N60201.AR.000509
NS MAYPORT
5090.3a

QUARTERLY MONITORING REPORT GROUNDWATER MONITORING AT BUILDING 1587 FIRST QUARTER 2000 NS MAYPORT FL

5/1/2000

CH2M HILL

QUARTERLY MONITORING REPORT
Groundwater Monitoring at Building 1587 1st Quarter
01 January 2000 – 31 March 2000

Naval Station Mayport
Jacksonville, Florida

Contract No. N62467-98-D-0995
Contract Task Order No. 0015

May 2000

Prepared by

CH2MHILL
Constructors, Inc.

115 Perimeter Center Place, N.E.
Suite 700
Atlanta, GA 30346

Submitted to

Department of the Navy, Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
North Charleston, South Carolina 29406

Release of this document requires the prior notification of the chief official of the activity studied.

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GLOSSARY

Bls	below land surface
CAR	Contamination Assessment Report
CCI	CH2M HILL Constructors, Inc.
COC	contaminant of concern
CTO	Contract Task Order
FDEP	Florida Department of Environmental Protection
HLA	Harding, Lawson, Associates
NAVFAC	Naval Facilities Engineering Command
NS	Naval Station
RAC	Remedial Action Contract
UST	underground storage tank

1.0 INTRODUCTION

CH2M HILL Constructors, Inc. (CCI) has been contracted by the Department of the Navy, Southern Division Naval Facilities Engineering Command (Southern Division, NAVFAC), to provide groundwater monitoring services at Building 1587, Naval Station (NS) Mayport, Mayport, Florida, under the Remedial Action Contract (RAC) No. N62467-98-D-0995, Contract Task Order (CTO) No. 0015. The purpose of this Quarterly Monitoring Report is to provide a summary of activities performed at the site during the period of January 1, 2000 to March 31, 2000.

1.1 OBJECTIVE. The objective of the monitoring program at Building 1587 is to collect data for evaluation of the natural attenuation of the groundwater contaminant of concern (COC) at the subject site.

1.2 SITE BACKGROUND. A 4,000-gallon underground storage tank (UST) that formerly contained No. 2 fuel oil was installed in 1960 and used to heat the Bachelor's Enlisted Quarters (Building 1587) at NS Mayport (HLA, 1999). On March 18, 1994, a subcontractor discovered petroleum-contaminated soil around the UST while attempting to install a cathodic protective system on the tank. A Discharge Reporting Form was submitted that stated that an unknown amount of fuel had been released due to tank corrosion. The UST was taken out of service and was replaced with a temporary aboveground storage tank. The UST was removed on April 27, 1995, and excessively contaminated soil was discovered at various locations surrounding the UST at depths of 6 to 8 feet below land surface (bls). As a result, an Interim Remedial Action was conducted, which included the excavation and disposal of 27 tons of petroleum-contaminated soil. A new 4,000-gallon UST and dispensing system were installed in July 1995 and put into service in August 1995 (HLA, 1999).

Harding, Lawson, and Associates (HLA) conducted site assessment activities at Building 1587 between May and October 1995 that were documented in the Contamination Assessment Report (CAR) submitted in February 1996. In response to Florida Department of Environmental Protection (FDEP) comments on the CAR, HLA conducted supplemental site assessment activities that were documented in the CAR Addendum submitted in July 1998. The CAR Addendum included recommendations for the use of natural attenuation as the remedial approach to the soil contamination at the subject site, and quarterly groundwater monitoring to track the progress of natural plume degradation. This approach was subsequently approved by the FDEP and implemented at the site (HLA, 1999).

2.0 MONITORING RESULTS AND RECOMMENDATIONS

2.1 GROUNDWATER MONITORING. CCI/J.A. Jones personnel were onsite at Building 1587 on March 22, 2000 to conduct quarterly groundwater monitoring activities in accordance with the requirements of RAC No. N62467-98-D-0995, CTO No. 0015. CCI/J.A. Jones technicians collected groundwater samples from four monitoring wells, including MPT-BQ-MW02, MPT-BQ-MW04, MPT-BQ-MW05, and MPT-BQ-MW07 (Figure 2-1). An additional duplicate sample was collected from monitoring well MPT-BQ-MW04. Monitoring well MPT-BQ-MW01 was not located during the sampling event and was therefore not sampled. The samples were laboratory analyzed for the contaminant of concern (COC), benzene, and each exhibited concentrations below the reportable detection limit of 1 microgram per liter (µg/L). The analytical results are summarized in Table 2-1 and a copy of the laboratory report is included in the Appendix A.

TABLE 2-1
Groundwater Analytical Results
(March 22, 2000)

	BQ-MW02	BQ-MW04	BQ-MW05	BQ-MW07
Benzene	<1.0	<1.0	<1.0	<1.0
Groundwater Criteria	1.0	1.0	1.0	1.0
Natural Attenuation Default Source Concentration	100	100	100	100

All concentrations are reported in micrograms per liter (µg/L)

CCI/J.A. Jones technicians recorded field data from the four monitoring wells (MPT-BQ-MW02, MPT-BQ-MW04, MPT-BQ-MW05, and MPT-BQ-MW07) while onsite March 22, 2000. Data included depth to water, pH, temperature, conductivity, dissolved oxygen, oxygen reduction potential, methane concentrations, and turbidity. The results of the field analytical tests are summarized in Table 2-2.

TABLE 2-2
Groundwater Field analytical Data

Well Identification/ Sample ID	Date/Time	Carbon Dioxide (mg/L)	Methane (µg/L)	Akalinity (mg/L)	Ferrous Iron (mg/L)	Nitrate (mg/L)	Sulfate (mg/L SO_4^{2-})
MPT-BQ-MW02/ 015-BQMW02-Q1-00	03/22/2000/ 10:30	700	0.797	850 – 1000*	0.4	0.5	67
MPT-BQ-MW04/ 015-BQMW04-Q1-00	03/22/2000/ 11:45	300	5,930	600*	0.2	1.0	27
MPT-BQ-MW05/ 015-BQMW05-Q1-00	03/22/2000/ 13:45	140	2.637	300*	0.6	0.5	80
MPT-BQ-MW07/ 015-BQMW07-Q1-00	03/22/2000/ 14:45	205	0.320	280*	0.8	1.0	80

* = Total mg/L of Methyl Orange Alkalinity as Calcium Carbonate. The Phenolphthalein Alkalinity is zero.

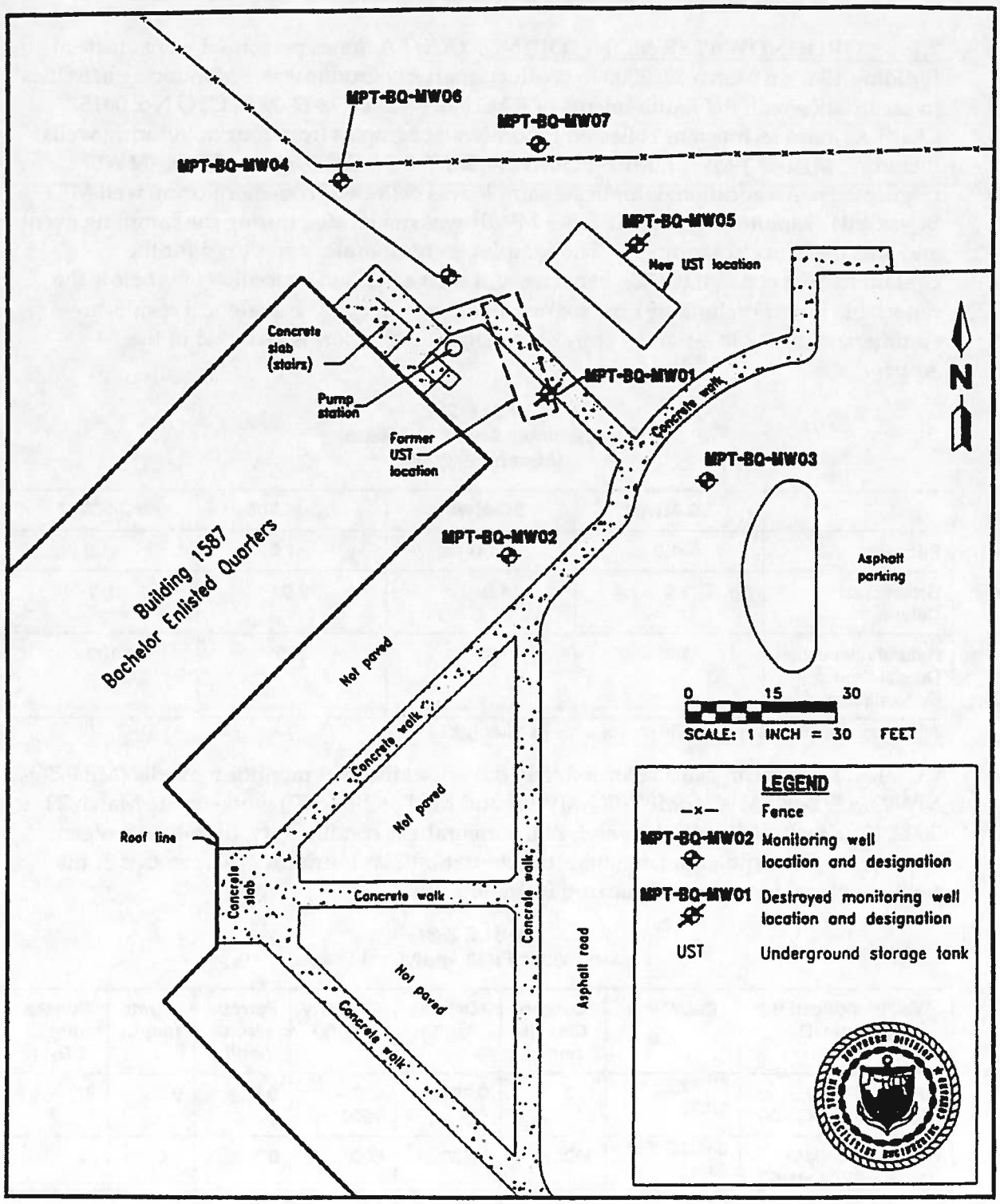

Figure 2-1
Monitoring Well Location Diagram
Quarterly Monitoring Report, Building 1587
U.S. Naval Station
Mayport, Florida

2.2 RECOMMENDATIONS. Contaminant concentrations in the four monitoring wells (MPT-BQ-MW02, MPT-BQ-MW04, MPT-BQ-MW05, and MPT-BQ-MW07) were all below the Natural Attenuation Default Concentrations and Groundwater Criteria specified in Chapters 62-770 and 62-777 of the Florida Administrative Code (FAC). However, because no historical data is available to assess trends in contaminant concentrations (increasing or decreasing), it is recommended that groundwater monitoring be continued at the subject site for at least one additional quarter. A "No Further Action" site classification is not recommended at this time, but may become appropriate after additional analytical data are collected and reviewed. CCI will review the analytical data from the second quarter of groundwater monitoring and will make recommendations to the Navy regarding future monitoring activities based upon the laboratory results.

REFERENCES

CH2M HILL Constructors, Inc. (CCI), Work Plan Addendum No. 01 to Furnish, Install, and Operate a Soil Vapor Extraction Trench System at Building 460 and Excavate Petroleum Impacted Soil at Building 1587, Naval Station Mayport, Mayport, Florida, May 1999.

Harding Lawson Associates (HLA), Remedial Action Plan, Buildings 460 and 1587, Naval Station Mayport, Mayport, Florida, February 1999.

APPENDIX A

Groundwater Analytical Laboratory Report

SAVANNAH LABORATORIES

2846 Industrial Plaza Drive • Tallahassee, Florida 32301 • (850) 878-3994 • Fax (850) 878-9504
www.stl-inc.com

Case Narrative: **STL Project – T040890, T040892, T0MAY001**

Matrix: **Liquid**

Date: April 5, 2000

Client: CH2M Hill Constructors, Inc. – Atlanta, GA

Project: CTO-015/Building 460 and 1587 – Naval Station, Mayport, FL

Laboratory: STL Savannah Laboratories - Tallahassee Division

The following table lists the STL log number, Sample ID, date sampled, date received, and matrix of samples found in this case narrative.

SL Log #	Sample ID	Date Sampled	Date Received	Matrix
T040890-1	015-CUMW03-Q1-00	03.21.00	03.23.00	Liquid
T040890-2	015-CUMW04-Q1-00	03.21.00	03.23.00	Liquid
T040890-3	015-DUP01-Q1-00	03.21.00	03.23.00	Liquid
T040890-4	015-EQ01-Q1-00	03.21.00	03.23.00	Liquid
T040890-5	Trip Blank	03.21.00	03.23.00	Liquid
T040892-1	015-BQMW04-Q1-00	03.22.00	03.23.00	Liquid
T040892-2	015-BQMW07-Q1-00	03.22.00	03.23.00	Liquid
T040892-3	015-DUP01-Q1-00	03.22.00	03.23.00	Liquid
T040892-4	015-EQ01-Q1-00	03.22.00	03.23.00	Liquid
T040892-5	Trip Blank	03.22.00	03.23.00	Liquid

CUSTODY

STL Log #T040890

One cooler was received on 03.23.00 and assigned STL Log # T040890. The cooler temperature was 2.5° C.

Sample 015-CUMW04-1Q-00 was received with one of three vials broken during shipment. Sufficient sample volume remained to perform analysis.

Two trip blanks were received and not listed on the Chain of Custody. One trip blank was analyzed.

STL Log #T040892

One cooler was received on 03.23.00 and assigned STL Log #T040892. The cooler temperature was 0.6° C.

Two trip blanks were received and not listed on the Chain of Custody. One trip blank was analyzed.

ANALYSES

Volatile Organic Compounds/Method 602

Volatile analyses were performed on 03.27.00 in Batch 0321F.

Janet B. Pruitt
Project Manager

Savannah Laboratories

Savannah Laboratories
2846 Industrial Plaza Drive · Tallahassee, FL 32301 · (850) 878-3994 · Fax (850) 878-9504 · www.stlsavlab.com

LOG NO: T0-40892
Received: 23 MAR 00
Reported: 04 APR 00

Ms. Theresa Rojas
CH2M Hill
115 Perimeter Center Place NE 700
Atlanta, GA 30346

Client PO. No.: 1659

Project: CTO-015/Building 1587
Sampled By: Client
Code: 10130044

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
40892-1	015-BQMW04-Q1-00	03-22-00/11:45	MAY001
40892-2	015-BQMW07-Q1-00	03-22-00/14:45	MAY001
40892-3	015-DUP01-Q1-00	03-22-00/11:15	MAY001
40892-4	015-EQ01-Q1-00	03-22-00/13:15	MAY001

PARAMETER	40892-1	40892-2	40892-3	40892-4
Purgeable Aromatics (602)				
Benzene, ug/l	<1.0	<1.0	<1.0	<1.0
Surrogate - a,a,a-Trifluorotoluene	91 %	110 %	93 %	120 %
Analysis Date	03.27.00	03.27.00	03.27.00	03.27.00
Batch ID	0321F	0321F	0321F	0321F
Dilution Factor	1	1	1	1

Savannah Laboratories
a division of Severn Trent Laboratories, inc
2846 Industrial Plaza Drive · Tallahassee, FL 32301 · (850) 878-3994 · Fax (850) 878-9504 · www.stlsavlab.com

LOG NO: T0-40892
Received: 23 MAR 00
Reported: 04 APR 00

Ms. Theresa Rojas
CH2M Hill
115 Perimeter Center Place NE 700
Atlanta, GA 30346

Client PO. No.: 1659

Project: CTO-015/Building 1587
Sampled By: Client
Code: 10130044

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
40892-5	Trip Blank	03-21-00	MAY001

PARAMETER	40892-5
Purgeable Aromatics (602)	
Benzene, ug/l	<1.0
Surrogate - a,a,a-Trifluorotoluene	110 %
Analysis Date	03.27.00
Batch ID	0321F
Dilution Factor	1

Method: EPA 40 CFR Part 136
Florida Dept. of Health Certification No.: E81005
FDEP CompQAP No. 890142G

Janet B. Pruitt

Janet B. Pruitt, Project Manager

Savannah Laboratories
2846 Industrial Plaza Drive · Tallahassee, FL 32301 · (850) 878-3994 · Fax (850) 878-9504 · www.stlsavlab.com

LOG NO: T0-MAY001
Received: 23 MAR 00
Reported: 05 APR 00

Ms. Theresa Rojas
CH2M Hill
115 Perimeter Center Place NE 700
Atlanta, GA 30346

Project: CTO-015
Sampled By: Client
Code: 15130045

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
MAY001-1	Method Blank		MAY001
MAY001-2	Reporting Limit (RL)		MAY001
MAY001-3	Lab Control Standard Result		MAY001
MAY001-4	Lab Control Standard Duplicate Result		MAY001
MAY001-5	Spike Amount Added, LCS/LCSD		MAY001

PARAMETER	MAY001-1	MAY001-2	MAY001-3	MAY001-4	MAY001-5
Purgeable Aromatics (602)					
Benzene, ug/l	<1.0	1.0	28	27	20
Toluene, ug/l	<1.0	1.0	22	22	20
Ethylbenzene, ug/l	<1.0	1.0	---	---	---
Total Xylenes, ug/l	<2.0	2.0	---	---	---
Total Volatile Organic Aromatics, ug/l	<2.0	2.0	---	---	---
Methyl tert-butyl ether (MTBE), ug/l	<10	10	---	---	---
Surrogate - a,a,a-Trifluorotoluene	130 %	---	110 %	110 %	---
Analysis Date	03.26.00	---	03.26.00	03.26.00	03.26.00
Batch ID	0321F	---	0321F	0321F	0321F
Dilution Factor	1	---	1	1	---

Savannah Laboratories
2846 Industrial Plaza Drive · Tallahassee, FL 32301 · (850) 878-3994 · Fax (850) 878-9504 · www.stlsavlab.com

LOG NO: T0-MAY001
Received: 23 MAR 00
Reported: 05 APR 00

Ms. Theresa Rojas
CH2M Hill
115 Perimeter Center Place NE 700
Atlanta, GA 30346

Project: CTO-015
Sampled By: Client
Code: 15130045

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
MAY001-6	Lab Control Standard % Recovery		MAY001
MAY001-7	Lab Control Standard Duplicate % Recovery		MAY001
MAY001-8	Precision (%RPD) of LCS/LCSD		MAY001

PARAMETER	MAY001-6	MAY001-7	MAY001-8
Purgeable Aromatics (602)			
Benzene, %	140 %	135 %	3.6 %
Toluene, %	110 %	110 %	0 %
Batch ID	0321F	0321F	0321F

Savannah Laboratories
2846 Industrial Plaza Drive · Tallahassee, FL 32301 · (850) 878-3994 · Fax (850) 878-9504 · www.stlsavlab.com

LOG NO: T0-MAY001
Received: 23 MAR 00
Reported: 05 APR 00

Ms. Theresa Rojas
CH2M Hill
115 Perimeter Center Place NE 700
Atlanta, GA 30346

Project: CTO-015
Sampled By: Client
Code: 15130045

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
MAY001-9	Matrix Spike Result (CUMW03)		MAY001
MAY001-10	Matrix Spike Duplicate Result (CUMW03)		MAY001
MAY001-11	Spike Amount Added, MS		MAY001
MAY001-12	Spike Amount Added, MSD		MAY001
MAY001-13	Matrix Spike % Recovery		MAY001

PARAMETER	MAY001-9	MAY001-10	MAY001-11	MAY001-12	MAY001-13
Purgeable Aromatics (602)					
Benzene, ug/l	27	26	20	20	135 %
Toluene, ug/l	23	22	20	20	115 %
Surrogate - a,a,a-Trifluorotoluene	110 %	110 %	---	---	---
Analysis Date	03.27.00	03.27.00	---	---	---
Batch ID	0321F	0321F	0321F	0321F	0321F

Savannah Laboratories
2846 Industrial Plaza Drive · Tallahassee, FL 32301 · (850) 878-3994 · Fax (850) 878-9504 · www.stlsavlab.com

LOG NO: T0-MAY001
Received: 23 MAR 00
Reported: 05 APR 00

Ms. Theresa Rojas
CH2M Hill
115 Perimeter Center Place NE 700
Atlanta, GA 30346

Project: CTO-015
Sampled By: Client
Code: 15130045

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
MAY001-14	Matrix Spike Duplicate % Recovery		MAY001
MAY001-15	Precision (%RPD) MS/MSD		MAY001

PARAMETER	MAY001-14	MAY001-15
Purgeable Aromatics (602)		
Benzene, %	130 %	3.8 %
Toluene, %	110 %	4.5 %
Batch ID	0321F	0321F

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LOG NO: T0-MAY001
Received: 23 MAR 00
Reported: 05 APR 00

Ms. Theresa Rojas
CH2M Hill
115 Perimeter Center Place NE 700
Atlanta, GA 30346

Project: CTO-015
Sampled By: Client
Code: 15130045

REPORT OF RESULTS

LOG NO	SAMPLE DESCRIPTION , QC REPORT FOR LIQUID SAMPLES	DATE/ TIME SAMPLED	SDG#
MAY001-16	LCS Accuracy Control Limit (%R)		MAY001
MAY001-17	LCS Precision Control Limit (Advisory) %RPD		MAY001
MAY001-18	MS Accuracy Advisory Limit (%R)		MAY001
MAY001-19	MS Precision Advisory Limit (%RPD)		MAY001

PARAMETER	MAY001-16	MAY001-17	MAY001-18	MAY001-19
Purgeable Aromatics (602)				
Benzene, %	39-150 %	<31 %	39-150 %	<31 %
Toluene, %	46-148 %	<25 %	46-148 %	<25 %
Surrogate - a,a,a-Trifluorotoluene	70-130 %	---	70-130 %	---

Method: EPA 40 CFR Part 136
Florida Dept. of Health Certification No.: E81005
FDEP CompQAP No. 890142G

Janet B. Pruitt

Janet B. Pruitt, Project Manager

Serial Number 009822

STL Savannah Laboratories
a division of Severn Trent Laboratories, Inc.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

○ 5102 LaRoche Avenue, Savannah, GA 31404 — Phone: (912) 354-7858 — Fax: (912) 352-0165
⊗ 2846 Industrial Plaza Drive, Tallahassee, FL 32301 — Phone: (850) 878-3994 — Fax: (850) 878-9504
○ 900 Lakeside Drive, Mobile, AL 36693 — Phone: (334) 666-6633 — Fax: (334) 666-6696
○ 6712 Benjamin Rd., Suite 100, Tampa, FL 33634 — Phone: (813) 885-7427 — Fax: (813) 885-7049

PROJECT REFERENCE	PROJECT NO.	PROJECT LOCATION (STATE)
BUILDING 1587	CTO 015	FL
STL (LAB) PROJECT MANAGER: JANET PRUITT	P.O. NUMBER	CONTRACT NO.
CLIENT (SITE) PM: Sam Ross	CLIENT PHONE: (904) 777-4812	CLIENT FAX: 777-4262
CLIENT NAME: CCI/J.A. JONES	CLIENT EMAIL	
CLIENT ADDRESS: Bldg 1 6219 AUTHORITY AVE JAX, FL 32215		
COMPANY CONTRACTING THIS WORK (if applicable):		

PAGE 1 OF 1

STANDARD REPORT DELIVERY ⊗

DATE DUE 7day

EXPEDITED REPORT DELIVERY (SURCHARGE) ○

DATE DUE

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

REQUIRED ANALYSES: 602 (BENZENE)

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMI-SOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT, ETC)	NUMBER OF CONTAINERS SUBMITTED (602)	REMARKS
3-22-00	1145	015-BQMW04-Q1-00	G	✓				3	
3-22-00	1445	015-BQMW07-Q1-00	G	✓				3	
3-22-00	1115	015-DUP01-Q1-00	G	✓				3	[redacted] R.A.
3-22-00	1315	015-EQ01-Q1-00	G	✓				3	[redacted]

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	03/16/00	1600	[signature]	3/22/00	1730			
RECEIVED BY: (SIGNATURE)	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**
[signature]	3-17-00	1200						

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	STL-SL LOG NO.	LABORATORY REMARKS:
[signature]	3/23/00	0900	YES / NO		240892	Temperature on receipt: 0.6°C

ORIGINAL

CTO-15 Analytical

MICROSEEPS

University of Pittsburgh Applied Research Center
220 William Pitt Way, Pittsburgh, PA 15238
(412) 826-5245
FAX (412) 826-3433

April 5, 2000

Mr. Sam Ross
J. A. Jones Environmental
6219 Authority Avenue
Building 1
Jacksonville, FL 32215

Dear Mr. Ross:

Attached is the final data listing for the sample(s) we received on March 23, 2000, your project #CTO 015.

Please give me a call if you have questions or I can be of further assistance. Thank you for using MICROSEEPS.

Sincerely,

Rebecca J. Hans

RJH/lsp

Attachment: JAJ1-202476

Microseeps

JAJ1-202476

----- CCI/J.A. JONES ENVIRONMENTAL -----
----- PROJECT NO.: CTO 015 -----
----- LOCATION: N.S. MAYPORT -----

Sample Names	Methane mg/l	Methane ug/l	File ID	Date Sampled	Date Received	Date Analyzed	Analyst
015-BQMW02-Q1-00	*	0.797	X14 255	03/22/00	03/23/00	03/31/00	RCW
015-BQMW04-Q1-00	5.93	*	X14 256	03/22/00	03/23/00	03/31/00	RCW
015-BQMW05-Q1-00	*	2.637	X14 257	03/22/00	03/23/00	03/31/00	RCW
015-BQMW07-Q1-00	*	0.320	X14 258	03/22/00	03/23/00	03/31/00	RCW
015-CUMW01-Q1-00	*	50.04	X14 259	03/21/00	03/23/00	03/31/00	RCW
015-CUMW02-Q1-00	1.04	*	X14 260	03/21/00	03/23/00	03/31/00	RCW
015-CUMW03-Q1-00	3.16	*	X14 261	03/21/00	03/23/00	03/31/00	RCW
015-CUMW04-Q1-00	8.86	*	X14 262	03/21/00	03/23/00	03/31/00	RCW
015-CUMW07-Q1-00	3.48	*	X14 263	03/21/00	03/23/00	03/31/00	RCW

DETECTION LIMITS	0.07mg/l	0.015ug/l

* Result taken from alternate detector

ANALYST INIT RCW

REVIEW

----- QUALITY CONTROL -----

JAJ1-202476

----- CCI/J.A. JONES ENVIRONMENTAL -----
----- PROJECT NO.: CTO 015 -----
----- LOCATION: N.S. MAYPORT -----

CONTINUING CALIBRATION STANDARDS 03/31/00

COMPOUND	FILE ID	TRUE CONC.	MEASURED	% DIFF.
METHANE (TCD)	X14 238	5.48	5.64	2.88
METHANE (FID)	X14 239	36.656	38.610	5.33

METHOD BLANK 03/31/00

COMPOUND	FILE ID	DET. LIMIT	MEASURED
METHANE (TCD)	X14 240	0.07mg/l	ND
METHANE (FID)	X14 240	0.015ug/l	ND

ANALYST INITIALS RCW

REVIEW

202476-JAJ1

MICROSEEPS, Inc.

220 William Pitt Way, Pittsburgh, PA 15238

Phone: (412) 826-5245 Fax: (412) 826-3433

CHAIN-OF-CUSTODY RECORD

Company Name: CCI/J.A. JONES ENV

Address: 6219 AUTHORITY AVE. Bldg. 1 JAX, FL 32215

Proj. Manager: Sam Ross

Proj. Location: N.S. MAYPORT

Proj. Number: CTO-015

Phone #: (904) 777-4812 Fax #: (904) 777-4262

Sampler's signature: R. [illegible]

Note: Enter proper letters in Requested Analyses columns below.

Note: If analysis D,E,or K is selected, scratch (option) NOT wanted.

Analysis Options

* A	C1 -C4	G	Chlorinated HC
* B	Hydrogen & Helium	H	BTEX
* C	Permanent Gases (CH4, CO, CO2, N2, O2)	J	BTEX & C5 - C10
D	Mercury (Soil) or (Air **)	K	TPH (C5 - C10) or (C4 - C12)
E	TO-14 by GC/MS (Ambient) or (Source **)	L	C11 - C18
F	601 & 602 Compounds	Other	Specify below.

* An additional 22 ml vial of sample is required when requested in combination with another analysis.

** Available upon request.

Collection Date	Collection Time	Number of Containers	"Summa" # if Can. used	Sample Type	Sample Identification	Requested Analyses					(Other)	Remarks
		2		~~ENV/GW~~	~~015-BQMW01-Q1-00~~							
3/22/00	1030	2		ENV/GW	015-BQMW02-Q1-00						8015 METHANE	
	1145	2			015-BQMW04-Q1-00							
	1345	2			015-BQMW05-Q1-00							
	1445	2			015-BQMW07-Q1-00							
												Temp Blank 2°C
3/21/00	1120	2			015-CUMW01-Q1-00							
	1600	2			015-CUMW02-Q1-00							
	1430	2			015-CUMW03-Q1-00							
	1330	2			015-CUMW04-Q1-00							Temp Blank 6°C
	1515	2			015-CUMW07-Q1-00							

Results to: Sam Ross

Invoice to: CH2MHILL ATLANTA, GA 30346

115 Perimeter Perimeter Center Place NE Suite 700

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:
R. [illegible]	J.A. JONES	3/24/00	17:30	Craig Hass			
Relinquished by:	Company:	Date:	Time:	Received by: [illegible]	Company: MICROSEEPS	Date: 3-23-00	Time: 1200
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:

WHITE COPY : Laboratory to return. YELLOW COPY : Laboratory PINK COPY : Submitter