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NAS CECIL FIELD, FL  
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FINAL ANNUAL NATURAL ATTENUATION GROUNDWATER MONITORING REPORT YEAR  
3 FOR OPERABLE UNIT 10 (OU 10) SITE 21 NAS CECIL FIELD FL  
12/1/2004  
THE SI GROUP INC

**FINAL  
ANNUAL NATURAL ATTENUATION  
GROUNDWATER MONITORING REPORT  
YEAR 3  
FOR  
OPERABLE UNIT 10, SITE 21**

**Naval Air Station Cecil Field  
Jacksonville, Florida**



**Prepared for:**

**Southern Division  
Naval Facilities Engineering Command  
Contract Number N62467-03-G-0124  
Contract Task Order 0002**

**December 2004**

**FINAL  
ANNUAL NATURAL ATTENUATION  
GROUNDWATER MONITORING REPORT – YEAR 3**

**FOR**

**OPERABLE UNIT 10, SITE 21  
NAVAL AIR STATION CECIL FIELD  
JACKSONVILLE, FLORIDA**

**Submitted to:  
Southern Division  
Naval Facilities Engineering Command  
2155 Eagle Drive  
North Charleston, South Carolina 29406**

**Submitted by:  
The SI Group  
4191 San Juan Avenue  
Suite 2E  
Jacksonville, Florida 32210**

**Contract Number N62467-03-G-0124  
Contract Task Order 0002**

**December 2004**

**THE  
SI  
Group**



CERTIFICATION OF TECHNICAL  
DATA CONFORMITY

The contractor, The SI Group, Inc., hereby certifies that, to the best of its knowledge and belief, the technical data delivered herewith under contract No. N62467-03-G-0124 are complete and accurate and comply with all requirements of this contract.

DATE: 12/7/05

NAME AND TITLE OF CERTIFYING OFFICIALS

Prepared Under the Supervision of:

Scott Huismann, P.E.  
Vice President  
The SI Group, Inc.  
Huntsville, Alabama

Approved for Submittal by:

Joe D. Ferranti  
Project Manager  
The SI Group, Inc.  
Jacksonville, Florida



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## Acronyms

BCT	BRAC Cleanup Team
BRAC	Base Realignment and Closure
COC	Chemicals of concern
CTO	Contract Task Order
EISOPQAM	Environmental Investigations Standard Operating Procedures and Quality Assurance Manual
FAC	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
FS	Feasibility Study
GCTLs	Groundwater cleanup target levels
IRAs	Interim Removal Actions
LTM	Ling Term Monitoring
NA	Natural Attenuation
NAS	Naval Air Station
OU	Operable Unit
QAPP	Quality Assurance Project Plan
ROD	Record of Decision
RI	Remedial Investigation
SIG	The SI Group, Inc.
SOP	Standard Operating Procedure
STL	Severn Trent Laboratories
TRPH	Total Recoverable Petroleum Hydrocarbons
U.S. EPA	United States Environmental Protection Agency

## 1.0 INTRODUCTION

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This Annual Natural Attenuation (NA) Groundwater Monitoring Report – Year 3 presents a summary of the work performed for the third year of groundwater monitoring at Operable Unit (OU) 10, Site 21 at the former Naval Air Station (NAS) Cecil Field, located in Jacksonville, Florida. The groundwater monitoring activities at Site 21 were conducted in July 2004 for the Year 3 event. The location of Site 21 at NAS Cecil Field is detailed on Figure 1, and a site map for Site 21 is presented as Figure 2. This report was prepared under Contract Task Order (CTO) 0002 as part of contract No. N62467-03-G-0124 for the Southern Division, Naval Facilities Engineering Command.

Site 21, the Golf Course Maintenance Area, is located at the northern end of the former I Avenue in the center of the golf course at NAS Cecil Field. Site activities at Site 21 include the storage and maintenance of golf course maintenance equipment. This involves the cleaning and rinsing of chemical-dispensing equipment and preparation of chemical solutions. Chemicals used at the site include fungicides, nematocides, insecticides, and herbicides. Site 21 covers approximately 1.5 acres and is primarily unpaved. The eastern border of the site is formed by a drainage ditch and a stand of trees. A fence and trees isolate Site 21 from the golf course on the eastern and southern sides. The site is isolated from the golf course on the northern and western sides by a large wooded area.

Two Interim Removal Actions (IRAs) were performed at the site in May 2001 and August 2002. During the IRAs, approximately 3,077 cubic yards of soil contaminated with arsenic, pesticides, and Total Recoverable Hydrocarbons (TRPH) was excavated and disposed of off site. During the Site 21 Remedial Investigation (RI), a groundwater chlordane plume was delineated that was less than 30 feet in diameter and limited to the shallow zone of the surficial aquifer. A feasibility Study (FS) was completed, in conjunction with the RI, in which the selected remedy for Site 21 was land use controls, NA monitoring, and semi-annual groundwater monitoring.

The Long-Term Monitoring (LTM) of Site 21 was initiated in July 2002 with two groundwater monitoring wells at the site monitored for total chlordane on a semi-annual basis. Based upon a decision of the Cecil Field Base Realignment and Closure (BRAC) Cleanup Team (BCT) in April 2004, the groundwater monitoring frequency at Site 21 was reduced to annual from semi-annual beginning with the Year 3 event. In addition, well CEF-P21-05S was added to the sampling program due to a shift in groundwater flow at Site 21.

The SI Group (SIG) mobilized to Site 21 on July 19, 2004 for the Year 3 LTM event. For the Year 3 LTM event, SIG measured the depth to groundwater in 6 monitoring wells. The wells groundwater level measurements were collected from are as follows:

- CEF-P21-01S
- CEF-P21-03S
- CEF-P21-05S
- CEF-P21-06S
- CEF-P21-07S
- CEF-P21-08S

Water level measurements obtained from the July 2004 event as well as historical sampling events are presented in Table 1. Potentiometric surface elevations for the data collected during the July 2004 sampling event are presented on Figure 3. Based on the water level elevations, it appears groundwater at the site during the Year 3 LTM event had a west-southwest gradient. A review of the groundwater flow direction for the Year 3 event compared with January 24, 2004 event indicates groundwater continues to flow in a west southwest direction due to the draining of Lake Fretwell. Prior to the draining of Lake Fretwell (January 2004 event) groundwater flow at Site 21 was in a southeast direction.

On July 19, 2004 SIG collected groundwater samples from three wells at the Site. The LTM groundwater monitoring incorporated the Low-Flow/Minimal Drawdown approach to minimize the impact the purging process has on the groundwater chemistry and the volume of water to be disposed of during sample collection. Procedures described herein are consistent with Standard Operating Procedures for Low-Flow (Minimal Drawdown) Groundwater Sample Collection described in USEPA Region IV Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (EISOPQAM) and are compliant with Florida Department of Environmental Protection (FDEP) Standard Operating Procedure (SOP) FS 2200. Sampling procedures are detailed in the approved Final Quality Assurance Project Plan (QAPP) completed by SIG for Site 21 and dated June 7, 2004.

Groundwater samples were collected for fixed-base laboratory analysis from the following wells at Site 21 on July 19, 2004:

- CEF-P21-01S
- CEF-P21-05S
- CEF-P21-08S

Groundwater samples were collected for fixed-base laboratory analysis of the following parameters and analysis methods:

- Total Chlordane (SW-846 8081A)

Results of the laboratory analysis of samples are presented in Section 3.0.

## 2.0 SITE CHEMICALS OF CONCERN \_\_\_\_\_

At Site 21 there has historically been a Chlordane plume underlying the site. Chlordane is the only constituent of concern (COC) for the site.

### 3.0 ANALYTICAL RESULTS

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The historical detections of Chlordane have occurred in samples collected from wells CEF-P21-MW01S and CEF-P21-MW08S with well CEF-P21-MW01S the source well and CEF-P21-MW08S the downgradient well. Due to a groundwater shift at Site 21 caused by the draining of Lake Fretwell, monitoring well CEF-P21-MW05S was added to the LTM sampling as part of the Year 3 event.

Historically, groundwater samples collected from monitoring well CEF-P21-MW01S dating back to 1997 have exhibited chlordane results greater than the FDEP Groundwater Cleanup Target Level (GCTL). Sampling of downgradient well CEF-P21-08S was initiated with the beginning of LTM monitoring in July 2002. Historically, groundwater samples collected from CEF-P21-08S have been non-detect or below the chlordane GCTL. Prior to the July 2004 event, well CEF-P21-05S was not sampled as part of the LTM program.

For the Year 3 event, the groundwater samples from monitoring wells CEF-MW-01S, CEF-MW-05S, and CEF-MW-08S were collected on July 19, 2004. The groundwater samples were shipped to Severn Trent Laboratories, Inc. of Tampa, Florida (STL) for analysis of total chlordane. Analytical results for the Year 3 event indicate total chlordane was detected at a concentration of 2.3 micrograms per liter ( $\mu\text{g/L}$ ) in MW-01S, 23  $\mu\text{g/L}$  in MW-05S, and 0.13  $\mu\text{g/L}$  in well MW-08S. The detection of total chlordane at 23  $\mu\text{g/L}$  at well CEF-MW-05S is the highest detection of total chlordane since the LTM program at Site 21 was implemented.

Results of the Year 3 LTM event indicate that groundwater from monitoring wells MW-01S and MW-05S exceed the FDEP GCTL for total chlordane. The FDEP GCTL for total chlordane is 2  $\mu\text{g/L}$ . The historical and current frequency of detections for each constituent of concern are presented as Table 2. The analytical results for all groundwater samples collected at Site 21 as part of the LTM are presented in Table 3. Chlordane detections at Site 21 are depicted on Figure 4.

SIG informed the members of the BCT of the analytical results upon receipt. The BCT team decided that resampling of well MW-05S was necessary to determine if the unexpected results were correct. SIG returned to Site 21 on October 18, 2004 to resample well MW-05S for total chlordane. The laboratory reported a result of 10  $\mu\text{g/L}$  of total chlordane for the sample from MW-05S, greater than the GCTL of 2.3  $\mu\text{g/L}$ .

Based on the results of the resampling of MW-05S the BCT determined that further investigation of the potential migration of the total chlordane plume was necessary. TTNUS was assigned the task of collecting additional groundwater samples from the area using a Direct-Push Technology (“DPT”) rig to collect multiple groundwater samples to the south and southwest of wells MW-01S and MW-05S. Seven borings were installed downgradient from the suspected source area. Groundwater samples were collected from each of the borings installed and the samples were analyzed by a laboratory for total chlordane. None of the groundwater samples collected from the DPT borings were reported to have detectable levels of chlordane by the laboratory. A copy of the figure depicting locations of the DPT borings and the results of the samples analysis is included as Appendix E.

## 4.0 CONCLUSIONS AND RECOMMENDATIONS ---

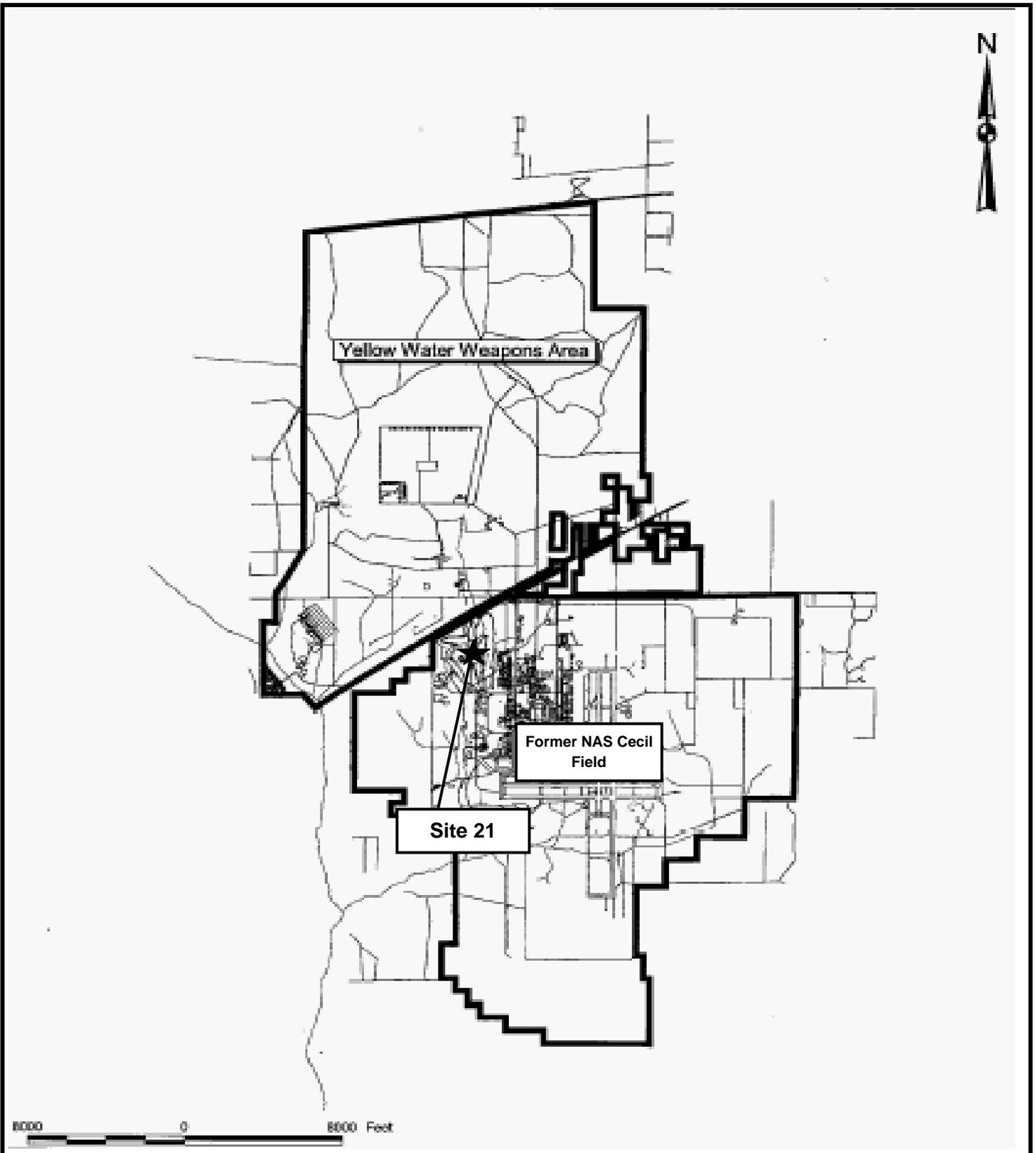
### 4.1 CONCLUSIONS

The detected concentrations of chlordane in source well MW-01S and new downgradient monitoring well MW-05S, indicate that there is a continued presence of chlordane in groundwater at Site 21 above FDEP GCTLs. The total chlordane at well CEF-P21-MW01S is similar to the levels detected during past monitoring events. The concentration of 23 µg/L of chlordane in monitoring well CEF-P21-MW05S may indicate the chlordane plume is migrating away from what was originally determined to be the source area due to the shift in groundwater flow direction at Site 21. However, the DPT groundwater investigation indicates that groundwater contamination has not migrated far from the original source area.

### 4.2 RECOMMENDATIONS

Based upon the detection of chlordane at 23 µg/L in downgradient well CEF-P21-MW05S the chlordane plume appears to have migrated beyond the source area. The significant increase in total chlordane at Site 21, particularly well MW05S, may be caused by the draining of Lake Fretwell which induced an increased groundwater gradient to the southwest resulting in the chlordane plume migrating from the source area to well MW05S. As a result, it is recommended that the BCT consider the installation of an additional well southwest of monitoring well MW-05s to act as the downgradient compliance well.

**Appendix A**  
**Figures**



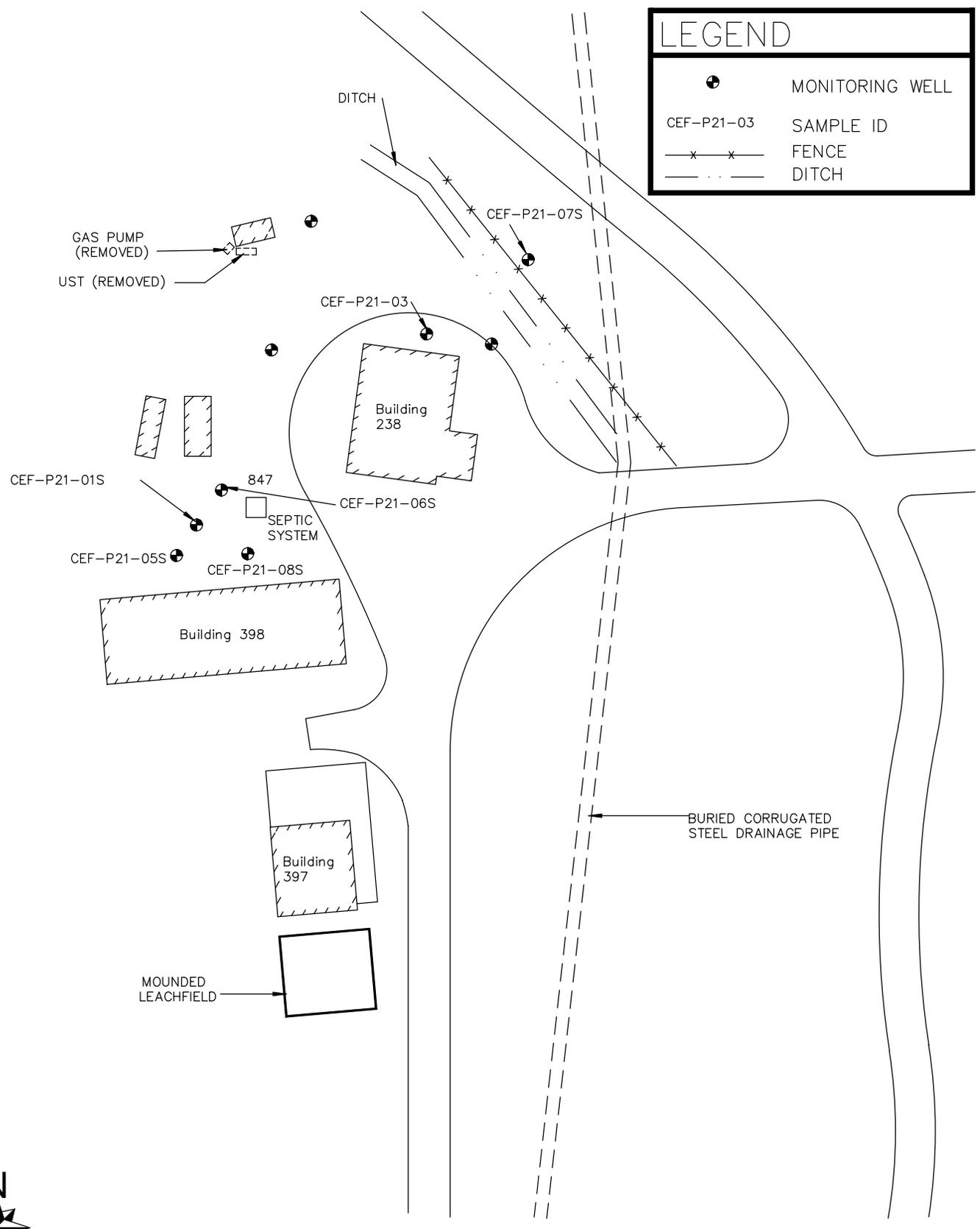
**Figure 1**  
**Site Location Map**

LONG-TERM  
MONITORING  
SITE 21  
Former Naval Air Station  
Cecil Field

**THE SI Group**

4191 San Juan Avenue, Ste. 2E  
Jacksonville, Florida 32210  
Phone: (904) 384-4199

LEGEND	
	MONITORING WELL
CEF-P21-03	SAMPLE ID
	FENCE
	DITCH



NOTE: NOT TO SCALE  
ALL DIMENSIONS ARE APPROXIMATE

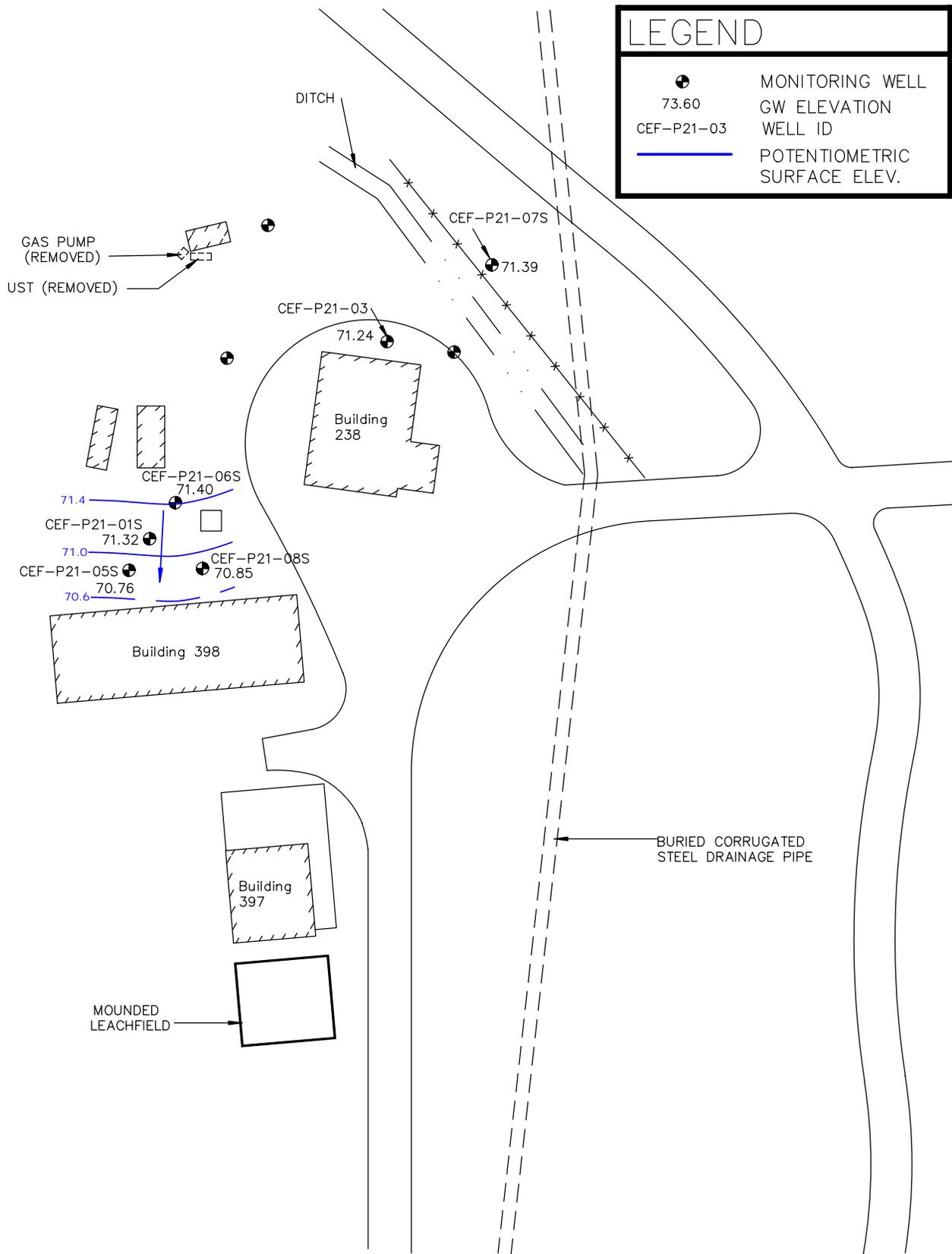
FILE NAME: NAVAL AIR STATION, SITE 21

Figure 2  
Site Map

Site 21  
Long-Term Monitoring  
Former NAS Cecil Field



4191 San Juan Ave., #2E  
Jacksonville, Florida  
Phone: (904) 384-4199



NOTE: NOT TO SCALE  
ALL DIMENSIONS ARE APPROXIMATE

FILE NAME: NAVAL AIR STATION, SITE 21

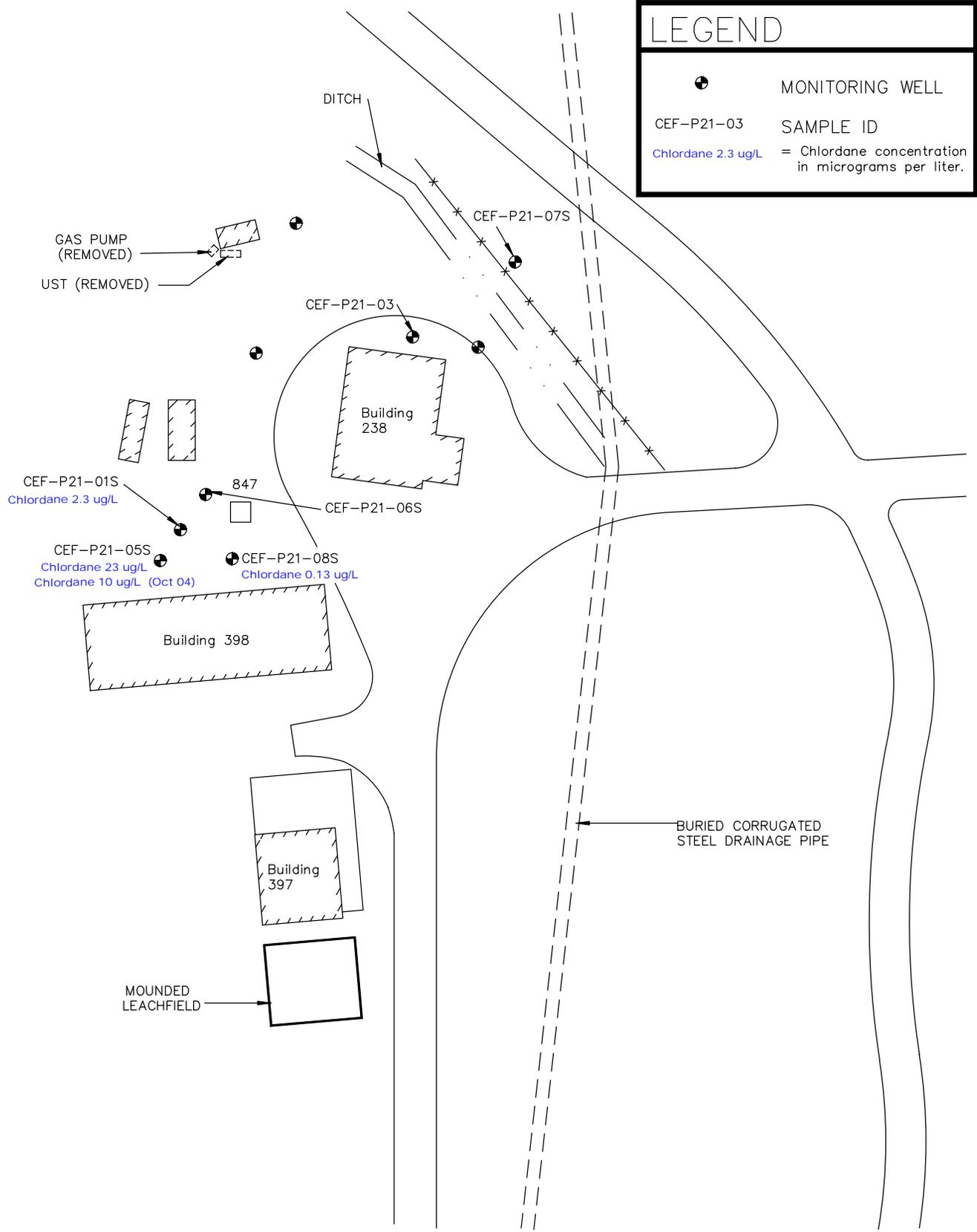
**Figure 3**  
Groundwater Elevations  
July 2004

**Site 21**  
Long-Term Monitoring  
Former NAS Cecil Field

**THE SI Group**

4191 San Juan Ave., #2E  
Jacksonville, Florida  
Phone: (904) 384-4199

LEGEND	
	MONITORING WELL
CEF-P21-03	SAMPLE ID
Chlordane 2.3 ug/L	= Chlordane concentration in micrograms per liter.



NOTE: NOT TO SCALE  
ALL DIMENSIONS ARE APPROXIMATE

FILE NAME: NAVAL AIR STATION, SITE 21

**Figure 4**  
**Analyte Detections**  
**July & October 2004**

**Site 21**  
**Long-Term Monitoring**  
**Former NAS Cecil Field**

**THE SI Group**  
4191 San Juan Ave., #2E  
Jacksonville, Florida  
Phone: (904) 384-4199

**Appendix B**  
**Tables**

**Table 1**  
**Water Level Measurements and Potentiometric Surface Elevations**  
**Site 21**  
**Former Naval Air Station Cecil Field**  
**Jacksonville, Florida**  
**Page 1 of 1**

Well Number	Top of Casing Elevation	August 2003		January 2004		July 2004	
		Depth to Groundwater	Groundwater Elevation	Depth to Groundwater	Groundwater Elevation	Depth to Groundwater	Groundwater Elevation
CEF-P21-MW-01S	73.81	0.50	73.31	6.16	67.65	2.49	71.32
CEF-P21-MW-03S	74.53	1.75	72.78	6.28	68.25	3.29	71.24
CEF-P21-MW-05S	73.72	0.49	73.23	6.18	67.54	2.96	70.76
CEF-P21-MW-06S	73.84	0.50	73.34	6.13	67.71	2.44	71.40
CEF-P21-MW-07S	78.03	5.26	72.77	9.62	68.41	6.64	71.39
CEF-P21-MW-08S	73.75	0.50	73.25	6.15	67.60	2.90	70.85

Well Number	Top of Casing Elevation	October 2004	
		Depth to Groundwater	Groundwater Elevation
CEF-P21-MW-01S	73.81	1.25	72.56
CEF-P21-MW-03S	74.53	2.45	72.08
CEF-P21-MW-05S	73.72	1.32	72.40
CEF-P21-MW-06S	73.84	1.24	72.60
CEF-P21-MW-07S	78.03	NM	--
CEF-P21-MW-08S	73.75	1.38	72.37

Notes:

Top of casing elevations based upon well re-survey in April 2003.

All elevations are in feet above mean sea level.

NM = Not measured.

**Table 2**  
**Frequency of Detections in Groundwater**  
**Site 21**  
**Former Naval Air Station Cecil Field**  
**Jacksonville, Florida**  
**Page 1 of 1**

Parameter	Baseline/First Semi-Annual - Year 1				Annual - Year 1			
	July 2002				February 2003			
	Detection Frequency	Range	Location of Max. Detection	Avg. of Detects	Detection Frequency	Range	Location of Max. Detection	Avg. of Detects
<b>Pesticides (µg/L)</b>								
alpha-Chlordane	NA	--	--	--	2/2	0.079-0.18	CEF-P21-01S	0.13
gamma-Chlordane	NA	--	--	--	2/2	0.065-0.2	CEF-P21-01S	0.13
Total Chlordane	1/2	3.6	CEF-P21-01S	3.6	2/2	0.68-8.8	CEF-P21-01S	4.74
Parameter	First Semi-Annual - Year 2				Annual - Year 2			
	August 2003				January 2004			
<b>Pesticides (µg/L)</b>								
alpha-Chlordane	NA	--	--	--	NA	--	--	--
gamma-Chlordane	NA	--	--	--	NA	--	--	--
Total Chlordane	3/3	0.8 - 14.2	CEF-P21-01S	9.1	2/3	2.9 - 3.3	CEF-P21-01S	3.1
Parameter	Annual - Year 3							
	July 2004							
<b>Pesticides (µg/L)</b>								
alpha-Chlordane	NA	--	--	--				
gamma-Chlordane	NA	--	--	--				
Total Chlordane	4/4	0.13 - 23	CEF-081-05S	6.9				

NA - Not Analyzed

**Table 3**  
**Summary of Analytical Results in Groundwater**  
**Site 21**  
**Former Naval Air Station Cecil Field**  
**Jacksonville, Florida**

WELL ID	SAMPLING DATE	ALPHA CHLORDANE (ug/L)	GAMMA CHLORDANE (ug/L)	CHLORDANE (ug/L)	
<b>TARGET CLEANUP GOAL*</b>		NC	NC	2 (Total)	
CEF-P21-01S	Jan-97	1.9	1.5	3.4 <sup>(1)</sup>	
	Jun-99	1.4	1.5	2.9 <sup>(1)</sup>	
	Jul-02	NA	NA	3.6	
	Feb-03	0.18	0.2	8.8 J	
	Aug-03	Sample	NA	NA	12.4 J
		Duplicate	NA	NA	14.2 J
	Jan-04	Sample	NA	NA	3.3 J
		Duplicate	NA	NA	2.9 J
	Jul-04	Sample	NA	NA	2.3
		Duplicate	NA	NA	2.3
<b>Monitoring well recently added to LTM sampling; no previous sample data</b>					
CEF-P21-05S	Jul-04	NA	NA	23	
	Oct-04	NA	NA	10	
<b>Newly installed downgradient monitoring well; no previous sample data</b>					
CEF-P21-08S	Jul-02	NA	NA	0.59 U	
	Feb-03	0.079	0.065	0.68 J	
	Aug-03	NA	NA	0.8 J	
	Jan-04	NA	NA	0.27 U	
	Jul-04	NA	NA	0.13J	

NA = Not analyzed.

NC = No GCTL for alpha or gamma chlordane; GCTL is for total chlordane.

U = Not detected at or above detection limit (associated value).

J = Estimated concentration.

Bolded values exceed detection limit.

Shaded values exceed GCTL.

\* Florida Administrative Code (FAC) 62-777. (FDEP, 1999).

**Appendix C**  
**Groundwater Sample Collection Records**









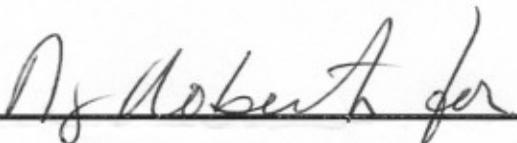
**Appendix D**  
**Laboratory Analytical Results**

## Analytical Report

**For:** Mr. Joe Ferranti  
The SI Group  
4191 San Juan Ave  
Jacksonville, FL 32210

**CC:**

Order Number: B423636  
SDG Number:  
Client Project ID:  
Project: Cecil Field Site 21  
Report Date: 08/03/2004  
Sampled By: Client  
Sample Received Date: 07/21/2004  
Requisition Number:  
Purchase Order:



Tina Fritz, Project Manager  
tfritz@stl-inc.com

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

## Sample Summary

Order: B423636  
Date Received: 07/21/2004

Client: The SI Group  
Project: Cecil Field Site 21

Client Sample ID	Lab Sample ID	Matrix	Date Sampled
CFF-P21-MW-08S-L05	B423636*1	Liquid	07/19/2004 12:40
CFF-P21-MW-01S-L05	B423636*2	Liquid	07/19/2004 11:15
CFF-P21-MW-05S-L05	B423636*3	Liquid	07/19/2004 12:00
CFF-P21-DUPA-L05	B423636*4	Liquid	07/19/2004 11:15

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
23636-1	CFF-P21-MW-08S-L05	Liquid	07/21/04	07/19/04 12:40	
23636-2	CFF-P21-MW-01S-L05	Liquid	07/21/04	07/19/04 11:15	
23636-3	CFF-P21-MW-05S-L05	Liquid	07/21/04	07/19/04 12:00	
23636-4	CFF-P21-DUPA-L05	Liquid	07/21/04	07/19/04 11:15	

Parameter	Units	Lab Sample IDs			
		23636-1	23636-2	23636-3	23636-4

Cl-Pesticides (8081)

Chlordane (technical)	ug/l	0.13I	2.3	23	2.3
Surrogate - TCX *	%	54 %	57 %	57 %	57 %
Surrogate - DCB *	%	68 %	52 %	71 %	57 %
Prep Date		07/23/04	07/23/04	07/23/04	07/23/04
Analysis Date		07/28/04	07/28/04	08/02/04	07/28/04

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
23636-5	Method Blank	Liquid	07/21/04		
23636-6	Accuracy (%Rec)	Liquid	07/21/04		
23636-7	LCS Accuracy Control Limit (%R)	Liquid	07/21/04		
23636-8	Precision (%RPD)	Liquid	07/21/04		
23636-9	LCS Precision Control Limit (Advisory) %RPD	Liquid	07/21/04		

Parameter	Units	Lab Sample IDs				
		23636-5	23636-6	23636-7	23636-8	23636-9

CI-Pesticides (8081)

Chlordane (technical)	ug/l	0.057U				
gamma-BHC (Lindane)	ug/l	0.011U	75 %	40-139 %	13 %	<26 %
Heptachlor	ug/l	0.011U	48 %	37-148 %	10 %	<26 %
Aldrin	ug/l	0.00065U	42 %	38-129 %	7.0 %	<25 %
Dieldrin	ug/l	0.00086U	76 %	34-150 %	9.3 %	<42 %
Endrin	ug/l	0.0035U	66 %	41-158 %	11 %	<25 %
4,4'-DDT	ug/l	0.0042U	90 %	50-147 %	6.7 %	<27 %
Surrogate - TCX *	%	70 %	60/55 %	30-150 %		
Surrogate - DCB *	%	125 %	120/110 %	30-150 %		
Prep Date		07/23/04	07/23/04		07/23/04	
Analysis Date		07/26/04	07/26/04		07/26/04	

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
23636-10	Practical Quantitation Limit (PQL)	Liquid	07/21/04		
23636-11	Method Detection Limit (MDL)	Liquid	07/21/04		

Parameter	Units	Lab Sample IDs	
		23636-10	23636-11

CI-Pesticides (8081)

Chlordane (technical)	ug/l	0.50	0.057
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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

**SEVERN  
TRENT**

**STL**

B42 3334

**STL Tampa**  
6712 Benjamin Road, Suite 100  
Tampa, FL 33634

Website: www.stl-inc.com  
Phone: (813) 885-7427  
Fax: (813) 885-7049

Alternate Laboratory Name/Location

Phone:  
Fax:

PROJECT REFERENCE <i>Cecil <del>111</del>-Site 21</i>	PROJECT NO.	PROJECT LOCATION (STATE) <i>FL</i>	MATRIX TYPE	REQUIRED ANALYSIS										PAGE	OF										
SAMPLER'S SIGNATURE <i>Jan Ah</i>	P.O. NUMBER	CONTRACT NO.	COMPOSITE (C) OR GRAB (G) INDICATE AQUEOUS (WATER) SOLID OR SEMISOLID AIR NONAQUEOUS LIQUID (OIL, SOLVENT,...) <i>Total Chlorobenzene 8081A</i>	<table border="1"> <tr> <td colspan="10">PRESERVATIVE</td> </tr> </table>										PRESERVATIVE										STANDARD REPORT DELIVERY	<input checked="" type="checkbox"/>
PRESERVATIVE																									
CLIENT (SITE) PM <i>J. Ferranti</i>	CLIENT PHONE <i>904 384 4199</i>	CLIENT FAX <i>904 384 4806</i>												DATE DUE	_____										
CLIENT NAME <i>The SI Group</i>	CLIENT E-MAIL <i>jferranti@thesigroup.com</i>	DATE DUE												_____	_____										
CLIENT ADDRESS <i>4191 San Juan Ave Suite 2E JAX, FL 32210</i>	COMPANY CONTRACTING THIS WORK (if applicable)	NUMBER OF COOLERS SUBMITTED PER SHIPMENT:	_____	_____																					

SAMPLE		SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT,...)	NUMBER OF CONTAINERS SUBMITTED										REMARKS		
DATE	TIME							1	2	3	4	5	6	7	8	9	10		11	12
7/19/04	12:40	CEF-P21-MW-OBS-LOS	X				<i>Z</i>													
"	11:15	CEF-P21-MW-OIS-LOS	X				<i>Z</i>													
"	12:00	CEF-P21-MW-OSS-LOS	X				<i>Z</i>													
"	11:15	CEF-P21-DVPA-LOS	X				<i>Z</i>													

RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>	DATE <i>7-15-04</i>	TIME <i>1500</i>	RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>	DATE <i>7/2/04</i>	TIME <i>1609</i>	RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>	DATE <i>7/20/04</i>	TIME <i>1730</i>
RECEIVED BY: (SIGNATURE) <i>[Signature]</i>	DATE <i>7/16/04</i>	TIME <i>1030</i>	RECEIVED BY: (SIGNATURE) <i>[Signature]</i>	DATE <i>7/20/04</i>	TIME <i>1609</i>	RECEIVED BY: (SIGNATURE) <i>[Signature]</i>	DATE	TIME

RECEIVED FOR LABORATORY BY: (SIGNATURE) <i>[Signature]</i>	DATE <i>7-21-04</i>	TIME <i>1432</i>	CUSTODY INTACT YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	CUSTODY SEAL NO. <i>112</i>	STL TAMPA LOG NO. <i>B423336</i>	LABORATORY REMARKS
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**Appendix E**  
**TTNUS DPT Boring Figure**

**LEGEND**

- Monitoring Well Location
- DPT Location

Sample ID	Screen Interval	Sample Date	Detected Concentration (ug/L)
CEF-P21-GW-05S	[2.5-12.5]	08/99	1.0 U
		07/04	23*
		10/04	10*

U - Not detected at or above method detection limit (associated value).

\* - Exceedance of GCTL concentration.

Duplicate sample results reported as sample/duplicate.

Pre July 2002 alpha and gamma chlordane results totaled

--- Approximate plume boundary during RI, based on exceedances of total chlordane GCTL, 2 ug/L.



**SITE 21**

