted (Y/N) Y Date Analyzed : 11/07/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	6	J
67-64-1	Acetone	14	U
75-15-0	Carbon Disulfide	14	U
75-35-4	1,1-Dichloroethene	14	U
75-34-3	1,1-Dichloroethane	14	U
540-59-0	1,2-Dichloroethene (total)	14	U
67-66-3	Chloroform	14	U
107-06-2	1,2-Dichloroethane	14	U
78-93-3	2-Butanone	14	U
71-55-6	1,1,1-Trichloroethane	14	U
56-23-5	Carbon Tetrachloride	14	U
75-27-4	Bromodichloromethane	14	U
78-87-5	1,2-Dichloropropane	14	U
10061-01-5	cis-1,3-Dichloropropene	14	U
79-01-6	Trichloroethene	14	U
124-48-1	Dibromochloromethane	14	U
79-00-5	1,1,2-Trichloroethane	14	U
71-43-2	Benzene	14	U
10061-02-6	trans-1,3-Dichloropropene	14	U
75-25-2	Bromoform	14	U
108-10-1	4-Methyl-2-Pentanone	14	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	14	U
79-34-5	1,1,2,2-Tetrachloroethane	14	U
108-88-3	Toluene	14	U
108-90-7	Chlorobenzene	14	U
100-41-4	Ethylbenzene	14	U
100-42-5	Styrene	14	U
1330-20-7	Xylene (total)	14	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

SC-3

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10202 SAS No.: SDG No.: SW-1

Matrix: (soil/water) SOIL Lab Sample ID: I210202-06

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >C3732

Level: (low/med) LOW Date Received: 10/31/92

% Moisture: 28 not dec. Date Analyzed: 11/07/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW-1

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10202 SAS No.: SDG No.: SW-1

Matrix: [soil/water] WATER Lab Sample ID: I210202-07

Sample wt/vol: 5.0 [g/mL] ML Lab File ID: >A0121

Level: [low/med] LOW Date Received: 10/31/92

% Moisture: decanted: (Y/N) N Date Analyzed : 11/05/92

GC Column : PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	4	JB
75-15-0	Carbon Disulfide	19	
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

MW-1

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10202 SAS No.: SDG No.: SW-1

Matrix: (soil/water) WATER Lab Sample ID: I210202-07

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: >A0121

Level: (low/med) LOW Date Received: 10/31/92

% Moisture: NA not dec. Date Analyzed: 11/05/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

ıber TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW-2

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10202 SAS No.: SDG No.: SW-1

Matrix: [soil/water] WATER Lab Sample ID: I210202-08

Sample wt/vol: 5.0 [g/mL] ML Lab File ID: >A0122

Level: [low/med] LOW Date Received: 10/31/92

% Moisture: decanted: (Y/N) N Date Analyzed : 11/05/92

GC Column : PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	-------Chloromethane	10	U
74-83-9	-------Bromomethane	10	U
75-01-4	-------Vinyl Chloride	10	U
75-00-3	-------Chloroethane	10	U
75-09-2	-------Methylene Chloride	4	JB
67-64-1	-------Acetone	21	
75-15-0	-------Carbon Disulfide	10	U
75-35-4	-------1,1-Dichloroethene	10	U
75-34-3	-------1,1-Dichloroethane	10	U
540-59-0	-------1,2-Dichloroethene (total)	10	U
67-66-3	-------Chloroform	10	U
107-06-2	-------1,2-Dichloroethane	10	U
78-93-3	-------2-Butanone	10	U
71-55-6	-------1,1,1-Trichloroethane	10	U
56-23-5	-------Carbon Tetrachloride	10	U
75-27-4	-------Bromodichloromethane	10	U
78-87-5	-------1,2-Dichloropropane	10	U
10061-01-5	-------cis-1,3-Dichloropropene	10	U
79-01-6	-------Trichloroethene	10	U
124-48-1	-------Dibromochloromethane	10	U
79-00-5	-------1,1,2-Trichloroethane	10	U
71-43-2	-------Benzene	10	U
10061-02-6	-------trans-1,3-Dichloropropene	10	U
75-25-2	-------Bromoform	10	U
108-10-1	-------4-Methyl-2-Pentanone	10	U
591-78-6	-------2-Hexanone	10	U
127-18-4	-------Tetrachloroethene	10	U
79-34-5	-------1,1,2,2-Tetrachloroethane	10	U
108-88-3	-------Toluene	10	U
108-90-7	-------Chlorobenzene	10	U
100-41-4	-------Ethylbenzene	10	U
100-42-5	-------Styrene	10	U
1330-20-7	-------Xylene (total)	10	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

MW-2

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10202 SAS No.: SDG No.: SW-1

Matrix: (soil/water) WATER Lab Sample ID: I210202-08

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: >A0122

Level: (low/med) LOW Date Received: 10/31/92

% Moisture: NA not dec. Date Analyzed: 11/05/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW-3

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10202 SAS No.: SDG No.: SW-1

Matrix: [soil/water] WATER Lab Sample ID: I210202-09

Sample wt/vol: 5.0 [g/mL] ML Lab File ID: >A0161

Level: [low/med] LOW Date Received: 10/31/92

% Moisture: decanted: (Y/N) N Date Analyzed : 11/09/92

GC Column : PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	28	
75-09-2	Methylene Chloride	3	JB
67-64-1	Acetone	16	B
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

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FORM I-CLP-VOA-1

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

MW-3

Lab Name: INTECH   Contract:

Lab Code: INTECH   Case No. 10202   SAS No.:   SDG No.: SW-1

Matrix: (soil/water) WATER   Lab Sample ID: I210202-09

Sample wt/vol: 5.0 (g/mL) ML   Lab File ID: >A0161

Level: (low/med) LOW   Date Received: 10/31/92

% Moisture: NA not dec.   Date Analyzed: 11/09/92

GC Column: PACK ID: 2.0 (mm)   Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW-4

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10202 SAS No.: SDG No.: SW-1

Matrix: [soil/water] WATER Lab Sample ID: I210202-10

Sample wt/vol: 0.10 [g/mL] ML Lab File ID: >A0139

Level: [low/med] LOW Date Received: 10/31/92

% Moisture: decanted: (Y/N) N Date Analyzed: 11/06/92

GC Column : PACK ID: 2.0 (mm) Dilution Factor: 50.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	500	U
74-83-9	Bromomethane	500	U
75-01-4	Vinyl Chloride	500	U
75-00-3	Chloroethane	500	U
75-09-2	Methylene Chloride	270	J
67-64-1	Acetone	500	U
75-15-0	Carbon Disulfide	500	U
75-35-4	1,1-Dichloroethene	500	U
75-34-3	1,1-Dichloroethane	250	J
540-59-0	1,2-Dichloroethene (total)	5900	
67-66-3	Chloroform	500	U
107-06-2	1,2-Dichloroethane	500	U
78-93-3	2-Butanone	500	U
71-55-6	1,1,1-Trichloroethane	500	U
56-23-5	Carbon Tetrachloride	500	U
75-27-4	Bromodichloromethane	500	U
78-87-5	1,2-Dichloropropane	500	U
0061-01-5	cis-1,3-Dichloropropene	500	U
79-01-6	Trichloroethene	1500	
124-48-1	Dibromochloromethane	500	U
79-00-5	1,1,2-Trichloroethane	500	U
71-43-2	Benzene	500	U
)061-02-6	trans-1,3-Dichloropropene	500	U
75-25-2	Bromoform	500	U
108-10-1	4-Methyl-2-Pentanone	500	U
591-78-6	2-Hexanone	500	U
127-18-4	Tetrachloroethene	500	U
79-34-5	1,1,2,2-Tetrachloroethane	500	U
108-88-3	Toluene	500	U
108-90-7	Chlorobenzene	500	U
100-41-4	Ethylbenzene	500	U
100-42-5	Styrene	500	U
1330-20-7	Xylene (total)	500	U

50.00

FORM I-CLP-VOA-1

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

MW-4

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10202 SAS No.: SDG No.: SW-1

Matrix: (soil/water) WATER Lab Sample ID: I210202-10

Sample wt/vol: 0.10 (g/mL) ML Lab File ID: >A0139

Level: (low/med) LOW Date Received: 10/31/92

% Moisture: NA not dec. Date Analyzed: 11/06/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 50.0

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

er TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW-5

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10202 SAS No.: SDG No.: SW-1

Matrix: [soil/water] WATER Lab Sample ID: I210202-11

Sample wt/vol: 5.0 [g/mL] ML Lab File ID: >A0125

Level: [low/med] LOW Date Received: 10/31/92

% Moisture: decanted: (Y/N) N Date Analyzed : 11/05/92

GC Column : PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	6	JB
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

F: 1.00

FORM I-CLP-VOA-1

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

MW-5

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10202 SAS No.: SDG No.: SW-1

Matrix: (soil/water) WATER Lab Sample ID: I210202-11

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: >A0125

Level: (low/med) LOW Date Received: 10/31/92

% Moisture: NA not dec. Date Analyzed: 11/05/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW-6

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10202 SAS No.: SDG No.: SW-1

Matrix: [soil/water] WATER Lab Sample ID: I210202-12

Sample wt/vol: 5.0 [g/mL] ML Lab File ID: >A0126

Level: [low/med] LOW Date Received: 10/31/92

% Moisture: decanted: (Y/N) N Date Analyzed : 11/05/92

GC Column : PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	6	JB
67-64-1	Acetone	10	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	4	J
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

MW-6

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10202 SAS No.: SDG No.: SW-1

Matrix: (soil/water) WATER Lab Sample ID: I210202-12

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: >A0126

Level: (low/med) LOW Date Received: 10/31/92

% Moisture: NA not dec. Date Analyzed: 11/05/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

1H

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

IT-1

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10202 SAS No.: SDG No.:SW-1

Matrix: [soil/water] WATER Lab Sample ID: I210202-13

Sample wt/vol: 0.01 [g/mL] ML Lab File ID: >A0133

Level: [low/med] LOW Date Received: 10/31/92

% Moisture: decanted: (Y/N) N Date Analyzed : 11/06/92

GC Column : PACK ID: 2.0 (mm) Dilution Factor: 500.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	5000	U
74-83-9	Bromomethane	5000	U
75-01-4	Vinyl Chloride	5000	U
75-00-3	Chloroethane	6100	
75-09-2	Methylene Chloride	2400	J
67-64-1	Acetone	3400	J
75-15-0	Carbon Disulfide	5000	U
75-35-4	1,1-Dichloroethene	5000	U
75-34-3	1,1-Dichloroethane	37000	
540-59-0	1,2-Dichloroethene (total)	32000	
67-66-3	Chloroform	5000	U
107-06-2	1,2-Dichloroethane	5000	U
78-93-3	2-Butanone	5000	U
71-55-6	1,1,1-Trichloroethane	56000	
56-23-5	Carbon Tetrachloride	5000	U
75-27-4	Bromodichloromethane	5000	U
78-87-5	1,2-Dichloropropane	5000	U
10061-01-5	cis-1,3-Dichloropropene	5000	U
79-01-6	Trichloroethene	5000	U
124-48-1	Dibromochloromethane	5000	U
79-00-5	1,1,2-Trichloroethane	5000	U
71-43-2	Benzene	5000	U
10061-02-6	trans-1,3-Dichloropropene	5000	U
75-25-2	Bromoform	5000	U
108-10-1	4-Methyl-2-Pentanone	5000	U
591-78-6	2-Hexanone	5000	U
127-18-4	Tetrachloroethene	5000	U
79-34-5	1,1,2,2-Tetrachloroethane	5000	U
108-88-3	Toluene	5000	U
108-90-7	Chlorobenzene	5000	U
100-41-4	Ethylbenzene	5000	U
100-42-5	Styrene	5000	U
1330-20-7	Xylene (total)	5000	U

RDF: 500.00

FORM I-CLP-VOA-1

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

IT-1

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10202 SAS No.: SDG No.: SW-1

Matrix: (soil/water) WATER Lab Sample ID: I210202-13

Sample wt/vol: 0.01 (g/mL) ML Lab File ID: >A0133

Level: (low/med) LOW Date Received: 10/31/92

% Moisture: NA not dec. Date Analyzed: 11/06/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 500.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

FB-1

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10202 SAS No.: SDG No.: SW-1

Matrix: [soil/water] WATER Lab Sample ID: I210202-14

Sample wt/vol: 5.0 [g/mL] ML Lab File ID: >A0162

Level: [low/med] LOW Date Received: 10/31/92

% Moisture: decanted: (Y/N) N Date Analyzed : 11/09/92

GC Column : PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	JB
67-64-1	Acetone	9	JB
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

FB-1

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10202 SAS No.: SDG No.: SW-1

Matrix: (soil/water) WATER Lab Sample ID: I210202-14

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: >A0162

Level: (low/med) LOW Date Received: 10/31/92

% Moisture: NA not dec. Date Analyzed: 11/09/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

FB-2

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10202 SAS No.: SDG No.:SW-1

Matrix: [soil/water] WATER Lab Sample ID: I210202-15

Sample wt/vol: 5.0 [g/mL] ML Lab File ID: >A0160

Level: [low/med] LOW Date Received: 10/31/92

% Moisture: decanted: (Y/N) N Date Analyzed : 11/09/92

GC Column : PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	JB
67-64-1	Acetone	10	B
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

: 1.00

FORM I-CLP-VOA-1

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

FB-2

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10202 SAS No.: SDG No.: SW-1

Matrix: (soil/water) WATER Lab Sample ID: I210202-15

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: >A0160

Level: (low/med) LOW Date Received: 10/31/92

% Moisture: NA not dec. Date Analyzed: 11/09/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

FB-3

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10202 SAS No.: SDG No.:SW-1

Matrix: [soil/water] WATER Lab Sample ID: I210202-16

Sample wt/vol: 5.0 [g/mL] ML Lab File ID: >A0163

Level: [low/med] LOW Date Received: 10/31/92

% Moisture: decanted: (Y/N) N Date Analyzed : 11/09/92

GC Column : PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	4	JB
67-64-1	Acetone	10	B
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1.00 FORM I-CLP-VOA-1

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO

FB-3

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10202 SAS No.: SDG No.: SW-1

Matrix: (soil/water) WATER Lab Sample ID: I210202-16

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: >A0163

Level: (low/med) LOW Date Received: 10/31/92

% Moisture: NA not dec. Date Analyzed: 11/09/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

TB-1

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10202 SAS No.: SDG No.: SW-1

Matrix: [soil/water] WATER Lab Sample ID: I210202-17

Sample wt/vol: 5.0 [g/mL] ML Lab File ID: >A0164

Level: [low/med] LOW Date Received: 10/31/92

% Moisture: decanted: (Y/N) N Date Analyzed : 11/09/92

GC Column : PACK. ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	JB
67-64-1	Acetone	16	B
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
0061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
330-20-7	Xylene (total)	10	U

1.00

FORM I-CLP-VOA-1

NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

TB-1

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10202 SAS No.: SDG No.: SW-1

Matrix: (soil/water) WATER Lab Sample ID: I210202-17

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: >A0164

Level: (low/med) LOW Date Received: 10/31/92

% Moisture: NA not dec. Date Analyzed: 11/09/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS-1

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10202 SAS No.: SDG No.:SW-1

Matrix: [soil/water] SOIL Lab Sample ID: I210202-18

Sample wt/vol: 5.0 [g/mL] G Lab File ID: >C3733

Level: [low/med] LOW Date Received: 10/31/92

% Moisture: 25.0 decanted (Y/N) Y Date Analyzed : 11/07/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	13	U
67-64-1	Acetone	30	
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	13	U
75-34-3	1,1-Dichloroethane	13	U
540-59-0	1,2-Dichloroethene (total)	13	U
67-66-3	Chloroform	13	U
107-06-2	1,2-Dichloroethane	13	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	13	U
56-23-5	Carbon Tetrachloride	13	U
75-27-4	Bromodichloromethane	13	U
78-87-5	1,2-Dichloropropane	13	U
10061-01-5	cis-1,3-Dichloropropene	13	U
79-01-6	Trichloroethene	13	U
124-48-1	Dibromochloromethane	13	U
79-00-5	1,1,2-Trichloroethane	13	U
71-43-2	Benzene	13	U
10061-02-6	trans-1,3-Dichloropropene	13	U
75-25-2	Bromoform	13	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	13	U
79-34-5	1,1,2,2-Tetrachloroethane	13	U
108-88-3	Toluene	13	U
108-90-7	Chlorobenzene	13	U
100-41-4	Ethylbenzene	13	U
100-42-5	Styrene	13	U
1330-20-7	Xylene (total)	13	U

: 1.33

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

SS-1

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10202 SAS No.: SDG No.: SW-1

Matrix: (soil/water) SOIL Lab Sample ID: I210202-18

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >C3733

Level: (low/med) LOW Date Received: 10/31/92

% Moisture: 25 not dec. Date Analyzed: 11/07/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

EPA SAMPLE NO.

VBLK QA1104

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10202 SAS No.: SDG No.:SW-1

Matrix: [soil/water] WATER Lab Sample ID: VBLK QA1104

Sample wt/vol: 5.0 [g/mL] ML Lab File-ID: >A0100

Level: [low/med] LOW Date Received:

% Moisture: decanted: (Y/N) N Date Analyzed : 11/04/92

GC Column : PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

SADF: 1.00 FORM I-CLP-VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK QA1104

Lab Name: INTECH Contract:

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

Matrix: (soil/water) WATER Lab Sample ID: VBLK QA1104

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: >A0100

Level: (low/med) LOW Date Received:

% Moisture: NA not dec. Date Analyzed: 11/04/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

ber TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

VBLK QA1105

Lab Name: INTECH   Contract:

Lab Code: INTECH   Case No.: 10202   SAS No.:   SDG No.:SW-1

Matrix: [soil/water] WATER   Lab Sample ID: VBLK QA1105

Sample wt/vol: 5.0 [g/mL] ML   Lab File ID: >A0115

Level: [low/med] LOW   Date Received:

% Moisture: decanted: (Y/N) N   Date Analyzed : 11/05/92

GC Column : PACK   ID: 2.0 (mm)   Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

F: 1.00   FORM I-CLP-VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK QA1105

Lab Name: INTECH   Contract: -

Lab Code: INTECH   Case No. 10202   SAS No.:   SDG No.: SW-1

Matrix: (soil/water) WATER   Lab Sample ID: VBLK QA1105

Sample wt/vol: 5.0 (g/mL) ML   Lab File ID: >A0115

Level: (low/med) LOW   Date Received:

% Moisture: NA not dec.   Date Analyzed: 11/05/92

GC Column: PACK ID: 2.0 (mm)   Dilution Factor: 1.0

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

ber TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

VBLK QC1105

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: VBLK QC1105

Sample wt/vol: 5.0 [g/mL] G Lab File ID: >C3699

Level: [low/med] LOW Date Received:

% Moisture: NA decanted (Y/N) N Date Analyzed : 11/06/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	-------Chloromethane	10	U
74-83-9	-------Bromomethane	10	U
75-01-4	-------Vinyl Chloride	10	U
75-00-3	-------Chloroethane	10	U
75-09-2	-------Methylene Chloride	10	U
67-64-1	-------Acetone	10	U
75-15-0	-------Carbon Disulfide	10	U
75-35-4	-------1,1-Dichloroethene	10	U
75-34-3	-------1,1-Dichloroethane	10	U
540-59-0	-------1,2-Dichloroethene (total)	10	U
67-66-3	-------Chloroform	10	U
107-06-2	-------1,2-Dichloroethane	10	U
78-93-3	-------2-Butanone	10	U
71-55-6	-------1,1,1-Trichloroethane	10	U
56-23-5	-------Carbon Tetrachloride	10	U
75-27-4	-------Bromodichloromethane	10	U
78-87-5	-------1,2-Dichloropropane	10	U
10061-01-5	-------cis-1,3-Dichloropropene	10	U
79-01-6	-------Trichloroethene	10	U
124-48-1	-------Dibromochloromethane	10	U
79-00-5	-------1,1,2-Trichloroethane	10	U
71-43-2	-------Benzene	10	U
10061-02-6	-------trans-1,3-Dichloropropene	10	U
75-25-2	-------Bromoform	10	U
108-10-1	-------4-Methyl-2-Pentanone	10	U
591-78-6	-------2-Hexanone	10	U
127-18-4	-------Tetrachloroethene	10	U
79-34-5	-------1,1,2,2-Tetrachloroethane	10	U
108-88-3	-------Toluene	10	U
108-90-7	-------Chlorobenzene	10	U
100-41-4	-------Ethylbenzene	10	U
100-42-5	-------Styrene	10	U
1330-20-7	-------Xylene (total)	10	U

F: 1.00 FORM I-CLP-VOA-1

EPA SAMPLE NO.

VBLK QC1105

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: INTECH Contract:

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

Matrix: (soil/water) SOIL Lab Sample ID: VBLK QC1105

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >C3699

Level: (low/med) LOW Date Received:

% Moisture: NA not dec. Date Analyzed: 11/06/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC 3/90

1H

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLK QA1106

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10202 SAS No.: SDG No.:SW-1

Matrix: [soil/water] WATER Lab Sample ID: VBLK QA1106

Sample wt/vol: 5.0 [g/mL] ML Lab File ID: >A0131

Level: [low/med] LOW Date Received:

% Moisture: decanted: (Y/N) N Date Analyzed : 11/06/92

GC Column : PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

ADF: 1.00 FORM I-CLP-VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK QA1106

Lab Name: INTECH   Contract:

Lab Code: INTECH   Case No. 10202   SAS No.:   SDG No.: SW-1

Matrix: (soil/water) WATER   Lab Sample ID: VBLK QA1106

Sample wt/vol: 5.0 (g/mL) ML   Lab File ID: >A0131

Level: (low/med) LOW   Date Received:

% Moisture: NA not dec.   Date Analyzed: 11/06/92

GC Column: PACK ID: 2.0 (mm)   Dilution Factor: 1.0

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

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

nber TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK QC1106

Lab Name: INTECH   Contract:

Lab Code: INTECH   Case No.: 10202   SAS No.:   SDG No.:SW-1

Matrix: [soil/water] SOIL   Lab Sample ID: VBLK QC1106

Sample wt/vol: 5.0   [g/mL] G   Lab File ID: >C3725

Level: [low/med] LOW   Date Received:

% Moisture: NA   decanted (Y/N) N   Date Analyzed : 11/06/92

GC Column: PACK   ID: 2.0 (mm)   Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

SADF: 1.00   FORM I-CLP-VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

| VBLK QC1106 |

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10202 SAS No.: SDG No.: SW-1

Matrix: (soil/water) SOIL Lab Sample ID: VBLK QC1106

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >C3725

Level: (low/med) LOW Date Received:

% Moisture: NA not dec. Date Analyzed: 11/06/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:
Number TICs found: 2 (ug/L or ug/Kg) UG/KG

CAS NUMBER	mas 12-8-92 COMPOUND NAME	RT	EST. CONC.	Q
1. - -	Unknown	15.21	8.	N
2. 110-54-3	~~Unknown Alkane~~ Hexane	19.14	61.	N
	mas 12-8-92			

FORM I-CLP-VOA-TIC

VBLK QC1107

Lab Name: INTECH   Contract:

Lab Code: INTECH   Case No.: 10202   SAS No.:   SDG No.: SW-1

Matrix: [soil/water] SOIL   Lab Sample ID: VBLK QC1107

Sample wt/vol: 5.0   [g/mL] G   Lab File ID: >C3742

Level: [low/med] LOW   Date Received:

% Moisture: NA   decanted (Y/N) N   Date Analyzed : 11/07/92

GC Column: PACK   ID: 2.0 (mm)   Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

DF: 1.00   FORM I-CLP-VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK QC1107

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10202 SAS No.: SDG No.: SW-1

Matrix: (soil/water) SOIL Lab Sample ID: VBLK QC1107

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >C3742

Level: (low/med) LOW Date Received:

% Moisture: NA not dec. Date Analyzed: 11/07/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	Unknown Cycloalkane	15.19	6.	N
2. 110-54-3	Hexane	19.18	53.	N

FORM I-CLP-VOA-TIC 3/90

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

| VBLK QA1109 |

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10202 SAS No.: SDG No.:SW-1

Matrix: [soil/water] WATER Lab Sample ID: VBLK QA1109

Sample wt/vol: 5.0 [g/mL] ML Lab File ID: >A0156

Level: [low/~~med~~] LOW Date Received:

% Moisture: decanted: (Y/N) N Date Analyzed : 11/09/92

GC Column : PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	4	J
67-64-1	Acetone	6	J
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1.00 FORM I-CLP-VOA-1

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

| VBLK QA1109 |

Lab Name: INTECH   Contract:

Lab Code: INTECH   Case No. 10201   SAS No.:   SDG No.: SS-2

Matrix: (soil/water) SOIL   Lab Sample ID: VBLK QA1109

Sample wt/vol: 0.04 (g/mL) G   Lab File ID: >A0156

Level: (low/med) MED   Date Received:

% Moisture: NA not dec.   Date Analyzed: 11/09/92

GC Column: PACK ID: 2.0 (mm)   Dilution Factor: 125.0

Soil Extract Volume: 10000 (uL)   Soil Aliquot Volume: 100 (ul

Number TICs found: 1

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

CAS NUMBER	12-8-92 COMPOUND NAME	RT	EST. CONC.	Q
1. ~~96-14-0~~ 110-54-3	~~Pentane, 3-methyl- (8CI9CI)~~ Hexane	19.53	750.	N
	12-8-92			

FORM I-CLP-VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SW-1 MS

Lab Name: INTECH   Contract:

Lab Code: INTECH   Case No.: 10202   SAS No.:   SDG No.:SW-1

Matrix: [soil/water] WATER   Lab Sample ID: I210202-01MS

Sample wt/vol: 5.0 [g/mL] ML   Lab File ID: >A0135

Level: [low/med] LOW   Date Received: 10/31/92

% Moisture: decanted: (Y/N) N   Date Analyzed : 11/06/92

GC Column : PACK   ID: 2.0 (mm)   Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	J
67-64-1	Acetone	13	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	78	
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	55	
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	57	
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	55	
108-90-7	Chlorobenzene	52	
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

F: 1.00

FORM I-CLP-VOA-1

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SW-1 MSD

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10202 SAS No.: SDG No.: SW-1

Matrix: [soil/water] WATER Lab Sample ID: I210202-01MSD

Sample wt/vol: 5.0 [g/mL] ML Lab File ID: >A0136

Level: [low/med] LOW Date Received: 10/31/92

% Moisture: decanted: (Y/N) N Date Analyzed : 11/06/92

GC Column : PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	J
67-64-1	Acetone	17	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	75	
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	53	
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	57	
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	57	
108-90-7	Chlorobenzene	53	
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

DF: 1.00

FORM I-CLP-VOA-1

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

002-02 MS

Lab Name: INTECH   Contract:

Lab Code: INTECH   Case No.: 10202   SAS No.:   SDG No.: SW-1

Matrix: [soil/water] SOIL   Lab Sample ID: I210181-04(

Sample wt/vol: 5.0 [g/mL] G   Lab File ID: >C3729

Level: [low/med] LOW   Date Received: 10/27/92

% Moisture: 18.0 decanted (Y/N) Y   Date Analyzed : 11/07/92

GC Column: PACK ID: 2.0 (mm)   Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	6	J
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	74	
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	63	
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	50	
71-43-2	Benzene	69	
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	70	
108-90-7	Chlorobenzene	68	
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

IDF: 1.22

FORM I VOA-1

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

002-02 MSD

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10202 SAS No.: SDG No.: SW-1

Matrix: [soil/water] SOIL Lab Sample ID: I210181-04(M

Sample wt/vol: 5.0 [g/mL] G Lab File ID: >C3701

Level: [low/med] LOW Date Received: 10/27/92

% Moisture: 18.0 decanted (Y/N) Y Date Analyzed : 11/06/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	12	U
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	58	
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	57	
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	41	
71-43-2	Benzene	56	
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	61	
108-90-7	Chlorobenzene	56	
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

F: 1.22

FORM I VOA-1

FB-2

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10202 SAS No.: SDG No.: SW-1

Matrix: [soil/water] WATER Lab Sample ID: I210202-15

Sample wt/vol: 1000 [g/mL] ML Lab File ID: >B1987

Level: [low/med] LOW Date Received: 10/30/92

% Moisture: / decanted: (Y/N) N Date Extracted: 11/05/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/12/92

Injection Volume: 2 uL Dilution Factor: 1

GPC Cleanup: [Y/N] N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-8	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

Lab Name: INTECH Contract:

FB-2

Lab Code: INTECH Case No.: 10202 SAS No.: SDG No.: SW-1

Matrix: [soil/water] WATER Lab Sample ID: I210202-15

Sample wt/vol: 1000 [g/mL] ML Lab File ID: >B1987

Level: [low/med] LOW Date Received: 10/30/92

% Moisture: / decanted: (Y/N) N Date Extracted: 11/05/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/12/92

Injection Volume: 2 uL Dilution Factor: 1

GPC Cleanup: [Y/N] N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-73-7	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

DF: 1.00 FORM I-CLP-SV-2

TENTATIVELY IDENTIFIED COMPOUNDS

FB-2

Name: INTECH Contract:

Code: INTECH Case No. 10202 SAS No.: SDG No.: SW-1

rix: (soil/water) WATER Lab Sample ID: I210202-15

ple wt/vol: 1000 (g/mL) ML Lab File ID: >B1987

el: (low/med) LOW Date Received: 10/30/92

oisture: ~~decanted~~. (Y/N) N Date Extracted: 11/05/92

centrated Extract Volume: 1000 (ul) Date Analyzed: 11/12/92

ection Volume: 2 (ul) Diluton Factor: 1

Cleanup: (Y/N) N pH:

ber TICs found: 2

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

AS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
. 14376-81-9	Cyclopentane, 1,2-dichloro-,	7.85	10.	NB
. 24955-63-3	Cyclohexane, 1,3-dichloro-,	11.48	11.	NB

FORM I-CLP-SV-TIC

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO

SBLK 01

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10202 SAS No.: SDG No.: SW-1

Matrix: [soil/water] WATER Lab Sample ID: SBLK-QM7691

Sample wt/vol: 1000 [g/mL] ML Lab File ID: >B1965

Level: [low/med] LOW Date Received:

% Moisture: decanted: (Y/N) N Date Extracted: 11/02/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/11/92

Injection Volume: 2 uL Dilution Factor: 1

GPC Cleanup: [Y/N] N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLK 01

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10202 SAS No.: SDG No.: SW-1

Matrix: [soil/water] WATER Lab Sample ID: SBLK-QM769T1

Sample wt/vol: 1000 [g/mL] ML Lab File ID: >B1965

Level: [low/med] LOW Date Received:

% Moisture: decanted: (Y/N) N Date Extracted: 11/02/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/11/92

Injection Volume: 2 uL Dilution Factor: 1

GPC Cleanup: [Y/N] N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-73-7	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	J
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

SADF: 1.00 FORM I-CLP-SV-2

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

SBLK 01

b Name: INTECH Contract:

b Code: INTECH Case No. SAS No.:- SDG No.:

trix: (soil/water) WATER Lab Sample ID: SBLK-QM769T1

mple wt/vol: 1000 (g/mL) ML Lab File ID: >B1965

vel: (low/med) LOW Date Received:

Moisture: decanted. (Y/N) N Date Extracted: 11/02/92

ncentrated Extract Volume: 1000 (ul) Date Analyzed: 11/11/92

jection Volume: 2 (ul) Diluton Factor: 1

C Cleanup: (Y/N) N pH:

umber TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	Unknown	7.45	5.	N

FORM I-CLP-SV-TIC

SBLK 02

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10202 SAS No.: SDG No.: SW-1

Matrix: [soil/water] WATER Lab Sample ID: SBLK-QM769T2

Sample wt/vol: 1000 [g/mL] ML Lab File ID: >B1986

Level: [low/med] LOW Date Received:

% Moisture: / decanted: (Y/N) N Date Extracted: 11/05/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/12/92

Injection Volume: 2 uL Dilution Factor: 1

GPC Cleanup: [Y/N] N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

FORM I-CLP-SV-1

SBLK 02

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10202 SAS No.: SDG No.: SW-1

Matrix: [soil/water] WATER Lab Sample ID: SBLK-QM769T2

Sample wt/vol: 1000 [g/mL] ML Lab File ID: >B1986

Level: [low/med] LOW Date Received:

% Moisture: / decanted: (Y/N) N Date Extracted: 11/05/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/12/92

Injection Volume: 2 uL Dilution Factor: 1

GPC Cleanup: [Y/N] N pH: .

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-73-7	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

SADF: 1.00 FORM I-CLP-SV-2

TENTATIVELY IDENTIFIED COMPOUNDS

SBLK 02

Name: INTECH Contract:

Code: INTECH Case No. 10202 SAS No.: SDG No.: SW-1

rix: (soil/water) WATER Lab Sample ID: SBLK-QM769T2

iple wt/vol: 1000 (g/mL) ML Lab File ID: >B1986

el: (low/med) LOW Date Received:

loisture: decanted. (Y/N) N Date Extracted: 11/05/92

centrated Extract Volume: 1000 (ul) Date Analyzed: 11/12/92

ection Volume: 2 (ul) Diluton Factor: 1

Cleanup: (Y/N) N pH:

CONCENTRATION UNITS:

mber TICs found: 4 (ug/L or ug/Kg) UG/ L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 108-94-1	Cyclohexanone (ACN) (8CI9CI)	7.52	4.	N
2. 14376-81-9	Cyclopentane, 1,2-dichloro-,	7.86	9.	N
3. 24955-63-3	Cyclohexane, 1,3-dichloro-,	11.48	10.	N
4. - -	Unknown	13.22	4.	N

FORM I-CLP-SV-TIC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLK MS

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10202 SAS No.: SDG No.: SW-1

Matrix: [soil/water] WATER Lab Sample ID: SBLK-QM769MS

Sample wt/vol: 1000 [g/mL] ML Lab File ID: >B2023

Level: [low/med] LOW Date Received: 10/30/92

% Moisture: decanted: (Y/N) N Date Extracted: 11/02/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/16/92

Injection Volume: 2 uL Dilution Factor: 1

GPC Cleanup: [Y/N] N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
108-95-2	Phenol	60	
111-44-4	bis(2-chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	57	
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	32	
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	34	
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	31	
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	61	
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	1	J
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	33	

mns 12-1-9

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLK MS

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 11202 SAS No.: SDG No.: Sw-1

Matrix: [soil/water] WATER Lab Sample ID: SBLK-QM769MS

Sample wt/vol: 1000 [g/mL] ML Lab File ID: >B2023

Level: [low/med] LOW Date Received: 10/30/92

% Moisture: decanted: (Y/N) N Date Extracted: 11/02/92

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/16/92

Injection Volume: 2 uL Dilution Factor: 1

GPC Cleanup: [Y/N] N pH:

CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L

CAS NO.	COMPOUND	CONCENTRATION (UG/L)		Q
51-28-5	2,4-Dinitrophenol	25	U	
100-02-7	4-Nitrophenol	76		
132-64-9	Dibenzofuran	10	U	
121-14-2	2,4-Dinitrotoluene	39		
84-73-7	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	25	U	
534-52-1	4,6-Dinitro-2-methylphenol	25	U	
86-30-6	N-Nitrosodiphenylamine	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	84		E
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
86-74-8	Carbazole	10	U	
84-74-2	Di-n-butylphthalate	10	U	
206-44-0	Fluoranthene	10	U	
129-00-0	Pyrene	33		
85-68-7	Butylbenzylphthalate	10	U	
91-94-1	3,3'-Dichlorobenzidine	10	U	
56-55-3	Benzo(a)anthracene	10	U	
218-01-9	Chrysene	10	U	
117-81-7	bis(2-Ethylhexyl)phthalate	10	U	
117-84-0	Di-n-octylphthalate	10	U	
205-99-2	Benzo(b)fluoranthene	10	U	
207-08-9	Benzo(k)fluoranthene	10	U	
50-32-8	Benzo(a)pyrene	10	U	
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	
53-70-3	Dibenz(a,h)anthracene	10	U	
191-24-2	Benzo(g,h,i)perylene	10	U	

GROUNDWATER ANALYSIS (TOTAL METALS)
(ROUND I)

Versar, Inc.

DEC 16 1992

CASE NARRATIVE
FOR INORGANICS (NYASP)

ALL THE SAMPLES WERE SUBBED OUT TO CHEMTECH CONSULTING GROUP FOR ANALYSIS OF METALS-TOTAL Lab Name: CHEMTECH

Client:VERSAR ENV. Project:Figgie-Scott Aviation

Job No.: I210202 CASE No. : 10202 SDG No. : MW-1(UF)

The following samples are included in this Sample Delivery Group:

CHEMTECH ID	Client ID on forms
5684S	SW-1
5685S2	SW-1D
5686DS	SW-1S
5687S	SW-2
5688S	SW-3
5689S	MW-1
5690S	MW-2
5691S	MW-3
5692S	MW-4
5693S	MW-5
5694S	MW-6
5695S	IT-1
5696S	FIELDBLANK1
5697S	FIELDBLANK2
5698S	FIELDBLANK3

__Detailed Documentation of Problems Encountered With These Samples__

General:

1. The above liquid samples were analyzed for **METALS-TPTAL.**

2. Please note that the client sample number with the sample description (identification) is too many characters, therefore as per the software being used only limited characters can be used for EPA sample number. Never-the-less for the cross reference check the Lab sample ID. with Client ID. is listed above on this case narrative.

   - Please be advised that using the Software for data processing of CLP Inorganic Packages, the software is designed to accomodate one SDG at a time made of twenty samples or less of the same matrix.

   - The Inorganic CLP data package contains respectively in this order: Case Narrative followed by: forms, ICAP raw data, Furnace raw data, Mercury raw data, and finally the last part is General (samples preparation log, Chain-of-Custody, sample log-in sheet).

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELDBLANK1

Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Code: CHEM Case No.: 10202 SAS No.: SDG No.: MW-1(UF)

rix (soil/water): WATER Lab Sample ID: 5696S

vel (low/med): LOW Date Received: 11/03/92

Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	11.0	U		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	310	U		P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	18.0	U		P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	185	U		P
7439-96-5	Manganese	4.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	900	U		A
7782-49-2	Selenium	3.0	U		F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	330	U		P
7440-28-0	Thallium	4.0	U	W	F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	5.0	U		P
	Cyanide				NR

or Before: COLORLESS Clarity Before: CLEAR Texture:

or After: COLORLESS Clarity After: CLEAR Artifacts:

ments:

FORM I - IN ILM02.1

U.S. EPA - CLP
1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

FIELDBLANK2

EMTECH CONSULTING GROUP Contract: 68D20041

EM Case No.: 10202 SAS No.: SDG No.: MW-1(UF)

/water): WATER Lab Sample ID: 5697S

ed): LOW Date Received: 11/03/92

0.0

oncentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	11.0	U		P
7440-41-7	Beryllium	1.6	B		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	310	U		P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	18.0	U		P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	185	U		P
7439-96-5	Manganese	4.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	900	U		A
7782-49-2	Selenium	3.0	U		F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	388	B		P
7440-28-0	Thallium	4.0	U	W	F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	5.0	U		P
	Cyanide				NR

e: COLORLESS Clarity Before: CLEAR Texture:

: COLORLESS Clarity After: CLEAR Artifacts:

FORM I - IN ILM02.1

000003

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

FIELDBLANK3

Name: CHEMTECH CONSULTING GROUP   Contract: 68D20041

Code: CHEM   Case No.: 10202   SAS No.:   SDG No.: MW-1(UF)

rix (soil/water): WATER   Lab Sample ID: 5698S

el (low/med): LOW   Date Received: 11/03/92

olids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	11.0	U		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	310	U		P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	18.0	U		P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	185	U		P
7439-96-5	Manganese	4.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	900	U		A
7782-49-2	Selenium	3.0	U		F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	330	U		P
7440-28-0	Thallium	4.0	U	W	F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	5.0	U		P
	Cyanide				NR

or Before: COLORLESS   Clarity Before: CLEAR   Texture:

or After: COLORLESS   Clarity After: CLEAR   Artifacts:

ents:

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

IT-1

Name: CHEMTECH CONSULTING GROUP   Contract: 68D20041

b Code: CHEM   Case No.: 10202   SAS No.:   SDG No.: MW-1(UF)

trix (soil/water): WATER   Lab Sample ID: 5695S

vel (low/med): LOW   Date Received: 11/03/92

Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	20.0	U	W	F
7440-39-3	Barium	309			P
7440-41-7	Beryllium	1.0	B		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	261000			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	57.8			P
7439-89-6	Iron	28300			P
7439-92-1	Lead	25.9		S	F
7439-95-4	Magnesium	61300			P
7439-96-5	Manganese	2070			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	37.1	B		P
7440-09-7	Potassium	2780	B		A
7782-49-2	Selenium	30.0	U	W	F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	51600			P
7440-28-0	Thallium	4.0	U	W	F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	98.9			P
	Cyanide				NR

lor Before: YELLOW   Clarity Before: CLEAR   Texture:

lor After: COLORLESS   Clarity After: CLEAR   Artifacts:

ments:

FORM I - IN   ILM02.1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

MW-1

ɔ Name: CHEMTECH CONSULTING GROUP   Contract: 68D20041

ıb Code: CHEM   Case No.: 10202   SAS No.:   SDG No.: MW-1(UF)

ıtrix (soil/water): WATER   Lab Sample ID: 5689S

ɜvel (low/med): LOW   Date Received: 11/03/92

Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12700			P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	20.0	U	W	F
7440-39-3	Barium	422			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	514000			P
7440-47-3	Chromium	20.0			P
7440-48-4	Cobalt	21.5	B		P
7440-50-8	Copper	161			P
7439-89-6	Iron	35200			P
7439-92-1	Lead	20.0	U		F
7439-95-4	Magnesium	152000			P
7439-96-5	Manganese	1210			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	55.1			P
7440-09-7	Potassium	4980	B		A
7782-49-2	Selenium	30.0	U	E	F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	27000			P
7440-28-0	Thallium	40.0	U		F
7440-62-2	Vanadium	43.1	B		P
7440-66-6	Zinc	292			P
	Cyanide				NR

lor Before: GRAY   Clarity Before: CLOUDY   Texture:

lor After: COLORLESS   Clarity After: CLEAR   Artifacts:

nments:

FORM I - IN   ILM02.1

000006

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

MW-2

ame: CHEMTECH CONSULTING GROUP   Contract: 68D20041

:ode: CHEM   Case No.: 19202   SAS No.:   SDG No.: MW-1(UF)

ix (soil/water): WATER   Lab Sample ID: 5690S

l (low/med): LOW   Date Received: 11/03/92

lids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2610			P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	2.0	U	W	F
7440-39-3	Barium	290			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	4.8	B		P
7440-70-2	Calcium	152000			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	11.2	B		P
7440-50-8	Copper	75.4			P
7439-89-6	Iron	18400			P
7439-92-1	Lead	2.0	U	S	F
7439-95-4	Magnesium	87700			P
7439-96-5	Manganese	1380			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	68.5			P
7440-09-7	Potassium	1800	B		A
7782-49-2	Selenium	3.0	U	W	F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	43300			P
7440-28-0	Thallium	4.0	U		F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	232			P
	Cyanide				NR

r Before: GRAY   Clarity Before: CLOUDY   Texture:

r After: COLORLESS   Clarity After: CLEAR   Artifacts:

ients:

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

MW-3

b Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

b Code: CHEM Case No.: 10202 SAS No.: SDG No.: MW-1(UF)

trix (soil/water): WATER Lab Sample ID: 5691S

vel (low/med): LOW Date Received: 11/03/92

Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	727			P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	3.9	B	W	F
7440-39-3	Barium	101	B		P
7440-41-7	Beryllium	1.0	B		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	44200			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	53.5			P
7439-89-6	Iron	1690			P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	43400			P
7439-96-5	Manganese	80.9			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	1370	B		A
7782-49-2	Selenium	30.0	U	W	F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	37000			P
7440-28-0	Thallium	4.0	U		F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	71.1			P
	Cyanide				NR

lor Before: COLORLESS Clarity Before: CLEAR Texture:

lor After: COLORLESS Clarity After: CLEAR Artifacts:

mments:

FORM I - IN ILM02.1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-4

Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

b Code: CHEM Case No.: |0202 SAS No.: SDG No.: MW-1(UF)

trix (soil/water): WATER Lab Sample ID: 5692S

vel (low/med): LOW Date Received: 11/03/92

Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	670			P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	5.1	B	W	F
7440-39-3	Barium	219			P
7440-41-7	Beryllium	1.0	B		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	51600			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	55.5			P
7439-89-6	Iron	1640			P
7439-92-1	Lead	2.0	U	S	F
7439-95-4	Magnesium	62500			P
7439-96-5	Manganese	87.1			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	117			P
7440-09-7	Potassium	2740	B		A
7782-49-2	Selenium	30.0	U	W	F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	35300			P
7440-28-0	Thallium	4.0	U		F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	70.8			P
	Cyanide				NR

r Before: COLORLESS Clarity Before: CLEAR Texture:

r After: COLORLESS Clarity After: CLEAR Artifacts:

ents:

FORM I - IN ILM02.1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

SW-2

Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

b Code: CHEM Case No.: 10202 SAS No.: SDG No.: MW-1(UF)

trix (soil/water): WATER Lab Sample ID: 5687S

vel (low/med): LOW Date Received: 11/03/92

Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	4.4	B	W	F
7440-39-3	Barium	18.6	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	38900			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	349			P
7439-92-1	Lead	2.0	U	W	F
7439-95-4	Magnesium	14400			P
7439-96-5	Manganese	68.4			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	1450	B		A
7782-49-2	Selenium	3.0	U	W	F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	12000			P
7440-28-0	Thallium	4.0	U	W	F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	7.3	B		P
	Cyanide				NR

lor Before: COLORLESS Clarity Before: CLEAR Texture:

lor After: COLORLESS Clarity After: CLEAR Artifacts:

uments:

EPA SAMPLE NO.

SW-3

INORGANIC ANALYSIS DATA SHEET

b Name: CHEMTECH CONSULTING GROUP   Contract: 68D20041

.b Code: CHEM   Case No.:)0202   SAS No.:   SDG No.: MW-1(UF)

.trix (soil/water): WATER   Lab Sample ID: 5688S

.vel (low/med): LOW   Date Received: 11/03/92

Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	4.1	B	W	F
7440-39-3	Barium	18.6	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	40400			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	346			P
7439-92-1	Lead	2.0	U	W	F
7439-95-4	Magnesium	14800			P
7439-96-5	Manganese	51.3			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	1450	B		A
7782-49-2	Selenium	30.0	U	W	F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	12100			P
7440-28-0	Thallium	4.0	U	W	F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	5.9	B		P
	Cyanide				NR

.lor Before: COLORLESS   Clarity Before: CLEAR   Texture:

.lor After: COLORLESS   Clarity After: CLEAR   Artifacts:

.mments:

FORM I - IN   ILM02.1

5A

SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

SW-1S

b Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

b Code: CHEM Case No.: 10202 SAS No.: SDG No.: MW-1(UF)

trix: WATER Level (low/med): LOW

Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

nalyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
uminum	75-125	2123.2000		100.0000	U	2000.00	106.2		P
itimony	75-125	531.2800		40.0000	U	500.00	106.3		P
senic	75-125	36.9000		2.0000	U	40.00	92.2		F
rium	75-125	2065.9000		14.9000	B	2000.00	102.6		P
ryllium	75-125	54.3300		1.0000	U	50.00	108.7		P
dmium	75-125	55.4100		4.0000	U	50.00	110.8		P
lcium									NR
romium	75-125	201.3400		9.0000	U	200.00	100.7		P
balt	75-125	516.9400		7.0000	U	500.00	103.4		P
pper	75-125	285.8500		20.0000	U	250.00	114.3		P
on	75-125	1340.0000		344.9300		1000.00	99.5		P
ad	75-125	21.5000		2.0000	U	20.00	107.5		F
nesium									NR
nganese	75-125	555.1100		51.2700		500.00	100.8		P
rcury	75-125	0.9300		0.2000	U	1.00	93.0		CV
ckel	75-125	503.2900		16.0000	U	500.00	100.7		P
tassium									NR
lenium	75-125	9.4000		3.0000	U	10.00	94.0		F
lver	75-125	42.5300		7.0000	U	50.00	85.1		P
lium									NR
llium	75-125	51.2000		4.0000	U	50.00	102.4		F
nadium	75-125	512.1300		19.1400	B	500.00	98.6		P
nc	75-125	577.5500		5.0000	U	500.00	115.5		P
anide									NR

ents:

6
DUPLICATES

EPA SAMPLE NO.

SW-1D

ab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

ab Code: CHEM Case No.: 10202 SAS No.: SDG No.: MW-1(UF)

atrix (soil/water): WATER Level (low/med): LOW

Solids for Sample: 0.0 % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		100.0000	U	100.0000	U			P
Antimony		40.0000	U	40.0000	U			P
Arsenic		2.0000	U	2.0000	U			F
Barium		14.9000	B	17.6900	B	17.1		P
Beryllium		1.0000	U	1.0000	U			P
Cadmium		4.0000	U	4.0000	U			P
Calcium		37708.0000		37843.0000		0.4		P
Chromium		9.0000	U	9.0000	U			P
Cobalt		7.0000	U	7.0000	U			P
Copper		20.0000	U	20.0000	U			P
Iron	100.0	344.9300		307.7500		11.4		P
Lead		2.0000	U	2.0000	U			F
Magnesium	5000.0	14285.0000		14321.0000		0.3		P
Manganese	15.0	51.2700		51.2700		0.0		P
Mercury		0.2000	U	0.2000	U			CV
Nickel		16.0000	U	16.0000	U			P
Potassium		900.0000	U	900.0000	U			A
Selenium		3.0000	U	3.0000	U			F
Silver		7.0000	U	7.0000	U			P
Sodium	5000.0	12061.0000		12129.0000		0.6		P
Thallium		4.0000	U	4.0000	U			F
Vanadium		19.1400	B	16.0000	U	200.0		P
Zinc		5.0000	U	5.0000	U			P
Cyanide								NR

EPA SAMPLE NO.

SW-1L

ICP SERIAL DILUTIONS

ab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

ab Code: CHEM Case No.: 10202 SAS No.: SDG No.: MW-1(UF)

atrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	100.00	U	500.00	U			P
Antimony	40.00	U	200.00	U			P
Arsenic							NR
Barium	14.90	B	55.00	U	100.0		P
Beryllium	1.00	U	5.00	U			P
Cadmium	4.00	U	20.00	U			P
Calcium	37708.00		36613.00		2.9		P
Chromium	9.00	U	45.00	U			P
Cobalt	7.00	U	35.00	U			P
Copper	20.00	U	100.00	U			P
Iron	344.93		230.80	B	33.1		P
Lead							NR
Magnesium	14285.00		13592.00	B	4.9		P
Manganese	51.27		53.40	B	4.2		P
Mercury							NR
Nickel	16.00	U	80.00	U			P
Potassium							NR
Selenium							NR
Silver	7.00	U	35.00	U			P
Sodium	12061.00		11521.00	B	4.5		P
Thallium							NR
Vanadium	19.14	B	80.00	U	100.0		P
Zinc	5.00	U	25.00	U			P

WATER PESTICIDE ORGANIC ANALYSIS
(ROUND I)

2E
WATER PESTICIDE SURROGATE RECOVERY

DEC 16 1992

Name: INTECH Contract:

Code: INTECH Case No.: 10202 SAS No. SDG No. SW-1

Column(1):RTX1701 ID:0.53 (mm) GC Column(2):RTX5 ID:0.53 (mm)

NYSDEC SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
BLK02	63	57 *	76	73			1
BLK02MSB1	73	71	89	89			0
BLK02MSB2	67	63	87	87			0
B-2	59 *	56 *	104	110			2

ADVISORY QC LIMITS

TCX = Tetrachloro-m-xylene (60-150)
DCB = Decachlorobiphenyl (60-150)

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

NYSDEL SAMPLE NO.

1D
PESTICIDE ORGANIC ANALYSIS DATA SHEET

IFB-2

ame: INTECH Contract:

ode: INTECH CASE No.: 10202 SAS No.: SDG No.: SW-1

x: (soil/water) WATER Lab Sample ID: 20215

e wt/vol: 1000 (g/ml) ML Lab File ID: >C5873

sture: decanted: (Y/N) N Date Received: 10/31/92

ction: (SepF/Cont/Sonc) SEPF Date Extracted: 11/05/92

ntrated Extract Volume: 10000 (uL) Date Analyzed: 11/20/92

tion Volume: 2 (uL) Dilution Factor: 1

leanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
19-84-6	alpha-BHC	.050	U
19-85-7	beta-BHC	.050	U
19-86-8	delta-BHC	.050	U
8-89-9	gamma-BHC (Lindane)	.050	U
6-44-8	Heptachlor	.050	U
09-00-2	Aldrin	.050	U
024-57-3	Heptachlor epoxide	.050	U
59-98-8	Endosulfan I	.050	U
0-57-1	Dieldrin	.10	U
2-55-9	4,4'-DDE	.10	U
2-20-8	Endrin	.10	U
3213-65-9	Endosulfan II	.10	U
2-54-8	4,4'-DDD	.10	U
031-07-8	Endosulfan sulfate	.10	U
0-29-3	4,4'-DDT	.10	U
2-43-5	Methoxychlor	.50	U
3494-70-5	Endrin ketone	.10	U
421-36-3	Endrin aldehyde	.10	U
103-71-9	alpha-Chlordane	.050	U
103-74-2	gamma-Chlordane	.050	U
001-35-2	Toxaphene	5.0	U
2674-11-2	Aroclor 1016	1.0	U
1104-28-2	Aroclor 1221	2.0	U
1141-16-5	Aroclor 1232	1.0	U
3469-21-9	Aroclor 1242	1.0	U
2672-29-6	Aroclor 1248	1.0	U
2097-69-1	Aroclor 1254	1.0	U
1096-82-5	Aroclor 1260	1.0	U

FORM I PEST

NYSDEC SAMPLE NO.

1D

PESTICIDE ORGANIC ANALYSIS DATA SHEET

| PBLK02 |

Name: INTECH Contract:

Code: INTECH CASE No.: 10202 SAS No.: SDG No.: SW-1

ix: (soil/water) WATER Lab Sample ID: 208-BLK

le wt/vol: 1000 (g/ml) ML Lab File ID: >C5867

isture: decanted: (Y/N) N Date Received:

action: (SepF/Cont/Sonc) SEPF Date Extracted: 11/05/92

entrated Extract Volume: 10000 (uL) Date Analyzed: 11/20/92

ction Volume: 2 (uL) Dilution Factor: 1

Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	.050	U
319-85-7	beta-BHC	.050	U
319-86-8	delta-BHC	.050	U
58-89-9	gamma-BHC (Lindane)	.050	U
76-44-8	Heptachlor	.050	U
309-00-2	Aldrin	.050	U
1024-57-3	Heptachlor epoxide	.050	U
959-98-8	Endosulfan I	.050	U
60-57-1	Dieldrin	.10	U
72-55-9	4,4'-DDE	.10	U
72-20-8	Endrin	.10	U
33213-65-9	Endosulfan II	.10	U
72-54-8	4,4'-DDD	.10	U
1031-07-8	Endosulfan sulfate	.10	U
50-29-3	4,4'-DDT	.10	U
72-43-5	Methoxychlor	.50	U
53494-70-5	Endrin ketone	.10	U
7421-36-3	Endrin aldehyde	.10	U
5103-71-9	alpha-Chlordane	.050	U
5103-74-2	gamma-Chlordane	.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor 1016	1.0	U
11104-28-2	Aroclor 1221	2.0	U
11141-16-5	Aroclor 1232	1.0	U
53469-21-9	Aroclor 1242	1.0	U
12672-29-6	Aroclor 1248	1.0	U
12097-69-1	Aroclor 1254	1.0	U
11096-82-5	Aroclor 1260	1.0	U

FORM I PEST

NYSDEC SAMPLE NO.

1D

PESTICIDE ORGANIC ANALYSIS DATA SHEET

PBLK02MSB1

Name: INTECH Contract:

Code: INTECH CASE No.: 10202 SAS No.: SDG No.: SW-1

ix: (soil/water) WATER Lab Sample ID: 208-BLKMSB1

le wt/vol: 1000 (g/ml) ML Lab File ID: >C5868

isture: decanted: (Y/N) N Date Received:

action: (SepF/Cont/Sonc) SEPF Date Extracted: 11/05/92

entrated Extract Volume: 10000 (uL) Date Analyzed: 11/20/92

ction Volume: 2 (uL) Dilution Factor: 1

Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	.050	U
319-85-7	beta-BHC	.050	U
319-86-8	delta-BHC	.050	U
58-89-9	gamma-BHC (Lindane)	.41	
76-44-8	Heptachlor	.048	J
309-00-2	Aldrin	.41	
1024-57-3	Heptachlor epoxide	.050	U
959-98-8	Endosulfan I	.050	U
60-57-1	Dieldrin	.87	
72-55-9	4,4'-DDE	.10	U
72-20-8	Endrin	.84	
33213-65-9	Endosulfan II	.10	U
72-54-8	4,4'-DDD	.10	U
1031-07-8	Endosulfan sulfate	.10	U
50-29-3	4,4'-DDT	.76	
72-43-5	Methoxychlor	.50	U
53494-70-5	Endrin ketone	.10	U
7421-36-3	Endrin aldehyde	.10	U
5103-71-9	alpha-Chlordane	.050	U
5103-74-2	gamma-Chlordane	.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor 1016	1.0	U
11104-28-2	Aroclor 1221	2.0	U
11141-16-5	Aroclor 1232	1.0	U
53469-21-9	Aroclor 1242	1.0	U
12672-29-6	Aroclor 1248	1.0	U
12097-69-1	Aroclor 1254	1.0	U
11096-82-5	Aroclor 1260	1.0	U

FORM I PEST

1D

PESTICIDE ORGANIC ANALYSIS DATA SHEET

PBLK02MSB2

Name: INTECH   Contract:

Code: INTECH   CASE No.: 10202   SAS No.:   SDG No.: SW-1

ix: (soil/water) WATER   Lab Sample ID: 208-BLKMSB2

le wt/vol: 1000 (g/ml) ML   Lab File ID: >C5869

isture: decanted: (Y/N) N   Date Received:

action: (SepF/Cont/Sonc) SEPF   Date Extracted: 11/05/92

entrated Extract Volume: 10000 (uL)   Date Analyzed: 11/20/92

ction Volume: 2 (uL)   Dilution Factor: 1

Cleanup: (Y/N) N   pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	.050	U
319-85-7	beta-BHC	.050	U
319-86-8	delta-BHC	.050	U
58-89-9	gamma-BHC (Lindane)	.38	
76-44-8	Heptachlor	.037	J
309-00-2	Aldrin	.39	
1024-57-3	Heptachlor epoxide	.050	U
959-98-8	Endosulfan I	.050	U
60-57-1	Dieldrin	.84	
72-55-9	4,4'-DDE	.10	U
72-20-8	Endrin	.81	
33213-65-9	Endosulfan II	.10	U
72-54-8	4,4'-DDD	.10	U
1031-07-8	Endosulfan sulfate	.10	U
50-29-3	4,4'-DDT	.72	
72-43-5	Methoxychlor	.50	U
53494-70-5	Endrin ketone	.10	U
7421-36-3	Endrin aldehyde	.10	U
5103-71-9	alpha-Chlordane	.050	U
5103-74-2	gamma-Chlordane	.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor 1016	1.0	U
11104-28-2	Aroclor 1221	2.0	U
11141-16-5	Aroclor 1232	1.0	U
53469-21-9	Aroclor 1242	1.0	U
12672-29-6	Aroclor 1248	1.0	U
12097-69-1	Aroclor 1254	1.0	U
11096-82-5	Aroclor 1260	1.0	U

FORM I PEST

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5

b Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

b Code: CHEM Case No.: 10202 SAS No.: SDG No.: MW-1(UF)

trix (soil/water): WATER Lab Sample ID: 5693S

vel (low/med): LOW Date Received: 11/03/92

Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	37100			P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	715			P
7440-41-7	Beryllium	3.4	B		P
7440-43-9	Cadmium	12.2			P
7440-70-2	Calcium	1110000			P
7440-47-3	Chromium	109			P
7440-48-4	Cobalt	51.6			P
7440-50-8	Copper	249			P
7439-89-6	Iron	106000			P
7439-92-1	Lead	20.0	U	M	F
7439-95-4	Magnesium	299000			P
7439-96-5	Manganese	2950			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	168			P
7440-09-7	Potassium	5530			A
7782-49-2	Selenium	30.0	U	MW	F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	35900			P
7440-28-0	Thallium	40.0	U		F
7440-62-2	Vanadium	104			P
7440-66-6	Zinc	473			P
	Cyanide				NR

or Before: GRAY Clarity Before: CLOUDY Texture:

or After: COLORLESS Clarity After: CLEAR Artifacts:

ments:

FORM I - IN ILM02.1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-6

ab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

ab Code: CHEM Case No.: 10202 SAS No.: SDG No.: MW-1(UF)

atrix (soil/water): WATER Lab Sample ID: 5694S

evel (low/med): LOW Date Received: 11/03/92

Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	447			P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	5.8	B	S	F
7440-39-3	Barium	139	B		P
7440-41-7	Beryllium	1.6	B		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	30200			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	35.0			P
7439-89-6	Iron	1130			P
7439-92-1	Lead	2.0	U	S	F
7439-95-4	Magnesium	44400			P
7439-96-5	Manganese	33.7			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	1490	B		A
7782-49-2	Selenium	30.0	U	W	F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	30900			P
7440-28-0	Thallium	4.0	U	W	F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	73.9			P
	Cyanide				NR

olor Before: COLORLESS Clarity Before: CLEAR Texture:

olor After: COLORLESS Clarity After: CLEAR Artifacts:

omments:

FORM I - IN ILM02.1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SW-1

b Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

b Code: CHEM Case No.: 10202 SAS No.: SDG No.: MW-1(UF)

trix (soil/water): WATER Lab Sample ID: 5684S

vel (low/med): LOW Date Received: 11/03/92

Solids: ~0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	2.0	U	W	F
7440-39-3	Barium	14.9	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	37700			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	345			P
7439-92-1	Lead	2.0	U	W	F
7439-95-4	Magnesium	14300			P
7439-96-5	Manganese	51.3			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	900	U		A
7782-49-2	Selenium	3.0	U	W	F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	12100			P
7440-28-0	Thallium	4.0	U	W	F
7440-62-2	Vanadium	19.1	B		P
7440-66-6	Zinc	5.0	U		P
	Cyanide				NR

or Before: COLORLESS Clarity Before: CLEAR Texture:

or After: COLORLESS Clarity After: CLEAR Artifacts:

ments:

FORM I - IN ILM02.1

SOIL ANALYSIS (VOCs)
(ROUND I)

LABORATORY RESOURCES, INC.
INTECH BIOLABS DIVISION
158 Tices Lane East Brunswick, New Jersey 08816 (908) 257-1050 Fax (908) 257-2790

DEC 16 1992

CASE NARRATIVE
FOR ORGANICS (NYASP)

Lab Name: INTECH Client: VERSAR INC.

Project: Figgie-Scott Aviation JOB No.: I210201

CASE No. : 10201 SDG No. : SS-2

The following samples are included in this Sample Delivery Group:

LAB ID #	CLIENT ID #	LAB ID #	CLIENT ID #
I210201-01	SS-2	I210201-12	SB-2
I210201-02	SS-3	I210201-13	SB-3
I210201-03	SS-4	I210201-14	SB-4
I210201-04	SS-5	I210201-15	SB-5A
I210201-05	SS5 DUP	I210201-16	SB-6
I210201-06	SS-6	I210201-17	MW-6
I210201-07	DDS-1	I210201-18	SB-5C
I210201-08	DDS-2	I210201-19	SB-5D
I210201-09	SB-1	I210201-20	SB5C DUP
I210201-10	SB-5B MS	I210201-21	SB-5B
I210201-11	SB-5B MSD		

Detailed Documentation of Problems Encountered With These Samples

General:

1. Please note that the client sample number with the sample description (identification) is too many characters, therefore as per the software being used for Organics data processing only limited characters can be used for EPA sample number. Never-the-less for the cross reference check the Lab sample ID. with Client ID. is listed above on this case narrative.

2. The EPA sample number in all the forms is the Client identification from the Chain-of-Custody, the last 6 characters (include dashes).

   as an example: VERSAR ID : SS-2 59075 for this
   sample on forms SAMPLE ID : SS-2

3. On the run logs use the following lab identifications:
   - last 3 digits of the Intech job number followed by the sample number: an example Job No. I210201 sample identification to be used on the run logs becomes 20118, 20120, 20121, etc. and also on some run logs as I210201-01, -02, -03 etc.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS-2

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: I210201-01

Sample wt/vol: 5.0 [g/mL] G Lab File ID: >C3684

Level: [low/med] LOW Date Received: 10/30/92

% Moisture: 28.0 decanted (Y/N) Y Date Analyzed : 11/05/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	5	JB
67-64-1	Acetone	14	U
75-15-0	Carbon Disulfide	14	U
75-35-4	1,1-Dichloroethene	14	U
75-34-3	1,1-Dichloroethane	14	U
540-59-0	1,2-Dichloroethene (total)	14	U
67-66-3	Chloroform	14	U
107-06-2	1,2-Dichloroethane	14	U
78-93-3	2-Butanone	14	U
71-55-6	1,1,1-Trichloroethane	14	U
56-23-5	Carbon Tetrachloride	14	U
75-27-4	Bromodichloromethane	14	U
78-87-5	1,2-Dichloropropane	14	U
10061-01-5	cis-1,3-Dichloropropene	14	U
79-01-6	Trichloroethene	14	U
124-48-1	Dibromochloromethane	14	U
79-00-5	1,1,2-Trichloroethane	14	U
71-43-2	Benzene	14	U
10061-02-6	trans-1,3-Dichloropropene	14	U
75-25-2	Bromoform	14	U
108-10-1	4-Methyl-2-Pentanone	14	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	14	U
79-34-5	1,1,2,2-Tetrachloroethane	14	U
108-88-3	Toluene	14	U
108-90-7	Chlorobenzene	14	U
100-41-4	Ethylbenzene	14	U
100-42-5	Styrene	14	U
1330-20-7	Xylene (total)	14	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

SS-2

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10201 SAS No.: SDG No.: SS-2

Matrix: (soil/water) SOIL Lab Sample ID: I210201-01

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >C3684

Level: (low/med) LOW Date Received: 10/30/92

% Moisture: 28 not dec. Date Analyzed: 11/05/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS-3

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: I210201-02

Sample wt/vol: 5.0 [g/mL] G Lab File ID: >C3685

Level: [low/med] LOW Date Received: 10/30/92

% Moisture: 28.0 decanted (Y/N) Y Date Analyzed : 11/05/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	5	JB
67-64-1	Acetone	14	U
75-15-0	Carbon Disulfide	14	U
75-35-4	1,1-Dichloroethene	14	U
75-34-3	1,1-Dichloroethane	14	U
540-59-0	1,2-Dichloroethene (total)	14	U
67-66-3	Chloroform	14	U
107-06-2	1,2-Dichloroethane	14	U
78-93-3	2-Butanone	14	U
71-55-6	1,1,1-Trichloroethane	14	U
56-23-5	Carbon Tetrachloride	14	U
75-27-4	Bromodichloromethane	14	U
78-87-5	1,2-Dichloropropane	14	U
10061-01-5	cis-1,3-Dichloropropene	14	U
79-01-6	Trichloroethene	14	U
124-48-1	Dibromochloromethane	14	U
79-00-5	1,1,2-Trichloroethane	14	U
71-43-2	Benzene	14	U
10061-02-6	trans-1,3-Dichloropropene	14	U
75-25-2	Bromoform	14	U
108-10-1	4-Methyl-2-Pentanone	14	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	14	U
79-34-5	1,1,2,2-Tetrachloroethane	14	U
108-88-3	Toluene	14	U
108-90-7	Chlorobenzene	14	U
100-41-4	Ethylbenzene	14	U
100-42-5	Styrene	14	U
1330-20-7	Xylene (total)	14	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE N

SS-3

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10201 SAS No.: SDG No.: SS-2

Matrix: (soil/water) SOIL Lab Sample ID: I210201-02

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >C3685

Level: (low/med) LOW Date Received: 10/30/92

% Moisture: 28 not dec. Date Analyzed: 11/05/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume:

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	

FORM I-CLP-VOA-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS-4

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: I210201-03

Sample wt/vol: 5.0 [g/mL] G Lab File ID: >C3720

Level: [low/med] LOW Date Received: 10/30/92

% Moisture: 33.0 decanted (Y/N) Y Date Analyzed : 11/06/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	15	U
74-83-9	Bromomethane	15	U
75-01-4	Vinyl Chloride	15	U
75-00-3	Chloroethane	15	U
75-09-2	Methylene Chloride	15	U
67-64-1	Acetone	61	
75-15-0	Carbon Disulfide	15	U
75-35-4	1,1-Dichloroethene	15	U
75-34-3	1,1-Dichloroethane	15	U
540-59-0	1,2-Dichloroethene (total)	15	U
67-66-3	Chloroform	15	U
107-06-2	1,2-Dichloroethane	15	U
78-93-3	2-Butanone	15	U
71-55-6	1,1,1-Trichloroethane	15	U
56-23-5	Carbon Tetrachloride	15	U
75-27-4	Bromodichloromethane	15	U
78-87-5	1,2-Dichloropropane	15	U
10061-01-5	cis-1,3-Dichloropropene	15	U
79-01-6	Trichloroethene	15	U
124-48-1	Dibromochloromethane	15	U
79-00-5	1,1,2-Trichloroethane	15	U
71-43-2	Benzene	15	U
10061-02-6	trans-1,3-Dichloropropene	15	U
75-25-2	Bromoform	15	U
108-10-1	4-Methyl-2-Pentanone	15	U
591-78-6	2-Hexanone	15	U
127-18-4	Tetrachloroethene	15	U
79-34-5	1,1,2,2-Tetrachloroethane	15	U
108-88-3	Toluene	15	U
108-90-7	Chlorobenzene	15	U
100-41-4	Ethylbenzene	15	U
100-42-5	Styrene	15	U
1330-20-7	Xylene (total)	15	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

SS-4

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10201 SAS No.: SDG No.: SS-2

Matrix: (soil/water) SOIL Lab Sample ID: I210201-03

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >C3720

Level: (low/med) LOW Date Received: 10/30/92

% Moisture: 33. not dec. Date Analyzed: 11/06/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS-5

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: I210201-04

Sample wt/vol: 5.0 [g/mL] G Lab File ID: >C3721

Level: [low/med] LOW Date Received: 10/30/92

% Moisture: 31.0 decanted (Y/N) Y Date Analyzed : 11/06/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	15	U
74-83-9	Bromomethane	15	U
75-01-4	Vinyl Chloride	15	U
75-00-3	Chloroethane	15	U
75-09-2	Methylene Chloride	15	U
67-64-1	Acetone	24	
75-15-0	Carbon Disulfide	15	U
75-35-4	1,1-Dichloroethene	15	U
75-34-3	1,1-Dichloroethane	15	U
540-59-0	1,2-Dichloroethene (total)	15	U
67-66-3	Chloroform	15	U
107-06-2	1,2-Dichloroethane	15	U
78-93-3	2-Butanone	15	U
71-55-6	1,1,1-Trichloroethane	15	U
56-23-5	Carbon Tetrachloride	15	U
75-27-4	Bromodichloromethane	15	U
78-87-5	1,2-Dichloropropane	15	U
10061-01-5	cis-1,3-Dichloropropene	15	U
79-01-6	Trichloroethene	15	U
124-48-1	Dibromochloromethane	15	U
79-00-5	1,1,2-Trichloroethane	15	U
71-43-2	Benzene	15	U
10061-02-6	trans-1,3-Dichloropropene	15	U
75-25-2	Bromoform	15	U
108-10-1	4-Methyl-2-Pentanone	15	U
591-78-6	2-Hexanone	15	U
127-18-4	Tetrachloroethene	15	U
79-34-5	1,1,2,2-Tetrachloroethane	15	U
108-88-3	Toluene	15	U
108-90-7	Chlorobenzene	15	U
100-41-4	Ethylbenzene	15	U
100-42-5	Styrene	15	U
1330-20-7	Xylene (total)	15	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

SS-5

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10201 SAS No.: SDG No.: SS-2

Matrix: (soil/water) SOIL Lab Sample ID: I210201-04

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >C3721

Level: (low/med) LOW Date Received: 10/30/92

% Moisture: 31 not dec. Date Analyzed: 11/06/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS-5 DUP

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: I210201-05

Sample wt/vol: 5.0 [g/mL] G Lab File ID: >C3722

Level: [low/med] LOW Date Received: 10/30/92

% Moisture: 23.0 decanted (Y/N) Y Date Analyzed : 11/06/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	13	U
67-64-1	Acetone	250	
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	13	U
75-34-3	1,1-Dichloroethane	13	U
540-59-0	1,2-Dichloroethene (total)	13	U
67-66-3	Chloroform	13	U
107-06-2	1,2-Dichloroethane	13	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	13	U
56-23-5	Carbon Tetrachloride	13	U
75-27-4	Bromodichloromethane	13	U
78-87-5	1,2-Dichloropropane	13	U
10061-01-5	cis-1,3-Dichloropropene	13	U
79-01-6	Trichloroethene	13	U
124-48-1	Dibromochloromethane	13	U
79-00-5	1,1,2-Trichloroethane	13	U
71-43-2	Benzene	13	U
10061-02-6	trans-1,3-Dichloropropene	13	U
75-25-2	Bromoform	13	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	13	U
79-34-5	1,1,2,2-Tetrachloroethane	13	U
108-88-3	Toluene	13	U
108-90-7	Chlorobenzene	13	U
100-41-4	Ethylbenzene	13	U
100-42-5	Styrene	13	U
1330-20-7	Xylene (total)	13	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

SS-5 DUP

Lab Name: INTECH   Contract:

Lab Code: INTECH   Case No. 10201   SAS No.:   SDG No.: SS-2

Matrix: (soil/water) SOIL   Lab Sample ID: I210201-05

Sample wt/vol: 5.0 (g/mL) G   Lab File ID: >C3722

Level: (low/med) LOW   Date Received: 10/30/92

% Moisture: 23 not dec.   Date Analyzed: 11/06/92

GC Column: PACK ID: 2.0 (mm)   Dilution Factor: 1.0

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

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 4889-83-2	Bicyclo[3.1.1]hept-2-ene, 3,	26.25	46.	N

FORM I CLP

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS-6

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: I210201-06

Sample wt/vol: 5.0 [g/mL] G Lab File ID: >C3692

Level: [low/med] LOW Date Received: 10/30/92

% Moisture: 21.0 decanted (Y/N) Y Date Analyzed : 11/05/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	6	JB
67-64-1	Acetone	13	U
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	13	U
75-34-3	1,1-Dichloroethane	13	U
540-59-0	1,2-Dichloroethene (total)	13	U
67-66-3	Chloroform	13	U
107-06-2	1,2-Dichloroethane	13	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	13	U
56-23-5	Carbon Tetrachloride	13	U
75-27-4	Bromodichloromethane	13	U
78-87-5	1,2-Dichloropropane	13	U
10061-01-5	cis-1,3-Dichloropropene	13	U
79-01-6	Trichloroethene	13	U
124-48-1	Dibromochloromethane	13	U
79-00-5	1,1,2-Trichloroethane	13	U
71-43-2	Benzene	13	U
10061-02-6	trans-1,3-Dichloropropene	13	U
75-25-2	Bromoform	13	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	13	U
79-34-5	1,1,2,2-Tetrachloroethane	13	U
108-88-3	Toluene	13	U
108-90-7	Chlorobenzene	13	U
100-41-4	Ethylbenzene	13	U
100-42-5	Styrene	13	U
1330-20-7	Xylene (total)	13	U

ADF: 1.27

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE N

SS-6

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10201 SAS No.: SDG No.: SS-2

Matrix: (soil/water) SOIL Lab Sample ID: I210201-06

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >C3692

Level: (low/med) LOW Date Received: 10/30/92

% Moisture: 21 not dec. Date Analyzed: 11/05/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume:

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	(

FORM I-CLP-VOA-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

DDS-1

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: I210201-07

Sample wt/vol: 5.0 [g/mL] G Lab File ID: >C3738

Level: [low/med] LOW Date Received: 10/30/92

% Moisture: 23.0 decanted (Y/N) Y Date Analyzed : 11/07/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	7	J
67-64-1	Acetone	35	
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	13	U
75-34-3	1,1-Dichloroethane	13	U
540-59-0	1,2-Dichloroethene (total)	13	U
67-66-3	Chloroform	13	U
107-06-2	1,2-Dichloroethane	13	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	13	U
56-23-5	Carbon Tetrachloride	13	U
75-27-4	Bromodichloromethane	13	U
78-87-5	1,2-Dichloropropane	13	U
10061-01-5	cis-1,3-Dichloropropene	13	U
79-01-6	Trichloroethene	13	U
124-48-1	Dibromochloromethane	13	U
79-00-5	1,1,2-Trichloroethane	13	U
71-43-2	Benzene	13	U
10061-02-6	trans-1,3-Dichloropropene	13	U
75-25-2	Bromoform	13	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	13	U
79-34-5	1,1,2,2-Tetrachloroethane	13	U
108-88-3	Toluene	13	U
108-90-7	Chlorobenzene	13	U
100-41-4	Ethylbenzene	13	U
100-42-5	Styrene	13	U
1330-20-7	Xylene (total)	13	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO

DDS-1

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10201 SAS No.: SDG No.: SS-2

Matrix: (soil/water) SOIL Lab Sample ID: I210201-07

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >C3738

Level: (low/med) LOW Date Received: 10/30/92

% Moisture: 23 not dec. Date Analyzed: 11/07/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume:

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

DDS-2

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: I210201-08

Sample wt/vol: 5.0 [g/mL] G Lab File ID: >C3693

Level: [low/med] LOW Date Received: 10/30/92

% Moisture: 23.0 decanted (Y/N) Y Date Analyzed : 11/05/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	5	JB
67-64-1	Acetone	13	U
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	13	U
75-34-3	1,1-Dichloroethane	13	U
540-59-0	1,2-Dichloroethene (total)	13	U
67-66-3	Chloroform	13	U
107-06-2	1,2-Dichloroethane	13	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	13	U
56-23-5	Carbon Tetrachloride	13	U
75-27-4	Bromodichloromethane	13	U
78-87-5	1,2-Dichloropropane	13	U
10061-01-5	cis-1,3-Dichloropropene	13	U
79-01-6	Trichloroethene	13	U
124-48-1	Dibromochloromethane	13	U
79-00-5	1,1,2-Trichloroethane	13	U
71-43-2	Benzene	13	U
10061-02-6	trans-1,3-Dichloropropene	13	U
75-25-2	Bromoform	13	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	13	U
79-34-5	1,1,2,2-Tetrachloroethane	13	U
108-88-3	Toluene	13	U
108-90-7	Chlorobenzene	13	U
100-41-4	Ethylbenzene	13	U
100-42-5	Styrene	13	U
1330-20-7	Xylene (total)	13	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO

DDS-2

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10201 SAS No.: SDG No.: SS-2

Matrix: (soil/water) SOIL Lab Sample ID: I210201-08

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >C3693

Level: (low/med) LOW Date Received: 10/30/92

% Moisture: 23 not dec. Date Analyzed: 11/05/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume:

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	

FORM I-CLP-VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SB-1

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: I210201-09

Sample wt/vol: 5.0 [g/mL] G Lab File ID: >C3688

Level: [low/med] LOW Date Received: 10/30/92

% Moisture: 21.0 decanted (Y/N) Y Date Analyzed : 11/05/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	-------Chloromethane	13	U
74-83-9	-------Bromomethane	13	U
75-01-4	-------Vinyl Chloride	13	U
75-00-3	-------Chloroethane	13	U
75-09-2	-------Methylene Chloride	4	JB
67-64-1	-------Acetone	21	B
75-15-0	-------Carbon Disulfide	13	U
75-35-4	-------1,1-Dichloroethene	13	U
75-34-3	-------1,1-Dichloroethane	13	U
540-59-0	-------1,2-Dichloroethene (total)	13	U
67-66-3	-------Chloroform	13	U
107-06-2	-------1,2-Dichloroethane	13	U
78-93-3	-------2-Butanone	13	U
71-55-6	-------1,1,1-Trichloroethane	13	U
56-23-5	-------Carbon Tetrachloride	13	U
75-27-4	-------Bromodichloromethane	13	U
78-87-5	-------1,2-Dichloropropane	13	U
10061-01-5	-------cis-1,3-Dichloropropene	13	U
79-01-6	-------Trichloroethene	13	U
124-48-1	-------Dibromochloromethane	13	U
79-00-5	-------1,1,2-Trichloroethane	13	U
71-43-2	-------Benzene	13	U
10061-02-6	-------trans-1,3-Dichloropropene	13	U
75-25-2	-------Bromoform	13	U
108-10-1	-------4-Methyl-2-Pentanone	13	U
591-78-6	-------2-Hexanone	13	U
127-18-4	-------Tetrachloroethene	13	U
79-34-5	-------1,1,2,2-Tetrachloroethane	13	U
108-88-3	-------Toluene	13	U
108-90-7	-------Chlorobenzene	13	U
100-41-4	-------Ethylbenzene	13	U
100-42-5	-------Styrene	13	U
1330-20-7	-------Xylene (total)	13	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO

SB-1

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10201 SAS No.: SDG No.: SS-2

Matrix: (soil/water) SOIL Lab Sample ID: I210201-09

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >C3688

Level: (low/med) LOW Date Received: 10/30/92

% Moisture: .21 not dec. Date Analyzed: 11/05/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume:

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	

FORM I-CLP-VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

| SB-2 |

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: I210201-12

Sample wt/vol: 5.0 [g/mL] G Lab File ID: >C3689

Level: [low/med] LOW Date Received: 10/30/92

% Moisture: 20.0 decanted (Y/N) Y Date Analyzed : 11/05/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	5	JB
67-64-1	Acetone	17	B
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	13	U
75-34-3	1,1-Dichloroethane	13	U
540-59-0	1,2-Dichloroethene (total)	13	U
67-66-3	Chloroform	13	U
107-06-2	1,2-Dichloroethane	13	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	13	U
56-23-5	Carbon Tetrachloride	13	U
75-27-4	Bromodichloromethane	13	U
78-87-5	1,2-Dichloropropane	13	U
10061-01-5	cis-1,3-Dichloropropene	13	U
79-01-6	Trichloroethene	13	U
124-48-1	Dibromochloromethane	13	U
79-00-5	1,1,2-Trichloroethane	13	U
71-43-2	Benzene	13	U
10061-02-6	trans-1,3-Dichloropropene	13	U
75-25-2	Bromoform	13	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	13	U
79-34-5	1,1,2,2-Tetrachloroethane	13	U
108-88-3	Toluene	13	U
108-90-7	Chlorobenzene	13	U
100-41-4	Ethylbenzene	13	U
100-42-5	Styrene	13	U
1330-20-7	Xylene (total)	13	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NC

SB-2

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10201 SAS No.: SDG No.: SS-2

Matrix: (soil/water) SOIL Lab Sample ID: I210201-12

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >C3689

Level: (low/med) LOW Date Received: 10/30/92

% Moisture: 20 not dec. Date Analyzed: 11/05/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume:

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SB-3

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: I210201-13

Sample wt/vol: 5.0 [g/mL] G Lab File ID: >C3690

Level: [low/med] LOW Date Received: 10/30/92

% Moisture: 6.0 decanted (Y/N) Y Date Analyzed : 11/05/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	11	U
67-64-1	Acetone	13	B
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (total)	11	U

DF: 1.06

FORM I-CLP-VOA-1

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO

SB-3

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10201 SAS No.: SDG No.: SS-2

Matrix: (soil/water) SOIL Lab Sample ID: I210201-13

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >C3690

Level: (low/med) LOW Date Received: 10/30/92

% Moisture: 6 not dec. Date Analyzed: 11/05/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume:

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SB-4

Lab Name: INTECH   Contract:

Lab Code: INTECH   Case No.: 10201   SAS No.:   SDG No.:SS-2

Matrix: [soil/water] SOIL   Lab Sample ID: I210201-14

Sample wt/vol: 5.0   [g/mL] G   Lab File ID: >C3719

Level: [low/med] LOW   Date Received: 10/30/92

% Moisture: 5.0   decanted (Y/N) Y   Date Analyzed : 11/06/92

GC Column: PACK   ID: 2.0 (mm)   Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	11	U
67-64-1	Acetone	46	
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	3	J
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (total)	11	U

)F: 1.05

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

| SB-4 |

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10201 SAS No.: SDG No.: SS-2

Matrix: (soil/water) SOIL Lab Sample ID: I210201-14

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >C3719

Level: (low/med) LOW Date Received: 10/30/92

% Moisture: 5 not dec. Date Analyzed: 11/06/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

SB-5A

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: I210201-15

Sample wt/vol: 1.0 [g/mL] G Lab File ID: >C3752

Level: [low/med] LOW Date Received: 10/30/92

% Moisture: 13.0 decanted (Y/N) Y Date Analyzed : 11/07/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 5.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	58	U
74-83-9	Bromomethane	58	U
75-01-4	Vinyl Chloride	58	U
75-00-3	Chloroethane	58	U
75-09-2	Methylene Chloride	58	U
67-64-1	Acetone	170	
75-15-0	Carbon Disulfide	58	U
75-35-4	1,1-Dichloroethene	58	U
75-34-3	1,1-Dichloroethane	27	J
540-59-0	1,2-Dichloroethene (total)	390	
67-66-3	Chloroform	58	U
107-06-2	1,2-Dichloroethane	58	U
78-93-3	2-Butanone	58	U
71-55-6	1,1,1-Trichloroethane	58	U
56-23-5	Carbon Tetrachloride	58	U
75-27-4	Bromodichloromethane	58	U
78-87-5	1,2-Dichloropropane	58	U
10061-01-5	cis-1,3-Dichloropropene	58	U
79-01-6	Trichloroethene	58	U
124-48-1	Dibromochloromethane	58	U
79-00-5	1,1,2-Trichloroethane	58	U
71-43-2	Benzene	58	U
10061-02-6	trans-1,3-Dichloropropene	58	U
75-25-2	Bromoform	58	U
108-10-1	4-Methyl-2-Pentanone	58	U
591-78-6	2-Hexanone	58	U
127-18-4	Tetrachloroethene	58	U
79-34-5	1,1,2,2-Tetrachloroethane	58	U
108-88-3	Toluene	48	J
108-90-7	Chlorobenzene	58	U
100-41-4	Ethylbenzene	58	U
100-42-5	Styrene	58	U
1330-20-7	Xylene (total)	58	U

F: 5.75 FORM I-CLP-VOA-1

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

SB-5A

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10201 SAS No.: SDG No.: SS-2

Matrix: (soil/water) SOIL Lab Sample ID: I210201-15

Sample wt/vol: 1.0 (g/mL) G Lab File ID: >C3752

Level: (low/med) LOW Date Received: 10/30/92

% Moisture: 13 not dec. Date Analyzed: 11/07/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 5.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SB-6

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.: SS-2

Matrix: [soil/water] SOIL Lab Sample ID: I210201-16

Sample wt/vol: 5.0 [g/mL] G Lab File ID: >C3737

Level: [low/med] LOW Date Received: 10/30/92

% Moisture: 1.0 decanted (Y/N) Y Date Analyzed : 11/07/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

SB-6

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10201 SAS No.: SDG No.: SS-2

Matrix: (soil/water) SOIL Lab Sample ID: I210201-16

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >C3737

Level: (low/med) LOW Date Received: 10/30/92

% Moisture: 1 not dec. Date Analyzed: 11/07/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

MW-6

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: I210201-17

Sample wt/vol: 5.0 [g/mL] G Lab File ID: >C3695

Level: [low/med] LOW Date Received: 10/30/92

% Moisture: 9.0 decanted (Y/N) Y Date Analyzed : 11/05/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	5	JB
67-64-1	Acetone	11	U
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (total)	11	U

DF: 1.10

FORM I-CLP-VOA-1

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

MW-6

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10201 SAS No.: SDG No.: SS-2

Matrix: (soil/water) SOIL Lab Sample ID: I210201-17

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >C3695

Level: (low/med) LOW Date Received: 10/30/92

% Moisture: 9 not dec. Date Analyzed: 11/05/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

SB-5C

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: I210201-18

Sample wt/vol: 4.0 [g/mL] G Lab File ID: >A0145

Level: [low/med] MED Date Received: 10/~~30~~ 31/92

% Moisture: 20.0 decanted (Y/N) Y Date Analyzed : 11/07/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 125.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	1600	U
74-83-9	Bromomethane	1600	U
75-01-4	Vinyl Chloride	1600	U
75-00-3	Chloroethane	1600	U
75-09-2	Methylene Chloride	860	JB
67-64-1	Acetone	3900	B
75-15-0	Carbon Disulfide	1600	U
75-35-4	1,1-Dichloroethene	1600	U
75-34-3	1,1-Dichloroethane	3500	
540-59-0	1,2-Dichloroethene (total)	1500	J
67-66-3	Chloroform	1600	U
107-06-2	1,2-Dichloroethane	1600	U
78-93-3	2-Butanone	1600	U
71-55-6	1,1,1-Trichloroethane	20000	
56-23-5	Carbon Tetrachloride	1600	U
75-27-4	Bromodichloromethane	1600	U
78-87-5	1,2-Dichloropropane	1600	U
10061-01-5	cis-1,3-Dichloropropene	1600	U
79-01-6	Trichloroethene	180000	
124-48-1	Dibromochloromethane	1600	U
79-00-5	1,1,2-Trichloroethane	1600	U
71-43-2	Benzene	1600	U
10061-02-6	trans-1,3-Dichloropropene	1600	U
75-25-2	Bromoform	1600	U
108-10-1	4-Methyl-2-Pentanone	1600	U
591-78-6	2-Hexanone	1600	U
127-18-4	Tetrachloroethene	1600	U
79-34-5	1,1,2,2-Tetrachloroethane	1600	U
108-88-3	Toluene	12000	
108-90-7	Chlorobenzene	1600	U
100-41-4	Ethylbenzene	940	J
100-42-5	Styrene	1600	U
1330-20-7	Xylene (total)	4300	

F: 156.25 FORM I-CLP-VOA-1

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VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

SB-5C

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10201 SAS No.: SDG No.: SS-2

Matrix: (soil/water) SOIL Lab Sample ID: I210201-18

Sample wt/vol: 4.0 (g/mL) G Lab File ID: 7A0145

Level: (low/med) MED Date Received: 10/31/92

% Moisture: 20.0 not dec. Date Analyzed: 11/07/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 125 .0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	UNKNOWN	30.46	1000.00	N

FORM I-CLP-VOA-TIC

SB-5C DL

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: I210201-18 DL

Sample wt/vol: 4.0 [g/mL] G Lab File ID: >A0157

Level: [low/med] MED Date Received: 10/~~30~~ 31/92

% Moisture: 20.0 decanted (Y/N) Y Date Analyzed : 11/09/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1250.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 10 (uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	16000	U
74-83-9	Bromomethane	16000	U
75-01-4	Vinyl Chloride	16000	U
75-00-3	Chloroethane	16000	U
75-09-2	Methylene Chloride	16000	U
67-64-1	Acetone	13000	JBD
75-15-0	Carbon Disulfide	16000	U
75-35-4	1,1-Dichloroethene	16000	U
75-34-3	1,1-Dichloroethane	16000	U
540-59-0	1,2-Dichloroethene (total)	16000	U
67-66-3	Chloroform	16000	U
107-06-2	1,2-Dichloroethane	16000	U
78-93-3	2-Butanone	16000	U
71-55-6	1,1,1-Trichloroethane	20000	D
56-23-5	Carbon Tetrachloride	16000	U
75-27-4	Bromodichloromethane	16000	U
78-87-5	1,2-Dichloropropane	16000	U
10061-01-5	cis-1,3-Dichloropropene	16000	U
79-01-6	Trichloroethene	200000	D
124-48-1	Dibromochloromethane	16000	U
79-00-5	1,1,2-Trichloroethane	16000	U
71-43-2	Benzene	16000	U
10061-02-6	trans-1,3-Dichloropropene	16000	U
75-25-2	Bromoform	16000	U
108-10-1	4-Methyl-2-Pentanone	16000	U
591-78-6	2-Hexanone	16000	U
127-18-4	Tetrachloroethene	16000	U
79-34-5	1,1,2,2-Tetrachloroethane	16000	U
108-88-3	Toluene	13000	JD
108-90-7	Chlorobenzene	16000	U
100-41-4	Ethylbenzene	16000	U
100-42-5	Styrene	16000	U
1330-20-7	Xylene (total)	16000	U

IDF: 1562.50

FORM I-CLP-VOA-1

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VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

SB-5C DL

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10201 SAS No.: SDG No.: SS-2

Matrix: (soil/water) SOIL Lab Sample ID: I210201-18

Sample wt/vol: 4.0 (g/mL) G Lab File ID: >A0157

Level: (low/med) MED Date Received: 10/31/92

% Moisture: not dec. Date Analyzed: 11/09/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1250.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 10 (u

CONCENTRATION UNITS:

Number TICs found: 0 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

SB-5D

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: I210201-19

Sample wt/vol: 4.0 [g/mL] G Lab File ID: >A0146

Level: [low/med] MED Date Received: 10/~~30~~ 31/92

% Moisture: 20.0 decanted (Y/N) Y Date Analyzed : 11/07/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 625.0

Soil Extract Volume: (uL) 10000.0 Soil Aliquot Volume: 25 (uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	6300	U
74-83-9	Bromomethane	6300	U
75-01-4	Vinyl Chloride	6300	U
75-00-3	Chloroethane	6300	U
75-09-2	Methylene Chloride	3200	JB
67-64-1	Acetone	4000	JB
75-15-0	Carbon Disulfide	6300	U
75-35-4	1,1-Dichloroethene	6300	U
75-34-3	1,1-Dichloroethane	6700	
540-59-0	1,2-Dichloroethene (total)	5100	J
67-66-3	Chloroform	6300	U
107-06-2	1,2-Dichloroethane	6300	U
78-93-3	2-Butanone	6300	U
71-55-6	1,1,1-Trichloroethane	2900	J
56-23-5	Carbon Tetrachloride	6300	U
75-27-4	Bromodichloromethane	6300	U
78-87-5	1,2-Dichloropropane	6300	U
10061-01-5	cis-1,3-Dichloropropene	6300	U
79-01-6	Trichloroethene	120000	
124-48-1	Dibromochloromethane	6300	U
79-00-5	1,1,2-Trichloroethane	6300	U
71-43-2	Benzene	6300	U
10061-02-6	trans-1,3-Dichloropropene	6300	U
75-25-2	Bromoform	6300	U
108-10-1	4-Methyl-2-Pentanone	6300	U
591-78-6	2-Hexanone	6300	U
127-18-4	Tetrachloroethene	6300	U
79-34-5	1,1,2,2-Tetrachloroethane	6300	U
108-88-3	Toluene	5000	J
108-90-7	Chlorobenzene	6300	U
100-41-4	Ethylbenzene	6300	U
100-42-5	Styrene	6300	U
1330-20-7	Xylene (total)	6300	U

625.00

FORM I-CLP-VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SB-5D

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10201 SAS No.: SDG No.: SS-2

Matrix: (soil/water) SOIL Lab Sample ID: I210201-19

Sample wt/vol: 4.0 (g/mL) G Lab File ID: >A0146

Level: (low/med) MED Date Received: 10/30/92

% Moisture: 20 not dec. Date Analyzed: 11/07/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 625.0

Soil Extract Volume: 10000.0 (uL) Soil Aliquot Volume: 25 (u

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

SB-5B

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: I210201-21

Sample wt/vol: 5.0 [g/mL] G Lab File ID: >C3744

Level: [low/med] LOW Date Received: 10/30/92

% Moisture: 15.0 decanted (Y/N) Y Date Analyzed : 11/07/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	10	J
67-64-1	Acetone	46	
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	9	J
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

VDF: 1.18 FORM I-CLP-VOA-1

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

SB-5B

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10201 SAS No.: SDG No.: SS-2

Matrix: (soil/water) SOIL Lab Sample ID: I210201-21

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >C3744

Level: (low/med) LOW Date Received: 10/30/92

% Moisture: 15 not dec. Date Analyzed: 11/07/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

Number TICs found: 0 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLK QC1105

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: VBLK QC1105

Sample wt/vol: 5.0 [g/mL] G Lab File ID: >C3683

Level: [low/med] LOW Date Received:

% Moisture: NA decanted (Y/N) N Date Analyzed : 11/05/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	4	J
67-64-1	Acetone	7	J
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

SADF: 1.00 FORM I-CLP-VOA-1

TENTATIVELY IDENTIFIED COMPOUNDS

| VBLK QC1105 |

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10201 SAS No.: SDG No.: SS-2

Matrix: (soil/water) SOIL Lab Sample ID: VBLK QC1105

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >C3683

Level: (low/med) LOW Date Received: 11/05/92

% Moisture: NA not dec. Date Analyzed: 11/05/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:
ber TICs found: 0 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC 3/90

VBLK QC1106 (1)

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 1020 SAS No.: SDG No.: SS-2

Matrix: [soil/water] SOIL Lab Sample ID: VBLK QC1106

Sample wt/vol: 5.0 [g/mL] G Lab File ID: >C3715

Level: [low/med] LOW Date Received:

% Moisture: NA decanted (Y/N) N Date Analyzed : 11/06/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK QC1106 (I)

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10208 SAS No.: SDG No.: SS-2

Matrix: (soil/water) SOIL Lab Sample ID: VBLK QC1106

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >C3715

Level: (low/med) LOW Date Received:

% Moisture: NA not dec. Date Analyzed: 11/06/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 3/90

VOLATILE ORGANICS ANALYSIS

| VBLK QC1106 (2) |

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 1020 SAS No.: SDG No.: SS-2

Matrix: [soil/water] SOIL Lab Sample ID: VBLK QC1106

Sample wt/vol: 5.0 [g/mL] G Lab File ID: >C3725

Level: [low/med] LOW Date Received:

% Moisture: NA decanted (Y/N) N Date Analyzed : 11/06/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

SADF: 1.00 FORM I-CLP-VOA-1

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

VBLK QC1106 (2)

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 1020 SAS No.: SDG No.: SS-2

Matrix: (soil/water) SOIL Lab Sample ID: VBLK QC1106

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >C3725

Level: (low/med) LOW Date Received:

% Moisture: NA not dec. Date Analyzed: 11/06/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	Unknown	15.21	8.	N
2. - -	Unknown Alkane	19.14	61.	N

FORM I-CLP-VOA-TIC

VOLATILE ORGANICS ANALYSIS ...

VBLK QA1107

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.: SS-1

Matrix: [soil/water] SOIL Lab Sample ID: VBLK QA1107

Sample wt/vol: 4.0 [g/mL] G Lab File ID: >A0144

Level: [low/med] MED Date Received:

% Moisture: NA decanted (Y/N) N Date Analyzed : 11/07/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 125.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 100 (ul

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	1300	U
74-83-9	Bromomethane	1300	U
75-01-4	Vinyl Chloride	1300	U
75-00-3	Chloroethane	1300	U
75-09-2	Methylene Chloride	560	J
67-64-1	Acetone	780	J
75-15-0	Carbon Disulfide	1300	U
75-35-4	1,1-Dichloroethene	1300	U
75-34-3	1,1-Dichloroethane	1300	U
540-59-0	1,2-Dichloroethene (total)	1300	U
67-66-3	Chloroform	1300	U
107-06-2	1,2-Dichloroethane	1300	U
78-93-3	2-Butanone	1300	U
71-55-6	1,1,1-Trichloroethane	1300	U
56-23-5	Carbon Tetrachloride	1300	U
75-27-4	Bromodichloromethane	1300	U
78-87-5	1,2-Dichloropropane	1300	U
10061-01-5	cis-1,3-Dichloropropene	1300	U
79-01-6	Trichloroethene	1300	U
124-48-1	Dibromochloromethane	1300	U
79-00-5	1,1,2-Trichloroethane	1300	U
71-43-2	Benzene	1300	U
10061-02-6	trans-1,3-Dichloropropene	1300	U
75-25-2	Bromoform	1300	U
108-10-1	4-Methyl-2-Pentanone	1300	U
591-78-6	2-Hexanone	1300	U
127-18-4	Tetrachloroethene	1300	U
79-34-5	1,1,2,2-Tetrachloroethane	1300	U
108-88-3	Toluene	1300	U
108-90-7	Chlorobenzene	1300	U
100-41-4	Ethylbenzene	1300	U
100-42-5	Styrene	1300	U
1330-20-7	Xylene (total)	1300	U

SADF: 125.00 FORM I-CLP-VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK QA1107

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10201 SAS No.: SDG No.: SS-2

Matrix: (soil/water) SOIL Lab Sample ID: VBLK QA1107

Sample wt/vol: 4.0 (g/mL) G Lab File ID: >A0144

Level: (low/med) MED Date Received:

% Moisture: NA not dec. Date Analyzed: 11/07/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 125.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100

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

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 110-54-3	Hexane (DOT)(8CI9CI)	19.53	1100.	N

FORM I-CLP-VOA-TIC

VOLATILE ORGANICS

| VBLK QC1107 |

Lab Name: INTECH   Contract:

Lab Code: INTECH   Case No.: 10201   SAS No.:   SDG No.:SS-2

Matrix: [soil/water] SOIL   Lab Sample ID: VBLK QC1107

Sample wt/vol: 5.0 [g/mL] G   Lab File ID: >C3742

Level: [low/med] LOW   Date Received:

% Moisture: NA   decanted (Y/N) N   Date Analyzed : 11/07/92

GC Column: PACK   ID: 2.0 (mm)   Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

SADF: 1.00   FORM I-CLP-VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK QC1107

Lab Name: INTECH   Contract:

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

Matrix: (soil/water) SOIL   Lab Sample ID: VBLK QC1107

Sample wt/vol: 5.0 (g/mL) G   Lab File ID: >C3742

Level: (low/med) LOW   Date Received:

% Moisture: NA not dec.   Date Analyzed: 11/07/92

GC Column: PACK ID: 2.0 (mm)   Dilution Factor: 1.0

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

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

Number TICs found: 2

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	Unknown Cycloalkane	15.19	6.	N
2. 110-54-3	Hexane	19.18	53.	N

FORM I-CLP-VOA-TIC   3/90

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLK QA1109

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.: SS-1

Matrix: [soil/water] SOIL Lab Sample ID: VBLK QA1109

Sample wt/vol: 4.0 [g/mL] G Lab File ID: >A0156

Level: [low/med] MED Date Received:

% Moisture: NA decanted (Y/N) N Date Analyzed : 11/09/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 125.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	1300	U
74-83-9	Bromomethane	1300	U
75-01-4	Vinyl Chloride	1300	U
75-00-3	Chloroethane	1300	U
75-09-2	Methylene Chloride	510	J
67-64-1	Acetone	780	J
75-15-0	Carbon Disulfide	1300	U
75-35-4	1,1-Dichloroethene	1300	U
75-34-3	1,1-Dichloroethane	1300	U
540-59-0	1,2-Dichloroethene (total)	1300	U
67-66-3	Chloroform	1300	U
107-06-2	1,2-Dichloroethane	1300	U
78-93-3	2-Butanone	1300	U
71-55-6	1,1,1-Trichloroethane	1300	U
56-23-5	Carbon Tetrachloride	1300	U
75-27-4	Bromodichloromethane	1300	U
78-87-5	1,2-Dichloropropane	1300	U
10061-01-5	cis-1,3-Dichloropropene	1300	U
79-01-6	Trichloroethene	1300	U
124-48-1	Dibromochloromethane	1300	U
79-00-5	1,1,2-Trichloroethane	1300	U
71-43-2	Benzene	1300	U
10061-02-6	trans-1,3-Dichloropropene	1300	U
75-25-2	Bromoform	1300	U
108-10-1	4-Methyl-2-Pentanone	1300	U
591-78-6	2-Hexanone	1300	U
127-18-4	Tetrachloroethene	1300	U
79-34-5	1,1,2,2-Tetrachloroethane	1300	U
108-88-3	Toluene	1300	U
108-90-7	Chlorobenzene	1300	U
100-41-4	Ethylbenzene	1300	U
100-42-5	Styrene	1300	U
1330-20-7	Xylene (total)	1300	U

125.00 FORM I-CLP-VOA-1

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK QA1109

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10201 SAS No.: SDG No.: SS-2

Matrix: (soil/water) SOIL Lab Sample ID: VBLK QA1109

Sample wt/vol: 4.0 (g/mL) G Lab File ID: >A0156

Level: (low/med) MED Date Received:

% Moisture: NA not dec. Date Analyzed: 11/09/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 125.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (u

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. ~~96-14-0~~ 110-54-3	~~Pentane, 3-methyl (8CI9CI)~~ Hexane (DOT) (8CI9CI)	19.53	750.	N

mrA 12-7-92

FORM I-CLP-VOA-TIC

1H
VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SB-5B MS

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: I210201-10(MS)

Sample wt/vol: 5.0 [g/mL] G Lab File ID: >C3734

Level: [low/med] LOW Date Received: 10/30/92

% Moisture: 15.0 decanted (Y/N) Y Date Analyzed : 11/07/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	36	
75-09-2	Methylene Chloride	26	
67-64-1	Acetone	61	
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	71	
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	61	
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	48	
71-43-2	Benzene	73	
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	75	
108-90-7	Chlorobenzene	68	
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

SB-5B MSD

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: I210201-11(MSD

Sample wt/vol: 5.0 [g/mL] G Lab File ID: >C3735

Level: [low/med] LOW Date Received: 10/30/92

% Moisture: 15.0 decanted (Y/N) Y Date Analyzed : 11/07/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	-------Chloromethane	12	U
74-83-9	-------Bromomethane	12	U
75-01-4	-------Vinyl Chloride	12	U
75-00-3	-------Chloroethane	57	
75-09-2	-------Methylene Chloride	32	
67-64-1	-------Acetone	100	
75-15-0	-------Carbon Disulfide	12	U
75-35-4	-------1,1-Dichloroethene	70	
75-34-3	-------1,1-Dichloroethane	12	U
540-59-0	-------1,2-Dichloroethene (total)	12	U
67-66-3	-------Chloroform	12	U
107-06-2	-------1,2-Dichloroethane	12	U
78-93-3	-------2-Butanone	26	
71-55-6	-------1,1,1-Trichloroethane	12	U
56-23-5	-------Carbon Tetrachloride	12	U
75-27-4	-------Bromodichloromethane	12	U
78-87-5	-------1,2-Dichloropropane	12	U
10061-01-5	-------cis-1,3-Dichloropropene	12	U
79-01-6	-------Trichloroethene	58	
124-48-1	-------Dibromochloromethane	12	U
79-00-5	-------1,1,2-Trichloroethane	46	
71-43-2	-------Benzene	68	
10061-02-6	-------trans-1,3-Dichloropropene	12	U
75-25-2	-------Bromoform	12	U
108-10-1	-------4-Methyl-2-Pentanone	12	U
591-78-6	-------2-Hexanone	12	U
127-18-4	-------Tetrachloroethene	12	U
79-34-5	-------1,1,2,2-Tetrachloroethane	12	U
108-88-3	-------Toluene	72	
108-90-7	-------Chlorobenzene	64	
100-41-4	-------Ethylbenzene	12	U
100-42-5	-------Styrene	12	U
1330-20-7	-------Xylene (total)	12	U

SB-5D MS

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: I210201-19MS

Sample wt/vol: 4.0 [g/mL] G Lab File ID: >A0148

Level: [low/med] MED Date Received: 10/30/92

% Moisture: 20.0 decanted (Y/N) Y Date Analyzed : 11/07/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 625.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 25 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	-------Chloromethane	6300	U
74-83-9	-------Bromomethane	6300	U
75-01-4	-------Vinyl Chloride	6300	U
75-00-3	-------Chloroethane	6300	U
75-09-2	-------Methylene Chloride	4100	JB
67-64-1	-------Acetone	6300	U B
75-15-0	-------Carbon Disulfide	6300	U
75-35-4	-------1,1-Dichloroethene	38000	
75-34-3	-------1,1-Dichloroethane	6600	
540-59-0	-------1,2-Dichloroethene (total)	5200	J
67-66-3	-------Chloroform	6300	U
107-06-2	-------1,2-Dichloroethane	6300	U
78-93-3	-------2-Butanone	6300	U
71-55-6	-------1,1,1-Trichloroethane	2200	J
56-23-5	-------Carbon Tetrachloride	6300	U
75-27-4	-------Bromodichloromethane	6300	U
78-87-5	-------1,2-Dichloropropane	6300	U
10061-01-5	-------cis-1,3-Dichloropropene	6300	U
79-01-6	-------Trichloroethene	160000	
124-48-1	-------Dibromochloromethane	6300	U
79-00-5	-------1,1,2-Trichloroethane	6300	U
71-43-2	-------Benzene	33000	
10061-02-6	-------trans-1,3-Dichloropropene	6300	U
75-25-2	-------Bromoform	6300	U
108-10-1	-------4-Methyl-2-Pentanone	6300	U
591-78-6	-------2-Hexanone	6300	U
127-18-4	-------Tetrachloroethene	6300	U
79-34-5	-------1,1,2,2-Tetrachloroethane	6300	U
108-88-3	-------Toluene	37000	
108-90-7	-------Chlorobenzene	30000	
100-41-4	-------Ethylbenzene	6300	U
100-42-5	-------Styrene	6300	U
1330-20-7	-------Xylene (total)	6300	U

DF: 625.00 FORM I-CLP-VOA-1

SB-5D MSD

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: I210201-19MSD

Sample wt/vol: 4.0 [g/mL] G Lab File ID: >A0149

Level: [low/med] MED Date Received: 10/30/92

% Moisture: 20.0 decanted (Y/N) Y Date Analyzed : 11/07/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 625.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 25 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
74-87-3	Chloromethane	6300	U
74-83-9	Bromomethane	6300	U
75-01-4	Vinyl Chloride	6300	U
75-00-3	Chloroethane	6300	U
75-09-2	Methylene Chloride	4700	JB
67-64-1	Acetone	6300	U B
75-15-0	Carbon Disulfide	6300	U
75-35-4	1,1-Dichloroethene	32000	
75-34-3	1,1-Dichloroethane	5600	J
540-59-0	1,2-Dichloroethene (total)	4500	J
67-66-3	Chloroform	6300	U
107-06-2	1,2-Dichloroethane	6300	U
78-93-3	2-Butanone	6300	U
71-55-6	1,1,1-Trichloroethane	2100	J
56-23-5	Carbon Tetrachloride	6300	U
75-27-4	Bromodichloromethane	6300	U
78-87-5	1,2-Dichloropropane	6300	U
10061-01-5	cis-1,3-Dichloropropene	6300	U
79-01-6	Trichloroethene	150000	
124-48-1	Dibromochloromethane	6300	U
79-00-5	1,1,2-Trichloroethane	6300	U
71-43-2	Benzene	33000	
10061-02-6	trans-1,3-Dichloropropene	6300	U
75-25-2	Bromoform	6300	U
108-10-1	4-Methyl-2-Pentanone	6300	U
591-78-6	2-Hexanone	6300	U
127-18-4	Tetrachloroethene	6300	U
79-34-5	1,1,2,2-Tetrachloroethane	6300	U
108-88-3	Toluene	35000	
108-90-7	Chlorobenzene	30000	
100-41-4	Ethylbenzene	6300	U
100-42-5	Styrene	6300	U
1330-20-7	Xylene (total)	6300	U

DF: 625.00

FORM I-CLP-VOA-1

Lab Name: INTECH	Contract:	SB-5C

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: I210201-18

Sample wt/vol: 30.00 [g/mL] G Lab File ID: >B1993

Level: [low/med] LOW Date Received: 10/31/92

% Moisture: 20.0 decanted (Y/N) Y Date Extracted: 11/05/92

Concentrated Extract Volume: 500 uL Date Analyzed: 11/13/92

Injection Volume: 2 uL Dilution Factor: 1

GPC Cleanup: [Y/N] Y pH: 9.60

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
108-95-2	-------Phenol	420	U
111-44-4	-------bis(2-chloroethyl)ether	420	U
95-57-8	-------2-Chlorophenol	420	U
541-73-1	-------1,3-Dichlorobenzene	420	U
106-46-7	-------1,4-Dichlorobenzene	420	U
95-50-1	-------1,2-Dichlorobenzene	420	U
95-48-7	-------2-Methylphenol	420	U
108-60-1	-------2,2'-oxybis(1-Chloropropane)	420	U
106-44-5	-------4-Methylphenol	420	U
621-64-7	-------N-Nitroso-di-n-propylamine	420	U
67-72-1	-------Hexachloroethane	420	U
98-95-3	-------Nitrobenzene	420	U
78-59-1	-------Isophorone	420	U
88-75-5	-------2-Nitrophenol	420	U
105-67-9	-------2,4-Dimethylphenol	420	U
111-91-1	-------bis(2-Chloroethoxy)methane	420	U
120-83-2	-------2,4-Dichlorophenol	420	U
120-82-1	-------1,2,4-Trichlorobenzene	420	U
91-20-3	-------Naphthalene	420	U
106-47-8	-------4-Chloroaniline	420	U
87-68-3	-------Hexachlorobutadiene	420	U
59-50-7	-------4-Chloro-3-methylphenol	420	U
91-57-6	-------2-Methylnaphthalene	420	U
77-47-4	-------Hexachlorocyclopentadiene	420	U
88-06-2	-------2,4,6-Trichlorophenol	420	U
95-95-4	-------2,4,5-Trichlorophenol	1000	U
91-58-7	-------2-Chloronaphthalene	420	U
88-74-4	-------2-Nitroaniline	1000	U
131-11-3	-------Dimethylphthalate	420	U
208-96-8	-------Acenaphthylene	420	U
606-20-2	-------2,6-Dinitrotoluene	420	U
99-09-2	-------3-Nitroaniline	1000	U
83-32-9	-------Acenaphthene	420	U

FORM I-CLP-SV-1

| SB-5L |

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: I210201-18

Sample wt/vol: 30.00 [g/mL] G Lab File ID: >B1993

Level: [low/med] LOW Date Received: 10/31/92

% Moisture: 20.0 decanted (Y/N) Y Date Extracted: 11/05/92

Concentrated Extract Volume: 500 uL Date Analyzed: 11/13/92

Injection Volume: 2 uL Dilution Factor: 1

GPC Cleanup: [Y/N] Y pH: 9.60

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
51-28-5	2,4-Dinitrophenol	1000	U
100-02-7	4-Nitrophenol	1000	U
132-64-9	Dibenzofuran	420	U
121-14-2	2,4-Dinitrotoluene	420	U
84-73-7	Diethylphthalate	420	U
7005-72-3	4-Chlorophenyl-phenylether	420	U
86-73-7	Fluorene	420	U
100-01-6	4-Nitroaniline	1000	U
534-52-1	4,6-Dinitro-2-methylphenol	1000	U
86-30-6	N-Nitrosodiphenylamine	420	U
101-55-3	4-Bromophenyl-phenylether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	1000	U
85-01-8	Phenanthrene	420	U
120-12-7	Anthracene	420	U
86-74-8	Carbazole	420	U
84-74-2	Di-n-butylphthalate	420	U
206-44-0	Fluoranthene	420	U
129-00-0	Pyrene	420	U
85-68-7	Butylbenzylphthalate	420	U
91-94-1	3,3'-Dichlorobenzidine	420	U
56-55-3	Benzo(a)anthracene	420	U
218-01-9	Chrysene	420	U
117-81-7	bis(2-Ethylhexyl)phthalate	420	U
117-84-0	Di-n-octylphthalate	420	U
205-99-2	Benzo(b)fluoranthene	420	U
207-08-9	Benzo(k)fluoranthene	420	U
50-32-8	Benzo(a)pyrene	420	U
193-39-5	Indeno(1,2,3-cd)pyrene	420	U
53-70-3	Dibenz(a,h)anthracene	420	U
191-24-2	Benzo(g,h,i)perylene	420	U

SADF: 41.67 FORM I-CLP-SV-2

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

SB-5C

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 10201 SAS No.: SDG No.: SS-2

Matrix: (soil/water) SOIL Lab Sample ID: 1210201-18

Sample wt/vol: 30.00 (g/mL) G Lab File ID: >B1993

Level: (low/med) LOW Date Received: 10/31/92

% Moisture: 20.0 decanted. (Y/N) Y Date Extracted: 11/05/92

Concentrated Extract Volume: 500 (ul) Date Analyzed: 11/13/92

Injection Volume: 2 (ul) Diluton Factor: 1

GPC Cleanup: (Y/N) Y pH: 9.6

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

Number TICs found: 16

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	108-94-1	Cyclohexanone (ACN)(8CI9CI)	7.60	290.	N
2.	53966-57-7	3-Buten-2-one, 3,4(or 4,4)-d	7.87	1600.	N
3.	- -	Unknown	10.50	460.	N
4.	822-86-6	Cyclohexane, 1,2-dichloro-,	11.49	230.	N B
5.	- -	Unknown Alkane	20.99	210.	N
6.	- -	Unknown Alkane	21.73	230.	N
7.	- -	Unknown Alkane	22.49	270.	N
8.	- -	Unknown Alkane	22.57	190.	N
9.	- -	Unknown Alkane	23.93	250.	N
10.	- -	Unknown Alkane	25.28	310.	N
11.	- -	Unknown Alkane	26.57	270.	N
12.	- -	Unknown Alkane	27.81	290.	N
13.	- -	Unknown Alkane	28.99	190.	N
14.	- -	Unknown Alkane	30.13	190.	N
15.	- -	Unknown Alkane	32.26	170.	N
16.	- -	Unknown Alkane	33.25	170.	N
				4320	

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: I210201-20

Sample wt/vol: 30.00 [g/mL] G Lab File ID: >B1994

Level: [low/med] LOW Date Received: 10/31/92

% Moisture: 19.0 decanted (Y/N) Y Date Extracted: 11/05/92

Concentrated Extract Volume: 500 uL Date Analyzed: 11/13/92

Injection Volume: 2 uL Dilution Factor: 1

GPC Cleanup: [Y/N] Y pH: 9.70

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
108-95-2	-------Phenol	410	U
111-44-4	-------bis(2-chloroethyl)ether	410	U
95-57-8	-------2-Chlorophenol	410	U
541-73-1	-------1,3-Dichlorobenzene	410	U
106-46-7	-------1,4-Dichlorobenzene	410	U
95-50-1	-------1,2-Dichlorobenzene	410	U
95-48-7	-------2-Methylphenol	410	U
108-60-1	-------2,2'-oxybis(1-Chloropropane)	410	U
106-44-5	-------4-Methylphenol	410	U
621-64-7	-------N-Nitroso-di-n-propylamine	410	U
67-72-1	-------Hexachloroethane	410	U
98-95-3	-------Nitrobenzene	410	U
78-59-1	-------Isophorone	410	U
88-75-5	-------2-Nitrophenol	410	U
105-67-9	-------2,4-Dimethylphenol	410	U
111-91-1	-------bis(2-Chloroethoxy)methane	410	U
120-83-2	-------2,4-Dichlorophenol	410	U
120-82-1	-------1,2,4-Trichlorobenzene	410	U
91-20-3	-------Naphthalene	410	U
106-47-8	-------4-Chloroaniline	410	U
87-68-3	-------Hexachlorobutadiene	410	U
59-50-7	-------4-Chloro-3-methylphenol	410	U
91-57-6	-------2-Methylnaphthalene	410	U
77-47-8	-------Hexachlorocyclopentadiene	410	U
88-06-2	-------2,4,6-Trichlorophenol	410	U
95-95-4	-------2,4,5-Trichlorophenol	1000	U
91-58-7	-------2-Chloronaphthalene	410	U
88-74-4	-------2-Nitroaniline	1000	U
131-11-3	-------Dimethylphthalate	410	U
208-96-8	-------Acenaphthylene	410	U
606-20-2	-------2,6-Dinitrotoluene	410	U
99-09-2	-------3-Nitroaniline	1000	U
83-32-9	-------Acenaphthene	410	U

FORM I-CLP-SV-1

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: I210201-20

Sample wt/vol: 30.00 [g/mL] G Lab File ID: >B1994

Level: [low/med] LOW Date Received: 10/31/92

% Moisture: 19.0 decanted (Y/N) Y Date Extracted: 11/05/92

Concentrated Extract Volume: 500 uL Date Analyzed: 11/13/92

Injection Volume: 2 uL Dilution Factor: 1

GPC Cleanup: [Y/N] Y pH: 9.70

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
51-28-5	2,4-Dinitrophenol	1000	U
100-02-7	4-Nitrophenol	1000	U
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	410	U
84-73-7	Diethylphthalate	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
86-73-7	Fluorene	410	U
100-01-6	4-Nitroaniline	1000	U
534-52-1	4,6-Dinitro-2-methylphenol	1000	U
86-30-6	N-Nitrosodiphenylamine	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
87-86-5	Pentachlorophenol	1000	U
85-01-8	Phenanthrene	410	U
120-12-7	Anthracene	410	U
86-74-8	Carbazole	410	U
84-74-2	Di-n-butylphthalate	410	U
206-44-0	Fluoranthene	410	U
129-00-0	Pyrene	410	U
85-68-7	Butylbenzylphthalate	410	U
91-94-1	3,3'-Dichlorobenzidine	410	U
56-55-3	Benzo(a)anthracene	410	U
218-01-9	Chrysene	410	U
117-81-7	bis(2-Ethylhexyl)phthalate	410	U
117-84-0	Di-n-octylphthalate	410	U
205-99-2	Benzo(b)fluoranthene	410	U
207-08-9	Benzo(k)fluoranthene	410	U
50-32-8	Benzo(a)pyrene	410	U
193-39-5	Indeno(1,2,3-cd)pyrene	410	U
53-70-3	Dibenz(a,h)anthracene	410	U
191-24-2	Benzo(g,h,i)perylene	410	U

SADF: 41.15 FORM I-CLP-SV-2

·SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

| SB-5C DUP |

b Name: INTECH Contract:

Code: INTECH Case No. 10201 SAS No.: SDG No.: SS-2

trix: (soil/water) SOIL Lab Sample ID: I210201-20

mple wt/vol: 30.00 (g/mL) G Lab File ID: >B1994

vel: (low/med) LOW Date Received: 10/31/92

Moisture: 19.0 decanted. (Y/N) Y Date Extracted: 11/05/92

ncentrated Extract Volume: 500 (ul) Date Analyzed: 11/13/92

jection Volume: 2 (ul) Diluton Factor: 1

C Cleanup: (Y/N) Y pH: 9.7

CONCENTRATION UNITS:
umber TICs found: 4 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 108-94-1	Cyclohexanone (ACN)(8CI9CI)	7.60	350.	N
2. 53966-57-7	3-Buten-2-one, 3,4(or 4,4)-d	7.86	1600.	N
3. - -	Unknown	10.50	540.	N
4. 822-86-6	~~Unknown~~ cyclohexane, 1,2-dichloro-	11.49	230.	N B
	MA		2720	
	MA 12-7-92			

FORM I-CLP-SV-TIC

Lab Name: INTECH	Contract:
	3B-9B
Lab Code: INTECH Case No.: 10201 SAS No.:	SDG No.:SS-2
Matrix: [soil/water] SOIL	Lab Sample ID: I210201-21
Sample wt/vol: 30.00 [g/mL] G	Lab File ID: >B1990
Level: [low/med] LOW	Date Received: 10/31/92
% Moisture: 15.0 decanted (Y/N) Y	Date Extracted: 11/05/92
Concentrated Extract Volume: 500 uL	Date Analyzed: 11/13/92
Injection Volume: 2 uL	Dilution Factor: 1
GPC Cleanup: [Y/N] Y pH: 9.70	

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
108-95-2	Phenol	390	U
111-44-4	bis(2-chloroethyl)ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
108-60-1	2,2'-oxybis(1-Chloropropane)	390	U
106-44-5	4-Methylphenol	390	U
621-64-7	N-Nitroso-di-n-propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
111-91-1	bis(2-Chloroethoxy)methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-8	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	980	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	980	U
131-11-3	Dimethylphthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U
99-09-2	3-Nitroaniline	980	U
83-32-9	Acenaphthene	390	U

SB-5B

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: I210201-21

Sample wt/vol: 30.00 [g/mL] G Lab File ID: >B1990

Level: [low/med] LOW Date Received: 10/31/92

% Moisture: 15.0 decanted (Y/N) Y Date Extracted: 11/05/92

Concentrated Extract Volume: 500 uL Date Analyzed: 11/13/92

Injection Volume: 2 uL Dilution Factor: 1

GPC Cleanup: [Y/N] Y pH: 9.70

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
51-28-5	2,4-Dinitrophenol	980	U
100-02-7	4-Nitrophenol	980	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
84-73-7	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-01-6	4-Nitroaniline	980	U
534-52-1	4,6-Dinitro-2-methylphenol	980	U
86-30-6	N-Nitrosodiphenylamine	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	980	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
86-74-8	Carbazole	390	U
84-74-2	Di-n-butylphthalate	390	U
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	390	U
56-55-3	Benzo(a)anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	bis(2-Ethylhexyl)phthalate	26	J
117-84-0	Di-n-octylphthalate	390	U
205-99-2	Benzo(b)fluoranthene	390	U
207-08-9	Benzo(k)fluoranthene	390	U
50-32-8	Benzo(a)pyrene	390	U
193-39-5	Indeno(1,2,3-cd)pyrene	390	U
53-70-3	Dibenz(a,h)anthracene	390	U
191-24-2	Benzo(g,h,i)perylene	390	U

DF: 39.22

FORM I-CLP-SV-2

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

SB-5B

ıb Name: INTECH Contract:

ıb Code: INTECH Case No. 10201 SAS No.: SDG No.: SS-2

ıtrix: (soil/water) SOIL Lab Sample ID: I210201-21

ımple wt/vol: 30.00 (g/mL) G Lab File ID: >B1990

:vel: (low/med) LOW Date Received: 10/31/92

Moisture: 15.0 decanted. (Y/N) Y Date Extracted: 11/05/92

ıncentrated Extract Volume: 500 (ul) Date Analyzed: 11/13/92

ıjection Volume: 2 (ul) Diluton Factor: 1

ᵓC Cleanup: (Y/N) Y pH: 9.7

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

Jumber TICs found: 9

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 108-94-1	Cyclohexanone (ACN)(8CI9CI)	7.62	240.	N
2. 53966-57-7	3-Buten-2-one, 3,4(or 4,4)-d	7.91	220.	N
3. 822-86-6	Cyclohexane, 1,2-dichloro-,	11.50	220.	N B
4. - -	Unknown Alkane	21.01	160.	N
5. - -	Unknown Alkane	22.51	180.	N
6. 74764-11-7	Iron, tricarbonyl[N-(phenyl-	23.93	180.	N
7. - -	Unknown Alkane	25.29	240.	N
8. - -	Unknown Alkane	26.59	220.	N
9. - -	Unknown Alkane	27.81	220.	N

FORM I-CLP-SV-TIC

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: SBLK-QM771T1

Sample wt/vol: 30.00 [g/mL] G Lab File ID: >B1988

Level: [low/med] LOW Date Received:

% Moisture: decanted (Y/N) N Date Extracted: 11/05/92

Concentrated Extract Volume: 500 uL Date Analyzed: 11/12/92

Injection Volume: 2 uL Dilution Factor: 1

GPC Cleanup: [Y/N] Y pH: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
108-95-2	Phenol	330	U
111-44-4	bis(2-chloroethyl)ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-oxybis(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-di-n-propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	bis(2-Chloroethoxy)methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-8	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	830	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	830	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
99-09-2	3-Nitroaniline	830	U
83-32-9	Acenaphthene	330	U

FORM I-CLP-SV-1

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: SBLK-QM771T1

Sample wt/vol: 30.00 [g/mL] G Lab File ID: >B1988

Level: [low/med] LOW Date Received:

% Moisture: decanted (Y/N) N Date Extracted: 11/05/92

Concentrated Extract Volume: 500 uL Date Analyzed: 11/12/92

Injection Volume: 2 uL Dilution Factor: 1

GPC Cleanup: [Y/N] Y pH: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
51-28-5	2,4-Dinitrophenol	830	U
100-02-7	4-Nitrophenol	830	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-73-7	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	830	U
534-52-1	4,6-Dinitro-2-methylphenol	830	U
86-30-6	N-Nitrosodiphenylamine	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	830	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)phthalate	330	U
117-84-0	Di-n-octylphthalate	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
50-32-8	Benzo(a)pyrene	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
53-70-3	Dibenz(a,h)anthracene	330	U
191-24-2	Benzo(g,h,i)perylene	330	U

ADF: 33.33

FORM I-CLP-SV-2

TENTATIVELY IDENTIFIED COMPOUNDS

| SBLK 01 |

b Name: INTECH

Contract:

b Code: INTECH Case No. 10201 SAS No.: SDG No.: SS-2

·trix: (soil/water) SOIL

Lab Sample ID: SBLK-QM771T1

ımple wt/vol: 30.00 (g/mL) G

Lab File ID: >B1988

:vel: (low/med) LOW

Date Received:

Moisture: decanted. (Y/N) Y

Date Extracted: 11/05/92

ıncentrated Extract Volume: 500 (ul)

Date Analyzed: 11/12/92

ıjection Volume: 2 (ul)

Diluton Factor: 1

PC Cleanup: (Y/N) Y pH: 5.0

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

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 822-86-6	Cyclohexane, 1,2-dichloro-,	11.48	130.	N

FORM I-CLP-SV-TIC

SBLK MS

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.: SS-2

Matrix: [soil/water] SOIL Lab Sample ID: SBLK-QM??1MS

Sample wt/vol: 30.00 [g/mL] G Lab File ID: >B1989

Level: [low/med] LOW Date Received:

% Moisture: 0.0 decanted (Y/N) Y Date Extracted: 11/05/92

Concentrated Extract Volume: 500 uL Date Analyzed: 11/12/92

Injection Volume: 2 uL Dilution Factor: 1

GPC Cleanup: [Y/N] Y pH: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
108-95-2	Phenol	1400	
111-44-4	bis(2-chloroethyl)ether	330	U
95-57-8	2-Chlorophenol	1500	
541-73-1	1,3-Dichlorobenzene	1200	
106-46-7	1,4-Dichlorobenzene	1200	
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-oxybis(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-di-n-propylamine	1100	
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	bis(2-Chloroethoxy)methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	1300	
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-methylphenol	1800	
91-57-6	2-Methylnaphthalene	330	U
77-47-8	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	830	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	830	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
99-09-2	3-Nitroaniline	830	U
83-32-9	Acenaphthene	1300	

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: SBLK-QM771MS

Sample wt/vol: 30.00 [g/mL] G Lab File ID: >B1989

Level: [low/med] LOW Date Received:

% Moisture: 0.0 decanted (Y/N) Y Date Extracted: 11/05/92

Concentrated Extract Volume: 500 uL Date Analyzed: 11/12/92

Injection Volume: 2 uL Dilution Factor: 1

GPC Cleanup: [Y/N] Y pH: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
51-28-5	2,4-Dinitrophenol	830	U
100-02-7	4-Nitrophenol	2100	
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	1300	
84-73-7	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	830	U
534-52-1	4,6-Dinitro-2-methylphenol	830	U
86-30-6	N-Nitrosodiphenylamine	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	2300	
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	1300	
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)phthalate	330	U
117-84-0	Di-n-octylphthalate	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
50-32-8	Benzo(a)pyrene	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
53-70-3	Dibenz(a,h)anthracene	330	U
191-24-2	Benzo(g,h,i)perylene	330	U

ADF: 33.33 FORM I-CLP-SV-2

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: I210201-10MS

Sample wt/vol: 30.00 [g/mL] G Lab File ID: >B1991

Level: [low/med] LOW Date Received: 10/31/92

% Moisture: 15.0 decanted (Y/N) Y Date Extracted: 11/05/92

Concentrated Extract Volume: 500 uL Date Analyzed: 11/13/92

Injection Volume: 2 uL Dilution Factor: 1

GPC Cleanup: [Y/N] Y pH: 9.70

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
108-95-2	-------Phenol	1700	
111-44-4	-------bis(2-chloroethyl)ether	390	U
95-57-8	-------2-Chlorophenol	1700	
541-73-1	-------1,3-Dichlorobenzene	390	U
106-46-7	-------1,4-Dichlorobenzene	1100	
95-50-1	-------1,2-Dichlorobenzene	390	U
95-48-7	-------2-Methylphenol	390	U
108-60-1	-------2,2'-oxybis(1-Chloropropane)	390	U
106-44-5	-------4-Methylphenol	390	U
621-64-7	-------N-Nitroso-di-n-propylamine	1200	
67-72-1	-------Hexachloroethane	390	U
98-95-3	-------Nitrobenzene	390	U
78-59-1	-------Isophorone	390	U
88-75-5	-------2-Nitrophenol	390	U
105-67-9	-------2,4-Dimethylphenol	390	U
111-91-1	-------bis(2-Chloroethoxy)methane	390	U
120-83-2	-------2,4-Dichlorophenol	390	U
120-82-1	-------1,2,4-Trichlorobenzene	1200	
91-20-3	-------Naphthalene	390	U
106-47-8	-------4-Chloroaniline	390	U
87-68-3	-------Hexachlorobutadiene	390	U
59-50-7	-------4-Chloro-3-methylphenol	2400	
91-57-6	-------2-Methylnaphthalene	390	U
77-47-4	-------Hexachlorocyclopentadiene	390	U
88-06-2	-------2,4,6-Trichlorophenol	390	U
95-95-4	-------2,4,5-Trichlorophenol	980	U
91-58-7	-------2-Chloronaphthalene	390	U
88-74-4	-------2-Nitroaniline	980	U
131-11-3	-------Dimethylphthalate	390	U
208-96-8	-------Acenaphthylene	390	U
606-20-2	-------2,6-Dinitrotoluene	390	U
99-09-2	-------3-Nitroaniline	980	U
83-32-9	-------Acenaphthene	1500	

FORM I-CLP-SV-1

Lab Name: INTECH　　Contract:

Lab Code: INTECH　Case No.: 10201　SAS No.: 　SDG No.:SS-2

Matrix: [soil/water] SOIL　　Lab Sample ID: I210201-10MS

Sample wt/vol: 30.00　[g/mL] G　　Lab File ID: >B1991

Level: [low/med] LOW　　Date Received: 10/31/92

% Moisture: 15.0　decanted (Y/N) Y　　Date Extracted: 11/05/92

Concentrated Extract Volume: 500 uL　　Date Analyzed: 11/13/92

Injection Volume: 2 uL　　Dilution Factor: 1

GPC Cleanup: [Y/N] Y　　pH: 9.70

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
51-28-5	-------2,4-Dinitrophenol	980	U
100-02-7	-------4-Nitrophenol	2600	
132-64-9	-------Dibenzofuran	390	U
121-14-2	-------2,4-Dinitrotoluene	1400	
84-73-7	-------Diethylphthalate	390	U
7005-72-3	-------4-Chlorophenyl-phenylether	390	U
86-73-7	-------Fluorene	390	U
100-01-6	-------4-Nitroaniline	980	U
534-52-1	-------4,6-Dinitro-2-methylphenol	980	U
86-30-6	-------N-Nitrosodiphenylamine	390	U
101-55-3	-------4-Bromophenyl-phenylether	390	U
118-74-1	-------Hexachlorobenzene	390	U
87-86-5	-------Pentachlorophenol	2700	
85-01-8	-------Phenanthrene	390	U
120-12-7	-------Anthracene	390	U
86-74-8	-------Carbazole	390	U
84-74-2	-------Di-n-butylphthalate	390	U
206-44-0	-------Fluoranthene	390	U
129-00-0	-------Pyrene	1500	
85-68-7	-------Butylbenzylphthalate	390	U
91-94-1	-------3,3'-Dichlorobenzidine	390	U
56-55-3	-------Benzo(a)anthracene	390	U
218-01-9	-------Chrysene	390	U
117-81-7	-------bis(2-Ethylhexyl)phthalate	47	J
117-84-0	-------Di-n-octylphthalate	390	U
205-99-2	-------Benzo(b)fluoranthene	390	U
207-08-9	-------Benzo(k)fluoranthene	390	U
50-32-8	-------Benzo(a)pyrene	390	U
193-39-5	-------Indeno(1,2,3-cd)pyrene	390	U
53-70-3	-------Dibenz(a,h)anthracene	390	U
191-24-2	-------Benzo(g,h,i)perylene	390	U

SADF: 39.22　　FORM I-CLP-SV-2

SB-9B MSD

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: I210201-11MSD

Sample wt/vol: 30.00 [g/mL] G Lab File ID: >B1992

Level: [low/med] LOW Date Received: 10/31/92

% Moisture: 15.0 decanted (Y/N) Y Date Extracted: 11/05/92

Concentrated Extract Volume: 500 uL Date Analyzed: 11/13/92

Injection Volume: 2 uL Dilution Factor: 1

GPC Cleanup: [Y/N] Y pH: 9.70

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
108-95-2	Phenol	1700	
111-44-4	bis(2-chloroethyl)ether	390	U
95-57-8	2-Chlorophenol	1800	
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	1300	
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
108-60-1	2,2'-oxybis(1-Chloropropane)	390	U
106-44-5	4-Methylphenol	390	U
621-64-7	N-Nitroso-di-n-propylamine	1200	
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
111-91-1	bis(2-Chloroethoxy)methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	1300	
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-methylphenol	2300	
91-57-6	2-Methylnaphthalene	390	U
77-47-8	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	980	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	980	U
131-11-3	Dimethylphthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U
99-09-2	3-Nitroaniline	980	U
83-32-9	Acenaphthene	1500	

FORM I-CLP-SV-1

| SB-5B MSD |

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 10201 SAS No.: SDG No.:SS-2

Matrix: [soil/water] SOIL Lab Sample ID: I210201-11M

Sample wt/vol: 30.00 [g/mL] G Lab File ID: >B1992

Level:. [low/med] LOW Date Received: 10/31/92

% Moisture: 15.0 decanted (Y/N) Y Date Extracted: 11/05/92

Concentrated Extract Volume: 500 uL Date Analyzed: 11/13/92

Injection Volume: 2 uL Dilution Factor: 1

GPC Cleanup: [Y/N] Y pH: 9.70

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/KG	Q
51-28-5	-------2,4-Dinitrophenol	980	U
100-02-7	-------4-Nitrophenol	2600	
132-64-9	-------Dibenzofuran	390	U
121-14-2	-------2,4-Dinitrotoluene	1400	
84-73-7	-------Diethylphthalate	390	U
7005-72-3	-------4-Chlorophenyl-phenylether	390	U
86-73-7	-------Fluorene	390	U
100-01-6	-------4-Nitroaniline	980	U
534-52-1	-------4,6-Dinitro-2-methylphenol	980	U
86-30-6	-------N-Nitrosodiphenylamine	390	U
101-55-3	-------4-Bromophenyl-phenylether	390	U
118-74-1	-------Hexachlorobenzene	390	U
87-86-5	-------Pentachlorophenol	2200	
85-01-8	-------Phenanthrene	390	U
120-12-7	-------Anthracene	390	U
86-74-8	-------Carbazole	390	U
84-74-2	-------Di-n-butylphthalate	390	U
206-44-0	-------Fluoranthene	390	U
129-00-0	-------Pyrene	1400	
85-68-7	-------Butylbenzylphthalate	390	U
91-94-1	-------3,3'-Dichlorobenzidine	390	U
56-55-3	-------Benzo(a)anthracene	390	U
218-01-9	-------Chrysene	390	U
117-81-7	-------bis(2-Ethylhexyl)phthalate	32	J
117-84-0	-------Di-n-octylphthalate	390	U
205-99-2	-------Benzo(b)fluoranthene	390	U
207-08-9	-------Benzo(k)fluoranthene	390	U
50-32-8	-------Benzo(a)pyrene	390	U
193-39-5	-------Indeno(1,2,3-cd)pyrene	390	U
53-70-3	-------Dibenz(a,h)anthracene	390	U
191-24-2	-------Benzo(g,h,i)perylene	390	U

SADF: 39.22 FORM I-CLP-SV-2

SOIL ANALYSIS (INORGANICS)
(ROUND I)

Versar, Inc.
DEC 16 1992

CASE NARRATIVE
FOR INORGANICS (NYASP)

ALL THE SAMPLES WERE SUBBED OUT TO CHEMTECH CONSULTING GROUP FOR ANALYSIS OF METALS
Lab Name: CHEMTECH

Client:VERSAR ENV. Project:Figgie-Scott Aviation

Job No.:I210201 & I210202 CASE No.: 10201 SDG No.: SB-1

The following samples are included in this Sample Delivery Group:

CHEMTECH ID	Client ID on forms
5455S	SS-2
5456S	SS-3
5457S	SS-4
5458S	SS-5
5459S	SS-5D for (SS-5 DUP)
5460S	SS-6
5461S	DDS-1
5462S	DDS-2
5463S	SB-1
5464S	MS for (SB-5B MS)
5465S	MSD for (SB-5B MSD)
5466S2	MSDD
5467DS	MSDS
5468S	SB-2
5469S	SB-3
5470S	SB-4
5471S	SB-5A
5472S	SB-6
5473S	MW-6
5474S	SB-5C
5475S	SB-5D
5478S	SC-1
5479S	SC-2
5480S	SC-3
5481S	SS-1

Detailed Documentation of Problems Encountered With These Samples

General:

1. The above soil samples were analyzed for **METALS**.

2. Please note that the client sample number with the sample description (identification) is too many characters, therefore as per the software being used only limited characters can be used for EPA sample number. Never-the-less for the cross reference check the Lab sample ID. with Client ID. is listed above on this case narrative.

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

DDS-1

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 10201 SAS No.: SDG No.: SB-1

Matrix (soil/water): SOIL Lab Sample ID: 5461S

Level (low/med): LOW Date Received: 11/03/92

% Solids: 77.0

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5990			P
7440-36-0	Antimony	10.4	U		P
7440-38-2	Arsenic	3.8		N	F
7440-39-3	Barium	70.6			P
7440-41-7	Beryllium	0.68	B		P
7440-43-9	Cadmium	1.7			P
7440-70-2	Calcium	23300			P
7440-47-3	Chromium	16.2			P
7440-48-4	Cobalt	5.3	B		P
7440-50-8	Copper	60.5			P
7439-89-6	Iron	22600			P
7439-92-1	Lead	89.1			F
7439-95-4	Magnesium	4760			P
7439-96-5	Manganese	910			P
7439-97-6	Mercury	0.13	U		CV
7440-02-0	Nickel	20.2			P
7440-09-7	Potassium	779	B		A
7782-49-2	Selenium	0.78	U		F
7440-22-4	Silver	2.1	B		P
7440-23-5	Sodium	335	B		P
7440-28-0	Thallium	0.78	U		F
7440-62-2	Vanadium	19.6			P
7440-66-6	Zinc	282			P
	Cyanide				NR

Color Before: BLACK Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

FORM I - IN ILM02.1

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U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

DDS-2

: CHEMTECH CONSULTING GROUP Contract: 68D20041

Case No.: 1020(SAS No.: SDG No.: SB-1

ode: CHEM Lab Sample ID: 5462S

(soil/water): SOIL Date Received: 11/03/92

l (low/med): LOW

s: 77.0

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	13300			P
7440-36-0	Antimony	10.4	U	N	P
7440-38-2	Arsenic	3.8			F
7440-39-3	Barium	61.9			P
7440-41-7	Beryllium	0.89	B		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	18600			P
7440-47-3	Chromium	17.3			P
7440-48-4	Cobalt	9.3	B		P
7440-50-8	Copper	33.9			P
7439-89-6	Iron	21100			P
7439-92-1	Lead	66.2			F
7439-95-4	Magnesium	4110			P
7439-96-5	Manganese	298			P
7439-97-6	Mercury	0.13	U		CV
7440-02-0	Nickel	16.6			P
7440-09-7	Potassium	558	B		A
7782-49-2	Selenium	0.78	U	W	F
7440-22-4	Silver	1.8	U		P
7440-23-5	Sodium	445	B		P
7440-28-0	Thallium	0.78	U		F
7440-62-2	Vanadium	28.8			P
7440-66-6	Zinc	108			P
	Cyanide				NR

lor Before: BLACK Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

omments:

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FORM I - IN

EPA SAMPLE NO.

MS

INORGANIC ANALYSIS DATA SHEET

ab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 10201 SAS No.: SDG No.: SB-1

atrix (soil/water): SOIL Lab Sample ID: 5464S

Level (low/med): LOW Date Received: 11/03/92

Solids: 85.0

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	20900			P
7440-36-0	Antimony	9.4	U		P
7440-38-2	Arsenic	2.7		WN	F
7440-39-3	Barium	124			P
7440-41-7	Beryllium	1.3			P
7440-43-9	Cadmium	0.94	U		P
7440-70-2	Calcium	3250			P
7440-47-3	Chromium	22.3			P
7440-48-4	Cobalt	8.1	B		P
7440-50-8	Copper	26.8			P
7439-89-6	Iron	23400			P
7439-92-1	Lead	31.8			F
7439-95-4	Magnesium	4650			P
7439-96-5	Manganese	214			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	19.8			P
7440-09-7	Potassium	1200			A
7782-49-2	Selenium	0.71	U	W	F
7440-22-4	Silver	2.8			P
7440-23-5	Sodium	310	B		P
7440-28-0	Thallium	0.71	U		F
7440-62-2	Vanadium	34.0			P
7440-66-6	Zinc	95.1			P
	Cyanide				NR

Color Before: BLACK Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MSD

ıb Name: CHEMTECH CONSULTING GROUP   Contract: 68D20041

Lab Code: CHEM   Case No.: 10201   SAS No.:   SDG No.: SB-1

ıtrix (soil/water): SOIL   Lab Sample ID: 5465S

Level (low/med): LOW   Date Received: 11/03/92

Solids: 85.0

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	13200			P
7440-36-0	Antimony	9.4	U		P
7440-38-2	Arsenic	4.3		SN	F
7440-39-3	Barium	87.6			P
7440-41-7	Beryllium	0.78	B		P
7440-43-9	Cadmium	0.94	U		P
7440-70-2	Calcium	67600			P
7440-47-3	Chromium	19.0			P
7440-48-4	Cobalt	9.1	B		P
7440-50-8	Copper	26.2			P
7439-89-6	Iron	21700			P
7439-92-1	Lead	12.0			F
7439-95-4	Magnesium	26400			P
7439-96-5	Manganese	409			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	23.6			P
7440-09-7	Potassium	2520			A
7782-49-2	Selenium	0.71	U		F
7440-22-4	Silver	2.1	B		P
7440-23-5	Sodium	336	B		P
7440-28-0	Thallium	0.71	U		F
7440-62-2	Vanadium	29.3			P
7440-66-6	Zinc	69.9			P
	Cyanide				NR

ɔolor Before: BROWN   Clarity Before: Texture: MEDIUM

Color After: YELLOW   Clarity After: Artifacts:

ɔomments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-6

ab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 10201 SAS No.: SDG No.: SB-1

atrix (soil/water): SOIL Lab Sample ID: 5473S

Level (low/med): LOW Date Received: 11/03/92

Solids: 91.0

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2780			P
7440-36-0	Antimony	8.8	U		P
7440-38-2	Arsenic	2.2	B	N	F
7440-39-3	Barium	24.7	B		P
7440-41-7	Beryllium	0.22	U		P
7440-43-9	Cadmium	0.88	U		P
7440-70-2	Calcium	120000			P
7440-47-3	Chromium	5.7			P
7440-48-4	Cobalt	2.7	B		P
7440-50-8	Copper	14.5			P
7439-89-6	Iron	7210			P
7439-92-1	Lead	4.9		S	F
7439-95-4	Magnesium	36000			P
7439-96-5	Manganese	168			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	10.1			P
7440-09-7	Potassium	510	B		A
7782-49-2	Selenium	0.66	U		F
7440-22-4	Silver	1.5	U		P
7440-23-5	Sodium	408	B		P
7440-28-0	Thallium	0.66	U		F
7440-62-2	Vanadium	11.5			P
7440-66-6	Zinc	64.2			P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-1

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 1020 SAS No.: SDG No.: SB-1

Matrix (soil/water): SOIL Lab Sample ID: 5463S

Level (low/med): LOW Date Received: 11/03/92

% Solids: 79.0

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12400			P
7440-36-0	Antimony	10.1	U		P
7440-38-2	Arsenic	4.2		SN	F
7440-39-3	Barium	91.0			P
7440-41-7	Beryllium	0.84	B		P
7440-43-9	Cadmium	1.2	B		P
7440-70-2	Calcium	71700			P
7440-47-3	Chromium	16.8			P
7440-48-4	Cobalt	9.3	B		P
7440-50-8	Copper	44.1			P
7439-89-6	Iron	21800			P
7439-92-1	Lead	15.4		S	F
7439-95-4	Magnesium	29800			P
7439-96-5	Manganese	394			P
7439-97-6	Mercury	0.13	U		CV
7440-02-0	Nickel	19.4			P
7440-09-7	Potassium	2260			A
7782-49-2	Selenium	0.76	U	W	F
7440-22-4	Silver	1.8	U		P
7440-23-5	Sodium	504	B		P
7440-28-0	Thallium	0.76	U		F
7440-62-2	Vanadium	28.7			P
7440-66-6	Zinc	74.0			P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-2

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 12201 SAS No.: SDG No.: SB-1

Matrix (soil/water): SOIL Lab Sample ID: 5468S

Level (low/med): LOW Date Received: 11/03/92

% Solids: 80.0

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	14300			P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	3.3		SN	F
7440-39-3	Barium	97.7			P
7440-41-7	Beryllium	1.0	B		P
7440-43-9	Cadmium	1.5			P
7440-70-2	Calcium	78200			P
7440-47-3	Chromium	19.5			P
7440-48-4	Cobalt	9.3	B		P
7440-50-8	Copper	20.4			P
7439-89-6	Iron	21800			P
7439-92-1	Lead	15.3		S	F
7439-95-4	Magnesium	34200			P
7439-96-5	Manganese	399			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	19.9			P
7440-09-7	Potassium	2640			A
7782-49-2	Selenium	0.75	U	W	F
7440-22-4	Silver	1.8	U		P
7440-23-5	Sodium	462	B		P
7440-28-0	Thallium	0.75	U		F
7440-62-2	Vanadium	31.9			P
7440-66-6	Zinc	72.5			P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

SB-3

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 10201 SAS No.: SDG No.: SB-1

Matrix (soil/water): SOIL Lab Sample ID: 5469S

Level (low/med): LOW Date Received: 11/03/92

% Solids: 94.0

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6500			P
7440-36-0	Antimony	8.5	U		P
7440-38-2	Arsenic	3.8		SN	F
7440-39-3	Barium	45.8			P
7440-41-7	Beryllium	0.50	B		P
7440-43-9	Cadmium	0.85	U		P
7440-70-2	Calcium	67500			P
7440-47-3	Chromium	9.6			P
7440-48-4	Cobalt	6.4	B		P
7440-50-8	Copper	16.9			P
7439-89-6	Iron	13100			P
7439-92-1	Lead	9.1			F
7439-95-4	Magnesium	22900			P
7439-96-5	Manganese	258			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	12.9			P
7440-09-7	Potassium	1260			A
7782-49-2	Selenium	0.64	U	W	F
7440-22-4	Silver	1.5	U		P
7440-23-5	Sodium	334	B		P
7440-28-0	Thallium	0.64	U		F
7440-62-2	Vanadium	18.0			P
7440-66-6	Zinc	55.2			P
	Cyanide				NR

Color Before: GRAY Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

U.S. EPA - CLP
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EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

SB-4

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 10201 SAS No.: SDG No.: SB-1

Matrix (soil/water): SOIL Lab Sample ID: 5470S

Level (low/med): LOW Date Received: 11/03/92

% Solids: 95.0

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2300			P
7440-36-0	Antimony	8.4	U		P
7440-38-2	Arsenic	0.42	U	N	F
7440-39-3	Barium	15.4	B		P
7440-41-7	Beryllium	0.21	U		P
7440-43-9	Cadmium	0.84	U		P
7440-70-2	Calcium	160000			P
7440-47-3	Chromium	6.6			P
7440-48-4	Cobalt	4.2	B		P
7440-50-8	Copper	16.7			P
7439-89-6	Iron	7790			P
7439-92-1	Lead	6.9			F
7439-95-4	Magnesium	18900			P
7439-96-5	Manganese	140			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	16.9			P
7440-09-7	Potassium	429	B		A
7782-49-2	Selenium	0.63	U	W	F
7440-22-4	Silver	1.5	U		P
7440-23-5	Sodium	240	B		P
7440-28-0	Thallium	0.72	B	W	F
7440-62-2	Vanadium	12.9			P
7440-66-6	Zinc	47.4			P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

U.S. EPA - CLP
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EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

SB-5A

Lab Name: CHEMTECH CONSULTING GROUP   Contract: 68D20041

Lab Code: CHEM   Case No.: 10201   SAS No.:   SDG No.: SB-1

Matrix (soil/water): SOIL   Lab Sample ID: 5471S

Level (low/med): LOW   Date Received: 11/03/92

% Solids: 87.0

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	24400			P
7440-36-0	Antimony	9.2	U		P
7440-38-2	Arsenic	6.4		SN	F
7440-39-3	Barium	181			P
7440-41-7	Beryllium	1.4			P
7440-43-9	Cadmium	1.8			P
7440-70-2	Calcium	4770			P
7440-47-3	Chromium	28.1			P
7440-48-4	Cobalt	11.5			P
7440-50-8	Copper	23.4			P
7439-89-6	Iron	31000			P
7439-92-1	Lead	53.1			F
7439-95-4	Magnesium	8730			P
7439-96-5	Manganese	183			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	31.3			P
7440-09-7	Potassium	2050			A
7782-49-2	Selenium	0.69	U	W	F
7440-22-4	Silver	1.6	U		P
7440-23-5	Sodium	322	B		P
7440-28-0	Thallium	0.69	U		F
7440-62-2	Vanadium	42.3			P
7440-66-6	Zinc	97.3			P
	Cyanide				NR

Color Before: BROWN   Clarity Before: Texture: MEDIUM

Color After: YELLOW   Clarity After: Artifacts:

Comments:

U.S. EPA - CLP
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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-5C

ab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 10201 SAS No.: SDG No.: SB-1

atrix (soil/water): SOIL Lab Sample ID: 5474S

Level (low/med): LOW Date Received: 11/03/92

Solids: 80.0

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	13300			P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	2.6		SN	F
7440-39-3	Barium	89.7			P
7440-41-7	Beryllium	0.76	B		P
7440-43-9	Cadmium	1.4			P
7440-70-2	Calcium	70300			P
7440-47-3	Chromium	20.6			P
7440-48-4	Cobalt	9.4	B		P
7440-50-8	Copper	31.7			P
7439-89-6	Iron	20900			P
7439-92-1	Lead	14.2			F
7439-95-4	Magnesium	28300			P
7439-96-5	Manganese	445			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	23.4			P
7440-09-7	Potassium	2770			A
7782-49-2	Selenium	7.5	U	W	F
7440-22-4	Silver	1.8	U		P
7440-23-5	Sodium	347	B		P
7440-28-0	Thallium	0.75	U		F
7440-62-2	Vanadium	28.9			P
7440-66-6	Zinc	71.7			P
	Cyanide				NR

olor Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

omments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-5D

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 10201 SAS No.: SDG No.: SB-1

Matrix (soil/water): SOIL Lab Sample ID: 5475S

Level (low/med): LOW Date Received: 11/03/92

% Solids: 80.0

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	13000			P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	6.0		SN	F
7440-39-3	Barium	118			P
7440-41-7	Beryllium	0.89	B		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	61300			P
7440-47-3	Chromium	21.7			P
7440-48-4	Cobalt	11.8	B		P
7440-50-8	Copper	31.8			P
7439-89-6	Iron	23400			P
7439-92-1	Lead	15.8			F
7439-95-4	Magnesium	25900			P
7439-96-5	Manganese	494			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	25.8			P
7440-09-7	Potassium	2320			A
7782-49-2	Selenium	0.75	U	W	F
7440-22-4	Silver	1.8	U		P
7440-23-5	Sodium	374	B		P
7440-28-0	Thallium	0.75	U		F
7440-62-2	Vanadium	27.2			P
7440-66-6	Zinc	75.5			P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-6

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 10201 SAS No.: SDG No.: SB-1

Matrix (soil/water): SOIL Lab Sample ID: 5472S

Level (low/med): LOW Date Received: 11/03/92

% Solids: 90.0

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2420			P
7440-36-0	Antimony	8.9	U		P
7440-38-2	Arsenic	1.5	B	N	F
7440-39-3	Barium	16.2	B		P
7440-41-7	Beryllium	0.32	B		P
7440-43-9	Cadmium	0.89	U		P
7440-70-2	Calcium	95400			P
7440-47-3	Chromium	5.3			P
7440-48-4	Cobalt	3.4	B		P
7440-50-8	Copper	20.1			P
7439-89-6	Iron	7400			P
7439-92-1	Lead	5.0			F
7439-95-4	Magnesium	23300			P
7439-96-5	Manganese	136			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	13.0			P
7440-09-7	Potassium	387	B		A
7782-49-2	Selenium	0.67	U		F
7440-22-4	Silver	1.6	U		P
7440-23-5	Sodium	306	B		P
7440-28-0	Thallium	0.67	U		F
7440-62-2	Vanadium	12.1			P
7440-66-6	Zinc	29.7			P
	Cyanide				NR

Color Before: GRAY Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SC-1

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 0201 SAS No.: SDG No.: SB-1

Matrix (soil/water): SOIL Lab Sample ID: 5478S

Level (low/med): LOW Date Received: 11/03/92

% Solids: 51.0

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	21000			P
7440-36-0	Antimony	15.7	U		P
7440-38-2	Arsenic	3.8	B	N	F
7440-39-3	Barium	144			P
7440-41-7	Beryllium	1.8	B		P
7440-43-9	Cadmium	3.7			P
7440-70-2	Calcium	5030			P
7440-47-3	Chromium	33.3			P
7440-48-4	Cobalt	9.9	B		P
7440-50-8	Copper	49.0			P
7439-89-6	Iron	28100			P
7439-92-1	Lead	134			F
7439-95-4	Magnesium	5820			P
7439-96-5	Manganese	478			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	32.1			P
7440-09-7	Potassium	2150			A
7782-49-2	Selenium	1.2	U	W	F
7440-22-4	Silver	2.7	U		P
7440-23-5	Sodium	339	B		P
7440-28-0	Thallium	1.2	U		F
7440-62-2	Vanadium	37.6			P
7440-66-6	Zinc	292			P
	Cyanide				NR

Color Before: BLACK Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SC-2

Name: CHEMTECH CONSULTING GROUP   Contract: 68D20041

Lab Code: CHEM   Case No.: 10201   SAS No.:   SDG No.: SB-1

Matrix (soil/water): SOIL   Lab Sample ID: 5479S

Level (low/med): LOW   Date Received: 11/03/92

Solids: 47.0

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9400			P
7440-36-0	Antimony	17.0	U		P
7440-38-2	Arsenic	3.8	B	N	F
7440-39-3	Barium	99.1			P
7440-41-7	Beryllium	0.65	B		P
7440-43-9	Cadmium	3.6			P
7440-70-2	Calcium	246000			P
7440-47-3	Chromium	258			P
7440-48-4	Cobalt	7.3	B		P
7440-50-8	Copper	152			P
7439-89-6	Iron	63700			P
7439-92-1	Lead	127			F
7439-95-4	Magnesium	14700			P
7439-96-5	Manganese	1770			P
7439-97-6	Mercury	0.21	U		CV
7440-02-0	Nickel	62.2			P
7440-09-7	Potassium	877	B		A
7782-49-2	Selenium	1.3	U		F
7440-22-4	Silver	3.0	U		P
7440-23-5	Sodium	586	B		P
7440-28-0	Thallium	1.3	U		F
7440-62-2	Vanadium	44.9			P
7440-66-6	Zinc	153			P
	Cyanide				NR

Color Before: BLACK   Clarity Before: Texture: MEDIUM

Color After: YELLOW   Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SC-3

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 10201 SAS No.: SDG No.: SB-1

Matrix (soil/water): SOIL Lab Sample ID: 5480S

Level (low/med): LOW Date Received: 11/03/92

% Solids: 72.0

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	17000			P
7440-36-0	Antimony	11.1	U		P
7440-38-2	Arsenic	5.1		SN	F
7440-39-3	Barium	89.4			P
7440-41-7	Beryllium	0.99	B		P
7440-43-9	Cadmium	1.6			P
7440-70-2	Calcium	11500			P
7440-47-3	Chromium	23.3			P
7440-48-4	Cobalt	8.5	B		P
7440-50-8	Copper	24.6			P
7439-89-6	Iron	24600			P
7439-92-1	Lead	18.8			F
7439-95-4	Magnesium	6710			P
7439-96-5	Manganese	768			P
7439-97-6	Mercury	0.14	U		CV
7440-02-0	Nickel	27.1			P
7440-09-7	Potassium	1190	B		A
7782-49-2	Selenium	0.83	U	W	F
7440-22-4	Silver	1.9	U		P
7440-23-5	Sodium	294	B		P
7440-28-0	Thallium	0.83	U		F
7440-62-2	Vanadium	31.8			P
7440-66-6	Zinc	83.5			P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS-1

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 1020 SAS No.: SDG No.: SB-1

Matrix (soil/water): SOIL Lab Sample ID: 5481S

Level (low/med): LOW Date Received: 11/03/92

% Solids: 75.0

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	19800			P
7440-36-0	Antimony	10.7	U		P
7440-38-2	Arsenic	3.4		N	F
7440-39-3	Barium	114			P
7440-41-7	Beryllium	1.3	B		P
7440-43-9	Cadmium	2.3			P
7440-70-2	Calcium	3470			P
7440-47-3	Chromium	25.8			P
7440-48-4	Cobalt	20.3			P
7440-50-8	Copper	28.8			P
7439-89-6	Iron	29100			P
7439-92-1	Lead	35.2		S	F
7439-95-4	Magnesium	5620			P
7439-96-5	Manganese	849			P
7439-97-6	Mercury	0.13	U		CV
7440-02-0	Nickel	29.1			P
7440-09-7	Potassium	1850			A
7782-49-2	Selenium	0.80	U		F
7440-22-4	Silver	1.9	U		P
7440-23-5	Sodium	240	B		P
7440-28-0	Thallium	0.80	U		F
7440-62-2	Vanadium	37.0			P
7440-66-6	Zinc	102			P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS-2

b Name: CHEMTECH CONSULTING GROUP   Contract: 68D20041

Lab Code: CHEM   Case No.: 10201   SAS No.:   SDG No.: SB-1

trix (soil/water): SOIL   Lab Sample ID: 5455S

Level (low/med): LOW   Date Received: 11/03/92

Solids: 72.0

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

qualifiers

CAS No.	Analyte	Concentration	C	Qualifiers	M
7429-90-5	Aluminum	19700			P
7440-36-0	Antimony	11.1	U		P
7440-38-2	Arsenic	5.2		N	F
7440-39-3	Barium	116			P
7440-41-7	Beryllium	1.4			P
7440-43-9	Cadmium	1.7			P
7440-70-2	Calcium	4030			P
7440-47-3	Chromium	25.5			P
7440-48-4	Cobalt	37.6			P
7440-50-8	Copper	85.1			P
7439-89-6	Iron	34400			P
7439-92-1	Lead	27.0		S	F
7439-95-4	Magnesium	5730			P
7439-96-5	Manganese	1180			P
7439-97-6	Mercury	0.14	U		CV
7440-02-0	Nickel	34.0			P
7440-09-7	Potassium	1270	B		A
7782-49-2	Selenium	0.83	U	W	F
7440-22-4	Silver	2.7	B		P
7440-23-5	Sodium	370	B		P
7440-28-0	Thallium	0.83	U		F
7440-62-2	Vanadium	41.3			P
7440-66-6	Zinc	112			P
	Cyanide				NR

S = B - reported LMST... U - not detected

spike out of control limits

method of standard addition ...

out of control limits

or Before: BROWN   Clarity Before: Texture: MEDIUM

or After: YELLOW   Clarity After: Artifacts:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SS-3

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 10201 SAS No.: SDG No.: SB-1

Matrix (soil/water): SOIL Lab Sample ID: 5456S

Level (low/med): LOW Date Received: 11/03/92

% Solids: 72.0

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	14700			P
7440-36-0	Antimony	11.1	U		P
7440-38-2	Arsenic	4.8		N	F
7440-39-3	Barium	104			P
7440-41-7	Beryllium	1.0	B		P
7440-43-9	Cadmium	2.8			P
7440-70-2	Calcium	14700			P
7440-47-3	Chromium	21.6			P
7440-48-4	Cobalt	13.2	B		P
7440-50-8	Copper	69.3			P
7439-89-6	Iron	27000			P
7439-92-1	Lead	46.9			F
7439-95-4	Magnesium	9620			P
7439-96-5	Manganese	516			P
7439-97-6	Mercury	0.14	U		CV
7440-02-0	Nickel	29.7			P
7440-09-7	Potassium	1030	B		A
7782-49-2	Selenium	0.83	U		F
7440-22-4	Silver	2.3	B		P
7440-23-5	Sodium	460	B		P
7440-28-0	Thallium	0.83	U	W	F
7440-62-2	Vanadium	32.5			P
7440-66-6	Zinc	205			P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

EPA SAMPLE NO.

SS-4

INORGANIC ANALYSIS DATA SHEET

ab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 1020 SAS No.: SDG No.: SB-1

atrix (soil/water): SOIL Lab Sample ID: 5457S

Level (low/med): LOW Date Received: 11/03/92

Solids: 67.0

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	15600			P
7440-36-0	Antimony	11.9	U		P
7440-38-2	Arsenic	4.4		N	F
7440-39-3	Barium	102			P
7440-41-7	Beryllium	1.2	B		P
7440-43-9	Cadmium	2.4			P
7440-70-2	Calcium	35000			P
7440-47-3	Chromium	23.2			P
7440-48-4	Cobalt	12.8	B		P
7440-50-8	Copper	50.9			P
7439-89-6	Iron	28500			P
7439-92-1	Lead	41.5		S	F
7439-95-4	Magnesium	14900			P
7439-96-5	Manganese	430			P
7439-97-6	Mercury	0.15	U		CV
7440-02-0	Nickel	29.4			P
7440-09-7	Potassium	1920			A
7782-49-2	Selenium	0.90	U	W	F
7440-22-4	Silver	2.3	B		P
7440-23-5	Sodium	368	B		P
7440-28-0	Thallium	0.90	U		F
7440-62-2	Vanadium	36.8			P
7440-66-6	Zinc	123			P
	Cyanide				NR

olor Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

SS-5

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 10201 SAS No.: SDG No.: SB-1

Matrix (soil/water): SOIL Lab Sample ID: 5458S

Level (low/med): LOW Date Received: 11/03/92

% Solids: 69.0

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	16200			P
7440-36-0	Antimony	11.6	U		P
7440-38-2	Arsenic	4.2		N	F
7440-39-3	Barium	96.7			P
7440-41-7	Beryllium	1.1	B		P
7440-43-9	Cadmium	1.4	B		P
7440-70-2	Calcium	29500			P
7440-47-3	Chromium	19.7			P
7440-48-4	Cobalt	11.9	B		P
7440-50-8	Copper	42.4			P
7439-89-6	Iron	26500			P
7439-92-1	Lead	23.7			F
7439-95-4	Magnesium	13500			P
7439-96-5	Manganese	425			P
7439-97-6	Mercury	0.14	U		CV
7440-02-0	Nickel	27.9			P
7440-09-7	Potassium	1830			A
7782-49-2	Selenium	0.87	U		F
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	333	B		P
7440-28-0	Thallium	0.87	U		F
7440-62-2	Vanadium	33.9			P
7440-66-6	Zinc	99.5			P
	Cyanide				NR

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

SS-6

b Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 10201 SAS No.: SDG No.: SB-1

trix (soil/water): SOIL Lab Sample ID: 5460S

Level (low/med): LOW Date Received: 11/03/92

Solids: 79.0

Concentration Units (ug/L or mg/Kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7150			P
7440-36-0	Antimony	10.1	U		P
7440-38-2	Arsenic	3.0		N	F
7440-39-3	Barium	51.3			P
7440-41-7	Beryllium	0.66	B		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	7670			P
7440-47-3	Chromium	19.1			P
7440-48-4	Cobalt	5.6	B		P
7440-50-8	Copper	34.2			P
7439-89-6	Iron	15600			P
7439-92-1	Lead	21.4		S	F
7439-95-4	Magnesium	3690			P
7439-96-5	Manganese	288			P
7439-97-6	Mercury	0.13	U		CV
7440-02-0	Nickel	15.0			P
7440-09-7	Potassium	514	B		A
7782-49-2	Selenium	0.76	U	W	F
7440-22-4	Silver	1.8	U		P
7440-23-5	Sodium	291	B		P
7440-28-0	Thallium	0.76	U		F
7440-62-2	Vanadium	17.7			P
7440-66-6	Zinc	141			P
	Cyanide				NR

olor Before: BLACK Clarity Before: Texture: MEDIUM

olor After: YELLOW Clarity After: Artifacts:

Comments:

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SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MSDS

ab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 10201 SAS No.: SDG No.: SB-1

atrix: SOIL Level (low/med): LOW

% Solids for Sample: 85.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony	75-125	112.9859		9.4118	U	117.65	96.0		P
Arsenic	75-125	10.1176		4.2588		9.41	62.3	N	F
Barium	75-125	545.9294		87.6212		470.59	97.4		P
Beryllium	75-125	12.4235		0.7788	B	11.76	99.0		P
Cadmium	75-125	12.9341		0.9412	U	11.76	110.0		P
Calcium									NR
Chromium	75-125	64.4329		18.9671		47.06	96.6		P
Cobalt	75-125	120.9365		9.0682	B	117.65	95.1		P
Copper	75-125	83.0188		26.1812		58.82	96.6		P
Iron									NR
Lead	75-125	16.2353		12.0235		4.71	89.4		F
Magnesium									NR
Manganese	75-125	500.9412		408.6118		117.65	78.5		P
Mercury	75-125	0.5529		0.1176	U	0.59	93.7		CV
Nickel	75-125	132.9553		23.5647		117.65	93.0		P
Potassium									NR
Selenium	75-125	2.7529		0.7059	U	2.35	117.1		F
Silver	75-125	12.4094		2.1271	B	11.76	87.4		P
Sodium									NR
Thallium	75-125	11.4588		0.7059	U	11.76	97.4		F
Vanadium	75-125	142.3906		29.2635		117.65	96.2		P
Zinc	75-125	188.8071		69.8871		117.65	101.1		P
Cyanide									NR

Comments:

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6
DUPLICATES

EPA SAMPLE NO.

MSDD

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 1821 SAS No.: SDG No.: SB-1

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 85.0 % Solids for Duplicate: 85.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		13238.1176		12343.5294		7.0		P
Antimony		9.4118	U	9.4118	U			P
Arsenic	2.4	4.2588		2.4000		55.8		F
Barium	47.1	87.6212		84.6165		3.5		P
Beryllium		0.7788	B	0.7788	B	0.0		P
Cadmium		0.9412	U	0.9412	U			P
Calcium		67574.1176		69701.1765		3.1		P
Chromium		18.9671		17.4612		8.3		P
Cobalt		9.0682	B	9.7506	B	7.3		P
Copper	5.9	26.1812		25.2376		3.7		P
Iron		21705.1765		21107.2941		2.8		P
Lead		12.0235		13.7647		13.5		F
Magnesium		26402.3529		26571.7647		0.6		P
Manganese		408.6118		410.1412		0.4		P
Mercury		0.1176	U	0.1176	U			CV
Nickel	9.4	23.5647		21.0871		11.1		P
Potassium	1176.5	2520.0000		2543.5294		0.9		A
Selenium		0.7059	U	0.7059	U			F
Silver		2.1271	B	1.6471	U	200.0		P
Sodium		335.6235	B	291.9294	B	13.9		P
Thallium		0.7059	U	0.7059	U			F
Vanadium	11.8	29.2635		27.8094		5.1		P
Zinc		69.8871		78.3882		11.5		P
Cyanide								NR

FORM VI - IN ILM02.1

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6
DUPLICATES

EPA SAMPLE NO.

SS-5D

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 1020 SAS No.: SDG No.: SB-1

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 69.0 % Solids for Duplicate: 77.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		16157.3913		15618.5507		3.4		P
Antimony		11.5942	U	11.5942	U			P
Arsenic	2.9	4.2029		4.2609		1.4		F
Barium	58.0	96.6522		91.7942		5.2		P
Beryllium		1.0667	B	1.0667	B	0.0		P
Cadmium	1.4	1.4145	B	1.8145		24.8		P
Calcium		29524.6377		25230.1449		15.7		P
Chromium		19.7478		20.9710		6.0		P
Cobalt		11.8841	B	10.7913	B	9.6		P
Copper		42.4116		39.5246		7.0		P
Iron		26539.7101		25297.3913		4.8		P
Lead		23.6812		25.7391		8.3		F
Magnesium		13501.7391		12352.7536		8.9		P
Manganese		424.6667		383.6812		10.1		P
Mercury		0.1449	U	0.1449	U			CV
Nickel	11.6	27.9130		26.1623		6.5		P
Potassium	1449.3	1831.8841		1794.2029		2.1		A
Selenium		0.8696	U	0.8696	U			F
Silver		2.0290	U	2.0290	U			P
Sodium		332.7246	B	296.0290	B	11.7		P
Thallium		0.8696	U	0.8696	U			F
Vanadium	14.5	33.9391		33.8261		0.3		P
Zinc		99.4812		92.5652		7.2		P
Cyanide								NR

U.S. EPA - CLP

9

ICP SERIAL DILUTIONS

EPA SAMPLE NO.

MSDL

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 10201 SAS No.: SDG No.: SB-1

Matrix (soil/water): SOIL Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Differ-ence	Q	M
Aluminum	56262.00		57425.00		2.1		P
Antimony	40.00	U	200.00	U			P
Arsenic							NR
Barium	372.39		378.75	B	1.7		P
Beryllium	3.31	B	7.10	B	114.5		P
Cadmium	4.00	U	20.00	U			P
Calcium	287190.00		297740.00		3.7		P
Chromium	80.61		75.15		6.8		P
Cobalt	38.54	B	50.30	B	30.5		P
Copper	111.27		115.10	B	3.4		P
Iron	92247.00		96705.00		4.8		P
Lead							NR
Magnesium	112210.00		113680.00		1.3		P
Manganese	1736.60		1820.15		4.8		P
Mercury							NR
Nickel	100.15		80.00	U	100.0		P
Potassium							NR
Selenium							NR
Silver	9.04	B	35.00	U	100.0		P
Sodium	1426.40	B	1650.00	U	100.0		P
Thallium							NR
Vanadium	124.37		148.20	B	19.2		P
Zinc	297.02		327.45		10.2		P

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9

ICP SERIAL DILUTIONS

EPA SAMPLE NO.

SS-5L

ab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 10201 SAS No.: SDG No.: SB-1

atrix (soil/water): SOIL Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	55743.00		56375.00		1.1		P
Antimony	40.00	U	200.00	U			P
Arsenic							NR
Barium	333.45		330.65	B	0.8		P
Beryllium	3.68	B	7.35	B	99.7		P
Cadmium	4.88	B	20.00	U	100.0		P
Calcium	101860.00		104220.00		2.3		P
Chromium	68.13		45.00	U	100.0		P
Cobalt	41.00	B	49.90	B	21.7		P
Copper	146.32		100.00	U	100.0		P
Iron	91562.00		94370.00		3.1		P
Lead							NR
Magnesium	46581.00		47263.50		1.5		P
Manganese	1465.10		1499.40		2.3		P
Mercury							NR
Nickel	96.30		80.00	U	100.0		P
Potassium							NR
Selenium							NR
Silver	7.00	U	35.00	U			P
Sodium	1147.90	B	1650.00	U	100.0		P
Thallium							NR
Vanadium	117.09		117.85	B	0.6		P
Zinc	343.21		357.05		4.0		P

SOIL PESTICIDE ORGANIC ANALYSIS
(ROUND I)

Versar, Inc.
DEC 16 1992

2F
SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: INTECH   Contract:

Lab Code: INTECH   Case No.: 10201   SAS No.   SDG No. SS-2

GC Column(1):RTX1701 ID:0.53 (mm)   GC Column(2):RTX5   ID:0.53 (mm)

NYSDEC SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
PBLK01	106	126	104	104			0
PBLK01MSB	101	117	102	105			0
SB-5BMS	113	115	102	100			0
SB-5BMSD	102	90	104	106			0
SB-5C(dup)	105	91	95	96			0
SB-5C	83	121	83	85			0
SB-5B	91	101	94	84			0

ADVISORY
QC LIMITS

TCX = Tetrachloro-m-xylene (60-150)
DCB = Decachlorobiphenyl (60-150)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

1D

PESTICIDE ORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SB-5C

Name: INTECH Contract:

Code: INTECH CASE No.: 10201 SAS No.: SDG No.: SS-2

rix: (soil/water) SOIL Lab Sample ID: 20118

ple wt/vol: 30 (g/ml) G Lab File ID: >C5923

oisture: 20 decanted: (Y/N) N Date Received: 10/31/92

raction: (SepF/Cont/Sonc) SONC Date Extracted: 11/05/92

centrated Extract Volume: 5000 (uL) Date Analyzed: 11/23/92

ection Volume: 2 (uL) Dilution Factor: 1

Cleanup: (Y/N) Y pH: 9.60 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.1	U
319-85-7	beta-BHC	2.1	U
319-86-8	delta-BHC	2.1	U
58-89-9	gamma-BHC (Lindane)	2.1	U
76-44-8	Heptachlor	2.1	U
309-00-2	Aldrin	2.1	U
1024-57-3	Heptachlor epoxide	2.1	U
959-98-8	Endosulfan I	2.1	U
60-57-1	Dieldrin	4.2	U
72-55-9	4,4'-DDE	4.2	U
72-20-8	Endrin	4.2	U
33213-65-9	Endosulfan II	4.2	U
72-54-8	4,4'-DDD	4.2	U
1031-07-8	Endosulfan sulfate	4.2	U
50-29-3	4,4'-DDT	4.2	U
72-43-5	Methoxychlor	21	U
53494-70-5	Endrin ketone	4.2	U
7421-36-3	Endrin aldehyde	4.2	U
5103-71-9	alpha-Chlordane	2.1	U
5103-74-2	gamma-Chlordane	2.1	U
8001-35-2	Toxaphene	210	U
12674-11-2	Aroclor 1016	42	U
11104-28-2	Aroclor 1221	83	U
11141-16-5	Aroclor 1232	42	U
53469-21-9	Aroclor 1242	42	U
12672-29-6	Aroclor 1248	42	U
12097-69-1	Aroclor 1254	42	U
11096-82-5	Aroclor 1260	42	U

1D
PESTICIDE ORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SB-5C(dup)

Name: INTECH Contract:

Code: INTECH CASE No.: 10201 SAS No.: SDG No.: SS-2

rix: (soil/water) SOIL Lab Sample ID: 20120

ple wt/vol: 30 (g/ml) G Lab File ID: >C5922

loisture: 19 decanted: (Y/N) N Date Received: 10/31/92

raction: (SepF/Cont/Sonc) SONC Date Extracted: 11/05/92

centrated Extract Volume: 5000 (uL) Date Analyzed: 11/23/92

jection Volume: 2 (uL) Dilution Factor: 1

Cleanup: (Y/N) Y pH: 9.70 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.1	U
319-85-7	beta-BHC	2.1	U
319-86-8	delta-BHC	2.1	U
58-89-9	gamma-BHC (Lindane)	2.1	U
76-44-8	Heptachlor	2.1	U
309-00-2	Aldrin	2.1	U
1024-57-3	Heptachlor epoxide	2.1	U
959-98-8	Endosulfan I	2.1	U
60-57-1	Dieldrin	4.1	U
72-55-9	4,4'-DDE	4.1	U
72-20-8	Endrin	4.1	U
33213-65-9	Endosulfan II	4.1	U
72-54-8	4,4'-DDD	4.1	U
1031-07-8	Endosulfan sulfate	4.1	U
50-29-3	4,4'-DDT	4.1	U
72-43-5	Methoxychlor	21	U
53494-70-5	Endrin ketone	4.1	U
7421-36-3	Endrin aldehyde	4.1	U
5103-71-9	alpha-Chlordane	2.1	U
5103-74-2	gamma-Chlordane	2.1	U
8001-35-2	Toxaphene	210	U
12674-11-2	Aroclor 1016	41	U
11104-28-2	Aroclor 1221	82	U
11141-16-5	Aroclor 1232	41	U
53469-21-9	Aroclor 1242	41	U
12672-29-6	Aroclor 1248	41	U
12097-69-1	Aroclor 1254	41	U
11096-82-5	Aroclor 1260	41	U

354

1D

PESTICIDE ORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SB-5B

Name: INTECH Contract:

Code: INTECH CASE No.: 10201 SAS No.: SDG No.: SS-2

rix: (soil/water) SOIL Lab Sample ID: 20121

ple wt/vol: 30 (g/ml) G Lab File ID: >C5924

loisture: 15 decanted: (Y/N) N Date Received: 10/31/92

raction: (SepF/Cont/Sonc) SONC Date Extracted: 11/05/92

centrated Extract Volume: 5000 (uL) Date Analyzed: 11/23/92

jection Volume: 2 (uL) Dilution Factor: 1

Cleanup: (Y/N) Y pH: 9.70 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.0	U
319-85-7	beta-BHC	2.0	U
319-86-8	delta-BHC	2.0	U
58-89-9	gamma-BHC (Lindane)	2.0	U
76-44-8	Heptachlor	2.0	U
309-00-2	Aldrin	2.0	U
1024-57-3	Heptachlor epoxide	2.0	U
959-98-8	Endosulfan I	2.0	U
60-57-1	Dieldrin	3.9	U
72-55-9	4,4'-DDE	3.9	U
72-20-8	Endrin	3.9	U
33213-65-9	Endosulfan II	3.9	U
72-54-8	4,4'-DDD	3.9	U
1031-07-8	Endosulfan sulfate	3.9	U
50-29-3	4,4'-DDT	3.9	U
72-43-5	Methoxychlor	20	U
53494-70-5	Endrin ketone	3.9	U
7421-36-3	Endrin aldehyde	3.9	U
5103-71-9	alpha-Chlordane	2.0	U
5103-74-2	gamma-Chlordane	2.0	U
8001-35-2	Toxaphene	200	U
12674-11-2	Aroclor 1016	39	U
11104-28-2	Aroclor 1221	78	U
11141-16-5	Aroclor 1232	39	U
53469-21-9	Aroclor 1242	39	U
12672-29-6	Aroclor 1248	39	U
12097-69-1	Aroclor 1254	39	U
11096-82-5	Aroclor 1260	39	U

359

5P

1D

PESTICIDE ORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

PBLK01

Name: INTECH Contract:

Code: INTECH CASE No.: 10201 SAS No.: SDG No.: SS-2

trix: (soil/water) SOIL Lab Sample ID: 207-BLK

mple wt/vol: 30 (g/ml) G Lab File ID: >C5918

loisture: decanted: (Y/N) Y Date Received:

traction: (SepF/Cont/Sonc) SONC Date Extracted: 11/05/92

ncentrated Extract Volume: 5000 (uL) Date Analyzed: 11/23/92

jection Volume: 2 (uL) Dilution Factor: 1

Cleanup: (Y/N) Y pH: 5.00 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.7	U
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	3.3	U
72-55-9	4,4'-DDE	3.3	U
72-20-8	Endrin	3.3	U
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
1031-07-8	Endosulfan sulfate	3.3	U
50-29-3	4,4'-DDT	3.3	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.3	U
7421-36-3	Endrin aldehyde	3.3	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor 1016	33	U
11104-28-2	Aroclor 1221	67	U
11141-16-5	Aroclor 1232	33	U
53469-21-9	Aroclor 1242	33	U
12672-29-6	Aroclor 1248	33	U
12097-69-1	Aroclor 1254	33	U
11096-82-5	Aroclor 1260	33	U

1D

PESTICIDE ORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

| PBLK01MSB |

Name: INTECH Contract:

Code: INTECH CASE No.: 10201 SAS No.: SDG No.: SS-2

rix: (soil/water) SOIL Lab Sample ID: 207-BLK MSB

ple wt/vol: 30 (g/ml) G Lab File ID: >C5919

loisture: decanted: (Y/N) Y Date Received:

raction: (SepF/Cont/Sonc) SONC Date Extracted: 11/05/92

centrated Extract Volume: 5000 (uL) Date Analyzed: 11/23/92

ection Volume: 2 (uL) Dilution Factor: 1

Cleanup: (Y/N) Y pH: 5.00 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.7	U
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	19	
76-44-8	Heptachlor	18	
309-00-2	Aldrin	18	
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	37	
72-55-9	4,4'-DDE	3.3	U
72-20-8	Endrin	36	
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
1031-07-8	Endosulfan sulfate	3.3	U
50-29-3	4,4'-DDT	37	
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.3	U
7421-36-3	Endrin aldehyde	3.3	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor 1016	33	U
11104-28-2	Aroclor 1221	67	U
11141-16-5	Aroclor 1232	33	U
53469-21-9	Aroclor 1242	33	U
12672-29-6	Aroclor 1248	33	U
12097-69-1	Aroclor 1254	33	U
11096-82-5	Aroclor 1260	33	U

1D
PESTICIDE ORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SB-5BMS

Name: INTECH Contract:

Code: INTECH CASE No.: 10201 SAS No.: SDG No.: SS-2

rix: (soil/water) SOIL Lab Sample ID: 20110MS

ple wt/vol: 30 (g/ml) G Lab File ID: >C5920

oisture: 15 decanted: (Y/N) N Date Received: 10/31/92

raction: (SepF/Cont/Sonc) SONC Date Extracted: 11/05/92

centrated Extract Volume: 5000 (uL) Date Analyzed: 11/23/92

ection Volume: 2 (uL) Dilution Factor: 1

Cleanup: (Y/N) Y pH: 9.70 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.0	U
319-85-7	beta-BHC	2.0	U
319-86-8	delta-BHC	2.0	U
58-89-9	gamma-BHC (Lindane)	21	
76-44-8	Heptachlor	20	
309-00-2	Aldrin	19	
1024-57-3	Heptachlor epoxide	2.0	U
959-98-8	Endosulfan I	2.0	U
60-57-1	Dieldrin	40	
72-55-9	4,4'-DDE	3.9	U
72-20-8	Endrin	41	
33213-65-9	Endosulfan II	3.9	U
72-54-8	4,4'-DDD	3.9	U
1031-07-8	Endosulfan sulfate	3.9	U
50-29-3	4,4'-DDT	41	
72-43-5	Methoxychlor	20	U
53494-70-5	Endrin ketone	3.9	U
7421-36-3	Endrin aldehyde	3.9	U
5103-71-9	alpha-Chlordane	2.0	U
5103-74-2	gamma-Chlordane	2.0	U
8001-35-2	Toxaphene	200	U
12674-11-2	Aroclor 1016	39	U
11104-28-2	Aroclor 1221	78	U
11141-16-5	Aroclor 1232	39	U
53469-21-9	Aroclor 1242	39	U
12672-29-6	Aroclor 1248	39	U
12097-69-1	Aroclor 1254	39	U
11096-82-5	Aroclor 1260	39	U

490

5P PV

NYSDEC SAMPLE NO.

1D
PESTICIDE ORGANIC ANALYSIS DATA SHEET

SB-5BMSD

Name: INTECH Contract:

Code: INTECH CASE No.: 10201 SAS No.: SDG No.: SS-2

trix: (soil/water) SOIL Lab Sample ID: 20111MSD

ple wt/vol: 30 (g/ml) G Lab File ID: >C5921

loisture: 15 decanted: (Y/N) N Date Received: 10/31/92

traction: (SepF/Cont/Sonc) SONC Date Extracted: 11/05/92

centrated Extract Volume: 5000 (uL) Date Analyzed: 11/23/92

jection Volume: 2 (uL) Dilution Factor: 1

C Cleanup: (Y/N) Y pH: 9.70 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.0	U
319-85-7	beta-BHC	2.0	U
319-86-8	delta-BHC	2.0	U
58-89-9	gamma-BHC (Lindane)	23	
76-44-8	Heptachlor	21	
309-00-2	Aldrin	21	
1024-57-3	Heptachlor epoxide	2.0	U
959-98-8	Endosulfan I	2.0	U
60-57-1	Dieldrin	45	
72-55-9	4,4'-DDE	3.9	U
72-20-8	Endrin	45	
33213-65-9	Endosulfan II	3.9	U
72-54-8	4,4'-DDD	3.9	U
1031-07-8	Endosulfan sulfate	3.9	U
50-29-3	4,4'-DDT	47	
72-43-5	Methoxychlor	20	U
53494-70-5	Endrin ketone	3.9	U
7421-36-3	Endrin aldehyde	3.9	U
5103-71-9	alpha-Chlordane	2.0	U
5103-74-2	gamma-Chlordane	2.0	U
8001-35-2	Toxaphene	200	U
12674-11-2	Aroclor 1016	39	U
11104-28-2	Aroclor 1221	78	U
11141-16-5	Aroclor 1232	39	U
53469-21-9	Aroclor 1242	39	U
12672-29-6	Aroclor 1248	39	U
12097-69-1	Aroclor 1254	39	U
11096-82-5	Aroclor 1260	39	U

GROUNDWATER ANALYSIS (TOTAL INORGANICS)
(ROUND II)

CASE NARRATIVE
FOR INORGANICS (NYASP)

ALL THE SAMPLES WERE SUBBED OUT TO CHEMTECH CONSULTING GROUP
FOR ANALYSIS OF METALS

Lab Name: CHEMTECH

Project:Scott Aviation

Client:VERSAR ENV.

Job No.:I211107 CASE No.: 11107 SDG No.: MW-1 TAL

The following samples are included in this Sample Delivery Group:

CHEMTECH ID	Client ID on forms
6465S	MW-1
6466S	MW-2
6467S	MW-3
6468DS	MW-3D (for duplicate)
6469S2	MW-3S (for spike)
6470S	MW-4
6471S	MW-4A DUP
6472S	MW-5
6473S	MW-6
6474S	INTER. TRENCH
5475S	FIELD BLANK

Detailed Documentation of Problems Encountered With These Samples

General:

1. The above water samples were analyzed for **METALS** Total.

2. Please note that the client sample number with the sample description (identification) is too many characters, therefore as per the software being used only limited characters can be used for EPA sample number. Never-the-less for the cross reference check the Lab sample ID. with Client ID. is listed above on this case narrative.

3. Please be advised that using the Software for data processing of CLP Inorganic Packages, the software is designed to accomodate one SDG at a time at the same matrix.

4. The Inorganic CLP data package contains respectively in this order: Case Narrative followed by: forms, ICAP raw data, Furnace raw data, Mercury raw data, and finally the last part is General (samples preparation log, Chain-of-Custody, sample log-in sheet).

NYSDEC-ASP

1

INORGANIC ANALYSIS DATA SHEET

NYDEC SAMPLE NO

FIELD BLANK

Lab Name: CHEMTECH CONSULTING GROUP   Contract: 68D20041

Lab Code: CHEM   Case No.: 11/07   SAS No.: LAB.RES.   SDG No.: MW-1 TAL

Matrix (soil/water): WATER   Lab Sample ID: 6475S

Level (low/med): LOW   Date Received: 11/19/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	14.9	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	1540	B		P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	153			P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	373	B		P
7439-96-5	Manganese	4.0	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	900	U		A
7782-49-2	Selenium	3.0	U	W	F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	1250	B		P
7440-28-0	Thallium	3.0	U		F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	34.7			P
	Cyanide				NR

000002

Color Before: COLORLESS   Clarity Before: CLEAR   Texture:

Color After: COLORLESS   Clarity After: CLEAR   Artifacts:

Comments:

FORM I - IN

NYDEC SAMPLE NO

INTER. TRENCH

INORGANIC ANALYSIS DATA SHEET

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 11107 SAS No.: LAB.RES. SDG No.: MW-1 TAL

Matrix (soil/water): WATER Lab Sample ID: 6474S

Level (low/med): LOW Date Received: 11/19/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	8.3	B		F
7440-39-3	Barium	289			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	259000			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	30600			P
7439-92-1	Lead	11.5			F
7439-95-4	Magnesium	59000			P
7439-96-5	Manganese	1870			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	2070	B		A
7782-49-2	Selenium	30.0	U		F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	48100			P
7440-28-0	Thallium	3.0	U	W	F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	43.4			P
	Cyanide				NR

000003

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

NYSDEC-ASP
1

INORGANIC ANALYSIS DATA SHEET

NYDEC SAMPLE NO

MW-1

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 1107 SAS No.: LAB.RES. SDG No.: MW-1 TAL

Matrix (soil/water): WATER Lab Sample ID: 6465S

Level (low/med): LOW Date Received: 11/19/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4130			P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	10.6			F
7440-39-3	Barium	161	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	60600			P
7440-47-3	Chromium	11.1			P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	34.0			P
7439-89-6	Iron	7250			P
7439-92-1	Lead	8.7			F
7439-95-4	Magnesium	23000			P
7439-96-5	Manganese	145			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	4700	B		A
7782-49-2	Selenium	3.0	U	W	F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	18600			P
7440-28-0	Thallium	3.0	U	W	F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	79.6			P
	Cyanide				NR

Color Before: COLORLRSS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

000004

FORM I - IN

12/91

7

NYSDEC-ASP
1

INORGANIC ANALYSIS DATA SHEET

NYDEC SAMPLE NO

MW-2

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 11107 SAS No.: LAB.RES. SDG No.: MW-1 TAL

Matrix (soil/water): WATER Lab Sample ID: 6466S

Level (low/med): LOW Date Received: 11/19/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9980			P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	8.5	B	W	F
7440-39-3	Barium	304			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	200000			P
7440-47-3	Chromium	23.2			P
7440-48-4	Cobalt	11.8	B		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	34200			P
7439-92-1	Lead	12.1			F
7439-95-4	Magnesium	96900			P
7439-96-5	Manganese	2010			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	27.4	B		P
7440-09-7	Potassium	2310	B		A
7782-49-2	Selenium	30.0	U	W	F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	42800			P
7440-28-0	Thallium	3.0	U	W	F
7440-62-2	Vanadium	20.9	B		P
7440-66-6	Zinc	123			P
	Cyanide				NR

000005

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

NYSDEC-ASP
1

INORGANIC ANALYSIS DATA SHEET

NYDEC SAMPLE NO

MW-3

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 11107 SAS No.: LAB.RES. SDG No.: MW-1 TAL

Matrix (soil/water): WATER Lab Sample ID: 6467S

Level (low/med): LOW Date Received: 11/19/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1230			P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	2.2	B	W	F
7440-39-3	Barium	134	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	48800			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	2900			P
7439-92-1	Lead	2.6	B	W	F
7439-95-4	Magnesium	44100			P
7439-96-5	Manganese	103			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	1640	B		A
7782-49-2	Selenium	3.0	U	W	F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	37300			P
7440-28-0	Thallium	3.0	U		F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	49.4			P
	Cyanide				NR

000006

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN 12/91

NYSDEC-ASP
1

INORGANIC ANALYSIS DATA SHEET

NYDEC SAMPLE NO

MW-4

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 1107 SAS No.: LAB.RES. SDG No.: MW-1 TAL

Matrix (soil/water): WATER Lab Sample ID: 6470S

Level (low/med): LOW

% Solids: 0.0 Date Received: 11/19/92

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3740			P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	5.4	B	W	F
7440-39-3	Barium	228			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	102000			P
7440-47-3	Chromium	20.0			P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	7050			P
7439-92-1	Lead	6.7		S	F
7439-95-4	Magnesium	74500			P
7439-96-5	Manganese	228			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	2800	B		A
7782-49-2	Selenium	3.0	U	W	F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	33900			P
7440-28-0	Thallium	3.0	U		F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	76.7			P
	Cyanide				NR

000007

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

NYDEC SAMPLE NO

INORGANIC ANALYSIS DATA SHEET

MW-4A DUP

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 11107 SAS No.: LAB.RES. SDG No.: MW-1 TAL

Matrix (soil/water): WATER Lab Sample ID: 6471S

Level (low/med): LOW Date Received: 12/11/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1990			P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	5.0	B	W	F
7440-39-3	Barium	207			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	81400			P
7440-47-3	Chromium	20.0			P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	3710			P
7439-92-1	Lead	6.0		S	F
7439-95-4	Magnesium	68700			P
7439-96-5	Manganese	167			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	2760	B		A
7782-49-2	Selenium	3.0	U	W	F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	33100			P
7440-28-0	Thallium	3.0	U		F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	50.8			P
	Cyanide				NR

000008

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

NYSDEC-ASP

1

INORGANIC ANALYSIS DATA SHEET

NYDEC SAMPLE NO

MW-5

Lab Name: CHEMTECH CONSULTING GROUP   Contract: 68D20041

Lab Code: CHEM   Case No.: 11107   SAS No.: LAB.RES.   SDG No.: MW-1 TAL

Matrix (soil/water): WATER   Lab Sample ID: 6472S

Level (low/med): LOW   Date Received: 11/19/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	21100			P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	12.3			F
7440-39-3	Barium	392			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	597000			P
7440-47-3	Chromium	47.9			P
7440-48-4	Cobalt	20.5	B		P
7440-50-8	Copper	40.0			P
7439-89-6	Iron	44700			P
7439-92-1	Lead	31.2			F
7439-95-4	Magnesium	170000			P
7439-96-5	Manganese	1340			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	61.0			P
7440-09-7	Potassium	3380	B		A
7782-49-2	Selenium	30.0	U		F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	32400			P
7440-28-0	Thallium	3.0	U	W	F
7440-62-2	Vanadium	58.0			P
7440-66-6	Zinc	162			P
	Cyanide				NR

000009

Color Before: COLORLESS   Clarity Before: CLEAR   Texture:

Color After: YELLOW   Clarity After: CLEAR   Artifacts:

Comments:

FORM I - IN   12/91

INORGANIC ANALYSIS DATA SHEET

NYDEC SAMPLE NO

MW-6

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 11107 SAS No.: LAB.RES. SDG No.: MW-1 TAL

Matrix (soil/water): WATER Lab Sample ID: 6473S

Level (low/med): LOW Date Received: 11/19/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	487			P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	2.0	U	W	F
7440-39-3	Barium	152	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	31700			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	37.8			P
7439-89-6	Iron	940			P
7439-92-1	Lead	8.7		S	F
7439-95-4	Magnesium	47900			P
7439-96-5	Manganese	30.4			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	1480	B		A
7782-49-2	Selenium	30.0	U		F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	31800			P
7440-28-0	Thallium	3.0	U		F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	43.0			P
	Cyanide				NR

000010

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

NYSDEC-ASP

5A

SPIKE SAMPLE RECOVERY

NYDEC SAMPLE NO

MW-3S

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 11107 SAS No.: LAB.RES. SDG No.: MW-1 TAL

Matrix: WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	3154.3000		1230.4000		2000.00	96.2		P
Antimony	75-125	517.4400		40.0000	U	500.00	103.5		P
Arsenic	75-125	44.4000		2.2000	B	40.00	105.5		F
Barium	75-125	2102.3000		133.5900	B	2000.00	98.4		P
Beryllium	75-125	54.1900		1.0000	U	50.00	108.4		P
Cadmium	75-125	52.1100		4.0000	U	50.00	104.2		P
Calcium									NR
Chromium	75-125	200.5900		9.0000	U	200.00	100.3		P
Cobalt	75-125	494.2500		7.0000	U	500.00	98.8		P
Copper	75-125	253.8300		20.0000	U	250.00	101.5		P
Iron	75-125	3883.6000		2899.3000		1000.00	98.4		P
Lead	75-125	24.3000		2.6000	B	20.00	108.5		F
Magnesium									NR
Manganese	75-125	570.0700		103.0600		500.00	93.4		P
Mercury	75-125	0.8800		0.2000	U	1.00	88.0		CV
Nickel	75-125	485.9100		16.0000	U	500.00	97.2		P
Potassium									NR
Selenium	75-125	11.2000		3.0000	U	10.00	112.0		F
Silver	75-125	44.2600		7.0000	U	50.00	88.5		P
Sodium									NR
Thallium	75-125	46.7000		3.0000	U	50.00	93.4		F
Vanadium	75-125	511.9500		16.0000	U	500.00	102.4		P
Zinc	75-125	580.2800		49.4400		500.00	106.2		P
Cyanide									NR

Comments:

000021

NYSDEC-ASP

6
DUPLICATES

NYDEC SAMPLE NO

MW-3D

Lab Name: CHEMTECH CONSULTING GROUP   Contract: 68D20041

Lab Code: CHEM   Case No.: 11107   SAS No.: LAB.RES.   SDG No.: MW-1 TAL

Matrix (soil/water): WATER   Level (low/med): LOW

% Solids for Sample: 0.0   % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		1230.4000		1207.9000		1.8		P
Antimony		40.0000	U	40.0000	U			P
Arsenic		2.2000	B	2.0000	U	200.0		F
Barium		133.5900	B	133.5900	B	0.0		P
Beryllium		1.0000	U	1.0000	U			P
Cadmium		4.0000	U	4.0000	U			P
Calcium		48821.0000		48928.0000		0.2		P
Chromium		9.0000	U	9.0000	U			P
Cobalt		7.0000	U	7.0000	U			P
Copper		20.0000	U	20.0000	U			P
Iron		2899.3000		2915.1000		0.5		P
Lead		2.6000	B	2.2000	B	16.7		F
Magnesium		44068.0000		44060.0000		0.0		P
Manganese		103.0600		104.4100		1.3		P
Mercury		0.2000	U	0.2000	U			CV
Nickel		16.0000	U	16.0000	U			P
Potassium		1640.0000	B	1640.0000	B	0.0		A
Selenium		3.0000	U	3.0000	U			F
Silver		7.0000	U	7.0000	U			P
Sodium		37273.0000		37507.0000		0.6		P
Thallium		3.0000	U	3.0000	U			F
Vanadium		16.0000	U	16.0000	U			P
Zinc	20.0	49.4400		48.6800		1.5		P
Cyanide								NR

000022

NYSDEC-ASP

9

ICP SERIAL DILUTIONS

NYDEC SAMPLE NO

MW-3L

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 11107 SAS No.: LAB.RES. SDG No.: MW-1 TAL

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	1230.40		1439.15		17.0		P
Antimony	40.00	U	200.00	U			P
Arsenic							NR
Barium	133.59	B	136.20	B	2.0		P
Beryllium	1.00	U	5.00	U			P
Cadmium	4.00	U	20.00	U			P
Calcium	48821.00		51145.00		4.8		P
Chromium	9.00	U	45.00	U			P
Cobalt	7.00	U	35.00	U			P
Copper	20.00	U	100.00	U			P
Iron	2899.30		3044.40		5.0		P
Lead							NR
Magnesium	44068.00		46520.50		5.6		P
Manganese	103.06		120.50		16.9		P
Mercury							NR
Nickel	16.00	U	80.00	U			P
Potassium							NR
Selenium							NR
Silver	7.00	U	35.00	U			P
Sodium	37273.00		39232.50		5.3		P
Thallium							NR
Vanadium	16.00	U	80.00	U			P
Zinc	49.44		52.00	B	5.2		P

000025

GROUNDWATER ANALYSIS (VOCs)
(ROUND II)

LABORATORY RESOURCES, INC.
INTECH BIOLABS DIVISION
158 Tices Lane East Brunswick, New Jersey 08816 (908) 257-1050 Fax (908) 257-2790

CASE NARRATIVE
FOR ORGANICS (NYASP)

Client: VERSAR INC.

Lab Name: INTECH

JOB No.: I211107

Project: Scott Aviation

CASE No. : 11107 SDG No. : MW-1

The following samples are included in this Sample Delivery Group:

LAB ID #	CLIENT ID #
I211107-01	MW-1
I211107-02	MW-2
I211107-03	MW-3
I211107-04	MW-4
I211107-05	MW-4A
I211107-06	MW-5
I211107-07	MW-6
I211107-08	IT
I211107-09	FB-4
I211107-10	TB-2

Detailed Documentation of Problems Encountered With These Samples

General:

1. Please note that the client sample number with the sample description (identification) is too many characters, therefore as per the software being used for Organics data processing only limited characters can be used for EPA sample number. Never-the-less for the cross reference check the Lab sample ID. with Client ID. is listed above on this case narrative.

2. The EPA sample number in all the forms is the Client identification from the Chain-of-Custody, the last 6 characters (include dashes).

   as an example: VERSAR ID:MW-1 Monitoring Well-One for this sample on forms SAMPLE ID : MW-1

3. On the run logs use the following lab identifications: - last 3 digits of the Intech job number followed by the sample number: an example Job No. I211107 sample identification to be used on the run logs becomes I211107-01, -02, -03, etc.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW-1

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 11107 SAS No.: SDG No.: MW-1

Matrix: [soil/water] WATER Lab Sample ID: I211107-01

Sample wt/vol: 5.0 [g/mL] ML Lab File ID: >A0247

Level: [low/med] LOW Date Received: 11/18/92

% Moisture: decanted: (Y/N) N Date Analyzed : 11/19/92

GC Column : PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	JB
67-64-1	Acetone	15	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

ADF: 1.00

FORM I-CLP-VOA-1

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

MW-1

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 1107 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: I211107-01

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: >A0247

Level: (low/med) LOW Date Received: 11/18/92

% Moisture: NA not dec. Date Analyzed: 11/19/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW-2

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 11107 SAS No.: SDG No.: MW-1

Matrix: [soil/water] WATER Lab Sample ID: I211107-02

Sample wt/vol: 5.0 [g/mL] ML Lab File ID: >A0248

Level: [low/med] LOW Date Received: 11/18/92

% Moisture: decanted: (Y/N) N Date Analyzed : 11/19/92

GC Column : PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	JB
67-64-1	Acetone	16	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

DF: 1.00

FORM I-CLP-VOA-1

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

MW-2

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 11107 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: I211107-02

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: >A0248

Level: (low/med) LOW Date Received: 11/18/92

% Moisture: NA not dec. Date Analyzed: 11/19/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	Unknown	6.64	6.	N

FORM I-CLP-VOA-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

| MW-3 |

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 11107 SAS No.: SDG No.: MW-1

Matrix: [soil/water] WATER Lab Sample ID: I211107-03

Sample wt/vol: 5.0 [g/mL] ML Lab File ID: >A0249

Level: [low/med] LOW Date Received: 11/18/92

% Moisture: decanted: (Y/N) N Date Analyzed : 11/19/92

GC Column : PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	25	
75-00-3	Chloroethane	28	
75-09-2	Methylene Chloride	4	JB
67-64-1	Acetone	15	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	3	J
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

RDF: 1.00

FORM I-CLP-VOA-1

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

MW-3

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. Ml07 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: 1211107-03

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: >A0249

Level: (low/med) LOW Date Received: 11/18/92

% Moisture: NA not dec. Date Analyzed: 11/19/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW-4

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 11107 SAS No.: SDG No.: MW-1

Matrix: [soil/water] WATER Lab Sample ID: I211107-04

Sample wt/vol: 0.20 [g/mL] ML Lab File ID: >A0304

Level: [low/med] LOW Date Received: 11/18/92

% Moisture: decanted: (Y/N) N Date Analyzed : 11/24/92

GC Column : PACK ID: 2.0 (mm) Dilution Factor: 25.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	250	U
74-83-9	Bromomethane	250	U
75-01-4	Vinyl Chloride	240	J
75-00-3	Chloroethane	250	U
75-09-2	Methylene Chloride	180	JB
67-64-1	Acetone	250	U
75-15-0	Carbon Disulfide	250	U
75-35-4	1,1-Dichloroethene	250	U
75-34-3	1,1-Dichloroethane	270	
540-59-0	1,2-Dichloroethene (total)	5100	
67-66-3	Chloroform	250	U
107-06-2	1,2-Dichloroethane	250	U
78-93-3	2-Butanone	250	U
71-55-6	1,1,1-Trichloroethane	250	U
56-23-5	Carbon Tetrachloride	250	U
75-27-4	Bromodichloromethane	250	U
78-87-5	1,2-Dichloropropane	250	U
10061-01-5	cis-1,3-Dichloropropene	250	U
79-01-6	Trichloroethene	2800	
124-48-1	Dibromochloromethane	250	U
79-00-5	1,1,2-Trichloroethane	250	U
71-43-2	Benzene	250	U
10061-02-6	trans-1,3-Dichloropropene	250	U
75-25-2	Bromoform	250	U
108-10-1	4-Methyl-2-Pentanone	250	U
591-78-6	2-Hexanone	250	U
127-18-4	Tetrachloroethene	250	U
79-34-5	1,1,2,2-Tetrachloroethane	250	U
108-88-3	Toluene	250	U
108-90-7	Chlorobenzene	250	U
100-41-4	Ethylbenzene	250	U
100-42-5	Styrene	250	U
1330-20-7	Xylene (total)	250	U

4DF: 25.00 FORM I-CLP-VOA-1

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

| MW-4 |

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 11107 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: I211107-04

Sample wt/vol: 0.20 (g/mL) ML Lab File ID: >A0304

Level: (low/med) LOW Date Received: 11/18/92

% Moisture: NA not dec. Date Analyzed: 11/24/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 25.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW-4A

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 11107 SAS No.: SDG No.: MW-1

Matrix: [soil/water] WATER Lab Sample ID: I211107-05

Sample wt/vol: 0.15 [g/mL] ML Lab File ID: >A0303

Level: [low/med] LOW Date Received: 11/18/92

% Moisture: decanted: (Y/N) N Date Analyzed : 11/24/92

GC Column : PACK ID: 2.0 (mm) Dilution Factor: 33.3

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	330	U
74-83-9	Bromomethane	330	U
75-01-4	Vinyl Chloride	280	J
75-00-3	Chloroethane	330	U
75-09-2	Methylene Chloride	220	JB
67-64-1	Acetone	330	U
75-15-0	Carbon Disulfide	330	U
75-35-4	1,1-Dichloroethene	330	U
75-34-3	1,1-Dichloroethane	340	
540-59-0	1,2-Dichloroethene (total)	6100	
67-66-3	Chloroform	330	U
107-06-2	1,2-Dichloroethane	330	U
78-93-3	2-Butanone	330	U
71-55-6	1,1,1-Trichloroethane	330	U
56-23-5	Carbon Tetrachloride	330	U
75-27-4	Bromodichloromethane	330	U
78-87-5	1,2-Dichloropropane	330	U
10061-01-5	cis-1,3-Dichloropropene	330	U
79-01-6	Trichloroethene	3400	
124-48-1	Dibromochloromethane	330	U
79-00-5	1,1,2-Trichloroethane	330	U
71-43-2	Benzene	330	U
10061-02-6	trans-1,3-Dichloropropene	330	U
75-25-2	Bromoform	330	U
108-10-1	4-Methyl-2-Pentanone	330	U
591-78-6	2-Hexanone	330	U
127-18-4	Tetrachloroethene	330	U
79-34-5	1,1,2,2-Tetrachloroethane	330	U
108-88-3	Toluene	330	U
108-90-7	Chlorobenzene	330	U
100-41-4	Ethylbenzene	330	U
100-42-5	Styrene	330	U
1330-20-7	Xylene (total)	330	U

ADF: 33.33 FORM I-CLP-VOA-1

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

| MW-4A |

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 11107 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: I211107-05

Sample wt/vol: 0.15 (g/mL) ML Lab File ID: >A0303

Level: (low/med) LOW Date Received: 11/18/92

% Moisture: NA not dec. Date Analyzed: 11/24/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 33.3

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW-5

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 11107 SAS No.: SDG No.: MW-1

Matrix: [soil/water] WATER Lab Sample ID: I211107-06

Sample wt/vol: 5.0 [g/mL] ML Lab File ID: >A0302

Level: [low/med] LOW Date Received: 11/18/92

% Moisture: decanted: (Y/N) N Date Analyzed : 11/24/92

GC Column : PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	JB
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

ADF: 1.00

FORM I-CLP-VOA-1

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

| MW-5 |

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 11107 SAS No.: SDG No.: MW-5

Matrix: (soil/water) WATER Lab Sample ID: I211107-06

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: >A0302

Level: (low/med) LOW Date Received: 11/18/92

% Moisture: NA not dec. Date Analyzed: 11/24/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW-6

Lab Name: INTECH   Contract:

Lab Code: INTECH   Case No.: 11107   SAS No.:   SDG No.: MW-1

Matrix: [soil/water] WATER   Lab Sample ID: I211107-07

Sample wt/vol: 5.0 [g/mL] ML   Lab File ID: >A0306

Level: [low/med] LOW   Date Received: 11/18/92

% Moisture: decanted: (Y/N) N   Date Analyzed : 11/24/92

GC Column : PACK ID: 2.0 (mm)   Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	JB
67-64-1	Acetone	7	J
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

ADF: 1.00   FORM I-CLP-VOA-1

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

MW-6

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 11107 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: I211107-07

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: >A0306

Level: (low/med) LOW Date Received: 11/18/92

% Moisture: NA not dec. Date Analyzed: 11/24/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

IT

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 11107 SAS No.: SDG No.: MW-1

Matrix: [soil/water] WATER Lab Sample ID: I211107-08

Sample wt/vol: 0.02 [g/mL] ML Lab File ID: >A0305

Level: [low/med] LOW Date Received: 11/18/92

% Moisture: decanted: (Y/N) N Date Analyzed : 11/24/92

GC Column : PACK ID: 2.0 (mm) Dilution Factor: 250.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	2500	U
74-83-9	Bromomethane	2500	U
75-01-4	Vinyl Chloride	2500	U
75-00-3	Chloroethane	3900	
75-09-2	Methylene Chloride	1600	JB
67-64-1	Acetone	2500	U
75-15-0	Carbon Disulfide	2500	U
75-35-4	1,1-Dichloroethene	2500	U
75-34-3	1,1-Dichloroethane	29000	
540-59-0	1,2-Dichloroethene (total)	21000	
67-66-3	Chloroform	2500	U
107-06-2	1,2-Dichloroethane	2500	U
78-93-3	2-Butanone	2500	U
71-55-6	1,1,1-Trichloroethane	40000	
56-23-5	Carbon Tetrachloride	2500	U
75-27-4	Bromodichloromethane	2500	U
78-87-5	1,2-Dichloropropane	2500	U
10061-01-5	cis-1,3-Dichloropropene	2500	U
79-01-6	Trichloroethene	2500	U
124-48-1	Dibromochloromethane	2500	U
79-00-5	1,1,2-Trichloroethane	2500	U
71-43-2	Benzene	2500	U
10061-02-6	trans-1,3-Dichloropropene	2500	U
75-25-2	Bromoform	2500	U
108-10-1	4-Methyl-2-Pentanone	2500	U
591-78-6	2-Hexanone	2500	U
127-18-4	Tetrachloroethene	2500	U
79-34-5	1,1,2,2-Tetrachloroethane	2500	U
108-88-3	Toluene	1000	J
108-90-7	Chlorobenzene	2500	U
100-41-4	Ethylbenzene	2500	U
100-42-5	Styrene	2500	U
1330-20-7	Xylene (total)	2500	U

ADF: 250.00 FORM I-CLP-VOA-1

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

IT

Lab Name: INTECH   Contract:

Lab Code: INTECH   Case No. 11107   SAS No.:   SDG No.: MW-1

Matrix: (soil/water) WATER   Lab Sample ID: I211107-08

Sample wt/vol: 0.02 (g/mL) ML   Lab File ID: >A0305

Level: (low/med) LOW   Date Received: 11/18/92

% Moisture: NA not dec.   Date Analyzed: 11/24/92

GC Column: PACK ID: 2.0 (mm)   Dilution Factor: 250.0

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

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

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	Unknown Alkane	8.99	13.	N

FORM I-CLP-VOA-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

FB-4

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 11107 SAS No.: SDG No.: MW-1

Matrix: [soil/water] WATER Lab Sample ID: I211107-09

Sample wt/vol: 5.0 [g/mL] ML Lab File ID: >A0300

Level: [low/med] LOW Date Received: 11/18/92

% Moisture: decanted: (Y/N) N Date Analyzed : 11/24/92

GC Column : PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	4	JB
67-64-1	Acetone	7	J
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

DF: 1.00 FORM I-CLP-VOA-1

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

FB-4

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 11107 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: I211107-09

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: >A0300

Level: (low/med) LOW Date Received: 11/18/92

% Moisture: NA not dec. Date Analyzed: 11/24/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I-CLP-VOA-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

TB-2

Lab Name: INTECH   Contract:

Lab Code: INTECH   Case No.: 1107   SAS No.:   SDG No.: MW-1

Matrix: [soil/water] WATER   Lab Sample ID: I211107-10

Sample wt/vol: 5.0 [g/mL] ML   Lab File ID: >A0301

Level: [low/med] LOW   Date Received: 11/18/92

% Moisture: decanted: (Y/N) N   Date Analyzed : 11/24/92

GC Column : PACK   ID: 2.0 (mm)   Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	-------Chloromethane	10	U
74-83-9	-------Bromomethane	10	U
75-01-4	-------Vinyl Chloride	10	U
75-00-3	-------Chloroethane	10	U
75-09-2	-------Methylene Chloride	5	JB
67-64-1	-------Acetone	13	
75-15-0	-------Carbon Disulfide	10	U
75-35-4	-------1,1-Dichloroethene	10	U
75-34-3	-------1,1-Dichloroethane	10	U
540-59-0	-------1,2-Dichloroethene (total)	10	U
67-66-3	-------Chloroform	10	U
107-06-2	-------1,2-Dichloroethane	10	U
78-93-3	-------2-Butanone	10	U
71-55-6	-------1,1,1-Trichloroethane	10	U
56-23-5	-------Carbon Tetrachloride	10	U
75-27-4	-------Bromodichloromethane	10	U
78-87-5	-------1,2-Dichloropropane	10	U
10061-01-5	-------cis-1,3-Dichloropropene	10	U
79-01-6	-------Trichloroethene	10	U
124-48-1	-------Dibromochloromethane	10	U
79-00-5	-------1,1,2-Trichloroethane	10	U
71-43-2	-------Benzene	10	U
10061-02-6	-------trans-1,3-Dichloropropene	10	U
75-25-2	-------Bromoform	10	U
108-10-1	-------4-Methyl-2-Pentanone	10	U
591-78-6	-------2-Hexanone	10	U
127-18-4	-------Tetrachloroethene	10	U
79-34-5	-------1,1,2,2-Tetrachloroethane	10	U
108-88-3	-------Toluene	10	U
108-90-7	-------Chlorobenzene	10	U
100-41-4	-------Ethylbenzene	10	U
100-42-5	-------Styrene	10	U
1330-20-7	-------Xylene (total)	10	U

ADF: 1.00   FORM I-CLP-VOA-1

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

TB-2

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 11107 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: I211107-10

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: >A0301

Level: (low/med) LOW Date Received: 11/18/92

% Moisture: NA not dec. Date Analyzed: 11/24/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

Number TICs found: 1 (ug/L or ug/Kg) UG/ L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. - -	Unknown	6.66	7.	N

FORM I-CLP-VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

VBLK QA1119

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 11107 SAS No.: SDG No.: MW-1

Matrix: [soil/water] WATER Lab Sample ID: VBLK QA1119

Sample wt/vol: 5.0 [g/mL] ML Lab File ID: >A0241

Level: [low/med] LOW Date Received:

% Moisture: decanted: (Y/N) N Date Analyzed : 11/19/92

GC Column : PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	6	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

SADF: 1.00 FORM I-CLP-VOA-1

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

VBLK QA1119

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 1107 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: VBLK QA1119

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: >A0241

Level: (low/med) LOW Date Received:

% Moisture: NA not dec. Date Analyzed: 11/19/92

GC Column: PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

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

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK QA1124

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 1167 SAS No.: SDG No.: MW-1

Matrix: [soil/water] WATER Lab Sample ID: VBLK QA1124

Sample wt/vol: 5.0 [g/mL] ML Lab File ID: >A0299

Level: [low/med] LOW Date Received:

% Moisture: decanted: (Y/N) N Date Analyzed : 11/24/92

GC Column : PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

SADF: 1.00

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK QA1124

Lab Name: INTECH Contract:

Lab Code: INTECH Case No. 1107 SAS No.: SDG No.: MW-1

Matrix: (soil/water) WATER Lab Sample ID: VBLK QA1124

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: >A0299

Level: (low/med) Date Received: PACK

% Moisture: NA, not dec. Date Analyzed: 11/24/92

GC Column: ID: 0.53 (mm) Dilution Factor: 1.0

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

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW-3 MS

Lab Name: INTECH   Contract:

Lab Code: INTECH   Case No.: 11167   SAS No.:   SDG No.: MW-1

Matrix: [soil/water] WATER   Lab Sample ID: I211107-03MS

Sample wt/vol: 5.0 [g/mL] ML   Lab File ID: >A0308

Level: [low/med] LOW   Date Received: 11/18/92

% Moisture: decanted: (Y/N) N   Date Analyzed : 11/24/92

GC Column : PACK   ID: 2.0 (mm)   Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	20	
75-00-3	Chloroethane	25	
75-09-2	Methylene Chloride	4	JB
67-64-1	Acetone	13	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	52	
75-34-3	1,1-Dichloroethane	4	J
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	50	
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	46	
71-43-2	Benzene	52	
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	53	
100-41-4	Ethylbenzene	50	
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U
		10	U

HDF: 1.00   FORM I-CLP-VOA-1

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW-3 MSD

Lab Name: INTECH Contract:

Lab Code: INTECH Case No.: 11107 SAS No.: SDG No.: MW-1

Matrix: [soil/water] WATER Lab Sample ID: I211107-03MSD

Sample wt/vol: 5.0 [g/mL] ML Lab File ID: >A0309

Level: [low/med] LOW Date Received: 11/18/92

% Moisture: decanted: (Y/N) N Date Analyzed : 11/24/92

GC Column : PACK ID: 2.0 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: [ug/L or ug/Kg] UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	22	
75-00-3	Chloroethane	25	
75-09-2	Methylene Chloride	5	JB
67-64-1	Acetone	12	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	50	
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	49	
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	44	
71-43-2	Benzene	51	
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	51	
108-90-7	Chlorobenzene	51	
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

122

EADF: 1.00

GROUNDWATER ANALYSIS (DISSOLVED INORGANICS)
(ROUND II)

CASE NARRATIVE
FOR INORGANICS (NYASP)

ALL THE SAMPLES WERE SUBBED OUT TO CHEMTECH CONSULTING GROUP FOR ANALYSIS OF METALS.

Lab Name: CHEMTECH

Client:VERSAR ENV.

Project:Scott Aviation

Job No.:I211107 CASE No.: 11107 SDG No.: MW-1 DIS

The following samples are included in this Sample Delivery Group:

CHEMTECH ID	Client ID on forms
6477S	MW-1
6478S	MW-2
6479S	MW-3
6480DS	MW-3D (for duplicate)
6481S2	MW-3S (for spike)
6482S	MW-4
6483S	MW-4A DUP
6484S	MW-5
6485S	MW-6
6486S	INTER. TRENCH
5487S	FIELD BLANK

__Detailed Documentation of Problems Encountered With These Samples__

General:

1. The above water samples were analyzed for **METALS DISSOLVED**

2. Please note that the client sample number with the sample description (identification) is too many characters, therefore as per the software being used only limited characters can be used for EPA sample number. Never-the-less for the cross reference check the Lab sample ID. with Client ID. is listed above on this case narrative.

3. Please be advised that using the Software for data processing of CLP Inorganic Packages, the software is designed to accomodate one SDG at a time at the same matrix.

4. The Inorganic CLP data package contains respectively in this order: Case Narrative followed by: forms, ICAP raw data, Furnace raw data, Mercury raw data, and finally the last part is General (samples preparation log, sample log-in sheet, Chain-of-Custody).

NYSDEC-ASP
1

INORGANIC ANALYSIS DATA SHEET

NYDEC SAMPLE NO

FIELD BLANK

Lab Name: CHEMTECH CONSULTING GROUP   Contract: 68D20041

Lab Code: CHEM   Case No.: 1107   SAS No.: LAB.RES   SDG No.: MW-1 DIS

Matrix (soil/water): WATER   Lab Sample ID: 6487S

Level (low/med): LOW   Date Received: 11/19/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	2.0	U		F
7440-39-3	Barium	11.0	U		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	402	B		P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	26.8	B		P
7439-92-1	Lead	2.0	U	W	F
7439-95-4	Magnesium	185	U		P
7439-96-5	Manganese	4.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	900	U		A
7782-49-2	Selenium	3.0	U	W	F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	908	B		P
7440-28-0	Thallium	4.0	U		F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	5.0	U		P
	Cyanide				NR

Color Before: COLORLESS   Clarity Before: CLEAR   Texture:

Color After: COLORLESS   Clarity After: CLEAR   Artifacts:

Comments:

000002

NYSDEC-ASP
1

INORGANIC ANALYSIS DATA SHEET

INTER. TRENCH

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 11107 SAS No.: LAB.RES SDG No.: MW-1 DIS

Matrix (soil/water): WATER Lab Sample ID: 6486S

Level (low/med): LOW Date Received: 11/19/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	8.3	B	W	F
7440-39-3	Barium	285			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	256000			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	27100			P
7439-92-1	Lead	3.3		W	F
7439-95-4	Magnesium	58300			P
7439-96-5	Manganese	1880			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	2070	B		A
7782-49-2	Selenium	30.0	U	W	F
7440-22-4	Silver	7.1	B		P
7440-23-5	Sodium	46700			P
7440-28-0	Thallium	4.0	U	W	F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	14.1	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

000003

FORM I - IN

NYDEC SAMPLE NO

MW-1

INORGANIC ANALYSIS DATA SHEET

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 11107 SAS No.: LAB.RES SDG No.: MW-1 DIS

Matrix (soil/water): WATER Lab Sample ID: 6477S

Level (low/med): LOW Date Received: 11/19/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	8.2	B		F
7440-39-3	Barium	107	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	15100			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	18.1	B		P
7439-92-1	Lead	2.0	U	W	F
7439-95-4	Magnesium	13700			P
7439-96-5	Manganese	21.4			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	4190	B		A
7782-49-2	Selenium	3.0	U	W	F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	19400			P
7440-28-0	Thallium	4.0	U		F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	16.4	B		P
	Cyanide				NR

000004

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

NYDEC SAMPLE NO

MW-2

INORGANIC ANALYSIS DATA SHEET

Lab Name: CHEMTECH CONSULTING GROUP   Contract: 68D20041

Lab Code: CHEM   Case No.: 11107   SAS No.: LAB.RES   SDG No.: MW-1 DIS

Matrix (soil/water): WATER   Lab Sample ID: 6478S

Level (low/med): LOW   Date Received: 11/19/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	6.7	B		F
7440-39-3	Barium	206			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	153000			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	12700			P
7439-92-1	Lead	2.0	U		F
7439-95-4	Magnesium	80200			P
7439-96-5	Manganese	1650			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	1120	B		A
7782-49-2	Selenium	30.0	U		F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	40600			P
7440-28-0	Thallium	4.0	U	W	F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	14.6	B		P
	Cyanide				NR

000005

Color Before: COLORLESS   Clarity Before: CLEAR   Texture:

Color After: COLORLESS   Clarity After: CLEAR   Artifacts:

Comments:

NYDEC SAMPLE NO

INORGANIC ANALYSIS DATA SHEET

MW-3

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 11107 SAS No.: LAB.RES SDG No.: MW-1 DIS

Matrix (soil/water): WATER Lab Sample ID: 6479S

Level (low/med): LOW Date Received: 11/19/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	3.6	B		F
7440-39-3	Barium	152	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	42600			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	308			P
7439-92-1	Lead	2.0	U	W	F
7439-95-4	Magnesium	45700			P
7439-96-5	Manganese	92.3			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	1340	B		A
7782-49-2	Selenium	3.0	U	W	F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	38800			P
7440-28-0	Thallium	4.0	U	W	F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	6.5	B		P
	Cyanide				NR

000006

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

NYDEC SAMPLE NO

MW-4

INORGANIC ANALYSIS DATA SHEET

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 11/07 SAS No.: LAB.RES SDG No.: MW-1 DIS

Matrix (soil/water): WATER Lab Sample ID: 6482S

Level (low/med): LOW Date Received: 11/19/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	2.0	U	W	F
7440-39-3	Barium	199	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	34700			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	18.0	U		P
7439-92-1	Lead	2.0	U	W	F
7439-95-4	Magnesium	57400			P
7439-96-5	Manganese	49.1			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	2050	B		A
7782-49-2	Selenium	30.0	U	W	F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	33900			P
7440-28-0	Thallium	4.0	U		F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	10.2	B		P
	Cyanide				NR

000007

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

NYDEC SAMPLE NO

MW-4A DUP

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 11107 SAS No.: LAB.RES SDG No.: MW-1 DIS

Matrix (soil/water): WATER Lab Sample ID: 6483S

Level (low/med): LOW Date Received: 11/19/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	2.0	U	W	F
7440-39-3	Barium	207			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	36500			P
7440-47-3	Chromium	11.7			P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	33.9	B		P
7439-92-1	Lead	2.0	U	W	F
7439-95-4	Magnesium	58400			P
7439-96-5	Manganese	65.2			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	2100	B		A
7782-49-2	Selenium	30.0	U	W	F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	34100			P
7440-28-0	Thallium	4.0	U	W	F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	9.8	B		P
	Cyanide				NR

000008

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

NYSDEC-ASP
1

INORGANIC ANALYSIS DATA SHEET

NYDEC SAMPLE NC

MW-5

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 11107 SAS No.: LAB.RES SDG No.: MW-1 DIS

Matrix (soil/water): WATER Lab Sample ID: 6484S

Level (low/med): LOW Date Received: 11/19/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	2.0	U	W	F
7440-39-3	Barium	148	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	30700			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	67.8	B		P
7439-92-1	Lead	2.1	B	W	F
7439-95-4	Magnesium	45200			P
7439-96-5	Manganese	31.7			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	1250	B		A
7782-49-2	Selenium	30.0	U	W	F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	30800			P
7440-28-0	Thallium	4.0	U		F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	9.6	B		P
	Cyanide				NR

000009

Color Before: COLOLRESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

FORM I - IN

12/91

NYDEC SAMPLE NO

MW-6

INORGANIC ANALYSIS DATA SHEET

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 11107 SAS No.: LAB.RES SDG No.: MW-1 DIS

Matrix (soil/water): WATER Lab Sample ID: 6485S

Level (low/med): LOW Date Received: 11/19/92

% Solids: 0.0

Concentration Units (ug/L or mg/Kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	100	U		P
7440-36-0	Antimony	40.0	U		P
7440-38-2	Arsenic	2.0	U	W	F
7440-39-3	Barium	157	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	4.0	U		P
7440-70-2	Calcium	25300			P
7440-47-3	Chromium	9.0	U		P
7440-48-4	Cobalt	7.0	U		P
7440-50-8	Copper	20.0	U		P
7439-89-6	Iron	108			P
7439-92-1	Lead	2.0	U	W	F
7439-95-4	Magnesium	49200			P
7439-96-5	Manganese	18.2			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	16.0	U		P
7440-09-7	Potassium	1380	B		A
7782-49-2	Selenium	30.0	U	W	F
7440-22-4	Silver	7.0	U		P
7440-23-5	Sodium	33400			P
7440-28-0	Thallium	4.0	U		F
7440-62-2	Vanadium	16.0	U		P
7440-66-6	Zinc	6.8	B		P
	Cyanide				NR

000010

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

NYSDEC-ASP

5A

SPIKE SAMPLE RECOVERY

NYDEC SAMPLE NO

MW-3S

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 11107 SAS No.: LAB.RES SDG No.: MW-1 DIS

Matrix: WATER Level (low/med): LOW

% Solids for Sample: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	2065.5000		100.0000	U	2000.00	103.3		P
Antimony	75-125	543.3700		40.0000	U	500.00	108.7		P
Arsenic	75-125	41.1000		3.6000	B	40.00	93.8		F
Barium	75-125	2167.3000		152.0400	B	2000.00	100.8		P
Beryllium	75-125	51.3500		1.0000	U	50.00	102.7		P
Cadmium	75-125	51.6200		4.0000	U	50.00	103.2		P
Calcium									NR
Chromium	75-125	207.2600		9.0000	U	200.00	103.6		P
Cobalt	75-125	514.6800		7.0000	U	500.00	102.9		P
Copper	75-125	235.7300		20.0000	U	250.00	94.3		P
Iron	75-125	1376.3000		307.5900		1000.00	106.9		P
Lead	75-125	23.0000		2.0000	U	20.00	115.0		F
Magnesium									NR
Manganese	75-125	553.9200		92.2900		500.00	92.3		P
Mercury	75-125	1.0300		0.2000	U	1.00	103.0		CV
Nickel	75-125	511.6300		16.0000	U	500.00	102.3		P
Potassium									NR
Selenium	75-125	12.1000		3.0000	U	10.00	121.0		F
Silver	75-125	45.5200		7.0000	U	50.00	91.0		P
Sodium									NR
Thallium	75-125	52.5000		4.0000	U	50.00	105.0		F
Vanadium	75-125	534.1800		16.0000	U	500.00	106.8		P
Zinc	75-125	514.2400		6.5100	B	500.00	101.5		P
Cyanide									NR

Comments:

000021

6
DUPLICATES

NYDEC SAMPLE NO

MW-3D

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 11107 SAS No.: LAB.RES SDG No.: MW-1 DIS

Matrix (soil/water): WATER Level (low/med): LOW

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		100.0000	U	100.0000	U			P
Antimony		40.0000	U	40.0000	U			P
Arsenic		3.6000	B	2.8000	B	25.0		F
Barium		152.0400	B	154.6800	B	1.7		P
Beryllium		1.0000	U	1.0000	U			P
Cadmium		4.0000	U	4.0000	U			P
Calcium		42592.0000		42763.0000		0.4		P
Chromium		9.0000	U	9.0000	U			P
Cobalt		7.0000	U	7.0000	U			P
Copper		20.0000	U	20.0000	U			P
Iron	100.0	307.5900		309.1700		0.5		P
Lead		2.0000	U	2.0000	U			F
Magnesium		45714.0000		45827.0000		0.2		P
Manganese		92.2900		93.6400		1.5		P
Mercury		0.2000	U	0.2000	U			CV
Nickel		16.0000	U	16.0000	U			P
Potassium		1340.0000	B	1290.0000	B	3.8		A
Selenium		3.0000	U	3.0000	U			F
Silver		7.0000	U	7.0000	U			P
Sodium		38819.0000		39044.0000		0.6		P
Thallium		4.0000	U	4.0000	U			F
Vanadium		16.0000	U	16.0000	U			P
Zinc		6.5100	B	6.1700	B	5.4		P
Cyanide								NR

000022

9

NYDEC SAMPLE NO

MW-3L

ICP SERIAL DILUTIONS

Lab Name: CHEMTECH CONSULTING GROUP Contract: 68D20041

Lab Code: CHEM Case No.: 11107 SAS No.: LAB RES SDG No.: MW-1 DIS

Matrix (soil/water): WATER Level (low/med): LOW

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	100.00	U	500.00	U			P
Antimony	40.00	U	200.00	U			P
Arsenic							NR
Barium	152.04	B	153.80	B	1.2		P
Beryllium	1.00	U	5.00	U			P
Cadmium	4.00	U	20.00	U			P
Calcium	42592.00		43118.50		1.2		P
Chromium	9.00	U	45.00	U			P
Cobalt	7.00	U	35.00	U			P
Copper	20.00	U	100.00	U			P
Iron	307.59		327.30	B	6.4		P
Lead							NR
Magnesium	45714.00		46416.50		1.5		P
Manganese	92.29		86.90		5.8		P
Mercury							NR
Nickel	16.00	U	80.00	U			P
Potassium							NR
Selenium							NR
Silver	7.00	U	35.00	U			P
Sodium	38819.00		40535.50		4.4		P
Thallium							NR
Vanadium	16.00	U	80.00	U			P
Zinc	6.51	B	25.00	U	100.0		P

000025